The Federal Republic of Nigeria
Universal Basic Education Commission
(UBEC)

PREPARATORY SURVEY REPORT
ON
THE PROJECT FOR CONSTRUCTION OF CLASSROOMS FOR PRIMARY SCHOOLS IN OYO STATE IN THE FEDERAL REPUBLIC OF NIGERIA

FINAL REPORT

AUGUST 2014

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

YACHIYO ENGINEERING CO., LTD.

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SUMMARY

(1) Outline of the Country

The Federal Republic of Nigeria (hereinafter referred to as "Nigeria") is by far the most populated country in Africa with a population of 173 million (2012, UNFPA) over a national land area of 924,000 km^2 with a GNI per capita of US$ 5,270 (2012, World Bank). Nigeria is ranked 153 among 194 countries in terms of the "Human Development Index (HDI)" of the United Nations Development Programme.

From an administrative point of view, Nigeria comprises 36 states and the Federal Capital Territory (FCT), and there are total of 774 local government areas (LGAs).

During the rainy season, a south-westerly seasonal wind brings hot humid air from the Gulf of Guinea, frequently producing thunder squalls from the afternoon to evening. In the early period of the rainy season, thunderstorms can occur from the small hours until dawn. During a thunder squall, the state of the atmosphere becomes extremely unstable with constant lightning and thunderbolts. Sand storms called "hamatan" which contain sand dust from the Sahara Desert often rage throughout Nigeria from December to February. During this period, visibility can be reduced to 200 m and gusty winds of about 30 m/sec can occur, necessitating due consideration for the roof structure, etc. under the Project.

(2) Background of the Project

The Federal Republic of Nigeria declares the Nigeria Vision 20:2020 (NV20:2020), a plan to place the country among the top 20 economies of the world by 2020. To achieve the goals of NV20:2020, investing in human capacity development to enhance national competitiveness, the improvement of the educational facilities is one of the critical policy priorities. The purpose of the Project is to improve educational quality through improvement of educational environment; thus, it contributes to the goals of NV20:2020

In Nigeria, 9-year basic education (six years for primary education, three years for lower secondary) was made free and compulsory in 1999. The enrollment rate at primary education in Nigeria increased from 57% in 1998 to 87% in 2012 (Universal Basic Education Commission: UBEC) and is improving continuously. However, only 53% of the classrooms are in good condition, and, the education environment is expected to improve.

In Oyo State, the target of the Project, the average number of enrolled students per classroom was 65 (UBEC, 2012), which exceeds the minimum Nigerian enrolment standard (40 students per class). However, the students are forced to study under poor educational environment. Most of the existing classrooms are in a bad condition, for example, walls are damaged and roofs are leaking. Considering these, the number of students per adequate classroom is more than doubled. The current situation of the education environment is worse than the above number indicates.

In this circumstances, the Government of Nigeria requested grand aid cooperation for "the Project of Construction of Classrooms in Oyo State" to the Government of Japan.

This project aims to construct educational facilities in Oyo state and to implement the soft component on proper maintenance of the facilities, in order to attain the objectives.

Initially, the Nigerian side requested construction of 268 classrooms and toilets in Oyo state, however according to response of the Japanese side, reduced 44 candidate schools were presented to the survey team. The team surveyed 44 schools and screened for selection of project schools.

(3) Outline of the Study Findings and Project Contents

Based on the request of Nigerian side, the first survey in Nigeria was conducted from 21 September 2013 to 18 October 2013, the second survey for draft report discussion from 22 February 2014 to 8 March 2014 and the third survey for discussion on the draft tender documents from 3 August 2014 to 15 August 2014.

The project component and facilities were designed based on the following policies considering the request of Nigerian side, the result of site reconnaissance and mutual discussions.

3-1 Selection of project schools

The 36 project schools were selected from 44 requested schools based on the selection criteria as follows;

1) Site location shall not be remote from Ibadan in view of security and efficiency reasons.
2) The school shall have urgent necessity for construction of additional classrooms (present shortage of classrooms from the standard of 40 pupils per classroom).
3) The maximum number of classrooms to be constructed per one site will be 24 in order to benefit rural schools.
4) Minimum requirement for additional classrooms per school is 3 (standard number of pupils per classroom should be 40).
5) Land ownership or proper land use right for school construction shall be secured with written evidence by SUBEB.
6) There shall be no overlapping with current/ongoing facility improvement by the Nigerian Government, other donors, NGOs, etc.
7) Topographically/environmentally safe and appropriately sized land for construction shall be secured.
8) Access roads for construction vehicles shall be properly provided.
9) Sufficient number of teachers, staff and budget for selected school shall be secured by the Nigeria side.
10) Cooperation from School-Based Management Committee (SBMC) shall be obtained for proper operation and maintenance.

3-2 Project Component

The project facilities will be construction or reconstruction of classrooms, construction of administration rooms in newly divided schools, construction of toilets and provision of education furniture.

Oyo state has the policy to divide large schools which have number of students exceeding 1,000. The two schools in the target schools fall under this criteria and new divided schools will need administration rooms (head teacher's and teachers' room). Thus the administration rooms were planned in these schools.

3-3 Calculation of Number of Classrooms

The number of planned classrooms of the target schools was calculated from the existing number of students divided by the standard number of 40 per classroom, deducting the number of usable classrooms and considering actual attendance of students and site conditions such as area, shape, slope of the site and the condition of access.

The results are 261 classrooms and 2 administration rooms; total number of rooms to be constructed is 263.

Table-1 Planned Number of Classrooms

						Number of Rooms		Buidling		Toilet			Education Furniture		
No.	Original and Survey No.	No. and Priority	Name of Primary School Interviewed	LGUBEA	No. of Students surveyed	Number of Planned Classrooms (AxBxC-D)	Number of Head-master and Teachers Room	3 Class-room Type	4 Class-room Type	Number of Toilet Booth	Toilet house (4 booth type)	Toilet house (6 booth type)	Desk and Chair for 2 Students (set)	Desk and Chair for Teachers (set)	Black-board and Notice board (set)
1	1	1	RATIBI MOSLEM PRIMARY SCHL ODINJO	IBADAN SOUTH EAST	880	6		2		6		1	120	6	6
2	2	2	ST LUKE DEMONSTRATION SCHL MOLETE IBADAAN	IBADAN SOUTH EAST	932	12		4		12		2	240	12	12
3	3	3	ST. LEO'S CATHOLIC SCHOOL	IBADAN SOUTH EAST	1,246	9		3		8	2		180	9	9
4	4	4	I.M.G. PRIMARY SCHL, OLUBADAN	IBADAN SOUTH EAST	960	18	1	5	1	18		3	360	25	18
5	14	5	ONISAPA C.P.S I	OGBOMOSO SOUTH	1,015	12	1	3	1	12		2	240	19	12
6	8	6	L.A DEM. PRY. SCH.	ISEYIN	379	6		2		6		1	120	6	6
7	20	7	I.D.C. BASIC SCH. AKOBO	LAGELU	762	9		3		8	2		180	9	9
8	24	8	ISLAMIC MISSION SCH. MONIYA	AKINYELE	1,049	6		2		6		1	120	6	6
9	21	9	ST. AUGUSTINE R.C.M. AKINSAWE	LAGELU	589	9		3		8	2		180	9	9
10	25	10	ST. PHILIPS PRY, SCH, FASOLA	OYO WEST	585	6		2		6		1	120	6	6
11	32	11	CHRIST CHURCH SCH. I AKINFENWA	EGBEDA	820	6		2		6		1	120	6	6
12	37	12	ABADINA PRY. SCH. U.I	IBADAN NORTH	714	9		3		8	2		180	9	9
13	11	13	ST. MARY'S (RCM) PRY. SCH. I	ISEYIN	590	4			1	4	1		80	4	4
14	17	14	BAPTIST PRY. SCH.I IGBOORA	IBARAPA CENTRAL	1,022	9		3		8	2		180	9	9
15	42	17	COMM. PRY. SCH. I - IV AYEKALE IBADAN	IBADAN NORTH EAST	642	9		3		8	2		180	9	9
16	9	18	METHODIST PRY. SCH. AGO - IJIO	ISEYIN	338	3		1		4	1		60	3	3
17	16	19	METHODIST SCHOOL III	IBARAPA CENTRAL	665	9		3		8	2		180	9	9
18	7	20	COMM, PRY, SCHL, OLUODE	IDO	964	6		2		6		1	120	6	6
19	23	21	EBENEZER ANGLICAN SCH.	AKINYELE	923	12		4		12		2	240	12	12
20	39	22	BAPTIST PRY. SCH. MAYA LANLATE	IBARAPA EAST	420	7		1	1	6		1	140	7	7
21	44	23	ST. ANNE'S CATHOLIC SCHOOL	IBARAPA NORTH	349	3		1		4	1		60	3	3
22	35	24	BAPTIST BASIC SCH. IPASA	SURULERE	208	3		1		4	1		60	3	3
23	31	26	L.A PRY. SCH. OKEOLOLA (SCH-3)	ATIBA	250	3		1		4	1		60	3	3
24	27	27	ST. MICHEAL ANG. RCM,ARAROMI	OYO EAST	1,791	9		3		8	2		180	9	9
25	34	30	COMM. BASIC SCH. KEEWO	SURULERE	112	3		1		4	1		60	3	3
26	6	31	ST. PETER'S PRY. SCH. APETE	IDO	1,246	9		3		8	2		180	9	9
27	10	32	ARMY CHILDREN PRY. SCH.	ISEYIN	340	3		1		4	1		60	3	3
28	41	34	ISLAMIC MISSION PRY. SCH. I & II AGUGU	IBADAN NORTH EAST	589	7		1	1	6		1	140	7	7
29	33	35	C.P.S I AYEPE	EGBEDA	601	12		4		12		2	240	12	12
30	29	36	BAPTIST PRY SCHL II, OTAMOKUN	OGO OLUWA	617	6		2		6		1	120	6	6
31	26	37	COMM, PRY, SCHL, OGUNKEYE	OYO WEST	380	3		1		4	1		60	3	3
32	13	39	AREAGO BASIC PRY. SCH.	OGBOMOSO NORTH	1,440	9		3		8	2		180	9	9
33	5	40	I.M.G. PRY. SCH. LAGOS BYE PASS	IBADAN SOUTH WEST	500	3		1		4	1		60	3	3
34	12	41	ST. DAVID'S PRY, SCHL, AGBOYIN	OGBOMOSO NORTH	1,236	12		4		12		2	240	12	12
35	15	42	MOLETE D.C. PRY. SCH. III	OGBOMOSO SOUTH	1,272	6		2		6		1	120	6	6
36	19	44	I.M.G. PRY, SCH, JOYCEB , OKE-ADO	IBADAN SOUTH WEST	454	3		1		4	1		60	3	3
			Total		26,880	261	2	81	5	258	30	23	5,220	275	261
						Total Rooms	263			Total Toilet House		53			

Table-2 Outline of Facilities

Name	Description	Use	Total floor area (㎡)		
			One building	No. of building	Total
Classroom building	・Structure: Reinforce concrete structure ・1 story building ・Wall: Concrete block, mortar + paint finish ・Floor: mortar, steel trowel finish ・Roof: Aluminium roofing sheet	Classroom, Head Teacher's and Teachers' room	216.0 ～ 288.0 ㎡	86 (263 rooms)	18,936.0 ㎡
Toilet	・Structure: Concrete block masonry ・Wall: mortar + paint finish ・Floor: mortar, steel trowel finish ・Roof: Aluminium roofing sheet	Toilet	13.0～ 19.5 ㎡	53 (258 booths)	838.5 ㎡
		Total			19,774.5 ㎡

Table-3 Outline of Furniture

Category	Contents	Description	Quantities (sets)	Remarks
Furniture	Desk/bench for students	Wooden top, steel frame	5,220	20 sets / classroom
	Desk/chair for teachers	Wooden top and frame	275	1 set/classroom + 7 sets/ teachers' room
	Black board	Wood with frame	261	paint finish
	Notice board	Wood with frame	261	paint finish

3-5 Soft Component

Only some of the surveyed schools had repaired roof, desks, and chairs, and most of them left the facilities unrepaired. It is admitted that some cleaning activities were made in comparison with schools in northern states; however, it is not yet enough. The school management, LGEA, teachers, and parents recognize that the buildings, including classrooms, would not sustain for around ten years. Under such a consciousness, there is a strong likelihood that the new classrooms constructed without advice on the importance of daily cleaning and maintenance activity would be deteriorated or damaged earlier than the original durable period. It is necessary to advise and to instruct them that an appropriate enforcement is necessary for the sludge disposal of the toilet pits.

In addition, it is difficulty to secure enough budget for the maintenance of school facilities in Nigeria; therefore, the participation and support by head teacher, teachers, community, and SBMC consisted by PTA members, and so on is/are essential for the maintenance activities of school facilities.

Therefore the soft component of maintenance will be implemented aiming to enhance recognition and knowledge of persons involved for maintenance of facilities.
To achieve the goal, following activities are to be carried out;

① Preparation of guidelines and manuals
② Implementation of maintenance activities at 4 model schools
③ Holding workshops at 4 model schools (with participation of SUBEB and LGEA)
④ Supporting the management system of SUBEB and LGEA utilizing the manual as a monitoring and instructing tool

(4) Project Schedule

Following agreement of procurement management agents and consulting agreement, the following tendering procedure will be carried out: provision of tender documents (1.0 month), approval of tender documents and tender call (1.0 month), tendering - tender evaluation - contract negotiation - approval of related organization - signing of contract (2.5 months). The total period of this procedure will be 4.5 months.
The standard construction period of classroom building will be 6 months (8 months including rainy season). Considering staggering construction and period for procurement and manufacturing of steel roof truss, the total project period will be some 18.5 months from the tender to the completion.

(5) Project Evaluation

5-1 Relevance

The project will contribute to and match the Nigeria Vision 20:2020 (NV20:2020) to place the country among the top 20 economies of the world by 2020, achieving 100% completion of primary education for both boys and girls by 2015 and completion of basic education (up to early secondary education) by 2020.
In the aid policy for Nigeria of the Government of Japan (December 2012), the basic aid policy is “promotion of sustainable economic and social development”. The project will contribute to improvement of access to primary education and enhancement of quality of primary education, thus it will consistent to the policy.
In addition, in TICAD V “Yokohama Action Plan 2013-2017”, it is declared “Improvement of access and quality of primary, secondary education and vocational training with fairness through supply of appropriate education facilities and improvement of capacity of teachers and administrative staff upgrading administrative management abilities”. The target is “additional provision of high quality education to 20 million children”. The project will contribute to attainment of the target.
The project also will make contribution to Goal 2 “Achieve Universal Primary Education” of Millennium Development Goals (MDGs).

5-2 Effectiveness

The Project is expected to produce the following quantitative and qualitative effects.

① Quantitative effects

i) 261 new classrooms will be constructed at the 36 target schools, increasing number of adequately usable classrooms from 239 to 500, and the average number of students per classroom will be improved from 112 to 60, mitigating the congestion.

② Qualitative effects

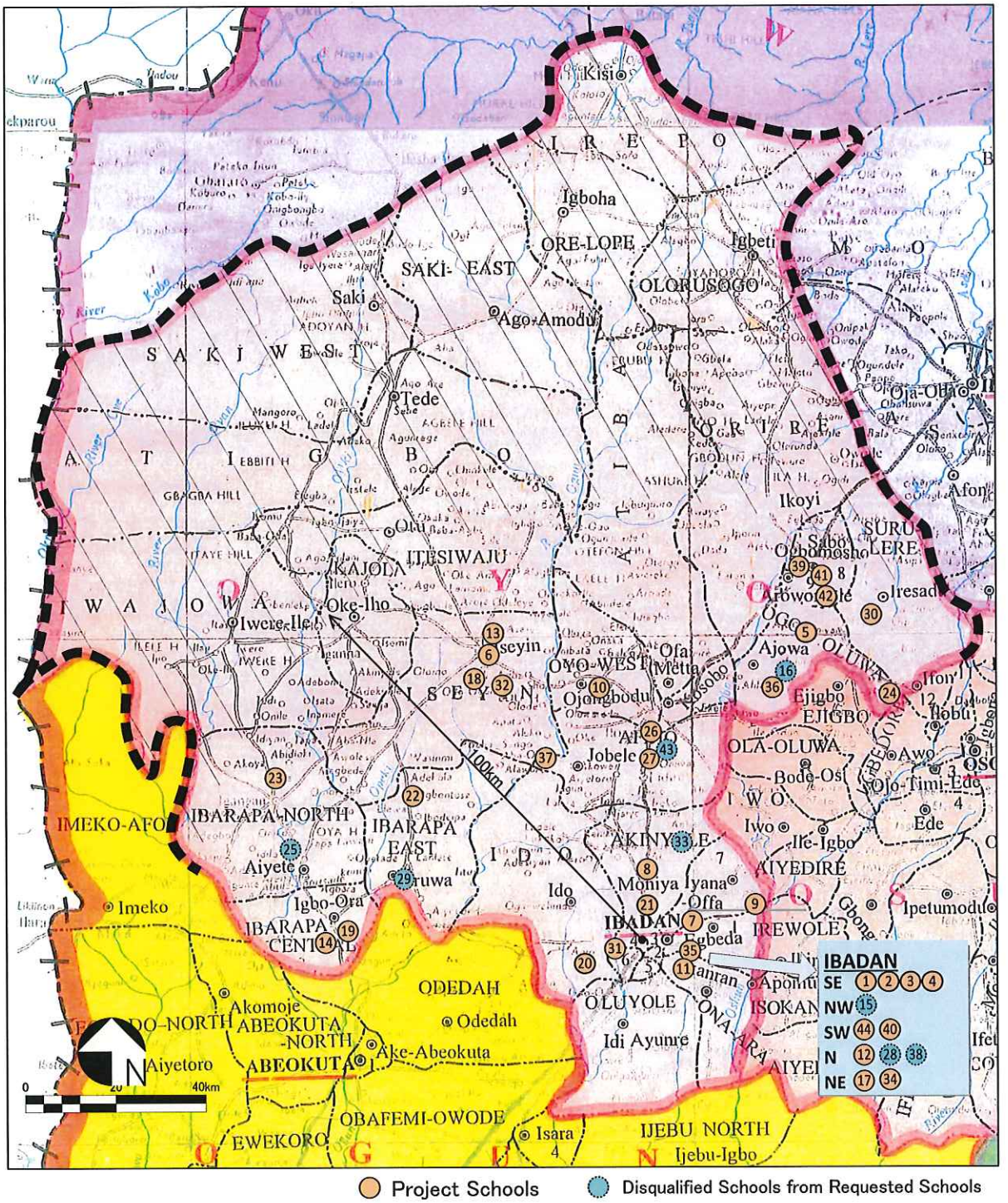
i) The improvement of educational environment by increase of adequately usable classrooms will contribute to enhancement of quality of primary education and access to education.

ii) Willingness to attendance to school of girl students will be improved by provision of girls and boys toilets.

iii) The improvement of environment in primary education in well-ventilated and brighter classrooms with good natural lighting will stimulate motivation to learn of the students.

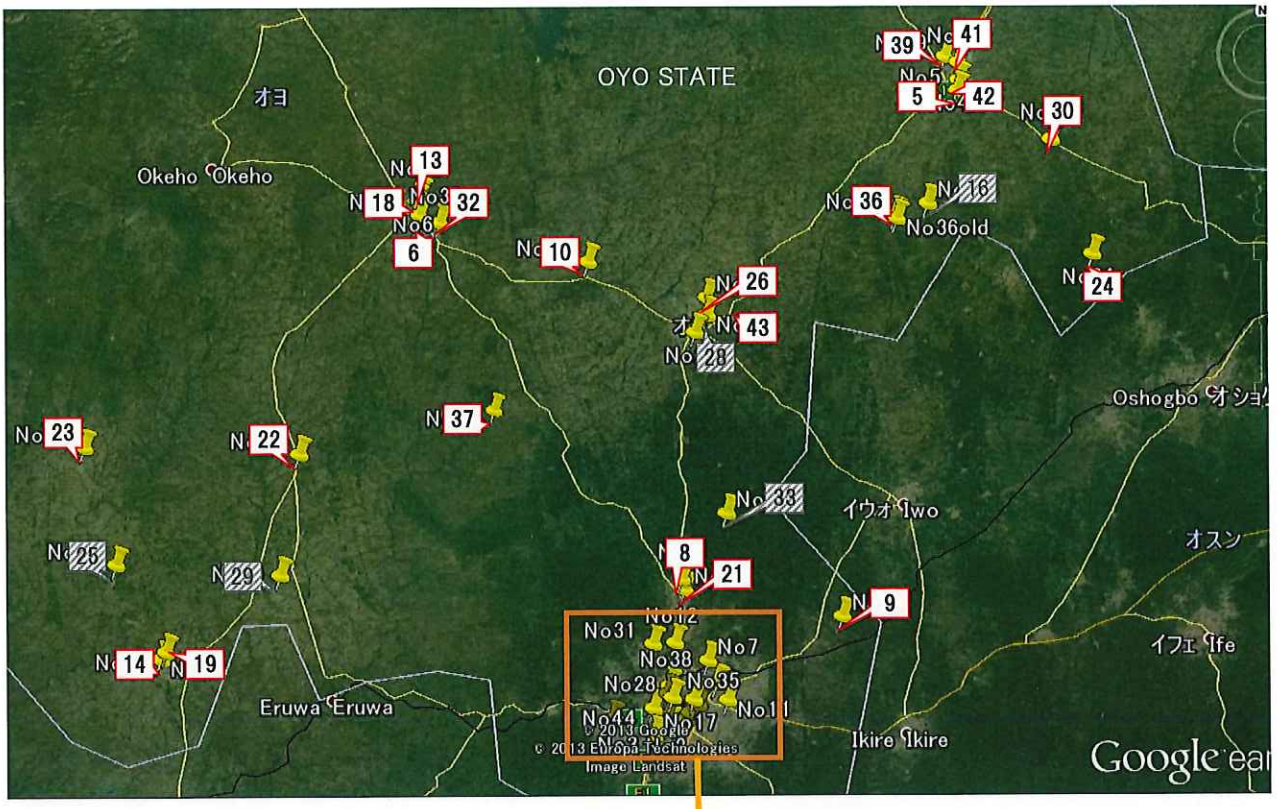
CONTENTS

Appendices

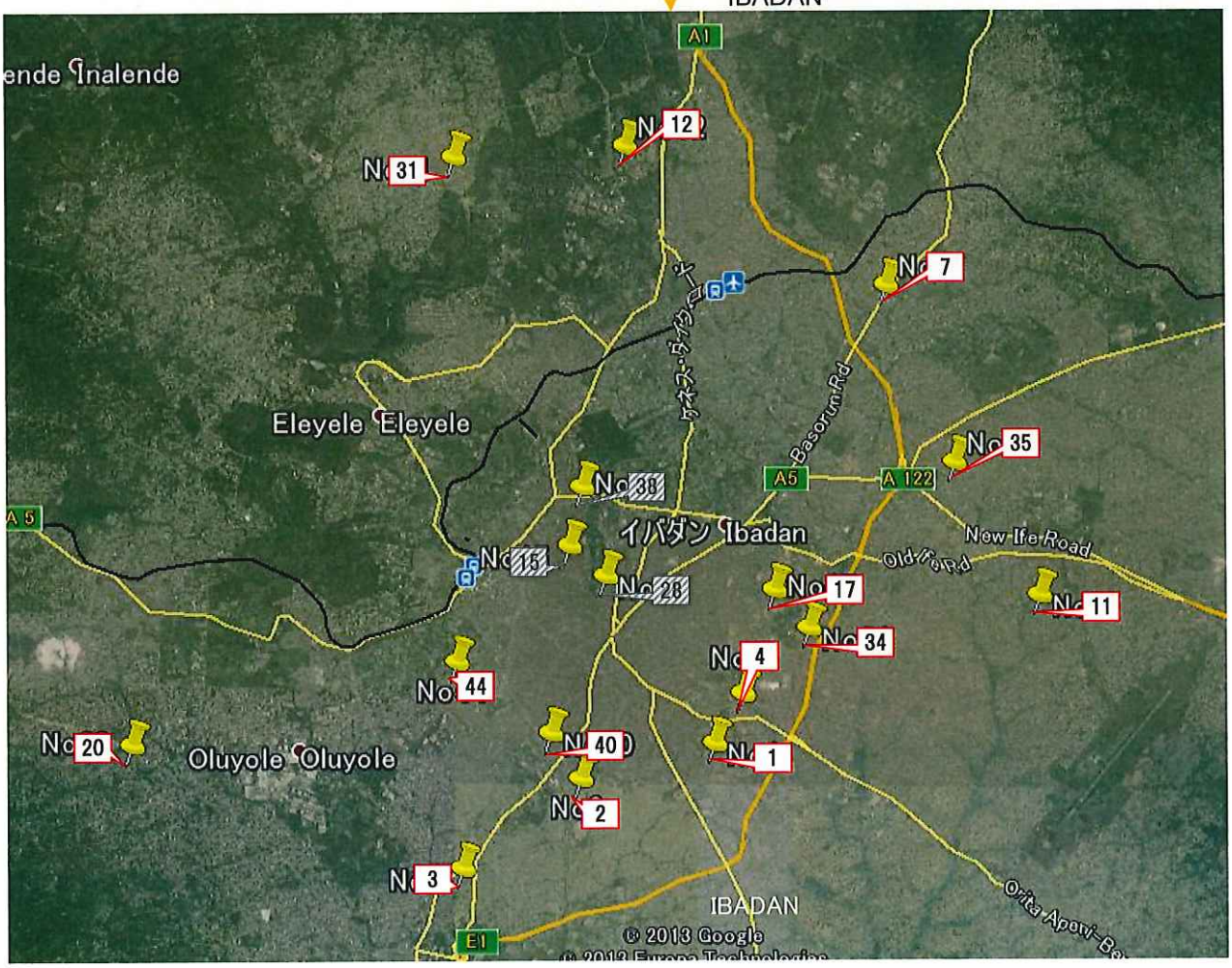


LOCATION OF PROJECT SCHOOLS (Priority number)

LOCATION OF PROJECT SCHOOLS



IBADAN



THE PROJECT FOR CONSTRUCTION OF CLASSROOMS FOR PRIMARY SCHOOLS IN OYO STATE

UBEC

Signing of M/D on 2 October 2013

N1-P1 RATIBI MOSLEM PS ODINJO

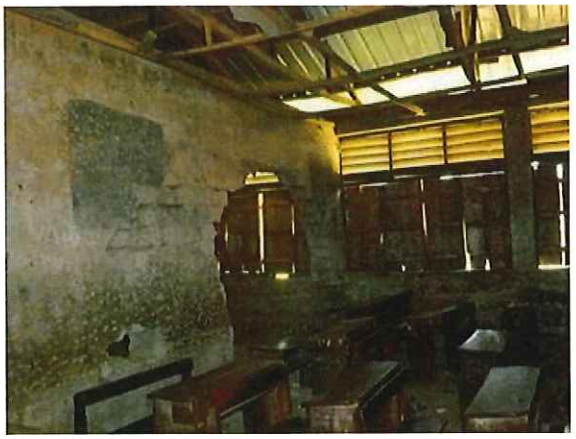
(Congested and deteriorated classroom)

N1-P1 RATIBI MOSLEM PS ODINJO

(Congested and deteriorated facility)

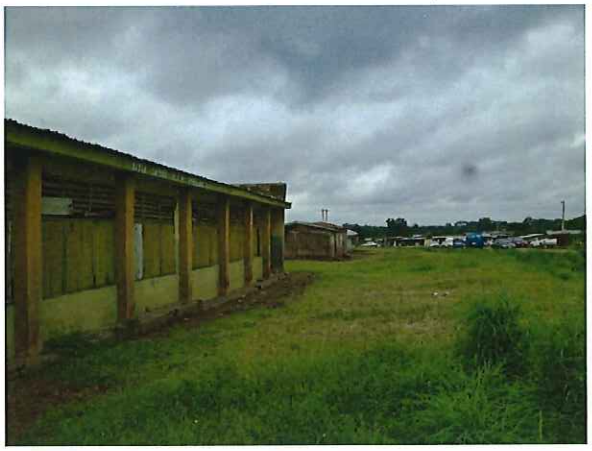
N4-P4 IMG PS Olubadan

(Deteriorated building)



N4-P4 IMG PS Olubadan

(Deteriorated classroom)



P22-N39 BAPTIST PS, MAYA LANLATE

(Deteriorated building)

P10-N25 ST. PHILIPS PS, FASOLA

(Deteriorated building

P15-N18 ST. JOSEPH PS, NALENDE

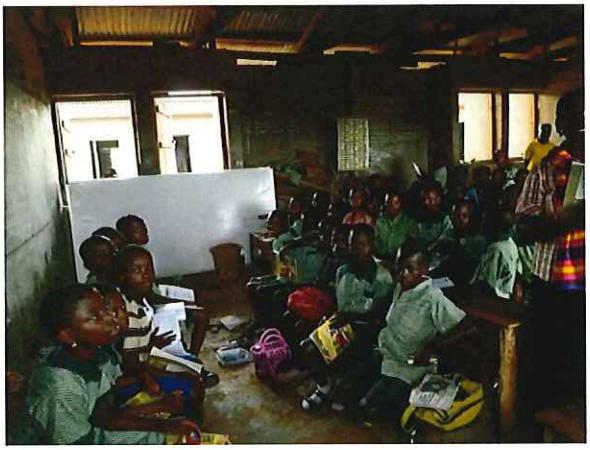
(Congested and deteriorated classroom)

P27-N27 ST. MICHEAL ANG. RCM, ARAROMI

(Congested and deteriorated classroom)

P26-N31 L.A PS, OKEOLOLA

(Congested and deteriorated classroom)



P11-N32 CHRIST CHURCH SCH. I AKINFENWA

(Congested and deteriorated classroom)

LIST OF FIGURES & TABLES

(Figures)

(Tables)

Abbreviations

AfDB	African Development Bank
DFID	Department for International Development (UK)
EFA	Education for All
EMIS	Education Management Information System
ESSPIN	Education Sector Support Plan in Nigeria (by DFID)
FCT	Federal Capital of Territory
FIRS	Federal Inland Revenue Service
FTI	First Truck Initiative
ETF	Education Trust Fund
FME	Federal Ministry of Education
IDA	International Development Association
KOICA	Korean International Cooperation Agency
LEAP	Literacy Enhancement Assistance Program (by USAID)
LGA	Local Government Area
LGEA	Local Government Education Authority
MDG	Millennium Development Goal
NCE	National Certificate of Education
NEEDS	National Empowerment Economic Development Strategy
NERDC	Nigerian Educational Research & Development Center
NPC	National Planning Commission
NPEC	National Primary Education Commission
NTI	National Teachers' Institute
PTA	Parents and Teachers Association
PTTP	Pivotal Teacher Training Programme
RUWASA	Rural Water Supply & Sanitation Agency
SBMC	School Based Management Committee
SEEDS	State Economic Empowerment and Development Strategy
SESP	State Education Sector Project
SME	State Ministry of Education
SUBEB	State Universal Basic Education Board
UBE	Universal Basic Education (Plan)
UBEC	Universal Basic Education Commission
UBE-IF	UBE-Intervention Fund
UNICEF	United Nations Children's Fund
UNESCO	United Nations Educational, Scientific and Cultural Organization
UPC	Universal Primary Completion
USAID	United States Agency for International Development
VAT	Value Added Tax
VPF	Virtual Poverty Fund
WB	World Bank

Chapter 1 Background of Project

Chapter 1. Background of the Project

1-1 Background of Japanese Assistance

1-1-1 Background of the Request

The Federal Republic of Nigeria declares the Nigeria Vision 20:2020 (NV20:2020), a plan to place the country among the top 20 economies of the world by 2020. To achieve the goals of NV20:2020, investing in human capacity development to enhance national competitiveness, the improvement of the educational facilities is one of the critical policy priorities. The purpose of the Project is to improve educational quality through improvement of educational environment; thus, it contributes to the goals of NV20:2020

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In Oyo State, the target of the Project, the average number of enrolled students per classroom was 65 (UBEC, 2012), which exceeds the minimum Nigerian enrolment standard (40 students per class). However, the students are forced to study under poor educational environment. Most of the existing classrooms are in a bad condition, for example, walls are damaged and roofs are leaking. Considering these, the number of students per adequate classroom is more than doubled. The current situation of the education environment is worse than the above number indicates.

Under these circumstances, the Government of Nigeria requested Japan for Grant Aid for "the Project for Construction of Classrooms for Primary Schools in Oyo State".

To comply with the request to improve access and construction of facilities for primary schools, with the Grant Aid for Community Empowerment, the project aims to improve educational environment in Oyo State and to improve an appropriate number of students per classroom.

The purpose of this survey is to confirm the need and validity of the requested contents, to design an appropriate plan of outline as Japan's Grant Aid for Community Empowerment, to plan an implementation schedule, and to estimate the project cost.

The activities of the survey are as follows:

(1) Confirmation of the background, objectives and contents, and examination of the positioning of the grant aid, effectiveness, technical and economic validity of the project implication,

(2) Designing outline of the necessary and most suitable project contents based on the above.

(3) Considering important points such as contents of responsibilities, project implementation plan, and maintenance of Nigerian side necessary to achieve the outcome and purpose.

1-1-2 Contents of the Request and Modifications

(1) Original Request and Modifications

The original request by Nigerian side to Japan was as follows:

1) Classrooms
2) Education furniture (desks and chairs for students; desks, chairs for teachers; blackboards)
3) Toilets
4) Water supply (well)
5) Soft component

The M/D signed on 2 October 2013 established the contents of the Japanese assistance for the Project as listed below. The highest priority is given to the construction/introduction of new classrooms and education furniture while due consideration is given to the construction of administration room and toilets depending on the actual needs of the schools.

1) Classrooms
2) Administration rooms (Head teacher's room and teachers' room) (for newly divided schools)
3) Education furniture (desks and chairs for students and teachers, blackboards and notice boards)
4) Toilets
5) Soft component

(2) Requested Schools and Surveyed Schools

There were some differences between the original school name / number of students submitted by UBEC/SUBEB and those surveyed actually. So the school name and number of students surveyed were used in the planning. The difference is shown in the following table.

Table 1 - 1 Requested and Surveyed Schools

Original and Survey No.	No. and Priority	Name of Primary School Surveyed	LGEA	No. of Students surveyed	SUBEB List
1	1	RATIBI MOSLEM PRIMARY SCHL ODINJO	IBADAN SOUTH EAST	880	788
2	2	ST LUKE DEMONSTRATION SCHL MOLETE IBADAAN	IBADAN SOUTH EAST	932	611
3	3	ST. LEO'S CATHOLIC SCHOOL	IBADAN SOUTH EAST	1,246	745
4	4	I.M.G. PRIMARY SCHL, OLUBADAN	IBADAN SOUTH EAST	960	930
14	5	ONISAPA C.P.S I	OGBOMOSO SOUTH	1,015	1,951
8	6	L.A DEM. PRY. SCH.	ISEYIN	379	379
20	7	I.D.C. BASIC SCH. AKOBO	LAGELU	762	762
24	8	ISLAMIC MISSION SCH. MONIYA	AKINYELE	1,049	699
21	9	ST. AUGUSTINE R.C.M. AKINSAWE	LAGELU	589	562
25	10	ST. PHILIPS PRY, SCH, FASOLA	OYO WEST	585	676
32	11	CHRIST CHURCH SCH. I AKINFENWA	EGBEDA	820	895
37	12	ABADINA PRY. SCH. U.I	IBADAN NORTH	714	655
11	13	ST. MARY'S (RCM) PRY. SCH. I	ISEYIN	590	590
17	14	BAPTIST PRY. SCH.I IGBOORA	IBARAPA CENTRAL	1,022	1,021
18	15	ST. JOSEPH PRY, SCH, NALENDE SCHOOL 1	IBADAN NORTH WEST	1,036	1,240
30	16	METHODIST BASIC SCH. ILEESADE	OGO OLUWA	464	634
42	17	COMM. PRY. SCH. I - IV AYEKALE IBADAN	IBADAN NORTH EAST	642	590
9	18	METHODIST PRY. SCH. AGO - IJIO	ISEYIN	338	338
16	19	METHODIST SCHOOL III	IBARAPA CENTRAL	665	667
7	20	COMM, PRY, SCHL, OLUODE	IDO	964	567
23	21	EBENEZER ANGLICAN SCH.	AKINYELE	923	673
39	22	BAPTIST PRY. SCH. MAYA LANLATE	IBARAPA EAST	420	492
44	23	ST. ANNE'S CATHOLIC SCHOOL	IBARAPA NORTH	349	349
35	24	BAPTIST BASIC SCH. IPASA	SURULERE	208	151
43	25	C & S PRY. SCH. II AYETE	IBARAPA NORTH	419	344
31	26	L.A PRY. SCH. OKEOLOLA (SCH-3)	ATIBA	250	291
27	27	ST. MICHEAL ANG. RCM,ARAROMI	OYO EAST	1,791	819
36	28	ST. PETER'S OKE- ARE	IBADAN NORTH	720	712
40	29	C.A.C. SCHOOL	IBARAPA EAST	383	383
34	30	COMM. BASIC SCH. KEEWO	SURULERE	112	168
6	31	ST. PETER'S PRY. SCH. APETE	IDO	1,246	389
10	32	ARMY CHILDREN PRY. SCH.	ISEYIN	340	319
22	33	METHODIST PRY. SCH. IWOKOTO	AKINYELE	567	568
41	34	ISLAMIC MISSION PRY. SCH. I & II AGUGU	IBADAN NORTH EAST	589	590
33	35	C.P.S I AYEPE	EGBEDA	601	667
29	36	BAPTIST PRY SCHL II, OTAMOKUN	OGO OLUWA	617	726
26	37	COMM, PRY, SCHL, OGUNKEYE	OYO WEST	380	435
38	38	U.N.A. MISSION SCH. INALENDE (UNITED NATIVE OF AFRICA)	IBADAN NORTH	880	865
13	39	AREAGO BASIC PRY. SCH.	OGBOMOSO NORTH	1,440	1,487
5	40	I.M.G. PRY. SCH. LAGOS BYE PASS	IBADAN SOUTH WEST	500	481
12	41	ST. DAVID'S PRY, SCHL, AGBOYIN	OGBOMOSO NORTH	1,236	1,450
15	42	MOLETE D.C. PRY. SCH. III	OGBOMOSO SOUTH	1,272	1,364
28	43	BAPTIST PRY SCHL III, AGBOYE	OYOEAST	1,314	726
19	44	I.M.G. PRY, SCH, JOYCEB , OKE-ADO	IBADAN SOUTH WEST	454	449
		Total		31,815	30,198

1-2 Natural Conditions

Nigeria has five climate zones of which the geographical distribution and characteristics are outlined in the following table. Oyo State is located in the Sudan-Sahel and Guinea-Sudan Climate Zone.

