Accessibility Assessment Report

BCA 2019

Project Address: Qantas Group Flight Training Centre 297 King Street, Mascot NSW 2020

Client: Qantas
Report Number: 183959
Revision: 3

12 APRIL 2019

REPORT REVISION HISTORY

Revision	Date Issued	Revision Description	
01	25/02/19	Initial draft report issued to client for review	
		Prepared by	**Verified by**
		Lucy Shepherd *Manager - Access*	Adam DeLooze *Executive Director – Building* *BPB0085 – A1 Unrestricted*
02	18/03/19	Updated draft report for client review	
		Prepared by	**Verified by**
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03	12/04/19	Final SSD report issued	
		Prepared by	**Verified by**
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Certification
This report has been authorised by City Plan Services P/L, with input from a number of other expert consultants. To the best of our knowledge the accuracy of the information contained herein is neither false nor misleading. The comments have been based upon information and facts that were correct at the time of writing.

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1. EXECUTIVE SUMMARY

This report assesses the level of accessibility compliance achieved to and within the Qantas Group Flight Training Centre and multi-level car park located at 297 King Street, Mascot NSW 2020.

The documentation provided for assessment has been reviewed against the relevant clauses of the *Premises Standards 2010*, *Building Code of Australia* and associated Australian Standards pertaining to the accessibility requirements for people with a disability.

The report does not verify compliance with any standard or code other than those listed within Section 2.3. below.

The key findings within this report are as follows:

- It is proposed by the design team that the following Deemed to Satisfy (DtS) non-compliances be addressed via a performance-based approach:
    - **BCA clause D3.2(a)(ii)** – as a result of existing site gradients, including the Sydney Water drainage channel, it is not possible to provide an accessway with compliant gradients between the proposed multi-storey carpark and the Qantas Group Flight Training Centre. A performance-based approach will be pursued to ensure equitable parking is provided for staff and visitors in accordance with the performance requirements of the BCA;
    - **BCA clause D3.2(b)(ii)** – the second (inaccessible) entrance to the multi-storey carpark, provided to the west at Stage 2 is located more than 50m from the accessible entrance. A performance-based approach will be pursued to justify reliance on the accessible principal pedestrian entrance to the east, due to existing site gradients which will not be suitable for some wheelchair users, demonstrating compliance with the performance requirements of the BCA;
    - **BCA clause D3.10(a)** - The evacuation training pool has a perimeter of more than 40m, it is proposed that due to the unique use of the pool, nil provision of an accessible entry /exit is to be provided. This is to be addressed via a performance-based approach demonstrating compliance with the performance requirements of the BCA; and
    - **BCA clause F2.4(a)** – At Level 1 accessible sanitary facilities have not been provided at 50% of banks of WCs as required by the BCA. A performance-based approach will be pursued to justify an accessible WC at one (1) of three (3) banks provided at Level 01, based on the high level of mobility required by the dominant occupant group using the training facility.

The following report details the nature of the above DtS non-compliances and proposes where design modification might be made at design development or a performance-based approach might be considered.

2. INTRODUCTION

2.1. General

The development, the subject of this report, is for the Qantas Group Flight Training Centre located at 297 King Street, Mascot NSW 2020.

The property is located within the Bayside LGA.

2.2. Description of Site and Locality

The site is located at 297 King Street, Mascot and comprises land known as Lots 2 & 4 DP 234489, Lot 1 DP 202747, Lot B DP 164829 and Lot 133 DP 659434.

Key features of the site are as follows:

- The site is approximately 5.417ha and is an irregular shape. It is approximately 240m in length and maintains a variable width of between approximately 321m in the northern portion of the site and approximately 93m along the King Street frontage (refer to Figure 1).
- The site possesses a relatively level slope across the site. An open Sydney Water drainage channel bisects the northern portion of the site in an east-west direction. There are some isolated changes in level immediately adjacent to this channel. A Site Survey Plan accompanies the application which details the topographic characteristics of the site.
- Multiple mature Plane Trees are scattered throughout the site. A variety of native and exotic tress and vegetation also exist around the perimeter of the site which help screen the site from surrounding uses.
- Site improvements include at-grade car parking for Qantas staff, an industrial shed to store spare aviation parts, a substation, a disused gatehouse, a Sydney Water Asset with two driveways over it, the Qantas catering facility and Qantas tri-generation plant.
- The site forms part of a larger land holding under the ownership of Qantas that generally extends between Qantas Drive to the west, Ewan Street to the south, Coward Street to the north, with the Qantas “Corporate Campus” fronting Bourke Road.
- Vehicular access to the site from the local road network is available from King Street. The site has intra-campus connections along the northern boundary in the form of two connecting driveways in the north-eastern and north-western corner of the site along the northern boundary which link it to the broader Mascot Campus.
- The site is located within the Bayside LGA.

