IDB 21st Century Schools Workshop, Chile

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Ministry of Education, Youth & Information, Jamaica

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GENERAL OVERVIEW

- **Jamaica is a parliamentary democracy with a population of approximately 2.7 million people. The prime minister is the head of government. Administratively the country is divided into 14 parishes.**

- **The Ministry of Education, Youth & Information (MoEYI) is the government entity responsible for the management and administration of public education in Jamaica. The MoEYI was first established in 1953, as the Ministry of Education and Social Welfare. Currently, the MoEYI carries out the Government of Jamaica's mandate of ensuring a system which secures quality education and training of all citizens of Jamaica in order to optimise individual and national development.**

To support MoEYI school infrastructure is the Technical Services Unit (TSI) which now responsible for the architectural, site acquisition, contract management and supervision services of the public education system. The unit is responsible for coordinating the development of the annual Schools Maintenance Budget and manages its implementation.

The unit also helps with the civil works component of foreign and locally funded projects through the provision of construction standards, basic school designs, site identification and acquisition and elemental cost estimates. In addition, the unit also provides services to educational institutions undertaking self-help construction projects; by providing drawings, bills of quantities and advice.

The unit is also supported by six (6) regional offices, staff with technical officers, especially for school maintenance.

National Education Trust Limited (NET) is the agency of the Government of Jamaica (GoJ) which has to some extent and will overtime subsume the role of the Technical Services Unit. The NET mobilises financial and quality resource investments for schools in Jamaica to achieve greater levels of access to education and learning.

Functionally, NET serves its stakeholders in the following areas:

- Construction Management – facilitated through the Projects & Technical Services Unit
- Investment Management – facilitated through the Investment & Fund Management Unit
- Garnering Endowments – facilitated by the Donor & Partner Management Unit

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- **Annually a budget is prepared by the Ministry of Education, Youth & Information through the Technical Services Unit and the National Education Trust for the maintenance, expansion and construction of new schools.**
- **Expansion of schools is basically done where there is a situation of over crowing.**
- **Construction of new schools is determined by census data gathered over time that capturer the need for a new school in a particular area.**

PLANNING

- Currently no there is hold on the construction new schools due the IMF restrictions. The interventions are upgrading and expansion to existing schools infrastructure which a budget is submitted to the Ministry of Finance.
- The annual census done by the Planning Division of the MoEYI is main tool that informs the need for new school and expansion
- Request by the school or Member of Parliaments are other ways that inform the process, inclusive of maintenance
- Designs and preliminary estimate are done
- New schools are usually funded by external source
- After the tender process, cabinet and the local author approval is given to proceed with construction
- The project in managed by TSU&NET and consultants are retained as required

REVISED BUDGET FOR 2015/2016

PROGRAMME	2015/2016		
	RECURRENT	CAPITAL	TOTAL
Central Administration	1,267,509	1,485,880	2,753,389
Early Childhood Education	2,706,065	81,530	2,787,595
Primary Education	28,522,312	130,000	28,652,312
Special Education	1,093,728	42,000	1,135,728
Secondary Education	31,308,549	-	31,308,549
Tertiary Education	14,240,735	167,449	14,408,184
Adult Education	256,397	-	256,397
Common Educational Services	2,007,542	-	2,007,542
Library Services	906,905	26,000	932,905
Students Nutrition		10,955	10,955
Disaster Management	-	-	-
TOTAL Education Budget	**82,309,742**	**1,943,814**	**84,253,556**
Appropriations in Aid	450,000	-	450,000
TOTAL MoE BUDGET	**81,859,742**	**1,943,814**	**83,803,556**