Table 1 - 2 Climate Zones of Nigeria

Climate Zone	Geographical Distribution	Characteristics
① Sahel	North, generally north of 12°N	Annual rainfall: 500 ~ 700 mm
② Sudan-Sahel	South of 12°N, including Abuja, Kaduna and Jos	Annual rainfall: 1,000 mm (1,500 mm at the Jos Plateau)
③ Guinea-Sudan	South of the Niger-Benue Rift and area around the Minna Basin	Annual rainfall: 1,300 ~ 1,500 mm; (1,000 ~ 1,200 mm at the Niger-Benue Rift
④ Forest Sahel	Roughly between 7°30'N and 6°30'N	Annual rainfall: 1,500 ~ 2,000 mm
⑤ Forest Belt	Roughly south of 6°30'N	Annual rainfall: approx. 2,000 mm (1,500 ~ 2,000 mm west of 5°E; 2,000 ~ 3,000 mm east of 5°E)

During the rainy season, a south-westerly seasonal wind brings hot humid air from the Gulf of Guinea, frequently producing thunder squalls from the afternoon to evening. In the early period of the rainy season, thunderstorms can occur from the small hours until dawn. During a thunder squall, the state of the atmosphere becomes extremely unstable with constant lightning and thunderbolts. Sand storms called "hamatan" which contain sand dust from the Sahara Desert often rage throughout Nigeria from December to February. During this period, visibility can be reduced to 200 m and gusty winds of about 30 m/sec can occur, necessitating due consideration for the roof structure, etc. under the Project.

1-2-1 Temperature and Rainfall

Meteorological statistics for the last ten years (2003 ~ 2012) show that the maximum temperature in Oyo State is 35.8°C and that the daytime temperature often exceeds 33°C from March through June. The minimum temperature recorded is 17.6°C and low temperatures occur in December and January.

Table 1 - 3 Maximum and Minimum Temperatures in Oyo State

	2003		2004		2005		2006		2007		2008		2009		2010		2011		2012		Average	
	Max(℃)	Min(℃)	Max(℃)	Min(℃)	Max(℃)	Min(℃)	Max(℃)	Min(℃)	Max(℃)	Min(℃)	Max(℃)	Min(℃)	Max(℃)	Min(℃)	Max(℃)	Min(℃)	Max(℃)	Min(℃)	Max(℃)	Min(℃)	Max(℃)	Min(℃)
Jan	33.1	20.7	32.5	20.9	33.8	18.7	32.5	22.8	33.4	18.8	32.5	17.6	32.5	21.0	33.9	22.0	32.9	19.4	33.2	20.1	33.0	20.2
Feb	34.2	23.6	34.3	21.7	31.4	22.0	34.7	24.1	35.3	23.1	35.0	20.7	33.9	23.6	35.6	23.8	33.7	22.9	33.4	22.9	34.1	22.8
Mar	34.8	23.7	35.2	23.1	33.7	23.2	33.2	23.1	35.8	23.8	33.5	22.7	34.0	23.1	34.7	24.1	33.8	23.7	34.5	23.6	34.3	23.4
Apr	32.0	22.5	31.4	22.0	33.4	23.8	33.9	23.6	33.6	23.3	32.6	22.9	32.1	22.5	33.9	23.9	32.8	23.1	33.2	23.2	32.9	23.1
May	32.5	22.7	30.9	22.7	31.1	22.8	30.8	21.9	31.9	22.5	31.2	22.0	31.0	22.8	31.7	22.9	32.3	22.8	31.7	22.6	31.5	22.6
Jun	29.7	21.4	29.2	21.2	28.8	21.8	30.0	21.6	30.1	21.7	29.7	21.7	30.0	22.0	30.6	22.9	30.5	22.5	29.6	22.0	29.8	21.9
Jul	28.1	21.0	27.8	21.2	27.5	21.6	28.6	21.9	28.2	21.5	28.2	21.5	28.3	21.6	28.8	22.0	28.1	21.8	28.1	21.9	28.2	21.6
Aug	27.8	21.2	31.3	22.0	26.6	20.9	27.6	21.6	27.8	21.2	28.0	21.3	27.1	21.1	28.4	22.0	27.8	21.7	27.1	21.3	28.0	21.4
Sep	29.1	21.3	31.3	22.0	29.1	21.8	27.9	21.6	28.9	20.9	28.8	21.9	28.8	21.5	29.7	22.1	29.6	22.2	28.9	21.7	29.2	21.7
Oct	30.8	21.6	30.2	21.7	30.0	21.8	29.5	22.2	29.9	21.4	30.6	21.8	29.3	21.9	30.6	22.0	30.0	21.7	30.2	21.9	30.1	21.8
Nov	31.4	22.2	31.9	22.7	31.9	22.8	31.7	20.2	31.3	22.4	32.2	23.0	31.3	21.7	31.4	22.4	32.4	22.9	32.1	22.9	31.8	22.3
Dec	32.5	21.7	32.8	23.1	32.1	22.5	32.8	19.2	32.1	19.8	32.3	21.9	33.3	22.0	32.8	21.5	33.5	19.7	33.1	22.1	32.7	21.3

Source: IITA, Ibadan, 2013

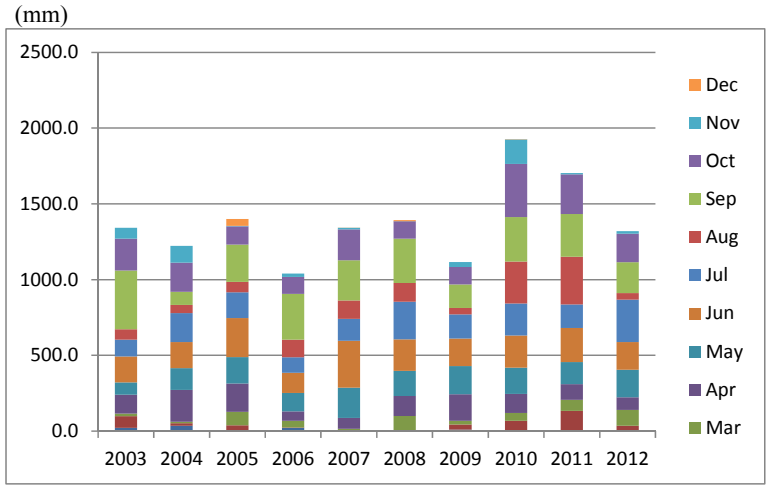
The annual minimum rainfall in Oyo State was 1,039 mm in 2006, and the annual maximum rainfall was 1,926 mm in 2010. In general, the dry season lasts from November to March of the year. During the dry season of 2007, no rain was recorded, indicating the extremely dry nature of this season. The rainy season lasts from May ~ June to October, and the monthly rainfall exceeds 200 mm in June and September.

Table 1 - 4 Rainfall in Oyo State

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Average
Jan	22.1	35.3	0.0	21.1	0.0	0.0	10.1	4.0	0.0	0.0	9.2
Feb	77.3	16.3	38.1	1.9	0.1	0.0	33.8	64.9	134.6	34.7	40.1
Mar	15.5	11.1	89.9	45.1	15.9	99.9	24.6	51.0	72.3	105.4	53.0
Apr	125.4	209.2	185.4	63.1	70.7	133.1	174.9	126.2	103.0	83.5	127.4
May	82.3	143.6	176.6	120.9	201.3	164.1	186.2	173.2	146.1	182.0	157.6
Jun	170.3	172.1	256.8	134.4	308.3	208.6	181.6	212.2	224.4	182.7	205.1
Jul	111.7	191.3	168.7	100.7	145.5	248.9	160.0	212.1	156.4	279.7	177.5
Aug	68.0	53.4	69.1	116.7	121.6	122.9	41.4	275.6	314.9	42.9	122.6
Sep	387.2	87.8	246.8	302.2	264.8	292.4	154.8	294.7	280.9	204.4	251.6
Oct	210.3	191.8	120.1	112.5	204.0	115.8	115.9	349.9	262.4	187.4	187.0
Nov	72.3	111.7	3.8	20.7	9.9	0.1	32.6	162.1	8.0	17.5	43.8
Dec	0.0	0.0	45.7	0.0	0.1	7.9	0.0	0.5	0.0	0.0	5.4
Total	1342.1	1223.2	1400.8	1039.0	1341.8	1393.6	1115.6	1926.3	1703.0	1320.0	1,380.5

(unit: mm)

Source: IITA, Ibadan, 2013



Source: IITA, Ibadan, 2013

Figure 1 - 1 Rainfall in Oyo State

Table 1 - 5 Number of Rainy Days in Oyo State (over 10mm/day)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Average
Jan	1	1	0	1	0	0	0	0	0	0	0.3
Feb	2	0	1	0	0	0	1	2	3	2	1.1
Mar	1	0	4	2	0	3	0	2	3	2	1.7
Apr	5	5	5	3	3	4	5	5	3	2	4.0
May	3	4	6	4	6	3	6	7	4	7	5.0
Jun	6	6	5	4	7	8	7	6	7	4	6.0
Jul	4	6	4	2	6	5	5	7	6	6	5.1
Aug	2	3	2	3	4	4	1	5	7	2	3.3
Sep	12	5	8	11	9	8	5	10	9	7	8.4
Oct	8	8	5	4	7	4	6	9	8	4	6.3
Nov	3	0	0	1	0	0	1	7	0	1	1.3
Dec	0	0	1	0	0	0	0	0	0	0	0.1
Total	47	38	41	35	42	39	37	60	50	37	42.6

Source: IITA, Ibadan, 2013

1-2-2 Wind Direction and Wind Velocity

In Oyo State, the mean wind velocity increases from February to April to around 2 m/sec. However, it is necessary for the building design to take into consideration the fact that a wind velocity of about 30 m/sec is observed during a hamatan and also prior to a squall.

Table 1 - 6 Mean Wind Velocity in Oyo State

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Average
Jan	0.4	0.2	1.0	0.9	1.1	1.0	1.0	0.9	0.9	1.0	0.8
Feb	1.0	0.6	1.3	1.2	1.3	1.1	1.3	1.2	1.3	1.3	1.2
Mar	0.7	0.4	1.2	1.3	1.3	1.4	1.2	1.2	1.1	1.1	1.1
Apr	0.4	0.5	1.0	1.2	1.4	1.3	1.0	1.3	1.2	1.2	1.1
May	0.5	0.3	0.6	1.0	1.0	1.1	1.0	1.0	1.1	1.1	0.9
Jun	0.3	0.9	0.6	0.9	1.1	1.0	1.1	1.0	1.1	1.0	0.9
Jul	0.2	0.3	0.6	1.1	1.0	1.0	1.0	1.0	1.0	1.1	0.8
Aug	0.5	0.4	0.4	1.1	1.0	1.0	1.0	1.1	1.0	1.1	0.9
Sep	0.3	0.9	0.4	0.9	0.9	0.9	0.9	1.0	1.0	1.0	0.8
Oct	0.2	0.8	0.2	0.8	0.8	0.9	0.9	0.9	0.8	0.9	0.7
Nov	0.1	0.8	0.5	0.7	0.8	0.9	0.9	0.8	0.8	0.9	0.7
Dec	0.3	0.9	0.8	0.8	0.7	0.9	0.9	0.8	0.8	0.9	0.8

Source: IITA, Ibadan, 2013

1-2-3 Earthquakes and Other Natural Disasters

No records of earthquake occurrences or people affected by earthquakes exist in Nigeria. Moreover, no flood damage was observed in the 44 surveyed schools.

1-3 Environmental Consideration

Nigeria has “National environmental Standards and Regulation Enforcement Agency (NESREA) Act, 2007” and “Environmental Impact Assessment (EIA) Act, 2004, however the project will add buildings to the existing schools and no major negative influence to the environment will be anticipated. The project sites are all in the public schools and owned by the state government.

The facilities to be constructed under the Project will not use asbestos, formaldehyde or any other substance which is harmful to the human body. Careful consideration will be given during and after the construction period to avoiding any negative impacts on the environment, including, air, water and noise pollution.

The project will be classified as Category C (minimal or little negative impact to environment and society) in “Guidelines for Confirmation of Environmental and Social Considerations” of JICA.

Chapter 2 Contents of the Project

Chapter 2. Contents of the Project

2-1 Basic Concept of the Project

2-1-1 Higher Goal and Project Goal

2-1-1-1 Higher Goal

Access to primary education and the quality of the primary education in the Oyo State will be improved.

2-1-1-2 Project Goals

(1) Project goals

Through constructing classrooms and other school facilities in Oyo State, the Project aims to improve access to primary education and the school environment in the state

(2) Project objectives

The objective of the Project is to improve the primary education facilities that are insufficient at present in Oyo State.

(3) Anticipated effects of the Project

The Project is expected to strengthen the construction of additional primary education facilities in the target area.

2-1-2 Outline of the Project

2-1-2-1 Current Conditions and Problems in the Sector

In Oyo State, the average number of enrolled students per classroom ranges from 57.4(SUBEB, 2013) which exceeds the minimum Nigerian enrolment standard (40 students per classroom). The students are forced to study under poor educational environment. Most of the existing classrooms are in in a bad situation, for example, walls are damaged and roofs are leaking. Considering these, the number of students per classroom is more than double. The current situation of the education environment is worse than the indication by the above number.

The overall goal of the Project is to improve access to basic education and educational environment improving shortage of classrooms.

2-1-2-2 Selection of Target Schools and Scale of Facilities

(1) Selection criteria of candidate schools

Requested schools shall be evaluated based on the selection criteria as follows;

1) Site location shall not be remote from Ibadan in view of security and efficiency reasons.
2) The school shall have urgent necessity for construction of additional classrooms (present shortage of classrooms from the standard of 40 pupils per classroom).
3) The maximum number of classrooms to be constructed per one site will be 24 in order to benefit rural schools.
4) Minimum requirement for additional classrooms per school is 3 (standard number of pupils per classroom should be 40).
5) Land ownership or proper land use right for school construction shall be secured with written evidence by SUBEB.
6) There shall be no overlapping with current/ongoing facility improvement by the Nigerian Government, other donors, NGOs, etc.
7) Topographically/environmentally safe and appropriately sized land for construction shall be secured.
8) Access roads for construction vehicles shall be properly provided.
9) Sufficient number of teachers, staff and budget for selected school shall be secured by the Nigeria side.
10) Cooperation from School-Based Management Committee (SBMC) shall be obtained for proper operation and maintenance.

(2) Result of Field Survey

The following schools were disqualified based on the field survey and omitted from target schools.

Table 2 - 1 Disqualified Schools from the Project

No.	School	Reason
15	N18-ST. JOSEPH PRY, SCH, NALENDE SHOOL I	The site is inclining and it is difficult to secure proper construction site. (against condition No.7)
16	N30-METHODIST BASIC SCH. ILEESADE	The access is hard. (against condition No.8)
25	N43-C & S PRY. SCH. II AYETE	The number of classroom is not insufficient. (against No.2)
28	N36-ST. PETER'S OKE- ARE	It is difficult to secure proper construction site and the access is hard. (against condition No.7 and No.8)
29	N40-C.A.C. SCHOOL	It is difficult to secure proper construction site and the access is difficult. (against condition No.7 and No.8)
33	N22-METHODIST PRY. SCH. IWOKOTO	The access is difficult. (against condition No.8). Also, there is security problem as the site is outside service area of mobile phones.

38	N38-U.N.A. MISSION SCH. INALENDE (UNITED NATIVE OF AFRICA)	It is difficult to secure proper construction site and the access is difficult. (against condition No.7 and No.8)
43	N28-BAPTIST PRY SCHL III, AGBOYE	The site is inclining and it is difficult to secure proper construction site. (against condition No.7)

(N-: Original number)

2-1-2-3 Calculation of planned number of classrooms

The planned number of classrooms of the target schools was calculated as follows:

$$N = (A/40 - D) \times B \times C$$

N: Planned number of classrooms

A: Present number of students

40: Minimum standard (number of students per classroom)

B: Actual attendance condition (rate)

C: Construction capacity of site by size, shape, topography and condition of access

D: Existing usable number of classrooms (including classrooms that could be repaired and classrooms under construction before handing-over)

Administration room (head-master's room and teachers' room) shall be necessary for the following newly divided schools as the total number of students is exceeding the standard:

- No.4 N4-I.M.G. PRIMARY SCHL, OLUBADAN
- No.5 N14-ONISAPA C.P.S I

The results are 261 classrooms and 2 administration rooms; total number of rooms to be constructed is 263.

Table 2 - 2 Planned Number of Classrooms

Survey No.	No. and Priority	Name of Primary School Interviewed	LGUBEA	2013 No. of Students surveyed	Student /40 (A)	Factor on Actual Attendance Rate (B)		site condition (size, shape, slope, access) (C)	Land Ownership 1:OK, 0:NO	No. of Available Classrooms Surveyed including planned buildings (D)	No. of Planned Classrooms (AxBxC-D)	Headmaster and Teachers Room
1	1	RATIBI MOSLEM PRIMARY SCHL ODINJO	IBADAN SOUTH EAST	880	22	A	1.0	0.50	1	10	6	
2	2	ST LUKE DEMONSTRATION SCHL MOLETE IBADAAN	IBADAN SOUTH EAST	932	23	A	1.0	1.00	1	11	12	
3	3	ST. LEO'S CATHOLIC SCHOOL	IBADAN SOUTH EAST	1,246	31	A	1.0	0.60	1	16	9	
4	4	I.M.G. PRIMARY SCHL, OLUBADAN	IBADAN SOUTH EAST	960	24	A	1.0	0.75	1	0	18	1
14	5	ONISAPA C.P.S I	OGBOMOSO SOUTH	1,015	25	B	1.0	0.48	1	0	12	1
8	6	L.A DEM. PRY. SCH.	ISEYIN	379	9	A	1.0	1.00	1	3	6	
20	7	I.D.C. BASIC SCH. AKOBO	LAGELU	762	19	A	1.0	0.75	1	7	9	
24	8	ISLAMIC MISSION SCH. MONIYA	AKINYELE	1,049	26	A	1.0	1.00	1	20	6	
21	9	ST. AUGUSTINE R.C.M. AKINSAWE	LAGELU	589	15	A	1.0	1.00	1	6	9	
25	10	ST. PHILIPS PRY, SCH, FASOLA	OYO WEST	585	15	B	0.5	1.00	1	4	6	
32	11	CHRIST CHURCH SCH. I AKINFENWA	EGBEDA	820	21	A	1.0	0.35	1	3	6	
37	12	ABADINA PRY. SCH. U.I	IBADAN NORTH	714	18	A	1.0	1.00	1	9	9	
11	13	ST. MARY'S (RCM) PRY. SCH. I	ISEYIN	590	15	A	1.0	1.00	1	11	4	
17	14	BAPTIST PRY. SCH.I IGBOORA	IBARAPA CENTRAL	1,022	26	B	0.5	1.00	1	9	9	
18	15	ST. JOSEPH PRY, SCH, NALENDE SCHOOL 1	IBADAN NORTH WEST	1,036	26	B	0.5	0.00	1	4	0	
30	16	METHODIST BASIC SCH. ILEESADE	OGO OLUWA	464	12	B	0.5	0.00	1	2	0	
42	17	COMM. PRY. SCH. I - IV AYEKALE IBADAN	IBADAN NORTH EAST	642	16	A	1.0	0.90	1	6	9	
9	18	METHODIST PRY. SCH. AGO - IJIO	ISEYIN	338	8	A	1.0	1.00	1	5	3	
16	19	METHODIST SCHOOL III	IBARAPA CENTRAL	665	17	A	1.0	1.00	1	8	9	
7	20	COMM, PRY, SCHL, OLUODE	IDO	964	24	A	1.0	0.40	1	9	6	
23	21	EBENEZER ANGLICAN SCH.	AKINYELE	923	23	A	1.0	1.00	1	11	12	
39	22	BAPTIST PRY. SCH. MAYA LANLATE	IBARAPA EAST	420	11	A	1.0	1.00	1	4	7	
44	23	ST. ANNE'S CATHOLIC SCHOOL	IBARAPA NORTH	349	9	A	1.0	1.00	1	6	3	
35	24	BAPTIST BASIC SCH. IPASA	SURULERE	208	5	A	1.0	1.00	1	2	3	
43	25	C & S PRY. SCH. II AYETE	IBARAPA NORTH	419	10	A	1.0	1.00	1	10	0	
31	26	L.A PRY. SCH. OKEOLOLA (SCH-3)	ATIBA	250	6	A	1.0	1.00	1	3	3	
27	27	ST. MICHEAL ANG. RCM,ARAROMI	OYO EAST	1,791	45	A	1.0	0.23	1	5	9	
36	28	ST. PETER'S OKE- ARE	IBADAN NORTH	720	18	B	0.5	0.00	1	7	0	
40	29	C.A.C. SCHOOL	IBARAPA EAST	383	10	A	1.0	0.00	1	2	0	
34	30	COMM. BASIC SCH. KEEWO	SURULERE	112	3	A	1.0	1.00	1	0	3	
6	31	ST. PETER'S PRY. SCH. APETE	IDO	1,246	31	B	0.5	1.00	1	13	9	
10	32	ARMY CHILDREN PRY. SCH.	ISEYIN	340	9	A	1.0	1.00	1	6	3	
22	33	METHODIST PRY. SCH. IWOKOTO	AKINYELE	567	14	A	1.0	0.00	1	0	0	
41	34	ISLAMIC MISSION PRY. SCH. I & II AGUGU	IBADAN NORTH EAST	589	15	A	1.0	1.00	1	8	7	
33	35	C.P.S I AYEPE	EGBEDA	601	15	A	1.0	1.00	1	3	12	
29	36	BAPTIST PRY SCHL II, OTAMOKUN	OGO OLUWA	617	15	A	1.0	0.70	1	6	6	
26	37	COMM, PRY, SCHL, OGUNKEYE	OYO WEST	380	10	B	0.5	1.00	1	4	3	
38	38	U.N.A. MISSION SCH. INALENDE (UNITED NATIVE OF AFRICA)	IBADAN NORTH	880	22	A	1.0	0.00	1	6	0	
13	39	AREAGO BASIC PRY. SCH.	OGBOMOSO NORTH	1,440	36	B	0.5	0.53	1	2	9	
5	40	I.M.G. PRY. SCH. LAGOS BYE PASS	IBADAN SOUTH WEST	500	13	A	1.0	1.00	1	10	3	
12	41	ST. DAVID'S PRY, SCHL, AGBOYIN	OGBOMOSO NORTH	1,236	31	B	0.5	1.00	1	8	12	
15	42	MOLETE D.C. PRY. SCH. III	OGBOMOSO SOUTH	1,272	32	B	0.5	0.38	1	3	6	
28	43	BAPTIST PRY SCHL III, AGBOYE	OYOEAST	1,314	33	B	0.5	0.00	1	3	0	
19	44	I.M.G. PRY, SCH, JOYCEB , OKE-ADO	IBADAN SOUTH WEST	454	11	A	1.0	1.00	1	8	3	
		Total		31,815	819					273	261	2
											Total	263

2-2 Outline Design of the Japanese Assistance

2-2-1 Design Policy

2-2-1-1 Basic Policy

Based on the above considerations, the basic policy of the facilities design shall be as follows.

(1) Reduce cost while paying attention to ease of maintenance and durability.

(2) Adopt design that fits with the local materials, construction methods and technologies.

(3) Give consideration to durability with respect to strong winds.
(4) Give consideration to the incorporation of natural lighting and insulation against intense solar rays and heat.
(5) Standardize designs in order to shorten the construction period and reduce costs.

2-2-1-2 Policy regarding Natural Conditions and Construction Conditions

The design policy regarding natural conditions in the Project shall be as follows.

- Concerning the strength and method of fixing and joining of trusses, purlines, sheathing roof boards and roof materials, it will be necessary to show ample consideration in design and construction methods to ensure sufficient resistance to strong winds.

- Concerning wooden parts such as trusses and purlines in existing schools, since termite damage can be seen in many areas, wooden members shall be termite-proofed before being used.

- In order to mitigate radiated heat and the sound of falling rain, durable plywood panel (10mm) will be placed under the aluminum roofing sheet roof materials to prevent rainwater leakage even in time of strong wind.

- Concerning classroom ceilings, most of the existing schools have wooden ceilings; however, they are frequently damaged by rain leaks from roofs and bat droppings. Therefore, from the viewpoints of improving maintenance and reducing costs, no ceilings will be fitted in the Project.

- Concerning fixtures such as doors and windows, steel fixtures shall be adopted in consideration of frequent opening/closing due to wind gusts before rainfall and sand storms (hamatan) and for prevention of unlawful entry and burglary. Moreover, considering that windows need to be closed for lessons during the rainy season, transparent glasses will be fitted above windows and doors to let in natural light.

- Concerning materials storage areas, Oyo State rainy season is between April and October in normal years. In particular, June and September are characterized by a lot of rainfall and wind gusts. Accordingly, it will be vital to carefully plan for the transport of construction materials during the rainy season, especially to schools in hilly areas where access roads are narrow. Specifically, it will be necessary to carry in materials such as cement, aggregate, reinforcing bars and formwork, etc. and to secure banked storage areas of sufficient height and area before the rainy season starts.

2-2-1-3 Policy regarding Social Conditions

As there are both Christians and Moslems in Oyo State, festivals and events for both (such as Christmas, Easter, Ramadan, Eid-al-Fitr, Eid-al-Kabir and so on) will be taken into consideration in the construction plan.

2-2-1-4 Policy regarding the Construction Situation

The sites located in rural area are not suitable or construction with little infrastructure and long and bad access roads. Therefore, it is necessary to consider the transportation method of construction materials and the location of site offices.

2-2-1-5 Policy regarding Utilization of Local Contractors and Materials

(1) Utilization of Local Contractors

There are contractors that possess a certain degree of construction capacity in the capital Abuja, while in Oyo State there are many companies that can execute small scale school construction. However, usually very large contractors are not interested in small scale school construction, and local small contractors do not have high capacity and technical ability in construction work. It will be necessary to find competent contractor that can manage the work using small local companies.

(2) Utilization of Local Consultants

The number of general construction consultants is limited in Nigeria; however, there are numerous small-scale consultants, and it is possible to secure engineers who are able to supervise the sites. However, since no quality monitoring criteria are established and high technical capacity and supervision capacity cannot be anticipated in Nigeria, a Japanese consultant shall be utilized in order to provide thorough technical guidance and ensure the required quality level and implementation schedule are secured.

(3) Utilization of Local Labor

Since it is hard to find sufficient skilled workers in Oyo State, it will be necessary to recruit personnel who possess a certain level of skill and expertise or who have worked on private and public works projects or works ordered by international aid agencies. Therefore, in the Project, ordinary laborers will be recruited in the LGA area while skilled workers who belong to construction companies will be utilized. Engineers for supervising the overall works will be procured in the capital Abuja or other areas and dispatched to each site in order to ensure quality and implementation schedules.

(4) Utilization of Local Materials

All construction materials can be procured from domestic markets if imports are taken into account. Considering that the construction methods (wood structure, reinforced concrete block masonry, reinforced concrete frame method) usually adopted in Nigeria are used in the Project, it should be possible to procure building materials of satisfactory quality in Oyo State or surrounding area (Lagos etc.).

The major construction materials to be used in the Project works are as follows:

- The diameter of irregular shaped reinforcing bars in Nigeria comprises 8mm, 10mm, 12mm and 14mm, while bars of 16mm and more are also available but have to be imported from China, Ukraine, India, etc.

- It will be necessary to procure and transport the necessary quantities of water by tank lorry, etc. from nearby towns and villages or LGA. When using such water, it will also be necessary to conduct inspections to confirm the water quality (salt content, etc.) and make sure there are no impurities.

- Plants which mold the long sheet aluminum plate (thickness 0.55mm) used for roofs exist in Lagos, and plates can be directly procured from such plants.

- Steel doors and windows can be procured in Oyo State and neighboring area.

2-2-1-6 Policy regarding Operation and Maintenance Capacity of the Implementing Agency

The agency responsible for implementation of the main body of the Project will be the UBEC, while the implementing agency will be Oyo SUBEB. Following the completion of the Project facilities, UBEC and SUBEB will play roles in the maintenance and operation of the facilities. As the present condition of the maintenance and cleaning of the school facilities by students, teachers and SBMC is not yet satisfactory, it will be necessary to explain and transfer the maintenance methods and guidelines and thereby strengthen the operation and maintenance capacity.

2-2-1-7 Policy regarding Setting of the Facilities, Furniture and their Grade

(1) Policy regarding Setting of the Facilities and Furniture

Considering the maximum possible utilization of the existing facilities and the on-going plans, the minimum necessary number of classrooms and toilets will be planned with furniture for the newly constructed rooms.

(2) Policy regarding the Grade

The facilities and furniture will be functional, durable and not luxurious grade but low-cost grade, based on the minimum standard of UBEC. The grade will be those that should be available in the local market and endurable to reduce maintenance cost in the long time.

2-2-1-8 Policy regarding Construction Method, Procurement Method and Construction Schedule

The concept regarding construction methods, procurement methods and implementation schedule shall be as follows:

- In the Project, reinforced concrete structures, which are common in Nigeria, shall be adopted for buildings, while concrete blocks with mortar finish and painting shall be adopted for walls.
- In Nigeria, timbers tend to warp, crack and deform following work and roof trusses frequently become deformed as a result. In order to procure the timber pieces of 4m or more, which are needed for wood trusses, it is necessary to make special orders for timber and this tends to be costly. Therefore, steel frame trusses made from steel members that are easy to procure and provide uniform quality shall be adopted. In recent times, steel frame trusses have become the mainstream in school construction projects ordered by SUBEB.
- When selecting contractors, it is necessary to select contractors who possess certain levels of construction and execution technology in order to secure good work quality and construction schedules. In the PQ subscription and review stage, it will be important to gauge all applying companies based on their work achievements, organization, human resources, construction machinery on hand, business condition and so on.
- Concerning the works implementation schedule, considering that June and September have the heaviest and most frequent rainfall, it will be necessary to compile an implementation schedule which does not entail excavation and backfilling during this period.
- When there is not enough room to secure temporary yards, it will be necessary to coordinate matters with the schools before commencing the main body of the works. Also safety of students shall be secured during construction. Flow of students shall be separated from the construction work area.

2-2-2 Basic Plan (Construction Plan / Equipment Plan)

2-2-2-1 Basic Plan

(1) Layout plan

As the sites of many schools are inclining, prototypes were limited to only 3-classroom type and 4-classroom type and long building was avoided. Based on the characteristics of each school site, the layout plans were made considering the following points:

- Basically*, the building will be set out along contour line.*
- Open space will be formed as large as possible.
- The flow of students between the gate and buildings and among new and existing buildings will be considered.
- The view of new building from the front road will be considered.
- The cutting slope for earth work to prepare flat land for the new building will be considered.
- Toilet will be set out apart from classroom buildings, at lower corner near of the boundary.
- A ground surrounded by buildings will be formed if possible.
- Temporary access, fence and stockyard for construction work will be considered with safety and security of students.

(2) Building plan and design

1) Basic policy

The Project facilities shall comprise the education environment and functions required of primary schools through constructing enough classrooms to relieve overcrowding exceeding the UBEC standard of 40 students per classroom. Since population statistics and school districts are not set in the target areas and it is difficult to forecasts the future student numbers, the required numbers of classrooms shall be calculated from the existing number of students with taking care of not providing excess facilities.

2) Design criteria, guidelines and construction application/procedure

In Nigeria, it is necessary to design the Project facilities according to the following design criteria and guidelines.

Table 2 - 3 Design Criteria and Guidelines

	Design criteria and guidelines	Source
1	National Building Code 2006	Ministry of Housing and Urban Development
2	State Building Regulations	State Government
3	Minimum Standard for Planning of Basic Education Infrastructure (2006)	Universal Basic Education Commission
4	A Guidance Building Manual Self-Help Basic Education Project 2004	Universal Basic Education Commission
5	Nigeria Industrial Standard	Standard Organization of Nigeria
6	British Standard - Code of Practice	U.K.

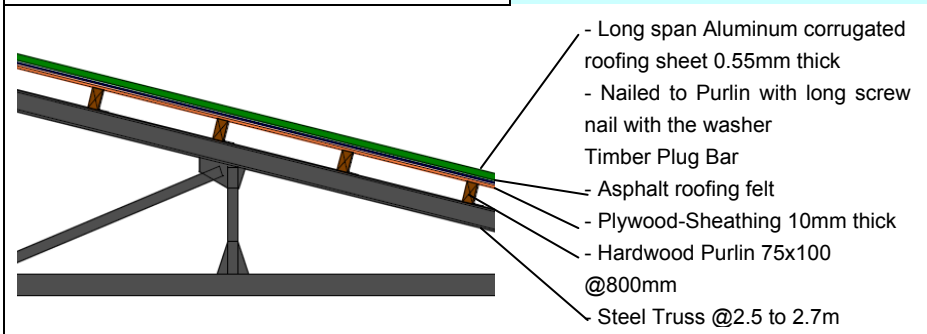
When it comes to applying these design criteria and guidelines, state law requires obtaining building permission for both public and private works. However, since the Project works entail the addition of classroom blocks to existing schools it has been confirmed that there will be no need to apply for building permission.

3) Key points of design criteria and guidelines

The key points of the UBEC Minimum Standard for Planning of Basic Education Infrastructure (2006) and its application to the Project are as indicated below. The design is made based on UBEC Minimum Standard with practical and technical modification.

Table 2 - 4 Comparison of Design Criteria and Guidelines

	Part	UBEC/SBEB Design	Design in this project
1.	**Planning**		
1.1	Classroom	UBEC: 8m x 7m (56m^2) SUBEB : 8m x 7m (56 m^2)	8m x 7m (56 m^2) (same as UBEC)
1.2	Office and Store	UBEC: 4m wide x 7m long (28 m^2) respectively	Head master and Teachers room with storage space: 8m x 7m (56 m^2)
1.3	Corridor	Open corridor, width:2m	Open corridor, width:2m
1.4	Doors	UBEC: 1.2m wide double-leaf (ordinary and small) steel door x 2 SUBEB: 80-90cm wide single-leaf door x 1	0.9m wide single-leaf steel door x 2
1.5	Windows	UBEC: Steel (1,200 x 1,200mm) x (2 + 4)	Steel (1,350 x 1,200mm steel double + 1,350 x 300mm transparent glass board fixed) x (1 + 3)
2.	**Structure / Wall**		
2.1	Structure / Wall	UBEC, SUBEB : RC frame, Sandcrete block, Emulsion paint on 12mm Sand cement rendering	Concrete Block 150mm thick (stagger laying), Reinforcing bar and concrete filling in the hollow around doors) Emulsion paint on 15mm cement and sand plaster, RC beams on block wall;
2.2	Columns on corridor and building corners	RC frame, Concrete block, Emulsion paint on 12mm Sand cement rendering	□- shape reinforced concrete column and beams for frame, Emulsion paint on 15mm cement and sand plaster.
2.3	Foundation	UBEC : 凸-shape RC foundation (1m wide, 1m depth) SUBEB : Sandcrete blocks on concrete base	凸-shape RC foundation according to the ground bearing force (e.g. 1,150mm wide, 700mm depth)

2.4	Floor	UBEC：RC (150mm thick, B.R.C. Mesh) ***<for all slabs>*** SUBEB： Sand cement rendering on cast concrete (hole damage easily)	RC (120mm thick) slab on grade with B.R.C. Mesh) and cement and sand floor screed (t=30mm) ***<ground floor slab on solid ground>***
2.5	Roof	UBEC : Long span Aluminum roofing sheet (0.55mm thick), hardwood purlin @900mm, hardwood rafter - truss @1,800mm, Gable roof SUBEB: Corrugated galvanized iron sheet, hardwood purlin, hardwood rafter – truss	Long span Aluminum corrugated roofing sheet (0.55mm thick), Asphalt roofing felt, plywood 10mm thick sheathing, hardwood purlin @800mm, Steel truss @2.6 to 2.7m, Hip roof, (Aluminum roofing sheet shall be nailed onto purlin with long screw nails with washer.)
			
	Timber/wood material	Local: bent / curved timber due to inadequate lumbering and drying	Adequately dried timber / wood
2.6	Ceiling	UBE、SPEB：Hardboard on hardwood noggins (Easily stained and damaged by leaked rain water)	No ceiling (anti-bat net if necessary); Insecticide/preservative coating on hardwood purlin and plywood sheathing.
3.	**Toilet**		
3.1	System	UBEC: Ventilated Improved Pit Latrine; Alternating retention pits for biological decomposition	Ventilated Pit Latrine
3.2	Size of booth	UBEC： 1.1m wide x 1.0m long (clear)	1.100m wide x 1.225m long (clear: inner size)
3.3	Floor	UBEC: Precast concrete slab	Booth: In-situ RC concrete; Outside pit cover: Precast concrete with steel handle (1,230 x 250 x 98)
3.4	Wall	Sandcrete blocks of weak strength) are usually used.	Controlled Concrete Block (t=150mm)
3.5	Roof	Aluminum roofing sheet on the booths and verandas	Aluminum corrugated roofing sheet covering only the booths
3.6	Pit	Depth of the pit: 3m	Depth of the pit: 2.15m (pit area will be wider to have same volume capacity.)

3) Consideration for cost reduction and maintenance

The following points are reflected in the building plan and design so that the quality will be kept for a long time without high maintenance cost.

Table 2 - 5 Consideration for cost reduction and maintenance

Part	Description
Structure (Foundation, Frame)	Generally, the ground is considered strong, and shallow direct foundation will be adopted. Economical form and volume of foundation will be designed. Reinforce concrete frame structure will be adopted considering cost and construction work ability.
Toilet structure	For small structure of toilets, concrete block masonry will be adopted.
Wall material, Wall finish	Baked brick masonry will be difficult in Oyo State, from availability and transportation of material, and masonry work-skill points of view. Therefore, concrete block wall with mortar trowel finish and paint will be applied.
Roof truss	Timbers tend to warp, crack and deform after construction, and roof trusses frequently become deformed as a result. And availability, market and cost of wood is getting worse with environmental degradation. Therefore, steel truss will be adopted. The workability and endurance will be improved. The interval of purlins will be reduced to 80cm from the 60cm of the previous second project as no problem will occur considering the strength of plywood panel.
Roof	Initial cost of galvanized steel sheet is cheaper, but it is week and tend to leak and to be damaged by strong wind. Aluminium long sheet is strong and endurable. The long time cost for maintenance and repair will be saved. Leakage of rainwater shall be avoided for proper education activities.
Floor	Concrete trowel finish without mortar will be cheaper, but it was very difficult to have skilled workers to do this finishing work. Terrazzo in-situ polished floors as the UBEC standard is also one of the more difficult types. Judging from actually applied floors, it appears that little consideration has been given to the selection of surface scrubbing and little attention has been paid to evenness and fits with walls and edges. In addition, this method does not have good cost effectiveness in the given environment. Therefore, the same mortar as that of the second project trowel finish will be adopted.
Ceiling	No ceiling will be provided. Roof plywood will serve as heat and rain sound insulation.
Doors and windows	Availability, market and cost of wood are getting worse with environmental degradation. Therefore, steel doors and windows will be adopted same as the previous second project. The endurance will be improved.
Toilet	One booth - one pit type with ventilation will be adopted. Staggered type pit is not applied considering actual use. This reduces some cost.
Desks and chairs	Availability, market and cost of wood is getting worse with environmental degradation. Therefore, steel frame will be adopted. Desk top board will be hardwood.
Blackboard	Black paint coat will be applied on large plywood board.
Water supply	Not included as maintenance problem and it should be covered by other scheme
Electricity	Not included as no present necessity and maintenance problem

2-2-2-2 Basic Plan (Construction Plan / Equipment Plan)

The Project facilities are planned as described in the following paragraphs based on discussions with UBEC and SUBEB, upon referring to the UBEC Minimum Standard and the facilities plan in the SUBEB prototype and second primary school construction project.

