

15th November 2010

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Our Reference: 25/1174

Dear Dean,

**RE: Proposed Central Coast Regional Cancer Centre
Gosford Hospital Cnr Holden Street and Racecourse Road GOSFORD NSW
2250
Part 3A Major Project MP10_0173
Assessment of Accessibility for People with Disabilities**

Davis Langdon Blythe – Sanderson have been engaged to provide consultancy services for the proposed Central Coast Regional Cancer Centre at the corner of Holden Street and Racecourse Road Gosford NSW. A review of the proposed documentation was conducted to ensure access for people with disabilities is provided on a functional, independent, equal and dignified basis.

The following drawings were reviewed: DOP06 (02), DOP 06 (02), prepared by Silver Thomas Hanley Health Architecture to confirm access for people with disabilities to be provided throughout the site.

Blythe – Sanderson Group is a leader in the establishment of disability management services, which include access audits and design appraisals, staff training and policy development, along with specific presentations specifically based around change management and the spirit and intent of the Disability Discrimination Act 1992 (DDA).

The proposed project consists of a new cancer centre and associated car parking.

Generally the documentation of the proposed buildings prepared for the Part 3A environmental Assessment of the proposed building has been developed in line with the spirit and intent of the DDA, Building Code of Australia 2010 (BCA), and Australian Standards as they relate to access for people with disabilities. Access for people with disabilities will be provided to the proposed Cancer Centre on an independent, functional and equal basis.

Access for people with disabilities will be provided to areas of the development to ensure a reasonable approach for the facilitation of people with disabilities is in line with the spirit and intent of the DDA;

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however it should be noted that the Client has accepted responsibility that will not meet the DDA for the following items;

- Passing spaces for wheelchairs along the external footpaths may not be available at all instances at 20m intervals due to the existing conditions of the site.
- Accessible parking spaces for people with disabilities will be designed to current BCA due to spatial constraints rather than the 2400mm wide x 5400mm with 2400mm wide x 5400mm shared area with the bollard.
- Tactile ground surface indicators will not be provided to the drop-off area where the pedestrian footpath and the vehicular path of travel are on the same level.

This professional opinion is subject to further design documentation in accordance with the following general recommendations to ensure appropriate access provision for people with disabilities is provided. At this stage, detailed design elements, such as levels, dimensions, door schedules, toilet fixtures and fittings, are limited and require further review to ensure compliance with the BCA and the spirit and intent of the DDA.

The following areas of the development will be accessible:

1. Car Parking

A total number of 46 additional car parking spaces are provided to the site, with two designated parking bays for people with disabilities provided centrally to the main entrance. The spaces have appropriate dimensions of 3200mm x 5400mm as per the relevant Australian Standard.

A continuous accessible path of travel with minimum width of 1800mm is provided from Cancer Centre Entry.

General Recommendations

- The total perimeter of the accessible parking area shall be delineated in blue / yellow. Bays for people with disabilities should be an alternative colour to the predominant colour used for general bays (AS 2890.1:2004 Clause 4.4.1, AS2890.5:1993 Clause 4.5.2 Notes: 2, DDA).
- Each dedicated space shall include the international symbol for access in white on a blue (Ultramarine) rectangle with no side more than 1200mm. It shall be located on the bays surface, in the centre of the dedicated space between 500mm and 600mm from the roadway end of the bay (AS 1428.1 Clause 14.2; AS 2890.6:2009 Clause 3.1).
- Vertical signage indicating terms of parking in a bay for people with disabilities incorporating the international symbol of access. Where vertical signage is not visible from the car park entrance, additional signage indicating the direction of the parking spaces for people with disabilities must be provided (AS 2890.1:1993 Clause 2.4.5 (f) and AS 1428.1:2001 Clause 13).
- Parking spaces are located externally; therefore the maximum gradient of the dedicated space and adjacent shared space shall not exceed 1:40 or 1:33 if the surface has a bituminous seal.



The minimum gradient shall be 1:100 to enable adequate drainage (AS 2890.1 Clause 2.4.6.2; AS 2890.6 2009 Clause 2.3).

2. External Paths of Travel

A continuous accessible path of travel, with minimum width of 1500mm is proposed from the allotment boundary (Holden and Ward Street) and accessible parking bays to the main entrance. Passing areas are generally provided to enable two wheelchair users to pass with a couple of areas as stated previously.

The gradient of the proposed pathways are appropriate. All walkways shall not have a gradient exceeding 1:20. This is noted on the drawings.

The path of travel will be at an appropriate width and gradient and will be designed and constructed in accordance with the following general recommendations.

General Recommendations

- All main paths of travel must be provided with a clear width of not less than 1500mm to allow a wheelchair and ambulant person to pass (1800mm preferred to allow two wheelchairs to pass). Ensure a clear width on secondary paths of travel of not less than 1200mm (AS 1428.2:1992 Clause 6.4).
- For paths of travel less than 1800mm in width, passing areas of a width of 1800mm must be provided for a length of 2000mm every 9 metres (DRAFT Access Code for Buildings Clause D3.3 (d)(i)).
- The camber or crossfall of paths of travel shall not exceed 1:40 or 1:33 if the surface has a bituminous seal (AS 1428.1:2001 Clause 5.6; AS 1428.1:2009 Clause 10.1 (d)).