Key features of the locality are:

- **North:** The site is bounded to the north low scale industrial development, beyond which is Coward Street. Further north of the site is the Mascot Town Centre which is characterised by transport-oriented development including high density mixed-use development focussed around the Mascot Train Station.
- **East:** The site is bordered to the east by commercial development including a newly completed Travelodge hotel which includes a commercial car park. Additional commercial development to the east includes the Ibis Hotel and Pullman Sydney Airport fronting O’Riordan Street.
- **South:** The site is bounded to the south by King Street, beyond which is Qantas owned at-grade car parking and other industrial uses. Further south is the Botany Freight Rail Line and Qantas Drive beyond which is the Domestic Terminal at Sydney Airport.

- **West:** The site is bordered to the west by the Botany Freight Rail Line and Qantas Drive, beyond which lies Sydney Kingsford Smith Airport and the Qantas Jetbase (location of the current Flight Training Centre).

2.3. Project Description

Safety is Qantas' first priority. The flight training centre is a key pillar of this value. The facility enables pilots and flight crews to undertake periodic testing to meet regulatory requirements by simulating both aircraft and emergency procedural environments. The Project seeks consent for the construction and operation of a new flight training centre, and associated ancillary uses including a multi-deck car park. The Project is comprised of the following uses:

Flight Training Centre

The proposed flight training centre will occupy the southern portion of the site. It is a building that comprises 4 core elements as follows:

- An emergency procedures hall that contains;
    - cabin evacuation emergency trainers,
    - an evacuation training pool,
    - door trainers,
    - fire trainers
    - slide descent towers,
    - security room,
    - aviation medicine training and equipment rooms.
- A flight training centre that contains:
    - a flight training hall with 14 bays that will house aircraft simulators,
    - integrated procedures training rooms, computer rooms, a maintenance workshop, storerooms, multiple de-briefing and briefing rooms, pilot's lounge and a shared lounge.
- Teaching Space that contains
    - training rooms,
    - classrooms and two computer based exam rooms.
- Office Space
    - Office space for staff and associated shared amenities including multiple small, medium and large meeting rooms, think tank rooms, informal meeting spaces, a video room and lunch/tea room.
- Ancillary spaces including the reception area at the ground floor, toilets, roof plant and vertical circulation. The external ground floor layout will include a loading dock, at-grade car parking for approximately 39 spaces and a bus drop-off zone at the northern site boundary.

Car Park

The proposed multi-deck car park will be located to the north-east of the flight training centre and adjacent the existing Qantas catering facility and tri-generation plant. The car park is 13 levels and will provide 2059 spaces for Qantas staff. Vehicle access to the car park will be provided via King Street, Kent Road and from Qantas Drive via the existing catering bridge.

2.4. Purpose of Report

City Plan Services has been commissioned by Qantas Airways Ltd (Qantas) to prepare this report in accordance with the technical requirements of the Secretary's Environmental Assessment Requirements (SEARs), and in support of the SSD 10154 for the development of a new flight training centre at 297 Kind Street, Mascot.

This report establishes compliance to the access requirements of the Building Code of Australia (hereafter referred to as the BCA), *the Disability (Access to Premises - Buildings) Standards 2010* (hereafter referred to as the *Premises Standards 2010*).

2.5. Report Basis

This report is based on:

1. *Environmental Planning and Assessment Act 1979*.
2. *Environmental Planning and Assessment Regulation 2000*.
3. *Disability (Access to Premises – Buildings) Standards 2010*.
4. *The Building Code of Australia 2019*, inclusive of NSW variations (See Note 1).
5. Australian Standards, as referenced within the BCA:

    - *Australian Standard AS1428.1-2009 (incorporating amendment Nos 1 and 2) - Design for access and mobility Part 1: General requirements for access - New building work.*
    - *Australian Standard AS/NZS 2890.6-2009 Parking Facilities Part 6: Off-street parking for people with disabilities.*
    - *Australian Standard AS/NZS 1428.4.1:2009 (incorporating amendment Nos 1 and 2) Design for access and mobility Part 4.1: Means to assist the orientation of people with vision impairment – Tactile ground surface indicators.*
    - *Australian Standard AS1735.12-1999 Lifts, escalators and moving walks Part 12: Facilities for persons with disabilities.*

6. Architectural plans prepared by Noxon Giffen Architects, as listed in Appendix 1.

Note 1: *Building Code of Australia* (BCA) 2019 amendment 1 will be adopted in NSW on 01 May 2019. The applicable amendment of the BCA is that which is in force at the date of construction certificate lodgement, in accordance with clause 98 of the *Environmental Planning and Assessment Regulation 2000* for the purpose of the building design.

2.6. Exclusions and Limitations

This report has been prepared based on the following limitations and exclusions:

1. This report does not verify compliance with the Building Code of Australia other than the accessibility provisions of Parts D3, F2.4 and E3.6;
2. This report does not consider any heritage controls or restrictions; and
3. This report does not verify compliance with the *Disability Discrimination Act 1992*, other than the requirement to comply with the *Premises Standards 2010*.

