

**OBAFEMI AWOLOWO UNIVERSITY**



**DESIGN AND DEVELOPMENT GUIDELINES FOR THE  
STUDENTS' VILLAGE**

**Jan 2019**

# **GUIDELINES FOR THE DESIGN, PLANNING AND DEVELOPMENT OF THE STUDENTS VILLAGE**

## **Introduction**

This document is developed as a guide for developers who are submitting proposals to the Obafemi Awolowo University for the design and planning of new student housing. The guidelines in the document have been developed based on the experience of the University regarding the suitability and performance of the various design solutions, materials and construction systems that may be considered for use in university student housing.

The guidelines have not been developed with the aim limiting the creativity or ingenuity of the developers and related professionals. They are not intended to dictate the materials and the types of systems to be selected and thereby increase the cost of construction unnecessarily. They are guides for design and quality control. They have been designed to convey what the University considers minimum quality standards, expectations and institutional character. Developers are also encouraged to bring forward ideas which will improve the quality of these facilities. However, developers are not allowed to deviate from these guidelines without explicit permissions and approvals from the PPDU<sup>1</sup>. Requests for variations must be submitted in writing.

Information in this document shall be considered in conjunction with Town Planning Regulations and the National Building Code. The Guidelines covers the following:

1. General Design guidelines
  - a. Site Planning and Landscaping
  - b. Accommodation and related facilities
  - c. Building design
  - d. Exterior walls and Building Envelope
  - e. Windows
  - f. Roofing
  - g. Interior and Construction and finishes
  - h. Utilities
  - i. Other facilities
  - j. Exterior lighting
  - k. Development signage
  - l. Security
  - m. Water Supply
  - n. Electrical systems
  - o. Fire protection
  - p. Colour schemes
  
2. Specific Requirements
  - a. Main Entrance
  - b. Stairs and Ramps
  - c. Corridors
  - d. Bedrooms
  - e. Bathrooms

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<sup>1</sup> PPDU –Physical Planning and Development Unit

f. Kitchenettes and Laundries

3. Drawings to be submitted

**GENERAL DESIGN GUIDELINES**

The following are the guidelines which each developer is supposed to comply with for the site planning, design and construction of students housing within the students' village.

**a. Site Planning and Landscaping**

- i. Site boundaries should be clearly defined using fences which could be built using plants, hedges, masonry, timber or other materials but not higher than 1200mm
- ii. The minimum setbacks for bungalow buildings from the main access road shall be 9m and 4.5m from other side boundaries. For storey buildings, the minimum setbacks from the main access road shall be 12m and 6m from other side boundaries.
- iii. Fence lines in front of the access road should be at a minimum setback of 1.5m from the edge of the access road and shall be bevelled at 45degrees at a radius of 4m at corner roads
- iv. Within each individual plot(s), access ways shall connect the Student Housing Units to the common access roads
- v. Each developer shall provide carparks for its development at a ratio of 1 carpark to 25 students and a minimum of 10 parking spaces.
- vi. No development shall cover more than 50% of the land.
- vii. Clothes drying areas must be provided on the site in places that are not visually accessible to the public.
- viii. There should be provision for garbage disposal containers within the site and in close proximity to the major access road
- ix. Dustbin Enclosures and other service structures shall be located in non-prominent locations and screened as needed to avoid being visually distracting.
- x. Within each individual plot(s), no tree outside the building area shall be removed without consultation with the PPDU especially for of trees in areas that are not in conflict with building area.
- xi. Soft Landscaping (plant materials that are easily maintained and attractive) should be appropriately provided within each individual plot(s),
- xii. Appropriate trees should be provided to shade the car park and the access way from the street and it should be at appropriate distances from buildings and fences.
- xiii. Soft landscaping should cover at least 10% of the site.

**b. Accommodation and related facilities**

- i. Accommodation types allowed are the single, double, triple and four-bed type accommodations only.
- ii. Accommodation is to be provided for only OAU students.
- iii. The minimum size for a single bedroom is 6.5 sqm exclusive of built-in closets. Experience has shown that a minimum of 8.4 sqm is required to accommodate furniture typically provided by most campus hostels.
- iv. The minimum size for a multiple bedroom is 5.4sqm per person, exclusive of built-in closets. Experience has shown that a minimum of 15sqm is required in double bedrooms to accommodate furniture typically provided by most hostels.
- v. Students' accommodation must be provided with sanitary, kitchen and laundry facilities.

