



شركة تطوير للمباني  
TATWEER BUILDINGS COMPANY

رؤية 2030  
VISION 2030  
المملكة العربية السعودية  
KINGDOM OF SAUDI ARABIA



وزارة التعليم  
Ministry of Education



# Manual of the Minimum Design Criteria of Private Schools and Approval Procedure

**1<sup>st</sup> Edition**



بِسْمِ اللّٰهِ الرَّحْمٰنِ الرَّحِيْمِ



“Great Education for  
Enabled Nation”

We keep investing in education and training  
providing our young generation with  
necessary know-how and skills, nurturing  
their prosperous future.



# **Manual of the Minimum Design Criteria for Private Schools and Approval Procedures**

This manual is produced for investors active in private education business sector.

Prepared by: Tatweer Buildings Company

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# **Content**

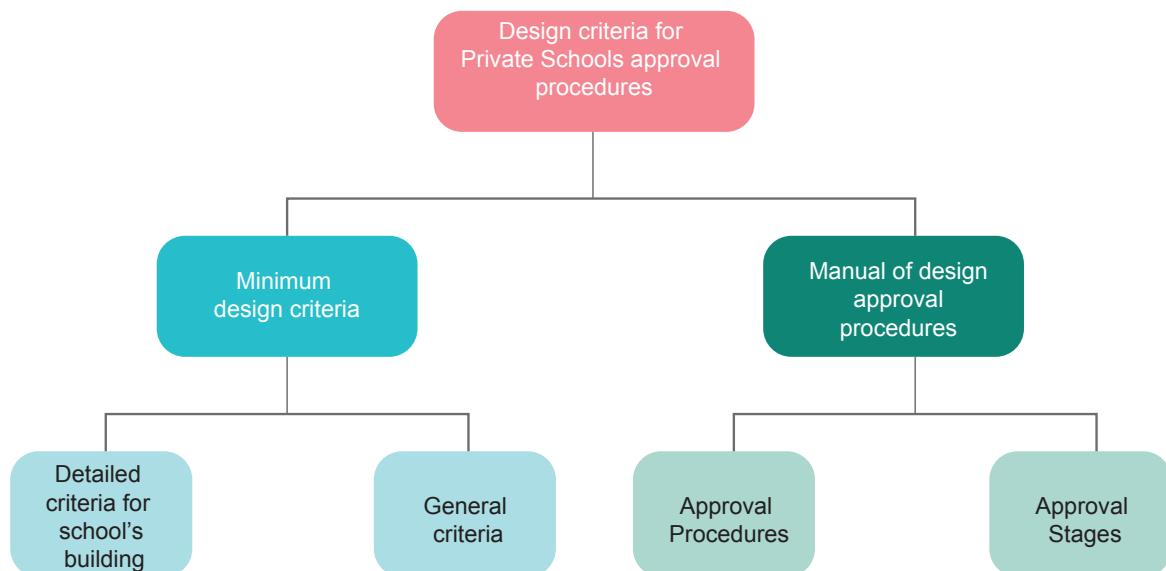
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# Introduction

TBC is introducing all new approach in planning and designing education facilities, creating an appealing environment for future generations who will adopt forward thinking, tech savvy, ambitious and seeking to deliver the best in class results. The Company has a key role in supporting stakeholders involved in the education cycle in the Kingdom by creating an ideal education space for learning. This manual sets the approval process for education buildings designs which will facilitate and expedite the review process at high efficiency that supports the investor, achieve quality improvement and boost education deliverables in the Kingdom consistently with 2030 VISION.

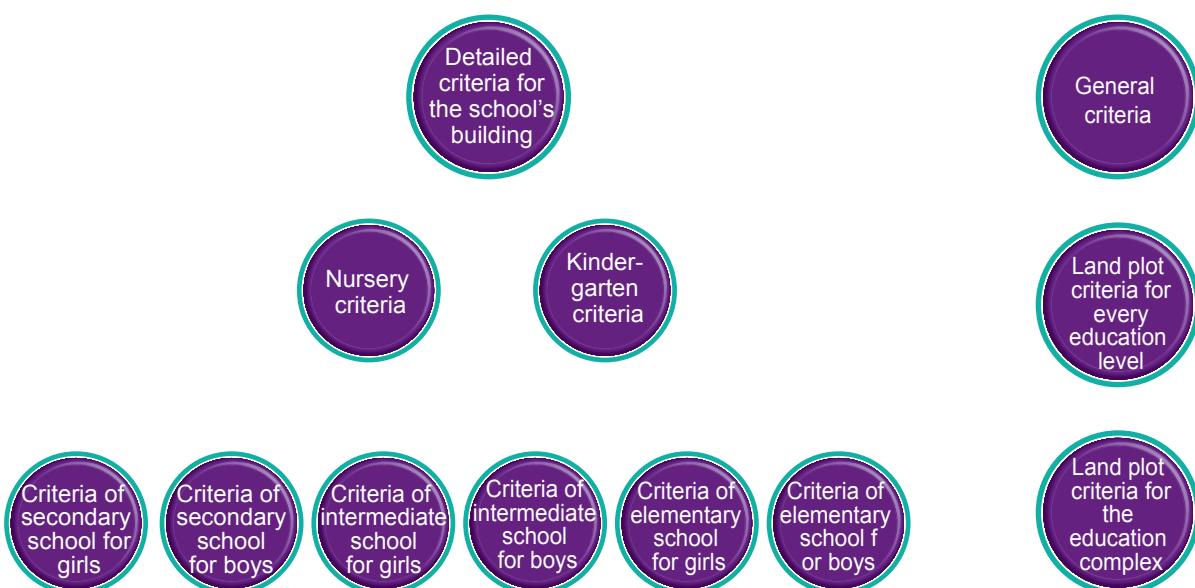
This manual delineates the education space criteria, minimum student area allocation, services and any other requirement that improves building's operations efficiency. This manual also helps investors and businessmen in exposing the private education business sector in particular.

This manual is composed of two main sections:





This manual outlines the criteria which shall be considered in schools' buildings and complexes in terms of land plots, and elaborates thereafter the criteria of student minimum area allocation in line with urban areas and age categories ranging from nursery, kindergarten, elementary, intermediate and up to secondary school. TBC sets for the investor main design requirements for education spaces which shall be met other than admin areas. TBC requires as well fulfilling the Civil Defense requirements for security and safety, MOMRA requirements and the universal accessibility guidelines issued by King Salman Center for Disability Research. We encourage investor to go further and innovate in order to serve better the educational environment in terms of admin spaces and support services to make the building fit-for-purpose inspiring the employees and innovation to bring-up an enabled generation capable of achieving the nation's goals.





## Regions Categories:

The criteria were set based on the nature of each city in the Kingdom of Saudi Arabia, taking into account the land plot area, type of urban expansion, education density and economic conditions, whereas:

**Type A:** major cities (Riyadh, Dammam, Alkhobar)

**Type B:** special cities (Makkah, Jeddah, Madinah)

**Type C:** regions and provinces (all other Kingdom's regions)



## Education Levels

The students' area requirements vary according to education level. Therefore we set minimum area criteria for education spaces and required services within the education building, detailed as per the approved education levels in the Kingdom by Ministry of Education. The education levels are composed of five main levels:

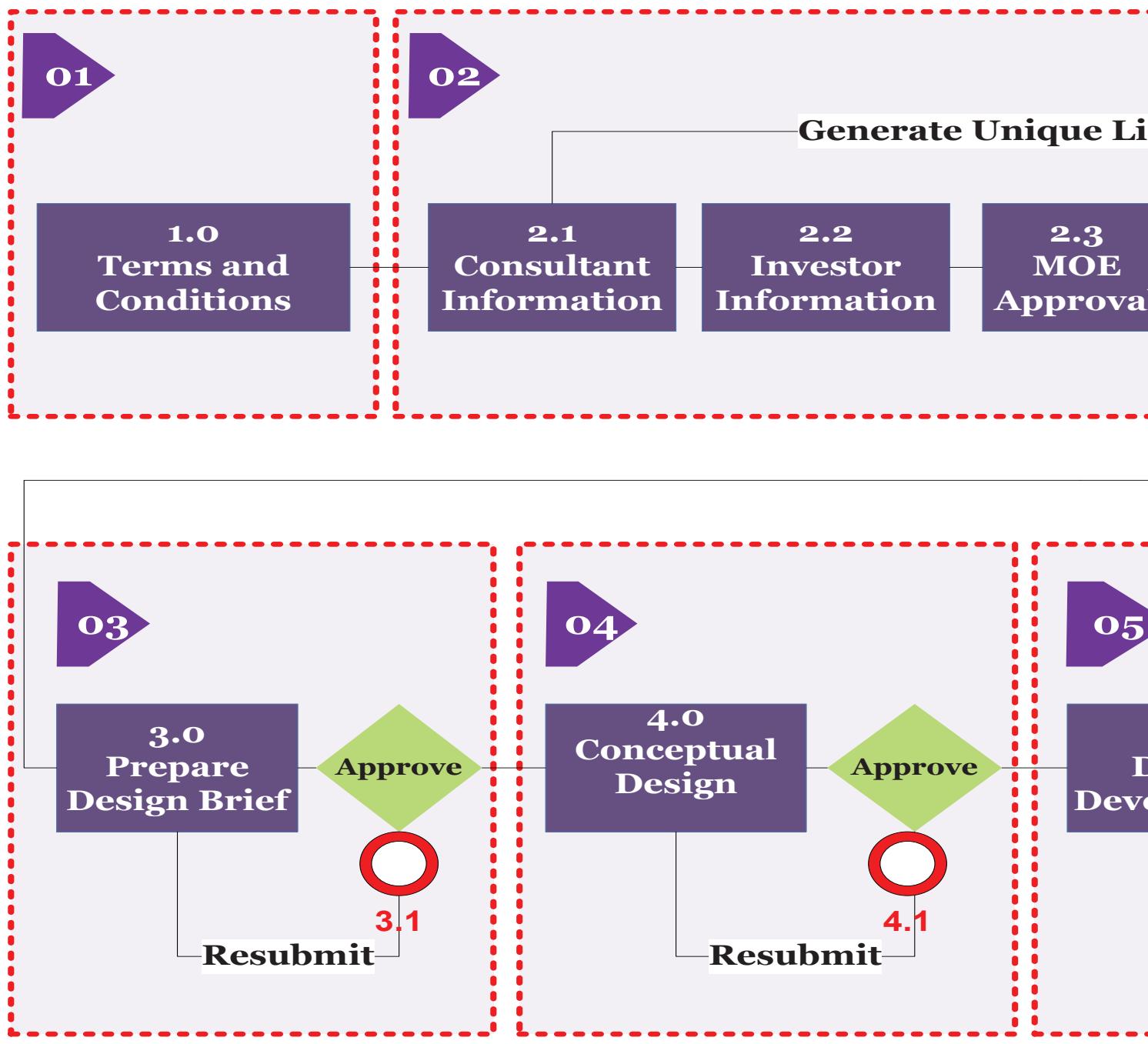
- Nursery
- Kindergarten
- Elementary
- Intermediate
- Secondary

The Investor is entitled to specify the number of students per classroom provided that it shall not exceed 25 students per classroom in elementary, intermediate and secondary schools, and 20 students in kindergartens.

# Process workflow

PROCESS AND STAGES

و المراحل



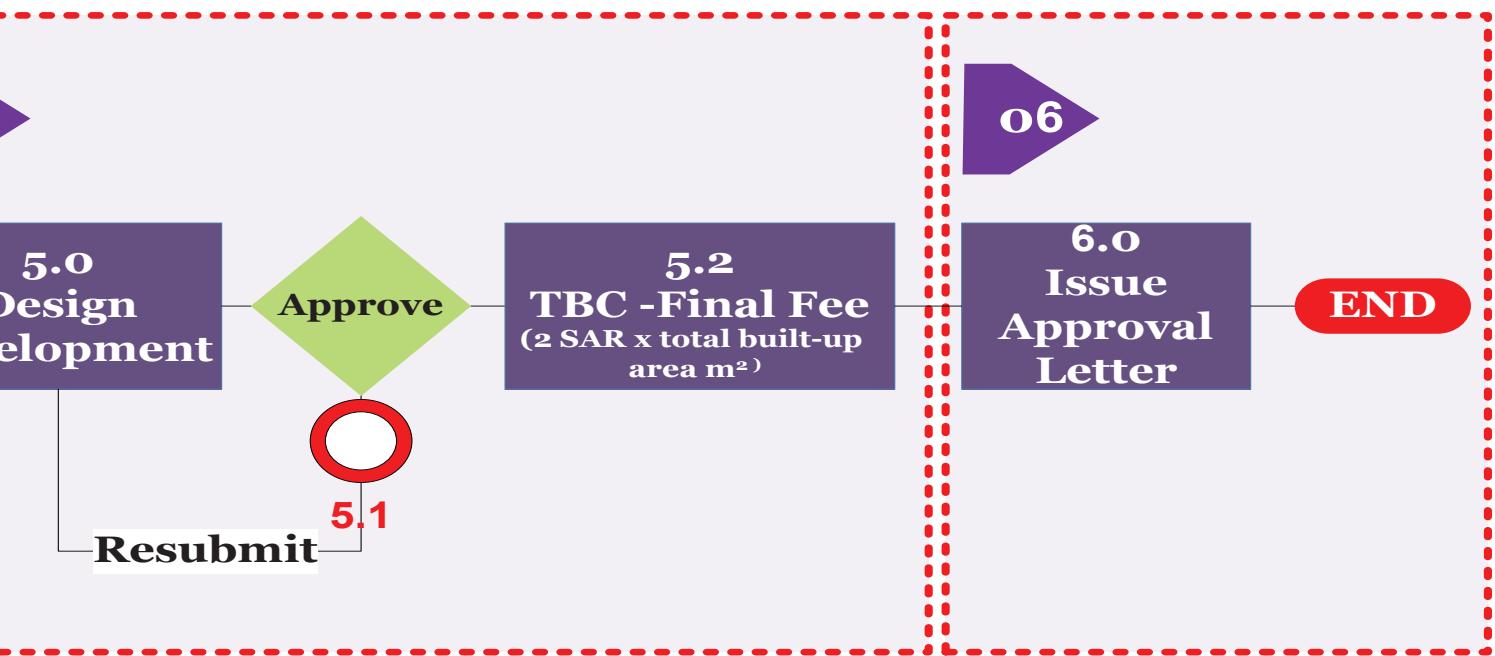
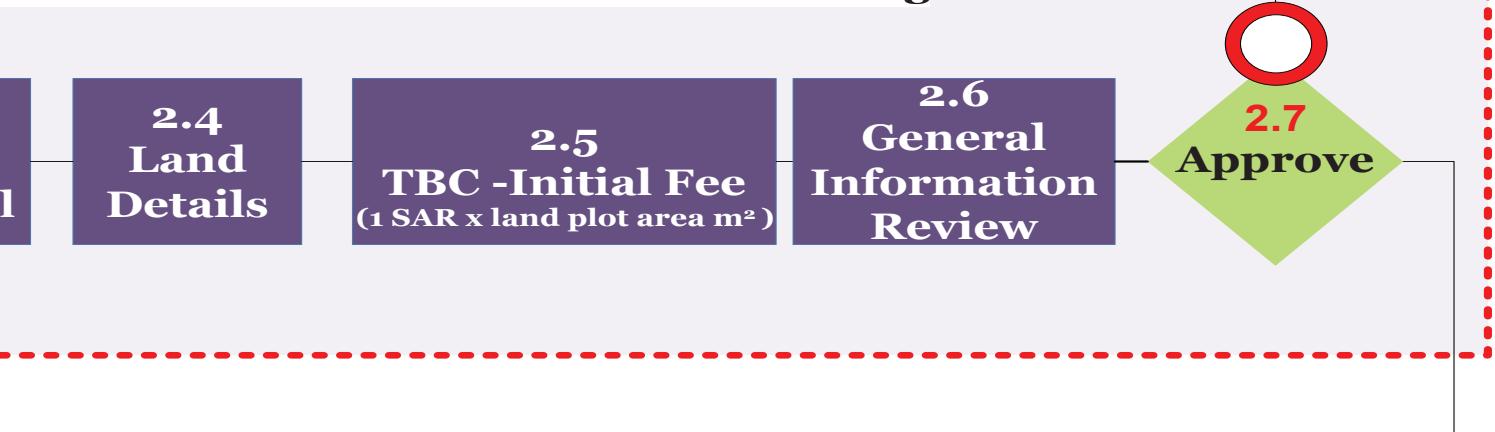
## Steps & Stages

TBC is mandated by MOE to develop the design criteria, requirements and specifications for private education building. This mandate is our motif to produce this manual, as it explains the approval procedures in details showing the complete responsibility pertaining to TBC approved consulting firms, of which will expedite the review and approval process efficiently to support the investor and improve quality of the education sector in the Kingdom.