Walkways

- Walkways must not have a gradient less than 1:20. For walkway gradients of 1:20 landings must be provided at 15m intervals and gradients of 1:33 at 25m intervals. For walkways with gradients between 1:20 and 1:33 landings shall be obtained by linear interpolation (AS 1428.1:2001 Clause 5.2 (a)).
- The gradient of walkways must be consistent between landings (AS 1428.1:2001 Clause 5.2 (b)).

Path Surfaces

- External path surfaces shall be constructed for all weather usage and possess a slip resistant finish, in accordance with standards outlined in HB 197. For example: concrete with abrasive or



texture finish, concrete with exposed aggregate or bituminous finish (AS 1428.1:2001 Clause 12 – Notes 1 & 2).

- Ensure a minimum vertical clearance on paths of travel of 2000mm (AS 1428.1:2001 Clause 5.1.1 (b)).
- All accessible paths of travel must be defined for people with vision impairments. This may include the use of borders, planter boxes or garden edging with appropriate texture and colour contrast or implementing a path of travel with an appropriate texture and colour contrast.
- Soft surfaces, such as gravel, crushed rock or sand must be appropriately stabilised ensure the surface is traversable for wheelchair users (DDA).
- Where there is a drop-off or hazard adjacent to the path of travel (walkway) which may place people at risk of injury, a suitable barrier must be provided (DDA).

Kerb Ramps

- Kerb ramps of a gradient of 1:8 must be provided in all instances where paths of travel meet and cross roadways, pedestrian crossings or kerbs in car parks and generally where there is a minor change of level. The maximum height for kerb ramps is 190mm (1520mm in length) (AS 1428.1:2001 Clause 5.8).
- Kerb ramps must have tapered or splayed sides. Where cross traffic is likely, sides shall be splayed unless a suitable barrier (minimum height 865mm) is provided (AS 1428.1 2009 Clause 10.7.2 (ii)).
- A minimum landing of 1330mm X 1330mm must be provided at the top and bottom of kerb ramps (AS 1428.1:2001 Clause 5.7).

3. Main Entrances and Internal Doors

The main entrance to the centre consists of an automatic door which provides appropriate clear opening width of 850mm for people with disabilities. The approach to the entrance will be at 1:40 grade that provides a clear, level landing area on both sides of the door for wheelchair maneuvering and for ambulant people using mobility aid.

The proposed internal doors will achieve a clear opening of no less than 850mm wide (920mm door leaf) and are provided with appropriate circulation space for their operation with the exception of. This is noted on the drawings.

This sign will be located at a height between 1200mm and 1600mm, no less than 500mm from any internal corner. Where appropriate the sign should be located on the latch side of the door, with the leading edge of the sign 50mm to 300mm from the architrave; however where this is not possible, the sign may be placed on the door itself.

In addition to the above, staff members will be available at all times to assist people with disabilities who may require assistance to other areas of the centre, including the staff room, kitchen, laundry and toilet facility.



The main entrance and internal doors will be installed to comply with the following recommendations.

General Recommendations

- All accessible entrances must be at grade. If a threshold is present a threshold ramp must be provided (DDA).
- Floor mats are preferred at entrances to enhance way-finding for people with vision impairments. All floor mats must be recessed with vertical differences no more than 3mm with the surrounding surface, or 5mm where the adjacent surface has rounded or bevelled edges (AS 1428.1:2009 Clause 7.4.2).
- All doors required to be accessible shall have a minimum clear opening width of 850mm (AS 1428.2:1992 Clause 11.5.1).
- A minimum clear circulation depth of 1450mm (for straight approach) will be provided externally to the entrance door, with minimum clear circulation depth of 1450mm internally to ensure clear access for wheelchair maneuvering.

Door Hardware

- The design of door handles and related hardware must allow the door to be unlocked and opened with one hand. Door handles must provide adequate grip for people with limited hand dexterity and shall not require tight grasping, pinching or twisting of the wrist. Door handles and related hardware to be located between 900mm and 1100mm (AS 1428.1:2001 Clause 11.1.2; AS 1428.2:1992 Clause 23.2; AS 1428.1:2009 Clause 13.5.2 (a)).
- Lever handles to be provided to both sides of all manual hinged doors with a clearance of between 35mm and 45mm between the rear face of the handle and the face of the door (AS 1428.1:2009 Clause 13.5.2 (b)).
- D-type handles to be provided on both sides of all manual sliding doors no less than 60mm from the door jamb lining when in the open or closed position. Handles must provide minimum clearance of 35mm between the rear face of the handle and the face of the door (AS 1428.1:2001 Clause 11.1.2 (d); AS 1428.1:2009 Clause 13.2 & 13.5.2 (c)).
- It is preferred that D-type handles are circular or elliptical in cross-section (DDA).
- Door snibs and locks must be of a lever design with a minimum length of 45mm from the centre of the spindle (AS 1428.1:2009 Clause 13.5.2 (e)).



Door Closers

- Provide manual door operating forces of no greater than 19.5N to initially open the door, 7.5N to hold the door open and to swing the door no greater than 6N. Where environmental factors limit this, an automatic door operator must be provided (AS 1428.1:2001 Clause 11.1.1(c)).
- Unfortunately, there are limited door closers on the market which will meet the aforementioned requirements of the current AS 1428.1 (2001) Clause 11(c); however this is proposed for change to 20N, 20N and 20N (AS 1428.1:2009 Clause 13.5.2 (f)).
- Where a door closer is not provided to an outward swinging door, an auxiliary pull handle or horizontal grabrail must be provided on the closing face of the door. The grabrail or pull handle is to be located at a height of 900 – 1100mm, in line with the door handle and extending the width of the door 50mm from the door handle to 50mm from the hinge side of the door (AS 1428.2:1992 Clause 23.3 (c); AS 1428.1:2009 Clause 13.5.2 (f)).