- vi. The minimum number of persons to sanitary facilities (wc and showers) is 1:5, this means not more than five students to one washbasin, one toilet, and one shower.
- vii. All bedrooms **must** be naturally ventilated and lit. Adequate ventilation and lighting must be provided. Mechanical ventilation **may** be provided as desired.
- viii. No building must exceed four floors (levels) at any point.
- ix. Butteries are allowed within the hostel units but not as kiosks in separate structures.
- x. Indoor recreation is also allowed. Outdoor recreational facilities which are allowed within the site are limited. The developer should consult the PPDU for permission.

### **c. Building Design**

- i. Each student housing facility shall incorporate the character of the area as determined by PPDU for the zoned areas. It shall also be constructed with cost-effective, durable, energy efficient and easily maintained materials.
- ii. All buildings must as much as possible have a north south orientation. Most of the living spaces<sup>2</sup> must be on the north/south ends of the building.
- iii. The size, scale, proportions, and massing of new buildings must be visually compatible with the prescriptions in the layout and in the zoned areas.
- iv. The floor to floor height of the building shall be sufficient to allow a minimum ceiling height of 2.7m on all floors.
- v. Natural light and ventilation for all living spaces are necessary.
- vi. It is desirable that all rooms are to be furnished at a quality level consistent with furnishings found in the housing on campus.
- vii. Many single unconnected buildings on the plots are highly discouraged. As much as possible all buildings/facilities (with the exception of the generator building) should be strongly connected to a whole unit.
- viii. Views to the outside are **expected** for all occupied spaces.
- ix. As much as possible the approach views of the buildings should face the common access road(s).

### **d. Exterior Walls and Building Envelope**

- a. A horizontal rather than a vertical image is preferred. Hence on the external wall surfaces, floor slabs should be highlighted using paint, recesses, mouldings or protrusions of about 150mm.
- b. Approved framing systems include steel and reinforced concrete. Timber framing is discouraged.
- c. Approved enclosure materials for the exterior wall finishes include concrete, brick, masonry, and stone.
- d. The exterior wall finish should be primarily in sand/cement rendering and paint.
- e. About 25-30% of the front elevation wall finish must be in other materials such as reddish brown bricks or reddish brown tiles.
- f. Colour finish should be consistent with the colour finish for each zone.

### **e. Windows**

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<sup>2</sup> Living spaces include bedrooms, living rooms and any other space where students spend substantial time in each day.

- a. Approved window framing materials include aluminium, steel, glass and timber.
- b. Window glazing shall be no less than 5mm thick glass.
- c. All windows on the external wall must be trimmed round with sand/cement mouldings painted in white **OR** (alternatively), all windows on external walls must have a trim of white paint. The thickness of the moulding or white paint must be 150mm- 200mm
- d. All external openings should have mosquito screens.

**f. Roofing**

- a. Roofs should be predominantly hip. All roof slopes should be predominantly 15° -25 °.
- b. Corrugated Iron sheets are not permitted.
- c. Roofs should overhang to protect all exterior walls.
- d. The use of parapet wall are highly discouraged.
- e. The roof colour would be as specified for the zone.

**g. Interior Construction and Finishes**

- a. Floor Construction: Ground floors must be constructed with Damp Proof Courses (DPC). All floors should be a minimum of 150mm thick.
- b. Floor to ceiling height minimum is 2700mm
- c. Skirting should be provided to protect the lower parts of all walls especially where the walls have been rendered and painted.
- d. Floor Finishes: Flooring that may become wet, such as at building entrances, public toilet rooms and student bathrooms, should be finished with non-slip materials. In addition, stairs and ramps should be finished with non-slip durable materials
- e. Wall Construction: Walls between units (apartments, suites or individual student bedrooms) should be a minimum of 150mm block work partition or any other material that is sound proof and fire resistant.
- f. Wall Finishes
  - i. All walls shall receive a minimum of two coats to the application of paint.
  - ii. The selection of interior wall finishes should be made with sustainability and environmental indoor air quality in mind.
  - iii. Wet area walls to be finished with ceramic tiles or other water resistant material.

**h. Utilities**

- i. Contact PPDU for information regarding existing utility services.
- ii. Unless noted otherwise, all electrical utilities shall be connected to existing public trunk lines and brought to the new facility as approved by the PPDU. The developer is responsible for the permitting and payment of all public agency fees.
- iii. Each developer is responsible for providing water supply into the building.
- iv. Water may be supplied through bore holes and public water. Approval for these need to be given by PPDU with respect to location.
- v. A secure refuse disposal area with refuse bins (adequate for the number of persons to be served) is required for each hostel. This disposal area shall be screened by an enclosure and readily accessible to evacuation trucks.
- vi. Each development must provide its septic tank and soak away in appropriate sizes in accordance with the capacity of the facility.
- vii. All sites must be well drained into gutters or soak-aways.