### END STAGES

### الخطوات

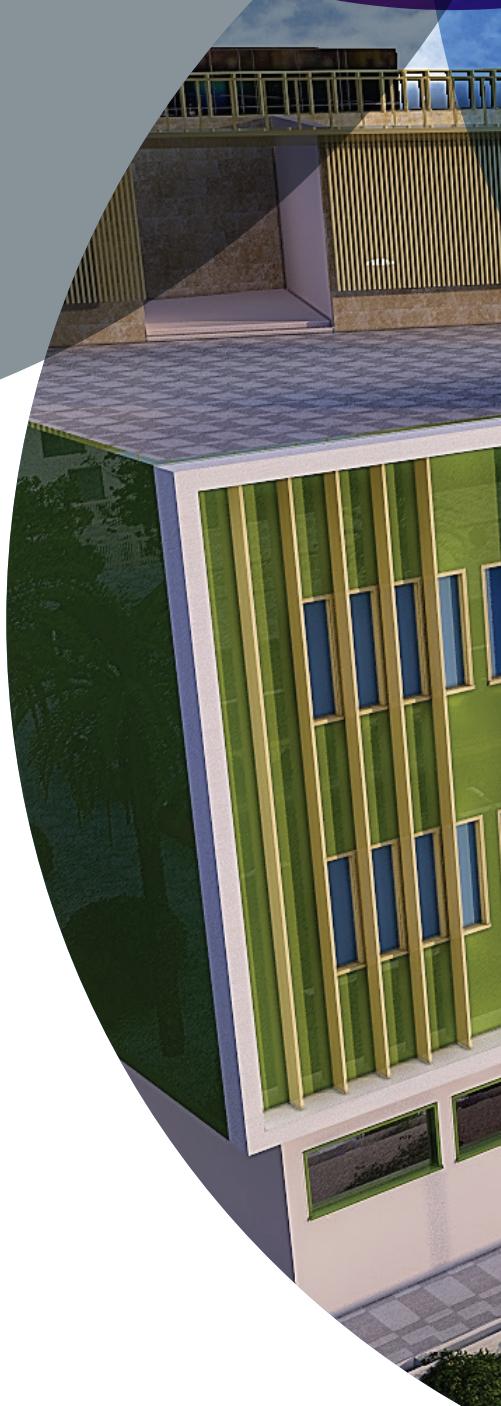
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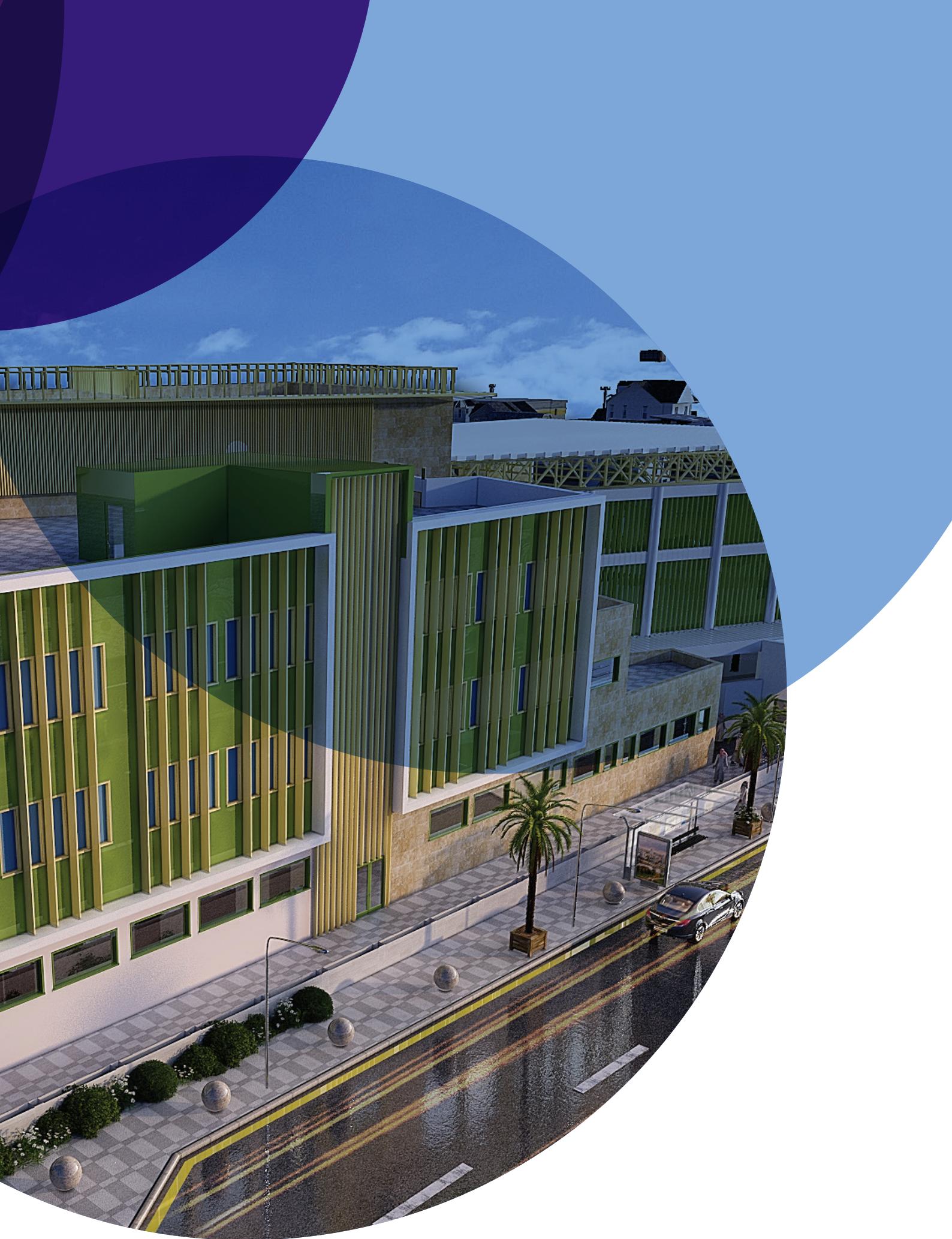


Resubmit

# Minimum Design Criteria Manual

The minimum design criteria manual is a straight forward manual set for investors and engineering consulting firms for building schools fulfilling students' needs of both genders. This manual highlights the minimum students' requirements in relation with the land plot allocated for schools and complexes, setting out the criteria of each compulsory space based on categories and education levels. While those non-compulsory spaces were left to the investor to be adjusted according to school's type and building operations. These criteria are only guidelines for design approval representing the students' space requirements to complete his education cycle. TBC encourages investors to go further with their ideas innovating new means that develop the teachers performance, create students' sense of community and boost students' skills in an appealing environment that supports innovation and creativity.





# General Criteria

## Land Plots Criteria

The area occupied by the student out of the land plot area is the essential element in determining the required land plot area, including all education spaces and services according to regions categories:

Land plot Criteria			
Land plot criteria / education level	Category A	Category B	Category C
Kindergarten	5	4.4	4
Elementary	4.4	4	3.5
Intermediate	4.7	4.4	4
Secondary	5.25	4.9	4.55



## Education Complex Criteria

The school is considered as complex only if it contains more than two education levels, whereas the land plot area is calculated based on the students' area in these levels.

The equation: student criteria in the first level + student criteria in the second level / no. of education levels = student criteria in land plot of the education complex.

### Category A:

Kindergarten + elementary + intermediate + secondary =  $5+4.4+4.7+5.25/4= 4.8 \text{ m}^2/\text{student}$

### Category B:

Elementary + intermediate + secondary =  $4+4.4+4.9/3= 4.4 \text{ m}^2/\text{student}$

### Category C:

Nursery + Kindergarten:  $4+3.5/2 = 3.75 \text{ m}^2/\text{student}$

# Detailed Criteria

This part highlights the minimum students' requirements in details for each space within the education building at each education level independently. These criteria are only guidelines for design approval and represent the minimum student's space requirements to complete his education cycle. TBC encourages investors to go further with their ideas innovating new means that improve teachers' performance, create students' sense of community and boost students' skills in an appealing environment that supports innovation and creativity.





# Nurseries

Nursery is the right place to accommodate infants up to 3 years old. Nurseries can be erected as a separate building or ancillary building of public, private facilities & the infant at this age needs a safe place.

Kids in this stage fall into two categories, from one month up to one year old, and from 1 year up to three years old, with different activities and area required for each infant based on their needs for sleep etc. In order to achieve the nursery objectives in assuming responsibility of childcare for number of hours helping him to recognize and explore the surroundings at his age, the place shall be glamorous, safe and child-oriented to enable him to discover and enjoy his stay, while the mom is carrying out her job in confidence. The child interaction with the community peer children is very important at this early stage.

TBC set the minimum criteria according to geographic type of the land plot area and spaces required to achieve the nursery objectives. TBC also promotes creativity and encourages investor to go further with ideas for the best interest of the child.



## Nursery General Requirement:

- It should be located at the ground level.
- Achieve full accessibility to all buildings' facilities.
- Shall include an outdoor court that can be used as emergency exit.

## Nursery Facilities

- Activity room.
- Bedroom.
- Sanitary facilities.
- Feeding room.
- Outdoor court.



## Nursery Facilities

### Activities Room

Activities room is the place where children spend most of their time in. It is designed for joyful amenities, education and social activities. This room contains toys suitable for their ages in terms of understanding, safety and ease of cleaning.

#### Area per child according to geographical and age category

Education level	Category A	Category B	Category C
Nursery from one month less than one year	1.4	1.2	1
Nursery from one year up to 3 years	1.8	1.6	1.4

## **Bedroom**

Bedroom may be isolated from the activities room and accommodates up to the half number of children at the nursery, or otherwise a creative safe area within the same activities room.

### **Area per child according to geographical and age category**

<b>Education level</b>	<b>Category A</b>	<b>Category B</b>	<b>Category C</b>
Nursery from one month less than one year	0.7	0.6	0.5
Nursery from one year up to 3 years	0.9	0.8	0.7

## **Feeding Room**

The infant feeding room is designated for breast feeding and infant feeding purposes, as well as preparation of kids' meals. However, investors are entitled to select method of isolating this room from the activities room to ensure privacy of mothers and infant, while it is not mandatory to be separated from other facilities.

Provision of a single room of area of 1.5 m<sup>2</sup> for every 10 infants.

## **Sanitary Facilities**

Single WC of area of 1.8 m<sup>2</sup> per 15 students, that is equipped with equipment suitable for their age.

## **Outdoor Court to be used as Emergency Exit**

This area can be planted as outdoor garden, or to be equipped with outdoor toys. This is depended upon the investor's desire. The area of shall be of half area of the activities room.

# Kindergarten

The kindergarten stage is the second destination where parents send their kids to. This can be split into two or three grades according to school size. The kid starts at this stage to depend on himself while exploring the social environment and cooperating with his peers. Therefore, this space shall be home-like atmosphere where children relax within peaceful environment that is designed to be a natural extension of home where children feel safe, secured and familiar with this milieu. Enriching the kindergarten with stimulus is of paramount to the child in exploring the world easily which is simply a doorway to knowledge, emotions and body growth.

Kindergarten focuses more on developing children's skills and builds their capabilities for school, providing safe proper circulation areas and space for self-expression constituting the foundation stone for the kid's future.

TBC set the minimum requirements according to kid's age category, land plot geographic area category and compulsory spaces in order to achieve the schools objectives. TBC promotes innovation and creativity in kindergarten building in consistent with investor's vision for the best interest of kids' education taking into consideration security and safety of the children within the building in all floors, entering & existing doorways and disabled needs.





## **General Kindergarten Requirements**

- Achieve full accessibility to all buildings' facilities.
- All spaces shall be located at ground level, while additional spaces may be added at the first floor for the two following

### **Education levels where needed.**

- Each classroom at the ground level shall have an outdoor court to be used as emergency exit.
- Stairs treads shall be covered with slip-resistant surface.

## **Kindergarten Facilities**

- Classrooms.
- Toilets.
- Outdoor court for each classroom at ground floor used as emergency exit.
- Multi-media library.

## Kindergarten Facilities

### Classroom

Classroom in the kindergarten is the most important space in the education process in terms of time-spending and activities. Classroom shall be stimulus-rich environment helping the kid in exploring the world easily by simply dividing the classrooms into several movement and self-expression areas according to investor's desire.

#### Area per Child according to geographical and age category

Education level	Category A	Category B	Category C
Kindergarten	2.5	2.2	2

### Toilets

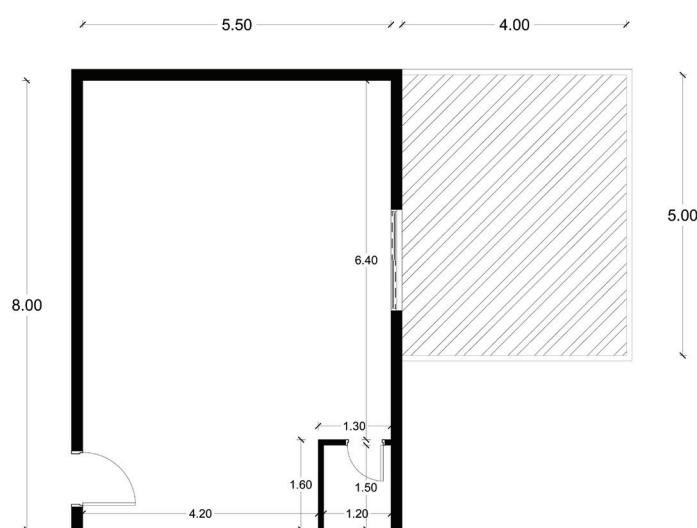
#### 1. Toilet for kids in each classroom

Each classroom shall have a separate toilet, with proper dimensions that fit with kids at this stage as well as the disabled needs.

The required area for each toilet is 1.8 m<sup>2</sup>.

#### 2. Public

Public toilet for the building dwellers, teachers, parents and others; one toilet for every 20 persons.



## **Outdoor Court per Classroom at Ground Floor used as Emergency Exit**

Each classroom shall have an outdoor court of area equal to half total area of the classroom.

## **Multimedia Library**

Multimedia library is an important tool for the teacher, containing all required education tools. The area allocation is at the investor's discretion, but nevertheless, it is mandatory to have such library at every kindergarten.

## **Playing Court**

Playing court is the place where all children gather during breaks, containing toddlers' slides and outdoor toys. The selection of activities is at investor's discretion provided that its area shall be equal to double area of classroom of such education level.

# Elementary Education for Boys

The elementary education for boys comprises six grades. The kid is admitted to elementary level after completion of kindergarten level. The primary education level is divided into two cycles: the first three grades of elementary education and the upper three grades. Student at this stage needs a motivating education environment with multiple attractive facilities supporting the education cycle. Courts, outdoor toys, classrooms, arts atelier, general science labs and many other spaces which are supportive to the education cycle.

TBC set the minimum criteria according to land plot geographic area category and compulsory spaces for elementary school. TBC promotes innovation and creativity alongside with investor's vision for the best interest of kids' education.





## **Education Building General Requirements for Elementary School**

- Full accessibility to all building's facilities.
- The maximum number of students per classroom shall not exceed 25 students.

## **Education Building's Facilities for Elementary School**

- Classrooms accommodating 25 students at maximum.
- General science lab.
- Computer & languages lab.
- Arts atelier.
- Learning resources center.
- Toilets.
- Multi-purposes room.
- Outdoor pitch.

## Students' Space Criteria

### Classroom

Classroom is the foundation stone in the education process and the most important space within the school's building. Classroom shall contain chair and movable desk for each student, board, books cupboard, teacher's desk and chair. Natural light and ventilation are necessary elements in the classrooms.