Door Finishes

- Doors or door frames must possess a minimum luminance contrast of 30% to their adjacent surfaces and be of a minimum width of 50mm (AS 1428.1:2001 Clause 7.1(f); AS 1428.2:1992 Clause 11.5.1 Note; AS 1428.1:2009 Clause 13.1).
- Install a solid 75mm continuous contrasting strip on all frameless or fully glazed doors, sidelights and any glazing capable of being mistaken for a doorway or opening. That is, where the width of the glass panel is:
 - (i) Greater than 500mm in any part;
 - (ii) The glass panel is provided without at least one glazing bar at a height between 500mm to 1000mm; or
 - (iii) Where glazing is located within 700mm above the finished floor level.

Contrasting strip to be installed at a height between 900mm and 1000mm above the plane of the finished floor to form a luminance contrast band of 30% when viewed from either side (AS 1428.1:2001 Clause 7.5.1 Notes 1 and 2; AS 1288:2006 Clause 5.19).

- All manual and automatic doors shall possess direction of swing signage (push/pull or slide) at a height of 1000mm both internally and externally. Signage lettering to be 50mm in height (DDA).

4. Internal Paths of Travel

Movement of people with disabilities should be able to occur in a confident and consistent manner. A continuous accessible path of travel of no less than 1200mm will be provided throughout the building.

Finished floor and wall surfaces will be provided as per the following general recommendations.



General Recommendations

- Lateral extremities of paths of travel skirting boards and / or architraves should be a contrasting colour to the general path of travel colour. This may be achieved by a different wall and floor colour (DDA).
- All floor surfaces must be traversable by a person who uses a wheelchair (AS1428.1 Clause 12).
- If carpet is provided, a carpet pile height of not greater than 6mm is preferred. The carpet must be a level loop, a textured loop, a level cut pile or a level cut or uncut pile texture and be securely attached i.e. direct stick (AS1428.2 Clause 9 (b)).
- All floor surfaces should not contain a gloss surface and a carpet pile height that creates a “grain effect”.
- The carpet edge trim must not create a ridge on the floor surface higher than 3mm (AS1428.2 Clause 9 (bvi)).
- Bold patterned floor surfaces should be avoided as these can be confused with changes in level by people with vision impairment (AS 4299 Clause 4.9.2).

5. Sanitary Facilities for People with Disabilities

There is one unisex accessible sanitary facility for people with disabilities provided for staff and visitor use. The facility is located adjacent to the gender facilities adjacent to the reception. The internal dimensions of this facility are appropriate at 2100mm x 2700mm. The fixture placement will ensure clear circulation of 1900mm X 2300mm to the pan. The washbasin will not encroach more than 100mm into this space.

This facility will be designed and built in accordance with the following general recommendations.

General Recommendations

Entrance Door

- The entrance door must possess a clear opening width of no less than 850mm and appropriate circulation space. This is dependant on the direction of approach of the user (AS 1428.2:1992 Clause 11.5.1; AS 1428.1:2001 Clause 7.3; AS 1428.2:1992 Clause 11.5.2; AS 1428.2:2009 Clause 13.2)
- Where there is less than 1200mm between the pan and the nearest part of the doorway, the entry door must:
 - (i) Open outwards; or
 - (ii) Slide; or
 - (iii) Allow for external opening in emergency situations.



(BCA Clause F2.5 (b)).

- Where entry doors open outwards, a mechanism which holds the door in the closed position without operation of the latch must be provided (AS 1428.1:2001 Clause 10.2.10 (b); AS 1428.1:2009 Clause 15.2.9 (a)).
- The door and door hardware must meet all recommendations outlined for internal doors (refer Doors and Door Mechanisms) (AS 1428.1:2001 Clause 10.2.10; AS 1428.2:1992 Clause 11.5; AS 1428.1:2009 Clause 15.2.9).
- Tactile and Braille signage to be located external to the entry door, incorporating the international symbol for access, male and female pictograms and the word 'Toilet'; to be located as per BCA D3.6 at a height of between 1200mm and 1600mm:
 - (i) on the wall on the latch side of the door with the leading edge of the sign located between 50mm and 300mm from the architrave; and
 - (ii) where (i) is not possible, the sign may be placed on the door itself.

Internal Dimensions and Location

- The accessible toilet must be a unisex facility appropriately located so that it may be entered without crossing an airlock or entry to a gender facility (BCA Clause F2.4 (c)).
- Minimum internal dimensions (circulation space) for the toilet pan are 1900mm X 2300mm. The washbasin must not impinge into this space by more than 100mm. Therefore the minimum size of an accessible toilet facility with the toilet pan and washbasin could be 2100mm X 2700mm. This is dependent upon fixture placement and the location of the entry door (AS 1428.2:1992 Clause 15.1 (a)).