(1) Plan of Classrooms

According to the above guidelines, classroom dimensions are prescribed as 8m×7m = 56m^2, working out as 1.4m^2/student assuming 40 students per classroom, and the same dimensions are given for both urban and rural areas. As shown in the following figure, each classroom has 20

sets of two-seater desk and benches (for 40 students), one teacher's desk and chair, one blackboard and one notice board.

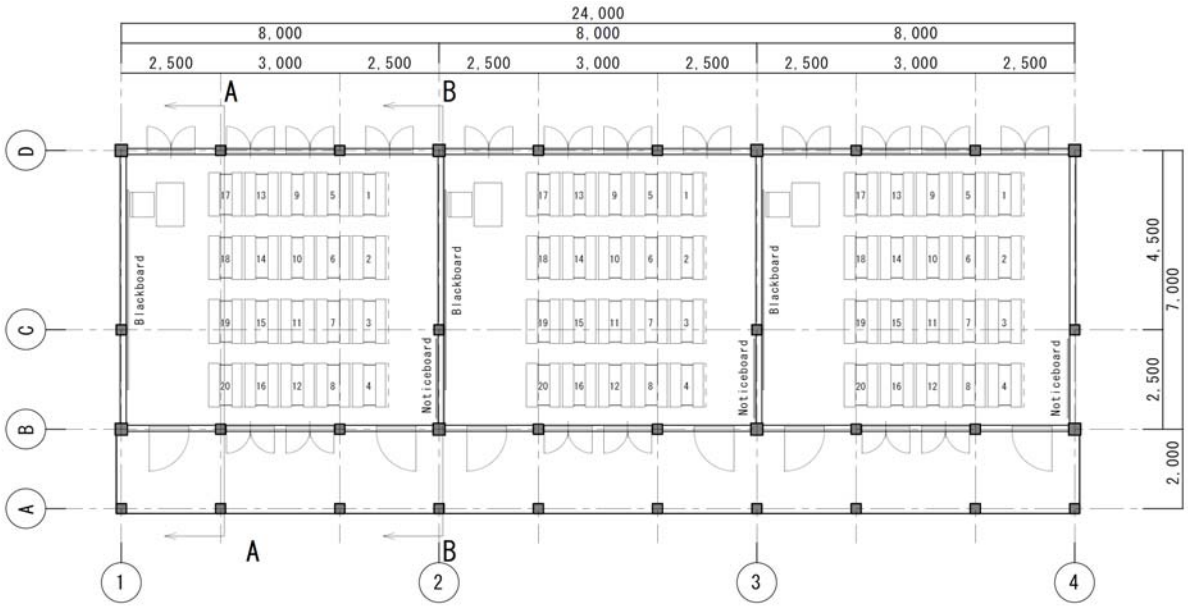


Fig. 2 - 1 Typical Classroom Floor Plan (3-classroom type)

Layout plan of rooms

The school facilities in the Project comprise classroom blocks and toilet blocks. The layout plan has been designed while paying attention to the following points with a view to realizing an efficient and economical layout:

- Side corridor layouts shall be adopted for each prototype, and two entrances from corridors to classrooms shall be provided in order to enable students to smoothly enter and exit.
- Through adopting a corridor width of 2.0m, smooth flow will be ensured and overcrowding will be prevented when the students enter and leave the classrooms.
- Classroom shape shall be an 8m × 7m rectangle to enable an efficient layout of desks and chairs and to realize favorable learning environments.

Floor plan according to classroom type

1) Classroom Types

In order to have simplicity and efficiency, the basic prototypes in the Project will be the 3-classroom type and 4-classroom type only. These types shall be used in combination according to the planned number of classrooms and the shape of the target school sites, For example, 7 rooms (3+4), 8 rooms (4+4), 9 rooms (3+3+3), 10 rooms (3+3+4), 11 rooms (3+4+4) and so on.

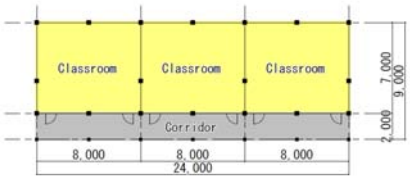
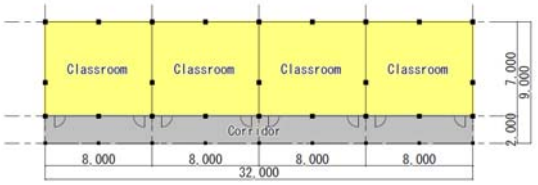
Type		Classrooms (total floor area)	Basic Type Floor Plan
Classrooms	A3	3 (216m^2)	
	A4	4 (288m^2)	

Fig. 2 - 2 Floor Plans of the Classroom Building

Number of Classrooms by Type

The following table shows the breakdown of classrooms by type of the 36 target schools in the Project.

Table 2 - 6 Number of Classrooms by Type

Classroom type (floor area)	Number of blocks	Number of rooms (including 2 administration rooms)	Floor area (m^2)
3-classroom type (216m^2)	81	243	17,496
4-classroom type (288m^2)	5	20	1,440
Total	**86**	**263**	**18,936**

(2) Furniture Plan

Based on the standard specifications of the Nigerian Ministry of Education, the following furniture will be provided in the project.

Table 2 - 7 Furniture Specifications and Quantities

Contents / Item	Specifications	Quantities
2-seater desk/chair set for students	Wooden tops and steel frames	5,220 sets
Teacher's desk and chair (in classroom)	Wooden tops and frames	261 sets
Teacher's desk and chair (in administration room)	Wooden tops and frames	14 sets
Blackboard	Wood (with frame)	261
Notice board	Wood (with frame)	261

(3) Toilet plan

According to the Nigerian Standard, the number of toilet booths is set at one toilet per classroom; however, one booth shall be planned for every two classrooms. Judging from the actual use conditions, there will not be any major problems.

Toilets shall comprise of four-booth type (two for boys and two girls) and six-booth type (three for boys and three for girls), and these will be planned according to the required numbers in each school.

Table 2 - 8 Number of Toilets by Type

Toilet type (area)	Number of buildings	Number of booths	Floor area (m^2)
4-booth type (13.0m^2)	30	120	390.0
6-booth type (19.5m^2)	23	138	448.5
Total	**53**	**258**	**838.5**

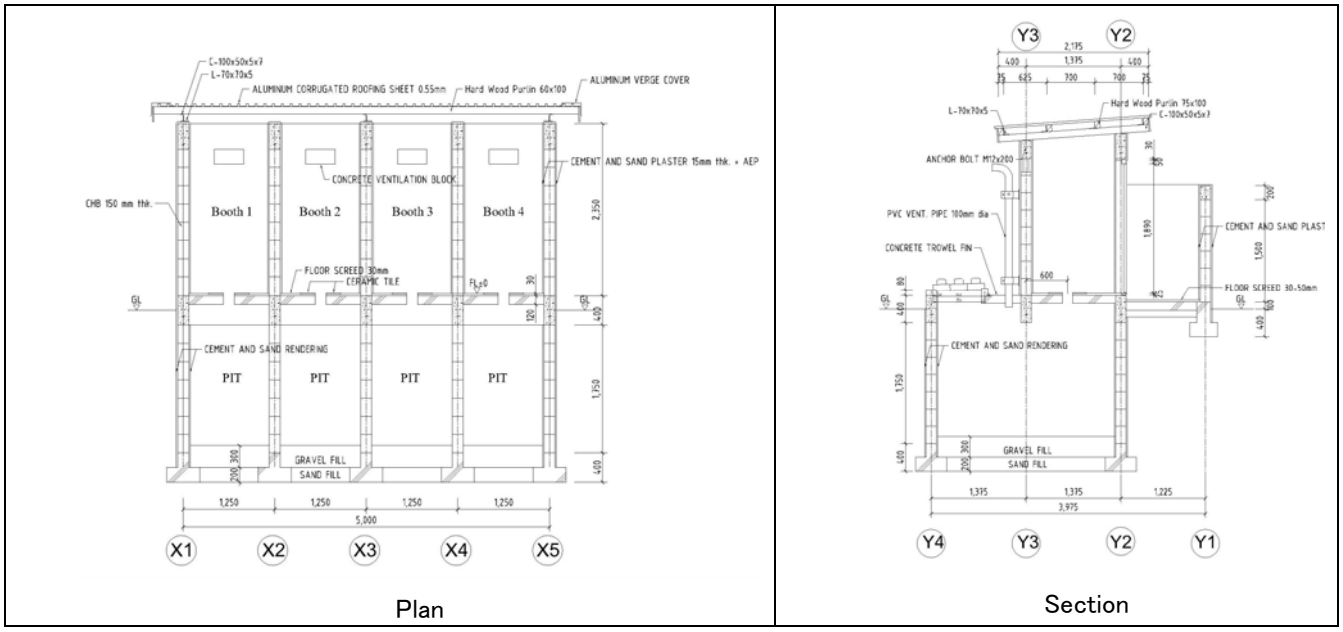


Fig. 2 - 3 Toilet Prototype (boys 2 booth, girls 2 booth)

(4) Planned Number of Rooms and Furniture

The Planned Number of Rooms and Furniture are summarized as shown in the following table.

Table 2 - 9 Planned Number of Classrooms and Furniture

						Number of Rooms		Buidling		Toilet			Education Furniture		
No.	Original and Survey No.	No. and Priority	Name of Primary School Interviewed	LGUBEA	No. of Students surveyed	Number of Planned Classrooms (AxBxC-D)	Number of Head-master and Teachers Room	3 Class-room Type	4 Class-room Type	Number of Toilet Booth	Toilet house (4 booth type)	Toilet house (6 booth type)	Desk and Chair for 2 Students (set)	Desk and Chair for Teachers (set)	Black-board and Notice board (set)
1	1	1	RATIBI MOSLEM PRIMARY SCHL ODINJO	IBADAN SOUTH EAST	880	6		2		6		1	120	6	6
2	2	2	ST LUKE DEMONSTRATION SCHL MOLETE IBADAAN	IBADAN SOUTH EAST	932	12		4		12		2	240	12	12
3	3	3	ST. LEO'S CATHOLIC SCHOOL	IBADAN SOUTH EAST	1,246	9		3		8	2		180	9	9
4	4	4	I.M.G. PRIMARY SCHL, OLUBADAN	IBADAN SOUTH EAST	960	18	1	5	1	18		3	360	25	18
5	14	5	ONISAPA C.P.S I	OGBOMOSO SOUTH	1,015	12	1	3	1	12		2	240	19	12
6	8	6	L.A DEM. PRY. SCH.	ISEYIN	379	6		2		6		1	120	6	6
7	20	7	I.D.C. BASIC SCH. AKOBO	LAGELU	762	9		3		8	2		180	9	9
8	24	8	ISLAMIC MISSION SCH. MONIYA	AKINYELE	1,049	6		2		6		1	120	6	6
9	21	9	ST. AUGUSTINE R.C.M. AKINSAWE	LAGELU	589	9		3		8	2		180	9	9
10	25	10	ST. PHILIPS PRY, SCH, FASOLA	OYO WEST	585	6		2		6		1	120	6	6
11	32	11	CHRIST CHURCH SCH. I AKINFENWA	EGBEDA	820	6		2		6		1	120	6	6
12	37	12	ABADINA PRY. SCH. U.I	IBADAN NORTH	714	9		3		8	2		180	9	9
13	11	13	ST. MARY'S (RCM) PRY. SCH. I	ISEYIN	590	4			1	4	1		80	4	4
14	17	14	BAPTIST PRY. SCH.I IGBOORA	IBARAPA CENTRAL	1,022	9		3		8	2		180	9	9
15	42	17	COMM. PRY. SCH. I - IV AYEKALE IBADAN	IBADAN NORTH EAST	642	9		3		8	2		180	9	9
16	9	18	METHODIST PRY. SCH. AGO - IJIO	ISEYIN	338	3		1		4	1		60	3	3
17	16	19	METHODIST SCHOOL III	IBARAPA CENTRAL	665	9		3		8	2		180	9	9
18	7	20	COMM, PRY, SCHL, OLUODE	IDO	964	6		2		6		1	120	6	6
19	23	21	EBENEZER ANGLICAN SCH.	AKINYELE	923	12		4		12		2	240	12	12
20	39	22	BAPTIST PRY. SCH. MAYA LANLATE	IBARAPA EAST	420	7		1	1	6		1	140	7	7
21	44	23	ST. ANNE'S CATHOLIC SCHOOL	IBARAPA NORTH	349	3		1		4	1		60	3	3
22	35	24	BAPTIST BASIC SCH. IPASA	SURULERE	208	3		1		4	1		60	3	3
23	31	26	L.A PRY. SCH. OKEOLOLA (SCH-3)	ATIBA	250	3		1		4	1		60	3	3
24	27	27	ST. MICHEAL ANG. RCM,ARAROMI	OYO EAST	1,791	9		3		8	2		180	9	9
25	34	30	COMM. BASIC SCH. KEEWO	SURULERE	112	3		1		4	1		60	3	3
26	6	31	ST. PETER'S PRY. SCH. APETE	IDO	1,246	9		3		8	2		180	9	9
27	10	32	ARMY CHILDREN PRY. SCH.	ISEYIN	340	3		1		4	1		60	3	3
28	41	34	ISLAMIC MISSION PRY. SCH. I & II AGUGU	IBADAN NORTH EAST	589	7		1	1	6		1	140	7	7
29	33	35	C.P.S I AYEPE	EGBEDA	601	12		4		12		2	240	12	12
30	29	36	BAPTIST PRY SCHL II, OTAMOKUN	OGO OLUWA	617	6		2		6		1	120	6	6
31	26	37	COMM, PRY, SCHL, OGUNKEYE	OYO WEST	380	3		1		4	1		60	3	3
32	13	39	AREAGO BASIC PRY. SCH.	OGBOMOSO NORTH	1,440	9		3		8	2		180	9	9
33	5	40	I.M.G. PRY. SCH. LAGOS BYE PASS	IBADAN SOUTH WEST	500	3		1		4	1		60	3	3
34	12	41	ST. DAVID'S PRY, SCHL, AGBOYIN	OGBOMOSO NORTH	1,236	12		4		12		2	240	12	12
35	15	42	MOLETE D.C. PRY. SCH. III	OGBOMOSO SOUTH	1,272	6		2		6		1	120	6	6
36	19	44	I.M.G. PRY, SCH, JOYCEB , OKE-ADO	IBADAN SOUTH WEST	454	3		1		4	1		60	3	3
			Total		26,880	261	2	81	5	258	30	23	5,220	275	261
						Total Rooms	263			Total Toilet House		53			

(5) Basic Plan

(a) Architectural Plan

1) Finishing plan

The finishing of the Project facilities will be planned as follows in consideration of local specifications and maintenance after the facilities are finished and handed over.

Table 2 - 10 Finishing Plan

Room / Area	Floors	Walls	Ceilings	Roofs
Classrooms	Concrete floor with mortar trowel finish (thickness 30mm)	Concrete block masonry + mortar trowel finish (thickness 30mm) + paint finish	None	Steel frame truss roof with 12mm plywood panel + asphalt roofing + aluminum roofing sheet (0.55mm)
Corridors	Concrete floor with mortar trowel finish (thickness 30mm)	Walls, pillars and beams: concrete + mortar trowel finish (thickness 30mm)	None	
Outside	-	Concrete block masonry + mortar trowel finish (thickness 15mm) + paint finish	-	-

2) Height plan

Nigerian construction guidelines contain no particular stipulations regarding height; however, just in case of unexpected situations such as inundation caused by torrential rain during the rainy season, floor height shall be set at +30cm aboveground on corridors and +40cm aboveground in classrooms. The height inside classrooms shall be 2.8m from the floor to the bottom chord of the steel frame roof truss.

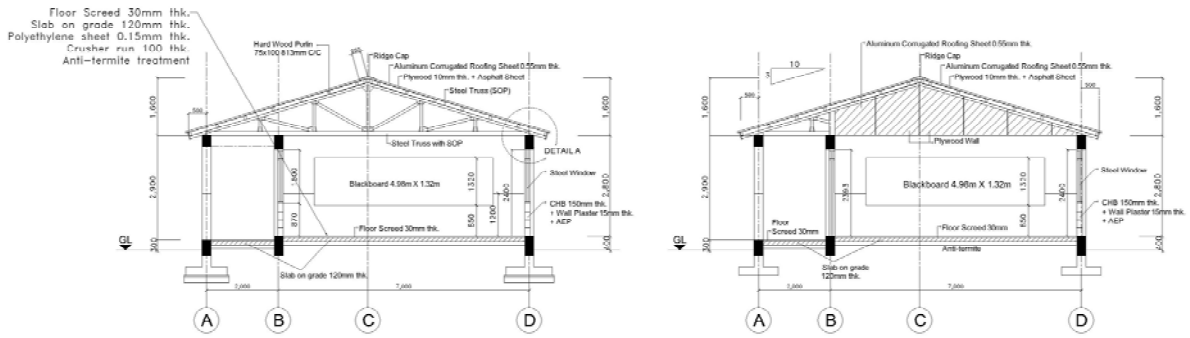


Fig. 2 - 4 Cross Section

3) Elevation plan

Nigerian construction guidelines contain no particular stipulations regarding height.

Roofs will be fitted to the single story corridors with the aims of preventing direct sunlight during the dry season and stopping rain from blowing inside during the rainy season. Also, roof eaves on the opposite side will protrude by 50cm with the same objective. Walls facing the exterior sides of classrooms will be fitted with steel windows for allowing ventilation and letting in light. These windows will be opened while the classrooms are in use; however, they will be closed at times of gusty winds (in the rainy season) and hamatan (in the dry season). Therefore, transparent glasses will be installed above the windows for lighting purposes.

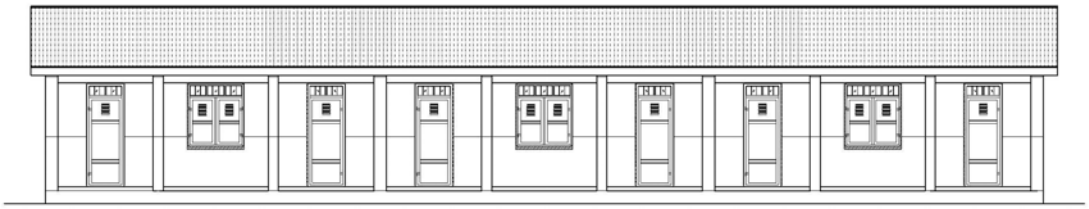


Fig. 2 - 5 Elevation (3-classroom type)

(b) Structure and Foundation Plan

1) Outline

- Structures shall be strong enough to withstand gusts during the rainy season, and the locally common reinforced concrete frame structure shall be adopted.

- The design and works shall be carefully executed when fixing roof trusses to reinforced concrete beams, purlines to plywood panel, and roof sheathing to aluminum roofing sheets, considering the strong wind.

2) Applicable criteria

Building design criteria in Nigeria are compiled in the National Building Code 2006 and the State Building Regulation based on the BS standard. The BS (British Standard) is basically adopted for structural design of concrete structures; however, Japanese criteria shall also be considered wherever necessary.

3) Structural type of buildings

Primary school structures in Nigeria basically consist of three types, i.e. reinforced concrete structure, concrete block masonry structure and reinforced brick masonry structure as adopted in the first primary school construction project. The concrete block masonry structure is generally adopted in SUBEB school construction projects; however, because the local concrete blocks have major problems in terms of strength and quality, it is necessary to improve the mixing ratio and practice. Furthermore, concerning the reinforced brick structure that was adopted in the first primary school construction project, burnt bricks (the primary materials) are produced only in restricted areas due to the geological characteristics of laterite clay (the raw material); moreover, since these bricks suffer from frequent damage during loading, transportation and unloading, it has been decided not to adopt them in the Project. Therefore, the reinforced concrete structure (RC frame structure), which is commonly adopted in local buildings, shall also be adopted in the Project. As for the type of

foundations, it is planned to use independent type spread foundations based on the results of the ground survey.

4) Material standard

The following construction materials, which are available in local markets, shall be used in the Project.

Concrete	Plain concrete	Concrete slab on grade	Structural concrete
	28-day strengthening fc'=15 N/mm^2	28-day strengthening fc'=18 N/mm^2	28-day strengthening fc'=21 N/mm^2

Reinforcing bars	Standard	Tensile strength
	National Building Code 2006 (Federal Law)	fy=420 N/mm^2

Steel	Standard	Tensile strength
	BS (British Standard)	fy=420 N/mm^2

Since supply of raw concrete cannot be secured in the Project target area of Oyo State, all concrete shall be mixed on-site.

5) Design load

① Live load

National Building Code 2006 (federal law) standards shall be applied for live load as follows:

Roof	Standard	Design Load
	National Building Code 2006 (Federal Law)	1 KN/m^2

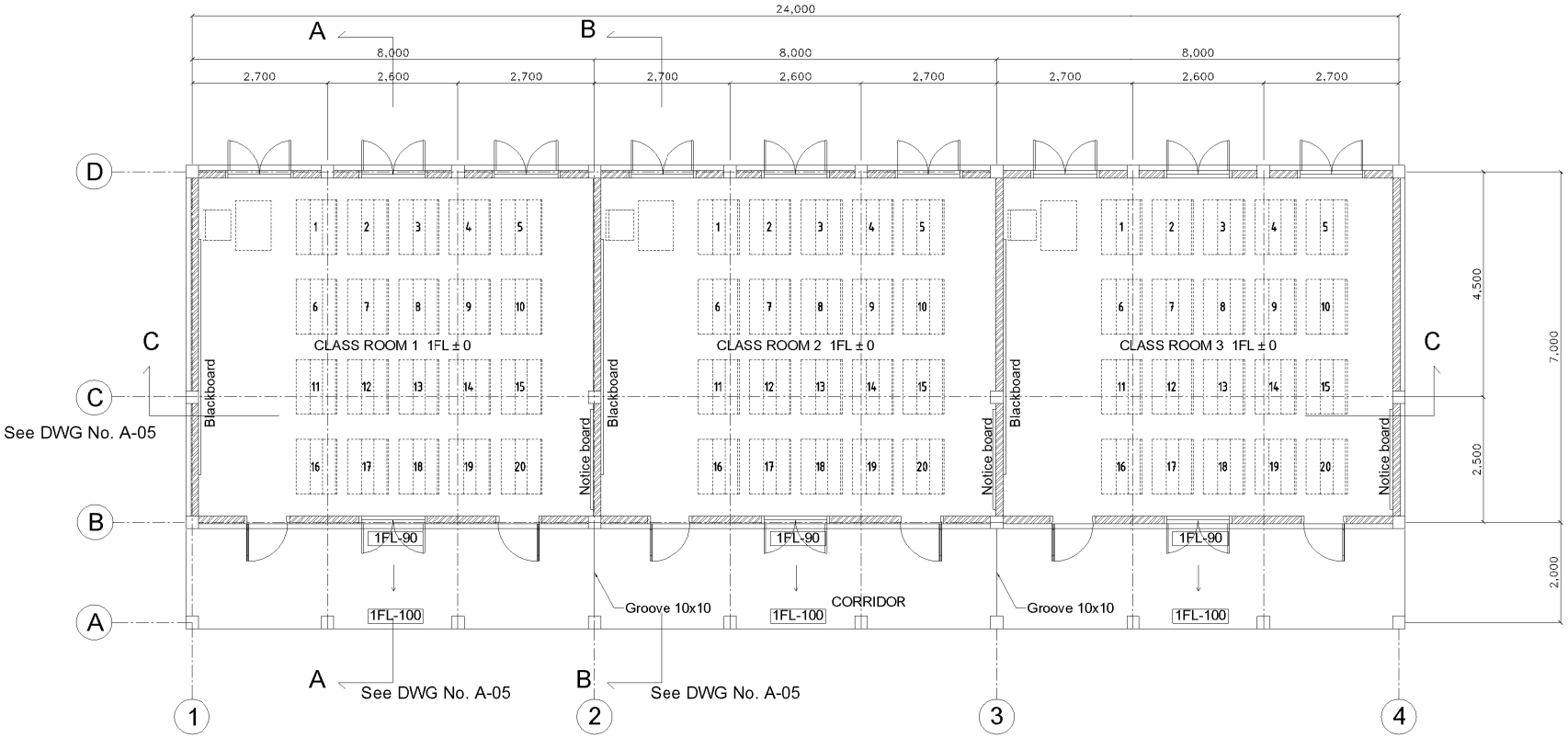
② Wind load

National Building Code 2006 (federal law) standards are applied for wind load; however, since gusts occur in Oyo State and surrounding areas in the north of the country, the following value shall be adopted:

Wind speed =40m/sec

③ Seismic load

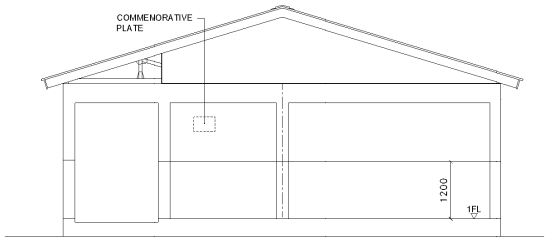
National Building Code 2006 (federal law) standards are applied for seismic load. However, since there are no records of past earthquakes in the Project area, seismic load shall not be taken into account.



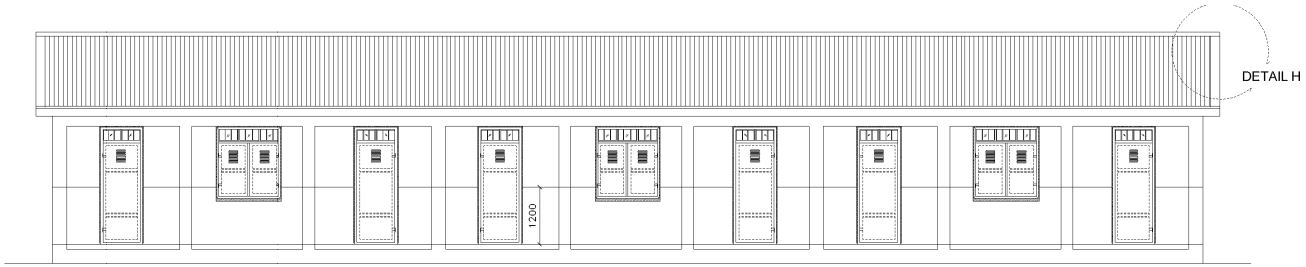
GROUND FLOOR PLAN
SCALE 1 : 100

Note: 1FL±0.00=GL+400mm

3 Classroom Type - Plan



LEFT SIDE ELEVATION
SCALE 1 : 100



FRONT ELEVATION
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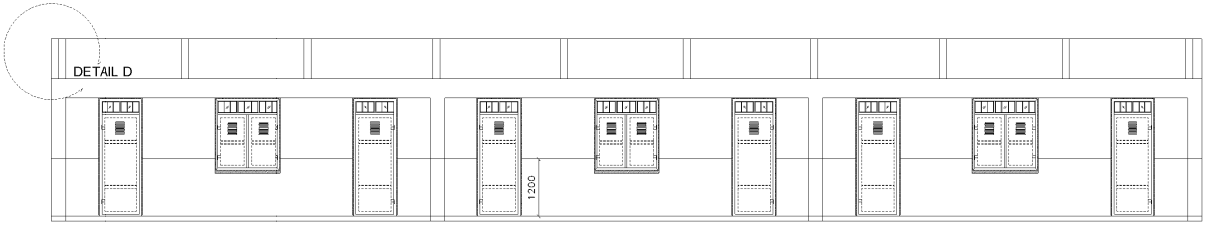
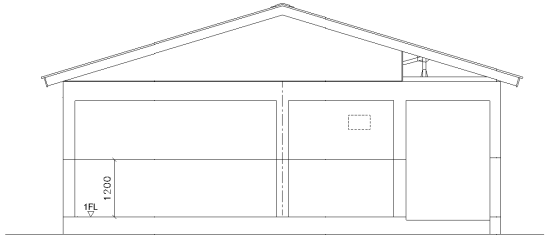


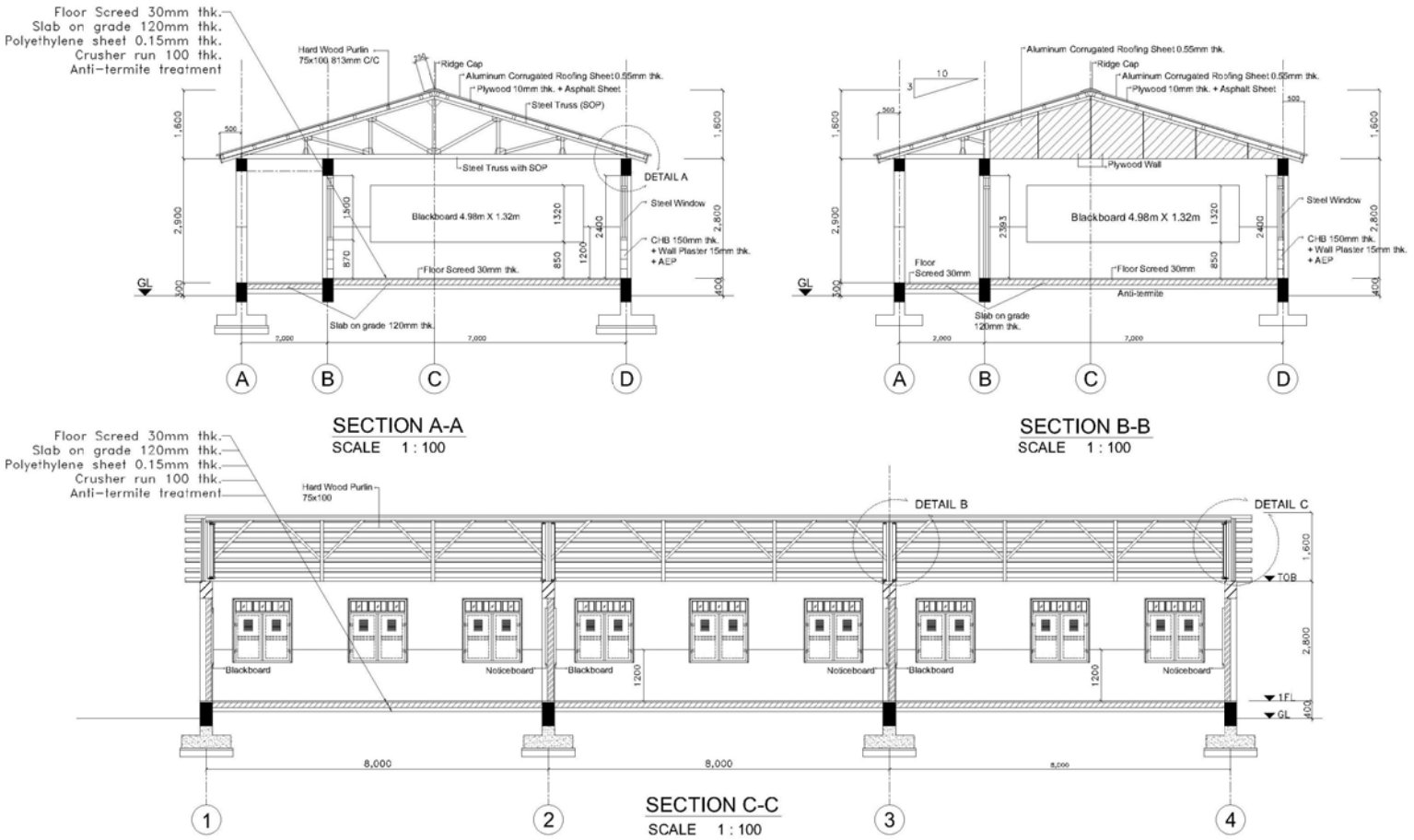
CORRIDOR WALL ELEVATION
SCALE 1 : 100



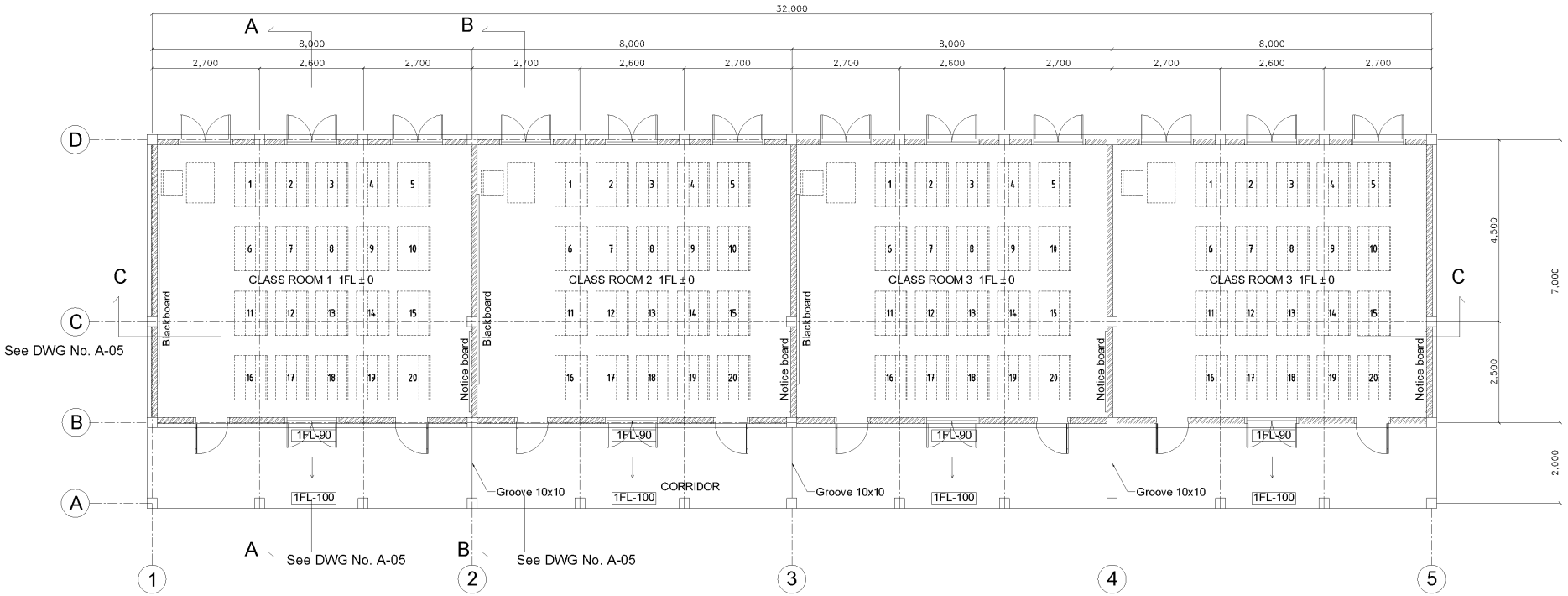
RIGHT SIDE ELEVATION
SCALE 1 : 100

BACK SIDE ELEVATION ELEVATION
SCALE 1 : 100

3 Classroom Type - Elevation



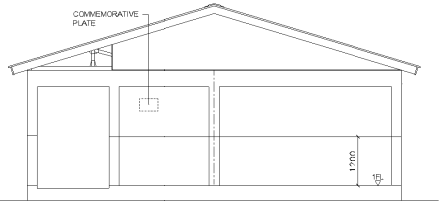
3 Classroom Type - Section



GROUND FLOOR PLAN
SCALE 1 : 100

Note: 1FL±0.00=GL+400mm

4 Classroom Type - Plan



LEFT SIDE ELEVATION
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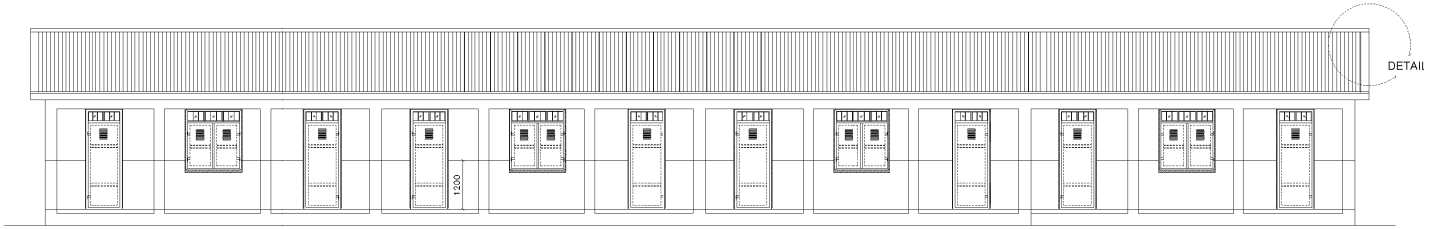
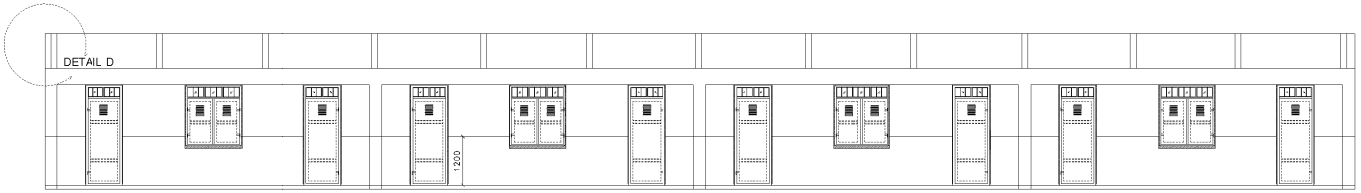
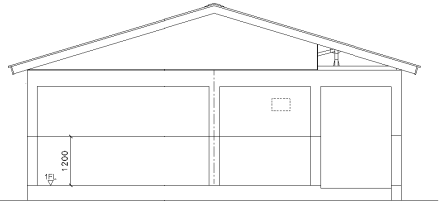