- The maximum allowable number of students per classroom is 25.
- The Maximum ratio between daimentions is 2.3 m.
- Minimum distance between first line of students' desks and of the wall-mounted board is 1.8 m.
- The space should be an organized shape.

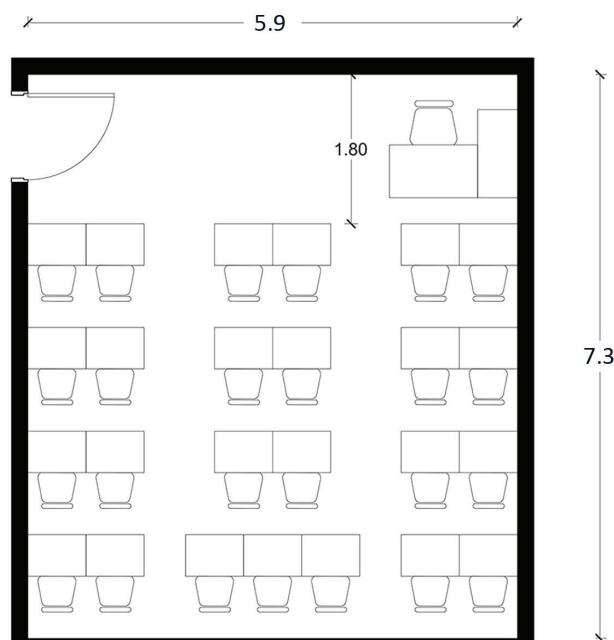
Education level	Category A	Category B	Category C
Elementary	1.3	1.3	1.3

The minimum area allocated per student is dependent upon the region geographic category plus minimum distance between the first line of students' desks and of the wall-mounted board.

#### **example:**

Geographic category X number of students  
+ distance between first line of students desks  
and wall mounted board x width of the wall where  
the board is mounted on

$$1.3 \times 25 + 1.8 \times 5.90 = 43.12 \text{ m}^2$$



## General Science Lab

General science lab is a supporting element to the education process, offering real application of science theories and experiments. The lab shall include lab tables and chairs for students, board and teacher's desk. Natural light and ventilation are necessary elements in laboratories.

- Single science lab for every 10 classrooms.
- The maximum allowable number of students per lab is 25.
- The Maximum ratio between daimentions is 2.3 m.
- Minimum distance between first line of students' desks and of the wall-mounted board is 1.8 m.
- The space should be an organized shape.

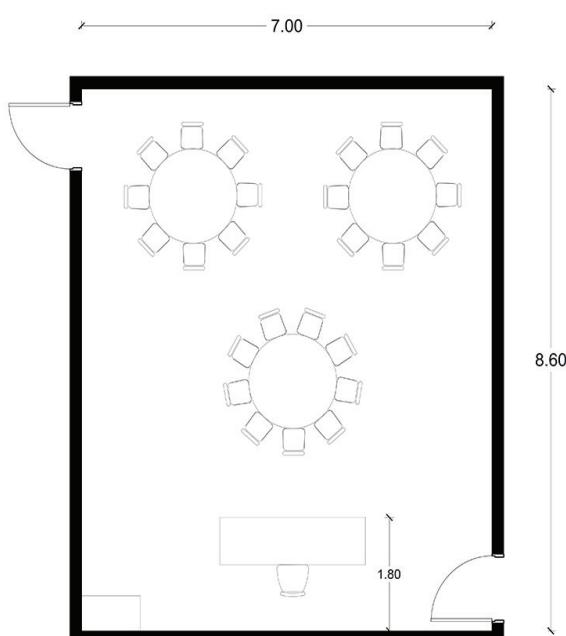
Education level	Category A	Category B	Category C
Elementary	1.9	1.7	1.5

The minimum area allocated per student is dependent upon the region geographic category plus minimum distance between the first line of students' desks and of the wall-mounted board.

### example:

Geographic category X number of students  
+ distance between first line of students desks  
and wall mounted board x width of the wall where  
the board is mounted on

$$1.9 \times 25 + 1.8 \times 7 = 60.1 \text{ m}^2$$



## Computer and Languages Lab

The computer and languages lab is as important as the science lab; it facilitates technology enablement in all subjects such as English classes and Quran Tajweed. This is the first place for implementing computer theories.

- The maximum allowable number of students per lab is 25.
- The Maximum ratio between daimentions is 2.3 m.
- Minimum distance between first line of students' desks and of the wall-mounted board is 1.8 m.
- The space should be an organized shape.

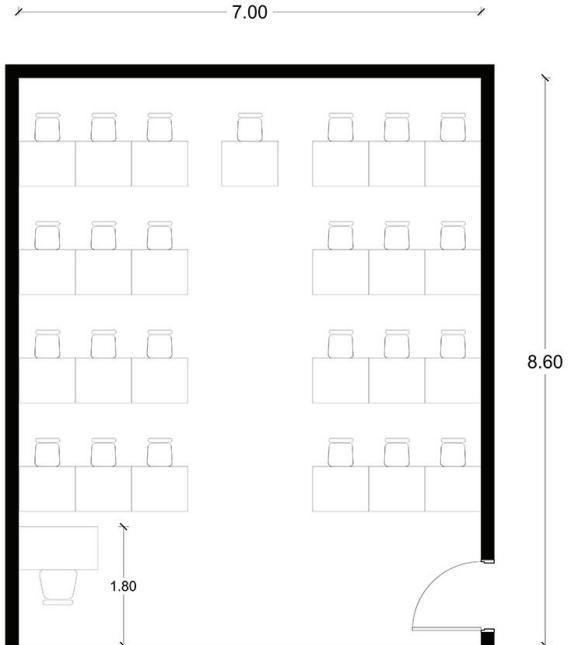
Education level	Category A	Category B	Category C
Elementary	1.9	1.7	1.5

The minimum area allocated per student is dependent upon the region geographic category plus minimum distance between the first line of students' desks and of the wall-mounted board.

### example:

Geographic category X number of students  
+ distance between first line of students desks  
and wall mounted board x width of the wall where  
the board is mounted on

$$1.9 \times 25 + 1.8 \times 7 = 60.1 \text{ m}^2$$



## Arts Atelier

Arts education is a curriculum that enriches the students' creativity and it is more than just a teaching subject, therefore TBC set minimum criteria that endorse the students' arts expressions, art works and drawing skills. The investor is free to go further with his ideas and innovation in relation with the area and location of this space, while providing a specific room for odor and scents paints, and many other ideas applicable to this space.

- The maximum allowable number of students per room is 25.
- The Maximum ratio between daimentions is 2.3 m.
- Minimum distance between first line of students' desks and of the wall-mounted board is 1.8 m.

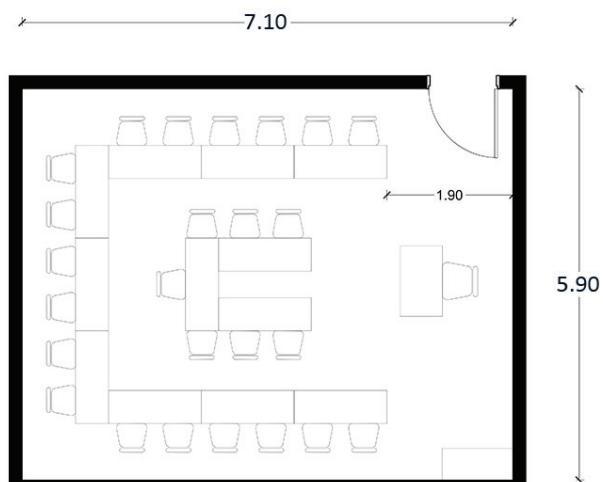
Education level	Category A	Category B	Category C
Elementary	1.25	1.15	1

The minimum area allocated per student is dependent upon the region geographic category plus minimum distance between the first line of students' desks and of the wall-mounted board.

### example:

Geographic category X number of students + distance between first line of students desks and wall mounted board x width of the wall where the board is mounted on

$$1.25 \times 25 + 1.8 \times 5.90 = 41.9 \text{ m}^2$$



## Learning Resources Center

Learning resources center or library is an essential element in modern education process, supporting students in relation with subject materials, self-learning and cooperation. Therefore TBC set the minimum criteria required for the student within this space ensuring investor's due diligence while maximizing the scientific value that escalates students' skills and achievements by return.

- The minimum area for the librarian circulation is: 8 m<sup>2</sup>.
- The minimum area allocated per student is dependent upon the region geographic category plus required area for librarian circulation in the center.
- A room shall be attached to the center for presenting documentary films to be included in the minimum student's area.

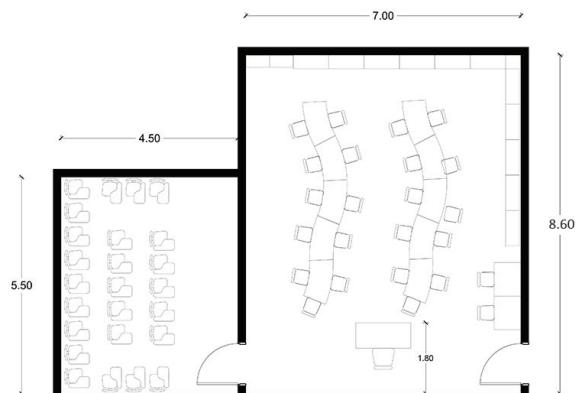
Education level	Category A	Category B	Category C
Elementary	2.5	2.3	2

The minimum area allocated per student is dependent upon the region geographic category plus required area for librarian circulation in the center.

### example:

Geographic category X number of students  
+ distance between first line of students desks and wall mounted board x width of the wall where the board is mounted on

$$2.5 \times 25 + 1.8 \times 7 = 75.1 \text{ m}^2$$



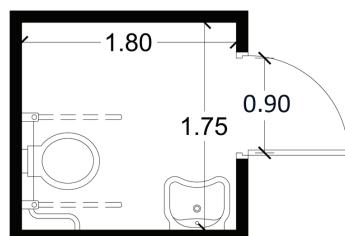
## Toilets

Toilets are very important component of the school's space program and have direct relation with general health conditions. Considering the design efficiency of toilets taking into account students' ages, slip-resistant finishing materials, distribution of toilets within education spaces, maintenance and cleanliness that reflect on the students' general health.

- Single toilet for every 20 students at minimum.
- 2 hand wash sinks for every 3 toilets.
- The minimum toilet area is  $1.35 \text{ m}^2$ .

## Disabled Toilets

- The minimum toilet area is  $3.15 \text{ m}^2$ .
- The toilet shall be equipped with hand wash sink and special fittings and handrails taking into account the sanitary ware dimensions which shall be suitable for students' ages.
- Every cluster of toilets within the building shall include a single toilet for disabled users.



$3.15 \text{ m}^2$



$1.35 \text{ m}^2$

## **Multi-Purposes Room**

Cooperative education, curriculum & extra-curriculum activities, brain storming meetings and other activities are necessary to break up the daily classroom routine and gear up students' enthusiasm. This room is designated for any curriculum and extra-curriculum activities, the investor is required to provide such room and shall be equipped as he deems appropriate for the best interest of the students. Nevertheless, TBC requires existence of this room as it is of paramount value to the education process.

- The maximum allowable number of students per room is 25.
- The Maximum ratio between daimentions is 2.3 m.
- The minimum teacher's area in the room is 8 m<sup>2</sup>.

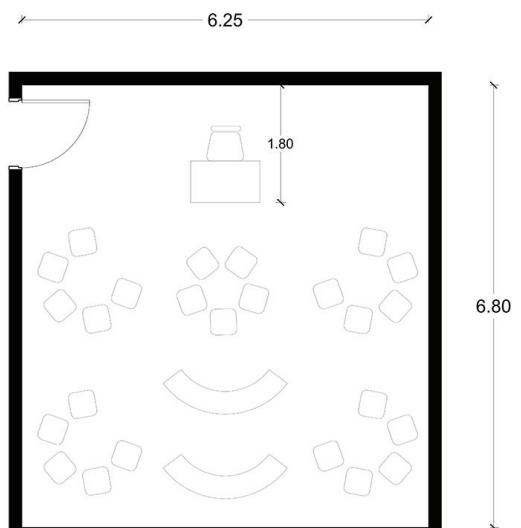
Education level	Category A	Category B	Category C
Elementary	1.25	1.15	1

The minimum area allocated per student is dependent upon the region geographic category plus minimum distance between the first line of students' desks and of the wall-mounted board.

### **example:**

Geographic category X number of students  
+ distance between first line of students desks  
and wall mounted board x width of the wall where  
the board is mounted on

$$1.25 \times 25 + 1.8 \times 6.25 = 42.50 \text{ m}^2$$



## **Outdoor Pitch**

TBC set minimum criteria for the sake of completing the education and health cycle through the outdoor pitch. TBC encourages investors to design football or basketball field efficiently. The pitch design, ground surface safety, spectator seating area and number of pitches are dependent upon the investor desire.

- Minimum pitch area: 300 m<sup>2</sup>.



# Elementary Education for Girls

The elementary education for girls comprises six grades. The kid is admitted to elementary level after completion of kindergarten level.

The primary education level is divided into two cycles: the first three grades of elementary education and the upper three grades.

Student at this stage needs a motivating education environment with multiple attractive facilities supporting the education cycle. Courts, outdoor toys, classrooms, arts atelier, general science labs and many other spaces which are supportive to the education cycle.

TBC set the minimum criteria according to land plot geographic area category and compulsory spaces for elementary school. TBC promotes innovation and creativity alongside with investor's vision for the best interest of kids' education.



## **Education Building General Requirements for Elementary School**

- Full accessibility to all building's facilities.
- The maximum number of students per classroom shall not exceed 25 students.

## **Education Building's Facilities for Elementary School**

- Classrooms accommodating 25 students at maximum.
- General science lab.
- Computer & languages lab.
- Arts atelier.
- Sewing room.
- Kitchen for home economics subject.
- Learning resources center.
- Toilets.
- Multi-purposes room.
- Outdoor court.

## Students' Space Criteria

### Classroom

Classroom is the foundation stone in the education process and the most important space within the school's building. Classroom shall contain chair and movable desk for each student, board, books cupboard, teacher's desk and chair. Natural light and ventilation are necessary elements in the classrooms.

- The maximum allowable number of students per classroom is 25.
- The Maximum ratio between daimentions is 2.3 m.
- Minimum distance between first line of students' desks and of the wall-mounted board is 1.8 m.
- The space should be an organized shape.

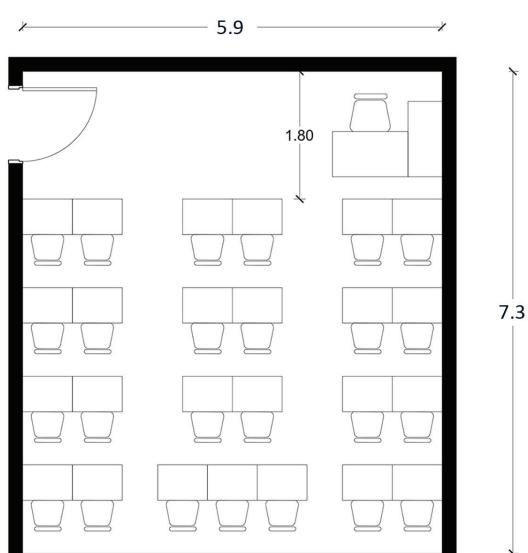
Education level	Category A	Category B	Category C
Elementary	1.3	1.3	1.3

The minimum area allocated per student is dependent upon the region geographic category plus minimum distance between the first line of students' desks and of the wall-mounted board.

#### example:

Geographic category X number of students  
+ distance between first line of students desks and wall mounted board x width of the wall where the board is mounted on

$$1.3 \times 25 + 1.8 \times 5.90 = 43.12 \text{ m}^2$$



## General Science Lab

General science lab is a supporting element to the education process, offering real application of science theories and experiments. The lab shall include lab tables and chairs for students, board and teacher's desk. Natural light and ventilation are necessary elements in laboratories.

- The maximum allowable number of students per lab is 25.
- The Maximum ratio between dimensions is 2.3 m.
- Minimum distance between first line of students' desks and of the wall-mounted board is 1.8 m.
- The space should be an organized shape.

