HOUSING DEVELOPMENT CORPORATION

PLANNING & DEVELOPMENT DEPARTMENT

PURE RESIDENTIAL HOUSING TOWER DEVELOPMENT GUIDELINES

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Contents

1. PLANNING GUIDELINES

1.1. INTRODUCTION

1.1.1. This section comprises planning and land use controls defined under these guidelines.

1.1.2. This guideline will be applicable to plots categorized and developed as 'Pure-Residential Housing Towers' in Hulhumalé. Pure-residential housing towers are defined as housing developments developed with residential developments with areas dedicated for amenities for the residents residing in the tower.

1.2. LAND USAGE

1.2.1. These allocated land plots are for the construction of Mix-Residential Housing units whereby it is used mainly for pure residential usage.

1.2.2. Commercial spaces should be accommodated as follows

1.2.2.1. 50% of the ground floor level should be allocated as commercial spaces. The rest of the area shall accommodate services, circulation & visitor parking.

1.2.2.2. 30% of first floor level should be accommodated as commercial spaces along the front periphery of the plot.

1.2.2.3. The area allocated for commercial use should not be compromised for any other purposes.

1.2.3. 1% of residential units should be designed for Persons with Disability (PWD). Please refer to 2.7 PWD accessibility of this document for additional details.

1.2.4. Terrace should be used as communal area. (not for residential usage).

1.2.5. Based on the plot area, location & land use plan, buildings are subjected to additional facilities such as convenience stores, commercial spaces, additional support facilities and restrictions.

1.2.6. The building should accommodate the required vehicular parking given under section 1.6 of this document.

1.2.7. Following are prohibited uses of these dwellings:

1.2.7.1. Any industrial use, any use where flammable materials are used, any use where the public is disturbed from loud noises, smell or dust generating and carrying activities, constructing godowns, etc.

1.3. BUILDING HEIGHT, F.S.I AND SETBACK PLAN

1.3.1. Building setback is provided with the Development guideline drawing along with building F.S.I and is calculated as:

$$\text{Floor Space Index (F.S.I)} = \frac{\text{Total covered area of the building (GFA)}}{\text{Plot area}}$$

1.3.2. Following spaces will be excluded from GFA

1.3.2.1. Parking Spaces

1.3.2.2. Basement parking

1.3.2.3. Terrace communal open areas

1.3.2.4. Ramp dedicated for parking

1.3.2.5. Open void

1.3.2.6. Service Duct

1.3.2.7. Lift void

1.3.2.8. Stair void of top floor

1.3.3. Building Height is subjective to the plot location, area of the plot and land usage.

1.3.4. No part of the building such as roof eaves, gutters and door/window panels, etc. should be projected out into the road beyond the building setback line.

1.3.5. The setback area at ground level can be utilized for circulation or parking but should not be covered above at any level.

1.3.6. The minimum distance between two building blocks/towers in a single plot must be not less than 10m unless stated otherwise.

1.4. DEPTH OF FOUNDATION

1.4.1. The depth of foundation for each building shall be determined by the structural engineer of the development.

1.4.2. The foundation protection method should be submitted with the final detail drawings.

1.4.3. An Environment Impact Assessment Report and Soil Inspection Report needs to be submitted with the detail drawings if:

1.4.3.1. The foundation of the structure is deeper than 1.8m below natural ground level

1.4.3.2. The building height exceeds 31m from the natural ground level

1.5. BOUNDARY WALL

1.5.1. Urban interaction is highly encouraged at street level to provide seamless integration of private and public space without compromising privacy and security.

1.5.2. If required, the developer map choose to have a boundary wall with perforated or demarcate the plot boundary with a natural green of maximum 1.2 meters.

1.5.3. A boundary wall of maximum 2 meters (from Natural Ground Level) is allowed on the rear and sides of the plot. In such a case, the solid portion of the wall is to be 1.2 meters in height with a perforation of up to 2 meters (from Natural Ground Level)

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1.6. PARKING

1.6.1. Parking spaces should be designed to an international standard (standard referred should be mentioned).

1.6.2. The specified amount of parking should be provided within the development site for both residents and visitors.

1.6.3. Parking spaces should be appropriately sized for movement in and around and should cater for disability and wheelchair movement where considered necessary