2.7. Building Description

The proposed building consists of:

Flight Training Centre (Lots 2 and 4, DP 234489)

Ground Floor	Class 5 - Offices
	Class 9b – Training Centre
	Class 10b – Swimming Pool
Level 1	Class 9b – Classrooms
Level 2	Class 9b – Classrooms
Levels 3	Class 5 - Offices

Car Park (Part Lot 133 DP 659434 and Lot B DP 164829) Stage 1

Ground Floor - Level 4	Class 7a - Carpark

Car Park (Part Lot 133 DP 659434 and Lot B DP 164829) Stage 2

Ground Floor - Level 13	Class 7a - Carpark

3. DISABILITY (ACCESS TO PREMISES – BUILDING) STANDARDS 2010

The *Premises Standards 2010* applies to all new buildings and building parts, including existing buildings undergoing upgrade works. The *Premises Standards 2010* aims to provide certainty for the building industry in relation to meeting the DDA requirements for access to buildings. *The Premises Standards 2010* generally aligns with the BCA and provides specific prescriptive requirements for compliance with a range of Australian Standards relating to access and associated matters. If a building is designed and constructed under the current BCA and the *Premises Standards 2010* there is a greater level of assurance that the design complies with the DDA.

The BCA, in conjunction with the DDA applies to all new buildings, new building works to existing buildings and buildings undergoing significant refurbishment or alteration.

4. BUILDING CODE OF AUSTRALIA ASSESSMENT

This assessment considers the accessibility requirements of the BCA, specifically clauses D2.17, E3.6, F2.4 and Part D3.

4.1. BCA Interpretation

The following assessment methodology has been applied to the subject development:

- Due to the unique use of the proposed building and challenges presented by existing site constraints, in some instances where Deemed to Satisfy provisions cannot be met, a performance-based approach is proposed by the design team to meet the BCA performance requirements;
- The new multi-storey carpark and flight training centre have been assessed individually on their separate allotments for the purpose of this assessment;
- Within the flight training centre stairways and elevated walkways to aircraft simulators have been excluded under clause D3.4 due to their use and the level of mobility required by the occupants, this includes the omission of TGSIs to the elevated walkways;
- Simulators have not been included in this assessment and are not considered part of the building;
- EP Wet room stairs are used for training purposes and therefore do not have features in accordance with the requirements of AS 1428.1-2009; and
- Movable furniture has not been considered as part of this assessment.

4.2. Access for People with a Disability

BCA clause	Title	Assessment and Comment	Status
2.17	Handrails in exits	**Handrails in exits** Handrails are required along at least one side of all fire-isolated required exit stairways or ramps, or on both sides of stairs or ramps with a total width of more than 2m. Handrails within fire-isolated required exit stairs are required to comply with clause 12 of AS1428.1-2009. Clauses 12(e) and 12(j) of AS1428.1-2009 require that the handrails be consistent throughout the stair and that handrails at landings shall always be continuous. This is generally achieved by providing an offset tread, as shown in Figure 28 of AS1428.1-2009, however the offset tread is not a prescriptive requirement and is just one method of achieving consistent handrail heights throughout the stair. Handrails containing vertical sections or sections	Capable of Complying

BCA clause	Title	Assessment and Comment	Status
		with an inconsistent height at landings do not achieve compliance with clause 12 of AS 148.1-2009. Refer to Section D3.3 for handrail requirements in parts of buildings required to be accessible. At design development ensure handrails within required fire-isolated exits can achieve compliance.	
D3.1	General building access requirements	In accordance with Table D3.1, access is to be available in the following areas; **Class 5 Offices and Class 9b Training Centre and Classrooms** Access is required to and within all areas normally used by occupants and to and into swimming pools with a perimeter greater than 40m associated with a class 5 or 9 building that is required to be accessible.	Capable of Complying
		Class 7a carpark To and within any level containing accessible carparking bays.	Capable of Complying
D3.2	Access to buildings	An accessway (continuous accessible path as defined by AS1428.1-2009) must be provided to a building required to be accessible: ▪ from the main points of a pedestrian entry at the allotment boundary; and ▪ from another accessible building connected by a pedestrian link; and ▪ from the required accessible carparking spaces on the allotment. Access is required to be provided to not less than 50% of all pedestrian entrances and a pedestrian entrance which is not accessible must not be located more than 50m from an accessible entry.	Capable of Complying – **Performance based approach**
		Flight Training Centre Due to security requirements, the Flight Training Centre is proposed with one (1) pedestrian	Capable of Complying

BCA clause	Title	Assessment and Comment	Status
		entrance, which is located on Drop-off Road North at the north of the subject site. Pedestrian access is provided from King St via the Carpark Access Road East, walkway gradients and circulation space (passing spaces) have been provided in accordance with the requirements of the BCA and AS 1428.1-2009. Accessible carparking bays associated with the Flight Training Centre are located on grade and immediately adjacent to the principal pedestrian entrance, a compliant accessway has been proposed to the building entrance.	
		Multi-storey Carpark A compliant accessway has been provided to the site boundary with the Qantas Campus. To address existing site constraints, it is proposed that a performance-based approach be pursued at design development to justify nil provision of a compliant accessway from the proposed multi storey carpark to the Flight Training Centre. Accessible bays have been provided on grade adjacent to the flight training centre. Note: an accessway to another accessible building connected by a pedestrian link does not include a public footpath external to the building allotment, the subject areas of non-compliance include Sydney Water drainage channel areas, which are not owned by Qantas.	Capable of Complying – **Performance based approach**
D3.3	Parts of building to be accessible	Every ramp and stairway must comply with: ▪ for a ramp, except a fire-isolated ramp, clause 10 of AS 1428.1 (gradients, rise, length and landings); and ▪ for a stairway, except a fire-isolated stairway, clause 11 of AS 1428.1 (set-backs, nosings, TGSIs, handrail extensions, handrail design); and ▪ for a fire-isolated stairway, clause 11.1(f) and (g) of AS 1428.1-2009. Accessways require passing spaces in accordance with AS1428.1-2009 (1800 x	Capable of Complying