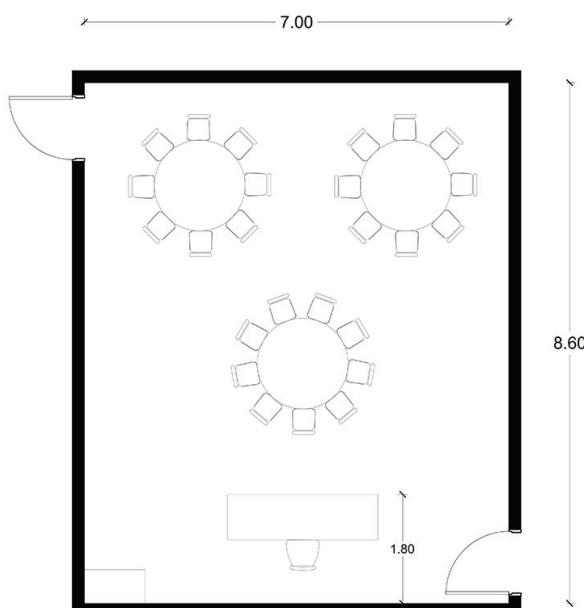
Education level	Category A	Category B	Category C
Elementary	1.9	1.7	1.5

The minimum area allocated per student is dependent upon the region geographic category plus minimum distance between the first line of students' desks and of the wall-mounted board.

### example:

Geographic category X number of students  
+ distance between first line of students desks  
and wall mounted board x width of the wall where  
the board is mounted on

$$1.9 \times 25 + 1.8 \times 7 = 60.1 \text{ m}^2$$



## Computer and Languages Lab

The computer and language lab is as important as the science lab; it facilitates technology enablement in all subjects such as English classes and Quran Tajweed. This is the first place for implementing computer theories.

- The maximum allowable number of students per lab is 25.
- The Maximum ratio between daimentions is 2.3 m.
- Minimum distance between first line of students' desks and of the wall-mounted board is 1.8 m.
- The space should be an organized shape.

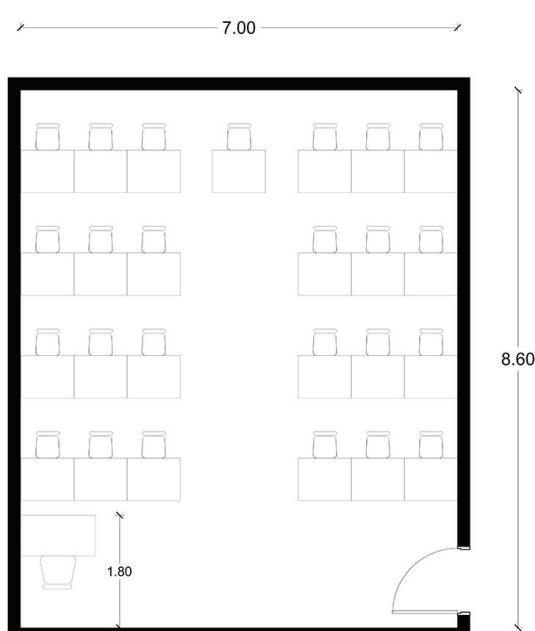
Education level	Category A	Category B	Category C
Elementary	1.9	1.7	1.5

The minimum area allocated per student is dependent upon the region geographic category plus minimum distance between the first line of students' desks and of the wall-mounted board.

### example:

Geographic category X number of students  
+ distance between first line of students desks  
and wall mounted board x width of the wall where  
the board is mounted on

$$1.9 \times 25 + 1.8 \times 7 = 60.1 \text{ m}^2$$



## **Vocational Labs**

Arts, sewing and home economics are essential vocational curriculum for the girls in the three upper elementary grades. It is compulsory to provide a room for each of these curriculums meeting the minimum requirements to achieve the targeted outcomes.

### **Vocational Labs Minimum Criteria**

- The maximum allowable number of students per room is 25.
- The Maximum ratio between daimentions is 2.3 m.
- Minimum distance between first line of students' desks and of the wall-mounted board is 1.8 m.
- The minimum area allocated per student within the arts atelier and sewing room is dependent upon the region geographic category plus minimum distance between the first line of students' desks and of the wall-mounted board.
- The minimum area allocated per student within the home economics kitchen is dependent upon the region geographic category plus minimum distance between the first line of students' desks and of the wall-mounted board.

## **Arts Atelier and Sewing Room**

The arts atelier and sewing room shall be equipped with work stations, movable chairs, teacher's desk, storage cupboards and any other furniture the investor would consider appropriate. TBC encourages the investor to go further with his ideas and design these rooms in line with targeted objectives. The investor may provide a specific room to be used for odor and scents paints, storage, gallery and any other purposes as he may deem appropriate.

<b>Education level</b>	<b>Category A</b>	<b>Category B</b>	<b>Category C</b>
Elementary – Arts and Sewing	1.25	1.15	1

The minimum area allocated per student is dependent upon the region geographic category plus minimum distance between the first line of students' desks and of the wall-mounted board.

### **example:**

Geographic category X number of students  
+ distance between first line of students desks  
and wall mounted board x width of the wall where  
the board is mounted on

$$1.25 \times 25 + 1.8 \times 5.90 = 41.89 \text{ m}^2$$

### **Home Economics**

The kitchen shall be simple and straight forward design that facilitates the participation of all students in preparing the meals, taking into account cleanliness, maintenance and sealed storage area for health purposes. TBC encourages investors to be creative in designing a kitchen that motivates creativity and promotes students' responsibility in health, nutrition and creativity aspects of cooking activities.

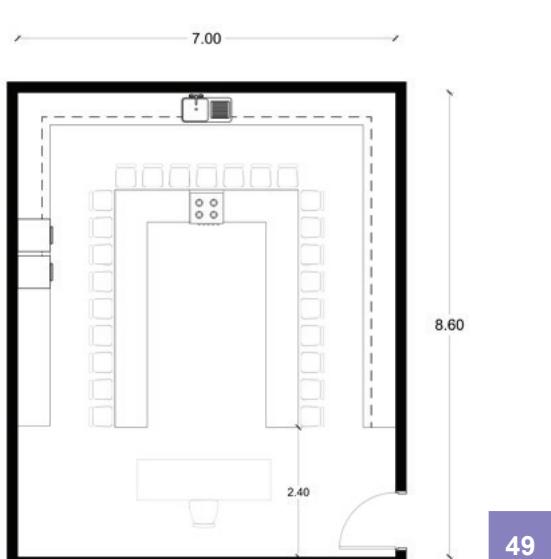
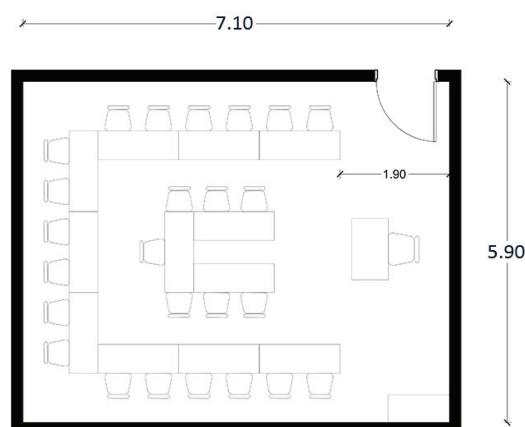
Education level	Category A	Category B	Category C
Elementary – Home Economics	1.9	1.7	1.5

The minimum area allocated per student is dependent upon the region geographic category plus minimum distance between the first line of students' desks and of the wall-mounted board.

### **example:**

Geographic category X number of students  
+ distance between first line of students desks  
and wall mounted board x width of the wall where  
the board is mounted on

$$1.9 \times 25 + 1.8 \times 7 = 60.1 \text{ m}^2$$



## Learning Resources Center

Learning resources center or library is an essential element in modern education process, supporting students in relation with subject materials, self-learning and cooperation. Therefore TBC set the minimum criteria required for the student within this space ensuring investor's due diligence while maximizing the scientific value that escalates students' skills and achievements by return.

- The minimum area for the librarian room is: 8 m<sup>2</sup>.
- The minimum area allocated per student is dependent upon the region geographic category plus required area for librarian circulation in the center.
- A room shall be attached to the center for presenting documentary films to be included in the minimum student's area.

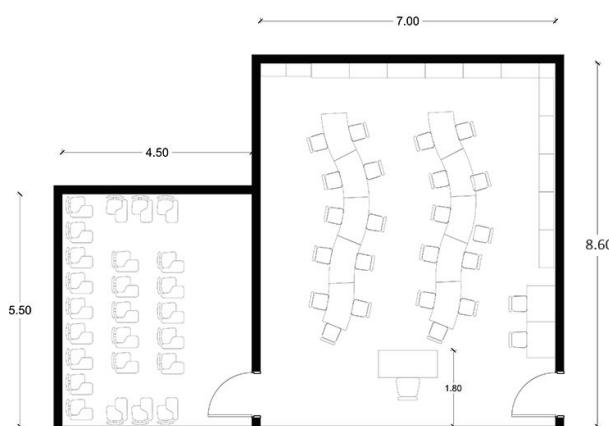
Education level	Category A	Category B	Category C
Elementary	2.5	2.3	2

The minimum area allocated per student is dependent upon the region geographic category plus minimum distance between the first line of students' desks and of the wall-mounted board.

### example:

Geographic category X number of students  
+ distance between first line of students desks  
and wall mounted board x width of the wall where  
the board is mounted on

$$2.5 \times 25 + 1.8 \times 7 = 75.1 \text{ m}^2$$



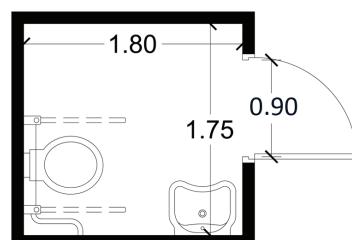
## Toilets

Toilets are very important component of the school's space program and have direct relation with general health conditions. Considering the design efficiency of toilets taking into account students' ages, slip-resistant finishing materials, distribution of toilets within education spaces, maintenance and cleanliness that reflect on the students' general health.

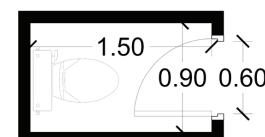
- Single toilet for every 20 students at minimum.
- 2 hand wash sinks for every 3 toilets.
- The minimum toilet area is  $1.35 \text{ m}^2$ .

## Disabled Toilets

- The minimum toilet area is  $3.15 \text{ m}^2$ .
- The toilet shall be equipped with hand wash sink and special fittings and handrails taking into account the sanitary ware dimensions which shall be suitable for students' ages.
- Every cluster of toilets within the building shall include a single toilet for disabled users.



$3.15 \text{ m}^2$



$1.35 \text{ m}^2$

## **Multi-Purposes Room**

Cooperative education, curriculum & extra-curriculum activities, brain storming meetings and other activities are necessary to break up the daily classroom routine and gear up students' enthusiasm. This room is designated for any curriculum and extra-curriculum activities, the investor is required to provide such room and shall be equipped as he deems appropriate for the best interest of the students. Nevertheless, TBC requires existence of this room as it is of paramount value to the education process.

- The maximum allowable number of students per room is 25.
- The minimum teacher's area in the room is 8 m<sup>2</sup>.

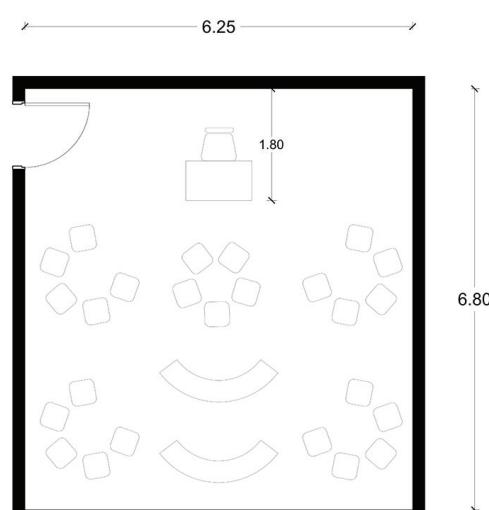
Education level	Category A	Category B	Category C
Elementary	1.25	1.15	1

The minimum area allocated per student is dependent upon the region geographic category plus minimum distance between the first line of students' desks and of the wall-mounted board.

### **example:**

Geographic category X number of students  
+ distance between first line of students desks  
and wall mounted board x width of the wall where  
the board is mounted on

$$1.25 \times 25 + 1.8 \times 6.25 = 42.50 \text{ m}^2$$



## **Outdoor Court**

The outdoor court is the alternative for the outdoor pitch at boys' school. The area of this court shall be suitable for all activities, breaks, open day's activities, morning public address and other activities. It is proposed to install climbers, slides and toys for the kids along with tables and chairs. TBC didn't specify criteria for this court and were left for the investor to design it as he deems appropriate, in terms of students' interest and their safety while selecting the flooring materials as well as shading.

- Flooring shall be covered with safe material such as vinyl, artificial turf etc.
- The minimum area for the outdoor court is 300 m<sup>2</sup>.

# Intermediate Education for Boys

The intermediate education for boys comprises three grades. The Student is admitted to intermediate education after completion of elementary grades. Student at this point needs a motivating environment, with various facilities associated with the education process, introducing uncluttered, safe and personal oriented milieu providing multiple labs, extra-curriculum activities and outdoor courts, without ignoring the compulsory spaces of the education cycle including classrooms, general science lab, computer lab, arts and learning resources center.

TBC set the minimum criteria according to land plot geographic area category and compulsory spaces for intermediate school. TBC promotes innovation and creativity alongside with investor's vision for the best interest of students' education.



## **Education Building General Requirements for Intermediate School**

- Full accessibility to all building's facilities.
- The maximum number of students per classroom shall not exceed 25 students.

## **Education Building's Facilities for Intermediate School**

- Classrooms accommodating 25 students at maximum.
- General science lab.
- Computer & languages lab.
- Arts atelier.
- Learning resources center.
- Toilets.
- Multi-purposes room.
- Outdoor pitch.

## Students' Space Criteria

### Classroom

Classroom is the foundation stone in the education process and the most important space within the school's building. Classroom shall contain chair and movable desk for each student, board, books cupboard, teacher's desk and chair. Natural light and ventilation are necessary elements in the classrooms.

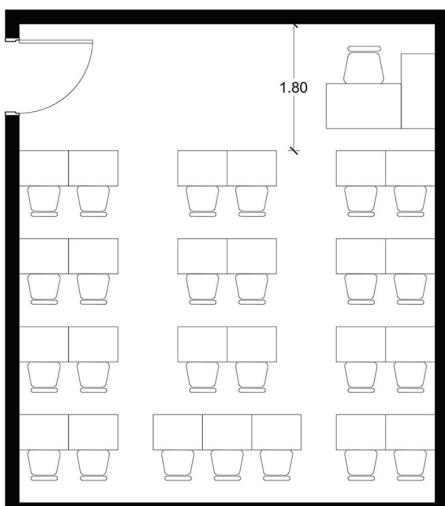
- The maximum allowable number of students per classroom is 25.
- The Maximum ratio between daimentions is 2.3 m.
- Minimum distance between first line of students' desks and of the wall-mounted board is 1.8 m.
- The space should be an organized shape.

Education level	Category A	Category B	Category C
intermediate	1.3	1.3	1.3

The minimum area allocated per student is dependent upon the region geographic category plus minimum distance between the first line of students' desks and of the wall-mounted board.

**example:**

Geographic category X number of students  
+ distance between first line of students desks and wall mounted board x width of the wall where the board is mounted on


$$1.3 \times 25 + 1.8 \times 5.90 = 43.12 \text{ m}^2$$

## General Science Lab

General science lab is a supporting element to the education process, offering real application of science theories and experiments. The lab shall include lab tables and chairs for students, board and teacher's desk. Natural light and ventilation are necessary elements in laboratories.

- Single science lab for every 10 classrooms.
- The maximum allowable number of students per lab is 25.
- The Maximum ratio between daimentions is 2.3 m.
- Minimum distance between first line of students' desks and of the wall-mounted board is 1.8 m.
- The space should be an organized shape.