FRONT ELEVATION
SCALE 1 : 100



CORRIDOR WALL ELEVATION
SCALE 1 : 100



RIGHT SIDE ELEVATION
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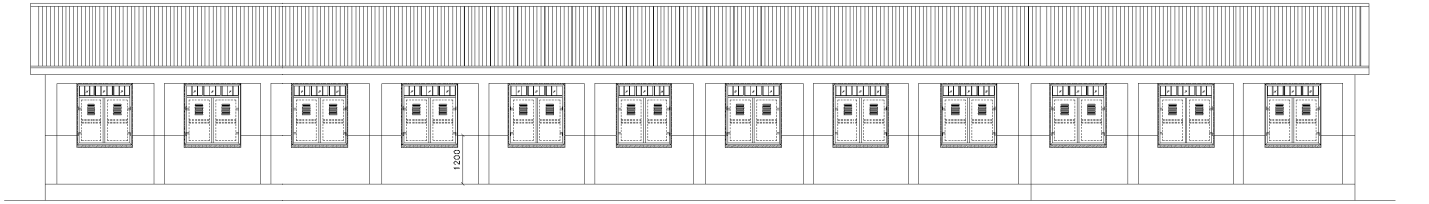
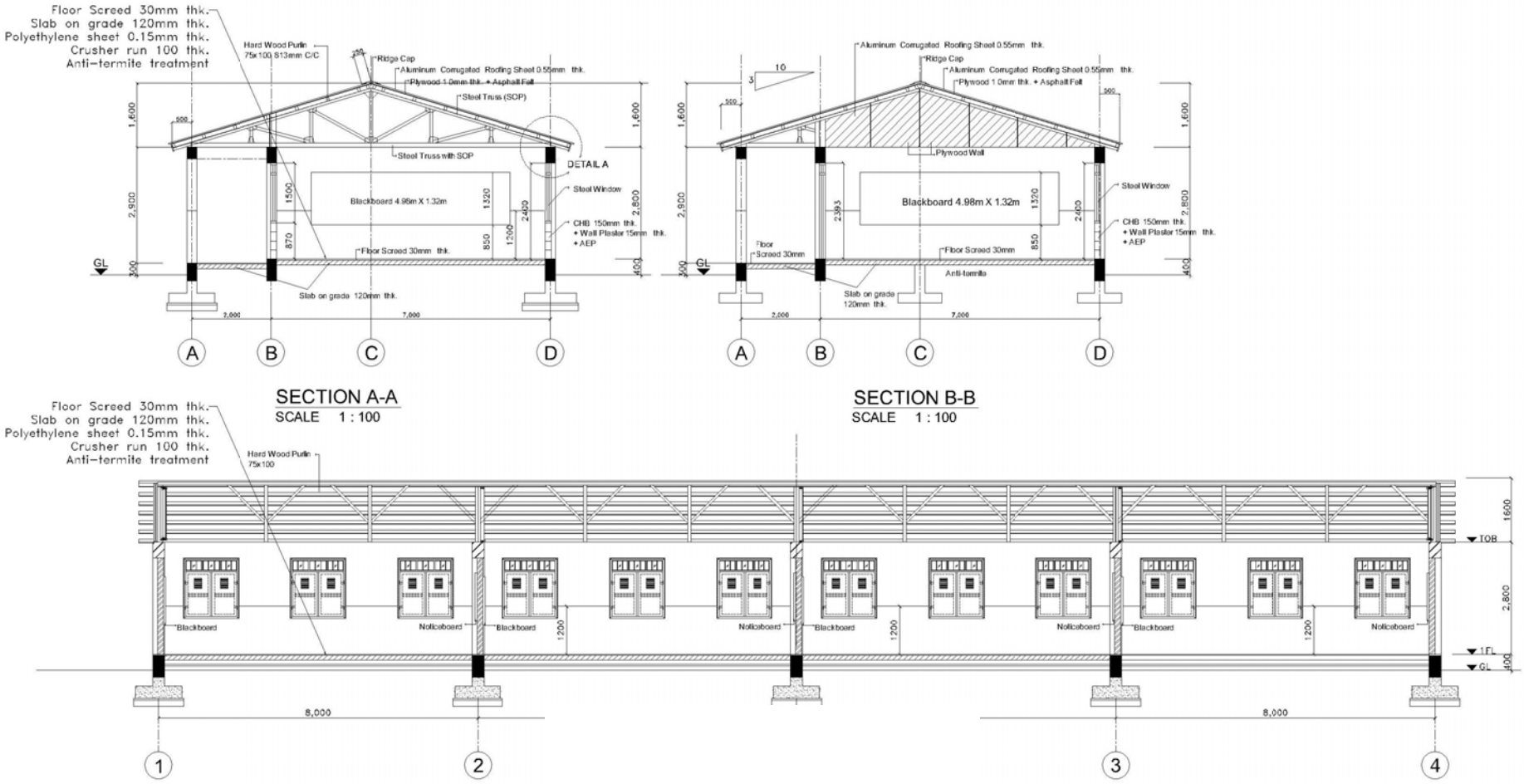
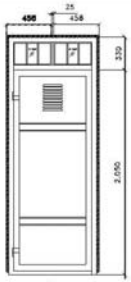
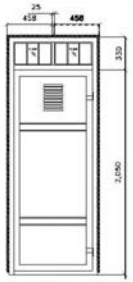
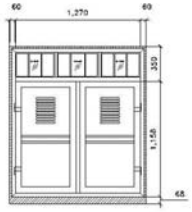


BACK SIDE ELEVATION ELEVATION
SCALE 1 : 100

4 Classroom Type - Elevation

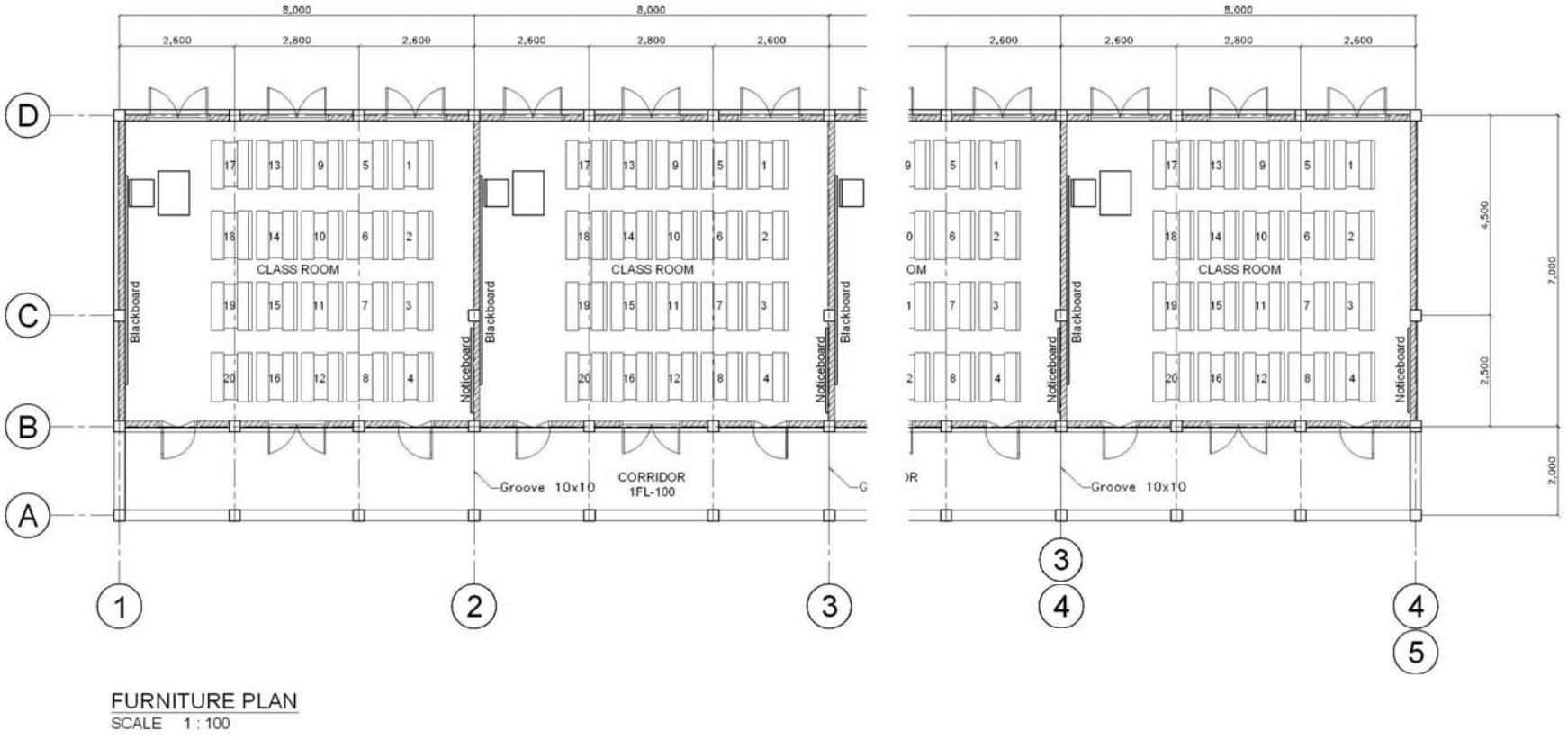


4 Classroom Type - Section

Mark	D 1		W 1
Size	 L	 R	
Door	Steel Plate		Steel Plate
Frame	Ditto		Ditto
Glass	Float Glass (t=5mm)		Float Glass (t=5mm)
Paint	Synthetic Resin Oil Paint		Synthetic Resin Oil Paint

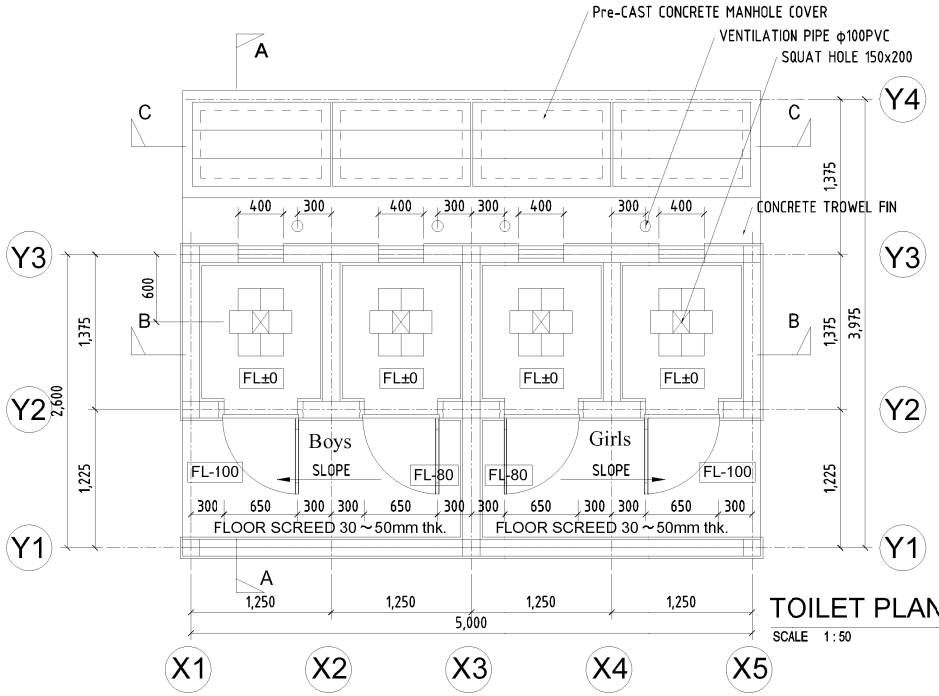
DOOR & WINDOW SCHEDULE

SCALE NTS



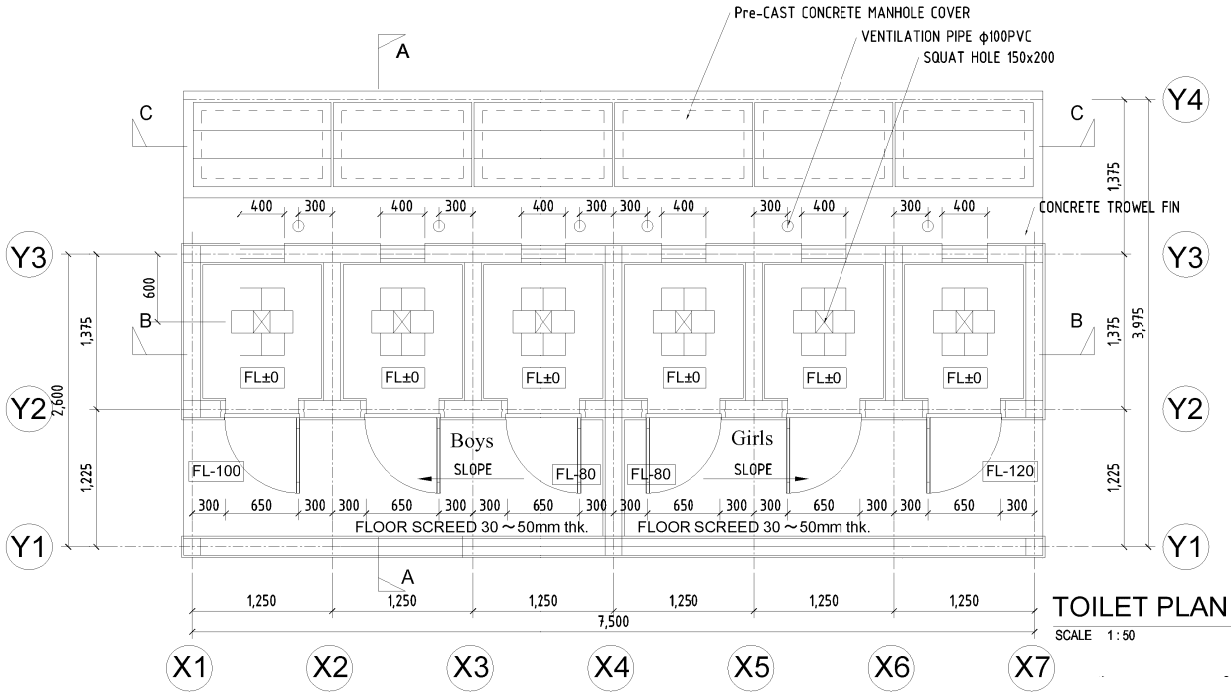
FURNITURE PLAN
SCALE 1 : 100

Furniture Layoot



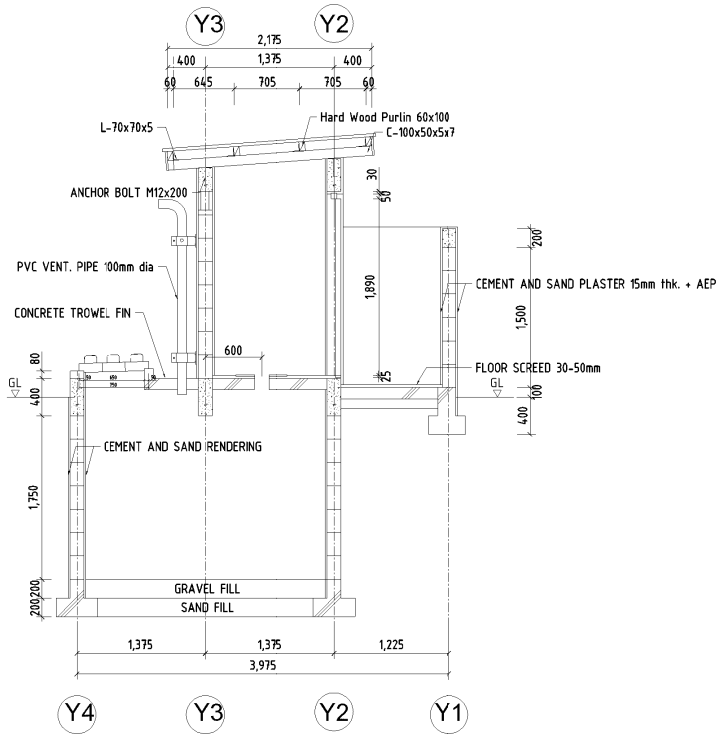
TOILET PLAN (4 BOOTH TYPE)

SCALE 1 : 50



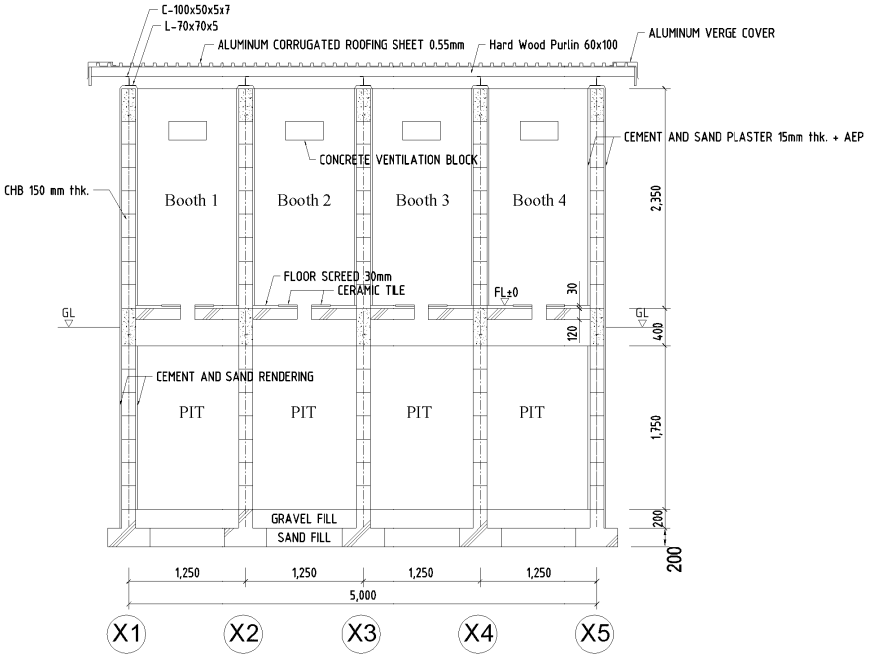
TOILET PLAN (6 BOOTH TYPE

SCALE 1 : 50



SECTION A-A (4 BOOTH TYPE)

SCALE 1:50



SECTION B-B (4 BOOTH TYPE)

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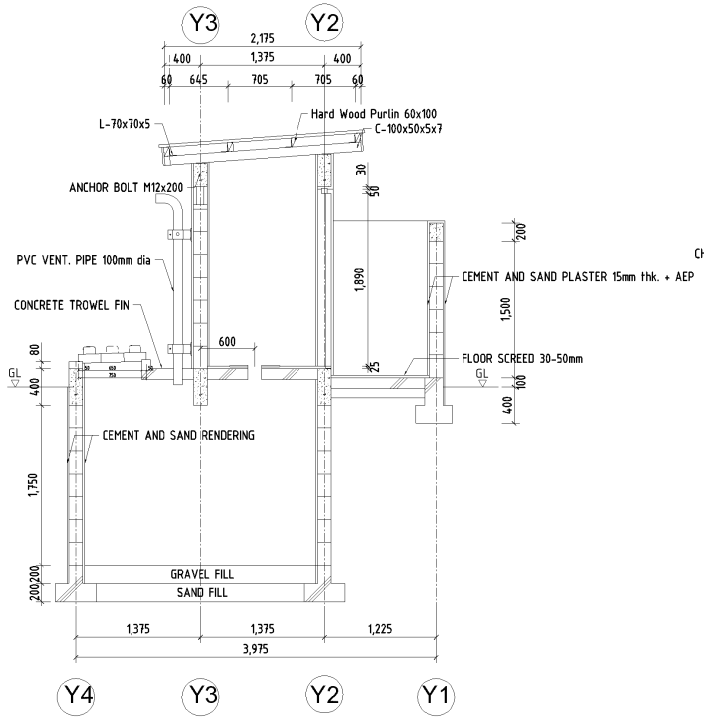
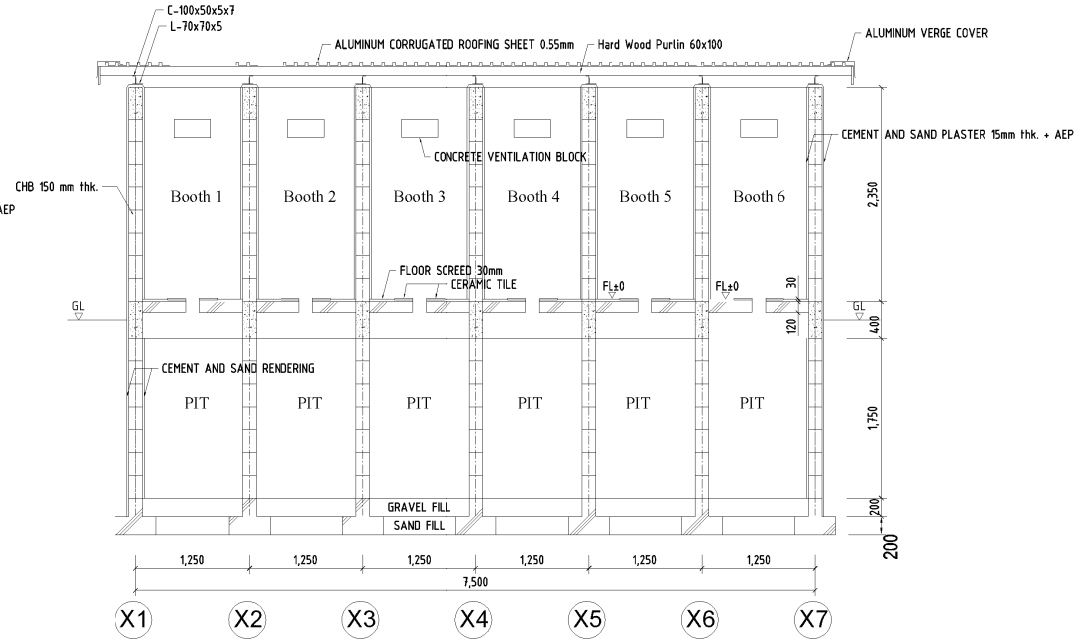


SECTION A-A (4 BOOTH TYPE)

SCALE 1 : 50



SECTION B-B (6 BOOTH TYPE)

SCALE 1 : 50

2-2-4 Implementation Plan

2-2-4-1 Implementation Policy

(1) Implementation based on Japan's Grant Aid Scheme for Community Empowerment

The Project will be implemented based on Japan's Grant Aid Scheme for Community Empowerment. Following the conclusion of the Exchange of Notes (E/N) and Grant Agreement (G/A) concerning the Community Empowerment Grant for the Project, the Government of Nigeria will entrust selecting and contracting of the consultant and contractors to the Procurement Management Agent. The construction supervision consultant and contractors will implement their respective duties upon binding contracts with the Procurement Management Agent.

1) Local contractor

Only small to medium size contractors will apply for school construction work in Nigeria. Generally, they have no adequate experience in construction supervision and quality control and they cannot make construction plan, detailed construction schedule, shop drawings etc. They are far from acceptable technical level. Therefore, small sized tender should be avoided in order to exclude such incompetent contractors.

2) Local consultant

There are numerous small consulting firms, but no consulting firm can do comprehensive engineering works, including structural design, utility design, quantity survey and construction supervision in primary school projects. Their technical capacity and experience is not acceptable. Therefore, local engineers will be recruited only for assisting the Japanese consultant in site supervision. Technical guidance, orientation and instruction will be given to them before commencement of the construction work. Methodology and important points for construction supervision and method/form of reporting will be explained to them.

3) Japanese consultant

It will be necessary to strengthen construction supervision and technical guidance with the help of a Japanese consultant concerning quality control, schedule control and safety control. In addition to supervising the quality of works execution, the construction schedule and safety of works, etc., the Consultant will assess and evaluate the works progress made by the contractors and report the contents to the Procurement Management Agent each month.

The following table shows usual construction supervision and additional technical guidance and support carried out to the contractor in the previous school construction project by Japan's aid, which should be extended in this project also.

Table 2 - 11 Construction Supervision and Technical Guidance and Support

Description	Construction supervision	Technical guidance and support to contractor
Checking / Supervision	Checking and supervision in all construction process from setting out to final inspection by a Japanese Supervisor. Construction shall be allowed only when Japanese supervisor accepts. Disqualified construction part shall be redone.	Guidance and suggestions and sometimes practical instruction for proper and adequate construction method
Construction schedule	Checking and approval	Guidance and suggestion of adequate construction schedule with timing of preparation of labor and material.
Setting out	Checking and approval	Guidance of proper method of setting-out with ink pod, marking and offset lines
Backfilling	Checking and approval	Guidance of proper compaction etc.
Concrete	Checking and approval of material and setting	Checking concrete mix proportion Sieve test and specific gravity test of aggregate Trial mixing for approval of mix proportion Slump test, concrete temperature test, chloride content test before casting concrete Compression test of specimen (7days and 28days)
Formwork	Checking and approval of material and setting	Floor marking of offset line using inkpot Dimensional test using measuring tape and plumb bob
Reinforcing bar	Checking and approval of material, bending and setting	Tension test of rebar specimen Checking of bending schedule Dimensional checking of bending sample Rebar placing inspection before concrete casting
Steel truss and anchor	Checking and approval of shop drawing, material and setting	Fabrication drawing is supplied. Fixing and anchoring details are recommended.
Purline	Checking and approval of material and setting	Steel truss which fabricated good managed workshop
Concrete block	Checking and approval of material and setting	Guide to make blocks with compression strength (more than $4N/mm^2$)
Cement and sand plaster	Checking and approval of material and setting	15mm thick, 2 layer(Scratch coat and finish coat) Checking mortar mix proportion Checking plumb and 90 degree angle
Hardwood purlin	Checking and approval of material and setting	Checking timber sample before delivery Dimensional checking Checking water content using wood moisture tester (Less than 18%)
Steel door and window	Checking and approval of material and setting	Welding fixing to structure Durable strength hinge by Japanese supervisor's improvement design
Wall paint	Checking and approval of material and setting	Using masking tape for straight line Floor shall be covered to avoid stain during painting Uneven coloring shall be rectified.

(1) Implementation Setup

1) Responsible and implementing agencies

The responsible and implementing agencies for the Project are the UBEC and the Oyo SUBEB. The Federal Ministry of Education (FME) and UBEC are responsible for

formulating education policy and compiling curriculums for primary education of the country.

The Project will be implemented as a Grant Aid Scheme for Community Empowerment undertaking based on the Agent Agreement (A/A) concluded between the UBEC and Oyo SUBEB (the responsible and implementing agencies on the Government of Nigeria side) and the Japanese Procurement Management Agent. UBEC and SUBEB will have overall control over the Grant Aid Scheme for Community Empowerment undertaking in Nigeria and will be responsible for ensuring smooth Project implementation as the contract partners of the Procurement Management Agent. Moreover, the main agencies on the Nigerian Government side (UBEC, NPC, FME) and the Japan side will establish an intergovernmental Consulting Committee composed of representatives from each to discuss the items that require coordination and confirmation at government level. Furthermore, a working group will be established by the UBEC, NPC, FME, JICA Nigeria Office and the Procurement Management Agent, and this will confirm the progress and discuss technical confirmation points and so on. The Project implementation setup is shown below.

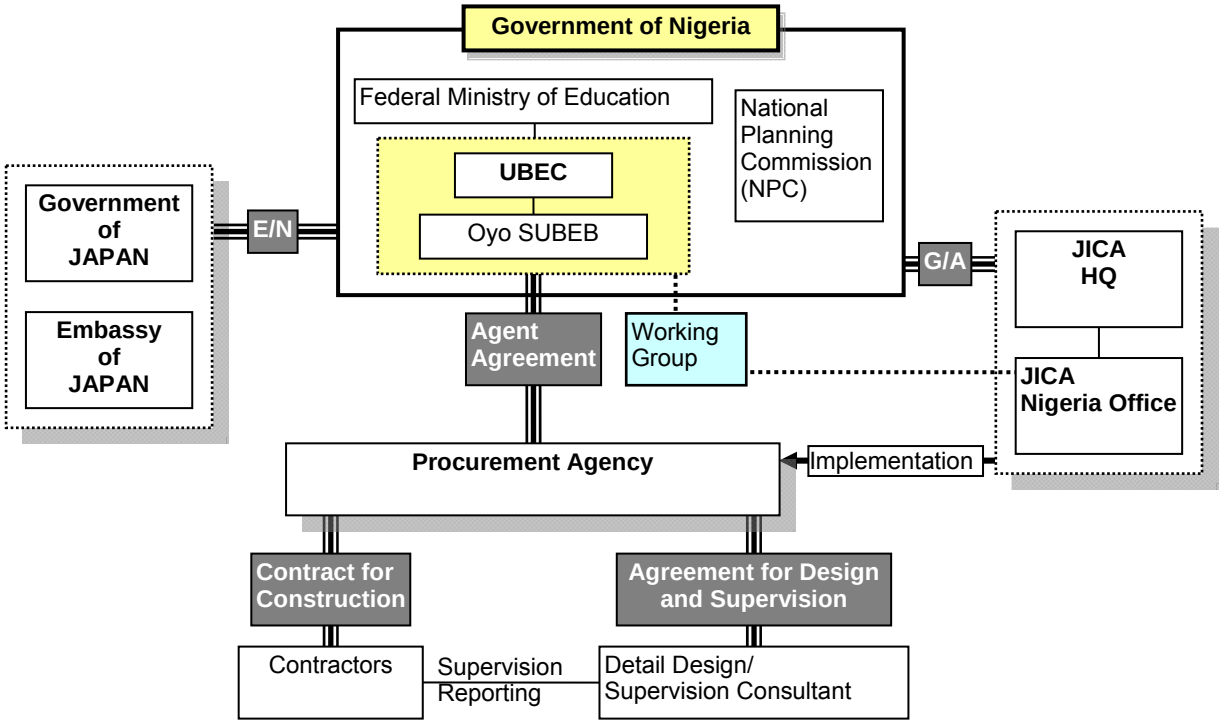


Fig. 2 - 6 Project Implementation Setup

2) Procurement Management Agent

① Implementation Contents

It is preferable that the Japanese consultant that implemented the outline design study prepares the tender documents; however, selection of the consultant will be subjected to the consent of the implementing agency on the Nigerian side. After that, the Procurement Management Agent, which will be recommended by the Government of Japan, will implement and execute general supervision to ensure that the Project components are appropriately and smoothly implemented in its capacity as the mandatory of the implementing agency. Also, the Procurement Management Agent will coordinate the tender prequalification (PQ) and tender documents review, oversee the tender procedure and tender implementation, and supervise implementation of the construction work.

② Implementation setup

The work to be implemented by the Procurement Management Agent is as indicated below.

Tender procedure period	Construction supervision period
Assuming that the tender meeting will be staged in Nigeria, the Procurement Management Agent will sets up its local office in the capital, Abuja. The Procurement Management Agent contract, bank arrangements, account opening and local office establishment will be carried out by the resident assistant supervisor, who will be stationed in Nigeria, and will also prepare the contract documents, distribute the tender documents and conduct the tender evaluation and assist in concluding the contract of the work. The chief supervisor will carry out the work related to the signing of contracts. A local staff will be employed as assistant personnel.	The Procurement Management Agent will conduct general supervision during the construction period. Accordingly, it will retain an office in the capital, Abuja, so that the Supervisor can oversee the start of works and the completion inspections and office closure, etc. A resident assistant supervisor will conduct the project management.

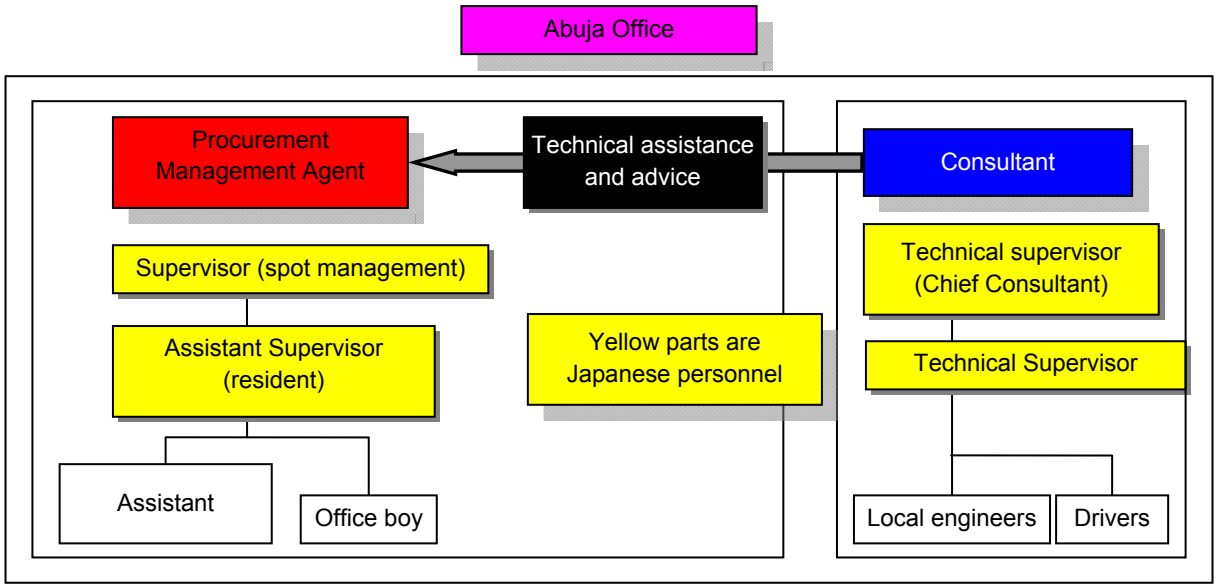


Fig. 2 - 7 Implementation Setup for Tender Period

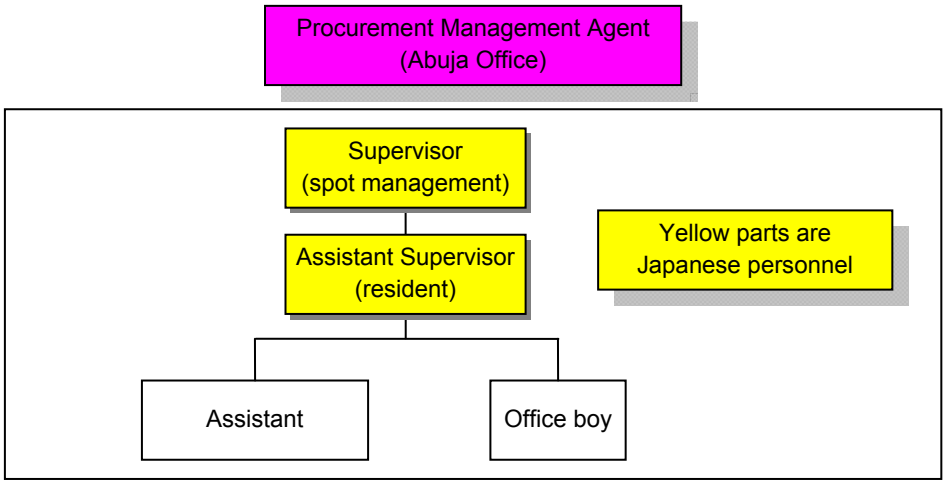


Fig. 2 - 8 Implementation Setup during Construction Supervision

3) Construction supervision consultant

① Implementation contents

In its capacity as the construction supervision consultant, the Consultant will make technical assistance in tendering work performed by the Procurement Management Agent and also supervise the works.

② Implementation setup

The work to be implemented by the Construction supervision consultant is as indicated below.

Tender procedure period	Construction supervision period
The Consultant will work with the Procurement Management Agent conducting technical assistance in the tendering work, including the prequalification review (PQ). Architects/engineers will conduct spot assistance during the tender evaluation and approval of the contracts. Local engineers will be recruited to expedite work. Questions/answers and addendum work will be done in Japan by Japanese architects/engineers with assistance of local engineer.	The 36 target schools in the Project are dotted around 19 LGAs in Oyo State, and they are at maximum 2.5 hours far apart by car. A supervision office will be established in Ibadan. 3 Japanese technical supervisors will be stationed during the overall works period, and they will be assisted by 3 local chief engineers, 15 supervising technicians (1 for every 2–3 sites), 1 quantity surveyor, a driver and office boy. Under this setup, quality, schedule and safety control will be carried out.

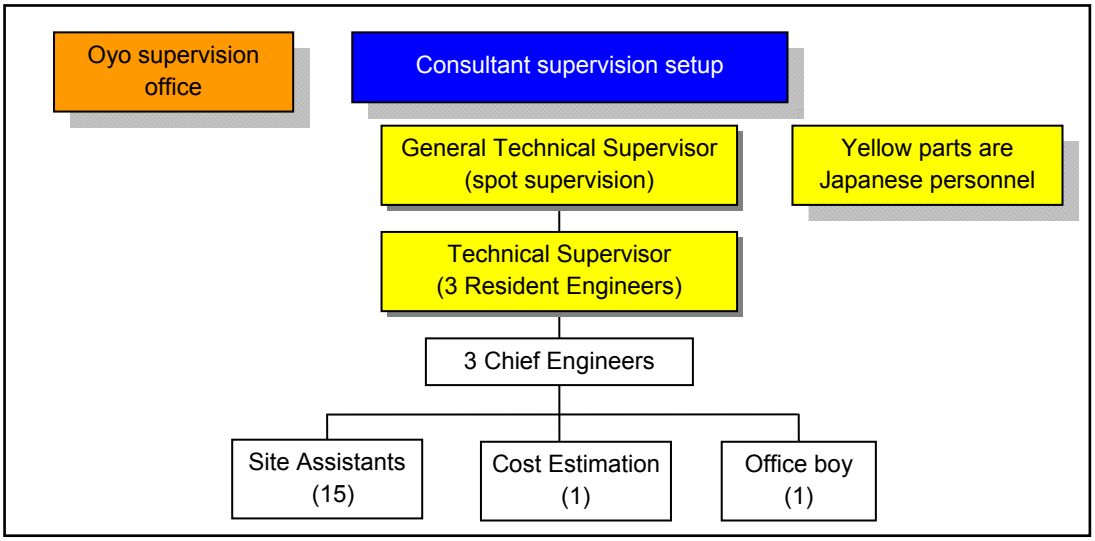


Fig. 2 - 9 Consultant Implementation Setup during Construction Supervision

2-2-4-2 Implementation Conditions

(1) Construction sites

Since the Project construction works will be implemented at target schools spread over 19 LGAs, it will be necessary to conduct process planning assuming sufficient transit time between the sites. Moreover, a number of the target schools are located away from arterial roads and can only be reached by narrow bumpy access roads. In addition, since there are frequent heavy rainfall and wind gusts during the rainy season, especially in July and August, it is likely that transportation of the equipment and materials will be hindered. Accordingly, the construction plan and procurement plan shall be compiled while paying attention to the following points.

1) Timing of materials transportation

Since the heaviest rain falls during June and September in the target area, the transport of equipment and materials shall be planned before this period.

2) Site storage of construction materials

Since the construction sites are located in village communities and on the grounds of the existing schools, it will be necessary to install temporary fences in order to limit the entry by unauthorized personnel. Also, it will be necessary to restrict entry by third parties for safety and crime prevention. Moreover, because it is forecasted that heavy rains during July and August will cause inundations at many of the sites, it will be necessary to show care in the plan for transporting cement, aggregate, reinforcing bars and formwork, etc. and to secure a construction material storage area through banking the ground to a sufficient height over a certain area.

(2) Materials procurement

The construction equipment and materials to be adopted in the Project contain no items with special specifications, and all items can be procured in Nigeria (although some of them are imported materials).