- viii. Surface water drainage should be provided by the developer and connected to main drains outside the plot.
- ix. Each developer should provide covered drainage in front of their developments along the common access roads.
- x. Drains should be a minimum of 600mm deep subject to the depth of the adjoining properties. Drains should be of 600mm width. It should be built with block and filled with concrete. It should be concrete base.
- xi. All waste and surface water should connect to the drainage at the front of the site
- xii. Each developer is responsible for connections to public electrical main lines.
- xiii. For developers building for more than 200 students, special arrangements will have to be worked out with PPDU where additional utilities are required.

**j. Exterior Lighting**

- i. Exterior lighting shall be provided for buildings by the developer to ensure safety and security. Lighting is required at all exterior doors.
- ii. At least two street lights as approved by the PPDU should be provided along the front boundary line for each plot allocated.
- iii. LED may be considered for exterior and interior lighting.

**k. Development Signage**

- i. Signage designs must be located on the building wall and must not be more than 4.0m<sup>2</sup> in area
- ii. Signage for emergency evacuation routes shall be posted in prominent locations within the hostel.

**l. Security.**

- i. The security of each hostel shall be the responsibility of the developer
- ii. Each developer should provide an annual database of residents and their profiles in the hostels to the University.
- iii. Accommodation is to be provided for only OAU students.

**m. Water Supply**

- 1. Each development shall provide its own water supply using a bore-hole or a public water system. The location of the water supply system which shall be approved by PPDU.
- 2. Soil and waste plumbing should be run internally and not appear on the outside of buildings.

**n. Electrical System**

- i. Lightning Protection: A lightning protection system should be installed for each building on the site.
- ii. Acceptable light levels for each area shall be in accordance with the ASHRAE standards Lighting Handbook.
- iii. If generators are provided, they must be provided in the location on the site where they do not disturb other developments. They must be visually screened off from the street. Their sound levels must also be minimal.
- iv. Each living area shall be provided with at least two electrical power outlets on at least two sides of the room

**o. Fire Protection**

- i. All facilities provide a fire protection system that complies in all respects to National Fire codes.
- ii. The systems of fire protection must be fully indicated on the design drawings.

**p. Colour schemes**

- a. For the one storey buildings the following colours should be used:
  - i. Roofing cover should be any shade of dark grey.
  - ii. Walls: apart from the 25-30% brick/tile finish on the front facade and the trimmings around the windows, all rendered walls should be painted with cream and dove grey/ash grey. The cream colour should be the predominant colour
- b. For the two-storey buildings, the following colours should be used:
  - i. Roofing cover colour should be tile red
  - ii. Walls: apart from the 25-30% brick/tile finish on the front facade and the trimmings around the windows, all rendered walls should be painted cream and sand/tile red. The cream colour should be the predominant colour.
- c. For both one-storey and two-storey buildings, the external walls of the foundation up to dpc levels should be rendered and painted in dark grey.
- d. On the external wall surfaces, floor slabs recesses; mouldings or protrusions of should be painted in white.

## **SPECIFIC REQUIREMENTS**

### **1. Main Entrance**

- e. Main entrance doors: At a minimum, one pair of double doors, each leaf being a minimum of 900mm inches wide, is required at main entrances to facilitate student move-in/out.
- f. Finishes in lobbies are as follows:
  - i. Flooring: Floor finishes should be durable, slip-resistant, easily cleaned materials that can withstand water and dirt. Approved materials include stone tile, porcelain tile, pvc tiles and ceramic tiles. Mats should be placed inside and outside of all entrances and exits.
  - ii. Walls: Wall construction and finishes shall be of durable materials capable of resisting impact and gouging.
  - iii. Ceilings: Approved materials include insulating and non combustible materials.

### **2. Stairs and Ramps**

- a. Stair Flooring: Floor finishes shall be durable, slip-resistant, easily cleaned materials.
- b. Ramps are preferable to stairs for small changes in elevation.
- c. Rails at stairs and ramps must be provided and shall be constructed of heavy-duty materials.
- d. Risers and threads of stairs should be a maximum of 175mm and a minimum of 250mm respectively

### **3. Corridors**

- a. Corridors shall not be narrower than 900mm in any location.
- b. Corridors shall be naturally ventilated and lit.
- c. Approved finishes in corridors are as follows
  - i. Flooring: Floor finishes shall be durable, slip-resistant, easily cleaned materials.
  - ii. Walls: Wall construction and finishes shall be of durable construction capable of resisting weather.
  - iii. Flooring: Floor finishes should be durable, slip-resistant, easily cleaned materials that can withstand water and dirt.