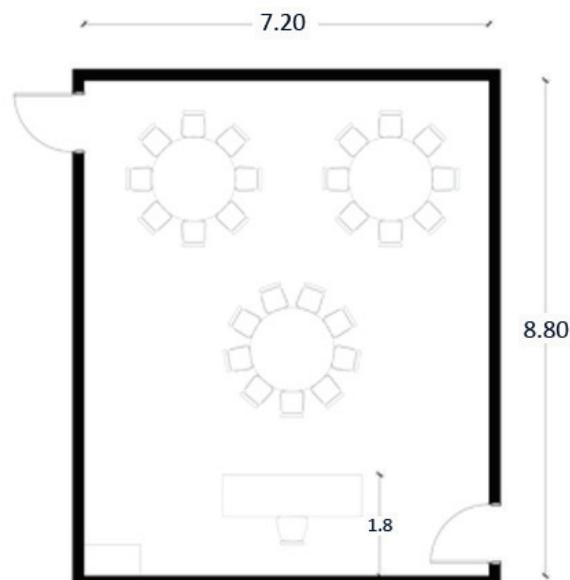
Education level	Category A	Category B	Category C
intermediate	2	1.9	1.7

The minimum area allocated per student is dependent upon the region geographic category plus minimum distance between the first line of students' desks and of the wall-mounted board.

### example:

Geographic category X number of students  
+ distance between first line of students desks  
and wall mounted board x width of the wall where  
the board is mounted on

$$2 \times 25 + 1.8 \times 7.20 = 62.96 \text{ m}^2$$



## Computer and Languages Lab

The computer and language lab is as important as the science lab; it facilitates technology enablement in all subjects such as English classes, religious and Arabic subjects. This is the first place for implementing computer theories.

- The maximum allowable number of students per lab is 25.
- The Maximum ratio between dimensions is 2.3 m.
- Minimum distance between first line of students' desks and of the wall-mounted board is 1.8 m.
- The space should be an organized shape.

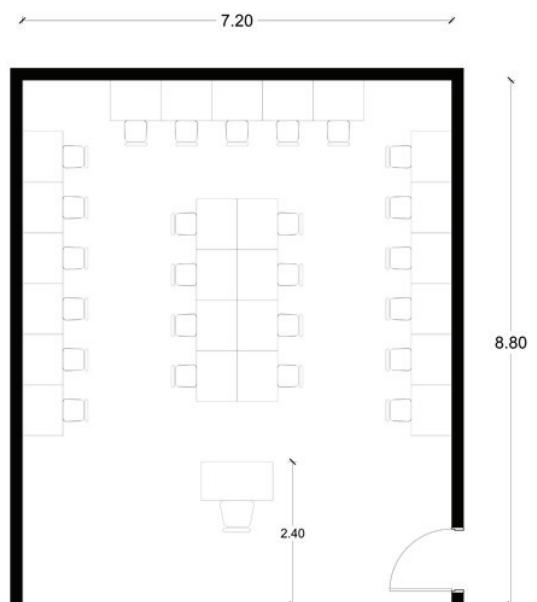
Education level	Category A	Category B	Category C
intermediate	2	1.9	1.7

The minimum area allocated per student is dependent upon the region geographic category plus minimum distance between the first line of students' desks and of the wall-mounted board.

### example:

Geographic category X number of students  
+ distance between first line of students desks  
and wall mounted board x width of the wall where  
the board is mounted on

$$2 \times 25 + 1.8 \times 7.20 = 62.96 \text{ m}^2$$



## Arts Atelier

Arts education is a curriculum that enriches the students' creativity and it is more than just a teaching subject, therefore TBC set minimum criteria that endorse the students' arts expressions, art works and drawing skills. The investor is free to go further with his ideas and innovation in relation with the area and location of this space.

- The maximum allowable number of students per room is 25.
- The Maximum ratio between dimensions is 2.3 m.
- Minimum distance between first line of students' desks and of the wall-mounted board is 1.8 m.

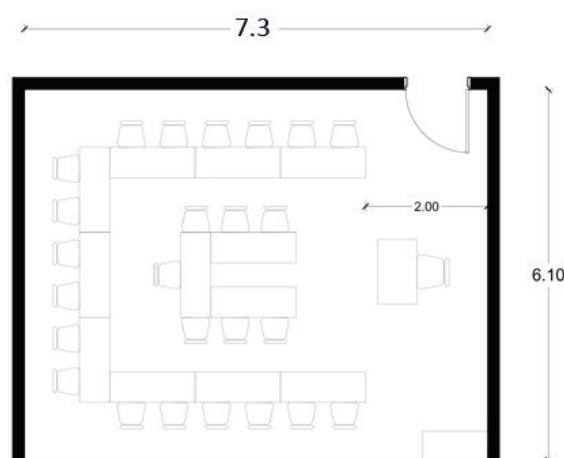
Education level	Category A	Category B	Category C
intermediate	1.35	1.25	1.15

The minimum area allocated per student is dependent upon the region geographic category plus minimum distance between the first line of students' desks and of the wall-mounted board.

### example:

Geographic category X number of students  
+ distance between first line of students desks  
and wall mounted board x width of the wall where  
the board is mounted on

$$1.35 \times 25 + 1.8 \times 6.1 = 44.7 \text{ m}^2$$



## Learning Resources Center

Learning resources center or library is an essential element in modern education process, supporting students in relation with subject materials, self-learning and cooperation. Therefore TBC set the minimum criteria required for the student within this space ensuring investor's due diligence while maximizing the scientific value that escalates students' skills and achievements by return.

- The minimum area for the librarian room is: 8 m<sup>2</sup>.
- The minimum area allocated per student is dependent upon the region geographic category plus required area for librarian circulation in the center.
- A room shall be attached to the center for presenting documentary films to be included in the minimum student's area.

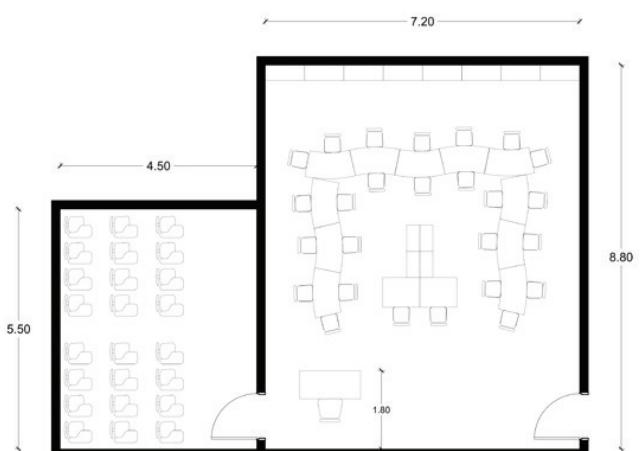
Education level	Category A	Category B	Category C
intermediate	2.7	2.5	2.3

The minimum area allocated per student is dependent upon the region geographic category plus minimum distance between the first line of students' desks and of the wall-mounted board.

### example:

Geographic category X number of students  
+ distance between first line of students desks  
and wall mounted board x width of the wall where  
the board is mounted on

$$2.7 \times 25 + 1.8 \times 7.20 = 80.46 \text{ m}^2$$



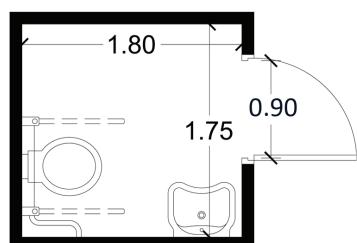
## Toilets

Toilets are very important component of the school's space program and have direct relation with general health conditions. Considering the design efficiency of toilets taking into account students' ages, slip-resistant finishing materials, distribution of toilets within education spaces, maintenance and cleanliness that reflect on the students' general health.

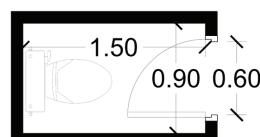
- Single toilet for every 20 students at minimum.
- 2 hand wash sinks for every 3 toilets.
- The minimum toilet area is  $1.35 \text{ m}^2$ .

## Disabled Toilets

- The minimum toilet area is  $3.15 \text{ m}^2$ .
- The toilet shall be equipped with hand wash sink and special fittings and handrails taking into account the sanitary ware dimensions which shall be suitable for students' ages.
- Every cluster of toilets within the building shall include a single toilet for disabled users.



$3.15 \text{ m}^2$



$1.35 \text{ m}^2$

## **Multi-Purposes Room**

Cooperative education, curriculum & extra-curriculum activities, brain storming meetings and other activities are necessary to break up the daily classroom routine and gear up students' enthusiasm. This room is designated for any curriculum and extra-curriculum activities, the investor is required to provide such room and shall be equipped as he deems appropriate for the best interest of the students. Nevertheless, TBC requires existence of this room as it is of paramount value to the education process.

- The maximum allowable number of students per room is 25.
- The minimum teacher's area in the room is 8 m<sup>2</sup>.

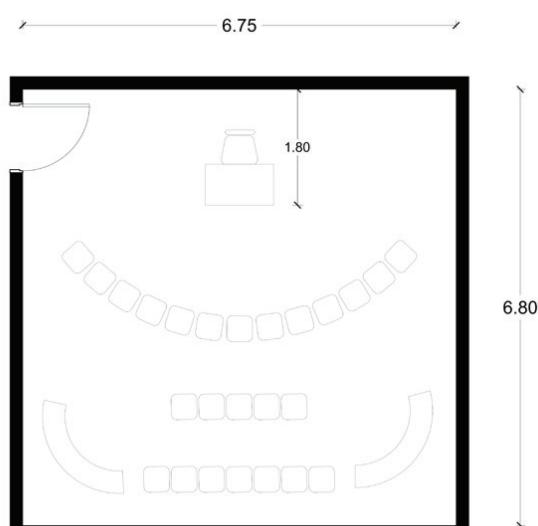
Education level	Category A	Category B	Category C
intermediate	1.35	1.25	1.15

The minimum area allocated per student is dependent upon the region geographic category plus minimum distance between the first line of students' desks and of the wall-mounted board.

### **example:**

Geographic category X number of students  
+ distance between first line of students desks  
and wall mounted board x width of the wall where  
the board is mounted on

$$1.35 \times 25 + 1.8 \times 6.75 = 45.90 \text{ m}^2$$





## Outdoor Pitch

TBC set minimum criteria for the sake of completing the education and health cycle through the outdoor pitch. TBC encourages investors to design football or basketball field efficiently. The pitch design, ground surface safety, spectator seating area and number of pitches are dependent upon the investor desire.

- Minimum pitch area: 400 m<sup>2</sup>.



# Intermediate Education for Girls

The intermediate education for girls comprises three grades. The Student is admitted to intermediate education after completion of elementary grades. Student at this point needs a motivating environment, with various facilities associated with the education process, introducing uncluttered, safe and personal oriented milieu providing multiple labs, extra-curriculum activities and outdoor courts, without ignoring the compulsory spaces of the education cycle including classrooms, general science lab, computer lab, arts and learning resources center.

TBC set the minimum criteria according to land plot geographic area category and compulsory spaces for intermediate school. TBC promotes innovation and creativity alongside with investor's vision for the best interest of students' education.



## **Education Building General Requirements for Intermediate School**

- Full accessibility to all building's facilities.
- The maximum number of students per classroom shall not exceed 25 students.

## **Education Building's Facilities for Intermediate School**

- Classrooms accommodating 25 students at maximum.
- General science lab.
- Computer & languages lab.
- Arts atelier.
- Sewing room.
- Kitchen for home economics.
- Learning resources center.
- Toilets.
- Multi-purposes room.
- Outdoor court.

## Students' Space Criteria

### Classroom

Classroom is the foundation stone in the education process and the most important space within the school's building. Classroom shall contain chair and movable desk for each student, board, books cupboard, teacher's desk and chair. Natural light and ventilation are necessary elements in the classrooms.

- The maximum allowable number of students per classroom is 25.
- The Maximum ratio between daimentions is 2.3 m.
- Minimum distance between first line of students' desks and of the wall-mounted board is 1.8 m.
- The space should be an organized shape.

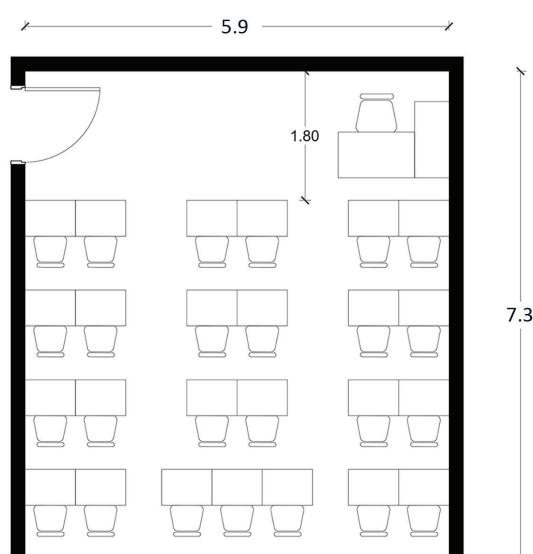
Education level	Category A	Category B	Category C
intermediate	1.3	1.3	1.3

The minimum area allocated per student is dependent upon the region geographic category plus minimum distance between the first line of students' desks and of the wall-mounted board.

#### example:

Geographic category X number of students  
+ distance between first line of students desks  
and wall mounted board x width of the wall where  
the board is mounted on

$$1.3 \times 25 + 1.8 \times 5.90 = 43.12 \text{ m}^2$$



## General Science Lab

General science lab is a supporting element to the education process, offering real application of science theories and experiments. The lab shall include lab tables and chairs for students, board and teacher's desk. Natural light and ventilation are necessary elements in laboratories.

- The maximum allowable number of students per lab is 25.
- The Maximum ratio between dimensions is 2.3 m.
- Minimum distance between first line of students' desks and of the wall-mounted board is 1.8 m.
- The space should be an organized shape.

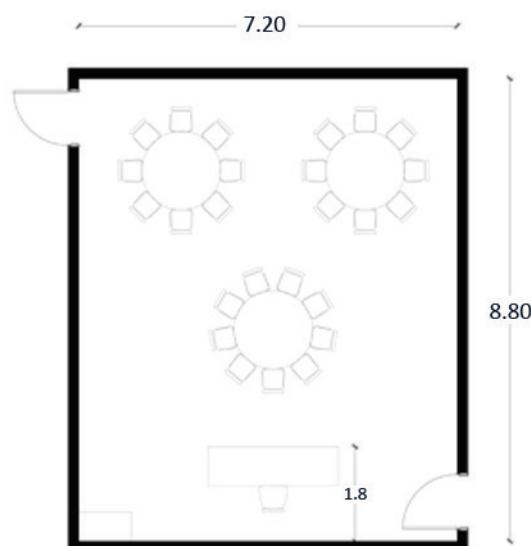
Education level	Category A	Category B	Category C
intermediate	2	1.9	1.7

The minimum area allocated per student is dependent upon the region geographic category plus minimum distance between the first line of students' desks and of the wall-mounted board.

### example:

Geographic category X number of students  
+ distance between first line of students desks  
and wall mounted board x width of the wall where  
the board is mounted on

$$2 \times 25 + 1.8 \times 7.20 = 62.96 \text{ m}^2$$



## Computer and Languages Lab

The computer and language lab is as important as the science lab; it facilitates technology enablement in all subjects such as English classes, religious and Arabic subjects. This is the first place for implementing computer theories.

- The maximum allowable number of students per lab is 25.
- The Maximum ratio between dimensions is 2.3 m.
- Minimum distance between first line of students' desks and of the wall-mounted board is 1.8 m.
- The space should be an organized shape.

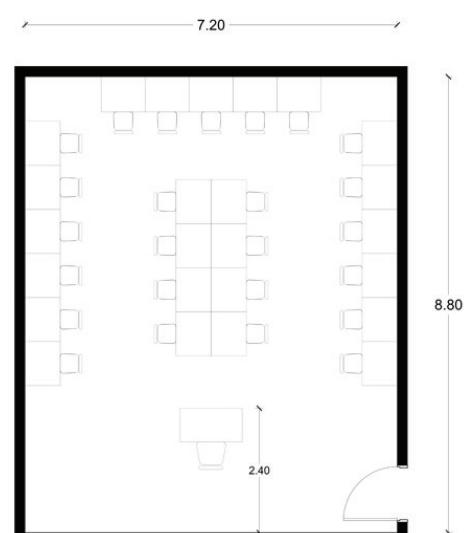
Education level	Category A	Category B	Category C
intermediate	2	1.9	1.7

The minimum area allocated per student is dependent upon the region geographic category plus minimum distance between the first line of students' desks and of the wall-mounted board.