1) Concerning the cement, there are three private cement factories in Nigeria, and two of them produce cement with good quality. However, since there are no cement factories around the target area, the good quality cement manufactured by the two factories and available in Oyo State shall be procured.

2) Concerning the reinforcing bars, there are three private reinforcing bar factories, however, two of these manufacture irregular shaped steel and iron bars from imported ingots. The other company is located in Oyo State and manufactures similar reinforcing bars from scrap iron. All of these companies manufacture products of satisfactory quality. In Oyo State, the reinforcing bars made by these factories are available on the local market and shall be procured.

3) Sand and crushed stones necessary for making concrete are available in and around Oyo State. The locally available sand and crushed stones possess satisfactory quality. However, when using sand, it will be necessary to confirm and test the salt levels and so on in advance.

4) Plants which mold the long sheet aluminum (thickness 0.55mm) used for roofs exist in Lagos, and plates can be directly procured from such plants. These types of materials have

also been used in SUBEB school prototypes and in the first primary school construction project, and they have a proven record.

5) Steel processing and assembly plants are located in Lagos.

6) Steel doors and windows can be procured in Lagos. The plants here have previously supplied steel doors and windows to SUBEB prototype and first-stage primary schools.

(3) Selection of Contractors

1) Tender and works contract procedures

Advertisement, tender and contract procedures for public works projects in Nigeria are implemented according to the tender regulations of each agency, ministry and state; however, the Government of Nigeria has no special rules or regulations. Accordingly, the tender and contract procedures for the Project will be implemented while referring to the past projects ordered by UBEC and SUBEB, the advertisement, tender and contract procedures implemented by Japan's Grant Aid Scheme for Community Empowerment in recent years.

2) Contract method

The main works contracting methods adopted in Nigeria are the BQ contract method based on the works quantities and the lump-sum contract method. For the Project, the lump-sum contract will be adopted. The contract currency will be US dollar.

(1) Flow of selection of contractors

The flow for selection of contractors will be as follows.

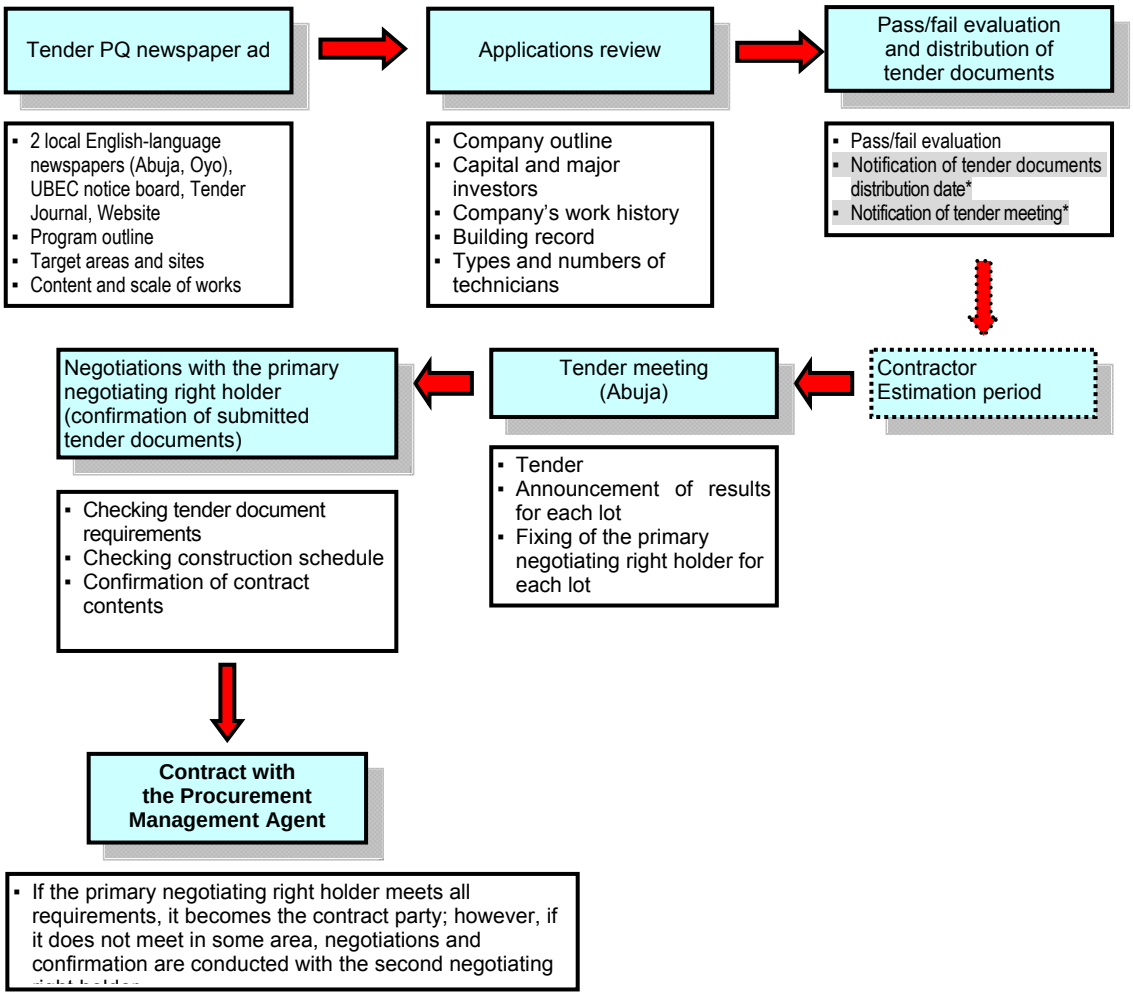


Fig. 2 - 10 Contractor Selection Flow

(2) Tender Method

The Project facilities shall basically be planned considering construction methods, building specifications, equipment and materials generally applied in Nigeria, so that local contractors will be able to handle the works. Contractors will be selected via a process of general competitive tender or designated competitive tender also open to local operators, and they will execute the works. Considering the avoidance of small contractors without technical capability and proper financial base, division of small lots will not be advantageous.

Prequalification (PQ) will be implemented and contractor will be selected after technical and financial evaluation.

2-2-4-3 Scope of Works

The Project will be implemented under the Government of Japan's Grant Aid Scheme, and the following table shows the major undertakings by the Japanese side and the implementing agencies on the Nigerian side.

Table 2 - 12 Scope of Work

No.	Items	To be covered by Grant Aid	To be covered by Recipient Side
1	To secure land		●
2	To clear, level and reclaim the site when needed		●
3	To construct gates and fences in and around the site		●
4	To construct the parking lot (within the site if incidental)		●
5	To construct roads		
	1) Within the site	●	
	2) Outside the site		●
6	To construct the buildings	●	
7	To provide facilities for the distribution of electricity, water supply, drainage and other incidental facilities		
	1) Electricity	N/A	
	a. The distributing line to the site		
	b. The drop wiring and internal wiring within the site		
	c. The main circuit breaker and transformer		
	2) Water Supply		
	a. The city water distribution main to the site		●
	b. The supply system within the site (receiving and elevated tanks)	●	
	3) Drainage		
	a. The city drainage main (for storm, sewer and others to the site)		●
	b. The drainage system (for toilet sewer, ordinary waste, storm drainage and others) within the site	●	
	4) Telephone System	N/A	
	a. The telephone trunk line to the main distribution frame/panel (MDF) of the building		
	b. The MDF and the extension after the frame/panel		
	5) Furniture and Equipment		
	a. General furniture		●
	b. Project equipment (Desks and chairs for students and teacher)	●	
8	To bear the following commissions to the Japanese bank for banking services based upon the B/A		
	1) Advising commission of A/P		●
	2) Payment commission		●
9	To ensure unloading and customs clearance at port of disembarkation in recipient country		
	1) Marine (Air) transportation of the products from Japan the recipient	●	
	2) Tax exemption and custom clearance of the products at the port of disembarkation		●
	3) Internal transportation from the port of disembarkation to the project site	●	
10	To accord Japanese nationals whose service may be required in connection with the supply of the products and the services under the verified contact, such facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work.		●
11	To exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which may be imposed in the recipient country with respect to the supply of the products and services under the verified contracts		●
12	To maintain and use properly and effectively the facilities constructed and equipment provided under the Grant Aid		●
13	To bear all the expenses, other than those to be borne by the Grant Aid, necessary for construction of the facilities as well as for the transportation and installation of the equipment		●

(B/A : Banking Arrangement, A/P : Authorization to pay, N/A: Not Applicable)

●: Show the division of responsibility concerning these items.

2-2-4-4 Consultant Supervision

(1) Works Supervision

Since the Project will be implemented as a single undertaking of Japan's Grant Aid Scheme for Community Empowerment targeting 36 schools in 19 LGAs, it will be necessary to build a

construction supervision setup to secure a certain grade of quality, schedule and safety control at all 36 schools (sites). Moreover, the Procurement Management Agent will supervise the overall Project, while the Japanese consultant will implement the technical construction supervision.

(2) Implementation Setup

1) Tendering period

The Procurement Management Agent will conduct the tender procedure; however, since it will be necessary to receive and answer technical questions on the tender contents and appropriately evaluate the technical proposals of the tenderers, the Japanese consultant will assist in the technical affairs. Therefore, the Japanese consultant will be dispatched for the start of the tender and the evaluation period.

2) Construction supervision period

During the construction period, the consultant will implement the necessary site guidance and technical guidance focusing on quality supervision, schedule supervision and safety supervision, etc. Also, it will report on the works progress and contents to the Procurement Management Agent and the Nigerian government. In addition, when technical problems arise, it will propose methods for discussion, examination and resolution.

3) Construction supervision setup

A supervision office will be established in Ibadan. Besides supervising works on the 36 target sites, this office will act as a liaison point with the Procurement Management Agent. Accordingly, three Japanese resident technical supervisors shall be assigned during the total works period, and they shall be assisted by local personnel comprising one chief technician, 15 technical supervisors (1 for every 2–3 sites), one estimator, a driver and office boy to ensure that quality, schedule and safety control are thoroughly implemented.

(3) Basic Policy of Supervision

The supervision consultant will need to confirm the progress of procurement and construction works, check the amount of progress made each month for reporting to the Procurement Management Agent to ensure that the works are completed on time with the level of quality stipulated in the contract documents. Also, it will need to supervise and guide the work of the construction companies to ensure that safety on the sites is upheld.

(4) Quality Control

Since the Project facilities are planned according to the commonly adopted construction methods, specifications and equipment and materials in Nigeria, quality control will be implemented according to the following contents and items:

1) Checking of construction works shop drawings and specifications of equipment and materials

Prior to the construction works, contractors will be required to submit construction plan with construction schedule for the works, and the contents will be confirmed. Also, in order to secure good quality, specifications and certificates of purchase will be required for the materials carried into the sites.

2) Equipment and materials manufacturing and production sites will be observed, or inspection results will be checked. When necessary, on-the-spot inspections of construction materials production/assembly plants will be implemented in order to confirm the quality of raw materials and verify quality inspection certificates, etc.

3) Control and confirmation of progress and finishing conditions

On construction sites, technical guidance and on-the-spot inspections will be implemented during the works stage, and if troubles are found repairs will be ordered and implemented. Also, in the progress inspections, work will be checked against the shop drawings.

4) Inspection records

The locally employed consultants will receive guidance on supervision guidelines and will be required to keep inspection records by work type and area according to the stage of execution, and efficient and reliable supervision will be realized. The following table shows the main inspection items that will be important practices of quality control.

Table 2 - 13 Main Quality Control Plan

Works	Control Item	Test (Inspection) Method	Test Frequency
Ground works	Bearing force	Portable simple penetration test	Each works site
Earthworks	Compaction	Visual inspection	All foundation bases
	Incoming soil quality inspection (as required)	Particle size test	1 earth quarry
Formwork	Completed amount	Dimensions inspection, photographs	All members
	Materials inspection	Plate thickness, material quality, deformation	All members
	Assembly inspection	Visual inspection (gaps, reinforcing materials, spacers)	All members
Reinforcing bar work	Tensile strength	Tensile strength test	Each size, once
	Quality in general	Mill sheet	Each size, once
	Bar arrangement inspection	Number and diameter of bars, interval between bars, length of joints, fixing length, covered thickness	Before concrete placement, all parts
Concrete work	Aggregate grade	Sieve test	Once
	Test mixing	Mixing, water-cement ratio, compression strength, slump and salt concentration test	Implement once for each contract lot
	Compression strength	Compressive strength test	Once for each placed part (foundation, columns, beams etc.), 7 days and 28 days compressive strength test shall be confirmed.
	Slump	Slump test	Once each placing day
	Fine aggregate chloride content	Chloride content measurement (Quantab test)	Each placing
Steel cage work	Steel, bolts	Mill sheet	Once each type
	Manufacturing test	Measurement and visual inspection	All members
	Fitting accuracy	Measurement	Each truss
Masonry work	Brick quality	Plant inspection	Once
Fixtures work	Fixture quality	Visual inspection, measurement	When carrying in
Furniture/Equipment	Furniture quality	Visual inspection, measurement	When carrying in

(5) Schedule Control

The contractors will compare the progress with the implementation schedule decided in the contract every month in order to adhere to the delivery deadline given in the contract. In cases where delays are predicted, the contractors will be prompted and required to present a plan of countermeasures, and guidance will be provided to ensure that the works and equipment delivery are completed within the contract period. The comparison of the planned schedule and actual progress will mainly be carried out according to the following items:

① Confirmation of works performance (construction equipment and materials procurement situation and works progress)

② Confirmation of equipment and materials delivery (construction equipment and materials, and fixtures)

③ Confirmation of temporary installation works and construction machinery preparations (where necessary)

④ Confirmation of numbers of engineers, skilled workers , laborers, etc.

(6) Safety control

It is likely that ordinary workers having little knowledge of construction work will be recruited from the surrounding areas. Moreover, in the event where people are injured on the sites, since the conditions are not favorable for transporting to the hospital, it will be necessary to show ample care on safety control. For this reason, it will be necessary to raise safety awareness among locally employed workers and to establish a safety control setup.

Content of the safety measures are described as follows:

1) Give mobile phones to the local site supervisors on each site and establish and advertise emergency communications networks connecting the Japanese staff, Nigerian staff, hospitals and police, etc.

2) Encourage morning assemblies for confirming each day's work contents and giving safety advice.

3) Conduct thorough site patrols at the start and end of work, and make sure that the work environment, including scaffolding, supports and handrails, etc. is safe.

4) During poor weather, since deterioration of access routes can cause slippage, falling and toppling, etc., implement inspections on access routes and keep them in good conditions.

5) At the target schools, since the works will be carried out on the existing school grounds while lessons are in progress, erect temporary fences to separate the works areas.

6) Since there are curious children, assign guards at important points.

7) Keep first aid boxes always on hand in site offices.

2-2-4-5 Quality Control Plan

Quality control will be carried out as described Section 2-2-4-4 Consultant Supervision above.

2-2-4-6 Procurement Plan

Since the procurement of the equipment and the materials required for Project implementation will be included in the works contracts, it will be carried out based on the contracts between the Procurement Management Agent and the contractors. The construction of facilities includes the building structures and the procurement and installation of furniture, and the study has proved that the necessary equipment and materials can be procured in the local market.

The following table shows the procurement sources of equipment and materials.

Table 2 - 14 Procurement Sources of Equipment and Materials

Item	Producing Country			Remarks
	Nigeria	Japan	Third Country	
[Materials]				
Portland cement	○			
Concrete aggregate	○			
Reinforcing bars	○			φ16mm or larger needs to be imported from China, Ukraine, India, etc.
Concrete blocks	○			
Timber and forms	○			
General steel materials	○			Made in China, Ukraine, India, etc.
Steel fixtures	○			
Paint	○			
Aluminum roofing sheet	○			
Furniture	○			
Asphalt roofing	○			
Glass	○			

The following table shows the main procurement sources of the main construction materials.

Table 2 - 15 Procurement Sources of Main Construction Materials

Item	Country of procurement			Remarks
	Nigeria			
	Lagos	Oyo	Others	
Cement	○	○		
Reinforcing bars	○	△		There are lots of sub-standard bars.
Concrete blocks	○	○		
Form materials	○	○		
Steel	○	△		Made in China, Ukraine, India, etc. or import
Long sheet aluminum	○	○		
Paint	○	○		
Steel fittings	○	△	Kaduna	There is a good quality manufacturer in Kaduna.

Legend: ○: Procurement is easy △: Available on market but problem with quantities and sizes

The construction equipment and materials to be adopted in the Project contain no items of special specifications, and all items can be procured in Nigeria (although some items have been imported before becoming available on the local market). Moreover, it is necessary to undertake the procedure for tax exemption to ensure that the overall schedule is not affected.

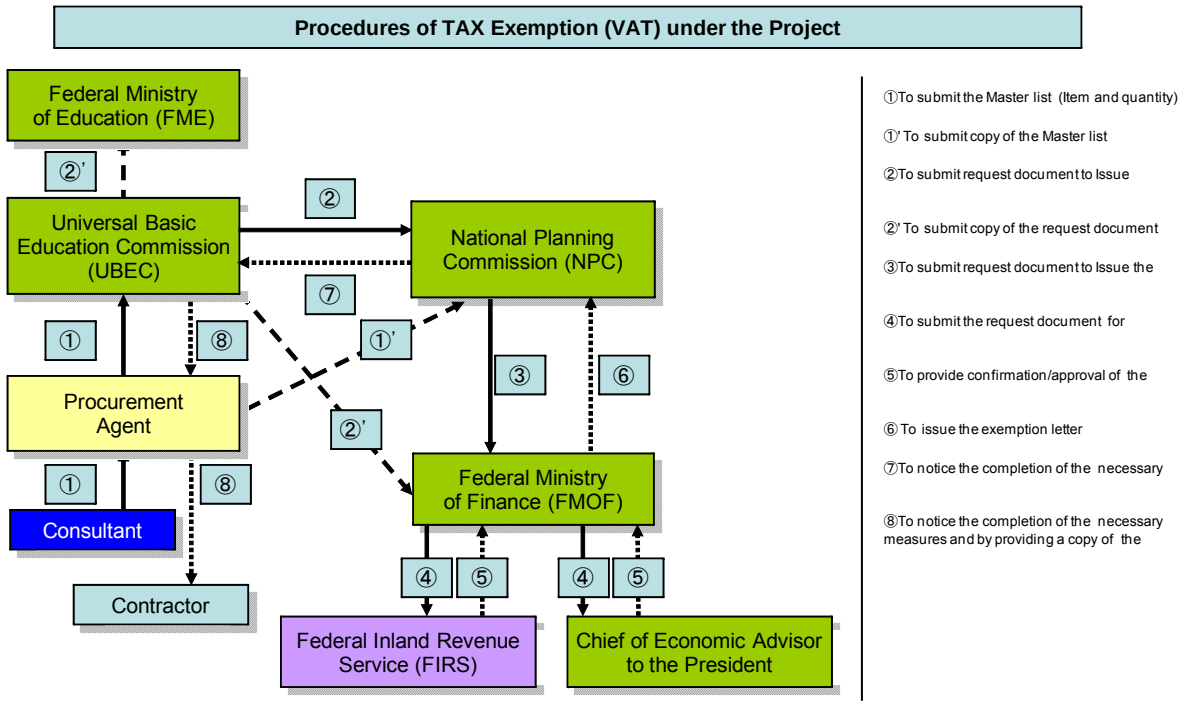


Fig. 2 - 11 Application and Approval Procedure for Tax Exemption

2-2-4-7 Soft Component (Technical Assistance) Plan

(1) Background of the Soft Component

Only some of the surveyed schools had repaired roof, desks, and chairs, and most of them left the facilities unrepaired. It is admitted that some cleaning activities were made in comparison with schools in northern states; however, it is not yet enough. The school management, LGEA, teachers, and parents recognize that the buildings, including classrooms, would not sustain for around ten years. Under such a consciousness, there is a strong likelihood that the new classrooms constructed without advice on the importance of daily cleaning and maintenance activity would be deteriorated or damaged earlier than the original durable period. It is necessary to advise and to instruct them that an appropriate enforcement is necessary for the sludge disposal of the toilet pits.

In addition, it is difficulty to secure enough budget for the maintenance of school facilities in Nigeria; therefore, the participation and support by head teacher, teachers, community, and

SBMC consisted by PTA members, and so on is/are essential for the maintenance activities of school facilities.All of FME, UBEC, SUBEB recognize the importance of such maintenance and necessity of a soft component.

(2) Purpose of the Soft Component

The purpose of the soft component is to secure the durability and improve maintenance of primary school classrooms in Oyo State, built by the community development grant aid.
To achieve the goal, following activities are to be carried out;

① Preparation of guidelines and manuals
② Implementation of maintenance activities at 4 model schools
③ Holding workshops at 4 model schools (with participation of SUBEB and LGEA)
④ Supporting the management system of SUBEB and LGEA utilizing the manual as a monitoring and instructing tool

(3) Expected Results of the Soft Component

1) A sense of ownership is to be fostered among LGEA, heads of schools, and teachers.

2) Students recognize that their classrooms, desks, and chairs as things which should be used carefully not only for themselves but also for the next generation of students. Based on this recognition, a custom of cleaning their school facilities voluntarily is to be habituated.

3) SUBEB and LGEA of the target schools monitor the maintenance situation of school facilities after the construction, and a system of regular improvement in guidance is formed.

4) It is necessary to have necessary techniques and knowledge regarding the disposal of sludge from rest room pits and guidance about maintenances such as how to use restrooms cleanly, how to clean, how to handle toilet pits

5) The maintenance manual for the schools and the monitoring manual of maintenance guidance for SUBEB and LGEA will be organized. As a result, the maintenance systems of the schools and of SUBEB/LGEA are strengthened.

(4) Monitoring Method to Measure the Achievement

- Survey of students, who are direct beneficiaries of the Project
- Research by interviewing head masters, teachers, and community leaders
- Analysis of monitoring results by the task force

(5) Activities of the Soft Component

1) Preparation of draft maintenance guidelines

Draft maintenance guidelines will be prepared in cooperation with SUBEB and the consultant.

2) Explanation and discussions with the counterpart

Using the guidelines referred to in 1) above, the consultant will explain the targets, objectives, contents and schedule of the soft component of the Project to UBEC and SUBEB. It ensures a precise understanding of these matters by the counterparts and also fosters their sense of ownership regarding the maintenance activities of the school facilities.

3) Establishment of Local Task Force

A task force consisting of 5 – 6 members will be established by the Director and Deputy Director of Planning, Research, and Statistics Department (P.R. & S. Dept) of SUBEB, JICA Desk, representative of LGEA of the target school area, and school inspector in the P.R. & S. Dept. It is necessary to keep close collaboration with SBMC, an organization of the Social Mobilization & Information Communication Technology Department (SM & ICT Dept) of SUBEB playing an important role in the implementation of the soft component.

4) Selection of and Orientation to Model Schools

The 36 target schools for the construction of new classrooms will be divided into four blocks, and a model school for the maintenance activities will be selected in each block. Suitable schedule control will be applied to these model schools, so that these schools can commence operation earlier than other schools.

5) Discussions and Modification of Primary School Maintenance Manual

· Through consultations with the task force, the heads of model schools, and community leaders, desirable ways to improve the maintenance of the school facilities will be examined and/or analyzed, increasing their own awareness of the problems associated with maintenance after the construction of classrooms.

· A participatory approach, where the local task force modifies the manual to incorporate local ideas based on the model manual prepared by the consultant will be adopted to generate and enhance the sense of ownership.

· An illustrated posters will be produced to encourage understanding of school maintenance manual and individual maintenance activities among students.

The consultant will give comments and advises on the idea that Nigerian side made.

6) Discussions and Modification of Facility Maintenance Monitoring Manual

· A manual will be prepared for the effective monitoring of the maintenance activities of the target schools, conducting and encouraging the self-help efforts of OYO SUBEB.

· To start with, the consultant will prepare draft monitoring manual.

· The consultant will discuss the revised monitoring manual with the local task force, assisting them to prepare the manual on their own initiative. The consultant will then evaluate the monitoring manual prepared by the task force and feedback its comments to the task force to finalize the monitoring manual.

· Each school will be requested to report the state of the facility maintenance via the LGEA school inspector based on the finalized monitoring manual. The SUBEB will compile the individual reports to produce a general report and will submit this report to JICA Nigeria Office once a year.

7) Preparation, Implementation and Compiling of Workshop

· The workshop will be organized by the OYO SUBEB, and the members of the task force will act as moderators to assist the smooth progress of the workshop. The consultant will provide general supervision and guidance.

· The training menu, necessary training textbooks and tools, schedule and division of roles at the workshops will be decided in consultation with the task force.

· The head teachers of the schools near the model schools and the SBMC will be invited to attend the workshop to be held at the model school to extend the maintenance activities at the model schools to all of the target schools.

· Opinions on the actual maintenance activities and the relevant training at the model schools will be exchanged.

· After the workshop, an evaluation meeting with the task force will be held and a workshop report will be prepared.

8) Implementation of Maintenance Activities at the Model Schools

Based on the maintenance manual, teachers, students, PTA members, and community leaders will take lead in implementing maintenance activities to improve their own schools.

(6) Soft Component Implementation Resources

Japanese Consultant: To implement the soft component under its overall supervision and guidance and submit "Soft Component Completion Report" to JICA Office.

UBEC: To establish the task force that supports implementation of the soft component and to take responsibility of announcement, invitation and guidance to the 26 target schools.

SUBEB: To be responsible on issues of facilities maintenance in Oyo State. To held orientation at model schools and workshop, and to implement announcement, invitation and guidance to the 36 target schools.

LGEA School Inspectors: To monitor facility maintenance of each school with SMBC.

Local Task Force: Planning, Research, and Statistics Department of SUBEB, LGEA leaders of the model schools, and school inspectors plays a key role. By discussions with the consultant, they complete the maintenance manual and facilities maintenance voluntarily before the workshop, and for making an effort self-act makes facilities maintenance monitoring manual of SUBEB at the last part. Later they monitor the situation of the facilities maintenance, and report the summary of annual report of the maintenance situation to UBEC and JICA Nigeria office once a year.

Facilitator: The facilitator is appointed from the local taskforce at the time of orientation and workshop to try to help the concerned people to understand it smoothly.

SBMC: In Oyo States, SMBCs are supported by the Social Mobilization & Information Communication Technology Department of SUBEB and monitors school maintenance in close collaboration with LGEA.

Heads teachers and teachers: To cooperate with SMBC and LGEA on activities as responsible partners in each school on the issues of school facility maintenance.

(7) Soft Component Implementation Schedule

Soft component will be carried out in the latter part of classroom construction.

Table 2 - 16 Soft Component Implementation Schedule

Yera	2014												2015		
Month	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
Construction															
Soft Component													Preparation		

(8) Output of the Soft Component

- Soft Component Implementation Guideline (Consultant, UBEC, SUBEB)
- Facilities Maintenance Manual (SUBEB, Each school)
- Facilities Maintenance, Monitoring, and Guidance Manual (SUBEB)

(9) Responsibilities of the Nigerian Side

SUBEB with task force will have responsibility to implement the program of the soft component securing necessary manpower and budget, holding a joint meeting at the end of every school year and reporting UBEC and JICA Nigeria Office.

The taskforce will do financial management in the bank account

2-2-4-8 Implementation Schedule

The Project implementation schedule following the E/N will be 4.5 months for the tender work process and 14 months for the construction and procurement process.

As shown below, 4.5 months will be required for the tender work to be implemented by the Procurement Management Agent.

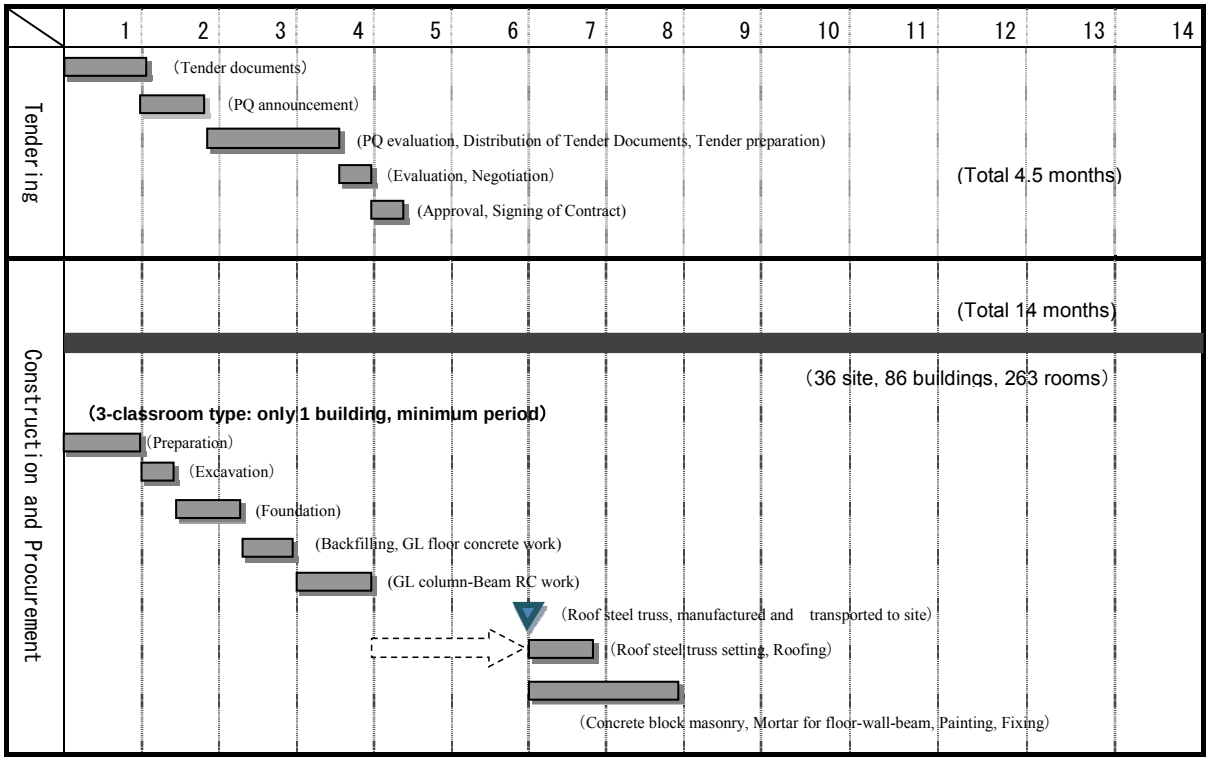
①	Tender documents preparation, approval and handing over	:	1.0 month
②	(PQ), Tender Invitation	:	1.0 month
③	(PQ evaluation), tender documents distribution, tendering	:	1.5 months
④	Tender evaluation, approval	:	0.5 months
⑤	Negotiation, approval and signing of contracts	:	0.5 months

Taking into account the dispersed location of the 36 sites, the work volume of 86 buildings and 53 toilet houses, the construction management capacity of local contractors, the work capacity of laborers, the transportation of equipment and materials into sites, and the rainy season (from May to October), 14 months of construction period will be required. Judging from the capacity of the contractors and taking into account labor, equipment and materials and the financial capacity of contractors, etc., it will be difficult to execute works in many sites simultaneously. Therefore, the Project works shall be done in a staggered method.

The critical path will be the largest site with 3 classroom type - 5 buildings and 4 classroom type - 1 building. Simultaneous work of the 6 buildings will be hard. The construction period of 3 buildings, without the rainy season period, will be 6 months and with the rainy season will be 8 months.

The national holidays, religious events and political events, such as President Election, should be also taken into account (see the following Project implementation schedule).

Table 2 - 17 Project Implementation Schedule



(1) Important Points to Consider in Schedule Planning

1) Removal of existing buildings

There is no need to remove the existing structures and many of the sites are flat. However, in some sites, removal of abandoned foundations and trees will be required, and access for construction work and safety of the student should be secured. It will be necessary to discuss and coordinate works with the SUBEB/LGAs and the schools for these matters.

2) Preparatory period

A preparatory period has been taken into consideration for procurement of the construction equipment and materials and labor, schedule planning, establishment of equipment and materials stores, workers' accommodation and work offices, and confirmation of sites and nearby areas. It will take more than one month.

3) Earthwork, foundations and ground floor concrete work

It is estimated that this will require around 4 months for the excavation, crushed stone foundation, leveling concrete, reinforcing bar arrangement, forms, concrete placement, curing and backfilling and banking, followed by the ground floor concrete work.

4) Reinforced concrete works for ground floor columns and beams

The reinforced concrete works for ground floor columns and beams will take approximately 2.5 month. The utmost care will be required for setting anchors of steel trusses.

5) Steel truss and roof finishing works

The steel truss, plywood panel and asphalt roofing and aluminium roofing sheet (0.55mm) will be placed, and this work will take approximately 3 month. The steel frames are heavy and will need to be put in place using cranes, and care will be needed to ensure safety.

6) Concrete block masonry, and mortar application, painting and finishing of floors, walls and beams

As a result of survey and confirmation, the locally produced and manufactured concrete blocks have problems in strength and quality. Accordingly, it will be necessary for the contractors to make their own blocks. And mortar will be applied on the walls, columns and beams, and then they will be painted. This works process will require approximately 5 months.

(2) Other Important Points to Consider

There are about 17 national holidays and government holidays per year in Nigeria as shown below. Religious events, such as Ramadan, will be taken into account in the schedule planning.

2-3 Obligations of Recipient Country

Following the conclusion of the E/N, the Nigerian side shall undertake the following work in cooperation with the responsible agency and implementing agencies.

2-3-1 General Items

(1) Following the conclusion of the E/N, promptly open an account with a Japanese bank. The Nigerian side shall bear the cost of opening the account.

(2) In case that importing is required, the Nigerian side shall conduct prompt unloading and customs clearance.

(3) The Nigerian side shall secure the necessary conveniences for entry to Nigeria, stay therein and safety of persons (Japanese and third country nationals) concerned with the Project.

(4) The Nigerian side shall exempt taxes, tariffs, etc. that would ordinarily be levied in Nigeria on the Project products and services supplied and Japanese nationals.

(5) The Nigerian side shall properly use and maintain the facilities constructed under Japan's grant aid.

(6) The Nigerian side shall bear all the other necessary costs for the Project not covered by Japan's grant aid.

2-3-2 Special Remarks

(1) If contractors require materials store yards and temporary sites for the Project works, the Nigerian side shall provide suitable land and sites free of charge.

(2) The Nigerian side shall provide free of charge disposal or treatment sites for sediment and construction waste materials generated in the Project works.

(3) Since the Project involves construction of additional classrooms at existing schools and does not require new construction sites, environmental impact assessment will not be required.

(4) In cases where authorizations need to be obtained from landowners and related agencies, these shall be applied for and obtained.

2-4 Project Operation Plan

2-4-1 Competent Agencies on the Nigerian Side

Operation and maintenance of the Project facilities following commissioning will be carried out under the guidance of the Universal Basic Education Commission (UBEC) Secretariat, while Oyo State will be responsible for the actual supervision and monitoring. SUBEB in Oyo will supervise and monitor the schools in collaboration with the local governments (LGAs) where the target schools are located.

2-4-2 Maintenance of Facilities

There is difficulty in securing sufficient budged for school maintenance in Oyo State. In reality, schools in Nigeria cannot be maintained without involvement and cooperation of the SBMC, PTA and/or local communities.

It has been confirmed that the local side has low awareness of the importance and need for repair and maintenance of the facilities. Moreover, since government (national and local) budget measures for maintenance are not appropriately enforced and SBMC dues, etc. are not collected, the schools have difficulty in raising the necessary funds and they have little choice but to disregard maintenance. Also, numerous problems exist with the way facilities are used, and there is a lack of care regarding the proper treatment of the facilities, which everybody worked so hard

to construct. For example, at most schools, roofs are made from galvanized corrugated iron sheets; however, children are seen throwing stones at the roofs for fun. However, because these sheets are so thin, the stones create holes, through which rainwater flows in, and this causes ceiling boards to rot and collapse. To prevent this type of behavior, it is necessary to carry out some kind of moral guidance. In the previous primary school construction project, manuals and posters regarding this point were made and training with respect to the students, teachers and communities were implemented. As a result, evidence of changing attitudes among students and teachers has been seen in subsequent monitoring, and there is a greater awareness of the need to look after the facilities.

The counterpart agencies are strongly requesting implementation of the soft component, which was also implemented in the first primary school construction project, and the need for this is keenly realized for the sake of ongoing use. Accordingly, soft component implementation shall be planned in the Project. In planning this, the manual and posters, etc. which were prepared previously will be effectively utilized, while the problems which occurred in the previous project will be identified and remedied.

2-5 Project Cost Estimation

2-5-1 Initial Cost Estimation

2-5-1-1 Cost Burden on the Japanese Side

The costs to be borne by the Japanese side will be disclosed after signing of the contracts for the works.

2-5-1-2 Cost Burden on the Nigerian Side

The costs to be borne by the Nigerian side will comprise the items shown in the table below.

Table 2 - 18 Cost Burden on the Nigerian Side

Item	Amount (Naira)	Remarks
(1) Site preparation cost	22,550,000	Removal of remaining foundation etc.
(2) Access road rehabilitation cost	150,000	Paving
(3) Securing and constructing access roads	200,000	Steel cover on ditch
(4) Bank account establishment commission	300,000	
Total	**23,200,000**	

2-5-1-3 Estimation Conditions

(1) Estimation point : October 2013
(2) Exchange rate : 1 USD = 99.93 yen (TTS mean value from July to September 2013)
(3) Construction period : As described in '2-2-4-8 Implementation Schedule'
(4) Other : The Project will be implemented according to Japan's Grant Aid Scheme for Community Empowerment.

2-5-2 Operation and Maintenance Cost

The operation and maintenance cost of the Project facilities is estimated as shown in the table below. However, roof painting costs, etc. will not arise as roof will be aluminium sheet.

Table 2 - 19 Operation and Maintenance Costs for the Project Facilities

Item	Amount (Naira/year)	Calculation conditions*
(1) Painting of steel doors and windows	1,264,000	Recoat once every 5 years
(2) Painting of external and internal walls	2,554,000	Recoat once every 10 years
(3) Termite-proof coating of sheathing boards and purlines	685,000	Recoat once every 3 years
(4) Removal and treatment of toilet septic tanks	1,702,000	Once every year
(5) Coating of blackboards	384,000	Recoat once every 2 years
Total	6,589,000	

* This is annual average of the total amount following the completion of the 36 target schools.

The above operation and maintenance costs may be improved further with cooperation from SUBEB and LGA budgets, and voluntary work and provision of materials by the SBMC etc.

2-6 Other Relevant Issues

As part of the Project, the Nigerian side will be responsible for land preparation, access road improvement and other matters. Given the facts that all 36 target sites are located at the existing school premises and that the new facilities will generally be constructed on flat ground, no major financial burden will be incurred by the Nigerian side. Equally, the work to be conducted by the Nigerian side will have hardly significant effect on the overall implementation schedule of the Project.

