CONRAD GARGETT AMW

HURLSTONE AGRICULTURAL HIGH SCHOOL (HAWKESBURY)

ACCESS REVIEW

HASH-00-SD-AC-RP-B

Morris Goding Accessibility Consulting

FINAL

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1. EXECUTIVE SUMMARY

The Access Review Report is a key element in the design development of the new Department of Education High School known as Hurlstone Agricultural High School (Hawkesbury), located off Vines Drive within the Western Sydney University Hawkesbury Campus, and an appropriate response to the AS1428 series, Building Code of Australia (BCA), DDA Access to Premises Standards (including DDA Access Code) and ultimately the Commonwealth Disability Discrimination Act (DDA).

Morris-Goding Accessibility Consulting has prepared the Access Report to provide advice and strategies to maximise reasonable provisions of access for people with disability. The proposed developments have been reviewed to ensure that ingress and egress, paths of travel, circulation areas and sanitary facilities comply with relevant statutory guidelines, and in addition, compliance with other relevant accessibility standards or targets set by the project.

In general, and in consideration of the existing site topography surrounding the development sites, the proposed developments provide reasonable access provisions for people with disabilities. In line with the report's conclusions, the proposed developments have demonstrated an appropriate degree of accessibility. The Development Application drawings indicate that compliance with statutory requirements pertaining to site access, paths of travel, and access to common and sanitary facilities can be readily achieved.

The issues raised in this report are to be developed in the ongoing design development stage and should be confirmed prior to construction certificate stage. As the project proceeds, further review of documentation is strongly recommended to ensure that appropriate access is provided to and throughout the developments.

2. INTRODUCTION

2.1. BACKGROUND

Conrad Gargett AMW (Client) has engaged Morris-Goding Accessibility Consulting to provide a design review of the new Department of Education High School known as Hurlstone Agricultural High School (Hawkesbury), located off Vines Drive within the Western Sydney University Hawkesbury Campus.

The proposal is for a new school on a greenfield site comprising four main building structures:

Building 01 – A single level structure for Admin / staff functions

Building 02 – A three level structure comprising Library, GLS rooms and staff functions

Building 03 – A three level structure comprising TAS, GLS and Science rooms

Building 04 – A single level structure comprising Gym and GLS rooms

The proposed development is expected to only come under BCA classification 9b.

The requirements of the investigation are to:

- Review supplied drawings of the proposed developments;
- Provide a report that will analyse the provisions of disability design of the development, and
- Recommend solutions that will ensure the design complies with the Disability Discrimination Act (DDA), DDA Access to Premises Standards, Building Code of Australia (BCA), relevant Australian Standards, and relevant enhanced requirements set by the project.

2.2. OBJECTIVES

The Report seeks to ensure compliance with statutory requirements and enhanced requirements set by the project. The Report considers user groups, who include students, staff, visitors and members of the public. The Report attempts to deliver equality, independence and functionality to people with disability inclusive of:

- People with mobility impairment (ambulant and wheelchair);
- People with sensory impairment (hearing and vision); and
- People with dexterity impairment

The Report seeks to provide compliance the Disability Discrimination Act 1992. In doing so, the report attempts to eliminate, as far as possible, discrimination against persons on the ground of disability.

2.3. LIMITATIONS

This report is limited to the accessibility provisions of the buildings in general. It does not provide comment on detailed design issues, such as: internals of accessible/ambulant toilet, fit-out, lift specification, slip resistant floor finishes, door schedules, hardware and controls, glazing, luminance contrast, stair nosing, TGSIs, handrail design, signage etc. that will be included in construction documentation.

2.4. ACCESSIBILITY OF DESIGN

The proposed designs will utilise the Federal Disability Discrimination Act (DDA), Disability (Access to Premises – Buildings) Standards 2010, BCA/DDA Access Code, the AS 1428 Series, and other design guidelines, to develop appropriate design documentation, to provide reasonable access provisions for people with disability.

The Project Architects and an appropriately qualified accessibility consultant will examine key physical elements during design development stage, to identify physical barriers and incorporate solutions as a suitable response to disability statutory regulations and other project objectives.