Fixtures and Fittings

- The distance from the rear wall to the front of the pan shall be between 800mm and 810mm (AS 1428.1:2001 Clause 10.2.3).
- The distance from the front of the pan to the cistern or grabrail on the rear wall must be no less than 600mm and where a rear grabrail is provided, not more than 605mm (AS 1428.1:2001 Clause 10.2.3; AS 1428.1:2009 Clause 15.2.2; AS 1428.2:1992 Clause 15.2).
- The centreline of the pan must be between 450mm and 460mm in distance from the adjacent wall (AS 1428.1:2001 Clause 10.2.3; AS 1428.1:2009 Clause 15.2.2).
- The height to the top of the seat must be between 460mm and 480mm (AS 1428.1:2001 Clause 10.2.3).
- The toilet seat shall be of the full-round type with minimal contours to the top surface and be securely fixed in position when in use. A minimum luminance contrast of 30% must be achieved between the toilet seat and the background to which it is viewed (pan, wall or floor) (AS 1428.1:2001 Clause 10.2.5; AS 1428.1:2009 Clause 15.2.3).



- An L-shaped grabrail must be installed to the adjacent wall at a height of 800 – 810mm (measured to the uppermost surface) with a diameter of 30 – 40mm. The cross-section of the grab rail shall be circular for not less than 270 degrees to the uppermost surface (AS 1428.1:2001 Clause 6.2 (a)(b); AS 1428.1:2009 Clause 15.2.7).
 - Where an L-shaped (90°) grabrail is specified, the vertical section must extend to a height of no less than 1400mm. The bend in the grabrail must begin within 100 – 150mm of the front edge of the pan, with the leading edge of the vertical section of grabrail within 200 – 250mm from the front edge of the pan (AS 1428.1:2001 Clause 6.2 (a)(b); AS 1428.1:2009 Clause 15.2.7).
 - Where a concealed cistern or high level cistern is installed, a continuous grabrail must be provided extending across the rear wall to no less than 450mm beyond the side of the pan. If an exposed or low level cistern is used the grab rail must be terminated at each side of the cistern (AS 1428.1:2001 Clause 10.2.8; AS 1428.1:2009 Clause 15.2.7).
 - Flushing controls must either be automatic or hand-operated. Hand-operated controls to be installed at a height between 600mm and 1100mm and located on the rear wall at the centreline of the pan, or:
 - (i) On the rear wall no closer than 400mm from the adjacent wall and no greater than 500mm from the centreline of the pan; or
 - (ii) On the adjacent wall within 300mm from the front of the pan.
- Flushing buttons must not encroach within the clearance required for grabrails (to be greater than 50mm clear) (AS 1428.1:2001 Clause 10.2.6; AS 1428.1:2009 Clause 15.2.5).
- The toilet roll holder must be a standard design installed at recommended height of 650mm (measured to the top of the holder) with the leading edge in line with the front edge of the toilet pan. A clearance of no less than 50mm must be maintained between the toilet roll and the grabrail at all times (AS 1428.1:2001 Clause 10.2.7; AS 1428.1:2009 Clause 15.2.6).
 - Provide knee and foot clearance to the underside of the basin in accordance with the following:
 - Provision of knee clearance of no less than 680mm in height. This is measured at the curvature of the basin, 60mm from the datum point of the basin.
 - Provision of foot clearance of not less than 290mm in height.(AS 1428.1:2009 Clause 15.3.1)
 - Ensure the washbasin is located no closer than 200mm from the side wall and 300mm clear of the arc of the door swing (AS 1428.1:2001 Figures 24 and 29; AS 1428.1:2009 Figures 54(A) and (B)).
 - Provide lever action or sensor water tap controls installed no greater than 300mm from the front edge of the washbasin. This includes the faucet (AS 1428.1:2001 Clause 11.3; AS 1428.1:2009 Clause 15.2.1).



- Any exposed hot water supply pipes must be relocated, insulated or covered to protect users from injury and may not encroach on knee and foot clearances under the washbasin (AS 1428.1:2001 Clause 10.3 (d); AS 1428.1:2009 Clause 15.3.1 (c)).
 - Provide a full length mirror which is not less than 350mm wide, positioned at a base height of not less than 450mm to a minimum height of 1850mm (AS 1428.1 Suppl:1993 C10.4.1).
 - A further vertical mirror should be provided centred above the washbasin at a base height of not more than 900mm to a minimum height of 1850mm (AS 1428.1:2001 Clause 10.4.1; AS 1428.1:2009 Clause 15.4.1).
 - Towel dispensers, hand dryers and soap dispensers must be operable by one hand; to be installed within reach of the user at the washbasin with the operative component not less than 900mm and not more than 1100mm above the finished floor (AS 1428.1:2001 Clause 10.4.3; AS 1428.1:2009 Clause 15.4.3).
 - Electrical switches and general purpose outlets must be installed within close proximity to the washbasin at a height between 900mm and 1100mm and no closer than 500mm from internal corners.
 - A shelf with minimum dimensions of 120-150mm X 300-400mm must be installed adjacent to the washbasin, securely fixed at a height in accordance with the following:
 - (i) 900mm to 1000mm above finished floor where the shelf is located within any circulation space; or
 - (ii) Where the shelf is located outside of required circulation spaces at a height between 790mm and 1000mm.
- (AS 1428.1:2001 Clause 10.4.2; AS 1428.1:2009 Clause 15.4.2).
- Where shelf space is provided as a vanity top adjacent to the basin, ensure a height of 800mm to 830mm and a minimum width of 120mm and length of 300-400mm without any encroachment into any circulation space and maintaining knee and foot clearance as per washbasins (AS 1428.1:2009 Clause 15.4.2).
 - A clothes-hanging device shall be installed 1200mm to 1350mm above the plane of the finished floor and located no closer than 500mm from any internal corner (AS 1428.1:2001 Clause 10.4.4; AS 1428.1:2009 Clause 15.4.4).
 - Any additional wall-mounted fixtures, such as syringe disposal units, must be no less than 900mm above the finished floor (to 1250mm to the top shelf in the instance of a wall cabinet) with a maximum projection of 150mm from the wall (AS 1428.1:2009 Clause 15.2.8.1 (j)).
 - Provide a sanitary disposal unit in all toilet facilities as a portable unit to be located in the corner adjacent to the pan, or as a recessed unit located within 500mm from the pan and without impinging on the grabrails (AS 1428.1:2009 Clause 15.4.5; BCA Clause F2.4).