Chapter 3 Project Evaluation

Chapter 3. Project Evaluation

3-1 Preconditions

The preconditions for commencement of the project will be as follows:

- Proper construction site will be secured.
- Tax exemption will be taken.
- The existing buildings and obstacles in the site will be removed.

3-2 Necessary Inputs by Recipient Country

In order to realize and sustain the project effects, the following will be undertaken by the recipient country:

- Additional proper teachers for the project schools will be deployed without delay.
- Additional proper textbooks and teaching materials will be distributed to the project schools.
- Proper budget for operation and maintenance for the project schools will be provided.
- Proper operation and maintenance of the project schools will be carried out.

3-3 Important Assumptions

The important assumptions for the project will be as follows:

- There will not be sharp price escalation in construction market.
- Neither political unrest nor insurgence will occur.
- Large-scale natural disaster will not occur.

3-4 Project Evaluation

3-4-1 Relevance

The Project is judged to be relevant to the objectives of Japan's Grant Aid Scheme as described below.

(1) Type and Number of Beneficiaries

The direct beneficiaries of the Project will be 26,880 students studying at the target schools.

(2) Urgency

At present, the student-classroom ratio in Oyo State is as high as 60 students/classroom, which is 1.4 times the standard ratio (40 students/classroom) and 112 students/classroom in the target schools (2.8 times the standard). The condition of many of the existing classrooms is very poor, making the construction of new classrooms to improve the educational environment an urgent necessity.

(3) Maintenance Capacity

The maintenance of the new buildings in the post-Project period will be supervised by the Oyo State Universal Basic Education Board (SUBEB) with the Oyo Local Government Education Authority (LGEA) directly conducting the necessary work. With the participation of the SBMC of each school, the continual maintenance and use of the new facilities will be assured.

(4) Profitability of the Project

An education product involving schools will lead to the development of basic education and the fostering of human development, eventually bringing about economic effects and development even though the Project itself does not have any direct financial benefit.

(5) Environmental and Social Considerations

Because the targets are existing schools, the construction work under the Project does not involve any large-scale development activity. The work will be conducted on the premises of the each existing schools and no adverse impacts on the neighborhood or local environment are anticipated.

(6) Feasibility of Project Implementation under Japan's Grant Aid Scheme

The Project does not pose any special problems for the application of Japan's Grant Aid for Community Empowerment Scheme. However, the determination of suitable criteria for the selection of local construction companies, considering their technical and work execution capacities in view of the selecting competent companies, is necessary.

3-4-2 Effectiveness

(1) Quantitative Effects

The quantitative effects expected in the project are as follows:

- 261 new classrooms will be constructed at the 36 target schools, increasing number of adequately usable classrooms from 239 to 500, and the average number of students per classroom will be improved from 112 to 60, mitigating the congestion.

(2) Qualitative Effects

The qualitative effects expected in the project are as follows:

- The improvement of educational environment by increase of adequately usable classrooms will contribute to enhancement of quality of primary education and access to education.
- Willingness of girls to primary education will be improved through provision of girls and boys toilets.
- The improvement of environment in primary education in well-ventilated and brighter classrooms with good natural lighting will stimulate motivation to learn of the students.

Based on the above evaluation results, the Project is judged to be highly relevant and effective.

Appendices

1. Member List of the Study Team

1. Member List of the Study Team

(First Survey in Nigeria)

Name	Assignment	Position
Hideharu Tachibana	Leader	Japan International Cooperation Agency Director Basic Education Division 2 Basic Education Group Human Development Department
Takayuki Muraoka	Planning Management	Japan International Cooperation Agency Basic Education Division 2 Basic Education Group Human Development Department
Naoyuki Minami	Chief Consultant / Facility Plan	Yachiyo Engineering Co., Ltd.
Teruo Kurumada	Architectural Design 1	Yachiyo Engineering Co., Ltd.
Shinichiro Satoh	Architectural Design 2	Yachiyo Engineering Co., Ltd.
Kenji Ohara	Construction Plan / Procurement / Cost Estimate	Yachiyo Engineering Co., Ltd.
Kazuyo Kokubo	Education Plan / Educational Furniture Planning	Yachiyo Engineering Co., Ltd.

(Second Survey in Nigeria)

Tetsuo Seki	Leader	Japan International Cooperation Agency Chief Representative JICA Nigeria Office
Emiko Mikami	Planning Management	Japan International Cooperation Agency Project Formulation Advisor JICA Nigeria Office
Naoyuki Minami	Chief Consultant / Facility Plan	Yachiyo Engineering Co., Ltd.
Teruo Kurumada	Architectural Design 1	Yachiyo Engineering Co., Ltd.

(Third Survey in Nigeria)

Tetsuo Seki	Leader	Japan International Cooperation Agency Chief Representative JICA Nigeria Office
Emiko Mikami	Planning Management	Japan International Cooperation Agency Project Formulation Advisor JICA Nigeria Office
Naoyuki Minami	Chief Consultant / Facility Plan	Yachiyo Engineering Co., Ltd.
Teruo Kurumada	Architectural Design 1	Yachiyo Engineering Co., Ltd.

2. Study Schedule

2． Survey Schedule

(1) First Survey in Nigeria

No.	Data	Day	JICA		A Team	A Team	B Team	B Team	C Team
			Leader	Plan Management	Chief Consultant / Facility Plan	Architectural Design 2	Architectural Design 1	Construction Plan / Procurement / Cost Estimate	Education Plan / Educational Furniture Planning
			Mr. Hideharu Tachibana	Mr. Takayuki Muraoka	Naoyuki Minami	Shinichiro Satoh	Teruo Kurumada	Kenji Ohara	Kazuyo Kokubo
1	15-Sep	Sun			Travel［Tokyo →London →］				
2	16-Sep	Mon			Arriving［→Abuja］ Meeting with JICA Nigeria office Meeting with UBEC（Universal Basic Education Commission）(Request of component/school, Survey schedule, Draft Inception Report)				
3	17-Sep	Tue			Meeting with UBEC Survey on Donors and related organization (WB, DFID etc)		Meeting with companies on topographic survey and soil investigation		Meeting with UBEC Survey on Donors and related organization (WB, DFID etc)
4	18-Sep	Wed			Travel to Ibadan ・Meeting with SUBEB-OYO (if possible)				
5	19-Sep	Thu			・Meeting with SUBEB-OYO (Request of component/school, Survey schedule, Draft Inception Report) ・Survey of requested schools				
6	20-Sep	Fri			・Survey of requested schools	・Survey of requested schools	・Survey of requested schools		・Survey of requested schools
7	21-Sep	Sat			・Survey of requested schools	・Survey of requested schools	・Survey of requested schools		・Survey of requested schools
8	22-Sep	Sun	Travel ［→Abuja］		Travel to Abuja	Data analysis			Travel to Abuja
9	23-Sep	Mon	-Courtesy call and meeting with EOJ and JICA Nigeria office -Courtesy call and meeting with NPC and UBEC		-Meeting with EOJ and JICA Nigeria office -Courtesy call and meeting with NPC and UBEC	・Survey of requested schools	・Survey of requested schools		-Meeting with EOJ and JICA Nigeria office -Courtesy call and meeting with NPC and UBEC
10	24-Sep	Tue	-Meeting with UBEC -Meeting with related donors and organizations -Visit to constructed schools in the first project (if possible)		-Meeting with UBEC -Meeting with related donors and organizations -Visit to schools	-Meeting with SUBEB-OYO -Visit to requiested schools in Ibadan	-Meeting with SUBEB-OYO -Visit to requiested schools in Ibadan		-Meeting with UBEC -Meeting with related donors and organizations
11	25-Sep	Wed	Travel to Ibadan ・Courtesy call and meeting with SUBEB-OYO (if possible)		Travel to Ibadan ・Meeting with SUBEB-OYO (if possible)	・Survey of requested schools	・Survey of requested schools		Travel to Ibadan ・Meeting with SUBEB-OYO (if possible)
12	26-Sep	Thu	-Meeting with SUBEB-OYO -Visit to requiested schools in Ibadan		-Meeting with SUBEB-OYO -Visit to requiested schools in Ibadan	-Meeting with SUBEB-OYO -Visit to requiested schools in Ibadan	-Meeting with SUBEB-OYO -Visit to requiested schools in Ibadan		-Meeting with SUBEB-OYO -Visit to requiested schools in Ibadan
13	27-Sep	Fri	-Meeting with SUBEB-OYO -Visit to requiested schools in Ibadan		・Meeting with UBEC and SUBEB-OYO on draft M/D	・Survey of requested schools	・Survey of requested schools		・Meeting with UBEC and SUBEB-OYO on draft M/D
14	28-Sep	Sat	・Visit to requiested schools in Ibadan ・Report preparation		・Visit to requiested schools in Ibadan ・Report preparation	・Survey on construction market and construction industry	・Survey on construction market and construction industry		・Visit to requiested schools in Ibadan ・Report preparation
15	29-Sep	Sun	Travel to Abuja		Travel to Abuja	Data analysis			Travel to Abuja
16	30-Sep	Mon	-Discussion on draft M/D with NPC, FME, UBEC, SUBEB -Revision of draft M/D -Meeting with ohter donors and related organization		-Discussion on draft M/D with NPC, FME, UBEC, SUBEB	・Survey of requested schools	・Survey of requested schools		-Survey on related donors and organizations -Survey on operation and maintenance
17	1-Oct	Tue	<Independance Day> Preparation of report		Data Analysis	Data Analysis	Data Analysis	Data Analysis	Data Analysis
18	2-Oct	Wed	・Signing of M/D (UBEC, SUBEB-OYO, NPC, JICA) ・Reporting and meeting with EOJ and JICA Nigeria Office		・Signing of M/D ・Reporting and meeting with EOJ and JICA Nigeria Office	・オヨSUBEB協議 ・対象校調査	・オヨSUBEB協議 ・対象校調査		-Survey on related donors and organizations -Survey on operation and maintenance
19	3-Oct	Thu	Travel [Abuja - - >]		・Travel to Ibadan	・Survey of requested schools	・Survey of requested schools		・Travel to Ibadan
20	4-Oct	Fri	Travel: Arriving in Narita		・Survey of requested schools		・Survey of requested schools		・Survey of requested schools
21	5-Oct	Sat			・Survey of requested schools		・Survey of requested schools		・Survey of requested schools
22	6-Oct	Sun			-Data Analysis		-Data Analysis		Data Analysis
23	7-Oct	Mon			・Survey of requested schools		・Survey on construction market and construction industry		・Survey of requested schools
24	8-Oct	Tue			・Survey of requested schools		・Survey on construction market and construction industry		・Survey of requested schools
25	9-Oct	Wed			Preparation of Field Report Supplemental Survey				
26	10-Oct	Thu			Preparation of Field Report Supplemental Survey				
27	11-Oct	Fri			Presentation and Discussion with SUBEB-OYO on Field Report（Selection of schools, (Project Component, Basic Design, Operation and Maintenance, Undertakings etc.)				
28	12-Oct	Sat			Travel to Abuja				
29	13-Oct	Sun			Preparation for presentation				
30	14-Oct	Mon			Presentation and Discussion with UBEC on Field Report（Selection of schools, (Project Component, Basic Design, Operation and Maintenance, Undertakings etc.)				
31	15-Oct	Tue			<Eid al-Kabir> Preparation of Japanese materials				
32	16-Oct	Wed			Presentation and discussion on Field Report (Project Component, Basic Design, Operation and Maintenance etc.) with JICA Nigeria Office and EOJ				
33	17-Oct	Thu			Travel [Abuja - - > London - - >]				
34	18-Oct	Fri			Arriging in Tokyo				

(2) Second Survey in Nigeria

No.	Data	Day	JICA		Consultant	
			Leader	Plan Management	Chief Consultant / Facility Plan	Architectural Design 1
			Tetsuo Seki	Emiko Mikami	Naoyuki Minami	Teruo Kurumada
1	2014/2/22	Sat			Travel [Tokyo →London →]	
2	2014/2/23	Sun			Arriving [→Abuja]	
3	2014/2/24	Mon	- Meeting with JICA Nigeria Office (Schedule, Project outline, Points to be confirmed) - Meeting with UBEC (Universal Basic Education Co+E8mmission: Schedule, , Project outline)			
4	2014/2/25	Tue		**- Travel [Abja → Ibadan] - Meeting with OYO SUBEB (Schedule, Project outline)**		
5	2014/2/26	Wed		**- Meeting with OYO SUBEB (Project outline, Draft report, Layout plan, etc.) - Site visit (checking sites) - Supplemental survey (car, fuel, accomodation, major materials)**		
6	2014/2/27	Thu		**- Site visit - Travel [Ibadan->Abuja]**	**- Site visit (checking sites) - Supplemental survey (car, fuel, accomodation, major materials)**	
7	2014/2/28	Fri			- Site visit (checking sites)	
8	2014/3/1	Sat			- Site visit (checking sites)	
9	2014/3/2	Sun			**Travel [Ibadan →Abuja]**	
10	2014/3/3	Mon	**- 8:30-9:30 Meeting with JICA Nigeria Office (Result of survey in Oyo, Points to be confirmed, etc.) - Meeting with UBEC, FME, SUBEB and NPC ＜Draft Report: Explanation, Discussion＞**			
11	2014/3/4	Tue		**- Meeting with UBEC, FME, SUBEB and NPC (Draft report and draft M/D)**		
12	2014/3/5	Wed	**-Signing of M/D with UBEC, FME, SUBEB and NPC**			
13	2014/3/6	Thu		**PM: Meeting with EOJ and JICA Nigeria Office (Survey results)**		
14	2014/3/7	Fri			**Travel [Abuja→London →]**	
15	2014/3/8	Sat			**Arriving at Naria**	

(3) Third Survey in Nigeria

No.	Data	Day	JICA		Consultant	
			Leader	Plan Management	Chief Consultant / Facility Plan	Architectural Design 1
			Tetsuo Seki	Emiko Mikami	Naoyuki Minami	Teruo Kurumada
1	2014/8/3	Sun			Travel [Tokyo →London →]	
2	2014/8/4	Mon	- 10:00 Meeting with JICA Nigeria Office		Arriving → [Abuja] - 10:00 Meeting with JICA Nigeria Office (Schedule, Project outline, Points to be confirmed)	
3	2014/8/5	Tue			- 14:00 Meeting with UBEC (Schedule, Draft Tender Documents, etc.)	
4	2014/8/6	Wed			- Travel [Abuja→ Ibadan]	
5	2014/8/7	Thu			- 10:30 Meeing with SUBEB (Schedule, Works by Nigerian side, Draft Tender Documents, etc.) - Meeting with Oyo State Government	
6	2014/8/8	Fri			- Site visit	
7	2014/8/9	Sat			- Travel [Ibadan→Abuja]	
8	2014/8/10	Sun			- Preparation of report	
9	2014/8/11	Mon		-9:00 Meeting with JICA Nigeria Office (Actual condition in Oyo, Draft Technical Note)	-9:00 Meeting with JICA Nigeria Office (Actual condition in Oyo, Draft Technical Note) - 14:00 Meeting with UBEC-NPC-FME-SUBEB (Draft Tender Document, draft Technical Note)	
10	2014/8/12	Tue			- 11:00 Signing of Technical Note (Consultant-UBEC-SUBEB-NPC)	
11	2014/8/13	Wed		- 9:00 Meeting with EOJ	- 9:00 Meeting with EOJ	
12	2014/8/14	Thu			Travel [Abuj→London →]	
13	2014/8/15	Fri			Arriving in Tokyo	

3. List of Parties Concerned

3. List of Parties Concerned

Party and Name	Position
National Planning Commission (NPC)	
Mr. Bassey O. Akpanyung	Director of International Cooperation Department
Mr. Eloho S.O.	Deputy Director
Mr. M.Y.Abdul Raheem	Assistant Director
Mr. Oluwakemi Ognnyohoi	Planning Officer (Asia & Pacific)
Mr. Kalu N. K.	Principal Planning Officer
Mr. Abdullahi Yokelon	Assistant Chief Planning Officer
Ms. Ewewie Abimbola	Senior Legal Officer (Asia & Pacific)
Federal Ministry of Education (FME)	
Ms. Mbanefo Irene	Deputy Director
Mr. Fabowale A.G.	Assistant Director
Ms. Obichukwe Norgem Gladys	Assistant Director
Ms. Amedu Maria A.	Chief Education Officer
Universal Basic Education Commission (UBEC)	
Dr. Dikko Suleiman	Executive Secretary
Prof. Charles O. Onecha	Ag. Executive Secretary (Former)
Dr. Yakubu Gambo	Deputy Executive Secretary
Dr. Sharon 'Rowo Oriero-Oviemuno'	Deputy Executive Secretary (Technical)
Mr. Baba Sali Song	Director, Planning Research & Statistics (PRS)
Dr. C.C. Agomoh	Director, Quality Assurance
Mr. M. S. Dukku	Deputy Director, Finance and Account
Mrs. O. A. Orugun	Acting Director, Social Mobilization
Ms. B. O. Onekutu	Director, Academic Services
Mr. B. N. Tsado	Deputy Director, Academic Program
Engr. Sadiq Saad	Assistant Director, Physical Planning
Mr. David Apeh	Chief Protocol Officer (CPRO)
Mr. Bello Kagara	Project Coordinator (Former)
Mr. Iro Umar	Project Coordinator
Mr. Molkat M. Mutfwang	Architect
Mr. Yakubu Achimugu	Assistant Chief Statistic Officer
Ms. Fatima G. Yusuf	Legal Adviser
Mr. Ahyu Jauro	Town Planning Officer
Mr. Abba U. Lim	Higher Technical Officer &QS
Ms. Zahra U. Dembo	Information Officer 2
Mr. Uthman Olatunji	Civil Engineer II
Mr. Aliyu Jamo	Town Planning Officer II
Ms. Akintunde Rafiyat	Public Relation Unit Assistant

Oyo State Universal Basic Education Board (Oyo SUBEB)

Dr. Busari O. Adebisi	Executive Chairman
Mr. W.O. Amao	Permanent Secretary
Mr. Razaq Raji	Full Time Member (North)
Ms. Oluyemisi Fakoyecle	Full Time Member (South)
Mr. Tok Adepoju	Board Member
Mr. Ki. O. Amoo	Permanent Secretary (TESCOM)
Mr. Yinka Osuntogan	Permanent Secretary (SUBEB)
Mr. H. K. Adedolum	Director/ Planning research and statistics (Former)
Mr. Sorungbe K.O	Director/ Planning research and statistics
Mr. F. O. Asuni	Director / School Services
Ms. I. I. Fatoki	Director / Standard and Quality Assurance
Ms. L. B. Eniola	Director / School Management & Information Communication Technology
Ms. C.A. Adejumo	Director / Administration and Supply
Mr. T. O. Ogunwale	Director Finance and Accounting
Mr. A. O. Adelady	Deputy Director/ Planning Research and Statistics
Mr. F. O. Adekumle	Deputy Director/ Planning Research and Statistics
Ms. F. A. Adeyemi	Deputy Director/ Planning Research and Statistics
Mr. O. R. Omoladum	P.T.O. (Architect) Technical Officer
Mr. A. A. Adeyemi	Chief Statistician
Mr. Akinwale K.B	Chief Accountant
Mr. F. M. Okeyunka	P.T.O.(Quantity Surveyor) Technical Officer
Mr. O.R. Omoladun	P.T.O. (Architect) Technical Officer
Mr. P. A. Ademole	P.T.O. (Civil Engineer) Technical Officer
Ms. E. O. Bujau	Deputy Director/ Finance and Accounting
Ms. B. F. Iloui	School Service Officer
Ms. O. O. Oluwli	Chief Education Officer
Ms. H. A. Mustzyike	Principal Education Officer
Ms. F. J. Ayodurem	Principal Technical Officer (Estate)
Ms. K. F. Adeyomoye	Chief Education Officer
Mr. M. A. Rufmi	Press Officer
Ms. T. A. Akeinde	Secretary Planning research and statistics
Mr. D. A. Akunde	Principal Technical Officer (Quantity Surveyor)
Mr. Elelbed S.A.	Principal Technical Officer (Architect)

オヨ州政府 Oyo State Government

Mr. Abiola Adeyemi Ajimobi	Governor
Mr. Abimbola Adekanmi	Deputy Chief of Staff

World Bank (WB)

Mr. Wale Samuel	Education Task Leader

Department for International Development of the UK (DFID)

Ms. Sandra Graham	Consultant, Education Sector Support Programme in Nigeria (ESSPIN)

United State Agency for International Development (USAID)

Mr. Haladu Mohammed	Education Program Manager
Ms. Nafia Ado	Education Program Manager

Korea International Cooperation Agency (KOICA)

Mr. JUNG. Sang-Hoon	Chief Representative of KOICA Office in Nigeria

Embassy of Japan

Mr. Ryuichi Shoji	Ambassador Extraordinary and Plenipotentiary
Mr. Takeshi Hagino	First Secretary
Mr. Kazuhito Kibana	First Secretary
Mr Chikara Yoshimura	First Secretary
Ms. Mariko Chiba	Project Coordinator
Mr. Kosuke Nagao	Project Coordinator

JICA Nigeria Office

Mr. Tetsuo Seki	Chief Resident Representative
Mr. Masato Mikamo	Representative
Ms. Chie Shimodaira	Representative
Mr. Kensuke Oishi	Representative
Ms. Emiko Mikami	Project Formulation Advisor
Mr. Ozuruoke Kingsley D.	Programme Officer
Ms. Ahmed Halim	Consultant
Ms. Elekwachi N. Doris	Programme Officer

4. Minutes of Discussions (M/D)

MINUTES OF DISCUSSIONS
ON PREPARATORY SURVEY
ON THE PROJECT FOR CONSTRUCTION OF CLASSROOMS
FOR PRIMARY SCHOOLS IN OYO STATE
IN THE FEDERAL REPUBLIC OF NIGERIA

In response to the request from the Government of the Federal Republic of Nigeria (hereinafter referred to as "Nigeria"), the Government of Japan decided to conduct a Preparatory Survey on the Project for Construction of Classrooms for Primary Schools in Oyo State (hereinafter referred to as "the Project") and entrusted the survey to the Japan International Cooperation Agency (hereinafter referred to as "JICA").

JICA has sent to Nigeria the Preparatory Survey Team (hereinafter referred to as "the Team"), which is headed by Mr. Hideharu TACHIBANA, Director of Basic Education Division 2, Human Development Department, JICA, and its scheduled to stay in Nigeria from September 16 to October 17, 2013.

The Team had a series of discussions with the officials concerned of the Nigerian Side and conducted a field survey.

In the course of the discussions and the field survey, both parties confirmed the main items described on the attached sheets.

Abuja, Nigeria
October 2, 2013

Mr. Hideharu Tachibana
Leader,
Preparatory Survey Team
Japan International Cooperation
Agency (JICA)

Prof. Charles. O. Onocha
Ag. Executive Secretary,
Universal Basic Education Commission
(UBEC)
Federal Republic of Nigeria

Witnessed by

Dr. Busari. O. Adebisi
Executive Chairman,
State Universal Basic Education
Board (SUBEB) Oyo
Federal Republic of Nigeria

Witnessed by

Mr. Bassey O. Akpanyung
Director of International Cooperation
Department,
National Planning Commission (NPC)
Federal Republic of Nigeria

ATTACHMENT

1. Objective of the Project

The objective of the Project is to improve access and educational environment of primary education through construction of facilities.

2. Responsible and Implementing Organization

2-1. The responsible organization is the Universal Basic Education Commission (UBEC) of the Federal Ministry of Education. (The organizational structure of UBEC is in **ANNEX 1**)

2-2. The implementing organization is the Oyo State Universal Basic Education Board (SUBEB) of the State Ministry of Education. (The organizational structure of SUBEB is in **ANNEX 2**)

3. Project Sites

3-1. Both sides confirmed that the target state of the Project will be Oyo State.

3-2. Both sides agreed that the candidate sites for the project will be selected from the candidate site list as attached in **ANNEX 3** based on the criteria described in **ANNEX 4**. Depending on the field survey results, the candidate site list (ANNEX 3) can be revised in consultation with Oyo SUBEB.

4. Project Components

4-1. Both sides agreed that classroom construction and supply of educational furniture (blackboard, desk and chair), will be given the highest priority to achieve the objective of the Project. Both sides agreed to the project components as shown in **ANNEX 5.**

4-2. A soft component will be included, depending on the result of the survey.

4-3. Both sides agreed that, in case of shortage of the Project budget, reduction of the target school should be considered in accordance with the order of priority as shown in **ANNEX 3.** Both sides also agreed that the detail would be discussed at the implementation stage in this case.

5. Japan's Grant Aid Scheme

5-1. The Nigerian side agreed that Japan's Grant Aid Scheme for Community Empowerment (hereinafter referred to as "GACE") will be used for the Project. The Nigerian side understood the outline of GACE as described in **ANNEX 6** and as explained by the Team.

6. Framework of Project Implementation

The Team explained the following framework of implementation;

6-1. Japan's Grant Aid is extended in accordance with the "Exchange of Notes" by the two governments concerned and with the "Grant Agreement" between JICA and the Nigerian side, in which the objectives of the Project, the period of execution, conditions and the amount of Grant Aid, etc., are described.

6-2. After concluding the Exchange of Notes and the Grant Agreement, the Nigerian side shall make a procurement management service contract with a procurement agent (hereinafter referred to as "the Agent").

7. Committee

7-1. For smooth implementation of the Project, both sides confirmed to establish a Consultative Committee (hereinafter referred to as "the Committee") composed of the relevant authorities of Nigeria and JICA. The members of the Committee are as follows;

(1) Representative of Federal Ministry of Education
(2) Representative of National Planning Commission
(3) Representative of UBEC
(4) Representative of Oyo SUBEB
(5) Representative of JICA Nigeria

Other relevant authorities can be invited to the Committee if necessary.

7-2. The Terms of Reference (TOR) of the Committee are as follows:

(1) To confirm the progress of the Project
(2) To discuss the scope of the Project
(3) To decide allocations of the remaining budget of the Grant (if any), and
(4) To discuss and resolve any matters arising

8. Measures taken by the Nigerian side

8-1. The Nigerian side assured to take necessary measures, as described in **ANNEX 7**, for smooth implementation of the Project.

8-2. The Nigerian side confirmed that UBEC shall take in a timely manner necessary measures to exempt VAT and other fiscal levies which may be imposed in Nigeria in order to ensure smooth implementation of the Project.

8-3. The Nigeria side confirmed that Oyo SUBEB shall take in a timely manner necessary measures including budget allocation to prepare leveled site when needed in order to ensure smooth implementation of the Project. The leveled site including demolition and removal of foundations will be prepared by July, 2014 before finalization of the draft tender documents. Otherwise the planned construction site should be shifted to proper location in site plan.

9. Schedule of the Survey

9-1. The Consultant members of the Team will continue the survey in Nigeria until October 17, 2013.

9-2. Based on the results of the field survey in Nigeria, the Team will continue data analysis and prepare a basic design in Japan by January, 2014. JICA will dispatch the second field survey team to present the draft report on the Project in February, 2014.

9-3. After completing the second field survey, the team will prepare the reference material for tender documents by June 2014. JICA will dispatch the third field survey team to present and explain the reference materials in July, 2014.

10. Other Relevant Issues

10-1. The Nigerian side agreed that SUBEB shall provide attestation for all candidate sites to the Team by October 8, 2013.

10-2. The Nigerian side shall provide the Team with all the relevant data, information and materials needed to complete the survey.

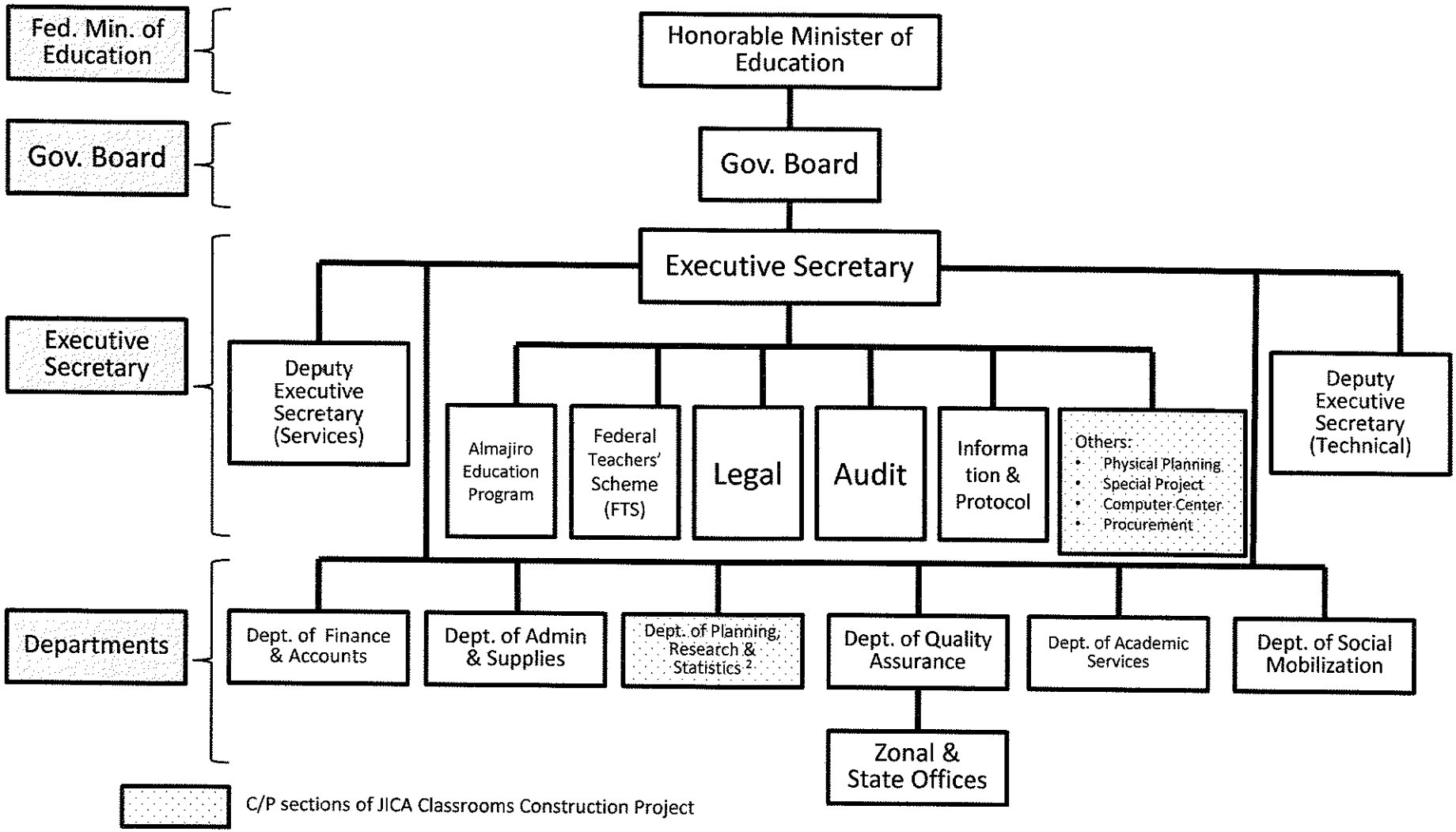
10-3. The Nigerian side shall be responsible for proper operation and maintenance of school facilities provided by the Project.

10-4. The Nigerian side shall take all necessary measures to assure security of Japanese nationals engaged in the Project.

ANNEX 1: Organizational diagram of UBEC
ANNEX 2: Organizational diagram of SUBEB
ANNEX 3: List of candidate schools and priorities
ANNEX 4: Selection criteria of candidate schools
ANNEX 5: Project components
ANNEX 6: Outline of Japan's Grant Aid for Community Empowerment
ANNEX 7: Major undertaking to be taken by each Government

ANNEX 1

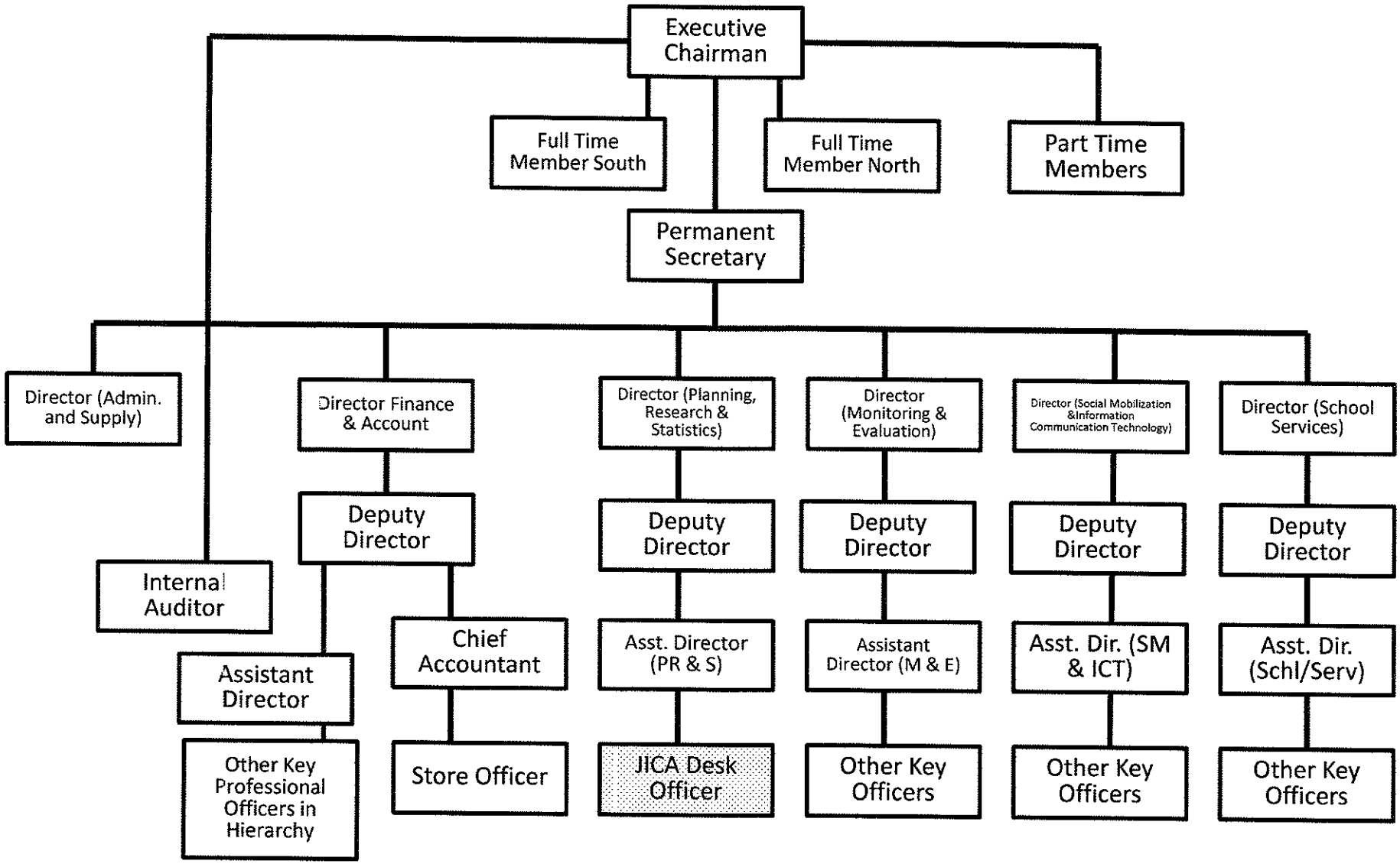
Organizational diagram of UBEC



*1: The projects by JICA belongs to the Special Project Unit .
*2: Dept. of P,R & S covers monitoring of projects by donors including JICA Classrooms Construction project for the Special Project Unit, where no architectural specialists exists.