The design will be developed to ensure the principles of the DDA are upheld. Under the DDA, it is unlawful to discriminate against people with disability in the provision of appropriate access, where the approach or access to and within a premises, makes it impossible or unreasonably difficult for people with disability to make use of a particular service or amenity.

The design will comply with the requirements of the DDA Access to Premises Standards and include requirements for accessible buildings, linkages and the seamless integration of access provisions compliant with AS1428.1. The developed design will consider all user groups, who include members of the public, visitors, students and staff members.

2.5. STATUTORY REQUIREMENTS AND OTHER GUIDELINES

The statutory and regulatory guidelines to be encompassed in the developed design to ensure effective, appropriate and safe use by all people including those with disability will be in accordance with:

⇒ Federal Disability Discrimination Act (DDA);

⇒ Disability (Access to Premises – Buildings) Standards 2010;

⇒ Building Code of Australia (BCA) Part D3, F2, E3;

⇒ AS 1428.1:2009 - (General Requirement of Access);

⇒ AS 1428.4.1:2009 - (Tactile Ground Surface Indicators);

⇒ AS 2890.6:2009 - (Parking for People with Disability);

⇒ AS 1735.12:1999 - (Lift Facilities for Persons with Disability);

⇒ Disability Standards for Education 2015

⇒ Educational Facilities Standards and Guidelines

⇒ Hawkesbury Development Control Plan 2002

Please note that there are also additional advisory standards (not currently referenced by BCA or DDA Premises Standards) as well as other relevant guidelines that will be considered, as relevant to promote equity and dignity in line with over-arching DDA principles and aspirational objectives. These include:

⇒ Universal Design Principles (**refer to detail below**)

⇒ Human Rights Commission (HEREOC) Advisory Note February 2013 on streetscape, public, outdoor areas, fixtures, fittings and furniture.

⇒ ABCB 2013 Handbook Lifts used during Evacuation

⇒ AS1428.2:1992 Enhanced and Additional requirements (referenced in EFSG)

⇒ AS1428.4.1 Draft Way-finding Standard

⇒ AS1428.5 Hearing Augmentation

Universal Design Principles

MGAC supports the use and consideration of universal design (UD) principles into the design to maximize access for all people. We will assist the design team to incorporate UD principles where possible within the project, while still meeting mandatory compliance requirements.

Universal design principles consider the needs of a broad range of people including older people, families with children and pushing prams, people from other cultures and language groups, visitors in transit and people with disability. By considering the diversity of users, the design will embed access into and within it, so that benefits can be maximized, without adding on specialized 'accessible' features that can be costly, visually unappealing and may perpetuate exclusion and potential stigma.

The seven key Universal design principles to consider in the on-going design include:

⇒ Principle 1: Equitable Use

⇒ Principle 2: Flexibility in Use

⇒ Principle 3: Simple and Intuitive Use

⇒ Principle 4: Perceptible Information

⇒ Principle 5: Tolerance for Error

⇒ Principle 6: Low Physical Effort

⇒ Principle 7: Size and Space for Approach and use

3. EXTERNAL ACCESS LINKAGES

3.1. General

In general, an accessible path of travel from the main pedestrian entry point at the development site allotment boundary on Vines Drive to all building entrances, as shown on the drawings, demonstrates that compliance with AS1428.1:2009 can be achieved.

An accessible path of travel between new buildings that are connected by a pedestrian linkage, within the development site allotment boundary, compliant with AS1428.1:2009 can be achieved.

The provision of slip-resistant flooring surfaces within all areas that are required to be accessible with appropriate minimum wet pendulum test rating under HB198/AS4856 is achievable.

Recommendations:

(i) Provide details at CC stage demonstrating compliance (in accordance with AS1428.1) of the new access paths relied on for path of travel to and between buildings from the principal pedestrian entrance at the site boundary.

4. INGRESS & EGRESS

4.1. General

The design of all building entrances required to be accessible will be developed to achieve accessible doors with 850mm min. clear width opening and suitable door circulation area, compliant with AS1428.1:2009. Where manual doors are required they will be detailed to achieve lightweight door forces to be operable by people with disability (20N max.) and where possible main entrances are preferred to be automated doors for ease of access.