NUMBER OF INSTITUTIONS, TEACHERS AND ENROLMENT 2015/2016

	NUMBER OF TEACHERS			ENROLMENT		
	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL
EARLY CHILDHOOD						
INFANT SCHOOLS	6	403	409	4309	4015	8324
PRIMARY (INFANT DEPARTMENTS)	36	422	458	4087	3922	8009
ALL AGE (INFANT DEPARTMENTS)	6	72	78	691	648	1339
PRIMARY & JUNIOR HIGH (INFANT DEPARTMENTS)	11	69	80	526	513	1039
SUB - TOTAL	**59**	**966**	**1025**	**9613**	**9098**	**18711**
PRIMARY						
PRIMARY (GRADES 1 - 6)	905	6722	7627	90130	87368	177498
ALL AGE (GRADES 1 - 6)	108	900	1008	11768	10405	22173
PRIMARY & JUNIOR HIGH (GRADES 1 - 6)	121	1212	1333	15063	13807	28870
SUB - TOTAL	**1134**	**8834**	**9968**	**116961**	**111580**	**228541**
SECONDARY SCHOOLS						
ALL AGE (GRADES 7 - 9)	44	114	158	270	125	395
PRIMARY & JUNIOR HIGH (GRADES 7 - 9)	193	496	689	2940	2240	5180
SECONDARY HIGH	3098	7507	10605	94846	99725	194571
TECHNICAL HIGH	398	789	1187	10282	10393	20675
AGRICULTURAL HIGH	16	27	43	179	179	358
SUB - TOTAL	**3,749**	**8,933**	**12,682**	**108,517**	**112,662**	**221,179**
GRAND TOTAL	**4,942**	**18,733**	**23,675**	**235,091**	**233,340**	**468,431**

NUMBER OF SCHOOLS

CLASSIFICATION OF SCHOOLS	
EARLY CHILDHOOD	**NO. OF INSTITUTIONS**
INFANT SCHOOLS	41
PRIMARY (INFANT DEPARTMENTS)	206
ALL AGE (INFANT DEPARTMENTS)	33
PRIMARY & JUNIOR HIGH (INFANT DEPARTMENTS)	21
SUB - TOTAL	**301**
PRIMARY	
PRIMARY (GRADES 1 - 6)	583
ALL AGE (GRADES 1 - 6)	97
PRIMARY & JUNIOR HIGH (GRADES 1 - 6)	83
SUB - TOTAL	**763**
SECONDARY SCHOOLS	
ALL AGE (GRADES 7 - 9)	97
PRIMARY & JUNIOR HIGH (GRADES 7 - 9)	84
SECONDARY HIGH	150
TECHNICAL HIGH	14
AGRICULTURAL HIGH	2
SUB - TOTAL	**347**
GRAND TOTAL	**1,411**

CHALLENGES DURING PLANNING PROCESS

- **Assessment can be a challenge at times due to the limited number of technical staff and Prioritization of needs is greatest challenged by the lack financial resources.**
- **The availability land is not available in all areas and at times, the available land is too costly to built on and it is not conducive for school construction.**
- **Not all the required professionals are not available in the Ministry especially structural and mechanical engineers and this affects the planning stage and what can be achieved in a year as we deal with one year budget circle.**
- **The rigidity of the budget has affected the planning for new schools and the old schools are now beyond capacity.**

PLANNING STRENGTHS AND GOOD PRACTICES

- School infrastructure census are done annually to assist ascertain a reduction or increase in the school population and this provides the basis on how to allocate resources.
- The standard documents that exist help to facilities the planning process and determine the size of school that is required at any particular area.
- The compulsory land acquisition program is implemented by the Govt. helps
- There is prototype for individual areas for the school plant which helps the designer to quickly come up with preliminary design and costing but this depends on the nature of the available land.
- The government of Jamaica procurement handbook is a useful instrument in the practice of procurement of works, goods and services.

Our classrooms are still surrounded by concrete walls as our schools are used as shelters during the hurricane seasons as such each classroom is separated from the other by a wall. There is natural (cross) ventilation but this has been over shadowed by the number of students in each classroom

- **Describe elements, designs, strategies:**

We use frame construction (gird system)- columns and beams and we have windows spanning between columns. The aluminum louvres are used and these restrict the amount of ventilation and lighting.