ANNEX 2

Organizational diagram of SUBEB



List of Candidate schools and priorities

ANNEX 3

	S/N	NAME OF SCHOOL	LGUBEA	ENROLMENT	NO OF CLASSROOM	NO OF CLASSROOM IN GOOD CONDITION	NO OF CLASSROOM IN BAD CONDITION	NO OF CLASSROOMS REQUIRED	NO OF TEACHER	TEACHER-PUPIL RATIO (1: 40)	DISTANCE FROM THE LGA	SOURCE OF WATER	TOILET	NOTE
A	1	RATIBI MOSLEM PRIMARY SCHL ODINJO	IBADAN SOUTH EAST	788	9	2	7	20	17	46	3.5KM	NO	NO	
	2	ST LUKE DEMONSTRATION SCHL MOLETE IBADAAN	IBADAN SOUTH EAST	611	17	3	7	15	25	24	7KM	NO	NO	
	3	ST. LEO'S CATH., SCHL, ORITA-CHALLENGE	IBADAN SOUTH EAST	745	11	5	6	19	27	28	10KM	NO	NO	
	4	I.M.G. PRIMARY SCHL, OLUBADAN IV	IBADAN SOUTH EAST	930	0	0	0	24	33	28	1/2KM	NO	NO	Currently, 3 schools exist in this school. School I has 1,005 pupils, school II has 1,812 pupils, and school III has 1,813 pupils. This school will split the class from school II and III. 930 pupils will be transferred to new school IV to improve overpopulated situation.
	5	ONISAPA C.P.S	OGBOMOSO SOUTH	1951	29	25	4	49	30	65	3KM	NO	NO	
	6	L.A DEM. PRY. SCH.	ISEYIN	379	3	1	2	9	26	15	5KM	NO	NO	
	7	I.D.C. PRY. SCH. AKOBO	LAGELU	762	13	5	8	19	22	35	8KM	NO	NO	
	8	ISLAMIC PRY. SCH. MONIYA	AKINYELE	699	11	11	0	17	35	20	3KM	NO	NO	
	9	ST. AUGUSTINE PRY. SCH. AKINSAWE	LAGELU	562	10	3	7	14	9	62	10KM	NO	NO	
	10	ST. PHILIPS PRY, SCH, FASOLA	OYO WEST	676	7	0	7	17	15	45	15KM	NO	NO	
	11	CHRIST CHURCH SCH. I AKINFENWA	EGBEDA	895	7	3	4	22	23	39	6KM	NO	NO	
	12	ABADINA PRY. SCH. U.I	IBADAN NORTH	655	15	6	9	16	13	50	4KM	NO	NO	
	13	ST. MARY'S PRY. SCH. I	ISEYIN	590	17	11	6	15	17	35	6KM	NO	NO	
	14	BAPTIST PRY. SCH. AJEGUNLE III	IBARAPA CENTRAL	1021	0	0	0	26	19	54	3KM	NO	NO	New School
	15	ST. JOSEPH PRY, SCH, NALENDE	IBADAN NORTH WEST	1240	4	0	4	31	18	69	4KM	NO	NO	
	16	METHODIST BASIC SCH. ILEESADE	OGO OLUWA	634	18	8	10	16	5	127	4KM	NO	NO	
	17	COMM. PRY. SCH. I - IV AYEKALE IBADAN	IBADAN NORTH EAST	590	11	5	6	15	19	31	5KM	NO	NO	
	18	METHODIST PRY. SCH. AGO - IJIO	ISEYIN	338	11	4	7	8	19	18	4KM	NO	NO	
	19	METH. PRY, SCHL, OKE-ODO,IGBOORA	IBARAPA CENTRAL	667	16	6	10	17	22	30	2KM	NO	4	
	20	COMM, PRY, SCHL, OLUODE	IDO	567	8	1	7	14	13	44	6KM	NO	NO	
	21	C.P.S AKINGBILE OLUANA	AKINYELE	673	11	4	7	17	25	27	4KM	NO	NO	
	22	BAPTIST PRY. SCH. MAYA LANLATE	IBARAPA EAST	492	5	2	3	12	16	31	6KM	NO	NO	

B	23	ST. ANNE'S III IGANGAN	IBARAPA NORTH	349	6	5	1	9	8	44	2.3KM	NO	NO	
	24	BAPTIST BASIC SCH. IPASA	SURULERE	151	5	4	1	4	6	25	5KM	NO	NO	
	25	C & S PRY. SCH. II AYETE	IBARAPA NORTH	344	6	4	2	9	13	26	0.8KM	NO	NO	
	26	L.A PRY. SCH. OKEOLOLA	ATIBA	291	9	9	0	7	28	10	2KM	NO	4	
	27	ST. MICHEAL ANG. RCM,ARAROMI	OYO EAST	819	9	5	4	20	37	22	3KM	NO	NO	
	28	ST. PETER'S OKE– ARE	IBADAN NORTH	712	24	24	0	18	30	24	2KM	NO	NO	
	29	C.A.C. AGOGC ERUWA	IBARAPA EAST	383	7	2	5	10	12	32	2KM	NO	NO	
	30	COMM. BASIC SCH. KEEWO	SURULERE	168	6	2	4	4	4	42	4KM	NO	NO	
	31	ST. PETER'S PRY. SCH. APETE	IDO	389	8	0	8	10	10	39	8KM	NO	2	
C	32	ARMY CHILDREN PRY. SCH.	ISEYIN	319	4	2	2	8	7	46	1KM	NO	4	
	33	METHODIST PRY. SCH. IDI-IROKO	AKINYELE	568	0	0	0	14	25	23	10KM	NO	NO	
	34	ISLAMIC MISSION PRY. SCH. I & II AGUGU	IBADAN NORTH EAST	590	8	8	0	15	15	39	5KM	NO	NO	
	35	C.P.S I AYEPE	EGBEDA	667	7	4	3	17	18	37	2KM	NO	NO	
	36	BAPTIST PRY SCHL I, OTAMOKUN	OGO OLUWA	726	12	7	5	18	11	66	3KM	NO	NO	
	37	COMM. PRY. SCHL, OGUNKEYE	OYO WEST	435	9	9	0	11	4	109	12KM	NO	NO	
	38	U.N.A. MISSION SCH. INALENDE	IBADAN NORTH	865	8	6	2	22	15	58	3KM	NO	NO	
	39	AREAGO BASIC PRY. SCH.	OGBOMOSO NORTH	1487	31	4	27	37	20	74	1 1/2KM	NO	NO	
	40	I.M.G. PRY. SCH. LAGOS BYE PASS	IBADAN SOUTH WEST	481	6	3	3	12	17	28	2KM	NO	NO	
	41	ST. DAVID'S PRY. SCHL, AGBOYIN	OGBOMOSO NORTH	1450	17	5	12	36	30	48	1½2KM	NO	NO	
	42	MOLETE D.C. PRY. SCH. III	OGBOMOSO SOUTH	1364	10	8	2	34	15	91	2KM	NO	NO	
	43	BAPTIST PRY SCHL III, AGBOYE	OYOEAST	726	6	3	3	18	21	35	4KM	NO	NO	
	44	I.M.G. PRY, SCH, JOYCEB , OKE–ADO	IBADAN SOUTH WEST	449	11	9	2	11	11	41	0.6KM	NO	NO	
		TOTAL		30198	442	228	207	755.7	805					

Selection criteria of candidate schools

Requested schools shall be evaluated based on the selection criteria as follows;

1) Site location shall not be remote from Ibadan in view of security and efficiency reason.
2) The school shall have urgency necessity for construction of additional classrooms (present shortage of classrooms from the standard of 40 pupils per classroom),
3) The maximum number of classrooms, to be constructed per site will be 24 in order to benefit rural schools.
4) Minimum requirement for additional classrooms per school is 3 (standard number of pupils per classroom should be 40).
5) Land ownership or proper land use right for school construction shall be secured with written evidence by SUBEB.
6) There shall be no overlapping with current/ongoing facility improvement by the Nigerian Government, other donors, NGOs, etc.
7) Topographically/environmentally safe and appropriately sized land for construction shall be secured.
8) Access roads for construction vehicles shall be properly provided.
9) Sufficient number of teachers, staff and budget for selected school shall be secured by the Nigeria side.
10) Cooperation from School-Based Management Committee (SBMC) shall be obtained for proper operation and maintenance.

ANNEX 5

Project components

(1) Classroom
(2) Educational Furniture (Blackboard, desk, chair)
(3) Toilet
(4) Soft Components (depending on the result of the survey)
(5) Administration room (Head Master's room and Teacher's room)

Remarks: Administration room can be built only for new school, if necessary.

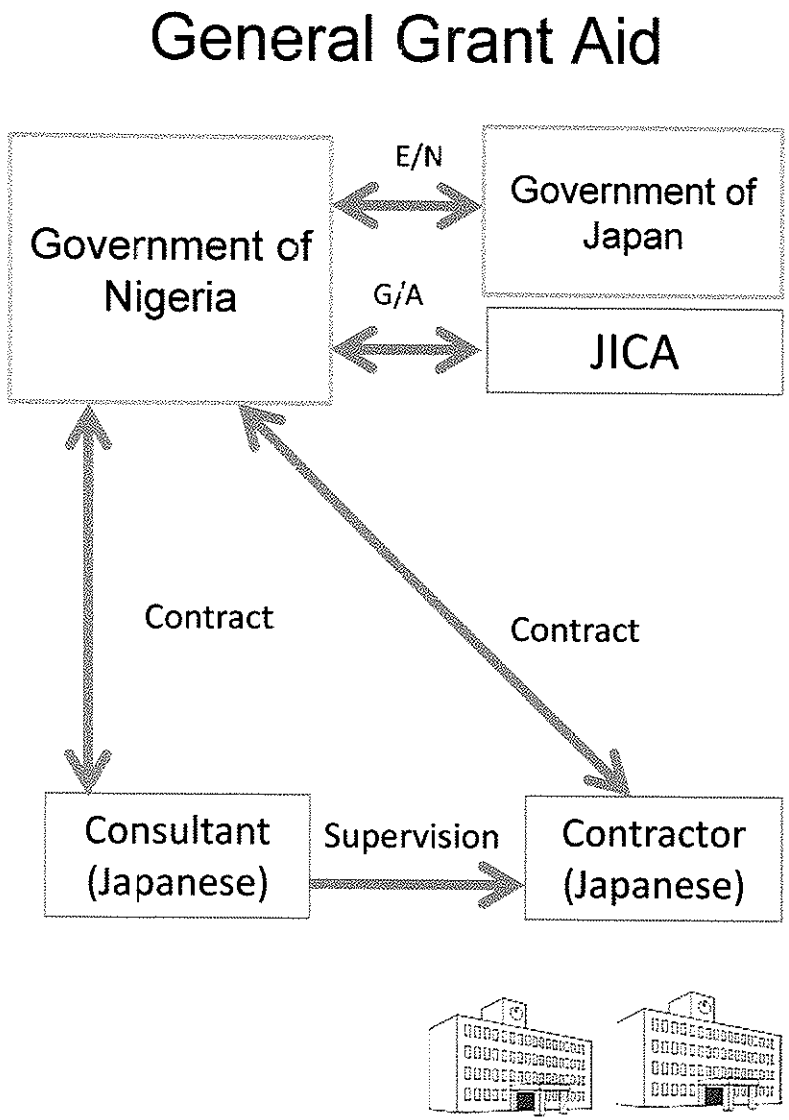
Outline of Japan's Grant Aid for Community Empowerment

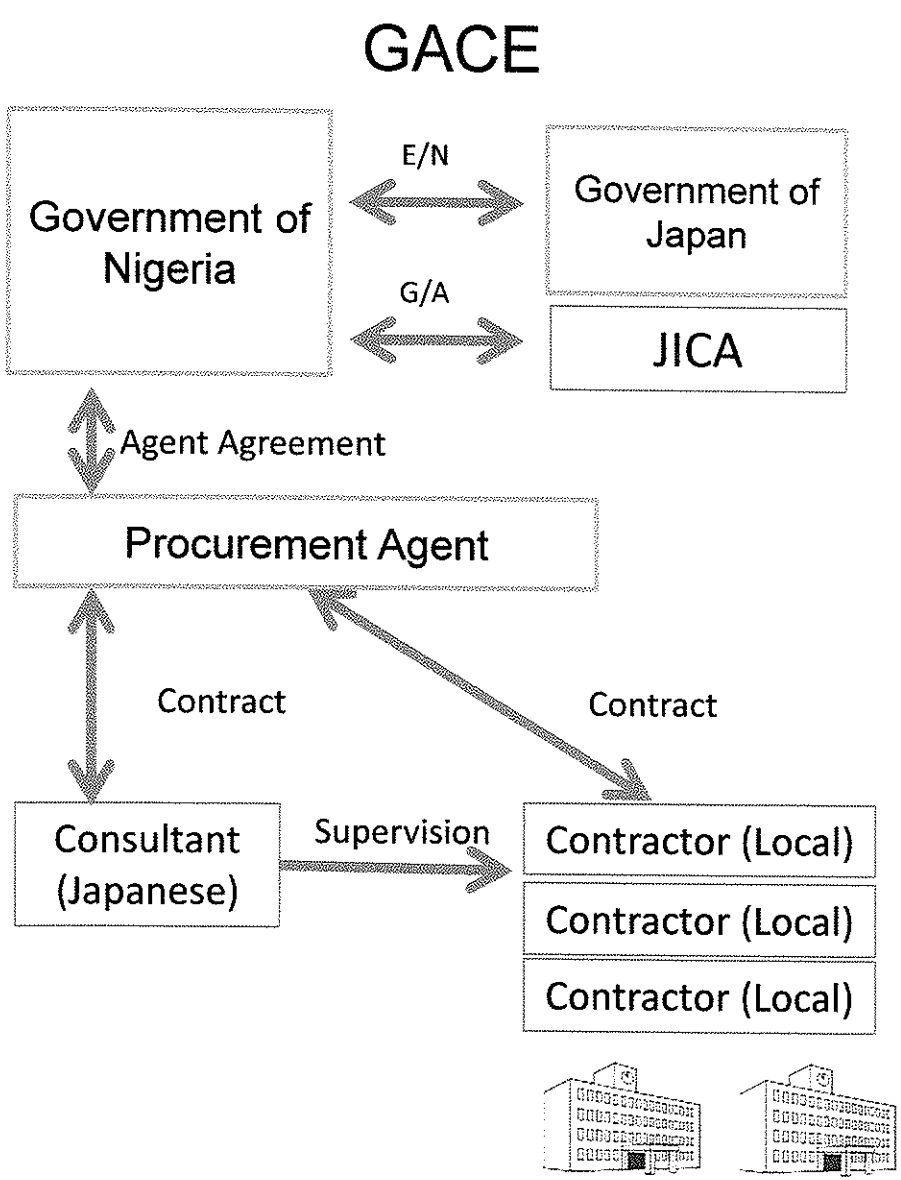
1. Local contractors through local tender process

- Local contractors will be used for construction work by local tender.
- Tender will be conducted according to JICA Procurement guideline, considering the local practice.
- Quality of construction may be different from the Project applied that were applied to the General Grant Aid.
- Supervision for the construction work and procurement of furniture will be conducted by a Japanese consultancy firm to maintain the quality of the work (just the same arrangement as the General Grant Aid project).

	General Grant Aid (ex. Primary School Project in Kaduna, Niger, Plateau Phase1	GACE (New)
Contractors	Japanese	Local
Consultant for supervision	Japanese	Japanese
Cost	$$$$$	$$$

2. Implementation structure





2. Implementation structure
(1) Procurement Agent

- Procurement Agent (hereinafter referred to as "the Agent") will implement procurement works of the Project on behalf of the Government of Nigeria, to manage the Grant including executing payments to the contractors/suppliers, and coordinating interests of stakeholders of the Project.

- The Agent will be recommended by the Government of Japan and agreed between both Governments in the Agreed Minutes of the Exchange of Notes (E/N).

- The Agent Agreement will be concluded between the authorities concerned of the Government of Nigeria and the Agent before the Project starts.

2. Implementation structure
(2) Consultative committee

- To implement the Project smoothly, a consultative committee will be established.

- Consultative committee is consisted of:

Chair	the head of the representative of the Government of Nigeria
Members	the representative of the Government of Nigeria, JICA Nigeria office
Advisor	the Agent

- The Terms of Reference are :

1) To confirm the progress of the Project,
2) To discuss the scope of the Project,
3) To decide allocations of the remaining budget of the Grant,
4) To discuss and resolve any matters arising

3. Modification of the components

- The Project components may be modified due to the price escalation, exchange rate fluctuation.

- Priority for the components should be clearly set, and additional components should be determined.

4. (1) Flow of implementation

Stage	G of Japan	JICA	JICS	Bank in Japan	Contractors or Suppliers	Recipient Government	Remarks
Exchange of Notes	◎					◎	
Grant Agreement		◎				◎	
Banking Arrangement				◎		◎	
Notice of opening of account		○				◎	"Account" is opened in the name of the Nigerian Government.
Fund disbursement		◎				△	To the Recipient's account at bank in Japan
Agent Agreement (AA)		○	◎			◎	Signed AA is to be approved by JICA.
Blanket Disbursement Authorization(BDA)			△	○		◎	BDA is to be submitted to the bank through JICS.
Fund Allocation			○			◎	
Fund transfer			◎	◎		△	From the Recipient' s Account to Bank Accounts for Procurement

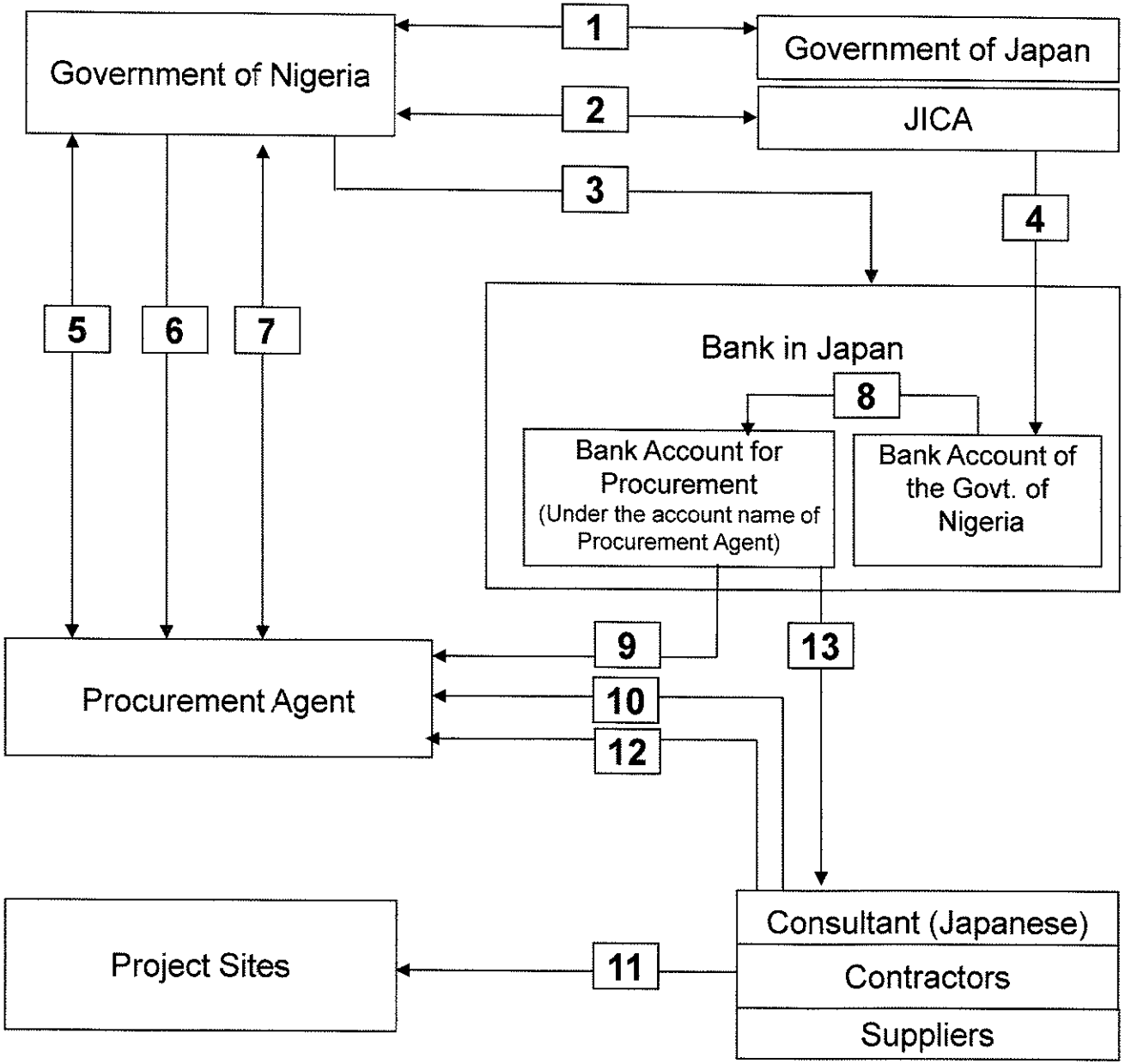
◎ Parties concerned
○ Parties to be consulted or to receive documents (to confirm, agree, review, approval, and etc)
△ Parties to share information

4. (1) Flow of implementation (cont'd)

Stage	G of Japan	JICA	JICS	Bank in Japan	Contractors or Suppliers	Recipient Government	Remarks
Bidding process		△	◎		◎	○	
Evaluation		△	◎			○	
Contracting		△	◎		◎	○	
Taxes Exemption					◎	◎	
Construction works & delivery			◎		◎	△	
Payment			◎		◎	△	To consultant, contractors, suppliers and JICS
Variation		(○)	◎		◎	◎	
Use of Remaining amount	(○)	◎	△			◎	
Reimbursement		○	◎	(○)		◎	When all the payments have been completed and the total of the remaining amount is less than 3 % of the Grant and its accrued interest excluding the Agent's fees

◎ Parties concerned
○ Parties to be consulted or to receive documents (to confirm, agree, review, approval, and etc)
△ Parties to share information

4. (2) Flow of Fund



1	Signing of Exchange of Notes (E/N)
2	Signing of Grant Agreement (G/A)
3	Banking Arrangement (B/A)
4	Disbursement of Funds
5	Signing of Agreement for Agent (A/A)
6	Blanket Disbursement Authorization (BDA)
7	Decision on the components of the Project
8	Transfer of Funds
9	Payment of Remuneration to the Agent
10	Conclusion of Contract
11	Construction and/or Procurement
12	Application for Payment
13	Payment

ANNEX 7

MAJOR UNDERTAKING TO BE TAKEN BY EACH GOVERNMENT

No.	Items	To be covered by Grant Aid	To be covered by Recipient Side
1	To secure land		●
2	To clear, level and reclaim the site when needed		●
3	To construct gates and fences in and around the site		●
4	To construct the parking lot (within the site if incidental)		●
5	To construct roads		
	1) Within the site	●	
	2) Outside the site		●
6	To construct the buildings	●	
7	To provide facilities for the distribution of electricity, water supply, drainage and other incidental facilities		
	1) Electricity	N/A	
	a. The distributing line to the site		
	b. The drop wiring and internal wiring within the site		
	c. The main circuit breaker and transformer		
	2) Water Supply	N/A	
	a. The city water distribution main to the site		
	b. The supply system within the site (receiving and elevated tanks)		
	3) Drainage		
	a. The city drainage main (for storm, sewer and others to the site)		●
	b. The drainage system (for toilet sewer, ordinary waste, storm drainage and others) within the site	●	
	4) Telephone System	N/A	
	a. The telephone trunk line to the main distribution frame/panel (MDF) of the building		
	b. The MDF and the extension after the frame/panel		
	5) Furniture and Equipment		
	a. General furniture		●
	b. Project equipment (Desks and chairs for students and teacher)	●	
8	To bear the following commissions to the Japanese bank for banking services based upon the B/A		
	1) Advising commission of A/P		●
	2) Payment commission		●
9	To ensure unloading and customs clearance at port of disembarkation in recipient country		
	1) Marine (Air) transportation of the products from Japan the recipient	●	
	2) Tax exemption and custom clearance of the products at the port of disembarkation		●
	3) Internal transportation from the port of disembarkation to the project site	●	
10	To accord Japanese nationals whose service may be required in connection with the supply of the products and the services under the verified contact, such facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work.		●
11	To exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which may be imposed in the recipient country with respect to the supply of the products and services under the verified contracts		●
12	To maintain and use properly and effectively the facilities constructed and equipment provided under the Grant Aid		●
13	To bear all the expenses, other than those to be borne by the Grant Aid, necessary for construction of the facilities as well as for the transportation and installation of the equipment		●

(B/A : Banking Arrangement, A/P : Authorization to pay, N/A: Not Applicable)

MINUTES OF DISCUSSIONS
ON
PREPARATORY SURVEY
(EXPLANATION OF DRAFT REPORT)
ON
THE PROJECT
FOR
CONSTRUCTION OF CLASSROOMS FOR PRIMARY SCHOOLS IN OYO STATE
IN
THE FEDERAL REPUBLIC OF NIGERIA

In October 2013, the Japan International Cooperation Agency (hereinafter referred to as "JICA") conducted the field survey as a part of the Preparatory Survey on the Project for Construction of Classrooms for Primary Schools in Oyo State (hereinafter referred to as "the Project"). Based on the results of the field survey and subsequent technical examinations conducted in Japan, JICA prepared the Draft Preparatory Survey Report.

In order to explain the contents of the report and discuss with the officials concerned of the Government of Nigeria, JICA sent the Survey Team (hereinafter referred to as "the Team"), which was headed by Mr. Tetsuo Seki, Chief Representative, JICA Nigeria Office from 23 February to 7 March, 2014.

As a result of discussions, both sides have confirmed the main items described in the attached sheet.

Abuja, 5 March, 2014

Mr. Tetsuo Seki
Chief Representative
Nigeria Office
Japan International Cooperation
Agency (JICA)

Dr. Alhaji Dikko Suleiman
Executive Secretary
Universal Basic Education Commission
(UBEC)
Federal Republic of Nigeria

Witnessed by

Dr. Busari O. Adebisi
Executive Chairman
Oyo State Universal Basic Education
Board (SUBEB)
Federal Republic of Nigeria

Witnessed by

Mr. Bassey O. Akpanyung
Director of International Cooperation
Department
National Planning Commission (NPC)
Federal Republic of Nigeria

ATTACHMENT

1. **Contents of the Draft Report**
   The Nigerian side agreed and accepted in principle the contents of the Draft Preparatory Survey Report as presented by the Team.

2. **Components and Facilities to be Covered by the Project**
   Both sides agreed on the list of components and facilities for each candidate school to be covered by the Project and their order of priority as shown in ANNEX-1. The Nigerian side agreed that the Japanese side would make a final decision on this matter through further study in Japan.

   The Nigerian side understood there was a possibility to adjust the volume of components as a result of the tenders or fluctuations of the exchange rate. The volume of components should be reduced, in accordance with the order of priority shown in ANNEX-1.

3. **Japan's Grant Aid Scheme and Major Undertakings**
   The Nigeria side understood the Japan's Grant Aid Scheme, and assured that it shall take necessary measures as described in ANNEX-6 and 7 of the Minutes of Discussions signed by both parties on 2 October, 2013. Furthermore, the Government of Nigeria agreed to take a full responsibility to demolish and remove the obstacles at the construction sites, to secure and rehabilitate access to the sites. The demolition, removal and access improvement works for the construction site shall be completed by September 2014 including removal of underground foundation and roots. The details of obligations to be covered by the Government of Nigeria are described in ANNEX-2.

4. **Final Report of the Preparatory Survey**
   JICA will finalize the report in accordance with the result of discussions and by September 2014 forward it to the Government of Nigeria after the Government of Japan approves the Project.

5. **Project Cost Estimation**
   The Nigerian side understood that the Project cost estimation described in ANNEX-3 was not final at this stage and would be set and approved by the Government of Japan after thorough examinations.

6. **Confidentiality of the Information Related to the Project**
   Both sides confirmed that all information related to the Project including design documents of facilities and equipment shall not be released to any outside parties before concluding all contracts for the Project. Furthermore, both sides agreed that the estimated cost of the Project as described in ANNEX-3 shall never be duplicated or released to any outside parties before concluding all contracts for the Project.

7. **Other relevant issues**

7-1. Allocation of Necessary Budget
The Nigerian side agreed to allocate necessary budget for the proper operation and maintenance of the facilities provided by the Project.

7-2. Proper Use and Maintenance
Both sides understood that proper use and maintenance of the facilities were indispensable for their long-term use. The Nigerian side assured the Team that it would facilitate the proper use and maintenance of the facilities provided by the Project with the active involvement of concerned parties.

END

ANNEX-1 Components and Facilities to be covered by the Project
ANNEX-2 Major Undertaking by Each Government
ANNEX-3 Project Cost Estimation
ANNEX-4 Schedule of the Project (TENTATIVE)
ANNEX-5 Estimation of works in each site by Nigerian Side (TENTATIVE)

ANNEX-1 Components and Facilities to be covered by the Project

No.	Original and Survey No.	No. and Priority	Name of Primary School Interviewed	LGUBEA	No. of Students surveyed	Number of Rooms		Buidling		Toilet			Education Furniture		
						Number of Planned Classrooms (AxBxC-D)	Number of Head-master and Teachers Room	3 Class-room Type	4 Class-room Type	Number of Toilet Booth	Toilet house (4 booth type)	Toilet house (6 booth type)	Desk and Chair for 2 Students (set)	Desk and Chair for Teachers (set)	Black-board and Notice board (set)
1	1	1	RATIBI MOSLEM PRIMARY SCHL ODINJO	IBADAN SOUTH EAST	880	6		2		6		1	120	6	6
2	2	2	ST LUKE DEMONSTRATION SCHL MOLETE IBADAAN	IBADAN SOUTH EAST	932	12		4		12		2	240	12	12
3	3	3	ST. LEO'S CATHOLIC SCHOOL	IBADAN SOUTH EAST	1,246	9		3		8	2		180	9	9
4	4	4	I.M.G. PRIMARY SCHL, OLUBADAN	IBADAN SOUTH EAST	960	18	1	5	1	18		3	360	25	18
5	14	5	ONISAPA C.P.S I	OGBOMOSO SOUTH	1,015	12	1	3	1	12		2	240	19	12
6	8	6	LA DEM. PRY. SCH.	ISEYIN	379	6		2		6		1	120	6	6
7	20	7	I.D.C. BASIC SCH. AKOBO	LAGELU	762	9		3		8	2		180	9	9
8	24	8	ISLAMIC MISSION SCH. MONIYA	AKINYELE	1,049	6		2		6		1	120	6	6
9	21	9	ST. AUGUSTINE R.C.M. AKINSAWE	LAGELU	589	9		3		8	2		180	9	9
10	25	10	ST. PHILIPS PRY, SCH, FASOLA	OYO WEST	585	6		2		6		1	120	6	6
11	32	11	CHRIST CHURCH SCH. I AKINFENWA	EGBEDA	820	6		2		6		1	120	6	6
12	37	12	ABADINA PRY. SCH. U.I	IBADAN NORTH	714	9		3		8	2		180	9	9
13	11	13	ST. MARY'S (RCM) PRY. SCH. I	ISEYIN	590	4			1	4	1		80	4	4
14	17	14	BAPTIST PRY. SCH.I IGBOORA	IBARAPA CENTRAL	1,022	9		3		8	2		180	9	9
15	42	17	COMM. PRY. SCH. I - IV AYEKALE IBADAN	IBADAN NORTH EAST	642	9		3		8	2		180	9	9
16	9	18	METHODIST PRY. SCH. AGO - IJIO	ISEYIN	338	3		1		4	1		60	3	3
17	16	19	METHODIST SCHOOL III	IBARAPA CENTRAL	665	9		3		8	2		180	9	9
18	7	20	COMM, PRY, SCHL, OLUODE	IDO	964	6		2		6		1	120	6	6
19	23	21	EBENEZER ANGLICAN SCH.	AKINYELE	923	12		4		12		2	240	12	12
20	39	22	BAPTIST PRY. SCH. MAYA LANLATE	IBARAPA EAST	420	7		1	1	6		1	140	7	7
21	44	23	ST. ANNE'S CATHOLIC SCHOOL	IBARAPA NORTH	349	3		1		4	1		60	3	3
22	35	24	BAPTIST BASIC SCH. IPASA	SURULERE	208	3		1		4	1		60	3	3
23	31	26	LA PRY. SCH. OKEOLOLA (SCH-3)	ATIBA	250	3		1		4	1		60	3	3
24	27	27	ST. MICHEAL ANG. RCM,ARAROMI	OYO EAST	1,791	9		3		8	2		180	9	9
25	34	30	COMM. BASIC SCH. KEEWO	SURULERE	112	3		1		4	1		60	3	3
26	6	31	ST. PETER'S PRY. SCH. APETE	IDO	1,246	9		3		8	2		180	9	9
27	10	32	ARMY CHILDREN PRY. SCH.	ISEYIN	340	3		1		4	1		60	3	3
28	41	34	ISLAMIC MISSION PRY. SCH. I & II AGUGU	IBADAN NORTH EAST	589	7		1	1	6		1	140	7	7
29	33	35	C.P.S I AYEPE	EGBEDA	601	12		4		12		2	240	12	12
30	29	36	BAPTIST PRY SCHL II, OTAMOKUN	OGO OLUWA	617	6		2		6		1	120	6	6
31	26	37	COMM, PRY, SCHL, OGUNKEYE	OYO WEST	380	3		1		4	1		60	3	3
32	13	39	AREAGO BASIC PRY. SCH.	OGBOMOSO NORTH	1,440	9		3		8	2		180	9	9
33	5	40	I.M.G. PRY. SCH. LAGOS BYE PASS	IBADAN SOUTH WEST	500	3		1		4	1		60	3	3
34	12	41	ST. DAVID'S PRY, SCHL, AGBOYIN	OGBOMOSO NORTH	1,236	12		4		12		2	240	12	12
35	15	42	MOLETE D.C. PRY. SCH. III	OGBOMOSO SOUTH	1,272	6		2		6		1	120	6	6
36	19	44	I.M.G. PRY, SCH, JOYCEB , OKE-ADO	IBADAN SOUTH WEST	454	3		1		4	1		60	3	3
			Total		26,880	261	2	81	5	258	30	23	5,220	275	261
						Total Rooms	263			Total Toilet House		53			

ANNEX-2 MAJOR UNDERTAKING TO BE TAKEN BY EACH GOVERNMENT

No.	Items	To be covered by Grant Aid	To be covered by Recipient Side
1	To secure land		●
2	To clear, level and reclaim the site when needed		●
3	To construct gates and fences in and around the site		●
4	To construct the parking lot (within the site if incidental)		●
5	To construct roads		
	1) Within the site	●	
	2) Outside the site		●
6	To construct the buildings	●	
7	To provide facilities for the distribution of electricity, water supply, drainage and other incidental facilities		
	1) Electricity	N/A	
	a. The distributing line to the site		
	b. The drop wiring and internal wiring within the site		
	c. The main circuit breaker and transformer		
	2) Water Supply	N/A	
	a. The city water distribution main to the site		
	b. The supply system within the site (receiving and elevated tanks)		
	3) Drainage		
	a. The city drainage main (for storm, sewer and others to the site)		●
	b. The drainage system (for toilet sewer, ordinary waste, storm drainage and others) within the site	●	
	4) Telephone System	N/A	
	a. The telephone trunk line to the main distribution frame/panel (MDF) of the building		
	b. The MDF and the extension after the frame/panel		
	5) Furniture and Equipment		
	a. General furniture (Furniture not covered by the Project)		●
	b. Project equipment (Desks and chairs for students and teacher, blackboards etc.)	●	
8	To bear the following commissions to the Japanese bank for banking services based upon the B/A		
	1) Advising commission of A/P		●
	2) Payment commission		●
9	To ensure unloading and customs clearance at port of disembarkation in recipient country		
	1) Marine (Air) transportation of the products from Japan the recipient	●	
	2) Tax exemption and custom clearance of the products at the port of disembarkation		●
	3) Internal transportation from the port of disembarkation to the project site	●	
10	To accord Japanese nationals whose service may be required in connection with the supply of the products and the services under the verified contact, such facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work.		●
11	To exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which may be imposed in the recipient country with respect to the supply of the products and services under the verified contracts		●
12	To maintain and use properly and effectively the facilities constructed and equipment provided under the Grant Aid		●
13	To bear all the expenses, other than those to be borne by the Grant Aid, necessary for construction of the facilities as well as for the transportation and installation of the equipment		●

(B/A : Banking Arrangement, A/P : Authorization to pay, N/A: Not Applicable)

ANNEX-3 Project Cost Estimation

The costs to be borne by the Japanese side will be disclosed after signing of the contracts for the works.

(1) Cost Burden on the Japanese Side

The costs to be borne by the Japanese side will be disclosed after signing of the contracts for the works.

(2) Cost Burden on the Nigerian Side

The costs to be borne by the Nigerian side will comprise the items shown in the table below.

Table A2-2 Cost Burden on the Nigerian Side

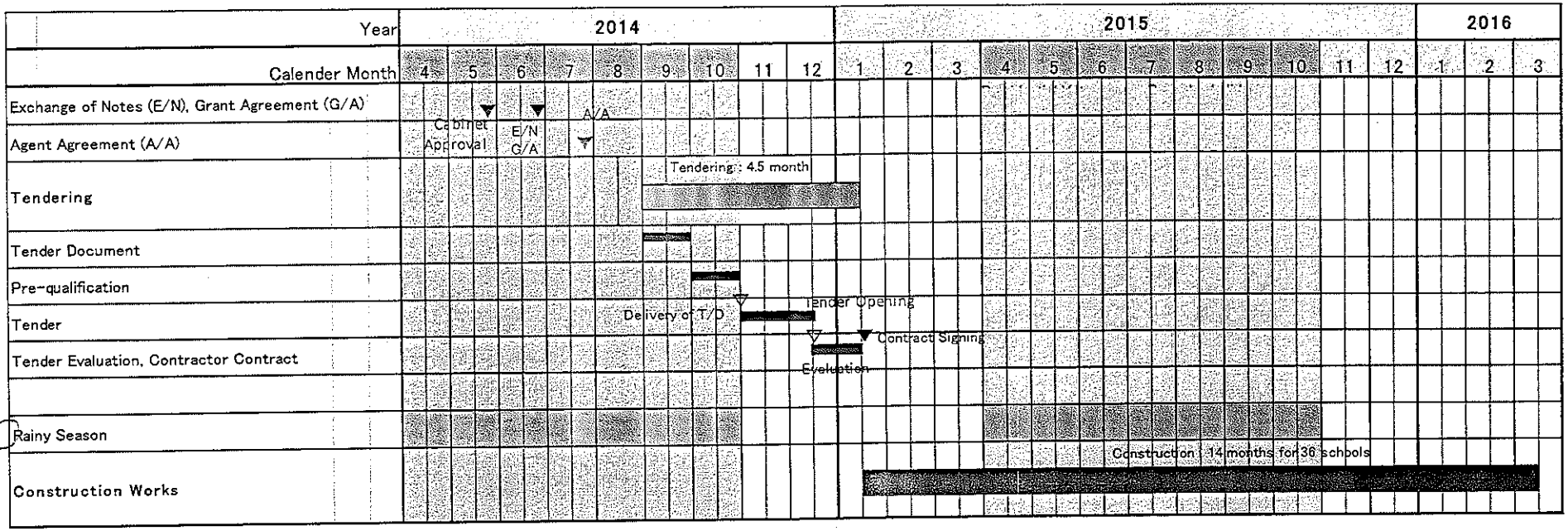
Item	Amount (Naira)	Remarks
(1) Site preparation cost	22,550,000	Demolition and removal of existing building, remaining foundation, tree etc.
(2) Access improvement cost		
Access soil paving	150,000	
Steel cover on ditch on the access	200,000	
(4) Bank account establishment commission	300,000	
Total	23,200,000	

(3) Estimation Conditions

1) Estimation point : October 2013
2) Exchange rate : 1 USD = 99.93 yen (TTS mean value from July to September 2013)
3) Construction period : January 2015 – March 2016
(14 months / 18.5 months including tender period)

(4) Other : The Project will be implemented according to Japan's Grant Aid Scheme for Community Empowerment.

ANNEX-4 Schedule of the Project (TENTATIVE)



ANNEX-5 Estimation of works in each site by Nigerian Side (TENTATIVE)

Unit: NGN

Original No.	Priority No.	School Name	LGEA	Demolition and Removal		Access Improvement		Ditch Cover		Total	Remarks
1	1	RATIBI MOSLEM PRIMARY SCHL ODINJO	IBADAN SOUTH EAST			Soil pave	50,000	Steel cover	50,000	100,000	
2	2	ST LUKE DEMONSTRATION SCHL MOLETE IBADAAN	IBADAN SOUTH EAST	Building	2,000,000					2,450,000	1 room in use for office
				Tree	50,000						
				Foundation	400,000						
3	3	ST. LEO'S CATH., SCHL, ORITA-CHALLENGE	IBADAN SOUTH EAST	Foundation	400,000					4,400,000	
				2 Buildings	4,000,000						
25	10	ST. PHILIPS PRY, SCH, FASOLA	OYO WEST	Foundation+Wall	800,000					800,000	
32	11	CHRIST CHURCH SCH. I AKINFENWA	EGBEDA	Foundation+Wall	800,000			Steel cover	50,000	850,000	
37	12	ABADINA PRY. SCH. U.I	IBADAN NORTH	Abandoned Well	100,000					100,000	
11	13	ST. MARY'S PRY. SCH. I	ISEYIN	Building	2,000,000					2,000,000	
39	22	BAPTIST PRY. SCH. MAYA LANLATE	IBARAPA EAST	Foundation	400,000					400,000	
44	23	ST. ANNE'S III IGANGAN	IBARAPA NORTH	Foundation	400,000					400,000	
6	31	ST. PETER'S PRY. SCH. APETE	IDO	Foundation	400,000					400,000	
33	35	C.P.S I AYEPE	EGBEDA	Building	2,000,000					2,000,000	
13	39	AREAGO BASIC PRY. SCH.	OGBOMOSO NORTH	Foundation	400,000					400,000	
5	40	I.M.G. PRY. SCH. LAGOS BYE PASS	IBADAN SOUTH WEST	Building	2,000,000	Soil pave	50,000	Steel cover	50,000	2,100,000	
12	41	ST. DAVID'S PRY, SCHL, AGBOYIN	OGBOMOSO NORTH	Foundation	400,000					400,000	
				Building	2,000,000					2,000,000	
15	42	MOLETE D.C. PRY. SCH. III	OGBOMOSO SOUTH	Building	2,000,000					2,000,000	2 rooms in use for pre-primary
19	44	I.M.G. PRY, SCH, JOYCEB , OKE-ADO	IBADAN SOUTH WEST	Building	2,000,000	Soil pave	50,000	Steel cover	50,000	2,100,000	
Total					22,550,000		150,000		200,000	22,900,000	

< The demolition, removal and access improvement works for the construction site shall be completed by September 2014 including removal of underground foundation and roots. The location of the building would be shifted to open space if the demolition and removal work would not be completed by September 2014.>

5. Soft Component (Technical Assistance) Plan

5. Soft Component Plan

(1) BACKGROUND OF THE SOFT COMPONENT

One of the problems which the Study Team became acutely aware of during the field survey on the 44 schools was the lack of a local custom of carefully using and maintaining public facilities, even though the condition was better than northern areas. Under these circumstances, there is a strong likelihood that the new facilities will deteriorate or be damaged within a few years unless education and guidance on the importance of routine cleaning and maintenance is provided. In regard to the toilet buildings, proper arrangements for the removal of sludge from the pits and other necessary maintenance work must be made. Given the fact that adequate budgetary funding for the maintenance of school facilities is generally insufficient in Nigeria, the required maintenance is not feasible without the participation of the SBMC (School Based Management Committee).