1.6.4. Basement parking is mandatory in all mix-residential developments.

1.6.5. Minimum clear height for basement should not be less than 2.7m

1.6.6. Car parking shall be provided as per the following ratio:

1.6.6.1. 1 car parking slot for every 3 apartments

1.6.6.2. An additional 10% of the total number of parking must be allocated for visitor parking

1.6.6.3. 3-5% of total number of car parking slots must be designed for people with disability (PWD)

1.6.7. Motorbike parking shall be provided as per the following ratio:

1.6.7.1. 1 motorbike for each 1 and 2 bedroom apartment

1.6.7.2. 2 motorbikes for each 3 bedroom apartment and above

1.6.7.3. An additional 10% of the total number of parking must be allocated for visitor parking

1.6.7.4. 3-5% of total number of motorbike parking slots must be designed for people with disability (PWD)

1.7. SERVICES

1.7.1. Consultation is to be done at concept level with service providers of electricity, plumbing, sewerage, GPON, as to how these could be economically and sustainably incorporated into the development.

1.7.2. All developments should provide the GPON fiber cabling system for commercial and residential units. Refer to in-building cabling guidelines.

1.7.3. Any space required by the relevant service provider for the installation or provision of a supporting facility (transformer, pump rooms, storage tanks, service stations, etc.) should be provided well within the given area for the development.

1.7.4. Dedicated utility space at either ground or first floor level should be provided for the provision and/or installation of relevant services as required.

1.7.5. The water quality should comply with the standards set forth by the Health Protection Agency (HPA) if proposed to use a private water supply.

1.7.6. In accordance with the EPA guidelines, it is required to have adequate storage of water (if possible with integrated rainwater harvesting systems) within the development for firefighting and any other emergency usage.

1.7.7. An approved firefighting layout for the development should be obtained from Maldives National Defense Force (MNDF) Fire and Rescue Services.

1.7.8. The discharge of foul water should be to a sewer network approved by the relevant service provider.

1.7.9. The layout of each utility network within the development should generally be in accordance with the established practice of the relevant service provider.

1.7.10. The garbage collection area (away from common areas) with easy access should be provided at each floor level and a central collection area at the ground floor with ease of loading/unloading vehicular access.

1.7.11. A waste management plan is to be developed along with the waste management authority to minimize public intrusion and ease of access.

2. DESIGN GUIDELINES

2.1. INTRODUCTION

This section will comprise of design controls and requirements imposed for this development.

2.2. ACCESS & CIRCULATION

2.2.1. A sheltered, safe and convenient vehicular drop-off/pick-up area, with universal access should be provided to all dwellings, facilities & services within the plot.

2.2.2. Frontage of the site and pedestrian & vehicular access ways into the site should be designed & constructed by the developer. This includes but is not limited to the pathways, lighting, softscapes, hardscapes & urban furniture.

2.2.3. All circulation routes and entrances should be well defined and well lit. The entrance should be highlighted as well and should be welcoming for walk-in entrances

2.2.4. An adequate amount of elevators should be provided along with an elevator traffic analysis report justifying the number of elevators.

2.2.5. At least one elevator must be fire rated and must be able to accommodate a stretcher.

2.2.6. An adequate number of staircases should be proposed based on the MNDF fire protection guidelines.

2.2.7. Demarcate and provide appropriate lighting on pedestrian routes.

2.2.8. Disability access should be integrated at all pedestrian and vehicular drop off/ pick up points.

2.2.9. If shared pathways (for vehicles and pedestrians) are to be provided within the development, appropriate markings should be used to indicate pedestrian prominence over vehicles.

2.2.10. Any corridor or walkway with one way and two-way traffic should have a minimum width of 900mm and 1250mm respectively.

2.2.11. Where stepped access is unavoidable especially at ground floor level, the steps should be designed as suitable for physically impaired persons or wheelchair users

2.2.12. Any slope provided for vehicular access should be between 1:8 to 1:12 and with a firm and even surface.

2.2.13. Any slope provided for pedestrian/PWD access should be between 1:10 to 1:12 with railings and a firm & even surface.

2.2.14. Every storey of a building shall be provided with exit facilities for its occupant load.

2.2.15. There shall be at least two independent exit staircases or other exits from every storey of a building where at least one staircase shall cater for emergency evacuation.

2.2.16. Pedestrian linkages from one building to the other is highly encouraged within the development to promote connectivity and pedestrian interaction

2.2.17. Vehicular pathways within the plot should be designed in a way that is safe, with minimum interruption to both pedestrian pathways and green verges within the plot and during ingress and egress

2.2.18. Use scored, colored, textured and/or similar paving that is distinguishable from the travel lane at the drop off area.