- Where a baby change table is installed, ensure a minimum clearance to the underside of 720mm (when in the open position). The baby change table must not encroach on required circulation spaces within the facility (DDA; AS 1428.1:2009 Clause 15.2.8.2).
- If a nappy bin is provided it must be located outside the circulation space for the pan (DDA).
- The floor surface must have a slip resistance of X or R10 (HB 197:1999 Table 3).
- The floor of the facility must be self-draining at a grade between 1 in 80 and 1 in 100 (AS 1428.1:2009 Clause 15.5.2).

6. Sanitary Facilities for People with Ambulant Disabilities

Ambulant sanitary facilities are proposed within the two gender facilities. The ambulant facilities are located within the gender toilet facilities and have appropriate circulation space in front of the pan (900mm) and to the door of the cubicle.

These facilities will be designed and built in accordance with the following general recommendations.

General Recommendations

Cubicle Door

- The entrance door to the cubicle must possess a minimum clear width of 700mm with appropriate D shaped door handles or where latchsets or locksets are provided lever handles shall be fitted at a height between 900mm – 1100mm (AS 1428.1:2001 Clause 10.8 & 11.1) (AS 1428.2:1992 Clause 15.3.1) (AS 1428.1:2009 Clause 16.3).
- The door shall be provided with an in use indicator with a bolt or catch that can be used by persons with limited hand dexterity therefore the snib should be no less than 45mm from the spindle centre. In case of emergency ensure that latch mechanism is openable from the outside (AS 1428.1 Clause 10.2.10 (d)) (AS 1428.1:2009 Clause 16. 3).
- Tactile and Braille signage to be located external to the entry door and the cubicle door, incorporating the symbol for people with ambulant disabilities (i.e. person with crutches) and the word 'Toilet'; to be located as per BCA D3.6 at a height of between 1200mm and 1600mm:
 - (i) on the wall on the latch side of the door with the leading edge of the sign located between 50mm and 300mm from the architrave; and
 - (ii) where (i) is not possible, the sign may be placed on the door itself.(AS 1428.1:2009 DRAFT Clause 16.4).

Internal Dimensions and Location

- The size of the cubicle should be 900mm – 920mm in width and must provide a clear 900mm in front of the toilet pan (the door must not encroach in this circulation space)(AS 1428.1:2001 Clause 10.8) (AS 1428.1:2009 Clause 16.1).



- A 900mm X 900mm circulation area is to be provided outside the ambulant toilet facility and should not interfere with the swing of the door where an outward swinging door is provided. It should be provided to accommodate the expected direction of approach. (AS 1428.1:2001 Clause 10.8 Figures 38 and 39).

Fixtures and Fittings

- The pan should be located so as the front of the pan is 610mm – 660mm from the rear wall (Standard projection for WC). The pan shall be located at a height between 460mm – 480mm (AS 1428.1:2001 Clause 10.8) (AS 1428.1:2001 Figure 38).
- An L shaped grabrail must be provided on either side of the toilet cubicle. The horizontal rail of a length between 400mm – 450mm must be located at a height between 800mm – 810mm. The vertical rail of a length of 400mm – 450mm must be a continuous piece from the horizontal rail and finish at a height between 1200mm – 1260mm. The horizontal rail (AS 1428.1 Clause 10.8).
- The grabrails shall be securely fixed to each wall so as the grabrails can withstand a force of 1100N applied at any position and in any direction without showing any visible signs of defamation or loosening of the fastening (AS 1428.1:2001 Clause 6.2).
- The toilet roll holder must be a standard design installed at recommended height of 650mm (measured to the top of the holder) with the leading edge in line with the front edge of the toilet pan and no more than 300mm from this point. A clearance of no less than 50mm must be maintained between the toilet roll and the grabrail at all times (AS 1428.1:2001 Clause 10.2.7; AS 1428.1:2009 Clause 15.2.6).
- A large push panel flushing device to be placed at a height of 900mm on the back wall no closer than 400mm from the adjacent wall or on the adjacent wall within 300mm of the front of the toilet pan (AS 1428.1 Clause 10.2.6).
- The provision of lever action or sensor tapware installed on each of the basins, installed no greater than 400mm from the front edge of the basin (AS 1428.1: (AS 1428.1:2001 Clause 11.3; AS 1428.1:2009 Clause 15.2.1; AS 1428.2:1992 Clause 22.3 Figure 22 (Reach range ref)).
- A clothes-hanging device shall be installed 1350mm to 1500mm above the plane of the finished floor (AS 1428.1:2009 Clause 16.5).
- The floor surface must have a slip resistance of X or R10 (HB 197:1999 Table 3).