Generally all entrance doors offer the necessary clear width openings and circulation.

Recommendations:

(i) Provide details at CC stage demonstrating compliance of the entrance doorways with the requirements of AS1428.1.

5. PATHS OF TRAVEL

5.1. Level of Access Within Buildings

Access is to be provided according to the BCA and DDA Access Code Part D3 including Table D3.1 for the range of building classifications present in the scheme, at this time understood to only consist of:

- Class 9b – School

For Class 9b areas: Access is required from building entrance/s:

Under Table D3.1:

- To and within all areas normally used by the occupants (including public, visitors, staff, students etc.) in compliance with AS1428.1:2009. Note: this excludes any areas exempted under Part D3.4 e.g. loading docks, plant/equipment rooms. Note: this may need to be reviewed on case by case basis.

On the current level of detail compliance appears to be achievable.

5.2. General Requirements

The design of all common area circulation paths of travel required to be accessible throughout the buildings, such as at lift lobbies, corridors etc. will be developed during ongoing design development and can achieve compliance with AS1428.1:2009, including:

- Wheelchair access to and through any external entrances to/from any outdoor terrace areas;
- Wheelchair passing bays (1800mm width x 2000 length) at 20m maximum intervals along access-ways;
- Turning spaces (at least 1540mm W x 2070mm L) within 2m of every corridor end and at 20m maximum intervals along all access-ways (under EFSG these are required at 6m maximum intervals);
- 1000mm minimum width paths of travel when travelling in linear direction and increased clear width paths of travel required for doorway circulation, turning areas etc (under EFSG minimum width is 1350mm);
- slip-resistant flooring surfaces with appropriate minimum wet pendulum test rating under HB198/AS4856.

Generally all required circulation paths throughout are compliant.

5.3. Doors

In general, common use doors within the development can achieve a minimum 850mm clear width opening (920mm door leaf) and appropriate door circulation compliant with AS1428.1 Fig. 31. This is a requirement for all common doors leading to areas required to be accessible unless exempt under BCA Part D3.4. Double leaf doors must also be

suitably wide such that the active leaf will offer the necessary minimum clear opening width of 850mm. Sliding doors also carry requirements for clear width and clearances.

Generally all doors offer the necessary clear width openings and circulation. There are minor instances of some doorways with reduced latch side clearance caused by the configuration (e.g. C.Advisor) and amendments are required. There are minor instances of door circulation impeded by fixed, or large format loose furniture and amendments are required.

Recommendations:

(i) Review the required circulation area forward of all common use doors and make amendments where impeded by fixed furniture or other obstructions.

(ii) The use of sliding doors is common, particularly at Building 02 and Building 03. Often these doors are paired with a hinged type which is expected to offer the accessible door, however in some cases the sliding door is not paired with a hinged type and it is not always clear on which panel in the arrangement is intended as the operable leaf. Review is required of door circulation at the active leaf, particularly where the door appears to be presently impeded by joinery or located to close to an internal corner of the room. Note, sliding doors dividing areas on the floor, which are not used as the principal entrance into the room, and which do not achieve the required circulation can be supported as such under a Performance Solution as the decision to open or close these would be made by staff and operated by able bodied staff.

5.4. Stairs

There are a number of stairs described in the scheme which connect the various levels of Building 02 and Building 03, including:

-Building 02 external walkway stair (1)

-Building 02 internal stair (1)

-Building 03 external walkway stairs (4)

-Building 03 external walkways stair opposite lift (1)

-Building 03 central void stairs, linking Level 01 and Level 02 (2)

Stairs are required to be designed in full accordance with AS1428.1. Although the required features (such as handrails, nosings, TGSIs etc.) are not always fully described on the drawings compliance is achievable and will be developed during detail design and will be demonstrated at CC Stage.

Recommendations:

(i) Provide details at CC stage demonstrating compliance of the stairs to the requirements of AS1428.1.