2.2.19. Illuminate all outdoor parking areas with illumination towards the paved areas only and not into any adjacent buildings.

2.2.20. Wherever parking is provided appropriate floor paint marking must be given.

2.2.21. Car parking size: 2.4m x 4.8m (100mm line thickness). Give an additional 300mm for the width of parking at every end.

2.2.22. Motorbike parking size: 2m x 1m (100mm line thickness)

2.2.23. Car parking spaces for people with disability: 3.4m x 4.8m with an adjacent minimum 2.4 m wide shared space for wheelchair transfers. (100mm line thickness)

2.2.24. Motorbike parking spaces for people with disability: 2m x 1.5m (100mm line thickness)

2.3. PUBLIC OPEN SPACES

2.3.1. Public open spaces are defined as common spaces, such as but not limited to courtyards or terraces, within the building.

2.3.2. Access ways and public areas within the development shall be overlooked by dwellings or otherwise open to surveillance by residents

2.3.3. Open space should generally be attractive and usable by different age groups. Undefined areas, badly shaped, fragmented or unusable spaces which are difficult to maintain should be avoided

2.3.4. A children's play area is to be provided within the development.

2.3.5. If landscaping is provided, either soft or hard (or both) at common areas, materials with good resistance to vandalism, non-slip and low maintenance should be chosen

2.3.6. Communal green space is to be provided within the development not less than the ratio at 1:1 of the building footprint

2.4. PRIVATE OPEN SPACES

2.4.1. Private spaces are defined as open spaces such as balconies or terraces only accessible through residential units.

2.4.2. All dwellings should be provided with private open space /balcony, adjacent to the main living area

2.4.3. The private open space/balcony can be used as or together with a drying area which should be screened from public view

2.5. COMMERCIAL

2.5.1. Each plot should have at least 1 double floor unit where the area is larger than 1,000 sqft

2.5.2. The double floor unit can be either an anchor tenant or a main unit.

2.5.3. A separate shaded drop off/pick up must be provided for commercial zone.

2.5.4. An elevator must be provided solely for the commercial zone for passengers and loading & unloading purposes.

2.5.5. Partition walls of commercial units shall be basic standard blockwork of minimum 100mm thickness and shall be finished as per guidance document.

2.5.6. All commercial unit entrances and access to corridors should accommodate a PWD access.

2.5.7. CCTV systems along with the cables are to be provided at all common areas.

2.5.8. Commercial unit façade walls will not be required.

2.5.9. Drainage must be provided where needed in all corridors and any other open spaces.

2.5.10. Distribution box to be provided in each unit including a separate meter for each unit.

2.5.11. Electrical main panel for commercial units should be provided

2.5.12. The main panel board and transformer should have excess capacity in addition to the required capacity in terms of Amp.

2.5.13. Water connection points and sewerage provisions shall be provided for each commercial unit.

2.5.14. Grease traps must be provided to the development according to MWSC requirement.

2.5.15. Adequate lighting that achieves average lux levels must be provided at all common areas such as corridors, elevator lobby, stairs, etc.

2.5.16. All common areas, such as lift lobby, corridors, walkways & public toilets should be fully finished by the developer.

2.5.17. All balconies, terraces, and where applicable railings should be provided at a minimum height of 1.2m.,

2.5.18. All units should have adequate electricity capacity and provisions.

2.5.19. AC provisions should be given to all commercial units.

2.5.20. A PWD washroom must be provided.

2.5.21. GPON fiber cables should be provided for all units.

2.6. RESIDENTIAL

2.6.1. Consideration must be given to ease of access and circulation within the residential unit for all occupants especially for the physically impaired.

2.6.2. The pedestrian approach towards the entrance of units should be wide enough for two-way traffic and the main entrance of the dwelling at a minimum width of 900mm.

2.6.3. Weather-resistant non-slip material should be provided where necessary

2.6.4. Adequate lighting should be provided to all residential units.

2.6.5. Design and layout should make use of natural daylight as much as possible to encourage minimum use of electrical lighting.

2.6.6. Opening panels of windows, above ground floor level, should be at a minimum height of 1000mm above the internal floor finish level and any opening below 1000mm should be protected with a safety railing.