Meanwhile, it is deemed essential to strengthen human capacity of the related government agencies such as SUBEB and LGEA. In particular, it is the department of planning research and statistics of SUBEB that provides assistance in relation with facility maintenance to primary schools. It is inspector of LGEA who looks into the school issue most closely and is in a good position to monitor detailed school situation most precisely.

(2) OBJECTIVES OF THE SOFT COMPONENT

The objectives of the Soft Component is to foster a sense of ownership among students, who are the direct beneficiaries of the Project, as well as teachers and SBMC members, who will mainly conduct the maintenance of the school facilities to establish a foundation for the sustainable maintenance of the planned facilities under the Project. For this sake, manuals as tools for such administrative bodies as the SUBEB and LGEAs will be prepared for smooth implementation of post-project monitoring and guidance activities in an efficient and effective manner.

(3) OUTPUTS OF THE SOFT COMPONENT

The expected outputs of the Soft Component are listed as follow.

1) The teachers and SBMC members who are the main players in school management and maintenance will develop a sense of ownership with the understanding of the need for participation and the implementation of maintenance work for the new facilities on their own initiative.

2) Students at the target schools will recognize that their classrooms, desks and chairs constitute essential educational facilities and furniture for not only themselves but also for

the next generation of students. Based on this recognition, they will develop a custom of cleaning their own school by themselves.

3) There will be an improved system of monitoring and guidance on the maintenance of school facilities on the part of each SUBEB and LGEA overseeing the schools.

4) Periodical removal of the sludge from the toilet pits and to maintain the toilets and other school facilities will be extended to the all stakeholders demands appropriate knowledge and skills.

5) The provision of a maintenance manual at each school will strengthen the maintenance system of school. The system will also be strengthened by the distribution of the maintenance guidance manual to the SUBEBs and LGEAs.

(4) EVALUATION OF OUTPUTS ACHIEVED

The evaluation of outputs achieved shall be done through the following questionnaire survey and interview studies soon after the Soft-Component implementation and a few years after the Soft Component implemented.

- Questionnaire survey of students who are the direct beneficiaries of the soft component
- Interview survey (or questionnaire survey) with principals, teachers and community leaders

(5) ACTIVITIES (INPUTS) OF THE SOFT COMPONENT

The several types of activities described below will be conducted to achieve the purposes.

1) Review and Modification of the Guidelines of the Soft Component

The guidelines which were originally prepared in previous projects feature • building maintenance activities, , health and hygiene activities (use and cleaning of toilets, removal of sludge and waste disposal method) and ƒ collection, saving and management of the operation and maintenance charge. Although reasonable positive effects of the guidelines have been witnessed, it is true to say that the level of commitment to the guidelines has become weaker at some schools with the passing of time. The existing guidelines require review and modification to make their contents suitable for Oyo State reflecting the present situation. These modified guidelines will form the basic framework and will require further review and modification through consultations with the relevant organizations in Oyo State so that they are elaborated for continuous activities.

2) Explanation to Local Counterparts

Using the guidelines referred to in 1) above, the consultant will explain the targets, objectives, contents and schedule of the soft component of the Project to such local

counterparts as the Oyo SUBEB and UBEC to ensure a precise understanding of these matters by the counterparts and also to facilitate the development of their sense of ownership regarding the maintenance activities of school facilities.

3) Establishment of Local Task Force

The appointment of facilitators to act as key persons for the implementation and extension of the soft component activities will be essential for the effective and efficient implementation of these activities. The active participation of the Oyo SUBEB, which will be responsible for the monitoring of and guidance on maintenance work after the completion of the construction work, in the implementation of the soft component is the key to ensuring the continual progress of the said work. For this reason, a task force will be established in cooperation with the Planning, Statistics and Research Section of the Oyo SUBEB. This task force will consist of some 5 - 6 members, including the head of the Planning, Statistics and Research Section, a person responsible for facility maintenance at the Oyo SUBEB, an educational statistics specialist at the Oyo SUBEB, a representative of the LGEA which has jurisdiction for the model school and a school inspector.

4) Selection of the Model School and Implementation Schedule

The 36 target schools for the construction of new classrooms will be divided into four blocks and a model school for maintenance activities will be selected in each block. Suitable schedule control will be applied to these model schools so that these schools can commence operation earlier than other schools.

5) Preparation of the Primary School Maintenance Manual

Through consultations with the task force, the principals of the model schools and community leaders, desirable ways to improve the maintenance of school facilities will be examined / analyzed while stimulating their own awareness of the problems associated with maintenance. A participatory approach where the local task force modifies the manual to incorporate local ideas based on the model manual prepared by the consultant will be adopted to generate and enhance the sense of ownership among the Nigerian stakeholders. For this purpose, the consultant will provide guidance and comments, etc. throughout the draft manual preparation process of the task force. Moreover, an illustrated poster(s) will be produced to encourage understanding of the school maintenance manual and individual maintenance activities among students.

6) Implementation of Maintenance Activities at the Model Schools

Based on the above maintenance manual, teachers, students, SBMC members will be approached / encouraged to actively implement maintenance activities to improve their own school.

7) Preparation and Implementation of Workshops

- The workshops will be organized by the Oyo SUBEB and local facilitators will play an active role. A member of the task force will act as a moderator to assist the smooth progress of the workshops. The Japanese consultant will provide general supervision and guidance.
- The principals of the model school and SBMC members will be invited to attend a workshop to be held at the model school to extend the maintenance activities at the model school to all of the target schools. They will personally study the reality of maintenance activities at the model school, undergo the relevant training and exchange opinions.
- The training menu, necessary training textbooks and tools, schedule and division of roles at the workshops will be decided in consultation with the task force.
- After the workshops, an evaluation meeting with the task force will be held and a workshop report will be prepared.

8) Preparation of Facility Maintenance Monitoring Manual for the SUBEB

- A manual will be prepared for the effective monitoring of the maintenance activities of the target schools. This work will be conducted while encouraging the self-help efforts of the Oyo SUBEB.
- To start with, the Japanese consultant will review and revise the draft monitoring manual.
- The consultant will discuss the revised monitoring manual with the local task force and will assist to prepare the manual on their initiative. The consultant will then evaluate the monitoring manual prepared by the task force and feedback its comments to the task force to finalize the monitoring manual.
- Each school will be requested to report the state of facility maintenance via the school inspector based on the finalized monitoring manual. The SUBEB will compile the individual reports to produce a general report and will submit this report to the JICA Nigeria Office once a year.

Activities of the Soft Component

			Activities	Consultant	SUBEB, LGEA, School
1	Commencement	Formation of Taskforce	Preliminary briefing and request in advance	○	-
			Discussion	○	○
			Formation of Taskforce and orientation	○	○
			Guidance to Taskforce	○	○
		Instruction on soft-component	Preparation of guidance materials	○	○
			Discussion and agreement	○	○
2	Maintenance Manual	Preparation of draft maintenance manual based on the existing ones	Orientation	○	○
			Preparation of draft	○	—
			Discusion	○	○
			Revision of the draft manual	○	○
			Guidance of the final draft	○	○
3	Orientation and Discussion	Orientation and discussion with schools	Information delivery	○	○
			Orientation and discussion	○	○
			Reviewing meeting in Taskforce	○	○
			Preparation of report	○	○
4	Workshop and Guidance	Holding workshop and making guidance for maintenance	Preparation and communication	○	○
			Workshop and Guidance	○	○
			Reviewing meeting in Taskforce	○	○
			Preparation of report	○	○
5	Guidance	Guidance for maintenance of school facilities	Taskforce meeting	○	○
			Site checking to schools	○	○
			Guidance and recommendation	○	○
			Reviewing meeting in Taskforce	○	○
6	Monitoring and Follow-up	Preparation of monitoring manual and formation of monitoring system	Preparation of draft	○	○
			Discussion	○	○
			Finalization of the draft	○	○
			Trial and guidance	○	○
7	Monitoring and Follow-up	Monitoring and Follow-up for proper manintenance of schools	Monitoring of schools	○	○
			Analysis of results of monitoring	○	○
			Workshop on actural maintenance	○	○
			Reviewing meeting	○	○
			Feedback to the manuals	○	○

(6) SOFT COMPONENT IMPLEMENTATION RESOURCES

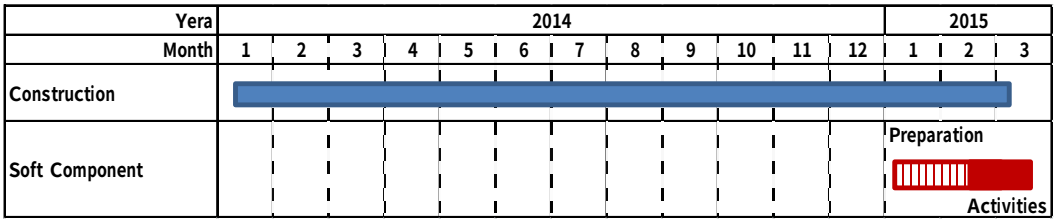
The soft component will be implemented under the overall supervision and guidance of the Japanese consultant. Encouragement of the self-help efforts of the Oyo SUBEB and LGEA will be essential to ensure smooth progress and effective as well as efficient monitoring thereafter. To be more precise, the head of the Planning, Statistics and Research Section of the Oyo SUBEB, which is the counterpart for the Project, and others will be appointed as facilitators so that the contents, objectives and intended implementation method of the soft component are smoothly understood by all stakeholders, including Oyo SUBEB and LGEA, students, teachers and SBMC.

A local task force will be formed with staff members of the Planning, Statistics and Research Section of the Oyo SUBEB, LGEA staff member overseeing the model schools.

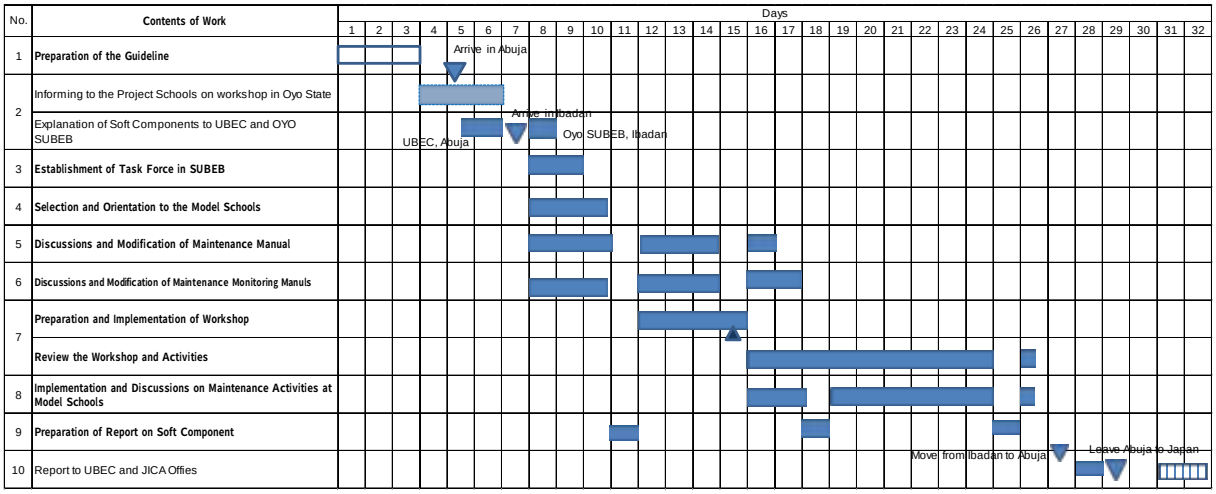
(7) SOFT COMPONENT IMPLEMENTATION SCHEDULE

The soft component will prove to be more effective if it is implemented using the facilities newly constructed under the Project. For this reason, it will be implemented at a later stage of the project period. Beside Nigerian side will assure the security of the consultant during the activities.

Soft Component Implementation Schedule



Detailed Soft Component Implementation Schedule



(8) ITEMS OF OUTPUT

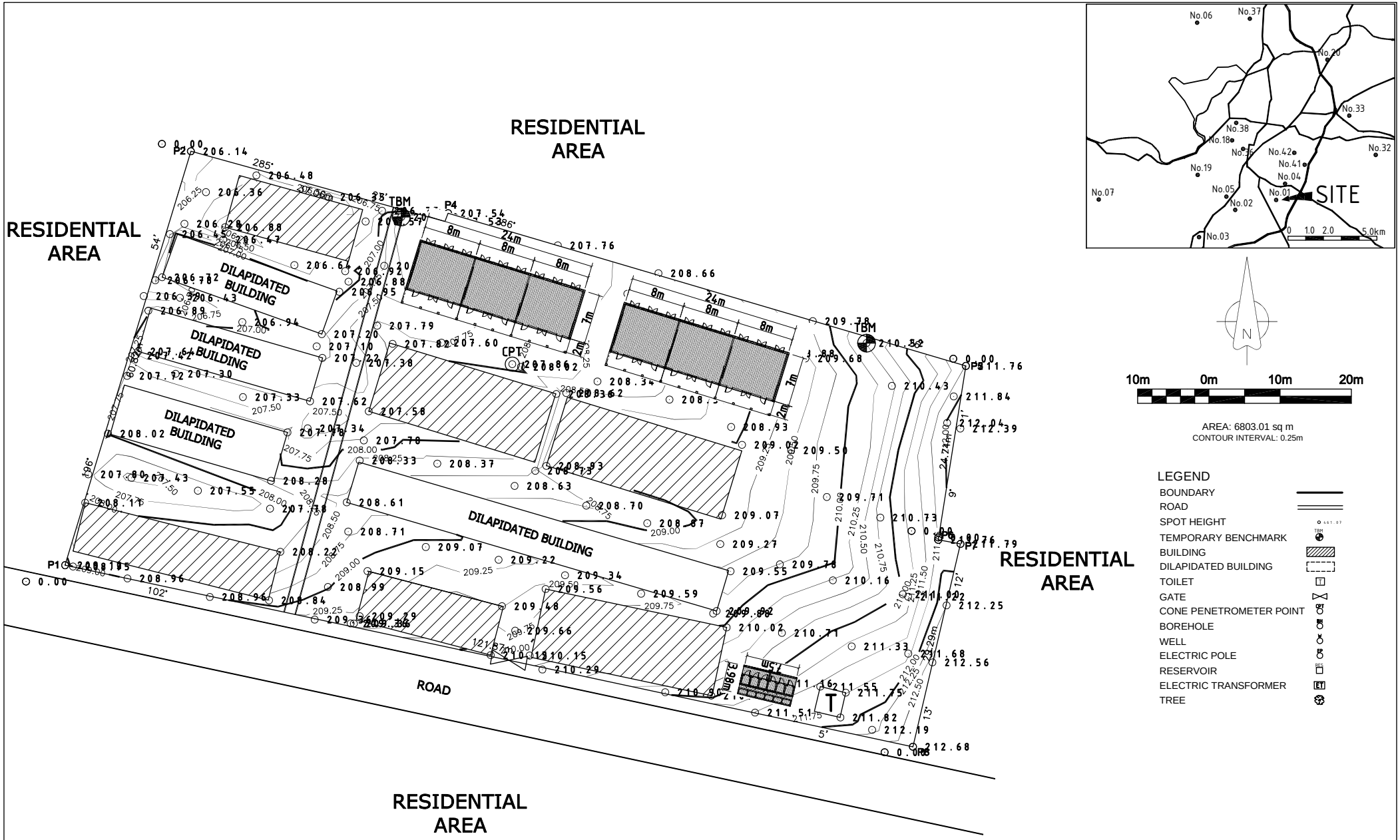
Activities of the soft component are anticipated to produce the following products.

- Draft Soft Component Implementation Guideline (Consultant)
- Soft Component Implementation Guideline (Consultant, UBEC and SUBEB)
- Facility Maintenance Manual (Consultant and SUBEB)
- Facility Maintenance Monitoring and Guidance Manual (Consultant and SUBEB)

(9) RESPONSIBILITY OF THE NIGERIAN SIDE

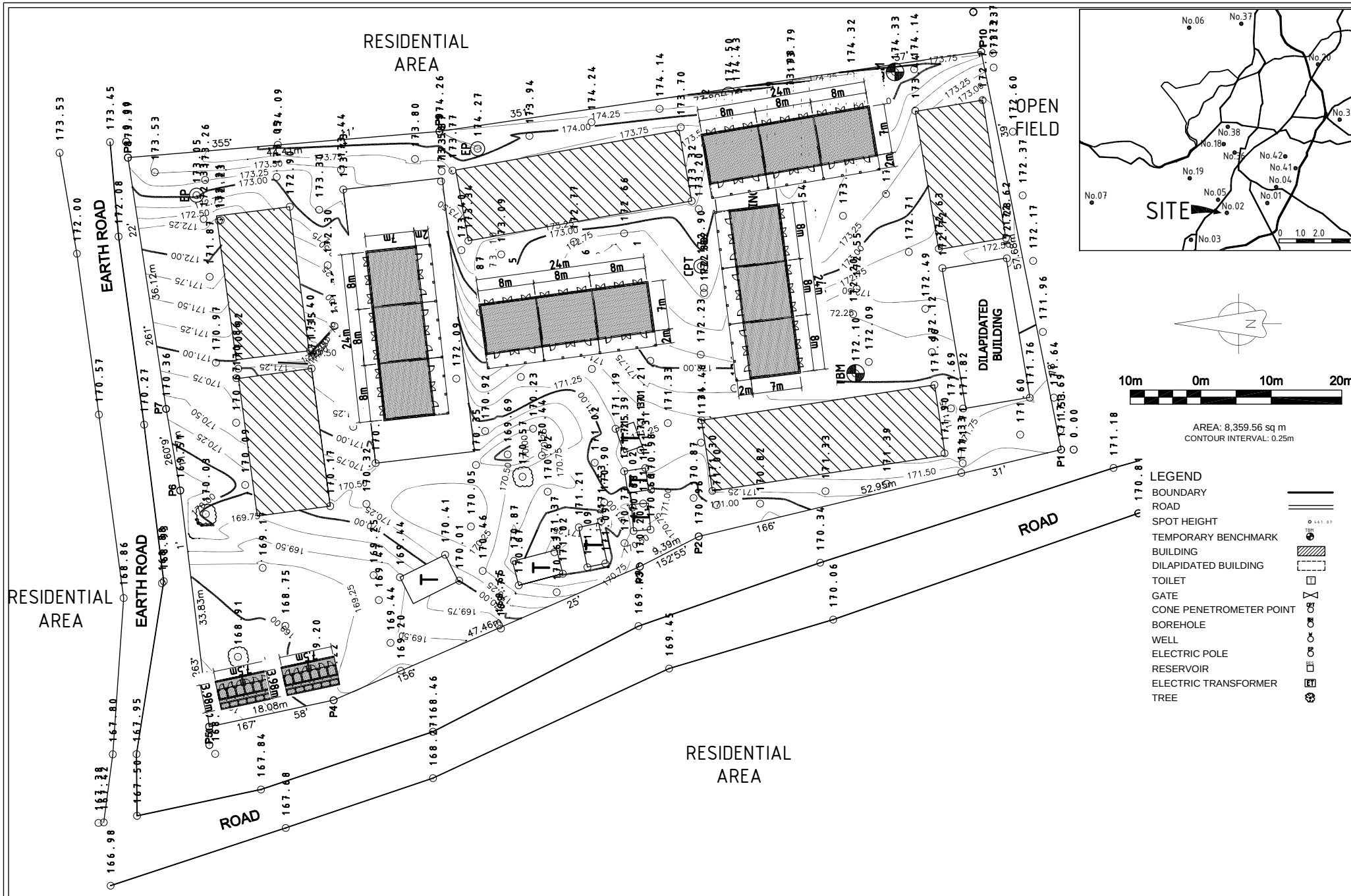
- The Nigerian side will set up a local task force to assist the implementation of the soft component, in cooperation with the Planning, Statistics and Research Section of the Oyo SUBEB which will act as the counterpart for the soft component.
- At the time of orientation and workshop, a facilitator will be assigned from among the task force members to ensure the smooth progress of these events.
- The Oyo SUBEB will be responsible for smooth communication with and guidance for the 36 target schools in Oyo State.
- The Oyo SUBEB will invite the 36 target schools to the orientation and workshop to be held at the model schools.
- Prior to each workshop, the task force will prepare a primary school maintenance manual in a self-help manner in consultation with the consultant.
- At a later stage of the soft component implementation period, the task force will prepare a facility maintenance monitoring manual in a self-help manner in consultation with the consultant for its use by the Oyo SUBEB.
- The Oyo SUBEB will monitor the facility management in the post-soft component period and will compile an annual maintenance report for its submission to UBEC and the JICA Nigeria Office.

6. Site Layout Plan



PROJECT	CLIENT	CONSULTANTS	TITLE	DRG NO :
The Project for Construction of Classrooms for Primary Schools in OYO State in The Federal Republic of Nigeria		YACHIYO ENGINEERING CO., LTD. TOKYO, JAPAN	LOCATION PLAN OF P1-N1 RATIBI MOSLEM PRIMARY SCHOOL ODINJO, IBADAN SOUTH EAST LGEA OYO STATE	A 02 P1-N1

APPROVED BY :	CHECKED BY :	DESIGNED BY :	DATE :	SCALE :
N. MINAMI	T. KURUMADA	K. OHARA	AUG.2014	1:500



PROJECT	CLIENT	CONSULTANTS	TITLE	DRG NO :
The Project for Construction of Classrooms for Primary Schools in OYO State in The Federal Republic of Nigeria		YACHIYO ENGINEERING CO., LTD. TOKYO, JAPAN	LOCATION PLAN OF P2-N2 ST. LUKE DEMONSTRATION SCHOOL MOLETE, IBADAN SOUTH EAST LGEA OYO STATE	A 02 P2-N2

APPROVED BY :	CHECKED BY :	DESIGNED BY :	DATE :	SCALE :
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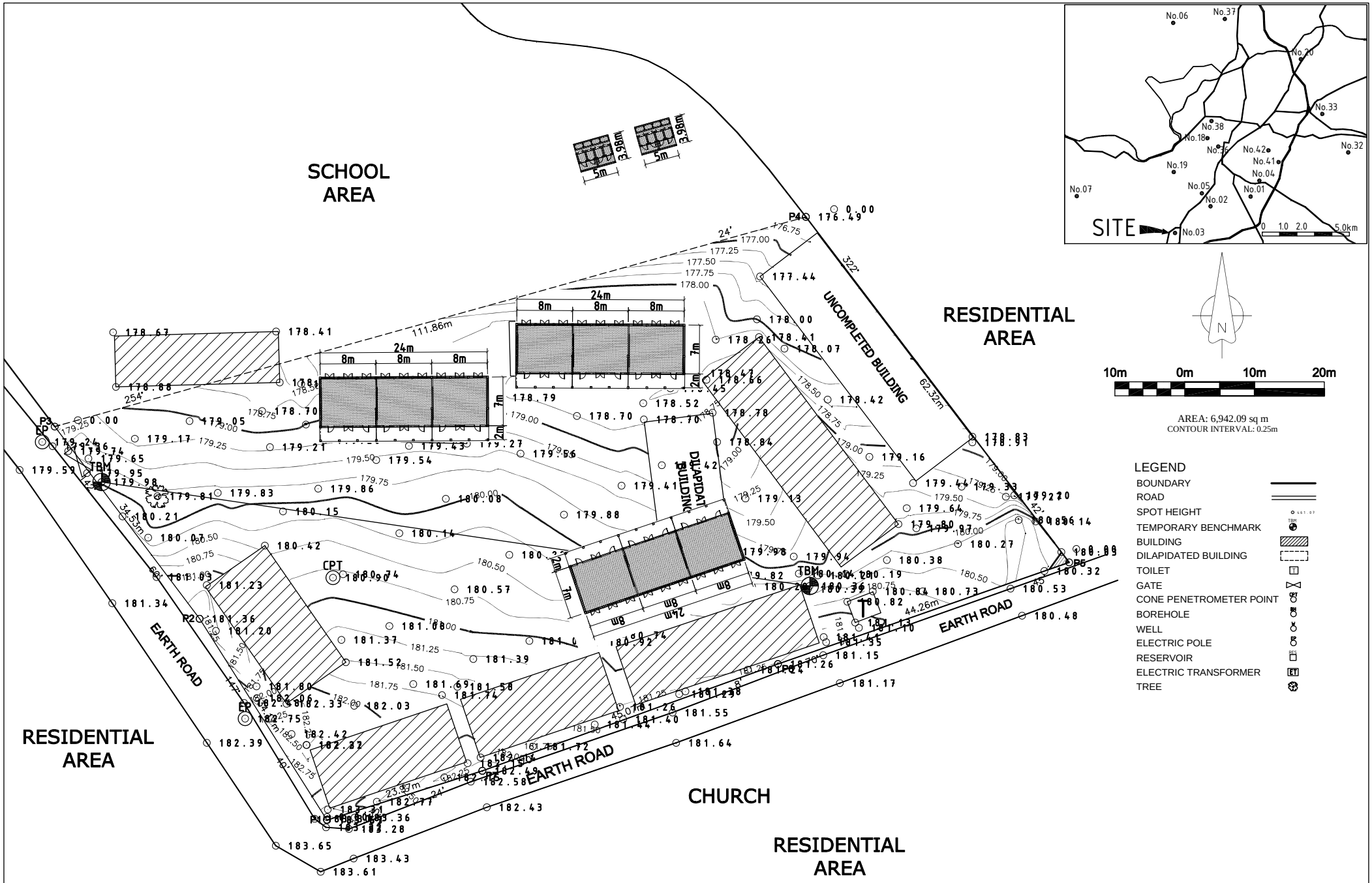

PROJECT	CLIENT	CONSULTANTS	TITLE	DRG NO :
The Project for Construction of Classrooms for Primary Schools in OYO State in The Federal Republic of Nigeria		YACHIYO ENGINEERING CO., LTD. TOKYO, JAPAN	LOCATION PLAN OF P3-N3 ST. LEO'S CATHOLIC SCHOOL IBADAN SOUTH EAST LGEA OYO STATE	A 02 P3-N3

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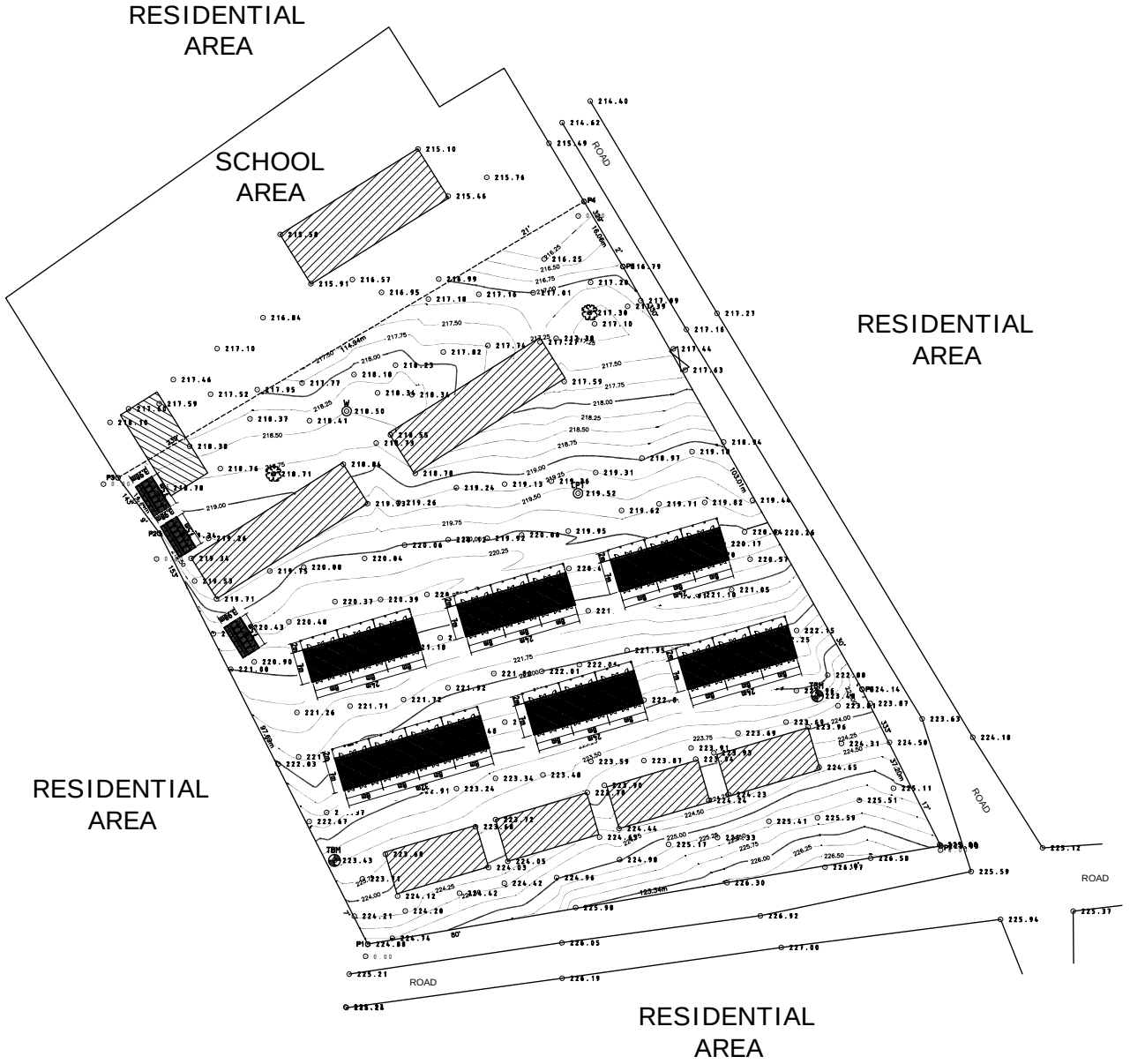
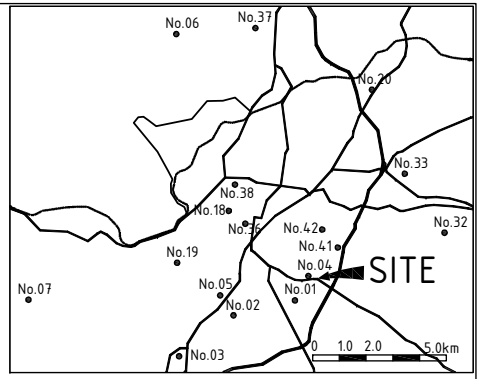
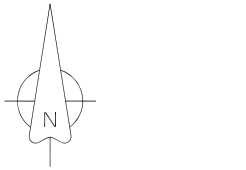




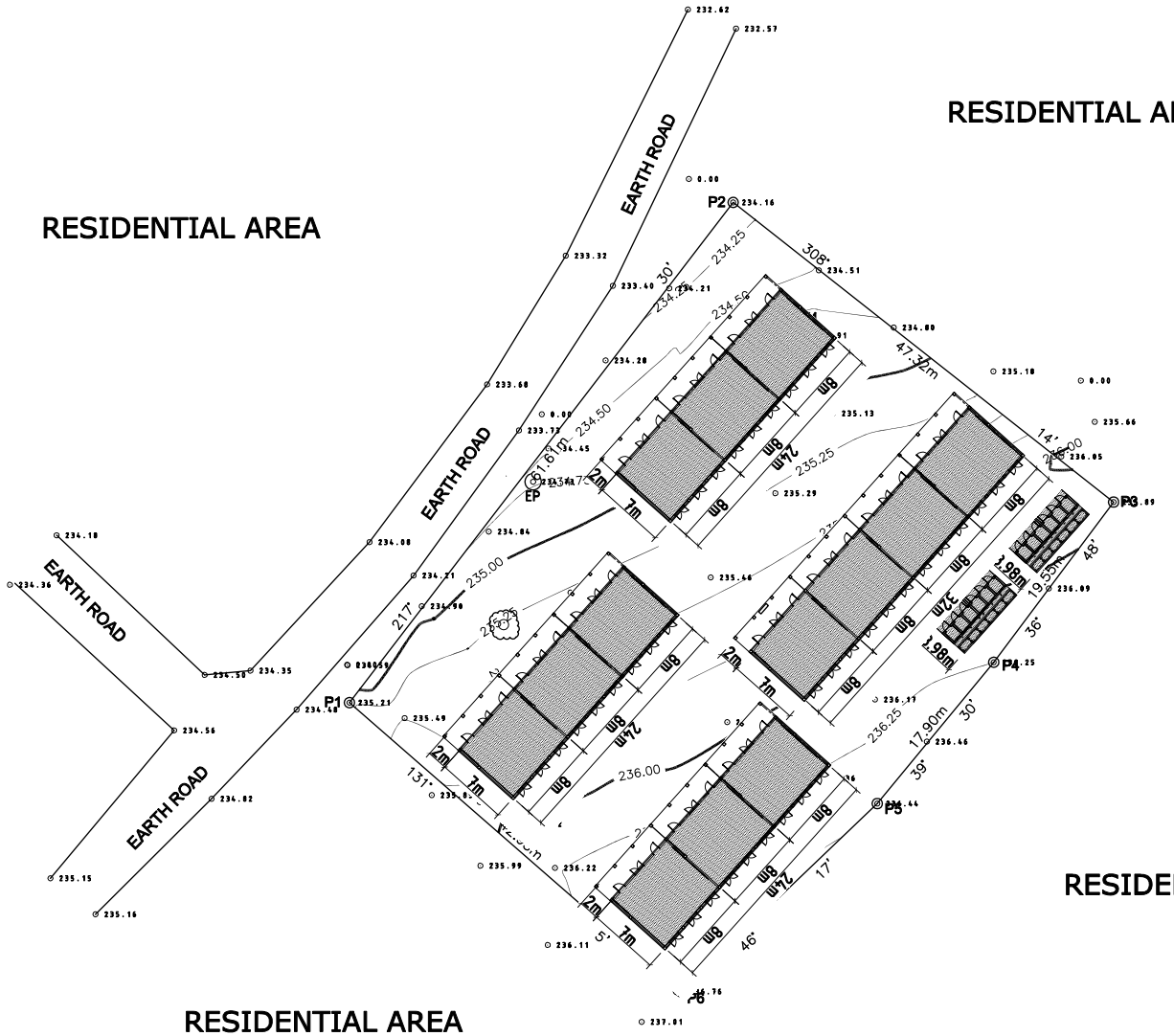


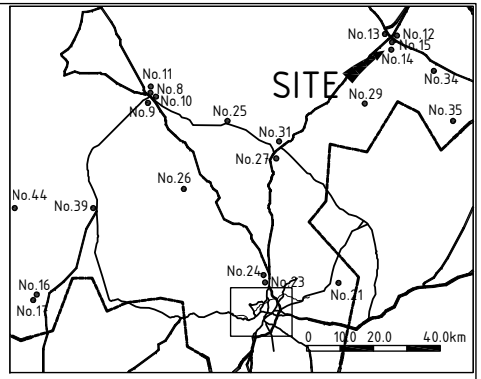
AREA: 15,551.57 sq m
CONTOUR INTERVAL: 0.25m

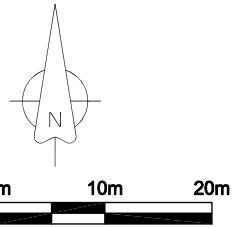
LEGEND

- BOUNDARY
- ROAD
- SPOT HEIGHT
- TEMPORARY BENCHMARK
- BUILDING
- DILAPIDATED BUILDING
- TOILET
- GATE
- CONE PENETROMETER POINT
- BOREHOLE
- WELL
- ELECTRIC POLE
- RESERVOIR
- ELECTRIC TRANSFORMER
- TREE

PROJECT	CLIENT	CONSULTANTS	TITLE				DRG NO :
The Project for Construction of Classrooms for Primary Schools in OYO State in The Federal Republic of Nigeria		YACHIYO ENGINEERING CO., LTD. TOKYO, JAPAN	LOCATION PLAN OF P4-N4 I.M.G. PRIMARY SCHOOL OLUBADAN, IBADAN SOUTH EAST LGEA OYO STATE				A 02 P4-N4
			APPROVED BY : N. MINAMI	CHECKED BY : T. KURUMADA	DESIGNED BY : K. OHARA	DATE : AUG.2014	SCALE : 1:1000







AREA: 2907.77 sq m
CONTOUR INTERVAL: 0.25m

LEGEND

- BOUNDARY
- ROAD
- SPOT HEIGHT
- TEMPORARY BENCHMARK
- BUILDING
- DILAPIDATED BUILDING
- TOILET
- GATE
- CONE PENETROMETER POINT
- BOREHOLE
- WELL
- ELECTRIC POLE
- RESERVOIR
- ELECTRIC TRANSFORMER
- TREE

PROJECT	CLIENT	CONSULTANTS	TITLE	DRG NO :
The Project for Construction of Classrooms for Primary Schools in OYO State in The Federal Republic of Nigeria		YACHIYO ENGINEERING CO., LTD. TOKYO, JAPAN	LOCATION PLAN OF P5-N14 ONISAPA CENTRAL PRIMARY SCHOOL I OGBOMOSO SOUTH LGEA OYO STATE	A 02 P5-N14

APPROVED BY :	CHECKED BY :	DESIGNED BY :	DATE :	SCALE :
N. MINAMI	T. KURUMADA	K. OHARA	AUG.2014	1:500