BCA clause	Title	Assessment and Comment	Status
		2000mm) at maximum 20m intervals where no direct line of sight is available. Turning spaces in accordance with AS1428.1-2009 (1540 x 2070mm) are required within 2m of the end of accessways where it is not possible to continue traveling and at maximum 20m intervals along the accessway. Circulation and spatial provision for compliant handrails has been provided in accordance with the requirements of BCA clause D3.3. Handrails and TGSIs are not fully documented at this stage. Full details to be provided with construction documentation. Note: Clause 7.4.1(a) of AS1428.1-2009 does not apply and is superseded by BCA clauses D3.3 (g) and(h), whereby *the pile height or pile thickness shall not exceed 11 mm and the carpet backing thickness shall not exceed 4 mm and the carpet pile height or pile thickness dimension, carpet backing thickness dimension and their combined dimension shown in figure 8 of AS1428.1-2009 do not apply and are replaced with 11 mm, 4 mm and 15 mm respectively.*	
D3.4	Exemptions	Within the BCA clause D3.4 provides exemptions to DtS provisions for access by people with a disability. Areas can be excluded under this clause if access is inappropriate due to the nature of the area or the tasks undertaken or if the area poses a health or safety risk for people with a disability. Assessment of these areas is on a case-by-case basis only and subject to careful judgement but can include (and is not limited to) areas such as: waste containment areas, plant or equipment rooms, cleaners store rooms, commercial kitchens, staff serving areas behind bars and loading docks. It is important that when determining an area as exempt under D3.4 that assumptions about the ability of people with a disability to undertake work within the subject setting are fully considered, as in many instances someone with a reduced level of mobility or	Note

BCA clause	Title	Assessment and Comment	Status
		strength may undertake a range of activities in that area without difficulty. The Requirements of AS1428.1-2009 are not applied to a path of travel which solely serves an area exempt by D3.4. This also includes the entrance to an area that serves an area exempted by D3.4, which need not be accessible. The following areas are not required to be accessible: a) An area where access would be inappropriate because of the particular purpose for which the area is used. b) An area that would pose a health or safety risk for people with a disability. c) Any path of travel proving access only to an area exempted by (a) or (b). Within the context of the above the following areas have been excluded under clause D3.4: ▪ Fatigue Rooms for use by maintenance staff (Ground Floor); ▪ Visual Repair and Spares Rooms (Ground Floor); ▪ Store – EP Spares (Ground Floor); ▪ Equipment Rooms (Ground Floor); ▪ Cleaners Rooms (Ground Floor): ▪ Luggage Store (Ground Floor); ▪ Pool Plant and Store Areas (Ground Floor); ▪ Hydraulic Plant (Ground Floor); ▪ Comms Rooms (Ground Floor); ▪ Plants areas (Ground Floor); ▪ Maintenance and repair Workshop (Ground Floor); ▪ Stairways and walkways to Simulators (Ground and First Floor); ▪ Store Areas (First Floor); ▪ Comms Rooms (First Floor); ▪ Plant Areas (First Floor); ▪ Store Areas (Second Floor); and ▪ Plant areas (Level 3).	

BCA clause	Title	Assessment and Comment	Status
D3.5	Accessible Carparking	**Flight Training Centre On-Grade carpark** A total of thirty-nine (39) on-grade parking spaces are associated directly adjacent to the Class 9b Flight Training Centre. Accessible bays have been provided in accordance with BCA clause D3.5.	Capable of Complying
		Multi-storey carpark – Stage 1 At stage 1 a five (5) storey multi-deck carpark is proposed, serving the Mascot Campus with a total provision of 748 bays. The provision of accessible carparking bays meets the requirements of BCA clause D3.5.	
		Multi-storey carpark – Stage 2 At stage 2 a fourteen (14) storey multi-deck carpark is proposed, serving the Mascot Campus with a total provision (inclusive of Stage 1) of 2059 bays. The provision of accessible carparking bays meets the requirements of BCA clause D3.5.	
		Headroom, space identification, space delineation and a bollard within the shared zone to be provided in accordance with the specifications of AS/NZS 2890.6:2009.	
D3.6	Signage	Braille and tactile signage complying with Specification D3.6 must identify the following: ▪ Each accessible and ambulant sanitary facility; ▪ Spaces where hearing augmentation is provided; ▪ Each doorway forming part of a required exit must be provided with braille and tactile signage incorporating wording of, “Exit”, and “Level”, and either, the floor level number or floor level descriptor; ▪ Where a pedestrian entrance is not accessible, directional signage incorporating the international symbol for access must be	Capable of Complying