Main obstacles/challenges the country faces to move towards that direction

The main obstacles are:

- **Finance – we are unable to meet up with space demand hence the schools are always over crowded and also to maintain our school infrastructure.**
- **The Budget circle is adhoc**
- **Limited technical staff**

BUILDING TYPOLOGIES

Reinforced Concrete Frame

Steel Frame

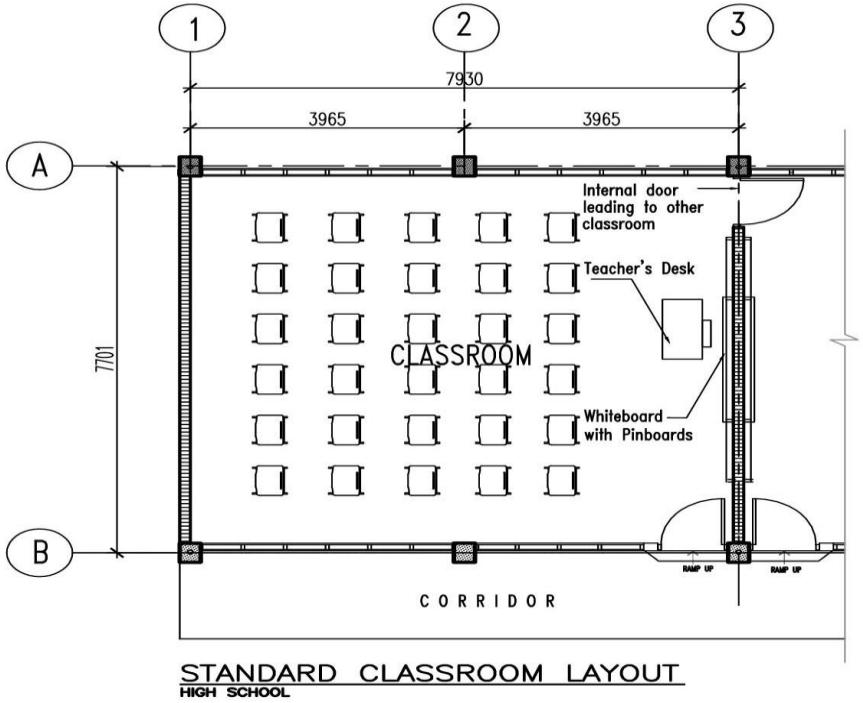
Timber Frame

Reinforced Concrete Modular Structure

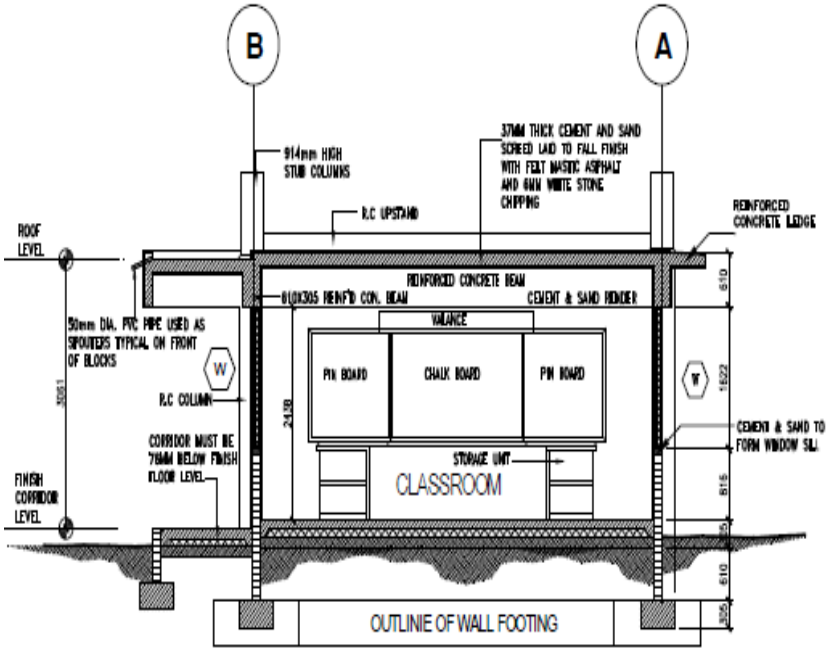
Nog Frame

Photo	Building Typology	Advantage	Disadvantage
	**Reinforced Concrete Frame**	• Seismic resistance • Durable • Allows large openings in walls	• Masonry façade may not be tied in • Very complex seismic reinforcement detailing
	**Nog Frame**	• Seismic resistance if constructed properly and best practice details are followed • Durable	• Large openings compromise stability and do not follow best practice details • Complex rebar detailing
	**Timber Frame**	• Lightweight is good for seismic • Easy to build • Quick to build	• Untreated timber susceptible to insect attack and weather degradation • Unrestrained masonry panels
	**Reinforced Concrete Modular Structure**	• Seismic resistance • Durable • Allows large openings in walls	• Masonry façade may not be tied in • Very complex seismic reinforcement detailing
	**Steel Frame**	• Good for seismic performance • Easy to build • Quick to build	• Untreated steel will corrode if not well maintained • Asbestos – issues with damage / removal