### example:

Geographic category X number of students  
+ distance between first line of students desks  
and wall mounted board x width of the wall where  
the board is mounted on

$$2 \times 25 + 1.8 \times 7.20 = 62.96 \text{ m}^2$$



## Vocational Labs

Arts, sewing and home economics are essential vocational curriculum for the girls in the intermediate grades. It is compulsory to provide a room for each of these curriculums meeting the minimum requirements to achieve the targeted outcomes.

### Vocational labs minimum criteria

- The maximum allowable number of students per room is 25.
- The Maximum ratio between daimentions is 2.3 m.
- Minimum distance between first line of students' desks and of the wall-mounted board is 1.8 m.
- The minimum area allocated per student within the arts atelier and sewing room is dependent upon the region geographic category plus minimum distance between the first line of students' desks and of the wall-mounted board.

### Arts Atelier and Sewing Room

The arts atelier and sewing room shall be equipped with work stations, movable chairs, teacher's desk, storage cupboards and any other furniture the investor would consider appropriate. TBC encourages the investor to go further with his ideas and design these rooms in line with targeted objectives. The investor may provide a specific room to be used for odor and scents paints, storage, gallery and any other purposes as he may deem appropriate.

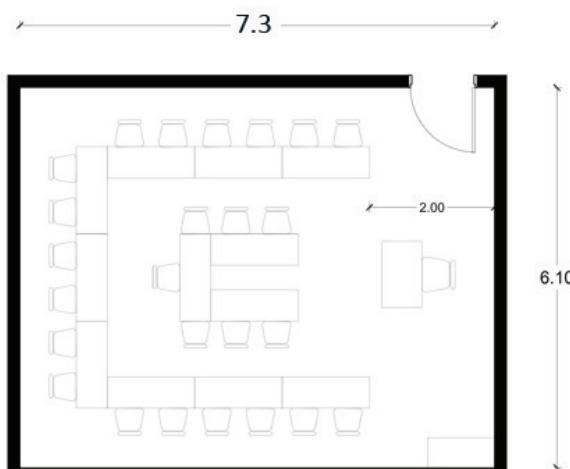
Education level	Category A	Category B	Category C
Intermediate – Arts and Sewing	1.35	1.25	1.15

The minimum area allocated per student is dependent upon the region geographic category plus minimum distance between the first line of students' desks and of the wall-mounted board.

#### example:

Geographic category X number of students  
+ distance between first line of students desks  
and wall mounted board x width of the wall where  
the board is mounted on

$$1.35 \times 25 + 1.8 \times 6.10 = 44.70 \text{ m}^2$$



## Home Economics

The kitchen shall be simple and straight forward design that facilitates the participation of all students in preparing the meals. Taking into account cleanliness, maintenance and sealed storage area for health purposes. TBC encourages investors to be creative in designing a kitchen that motivates creativity and promotes students' responsibility in health, nutrition and creativity aspects of cooking activities.

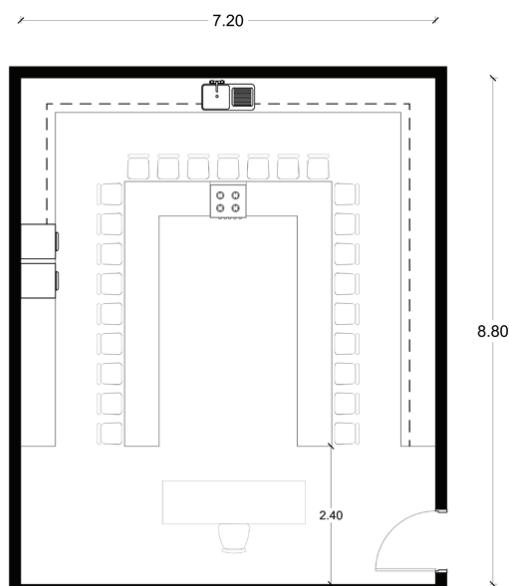
Education level	Category A	Category B	Category C
Intermediate – Home Economics	2	1.9	1.7

The minimum area allocated per student is dependent upon the region geographic category plus minimum distance between the first line of students' desks and of the wall-mounted board.

### example:

Geographic category X number of students  
+ distance between first line of students desks  
and wall mounted board x width of the wall where  
the board is mounted on

$$2 \times 25 + 1.8 \times 7.20 = 62.96 \text{ m}^2$$



## Learning Resources Center

Learning resources center or library is an essential element in modern education process, supporting students in relation with subject materials, self-learning and cooperation. Therefore TBC set the minimum criteria required for the student within this space ensuring investor's due diligence while maximizing the scientific value that escalates students' skills and achievements by return.

- The minimum area for the librarian room is: 8 m<sup>2</sup>.
- The minimum area allocated per student is dependent upon the region geographic category plus the required area for librarian circulation in the center.
- A room shall be attached to the center for presenting documentary films to be included in the minimum student's area.

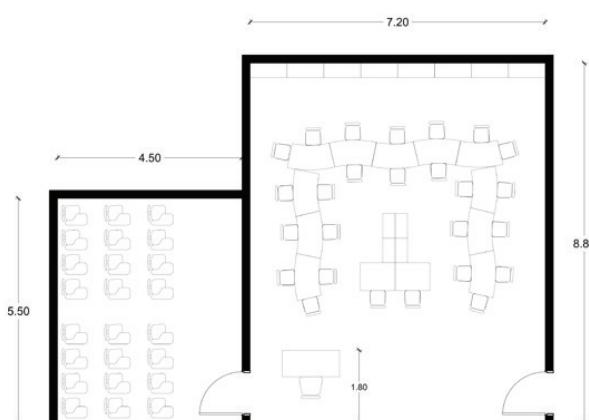
Education level	Category A	Category B	Category C
Intermediate	2.7	2.5	2.3

The minimum area allocated per student is dependent upon the region geographic category plus minimum distance between the first line of students' desks and of the wall-mounted board.

### example:

Geographic category X number of students  
+ distance between first line of students desks  
and wall mounted board x width of the wall where  
the board is mounted on

$$2.7 \times 25 + 1.8 \times 7.20 = 74.70 \text{ m}^2$$



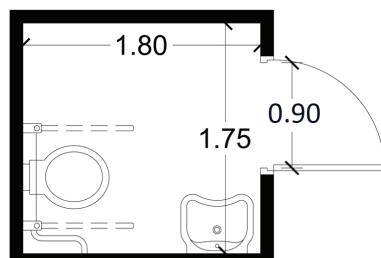
## Toilets

Toilets are very important component of the school's space program and have direct relation with general health conditions. Considering the design efficiency of toilets taking into account students' ages, slip-resistant finishing materials, distribution of toilets within education spaces, maintenance and cleanliness that reflect on the students' general health.

- Single toilet for every 20 students at minimum.
- 2 hand wash sinks for every 3 toilets.
- The minimum toilet area is  $1.35 \text{ m}^2$ .

## Disabled Toilets

- The minimum toilet area is  $3.15 \text{ m}^2$ .
- The toilet shall be equipped with hand wash sink and special fittings and handrails taking into account the sanitary ware dimensions which shall be suitable for students' ages.
- Every cluster of toilets within the building shall include a single toilet for disabled users.



$3.15 \text{ m}^2$



$1.35 \text{ m}^2$

## **Multi-Purposes Room**

Cooperative education, curriculum & extra-curriculum activities, brain storming meetings and other activities are necessary to break up the daily classroom routine and gear up students' enthusiasm. This room is designated for any curriculum and extra-curriculum activities, the investor is required to provide such room and shall be equipped as he deems appropriate for the best interest of the students. Nevertheless, TBC requires existence of this room as it is of paramount value to the education process.

- The maximum allowable number of students per room is 25.
- The minimum teacher's area in the room is 8 m<sup>2</sup>.

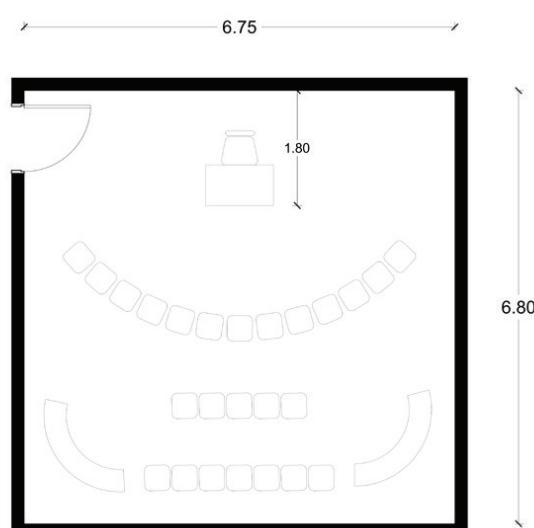
Education level	Category A	Category B	Category C
Intermediate	1.35	1.25	1.15

The minimum area allocated per student is dependent upon the region geographic category plus minimum distance between the first line of students' desks and of the wall-mounted board.

### **example:**

Geographic category X number of students  
+ distance between first line of students desks  
and wall mounted board x width of the wall where  
the board is mounted on

$$1.35 \times 25 + 1.8 \times 6.75 = 45.90 \text{ m}^2$$



## **Outdoor Court**

The outdoor court is the alternative for the outdoor pitch at boys' school. The area of this court shall be suitable for all activities, breaks, open day's activities, morning public address and other activities. It is proposed to install climbers, slides and toys for the kids along with tables and chairs. TBC didn't specify criteria for this court and were left for the investor to design it as he deems appropriate, in terms of students' interest and their safety while selecting the flooring materials as well as shading.

- The minimum area for the outdoor court is 400 m<sup>2</sup>.

# Secondary Education for Boys

The secondary education for boys comprises three grades. The Student is admitted to secondary education after completion of intermediate grades. Student at this point needs a motivating environment that prepares him for university. This environment shall take into account students' tendencies by providing multiple labs, sports and extra-curriculum activities. Literary tendency shall be taken in consideration by providing necessary facilities such as learning resource center, cooperative education spaces, elocution stages, etc. without ignoring the compulsory spaces such classrooms, physics, chemistry and biology labs, computer labs arts atelier and learning resources center.

TBC set the minimum criteria according to land plot geographic area category and compulsory spaces for each secondary school. TBC promotes innovation and creativity alongside with investor's vision for the best interest of students' education.



## **Education Building General Requirements for Secondary School**

- Full accessibility to all building's facilities.
- The maximum number of students per classroom shall not exceed 25 students.

## **Education Building's Facilities for Secondary School**

- Classrooms accommodating 25 students at maximum.
- Physics lab.
- Chemistry lab.
- Biology lab.
- Computer & languages lab.
- Arts atelier.
- Learning resources center.
- Toilets.
- Multi-purposes room.
- Outdoor pitch.

## Students' Space Criteria Within Education Spaces

### Classroom

Classroom is the foundation stone in the education process and the most important space within the school's building. Classroom shall contain chair and movable desk for each student, board, books cupboard, teacher's desk and chair. Natural light and ventilation are necessary elements in the classrooms.

- The maximum allowable number of students per classroom is 25.
- The Maximum ratio between dimensions is 2.3 m.
- Minimum distance between first line of students' desks and of the wall-mounted board is 1.8 m.
- The space should be an organized shape.

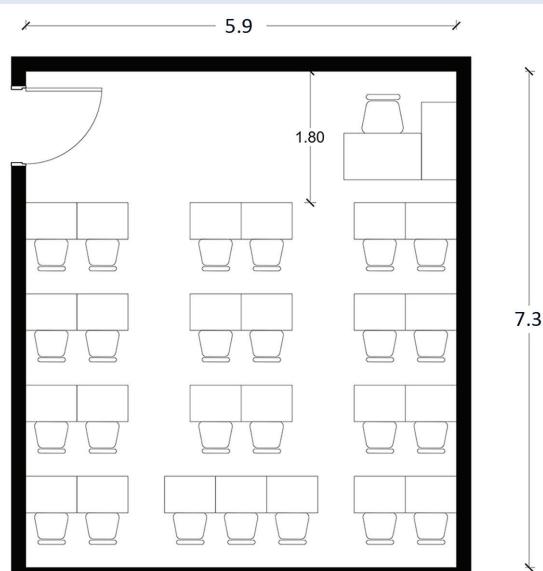
Education level	Category A	Category B	Category C
Secondary	1.3	1.3	1.3

The minimum area allocated per student is dependent upon the region geographic category plus minimum distance between the first line of students' desks and of the wall-mounted board.

#### example:

Geographic category X number of students  
+ distance between first line of students desks  
and wall mounted board x width of the wall where  
the board is mounted on

$$1.3 \times 25 + 1.8 \times 5.90 = 43.12 \text{ m}^2$$



## **Science Lab**

Science lab is a supporting element to the education process, offering real application of science theories and experiments. The lab shall include lab tables equipped with water facility, chairs for students, board, store and teacher's desk. Natural light and ventilation are necessary elements in laboratories.

- Single science lab for every 10 classrooms.
- The maximum allowable number of students per lab is 25.
- The Maximum ratio between daimentions is 2.3 m.
- Minimum distance between first line of students' desks and of the wall-mounted board is 1.8 m.
- The space should be an organized shape.
- Emergency exit.

<b>Education level</b>	<b>Category A</b>	<b>Category B</b>	<b>Category C</b>
Secondary	2.25	2.1	2

## **Physics Lab**

The physics lab shall be equipped with proper tools, apparatus and gauges. Preparation room is not required as it is safe in terms of used materials.

## **Biology Lab**

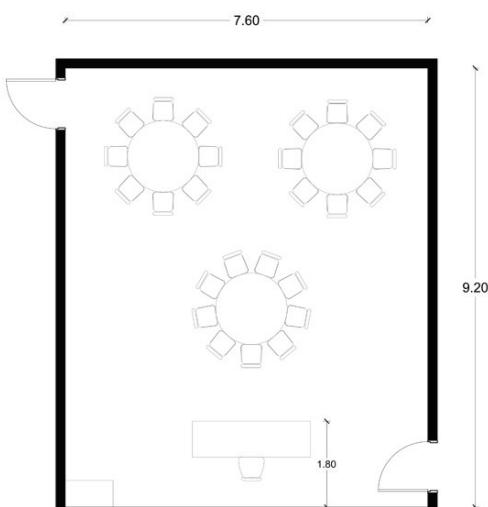
Biology experiments require microscopes of different types, specimens' slides for microscopic research, living specimens and other supporting means as necessary. As these experiments are safe, a preparation room is not required. Nevertheless, provision of water is required as well as sealed cooled cabinets.

The minimum area allocated per student is dependent upon the region geographic category plus minimum distance between the first line of students' desks and of the wall-mounted board.

### **example:**

Geographic category X number of students  
+ distance between first line of students desks  
and wall mounted board x width of the wall where  
the board is mounted on

$$2.25 \times 25 + 1.8 \times 7.60 = 69.93 \text{ m}^2$$



## Chemistry Lab

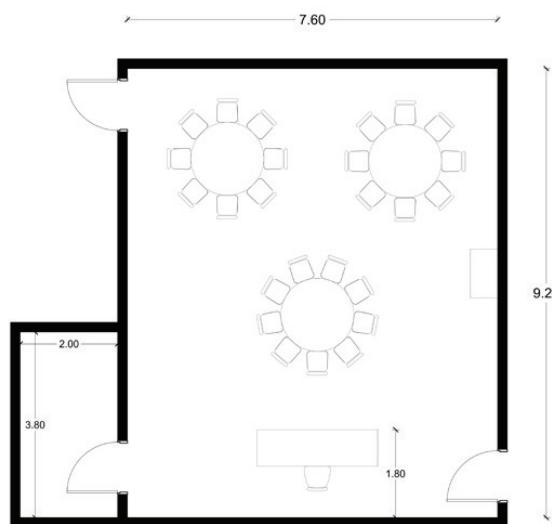
This lab shall contain all materials required for curriculum experiments i.e. heating mantles, flasks and any other apparatus and tools. It is required to provide a preparation room which shall be separated from the lab by a wall with emergency exit as some of these experiments may be dangerous.

The minimum area allocated per student is dependent upon the region geographic category plus minimum distance between the first line of students' desks and of the wall-mounted board.