2.6.7. Private open spaces/balconies should have a minimum clear width of 1000mm.

2.6.8. Glazing used for doors and windows should be safe and with a nominal thickness proportionate to the area of the panel as per British Standard or equivalent.

2.6.9. Wherever a railing is provided, it should be safe for all occupants, especially for children, with a minimum distance of 125mm openings between the railing members where applicable.

2.6.10. Additional safety measures, to minimize the risk of falling over, should be taken if horizontal railings are to be provided.

2.6.11. Floor finishes in wet areas should be provided with slip-resistant surfaces.

2.6.12. Every dwelling should be connected to electricity and GPON networks.

2.6.13. Every dwelling should be provided with an adequate pressure of water for domestic use as per the service providers' requirements.

2.6.14. All units must have dedicated and adequate spaces/ledges for AC outdoor units, which must be properly screened from public view.

2.6.15. All units must have a minimum finishing level as per the Finishing Schedule in Design Guidance Document. This does not include any loose furniture.

2.7. PWD ACCESSIBILITY

2.7.1. Entrances

2.7.1.1. Easy accessibility between internal and external spaces, and between internal spaces, provides a safe transit point for people with limited mobility and people who use a wheelchair.

2.7.1.2. Guidelines to consider:

- **a)** Entrance to apartment, common spaces, at least 1 apartment and en suite must be a minimum 850mm (clear)
- **b)** Minimum 1500mm diameter circle should be given to allow for easy maneuverability
- **c)** Provide even, non-slip surfaces
- **d)** Provide ramped access for ease of dealing with more than one level and for easy entry from external to internal spaces
- **e)** Provide lighting for safety and security
- **f)** Install sounding devices, such as a doorbell, to identify visitors

2.7.2. Indoor circulation

2.7.2.1. Circulation through different spaces must be well planned for easy maneuverability, especially for people with limited mobility and people who use a wheelchair.

2.7.2.2. Incorporate spaces wide enough for wheelchair access

2.7.2.3. Ensure door handles are lever handles

2.7.3. Bathrooms and toilets

2.7.3.1. At least 1 en suite should be designed and furnished for maximum comfort and ease of use.

2.7.3.2. The en suite should be designed so that a clearance of 1500mm diameter circle is given to allow for easy maneuverability.

2.7.3.3. The following aspects should be included in at least 1 bathroom of allocated PWD units.

- **a)** Minimum 850 mm width door, preferably opening out or sliding.
- **b)** Sufficient space for people using wheelchairs or other assistive devices.
- **c)** Adequate handrails and grab bars to assist people to get to and from a wheelchair and to assist people with reduced strength.
- **d)** Security and privacy feature so users can easily close and lock the bathroom or toilet door.
- **e)** Toilets with a minimum dimension of 1.6 m x 2.4 m, or 2.0 m x 2.7 m if a shower is included and with an in-swinging door.
- **f)** Toilets located against the wall diagonal from the entry door.
- **g)** Firmly fixed-grip rail next to the WC, 800 mm high.
- **h)** Accessories, such as mirrors and towel rails, 900 mm to 1.1 m high.
- **i)** Firmly fixed washbasin to the wall at a height of between 800 mm to 850 mm.
- **j)** Single-lever taps.
- **k)** Drop-down or removable shower seat in the shower.

2.7.4. Kitchens

2.7.4.1. Provide work surfaces at a comfortable height for people using wheelchairs

2.7.4.2. Provide ease of access to the opening and closing of windows and doors.

2.7.5. Bedroom & living room

2.7.5.1. At least one bedroom should be designed and furnished for maximum comfort.

2.7.5.2. A clearance of 1500mm diameter circle must be provided to allow for easy maneuverability.

2.7.5.3. Entrance door should be a minimum 850mm (clear).

2.7.5.4. Provide lighting for safety and security

2.7.6. Ensure that all aspect of the building complies with the Maldives Disability Act.

2.8. STRUCTURAL & CIVIL WORKS

2.8.1. The designed lifespan of the main structure should be a minimum of 50 years.

2.8.2. The structural design must be done in accordance with British standards or any superseded European standard (Eurocode). The developer must include a local registered engineer during the design process and should get the drawings stamped by an accredited structural checker.

2.8.3. Necessary standards for construction to ensure the quality of workmanship and site safety during construction should be followed

2.8.4. At the concept stage as a deliverable, the developer should propose a structural system/material as well as the proposed methodology brief with the above mentioned standards.