MoEYI STANDARD CLASSROOM

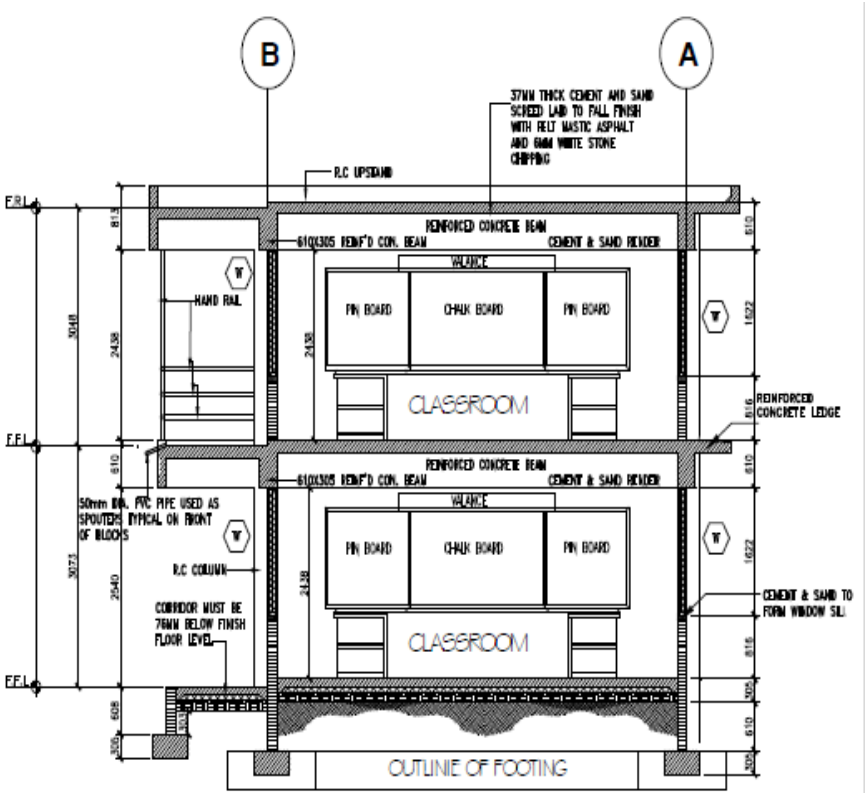


Size: 7.8m x 7.93 = 62.01m2



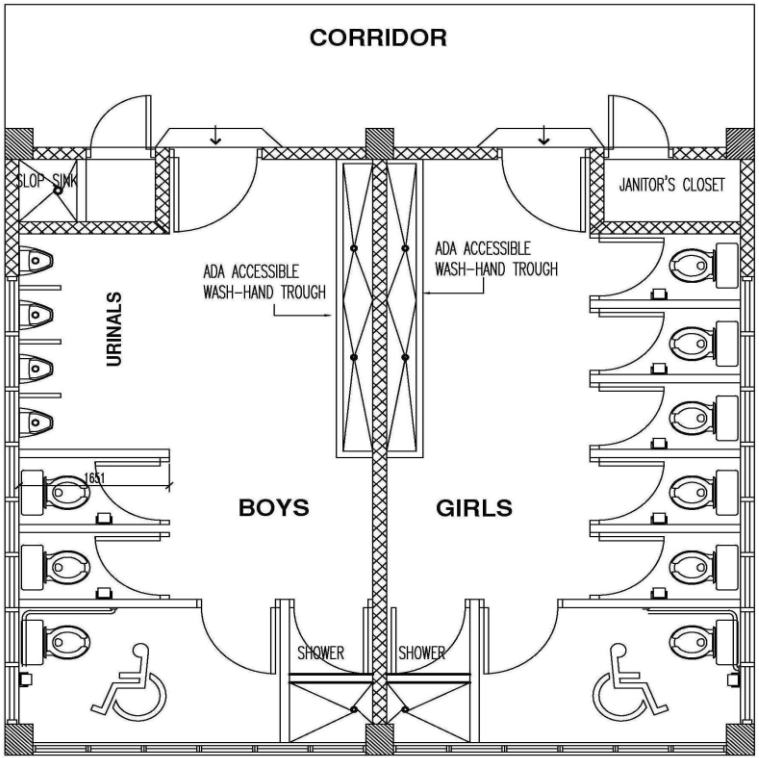
STANDARD SINGLE STOREY BLOCK

Sanik
PRIMARY SCHOOL



STANDARD TWO STOREY BLOCK

Scale:
PRIMARY SCHOOL



STUDENTS LAVATORY LAYOUT

HIGH SCHOOL

CEDAR GROVE HIGH SCHOOL, GREGORY PARK, ST. CATHERINE

BIOLOGY LAB

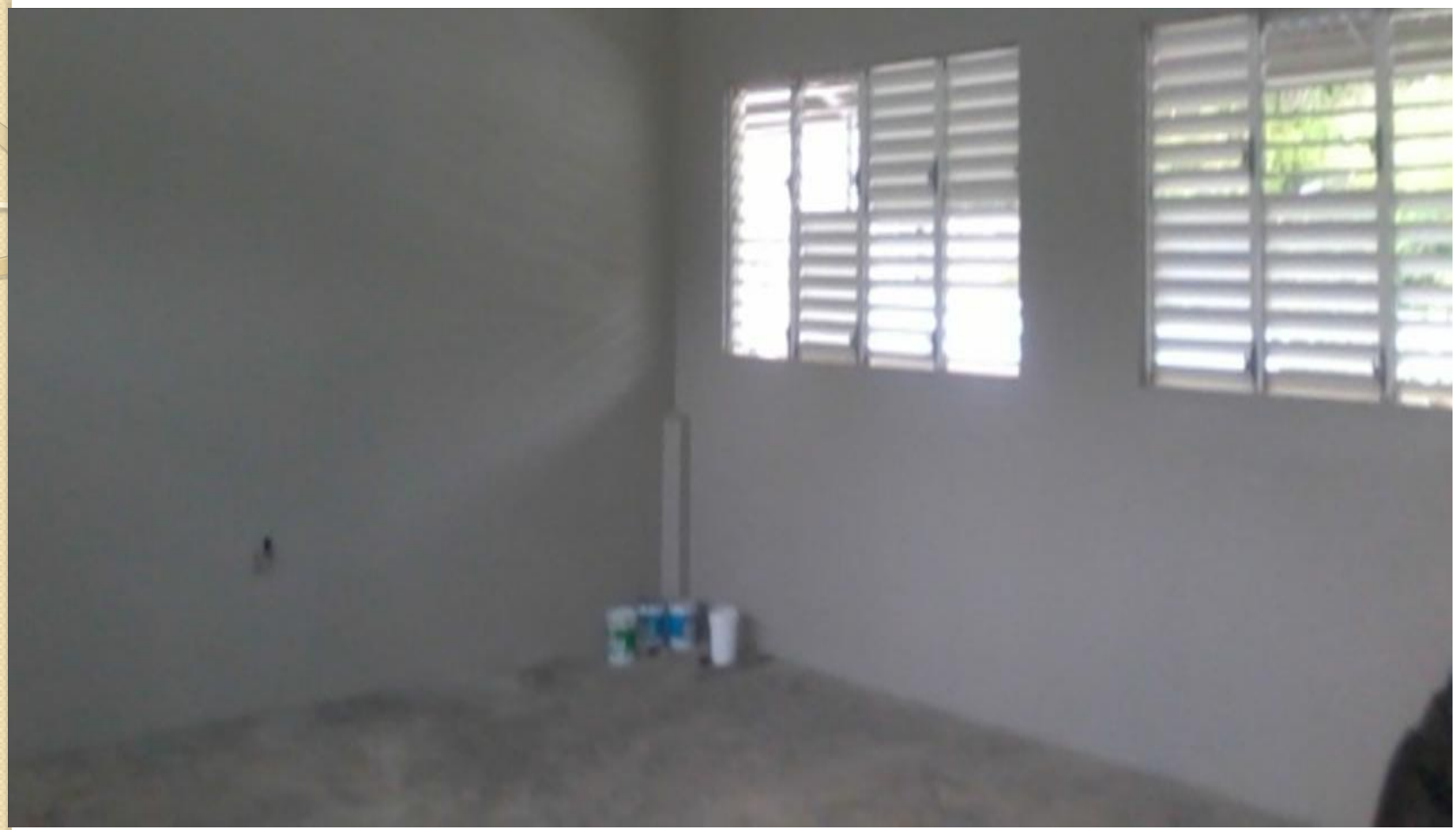