### example:

Geographic category X number of students  
+ distance between first line of students desks  
and wall mounted board x width of the wall where  
the board is mounted on

$$2.25 \times 25 + 1.8 \times 7.60 = 69.93 \text{ m}^2$$



## Computer and Languages Lab

The computer and language lab is as important as the science lab; it facilitates technology enablement in all subjects such as English classes, religious and Arabic subjects. This is the first place for implementing computer theories.

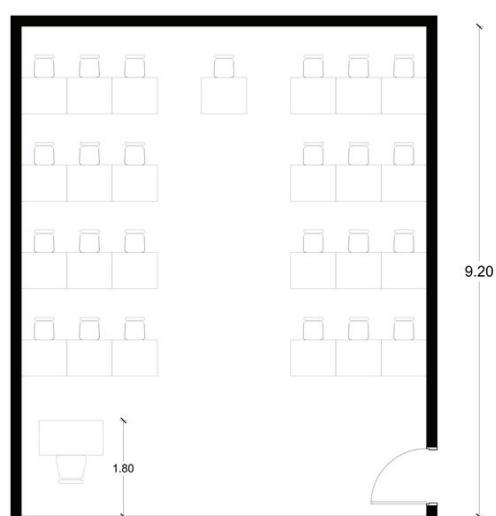
- The maximum allowable number of students per lab is 25.
- The Maximum ratio between daimentions is 2.3 m.
- Minimum distance between first line of students' desks and of the wall-mounted board is 1.8 m.
- The space should be an organized shape.

Education level	Category A	Category B	Category C
Secondary	2.25	2.1	2

The minimum area allocated per student is dependent upon the region geographic category plus minimum distance between the first line of students' desks and of the wall-mounted board.

### example:

Geographic category X number of students  
+ distance between first line of students desks and wall mounted board x width of the wall where the board is mounted on



$$2.25 \times 25 + 1.8 \times 7.60 = 69.93 \text{ m}^2$$

## Arts Atelier

Arts education is a curriculum that enriches the students' creativity and it is more than just a teaching subject, therefore TBC set minimum criteria that endorse the students' arts expressions, art works and drawing skills.

- The maximum allowable number of students per room is 25.
- The Maximum ratio between daimentions is 2.3 m.
- Minimum distance between first line of students' desks and of the wall-mounted board is 1.8 m.

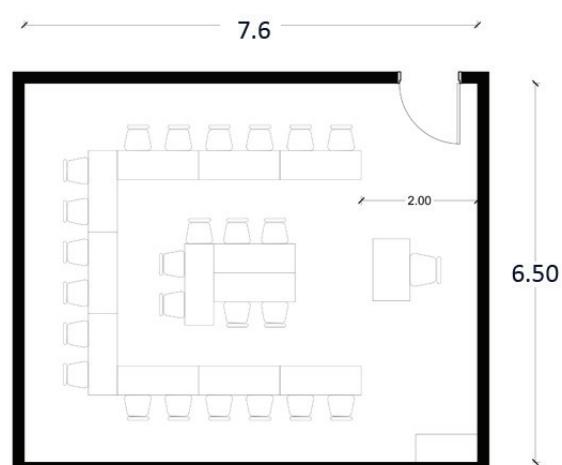
Education level	Category A	Category B	Category C
Secondary	1.5	1.4	1.3

The minimum area allocated per student is dependent upon the region geographic category plus minimum distance between the first line of students' desks and of the wall-mounted board.

### example:

Geographic category X number of students  
+ distance between first line of students desks  
and wall mounted board x width of the wall where  
the board is mounted on

$$1.5 \times 25 + 1.8 \times 6.50 = 49.2 \text{ m}^2$$



## **Business Administration Lab (Optional)**

Business administration subject is the first step for the student in gaining forward thinking and problem solving skills. This curriculum shall be taught in a specific lab that reflects the future business atmosphere, and shall be equipped with tables for team work, computers, books for research purposes and any other necessary tools required for sound business environment. TBC set the minimum criteria while the investor is free to go further with his ideas and innovation in relation with the area and location of this space, providing a specific room for each discipline and many other ideas applicable to this space.

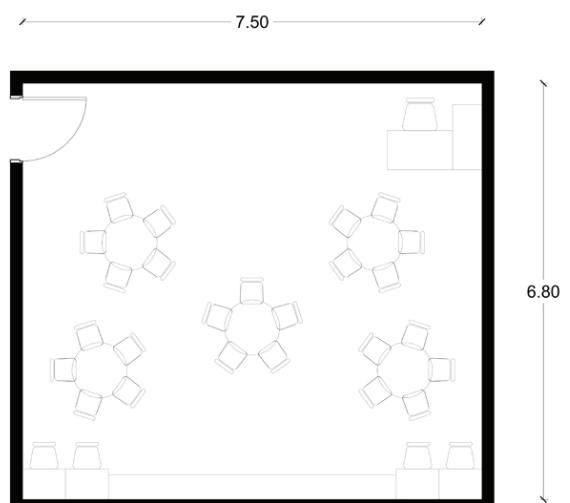
Education level	Category A	Category B	Category C
Secondary	1.5	1.4	1.3

The minimum area allocated per student is dependent upon the region geographic category plus minimum distance between the first line of students' desks and of the wall-mounted board.

### **example:**

Geographic category X number of students  
+ distance between first line of students desks  
and wall mounted board x width of the wall where  
the board is mounted on

$$1.5 \times 25 + 1.8 \times 7.50 = 51 \text{ m}^2$$



## Learning Resources Center

Learning resources center or library is an essential element in modern education process, supporting students in relation with subject materials, self-learning and cooperation. Therefore TBC set the minimum criteria required for the student within this space ensuring investor's due diligence while maximizing the scientific value that escalates students' skills and achievements by return.

- The minimum area for the librarian room is: 8 m<sup>2</sup>.
- The minimum area allocated per student is dependent upon the region geographic category plus required area for librarian circulation in the center.
- A room shall be attached to the center for presenting documentary films to be included in the minimum student's area.

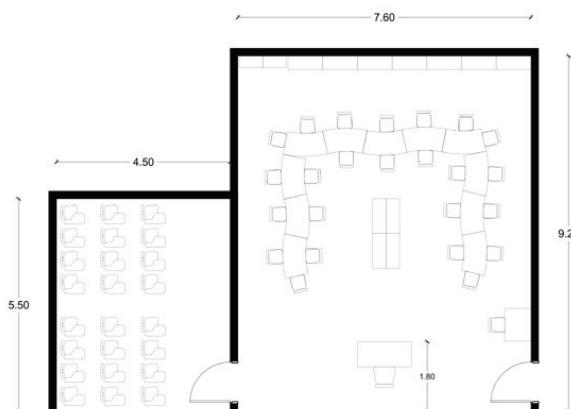
Education level	Category A	Category B	Category C
Secondary	3	2.8	2.6

The minimum area allocated per student is dependent upon the region geographic category plus minimum distance between the first line of students' desks and of the wall-mounted board.

### example:

Geographic category X number of students  
+ distance between first line of students desks  
and wall mounted board x width of the wall where  
the board is mounted on

$$3 \times 25 + 1.8 \times 7.60 = 88.60 \text{ m}^2$$



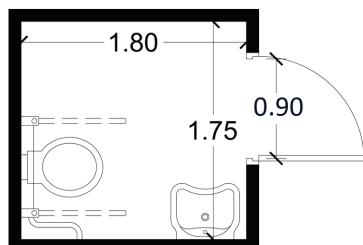
## Toilets

Toilets are very important component of the school's space program and have direct relation with general health conditions. Considering the design efficiency of toilets taking into account students' ages, slip-resistant finishing materials, distribution of toilets within education spaces, maintenance and cleanliness that reflect on the students' general health.

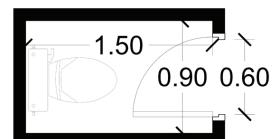
- Single toilet for every 20 students at minimum.
- 2 hand wash sinks for every 3 toilets.
- The minimum toilet area is  $1.35 \text{ m}^2$ .

## Disabled Toilets

- The minimum toilet area is  $3.15 \text{ m}^2$ .
- The toilet shall be equipped with hand wash sink and special fittings and handrails taking into account the sanitary ware dimensions which shall be suitable for students' ages.
- Every cluster of toilets within the building shall include a single toilet for disabled users.



$3.15 \text{ m}^2$



$1.35 \text{ m}^2$

## **Multi-Purposes Room**

Cooperative education, curriculum & extra-curriculum activities, brain storming meetings and other activities are necessary to break up the daily classroom routine and gear up students' enthusiasm. This room is designated for any curriculum and extra-curriculum activities, the investor is required to provide such room and shall be equipped as he deems appropriate for the best interest of the students. Nevertheless, TBC requires existence of this room as it is of paramount value to the education process.

- The maximum allowable number of students per room is 25.
- The minimum teacher's area in the room is 8 m<sup>2</sup>.
- The minimum area allocated per student is dependent upon the region geographic category plus required area for librarian circulation in the center. Distance between first line of students desk and wall mounted board.

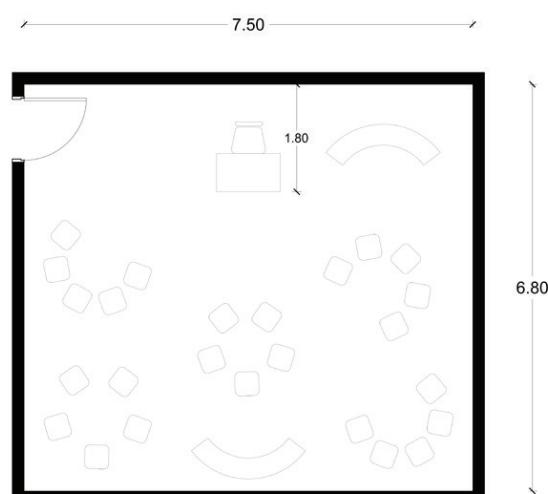
Education level	Category A	Category B	Category C
Secondary	1.5	1.4	1.3

The minimum area allocated per student is dependent upon the region geographic category plus minimum distance between the first line of students' desks and of the wall-mounted board.

### **example:**

Geographic category X number of students  
+ distance between first line of students desks  
and wall mounted board x width of the wall where  
the board is mounted on

$$1.5 \times 25 + 1.8 \times 7.50 = 51 \text{ m}^2$$



## **Outdoor Pitch**

TBC set minimum criteria for the sake of completing the education and health cycle through the outdoor pitch. TBC encourages investors to design football or basketball field efficiently. The pitch design, ground surface safety, spectator seating area and number of pitches are dependent upon the investor desire.

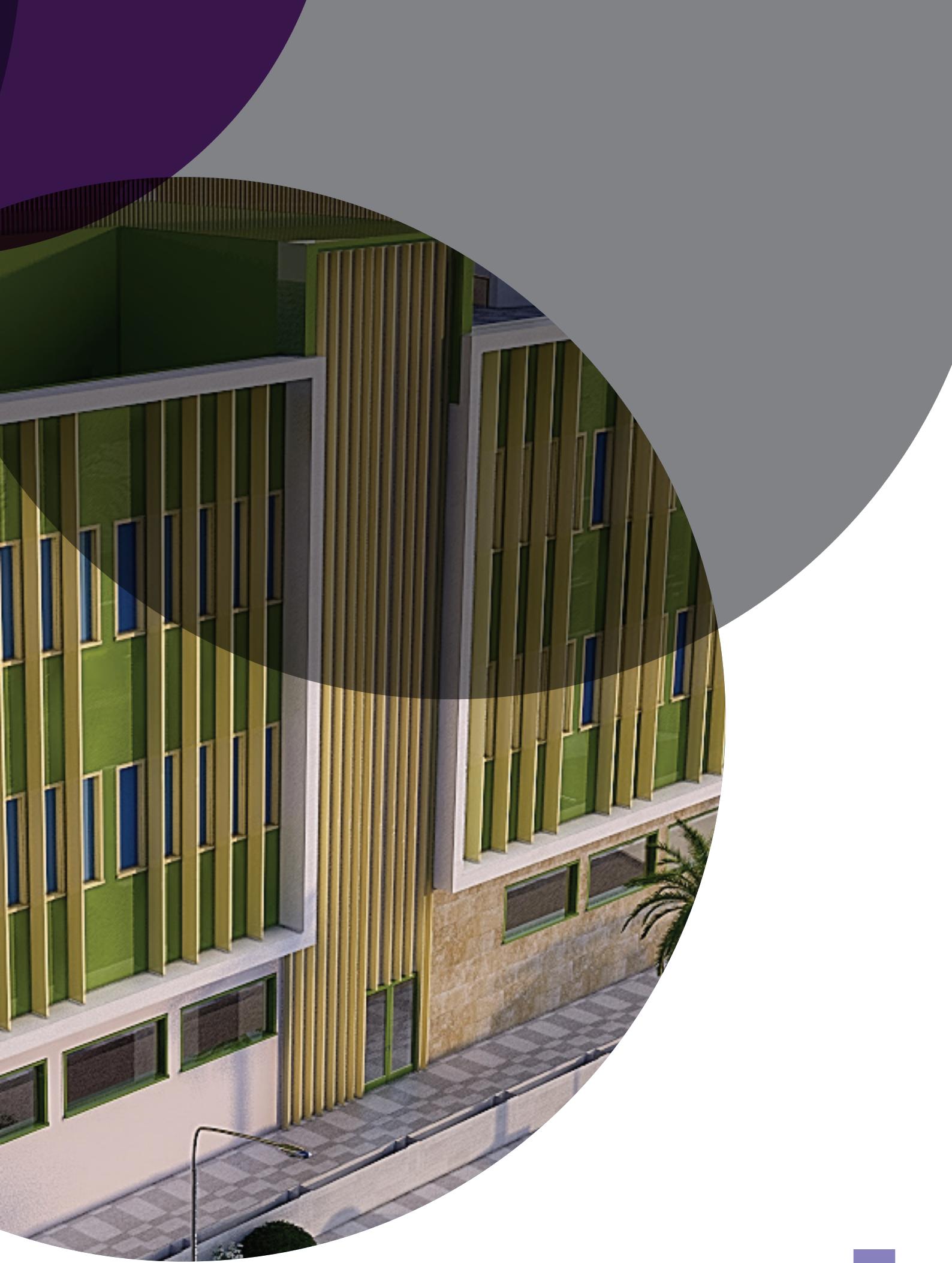
- Minimum pitch area: 400 m<sup>2</sup>.

# Secondary Education for Girls

The secondary education for girls comprises three grades. The Student is admitted to secondary education after completion of intermediate grades. Student at this point needs a motivating environment that prepares her for university. This environment shall take into account students' tendencies by providing multiple labs and extra-curriculum activities. Literary tendency shall be taken in consideration by providing necessary facilities such as learning resource center, cooperative education spaces, elocution stages, etc. without ignoring the compulsory spaces such classrooms, physics, chemistry and biology labs, computer labs arts atelier and learning resources center.

TBC set the minimum criteria according to land plot geographic area category and compulsory spaces for each secondary school. TBC promotes innovation and creativity alongside with investor's vision for the best interest of students' education.





## **Education Building General Requirements for Secondary School**

- Full accessibility to all building's facilities.
- The maximum number of students per classroom shall not exceed 25 students.

## **Education Building's Facilities for Secondary School**

- Classrooms accommodating 25 students at maximum.
- Physics lab.
- Chemistry lab.
- Biology lab.
- Computer & languages lab.
- Arts atelier.
- Sewing room.
- Home economics kitchen.
- Learning resources center.
- Toilets.
- Multi-purposes room.
- Outdoor court.

## Student's Requirements in Education Space Program

### Classroom

Classroom is the foundation stone in the education process and the most important space within the school's building. Classroom shall contain chair and movable desk for each student, board, books cupboard, teacher's desk and chair. Natural light and ventilation are necessary elements in the classrooms.

- The maximum allowable number of students per classroom is 25.
- The Maximum ratio between daimentions is 2.3 m.
- Minimum distance between first line of students' desks and of the wall-mounted board is 1.8 m.
- The space should be an organized shape.