#### **4. Student Bedrooms**

- i. Each bedroom is to be provided with one closet/wardrobe per person. Approved finishes in bedrooms are as follows:
  - b. Flooring: Floor finishes should be durable, slip-resistant, easily cleaned materials that can withstand water and dirt.
  - c. Walls: Wall construction and finishes shall be of durable materials capable of resisting impact and gouging.
  - d. Ceilings: Approved materials include insulating and non-combustible materials
  - e. Electrical: All room electrical outlets shall be coordinated with the furniture layouts. Placement to maximize future flexibility is to be emphasized.
  - f. Each housing unit is to have an individual electrical service panel.

#### **5. Bathrooms**

- i. Each bathroom should have one or more WCs, Wash hand basins (typically 500mm x 420mm), Minimum 900mm x 900mm shower enclosures, mirrors and ceramic wall tiling to any wall surface subject to frequently getting wet.
- ii. Approved finishes in student bathrooms are as follows:
  - a. Flooring: Floor finishes should be durable, slip-resistant, easily cleaned materials that are resistant to water permeation. Approved materials include ceramic tile. Floor joints at tub, shower, and toilets must be sealed to prevent water intrusion due to overflows or spills in bathrooms.
  - b. Walls: Approved materials include ceramic tiles and other durable, easily cleaned materials that are resistant to water permeation.
  - c. All bathrooms should be ventilated.
  - d. Plumbing:
    - i. For water closets, ceramic fittings should be used.
    - ii. Tank type water closet is preferred.
    - iii. Floor drains are required in all bathrooms and toilets.

#### **6. Kitchenettes and Laundries**

The kitchen should provide:

- a. Cabinet space, sufficient sinks and cooking spaces.
- b. Cabinet surfaces must be heat resistant

### **DRAWINGS TO BE SUBMITTED**

#### **Conceptual/sketch drawings**



These are to be submitted along with the application of the developer. These drawings are graphic and narrative information necessary to describe fully the proposed development to the University.

### **Construction drawings**

Construction drawings are to be submitted to PPDU after land has been allocated to the developer.

The following construction drawings should be submitted. All drawings should be fully dimensioned and specifications of materials to be used should be included. 2 copies of these drawings should be submitted in A3 sized sheets or larger. Soft copies (PDF) of these drawings should also be submitted on a flash/stick.

- I. **Site plan**  
The site plan should show the way the building(s) sits on the entire property, setbacks, accesses, car parks and all landscaping or concrete work on the site.
- II. **Floor plans**  
These are views looking straight down at the floor, showing precisely dimensioned rooms, closets, kitchens and baths, and the locations of doors, windows, stairs, and other interior elements. The **Floor Plan** sheets are the coordinating centre of all the drawings. In addition to showing a general overview of where every element of the building will be located (with detailed dimensions) it should be filled with notes which specify material finishes, door, window and wall type and other types of callouts to drawings in the set. These drawings but be fully dimensioned with specifications.
- iii. **Elevations** are the flat images of the outside faces of the building. The elevations sheets show heights of existing and new building elements, detail the materials to be applied or preserved on the exterior and are covered with keynotes designating important info about the exterior construction. These drawings but be fully dimensioned with specifications.
- iv. **Section Drawings** show hypothetical slices right through the center of the building and demonstrate important things like wall and foundation construction, floor-to-floor heights and the height relationships between inside and the ground plane outside. These drawings but be fully dimensioned with specifications.
- v. **Typical Bedroom, Typical Bathroom and Typical Kitchen drawings**  
The drawings for these typical spaces will include **detail plans and interior elevations**. These sheets should show plan views with furniture layout and views of the interior walls. The interior wall views should show wall finish types, new built in furniture, the locations of power outlets, lights and switches and the heights of different elements.
- VI. **Details**  
These sheets show details that are standard throughout the building like how one type of flooring transitions to another or the way a staircase is constructed.
- VII. **Structural drawings**  
Structural drawings are required for building more than one floor (one-storey buildings and higher). These drawings should contain a plan for each level showing

concrete footing information, steel and reinforced concrete framing locations and sizes, important structural sections and details of any important connections.

**VIII. Mechanical, Electrical and Plumbing drawings**

a. **The Mechanical Drawings** will show the location and size of any mechanical equipment, the layout of ductwork and specifications for all the different sizes and types of air handling systems.

b. **Electrical drawings**

The Electrical drawings should show the locations of all power and data outlets, and those of lights and associated switches. They should specify the appropriate wiring and boxes needed to handle all those lights and power any other equipment.

c. **Plumbing drawings**

Plumbing drawings will show the location and size of pipes to provide fresh water and take away waste. They'll also show vent risers to let sewer air up out of the building safely and without smell.

NB  
THESE GUIDELINES WILL BE REGULARLY REVIEWED.