7. Stairs

The proposed stairs located externally and at the front of the building provides vertical movement to the entry from the allotment boundary and the upper levels of the building. These stairs are existing and therefore are outside the scope of this development.



8. Lifts

Two existing lifts in the connected adjacent building provides access through the levels for people with disabilities. These lifts are not part of the new development.

9. Reception Counter

A reception counter is proposed at the reception. Each counter will be designed with a lower section of counter which facilitates access by a person with a disability, in accordance with the following general recommendations.

General Recommendations

High Level Interaction

- Provide a lower section of counter at a height between 830mm and 870mm above the finished floor (AS 1428.2:200X DRAFT Clause 4.1).
- Where the counter requires a high level of interaction or worktop function, provide knee and foot clearance in accordance with the following (AS 1428.2:200X DRAFT Clause 4.1.2.1.1 (b)) (refer Figure 1):
 - Provision of knee clearance of no less than 800mm in height for a minimum depth of 350mm.
 - Provision of foot clearance of not less than 300mm in height for a depth of 650mm.

General

- Where the counter is provided for general use, the length of the counter must be no less than 900mm (AS 1428.2:1992 Clause 24.1.5; AS 1428.2:200X DRAFT Figure 4.1).
- Unobstructed circulation space must be provided in front of the lower height counter of 1540mm by 2070mm, with maximum grade of 1:40 (AS 1428.2:200X DRAFT Figure 4.1).
- The surface of the counter shall be a matte or satin finish.
- The counter surface must achieve minimum 30% luminance contrast with the counter face and the background surface to which it is viewed (i.e. wall and floor finishes), to aid the detection of the counter edge (AS 1428.2:200X DRAFT Clause 4.1.8 (d)).
- Provide the counter face with minimum 30% luminance contrast with the surrounding floor finish (AS 1428.2:200X DRAFT Clause 4.1.8 (d)).



- Provide a hearing augmentation listening system to the counter, inclusive of appropriate tactile and Braille signage incorporating the international symbol for hearing impairment. Where multiple counters are provided, including one accessible counter for people with disabilities, a hearing augmentation listening system should be provided to service the accessible counter and one high counter.

10. Kitchen Areas

The kitchen facilities in the building should be provided with the following features for people with disabilities on an as needs basis.

General Recommendations

- A minimum clear floor space of 1500mm x 820mm that allows either a forward or parallel approach by a person in a wheelchair shall be provided at the sink and all appliances in the kitchen (AS 4299 Clause 4.5.2).
- The sink should be located at a height between 850mm – 870mm above the finished floor (DDA).
- The design should allow knee and foot clearance of a height of 680mm under the bowl (DDA).
- Any exposed water pipes should be insulated (AS 4299 Clause 4.5.6 (d note)).
- The maximum depth of the sink should be 150mm. This would apply to the main bowl of a double sink AS 4299 Clause 4.5.6 (c)).
- Microwave ovens should be installed or replaced at any height between 750mm and 1200mm above the floor AS 4299 Clause 4.5.9).
- Cabinets, drawers and shelf storage areas should be as follows: depth of shelving up to 800mm above the floor should not exceed 600mm; shelving from 800mm up to 1500mm should not exceed 450mm deep; shelving above 1500mm from the floor should not exceed 300mm deep. Shelving should be adjustable (AS 4299 Clause 4.5.10 (a)).
- At least one double general purpose outlet shall be located with a horizontally accessible reach over a work surface at a maximum of 300mm from the front of the work surface (AS 4299 Clause 4.5.11).

11. Signage

A signage package will be developed to provide people with disabilities intellectual access that provides predictability, consistency and safety of movement and will contain the following general recommendations.

General Recommendations



- All signage should provide a distinct contrast to the background colour/s with colours such as pastels and reflective colours being avoided inclusive of information and directional signage AS 1428.2 Clause 17.3.
- Signs must be located not less than 1200mm and not higher than 1600mm above the floor or ground surface (BCA Specification D3.6).
- Directional / information signage located between height of 1200mm – 1600mm tactile symbols and lettering and Braille should be implemented to assist people with vision impairments (AS 1428.1 Clause 14.4).
- Signs with single lines of characters must have the line of tactile characters not less than 1250mm and not higher than 1350mm above the floor or ground surface (BCA specification D3.6).
- Where a sign can be temporarily obscured e.g. in a crowd, the sign should be placed at a height of not less than 2000mm above the plane of the finished floor (AS 1428.1 Clause 14.5.1 note 2).
- Signs identifying rooms containing features or facilities (all toilets) must be located as per BCA D3.6:
 - (i) on the wall on the latch side of the door with the leading edge of the sign located between 50mm and 300mm from the architrave; and
 - (ii) where (i) is not possible, the sign may be placed on the door itself.
- Signs identifying paths of travel must be placed so they are located directly ahead in the direction of travel. Where one wall continues in the direction of travel and the other forms a corner, the sign must be placed on the continuing wall (BCA specification D3.6).