BCA clause	Title	Assessment and Comment	Status
		provided to direct a person to the nearest accessible entrance; and ▪ Where an accessible sanitary facility is not provided at a bank of sanitary facilities directional signage incorporating the international symbol of access to be provided to direct a person to the nearest accessible unisex facility. Signage details have not been specified at this stage. Construction documentation to incorporate a signage schedule and demonstrate compliance.	
D3.7	Hearing augmentation	A hearing augmentation system must be provided where an inbuilt amplification system, other than one used only for emergency warning is installed in the following areas: ▪ In a room in a Class 9b building ▪ In an auditorium, conference room, meeting room or room for judicatory purposes ▪ At any ticket office, teller's booth, reception area or the like, where the public is screened from the service provider. An induction loop system must be provided to not less than 80% of the floor area of the room or space. A system requiring the use of receivers must be available to not less than 95% of the floor area. The number of receivers provided to be calculated in accordance with BCA clause D3.7. Any screen or scoreboard associated with a Class 9b building and capable of displaying public announcements must be capable of supplementing any public-address system other than a public-address system used for emergency warning purposes only. Details of proposed hearing augmentation systems to be provided at construction certificate stage.	Capable of Complying
D3.8	Tactile indicators	Tactile ground surface indicators (TGSIs) are required at the following locations:	Capable of Complying

BCA clause	Title	Assessment and Comment	Status
		▪ all stairs and ramps excluding fire-isolated required exits); ▪ overhead obstructions where a height clearance of less than 2000mm is provided in an open public space and no suitable barrier is provided; and ▪ Where a pedestrian area joins a carriageway at the same grade. TGSIs are to be documented to the applicable stairs and ramps and are required to comply with Sections 1 and 2 of AS/NZS 1428.4.1-2009. Construction documentation should demonstrate compliance.	
D3.9	Wheelchair seating spaces in Class 9b assembly buildings	No fixed seating is proposed.	Note.
D3.10	Swimming Pools	An evacuation training pool has been proposed within the Class 9b Emergency Procedures area. The proposed pool has an approximate perimeter of 57m, therefore access is required to and into the pool in accordance with the requirements of BCA Specification D3.10 by the following means: ▪ a fixed or movable ramp and an aquatic wheelchair; or ▪ a zero-depth entry at a maximum gradient of 1:14 and an aquatic wheelchair; or ▪ a platform swimming pool lift and an aquatic wheelchair; or ▪ a sling-style swimming pool lift (except where perimeter is more than 70m). Due to the unique proposed use of the pool for training purposes, a performance-based approach will be pursued to justify the non-provision of an accessible entry / exit to the pool.	Capable of Complying – **Performance-based approach**
D3.11	Ramps	A series of connected ramps must not have a combined vertical rise of more than 3.6m.	Capable of Complying

BCA clause	Title	Assessment and Comment	Status
		A landing for a step ramp must not overlap a landing for another step ramp or ramp. No ramps are proposed at this stage.	
D3.12	Glazing on an accessway	On an accessway, where there is no chair rail, handrail or transom, all frameless or fully glazed doors, sidelights and any glazing capable of being mistaken for a doorway or opening, must be clearly marked in accordance with AS 1428.1-2009. Full height glazed panels and doors throughout the building will require compliant visual indicators, specified in accordance with the requirements of clause 6.6 of AS1428.1-2009. Construction documentation should demonstrate compliance.	Capable of Complying
E3.6	Passenger lifts	Passenger lifts are required to be designed in accordance with BCA clause E3.6. **Flight Training Centre** Two (2) passenger lifts have been proposed, serving levels ground-03. Current drawings show the lift car size as approximately 1800mm wide x 2690mm deep, which is in accordance with the requirements of BCA clause E3.6 for a lift travelling an effective height of more than 12m.	Capable of Complying
		Car Park – Stage 1 Two (2) passenger lifts have been proposed, serving levels ground-roof at Stage 1. Current drawings indicate lift car sizes can readily achieve compliance with BCA clause E3.6.	
		Car Park – Stage 2 Seven (7) passenger lifts have been proposed, serving levels ground- roof at Stage 2. Current drawings indicate lift car sizes can readily achieve compliance with BCA clause E3.6.	
		Detailed drawings of lift fixtures and fittings will be required for review at design development to ensure compliance with BCA Table E3.6 and	