5.5. Walkways

All buildings are understood to share a common Ground Floor RL therefore pathways to and between buildings are expected to be near level. There are no ramps, walkways or

stairs expected to be incorporated in the landscape design, at least in so far as access to and between buildings. It is understood that such features may be proposed and incorporated to access the watercourse and agricultural activities west of the site (enterprise 01 and enterprise 02).

The only walkways associated with the buildings are the pathways which rise over Building 01 and connect the street with the central circulation ring at Level 01. These pathways are understood to be 1:20 maximum grade and will incorporate all required level landings for rest opportunities and wheelchair turning and passing at the change in direction of the zig-zag pattern. Full compliance of the walkways with the requirements of AS1428.1 is expected to be easily achieved.

These walkways must be designed in compliance with AS1428.1, with particular attention to required level landings, circulation for turning/passing areas and edge protection as part of landscape design detailing.

Recommendations:

(i) Provide details at CC stage demonstrating compliance of any walkways in the scheme to the requirements of AS1428.1.

5.6. Lifts

Passenger lifts have been included in the layout to provide access to the upper levels of Building 02 and Building 03.

Under the DDA Premises Standards and AS1735.12 as the lifts do not travel more than 12m the lift car floor size is required to be at least 1100mm W x 1400mm L under Table E3.6(b). The indicative spatial allowance for the car and the lift shaft would suggest that the required car size can be easily accommodated and this in addition to lift car components (grabrail, call/control buttons, lighting, arrival indicators etc.) will be detailed to comply with AS1735.12 and Part E3.6 at CC Stage.

Generally, the areas in front of the passenger lifts have sufficient circulation spaces (to allow 360° turn) and will allow a person with or without a mobility aid (i.e. wheelchair) the ability to enter and exit the passenger lift in an equitable and dignified manner, compliant with AS1428.1:2009.

The passenger lifts are appropriately located within the layouts, reducing travel to reasonable distances and being close to base building amenities. Due to the large size of Building 03 it is recommended that an additional lift is inserted into the layout (ideally near the front of the building for visibility) to further reduce travel distance, and provide a more equitable distribution of accessible and non-accessible vertical transport. Under the DDA Premises Standards non-accessible pedestrian entrances to buildings must be no further than 50m to an alternative accessible entrance to the building. MGAC apply similar logic to the location of accessible and non-accessible means to travel between floors in a building i.e. a non-accessible accessway between floors e.g. stair, ideally must be no further than 50m from an accessible accessway between floors e.g. lift or ramp. The provision of an additional lift at Building 03, in addition to reducing the distances between accessible and non-accessible vertical transport, will also provide backup for lift maintenance or breakdown. Such measures may mitigate potential DDA complaints.

Recommendations:

(i) Provide details at CC stage demonstrating compliance of the passenger lifts with the requirements of AS1735.12.

(ii) Consider an additional passenger lift near the front of Building 03, to further reduce travel distances in the building to the nearest lift, and also to reduce the distance between lifts and stairs, and in the process provide for backup in the event of lift maintenance or breakdown (advisory).

6. SANITARY FACILITIES

6.1. General Requirements

The BCA and DDA Premises Standards contain requirements for sanitary facilities suitable for the use of persons with disability. These requirements can be summarised as follows:

- For Class 9: Provide at least 1 unisex accessible toilet, adjacent to every bank of toilets (where provided) on each storey, compliant with AS1428.1 under BCA/DDA Access Code part F2.4. If more than 1 toilet bank is provided on each level an accessible toilet is required at 50% minimum of toilet banks at each level.
- As even a number of left hand (LH) and right hand (RH) transfer WC pans (at accessible toilets) as possible is required within the building under DDA Premises Standards Part F2.4 (g). Alternating LH/RH layouts on each subsequent level is viewed as the most appropriate and inclusive approach.
- An ambulant cubicle is required within every standard toilet bank adjacent to an accessible toilet under the DDA Access Code Part F2.4 compliant with AS1428.1:2009.

6.2. Accessible Toilets

Unisex accessible toilets have been incorporated into the layouts to an appropriate extent to achieve compliance. Although the layouts do not yet feature a high level of detail at this stage, the spatial allocation for the accessible toilets generally suggests that compliant room dimensions can be achieved. The layout of the toilets must be in full accordance with AS1428.1. This is achievable.