12. Emergency Evacuation

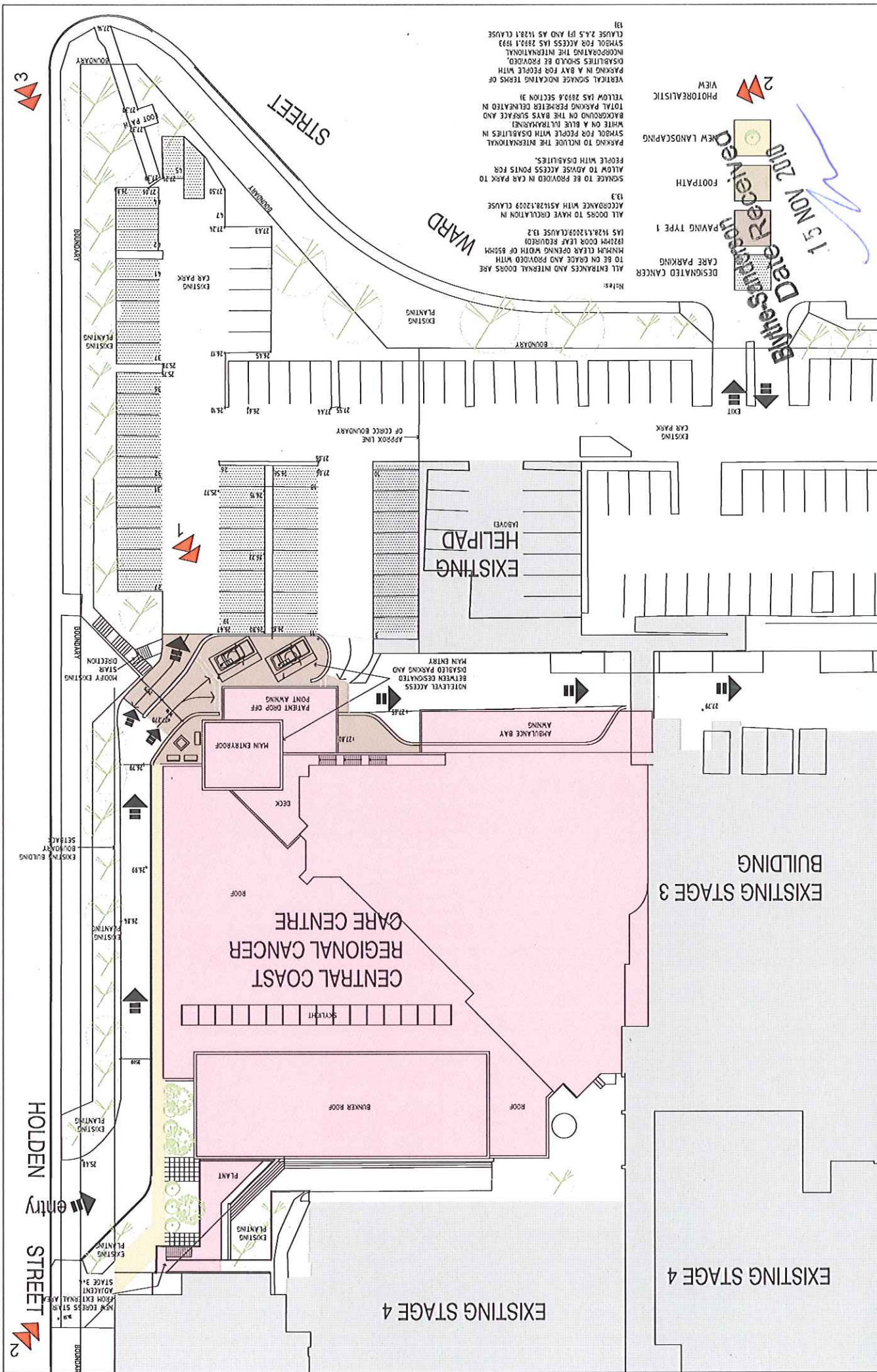
Emergency evacuation for people with disabilities is of utmost importance. Evacuation routes (accessible paths of travel) through the building must be provided and require appropriately located emergency evacuation signage and appropriate evacuation plans incorporating access for people with disabilities.

An emergency evacuation plan inclusive of accessible egress routes will be developed to assist in the safe evacuation of all people using the facility inclusive of people with a disability (DDA).

Should you require further information or clarification please do not hesitate to contact me at your convenience.