BCA clause	Title	Assessment and Comment	Status
		AS1735.12-1999 has been achieved. A lift design statement certifying compliance is to be provided at construction certificate stage.	
F2.4	Accessible sanitary facilities	Accessible unisex sanitary facilities are to be provided in accordance with BCA Table F2.4. Accessible sanitary facilities have been provided in the following locations: ▪ Car park ground floor level (LH Transfer); ▪ Ground Floor – building entrance (RH Transfer); ▪ Level 1 – adjacent to the Pilots Lounge (LH Transfer); ▪ Level 2 - adjacent to the CBT Room (LH Transfer); and ▪ Level 3 – adjacent to the Fire Stairs (LH Transfer). At each bank of toilets where there is one (1) or more toilets in addition to an accessible unisex sanitary compartment a sanitary compartment suitable for a person with an ambulant disability is to be provided. Where two (2) or more unisex sanitary facilities are provided, the number of Right Hand (RH) / Left Hand (LH) transfer facilities are to be provided as evenly as possible. Ensure a design development 50% are LH and 50% RH in accordance with the requirements of the BCA. It should be noted that accessible WCs have not been provided at 50% of banks of WCs on Level 1. A performance-based approach is to be pursued, whereby due to the dominant occupant characteristics and degree of mobility required by the majority of users, signage will be provided to the accessible facilities on level 1, which are located approximately 57m from the bank of WCs where an accessible facility has not been provided. Full details of fixtures and fittings compliant with AS1428.1-2009 to be provided within construction certificate documentation.	Capable of Complying – **Performance-based approach**

4.2.1. Design for Access and mobility - AS1428.1-2009

1428.1 clause	Title	Assessment and Comment	Status
6.1	General	The continuous accessible path does not incorporate a step, stairway, turnstile, escalator, moving walk or other impediment.	Capable of Complying
6.2	Height of continuous accessible path of travel	The minimum unobstructed height along the accessible path of travel is to be 2m and 1980mm at doorways. Construction documentation should demonstrate compliance.	Capable of Complying
6.3	Width of continuous accessible path of travel	Unless otherwise specified (such as doors, curved ramps etc.) the minimum unobstructed width along the path of travel is no less than 1000mm. Construction documentation should demonstrate compliance.	Capable of Complying
6.4	Passing space for wheelchairs	Accessways require a circulation space with dimensions not less than 1800mm (W) and 2000mm (L) at 20m intervals where a direct line of sight is not available. Construction documentation should demonstrate compliance.	Capable of Complying
6.5	Circulation space for wheelchair turn	Accessways require turning spaces in accordance with AS1428.1-2009. 60°-90° turns require a minimum circulation space of 1500 x 1500mm with a gradient of not more than 1:40. 30°-60° turns where the width of path of travel is less than 1200mm, require a splay of 500 x 500mm at the internal corner. 90°-180° turns require a minimum circulation space of 1540 x 2070mm. Construction documentation should demonstrate compliance.	Capable of Complying

1428.1 clause	Title	Assessment and Comment	Status
6.6	Visual indicators on glazing	On frameless or fully glazed doors, side lights or glazing capable of being mistaken for a doorway where there are no transom visual indicators are required. Contrasting line to be not less than 75mm wide with the lower edge located between 900mm and 1000mm above FFL. The contrasting strip must have a minimum luminance contrast of 30%. Construction documentation should demonstrate compliance.	Capable of Complying
7.1	Floor and ground surfaces	The continuous accessible paths of travel and circulation spaces are to have a slip resistance and should be traversable by wheelchair users and people with an ambulant or sensory disability. Construction documentation should demonstrate compliance.	Capable of Complying
7.2	Tolerances for abutment of surfaces	All abutment of surfaces is required to have a smooth transition including any feature pavement used as a pedestrian zone and along the continuous accessible path of travel. Construction documentation should demonstrate compliance.	Capable of Complying
7.3	Changes in level	A change in level along the path of travel should not exceed a vertical tolerance of 3mm, or 5mm if bevelled. Construction documentation should demonstrate compliance	Capable of Complying
7.4	Soft floor coverings	Carpets and mats are required to comply with the requirements of this clause with the exemption of clause 7.4.1(a) which does not apply and is replaced with clause D3.3(g) & (h) of the BCA. This level of detail is not currently documented on the plans.	Capable of Complying

1428.1 clause	Title	Assessment and Comment	Status
		Construction documentation should demonstrate compliance.	
8	Signage	Signage is required to be installed throughout the proposed development in accordance with this provision and clause D3.6 and Specification D3.6 of the BCA. Where specified by the BCA signage shall be provided in accordance with the technical requirements of AS1428.1-2009. Signage to sanitary facilities / exit doors / areas with hearing augmentation has not been documented at this stage. Construction documentation should demonstrate compliance.	Capable of Complying
9	Tactile ground surface indicators	TGSIs are required to be provided to all stairways and ramps (excluding fire-isolated) and are to comply with Sections 1 and 2 of AS/NZS 1428.4.1:2009. TGSIs are also required where an accessway adjoins a vehicular crossing or driveway at grade. TGSIs should be perpendicular to the direction of travel when approaching the hazard and for the full width of the path of travel. Where handrails are continuous on both sides of the landing and the landing edge is less than 3000mm to the nearest nosing edge, indicators are not required. TGSIs should be set back 300mm ±10mm from the edge of the hazard (except at railway platforms and wharves). Where the distance of the landing to the nosing edge is less than 3000mm, TGSIs are to be over a distance of 300-400mm. Where the distance of the landing to the nosing edge is more than 3000mm, TGSIs are to be over a distance of 600-800mm. Integrated TGSIs are to have luminance contrast of no less than 30% against the surrounding	Capable of Complying

