

# **Guide Manual for Construction in Marota City**

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The guide's objective:

To provide an overview of the architectural design demands and the minimum requirements that must be achieved in buildings' design and execution to ensure a distinct urban level, with specifying the basic obligations of the owner (licensee) towards management.

- Administrative Events      3%
- Public Built –up            6%
- Investments Events        9%
- Residential Areas         18%
- Roads                        29%
- Green Areas                35%

## General architectural requirements:

To recognize all the details regarding the areas, floors number, building relation with the surrounding , the plot`s perimeter description must be reviewed.

Through the general and special conditions of each plot, the presence of a coating line and a moving line, that enable mass discharge and give added aesthetic value to the building; volumetric formation, and optimal use of spaces, the planner is therefore free to creatively design while allowing the existence of: hanging gardens, shared swimming pool as well as the rooms necessary for its equipment. Gym within the common property of residential buildings. Use of perimeters as interactive living spaces (gardens - playgrounds ....), establishment of basements on the entire area of the plot allowing additional spaces for services and garages.

This is in addition to abiding with the following:

- No placing of mechanical tools on the front of the building, and hide them within technical floors, skylights or in suitable places inside the building (with good sound, thermal and water insulation)
- External building illumination at night in an appropriate technical way.
- Making a beautiful hall within the building entrance with a reception booth (private security guarding) that is appropriately separated from the service rooms and warehouses of the building in order to avoid inappropriate incidents .
- Providing technically, aesthetically adequate place for the conversion center and the private auxiliary power generation set.
- Providing additional parking for visitors in basements, especially in investment and mixed buildings
- Providing unified water tank for the building and prohibiting the installment of individual water tanks.

Eco-architecture and sustainability:

The environmental factor is very important and must be taken into account while designing to achieve a sustainable eco-friendly building that meets the following criteria:

- Use of energy and water saving technologies.
- Use of clean and renewable energies.
- Taking into account the direction of wind and sun, and use solar breakers and plants.
- Thermal, water and sound insulation.
- Garbage sorting and separation according to the required standards.
- Plants shall be watered by water provided by management from central processing stations. The use of fresh water for watering plants is prohibited.

## **Safety and fire control:**

Safety standards that raise the level of buildings in terms of design are of utmost importance, especially in terms of fire alert, fire control, and survival.

Building stairs are the main means of exit during fire, therefore must be designed and implemented with reinforced concrete walls and fire-proof doors for time periods adequate with the number of occupants of the building, the floor space, number of floors, as well they must be illuminated with signs and an emergency lighting unit to facilitate access to these stairs.

In terms of alerting, it is necessary to provide early fire detection systems in all floors and architectural spaces of the building of various uses.

For firefighting , a special water tank for fire in each building must be secured , ensuring firefighters easiness of access to water outlets when a fire breaks out, in addition to equipping the building with a fire fighting mechanism on each floor through hoses or sprays according to the functional use of the architectural space.

- Bicycle path .
- Bus Route .
- Treated water network .
- Means of communication and Internet services.

### **Advanced services and infrastructure:**

Marota City's infrastructure provides speed, accuracy and comfort to occupants in various service fields.

#### First: Waste Management:

In order to achieve a clean city, it is necessary to spread awareness on the necessity of separating the waste and applying the principle of recycling.

That is by obligating the occupants to sort the waste according to the required standards, and dumping it through the hole in the wall of the waste room in each floor to ensure that it was sorted, and delivered to the main waste room in the basement.

The garbage trucks then will collect them from inside the building to outside the area, thus maintaining a clean environment and streets free of containers and garbage collection places.

#### Second: Gas Network:

Marota City is equipped with an advanced central gas system that provides residents with gas for cooking, heating water, heating and powering the electric generating set, through smart meters placed in dedicated rooms connected to the basic gas network. The use of the conventional gas containers in buildings is prohibited, as well as any type of petro-based derivatives.