Yours Sincerely,

Mabel Chan
Davis Langdon - An AECOM Company

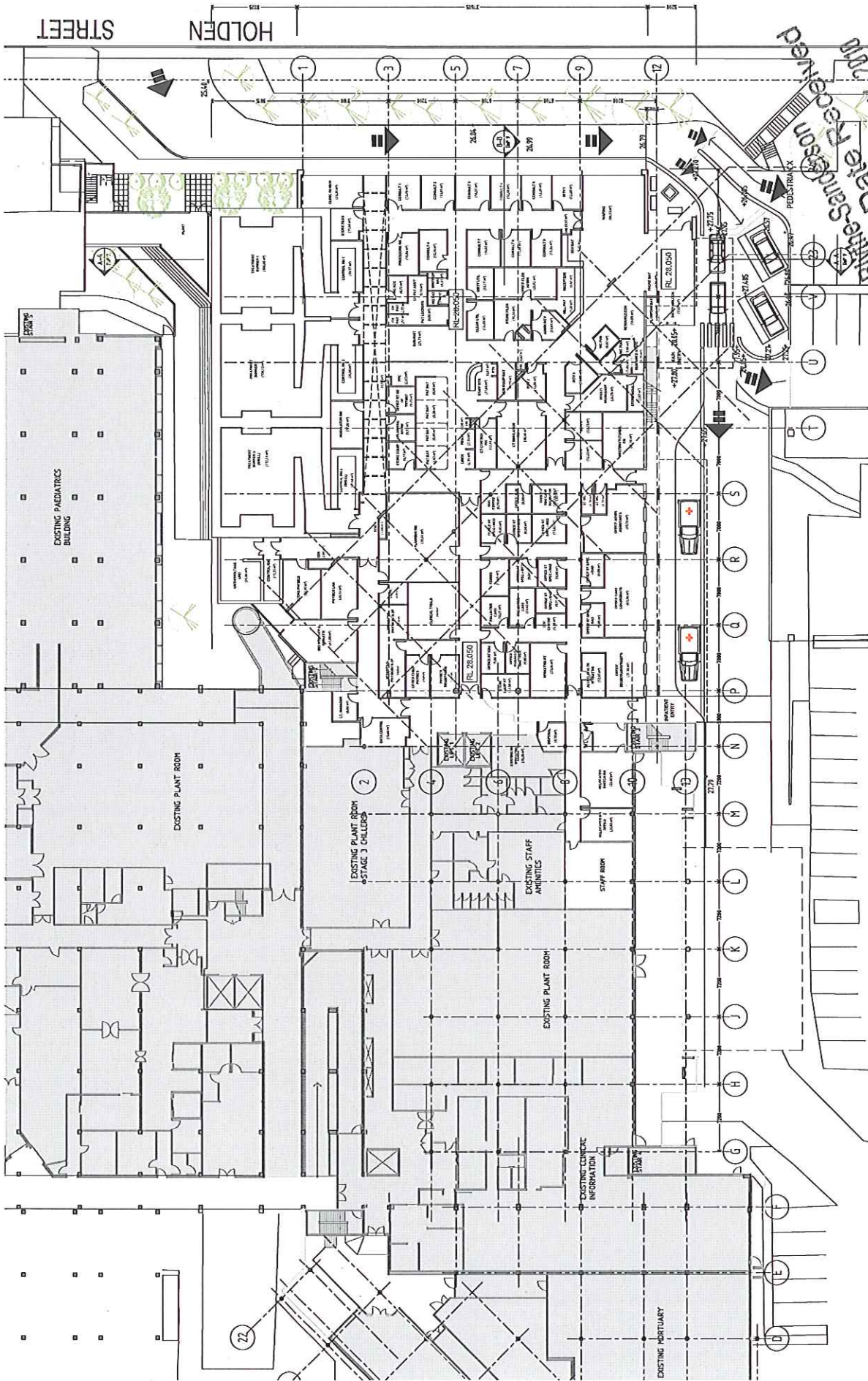


Notes:

- ALL ENTRANCES AND INTERNAL DOORS ARE TO BE ON GRADE AND PROVIDED WITH MINIMUM CLEAR OPENING WIDTH OF 850MM (1920MM CLEAR HEIGHT REQUIRED)
- IAS 142.8.1(2)(3) CLAUSE 13.2
- ACCORDANCE WITH AS1128.12(3) CLAUSE 13.3
- ALL DOORS TO HAVE CIRCULATION IN SIGNAGE TO BE PROVIDED IN CAR PARK TO ALLOW TO ADVERSE ACCESS POINTS FOR PEOPLE WITH DISABILITIES.
- DESIGNATED CANCER CARE PARKING
- PAVING TYPE 1
- FOOTPATH
- NEW LANDSCAPING
- PHOTOREALISTIC VIEW

15 NOV 2010
 Date Received
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<p>NSW HEALTH NORTHERN SYDNEY CENTRAL COAST AREA HEALTH SERVICE</p>		<p>NSW HEALTH INFRASTRUCTURE DETAILED SITE PLAN DATE: 11/2010</p>		<p>DoP 06 REVISION: 02</p>	
<p>NSW HEALTH CENTRAL COAST REGIONAL CANCER CARE CENTRE Gosford Hospital, Carr Holden Street and Racecourse Road GOSFORD NSW 2250</p>		<p>HEALTH INFRASTRUCTURE DETAILED SITE PLAN DATE: 11/2010</p>		<p>LEWIS J. VORON STREET SYDNEY NSW 2000 AUSTRALIA T: +61 2 8209 4000 F: +61 2 8209 4446 E: hinf@nswhealth.com.au W: www.nswhealth.nsw.gov.au</p>	
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REV	DATE	BY	DESCRIPTION
01	17.11.10	DK	DRAWN FOR PART 3A TEST FOR ADEQUACY
02	17.11.10	DK	DRAWN FOR PART 3A TEST FOR ADEQUACY

NSW HEALTH
NORTHERN SYDNEY
CENTRAL COAST
NSW HEALTH SERVICE

CENTRAL COAST REGIONAL
CANCER CARE CENTRE
 Gosford Hospital Cnr Holden Street and Racecourse Road
 GOSFORD NSW 2250

NSW HEALTH
NSW HEALTH
 projects
FOR QUALITY DELIVERABLES AND INNOVATION

HEALTH INFRASTRUCTURE
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 1:200
 DATE:

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DRG NO: **DoP 07**
 REVISION: **02**