Amendments are required at Building 02 and Building 03 to mirror the configuration of some toilets. At present all of the accessible toilets in these buildings are shown as LH transfer WC pans. Reversing the configuration on Level 01 at Building 03 and on Level 02 and Ground Level (building interior) of Building 02 is the most equitable approach.

Through design development, compliance is achievable and will be demonstrated at CC Stage.

Recommendations:

(i) Provide details at CC stage demonstrating compliance of the accessible toilets to the requirements of AS1428.1, including reversal of configuration to certain toilets to meet the requirement for even balance of transfer WC pans.

6.3. Ambulant Cubicles

Ambulant cubicles, compliant with AS1428.1 are required at all banks of male and female toilets, that are adjacent to unisex accessible toilets throughout the building under the DDA Premises Standards Part F2.4 (c).

This is relevant to several toilet banks throughout the school, including:

-Building 01, adjacent to Staff Study

-Building 02, all toilet banks

-Building 03, toilet banks adjacent to lift on all three levels

-Building 04, change rooms north of Gym

Generally the spatial provision is in place for compliance although only some of the above toilet banks imply an ambulant cubicle (with restricted width compartment at the WC pan).

Through design development, AS1428.1 compliance is achievable and will need to be demonstrated at CC Stage.

Recommendations:

(i) Provide details at CC stage demonstrating compliance of the ambulant toilets to the requirements of AS1428.1.

7. ACCESSIBLE CAR PARKING & COMMON FACILITIES

7.1. Accessible Car Parking

The proposal does not yet indicate any parking component as the project proposes to utilise the existing adjacent WSU carparking facilities. Should this change, i.e. if parking is included in the scheme within the site boundary, it is to be noted that the BCA and DDA Premises Standards contain requirements for accessible car parking. These requirements can be summarised as follows:

- Class 9b School: Provide 1 accessible car bay for every 100 car bays or part thereof, compliant with AS2890.6.
- All accessible car bays must be located to provide an accessible path of travel, compliant with AS1428.1 to the building (ie. relevant lifts and/or associated entry points) under DDA Premises Standards part D3.2 (1) (c). The intent is to minimise travel distances and ensure a safe accessible path of travel for people with disability when moving between their vehicle and building entrance.
- Ensure 2.5m min. height clearance, compliant with AS2890.6 fig 2.7 over accessible car bays with 2.2 m min. vertical clearance leading to these car bays. (Note: consideration for 2.3 or 2.4m min. height preferred for higher vans/adapted vehicles is recommended as good practice).

The use of the WSU carparking facility raises a DDA issue in that the current condition of the car park may not adequately cater for persons with disability. It is noted that the proposal includes a new entrance to this car park, bus drop-off zone and pathway link connecting with the main entrance pathway to the new school. It will be necessary to review the provision for accessible car parking at the existing WSU facility and review further detail of the pathway link to the school, to mitigate potential DDA issues.

7.2. Signage

Signage provisions (identification and directional, as required) will be developed to comply with BCA Part D3.6, Spec D3.6, and AS1428.1 requirements during design development. Compliance is achievable and will need to be demonstrated at CC Stage.

7.3. Hearing Augmentation

Hearing Augmentation provisions, will be developed in accordance with the DDA Premises Standard and BCA Part D3.7 where an in-built system of audio amplification is provided, other than a system used only for emergency warning. Compliance is achievable and will need to be demonstrated at CC Stage.

7.4. Lighting

In general the maintenance illumination levels should be 150 lux for paths of travel, corridors and stairs. Ensure all lighting levels comply with AS1680. Compliance is achievable and will need to be demonstrated at CC Stage.

8. CONCLUSION

MGAC has assessed the proposed scheme. The drawings of the proposal indicate that accessibility requirements, pertaining to site access, common area access, and sanitary facilities, can be readily achieved. It is advised that MGAC will work with the project team as the scheme progresses to ensure appropriate outcomes are achieved in building design and external domain design.