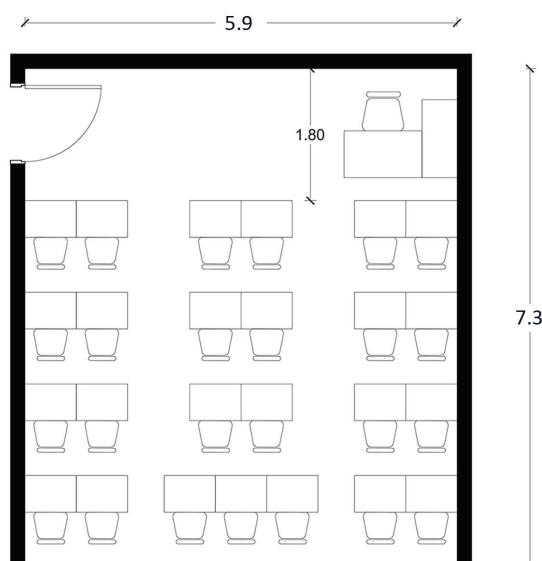
Education level	Category A	Category B	Category C
Secondary	1.3	1.3	1.3

The minimum area allocated per student is dependent upon the region geographic category plus minimum distance between the first line of students' desks and of the wall-mounted board.

#### example:

Geographic category X number of students  
+ distance between first line of students desks and wall mounted board x width of the wall where the board is mounted on

$$1.3 \times 25 + 5.90 \times 1.8 = 43.12 \text{ m}^2$$



## **General Science Lab**

Science lab is a supporting element to the education process, offering real application of science theories and experiments. The lab shall include lab tables equipped with water facility, chairs for students, board, store and teacher's desk. Natural light and ventilation are necessary elements in laboratories.

- Single science lab for every 10 classrooms.
- The maximum allowable number of students per lab is 25.
- The Maximum ratio between daimentions is 2.3 m.
- Minimum distance between first line of students' desks and of the wall-mounted board is 1.8 m.
- The space should be an organized shape.
- Emergency exit.

<b>Education level</b>	<b>Category A</b>	<b>Category B</b>	<b>Category C</b>
Secondary	2.25	2.1	2

## **Physics Lab**

The physics lab shall be equipped with proper tools, apparatus and gauges. Preparation room is not required as it is safe in terms of used materials.

## **Biology Lab**

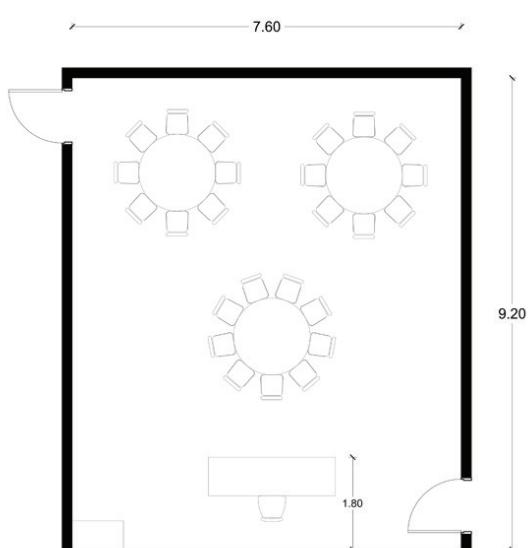
Biology experiments require microscopes of different types, specimens' slides for microscopic research, living specimens and other supporting means as necessary. As these experiments are safe, a preparation room is not required. Nevertheless, provision of water is required as well as sealed cooled cabinets.

The minimum area allocated per student is dependent upon the region geographic category plus minimum distance between the first line of students' desks and of the wall-mounted board.

### **example:**

Geographic category X number of students  
+ distance between first line of students desks  
and wall mounted board x width of the wall where  
the board is mounted on

$$2.25 \times 25 + 1.8 \times 7.60 = 69.9 \text{ m}^2$$



## Chemistry Lab

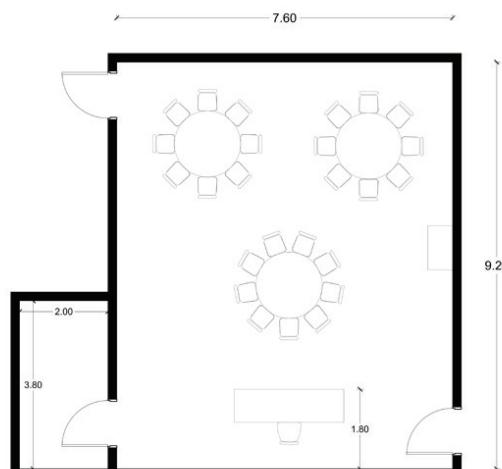
This lab shall contain all materials required for curriculum experiments i.e. heating mantles, flasks and any other apparatus and tools. It is required to provide a preparation room which shall be separated from the lab by a wall with emergency exit as some of these experiments may be dangerous.

The minimum area allocated per student is dependent upon the region geographic category plus minimum distance between the first line of students' desks and of the wall-mounted board.

### example:

Geographic category X number of students  
+ distance between first line of students desks  
and wall mounted board x width of the wall where  
the board is mounted on

$$2.25 \times 25 + 1.8 \times 7.60 = 69.9 \text{ m}^2$$



## Computer and Languages Lab

The computer and language lab is as important as the science lab; it facilitates technology enablement in all subjects such as English classes, religious and Arabic subjects. This is the first place for implementing computer theories.

- The maximum allowable number of students per lab is 25.
- The Maximum ratio between daimentions is 2.3 m.
- Minimum distance between first line of students' desks and of the wall-mounted board is 1.8 m.
- The space should be an organized shape.

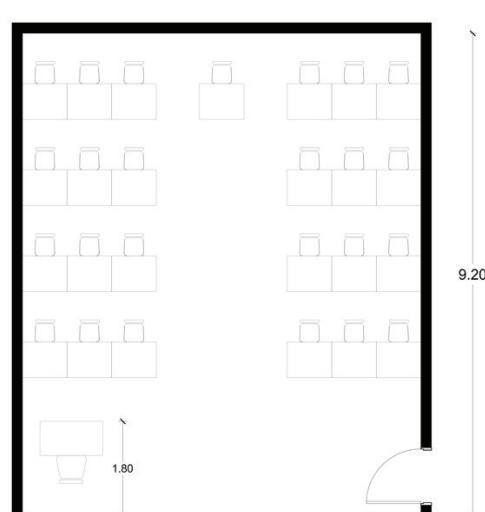
Education level	Category A	Category B	Category C
Secondary	2.25	2.1	2

The minimum area allocated per student is dependent upon the region geographic category plus minimum distance between the first line of students' desks and of the wall-mounted board.

### example:

Geographic category X number of students  
+ distance between first line of students desks  
and wall mounted board x width of the wall where  
the board is mounted on

$$2.25 \times 25 + 1.8 \times 7.60 = 69.9 \text{ m}^2$$



## **Vocational Labs**

Student is entitled to select any of the vocational disciplines including sewing, arts education and home economics. It is required to provide specific room for each subject equipped as necessary. TBC set the minimum criteria while the investor is free to go further with his ideas and innovation in relation with the area and location of this space, providing a specific attached room for each discipline and many other ideas applicable to this space.

### **Vocational Labs Minimum Criteria**

- The maximum allowable number of students per room is 25.
- The Maximum ratio between daimentions is 2.3 m.
- Minimum distance between first line of students' desks and of the wall-mounted board is 1.8 m.
- The minimum area allocated per student within the arts atelier and sewing rooms is dependent upon the region geographic category plus minimum distance between the first line of students' desks and of the wall-mounted board.
- The minimum area allocated per student within the home economics kitchen is dependent upon the region geographic category plus minimum distance between the first line of students' desks and of the wall-mounted board.

## **Arts Atelier and Sewing Room**

The arts atelier and sewing room shall be equipped with work stations, movable chairs, teacher's desk, storage cupboards and any other furniture the investor would consider appropriate. TBC encourages the investor to go further with his ideas and design these rooms in line with targeted objectives. The investor may provide a specific room to be used for odor and scents paints, storage, gallery and any other purposes as he may deem appropriate.

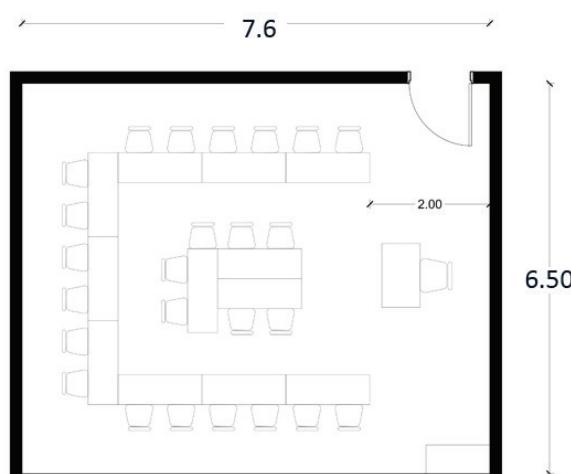
Education level	Category A	Category B	Category C
Secondary – Arts and Sewing	1.5	1.4	1.3

The minimum area allocated per student is dependent upon the region geographic category plus minimum distance between the first line of students' desks and of the wall-mounted board.

### **example:**

Geographic category X number of students  
+ distance between first line of students desks  
and wall mounted board x width of the wall where  
the board is mounted on

$$1.5 \times 25 + 6.50 \times 1.8 = 49.2 \text{ m}^2$$



## Home Economics

The kitchen shall be simple and straight forward design that facilitates the participation of all students in preparing the meals. Taking into account cleanliness, maintenance and sealed storage area for health purposes. TBC encourages investors to be creative in designing a kitchen that motivates creativity and promotes students' responsibility in health, nutrition and creativity aspects of cooking activities.

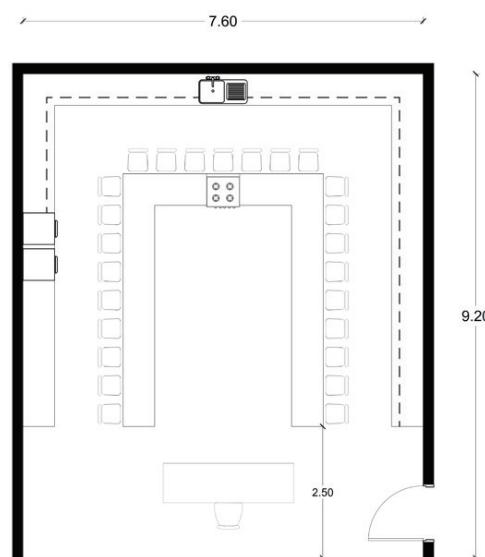
Education level	Category A	Category B	Category C
Secondary – Home Economics	2.25	2.1	2

The minimum area allocated per student is dependent upon the region geographic category plus minimum distance between the first line of students' desks and of the wall-mounted board.

### example:

Geographic category X number of students  
+ distance between first line of students desks  
and wall mounted board x width of the wall where  
the board is mounted on

$$2.25 \times 25 + 1.8 \times 7.60 = 69.9 \text{ m}^2$$



## Learning Resources Center

Learning resources center or library is an essential element in modern education process, supporting students in relation with subject materials, self-learning and cooperation. Therefore TBC set the minimum criteria required for the student within this space ensuring investor's due diligence while maximizing the scientific value that escalates students' skills and achievements by return.

- The minimum area for the librarian room is: 8 m<sup>2</sup>.
- The minimum area allocated per student is dependent upon the region geographic category plus required area for librarian circulation in the center.
- A room shall be attached to the center for presenting documentary films to be included in the minimum student's area.

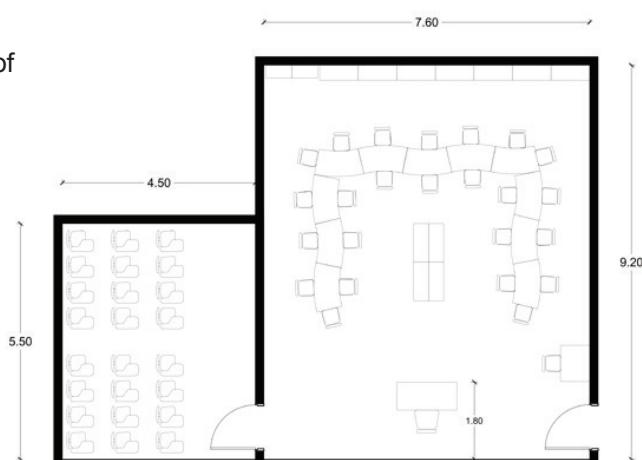
Education level	Category A	Category B	Category C
Secondary	3	2.8	2.6

The minimum area allocated per student is dependent upon the region geographic category plus minimum distance between the first line of students' desks and of the wall-mounted board.

### example:

Geographic category X number of students  
+ distance between first line of students desks  
and wall mounted board x width of the wall where  
the board is mounted on

$$3 \times 25 + 1.8 \times 7.60 = 88.68 \text{ m}^2$$



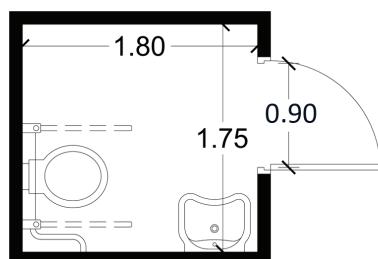
## Toilets

Toilets are very important component of the school's space program and have direct relation with general health conditions. Considering the design efficiency of toilets taking into account students' ages, slip-resistant finishing materials, distribution of toilets within education spaces, maintenance and cleanliness that reflect on the students' general health.

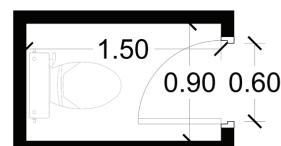
- Single toilet for every 20 students at minimum.
- 2 hand wash sinks for every 3 toilets.
- The minimum toilet area is  $1.35 \text{ m}^2$ .

## Disabled Toilets

- The minimum toilet area is  $3.15 \text{ m}^2$ .
- The toilet shall be equipped with hand wash sink and special fittings and handrails taking into account the sanitary ware dimensions which shall be suitable for students' ages.
- Every cluster of toilets within the building shall include a single toilet for disabled users.



$3.15 \text{ m}^2$



$1.35 \text{ m}^2$

## **Multi-Purposes Room**

Cooperative education, curriculum & extra-curriculum activities, brain storming meetings and other activities are necessary to break up the daily classroom routine and gear up students' enthusiasm. This room is designated for any curriculum and extra-curriculum activities, the investor is required to provide such room and shall be equipped as he deems appropriate for the best interest of the students. Nevertheless, TBC requires existence of this room as it is of paramount value to the education process.

- The maximum allowable number of students per room is 25.
- The minimum teacher's area in the room is 8 m<sup>2</sup>.

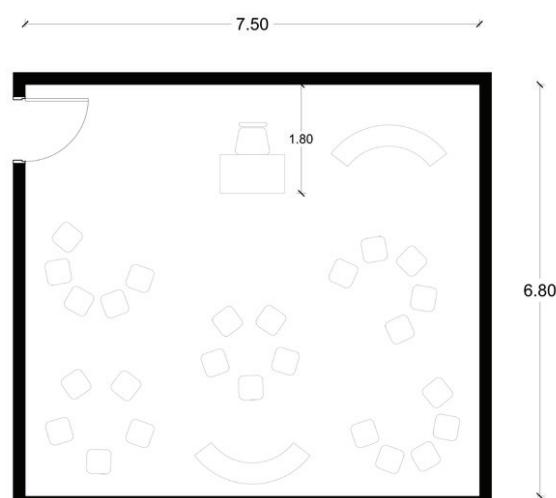
Education level	Category A	Category B	Category C
Secondary	1.5	1.4	1.3

The minimum area allocated per student is dependent upon the region geographic category plus minimum distance between the first line of students' desks and of the wall-mounted board.

### **example:**

Geographic category X number of students  
+ distance between first line of students desks  
and wall mounted board x width of the wall where  
the board is mounted on

$$1.5 \times 25 + 1.8 \times 7.50 = 51 \text{ m}^2$$







# Conclusion

This manual is prepared for the purpose of streamlining the process of approving the engineering designs, outlines space design requirements within the education building, making it easy for the investor and maintains the students' space requirements to complete the education cycle as targeted. TBC took into consideration upon preparation of this manual the social and environmental factors throughout the kingdom, encouraging investors to go further with their ideas and creativity achieving efficiency and improve education quality consistently with the Kingdom's 2030 VISION. The space criteria contained herein are only guidelines for the official approval of education building design, while TBC is ready to extend complete support to the investor and assist him in innovating new patterns that take the education building to the next level contributing in building new generations with innovative thoughts and thriving to achieve more.







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