#### Thirdly: Smart Network:

Through which smart building management is provided through fiber optic system from inside the apartment to the special panels room in the building; reaching the technical building management of the area, which provides multiple technical services. This network has control over smart meters of water, electricity, gas, monitoring system, cameras as well as communication system and phones that will be set. This will be implemented technically taking into account the quality of the cell signal inside the building, including elevators. Antennae systems, including central antennas, are prohibited and shall be replaced with IPTV.

## **Custom buildings for people with special needs:**

Building designers must observe the architectural and technical conditions necessary to serve this objective by:

- Ramps with carefully-studied slopes.
- Taking into account the width of the corridors within the building.
- Providing assistance elements for people of special needs in elevators and stairs.
- Providing entrances with handrails, handles and moving-assistant elements.
- Taking into account the dimensions of parking spaces of the disabled which should be close to elevator entrances.
- Provide buildings with guidance boards for people with special needs, sound systems, and other elements for the blinds.
  
- Basic obligations for the owner:
  - Commitment to all applicable laws and regulations
  - Holding the responsibility of any violation.
  - Obtaining the building license, executing construction by one or more classified engineers or contractors in order to achieve the minimum basic works following to obtaining the necessary housing permits according to the land Construction Law:
    - Execution of building structure, external and internal cladding, gardens, stairs, elevators and other public facilities of the building as a whole. Concerning inside the apartments, the main part of the cladding process is required to be executed (Interior fittings, interior doors carpentry, floors, final clay, exterior doors of all apartments).
    - Implementing all internal networks of the infrastructure, including the communication room with its components and communication boxes on the floors.
    - Installing telecommunication network equipment, power transformers and any connections, equipment or works required to

be implemented by the administration within the precinct of the organizational plot and pay its value to the management in addition to implementing everything related to the fire system, alarms and the rest of the common services managed in Smart Building style.

- Planting gardens within the perimeters of the plot and on the roofs, if found.
- Providing and installing facade cleaning equipment in the building.

It is the responsibility of the department owners to pay their smart meters.

Implementation phase requirements:

- Provide blueprints showing the locations of cranes in the implementation site to the management in order to obtain the necessary approval.
- The owner, the contractor and the supervising engineer will jointly consolidate to any damage that may occur in public properties or infrastructure outside the boundaries of the regulated plot. The management is not responsible of any disputes that might start among them.
- Implementing the necessary reinforcement for excavations according to the plans validated in the executive file
- It is prohibited to manufacture the concrete required to cast structural elements of the building at the site and is to be supplied from the licensed mixers with the appropriate technical conditions and specifications.
- The site should be kept clean with no wind-stirred dust and veils must be placed to hide the building under construction, in addition to not placing construction cones outside the boundaries of the plot.
- All necessary precautions must be taken for the safety of all workers and technicians working on site.
- Placing a temporal fence around the plot with the necessary guidelines and illumination. An introductory board must be placed at the entrance of the project, to show the following:  
The owner's name according to license – plot's number - name of the project, if found - name of the planning engineer, supervisor and contractor - number and date of the license and expiration date - a large picture of a three-dimensional perspective of the project.



- Transporting the drilling products to allocated place by the administration using suitable trucks, taking into account veil cover of the trucks to prevent dust from falling.
- plot will be connected to the general infrastructure network according to the coordinates and measures set by the management.
- Temporary electricity and water meters are required.

#### Supervision:

The management is authorized to entrust any party it deems appropriate to supervise the implementation and take the necessary actions regarding violations, if found, through the following:

- Field trips
- Viewing sample reports
- Checking the enforcement of safety conditions at the site.
- Conforming execution to the licensed plans.

The owner, planner, consultant and contractor must be fully aware of items in this manual and adhere strictly to it, within five months from the adoption date of this manual by the executive office, the governorate council will issue a decision to address violations of this manual or committed during implementation.