2.2.2 MANDATORY DESIGN OBJECTIVES

GENERAL

1. The provision of properly designed pedestrian routes is critical to the accessibility of a development or neighbourhood. The pedestrian routes are the connections that link different land uses and connect different transport modes to the buildings. The routes should be as direct as possible and free of obstructions.
2. The layout and levels of all pedestrian routes shall allow for safe unobstructed (vertically and horizontally) passage of all users. External spaces and the relationship between buildings and external spaces should be designed to minimise the requirements for steps and or ramps. Routes should be designed to provide visual, audible, tactile and olfactory clues that will aid navigation in addition to signs. This could be achieved by the use of planting, sculpture, fountains etc.
3. All pedestrian routes leading to building entrances shall be usable during emergency exit procedures. At least one route must provide the adequate width, lighting and levels to be considered as emergency egress route and form part of the developers emergency exit plan.
4. All pedestrian routes should ideally be shaded from direct sunlight by softscape or physical structures. Consider the sun path in Dubai to determine best position of shading, taking into account the existing shading caused by the surrounding buildings. The main pedestrian route and emergency egress route should be shaded in accordance with Section 3.5.
5. Due to hot climate of Dubai, large external areas will require seating for resting along pedestrian routes. These provide pleasant amenity for residents or workers wishing to enjoy the outdoor spaces. A combination of open and shaded spaces should be considered in the landscape design.
6. Materials should be selected to perform a number of functions e.g. differentiate areas, aid wayfinding, and provide visual and textural contrast. Safety is of primary importance and therefore surface materials should be firm, durable and easily maintained. Surfaces should generally be level and free from undulations and heavily chamfered joints between materials. Loose surface materials such as gravel should be avoided. Wherever possible drainage channels and services covers should be located outside the access route. Surfaces should provide sufficient traction for the safe use of wheelchairs.
7. The reflective values of materials should be considered to avoid both undue glare and heat gain in full sunlight, a particular problem in Dubai during summer months.
8. Tactile paving materials should be used to provide hazard warnings, aid wayfinding and identify controlled and uncontrolled crossing points.

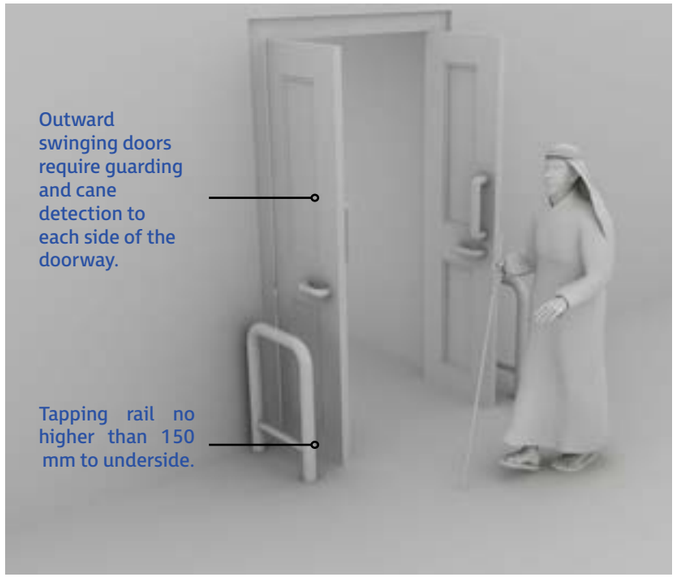

Figure 11 / Hazard Protection

2.3 PEDESTRIAN CROSSINGS

THIS SECTION DEALS WITH THE DESIGN AND PROVISION OF PEDESTRIAN CROSSINGS. THE SECTION DEALS WITH SIGNALISED AND NONSIGNALISED AT GRADE CROSSINGS PLUS GRADE SEPARATED CROSSINGS

PERFORMANCE OBJECTIVE

Deliver accessible pedestrian crossings to form a key part of the accessible pedestrian route outlined in 2.2, helping to deliver connectivity.

2.3.1 MANDATORY PROVISIONS

The design and provision of pedestrian crossings shall satisfy the performance objective if:

1. For roads with posted speed of 50 kph or less at grade crossings are provided at each junction and at mid-block locations where pedestrian desire lines are identified at the master plan level.
2. For roads with posted speed greater than 50 kph at grade signalised crossings should be provided.
3. Audible and tactile traffic signals shall be provided at all signalised crossings.
4. Footbridges and/or underpasses shall be positioned at key desire lines across major roads which sever pedestrian connectivity where safe at grade crossing is not possible. Footbridges should be used only where the introduction of an underpass is deemed infeasible for impractical.
5. The provision of ramps to serve the underpass or footbridge meet the requirements of accessible ramps and steps as set out in sections 3.2 and 3.3.
6. Drop-kerbs and tactile paving which meets the provisions set out in Section 2.2 be laid across the entire width of the crossing route. Where there is a change in level the slope shall be shallower than 1:20.
7. A minimum waiting area in a median should measure 2m x 1.5m in order to safely accommodate waiting users.
8. At vehicular plot access locations pedestrian priority shall be maintained by providing a minimum 1.8m wide section of footpath crossing the access point at the same level at the rest of the footpath and with a maximum cross-fall of 1:50.
9. The footpath shall be constructed in the same material as the adjoining footpath to further reinforce pedestrian priority.
10. The width of crossing points should be informed by an understanding of pedestrian flows with a minimum width of 1.8m to be applied to all crossings.

2.3.2 MANDATORY DESIGN OBJECTIVES

GENERAL

1. Pedestrians shall be at the top of the movement hierarchy when designing junctions and crossings. In busy pedestrian areas the use of pedestrian only phases to enable diagonal crossing should be considered.
2. Footbridges shall be roofed or climate controlled to create a comfortable pedestrian environment.
3. Underpasses and footbridges form part of the public realm and pedestrian routes and therefore all guidance that relates to pedestrian routes, lighting etc. are applicable.
4. Visibility and movement shall be as unrestricted as possible at busy pedestrian crossings.

2.3.2 MANDATORY DESIGN OBJECTIVES

The following provisions are deemed as desirable by DCCA and should be provided for all schemes where practicable. The provision of these features will contribute to achieving a higher accessible scoring. The desirable provisions are:

1. Where at grade crossings are provided raised crossings or raised tables should be provided to further reduce speed and reinforce pedestrian priority over vehicles.
2. In line with best practice internationally pedestrian guard railing should be avoided for all at grade crossing points.
3. On local streets kerb build-outs which reduce the width of the carriageway and provide shorter crossing points whilst enhancing visibility should be provided.
4. In addition to accessible ramps and steps an elevator should be provided and maintained to allow for wheelchair users accessing raised and sunken levels of footbridges or underpasses.
5. The underside of footbridges and routes of underpasses should be activated with uses, street furniture, pocket spaces in dense urban areas where the adjoining pedestrian route is lined with such features to avoid creating a dead space within the users journey.
6. Pedestrian waiting times at pedestrian signalised crossings should not exceed 2 minutes.
7. Pedestrian countdown indicators are provided at signalised crossings to better inform pedestrians crossing the road.