MEETING ROOM

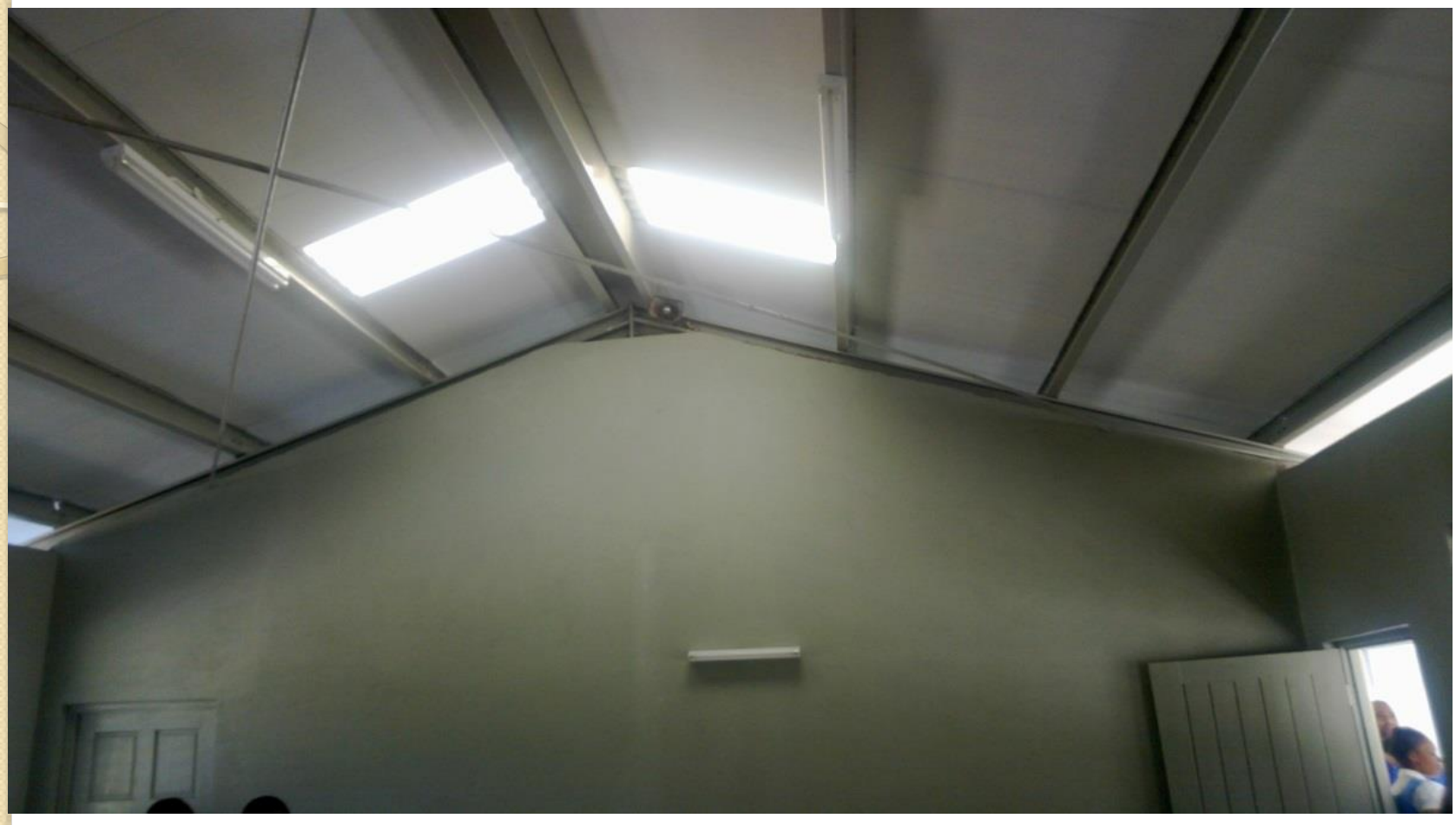
AUDITORIUM

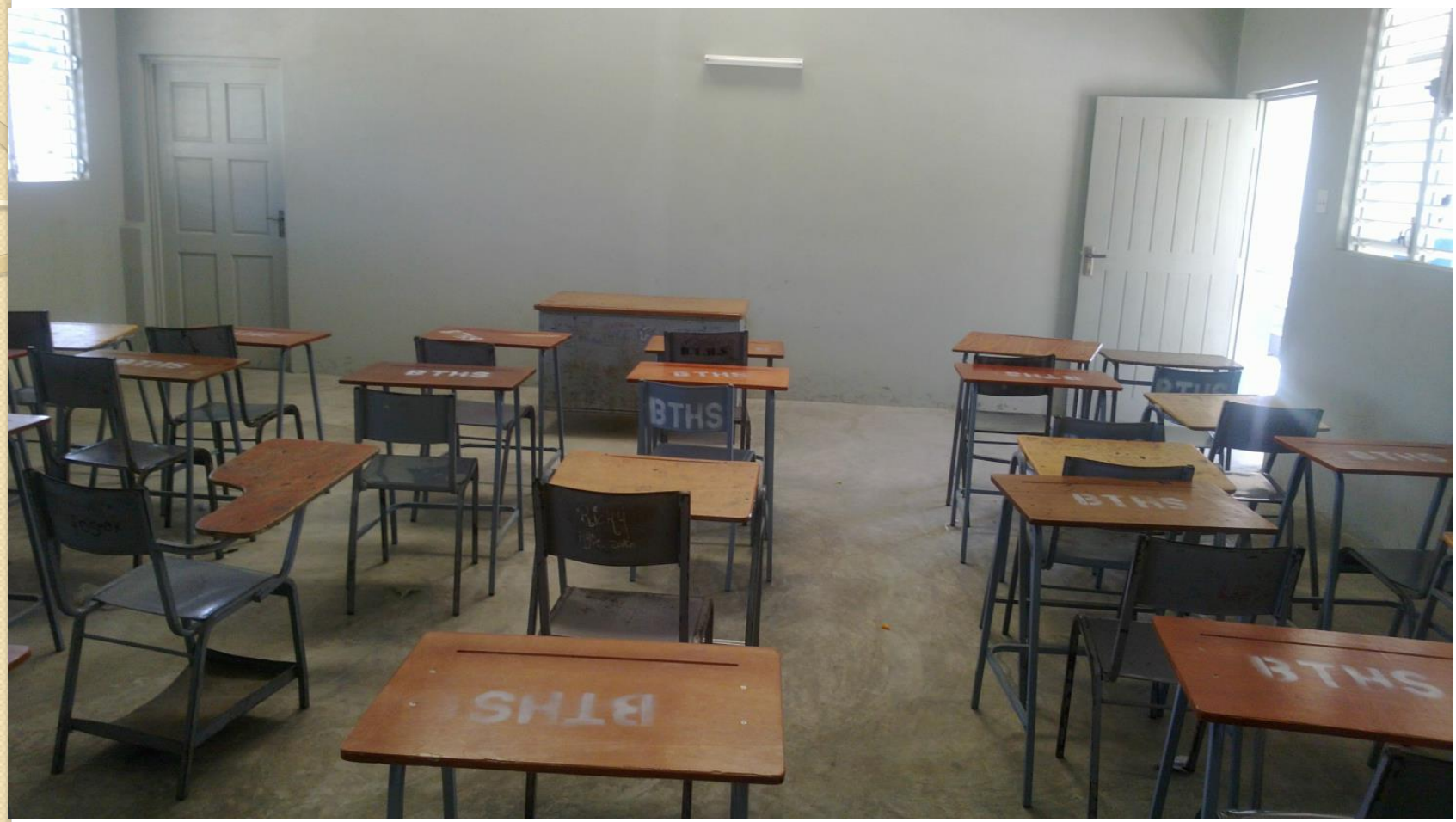
SECTION OF FOOTBALL FIELD

EXPANSION OF BROWN'S HIGH SCHOOL, BROWN' S TOWN, ST. ANN

CONSTRUCTION OF A STEEL FRAME CLASSROOMS






BTHS
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HOLLY TRINITY HIGH SCHOOL, KINGSTON

Two (2) Storey Reinforced Concrete Modular Classroom Block (Expansion Project)

JOHNATHAN GRANT HIGH SCHOOL, SPANISH TOWN, ST. CATHERINE

Three (3) Storey Reinforced Concrete Modular Classroom Block (Expansion Project)

AREAS OF IMPROVEMENT

- Infrastructure planning process should include all stakeholders to minimize various and cost overruns.
- Reduction in time for building permits
- Replace or combine aluminum windows with other transparent materials which not be susceptible to vandalism.
- Government legislate the reservation of land for school development by developers per the size of development.

SUMMARY

Schools in the 21st century should have educating spaces to facilitate the teaching and learning outcome, therefore:

Education systems are expected to help students develop:

- **Way of thinking:** Creativity, Critical thinking, Problem-solving
- **Way of working**: Collaboration, Teamwork, Adaptability, Leadership
- **Way of living together**: Curiosity, Empathy, Self-esteem, Resilience

Source: OECD Centre for Educational Research and Innovation (2011) "The Nature of Learning: Using Research to Inspire Practice

THANK YOU