1428.1 clause	Title	Assessment and Comment	Status
		surface, Discrete TGSIs are to have a luminance contrast of 45% to the surrounding surface. TGSIs have not been specified at this stage. Construction documentation should demonstrate compliance.	
10.1	Walkways, ramps and landings	Walkways, ramps and landings are required to be provided in accordance with the requirements of this clause. Construction documentation should demonstrate compliance.	Capable of Complying
10.2	Walkways	One of the following is to be provided at walkways: ▪ The ground surface abutting the walkways shall be firm and level, follow the grade of the walkway, be of a different material and extend a minimum of 600mm; or ▪ Kerb with a minimum height of 65mm; or ▪ Kerb rail and handrail; or ▪ A wall with a height of not less than 450mm. Landings are not required where the walkways are shallower than a 1:33 gradient. Construction documentation should demonstrate compliance.	Capable of Complying
10.3	Ramps	Ensure all ramps have a gradient of no more than 1:14 and that handrails, kerb rails and TGSIs are provided in accordance with the requirements of AS1428.1-2009. Ramps at a gradient of 1:14 to have landings at minimum 9m intervals and at 15m intervals at a gradient of 1:20. Ramps with gradients between 1:20 and 1:14 to have landings at intervals obtained by linear interpolation. Construction documentation should demonstrate compliance.	Capable of Complying

1428.1 clause	Title	Assessment and Comment	Status
10.4	Curved walkways, ramps and landings	Curved ramps and walkways to have a clear width of not less than 1500mm. Curved ramps, walkways and landings are required to have an inner radius in accordance with this clause (refer to AS1428.1-2009 Figure 20). Construction documentation should demonstrate compliance.	Capable of Complying
10.5	Threshold ramps	Threshold ramps are to have a maximum rise of 35mm, a maximum length of 280mm and a maximum gradient of 1:8. Threshold ramps are required to be located within 20mm of the door leaf which it serves. Construction documentation should demonstrate compliance.	Capable of Complying
10.6	Step ramps	No steps ramps are proposed at this stage.	Note
10.7	Kerb ramps	Kerb ramps are to be attached to a kerb and have a maximum rise of 190mm, a length not greater than 1250mm and a gradient not steeper than 1:8. Construction documentation should demonstrate compliance.	Capable of Complying
10.8	Landings	Landings require a minimum length of 1200mm or where a change in direction is 90° or more 1500mm. Construction documentation should demonstrate compliance.	Capable of Complying
11.1	Stairways	Stairways are required to comply with the requirements of this clause. At a property boundary, stairways shall be set back a minimum of 900mm, so that handrails and TGSIs do not protrude into the traverse path of travel. At an intersection within an internal corridor stairway to be setback a minimum of one tread	Capable of Complying

1428.1 clause	Title	Assessment and Comment	Status
		width + 300mm + handrail return to ensure handrails and TGSIs to not protrude into the traverse path of travel. Stairways are required to have opaque risers and nosings with a contrasting strip not less than 50mm nor more than 75mm in depth, set back a maximum of 15mm from the front of the nosing. Where the contrasting strip is not set back from the front of the nosing then the area of contrast must not extend down the riser by more than 10mm. This level of detail is not currently documented on the plans and construction documentation should demonstrate compliance.	
11.2	Stairway handrails	Handrails are required on both sides of the stairway and are to be installed in accordance with the requirements of AS1428.1-2009 (fire-isolated required exit stairways excluded). Construction documentation should demonstrate compliance.	Capable of Complying
12	Handrails	Handrails are required to comply with the requirements of this clause. The top of handrails is required to be 865-1000mm above FFL. Handrails must be circular or elliptical with a cross-section of between 30mm to 50mm and a clearance of a minimum 50mm maintained between the handrails and an adjacent wall surface. Clearance to extend above the top of the handrail by not less than 600mm. Handrails shall have no obstruction and are to be returned in accordance with AS1428.1-2009. Handrail details have not been specified at this stage. Construction documentation should demonstrate compliance.	Capable of Complying
13.1	Doorway luminance contrast	A minimum luminance contrast of 30% must be provided between one of the following: ▪ door leaf and door jamb; or	Capable of Complying

1428.1 clause	Title	Assessment and Comment	Status
		▪ door leaf and adjacent wall; or ▪ architrave and wall; or ▪ door leaf and architrave or door jamb and adjacent wall. The minimum width of the luminance contrast is 50mm. This level of detail is not currently documented on the plans. Construction documentation should demonstrate compliance.	
13.2	Clear opening of doorways	All doors on the continuous accessible path of travel must have a minimum clear unobstructed width of 850mm to the active leaf. Doorways with multiple leaves, on any accessway are required to achieve a clear opening width of not less than 850mm for one of the leaves in accordance with AS1428.1-2009. Construction documentation should demonstrate compliance.	Capable of Complying
13.3	Circulation spaces at doorways	Circulation spaces are required to be provided on both sides of every door on an accessible path of travel. Where swing doors are automated and have a side approach – circulation space is required on the approach side only.	Capable of Complying
13.4	Distance between successive doorways	A minimum of 1450mm is required between successive doorways in vestibules and air locks. Where the doors encroach into space, the 1450mm is required to be increased by the width of the door. On the path of travel to an ambulant sanitary facility a minimum of 900mm is to be provided between successive doorways. Construction documentation should demonstrate compliance.	Capable of Complying
13.5	Door controls	Door handles are to comply with the requirements of this clause.	Capable of Complying

1428.1 clause	Title	Assessment and Comment	Status
		Door handles should allow the door to be unlocked and opened with one hand, be located between 900mm and 1100m above FFL, the handle must be such that the hand of a person will not slip from the handle and the clearance between the handle and door face shall not be less than 35mm and more than 45mm. This level of detail is not currently documented on the plans. Construction documentation should demonstrate compliance.	
14	Switches and general-purpose outlets	All switches and controls on an accessible path of travel are required to be located between 900mm and 1100mm from FFL and not less than 500mm from internal corners. General purpose outlets are required to be located between 600mm and 1100mm from the finished floor level not less than 500mm from internal corners. This level of detail is not currently documented on the plans. Construction documentation should demonstrate compliance.	Capable of Complying
15	Sanitary facilities and showers	Accessible unisex toilet facilities are required to be designed in accordance with the requirements of this Section. The general dimensions of proposed accessible facilities can achieve compliance with the requirements of AS1428.1-2009. Specification of fixtures and fittings will be required for future review. Construction documentation should demonstrate compliance.	Capable of Complying
16	Ambulant sanitary facilities	Ambulant sanitary facilities are required to be provided at each bank of toilets where an accessible facility is provided in addition to another sanitary facility. The general dimensions of the accessible facilities comply with the requirements of AS1428.1-2009. Signage, compartment door clearance (700mm) grabrails, coat hook and toilet paper dispenser	Capable of Complying

1428.1 clause	Title	Assessment and Comment	Status
		are to be provided in accordance with this clause.	
17	Grab rails	Grab rails are required to comply with the requirements of this provision. This level of detail is not currently documented on the plans. Construction documentation should demonstrate compliance.	Capable of Complying
18	Assembly Buildings	Fixed seating is not proposed.	Note
A4	Access controlled entry	Where provided, access control or intercom button into a secure carpark should be positioned to allow a driver to use the device. Any ticket system should cater for someone who may have a weak hand grip. This level of detail is not currently documented on the plans	Capable of Complying

5. CONCLUSION

The design, as proposed, is considered capable of complying with Part D3 and clauses F2.4 and E3.6 of the BCA 2019 and relevant Australian Standards, as listed within Section 2.3.

This report has provided information to be incorporated at design development and identified areas where a performance-based approach might be pursued. Whilst the design will be developed at construction certificate stage, it is our view that the changes will not impact the overall design.

APPENDIX 1

Assessed plans prepared by Noxon Giffen:

Plan Title	Drawing No	Revision	Date
Notes & Schedules – Cover Sheet	DA1.01	A1	11.04.2019
Notes & Schedules – Legend & Notes	DA1.02	A1	11.04.2019
Notes & Schedules – QGFT Materials & Finishes	DA1.10	A1	11.04.2019
Site – Plan – Locality Analysis	DA2.01	A1	11.04.2019
Site – Plan – Site Analysis	DA2.02	A1	11.04.2019
QGFT GA – Plan – Site & Ground Floor	DA3.01	A1	11.04.2019
QGFT GA – Plan – Level 1	DA3.02	A1	11.04.2019
QGFT GA – Plan – Level 2	DA3.03	A1	11.04.2019
QGFT GA – Plan – Level 3	DA3.04	A1	11.04.2019
QGFT GA – Plan – Roof	DA3.10	A1	11.04.2019
QGFT GA – Elevations– North & South	DA3.20	A1	11.04.2019
QGFT GA – Elevations– East & West	DA3.21	A1	11.04.2019
QGFT GA – Sections	DA3.25	A1	11.04.2019
QGFT GA – Sections	DA3.26	A1	11.04.2019
QGFT – Details - Signage	DA3.40	A1	11.04.2019
QGFT-C GA – Plan – Site & Ground Floor	DA4.01	A1	11.04.2019

QGFT-C GA – Plan – First Floor	DA4.02	A1	11.04.2019
QGFT-C GA – Plan – Typical Floor	DA4.03	A1	11.04.2019
QGFT-C GA – Plan – Roof Stage 01	DA4.10	A1	11.04.2019
QGFT-C GA – Plan – Roof Stage 02	DA4.11	A1	11.04.2019
QGFT-C GA – Elevations – Stage 01	DA4.20	A1	11.04.2019
QGFT-C GA – Elevations – Stage 01	DA4.21	A1	11.04.2019
QGFT-C GA – Elevations – Stage 02	DA4.22	A1	11.04.2019
QGFT-C GA – Elevations – Stage 02	DA4.23	A1	11.04.2019