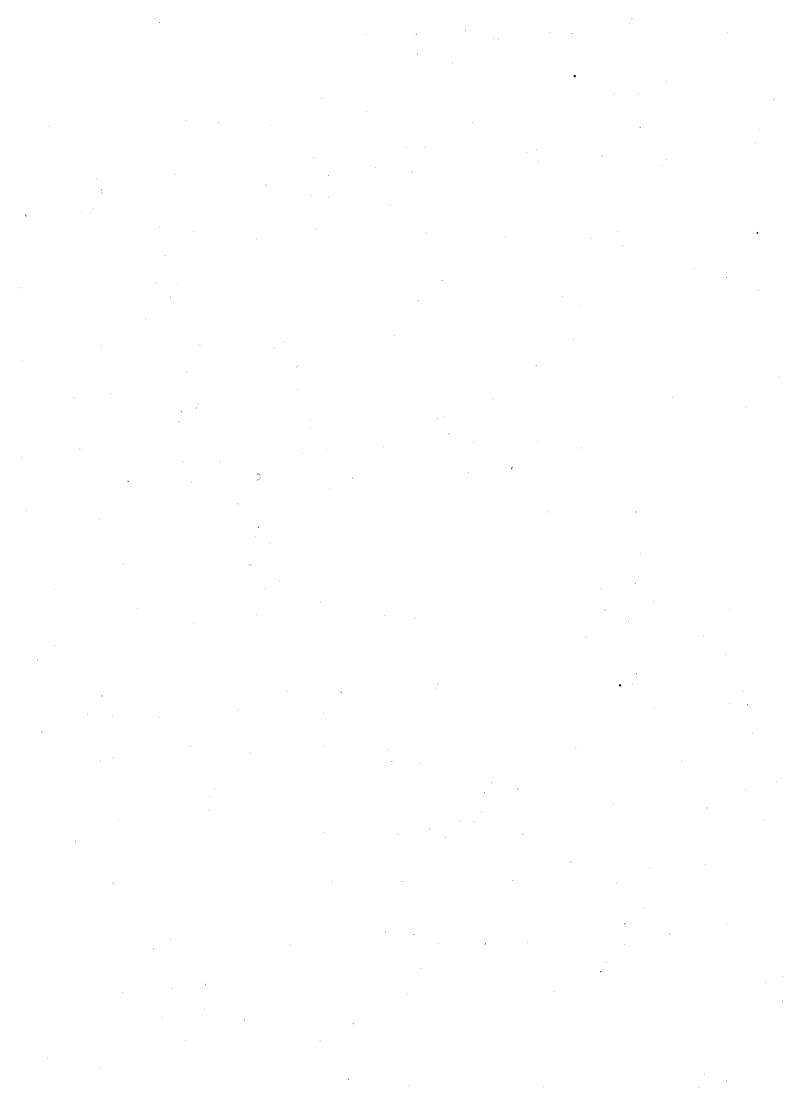
DATA-IV

Data of NIPDEP Construction Pilot Projects

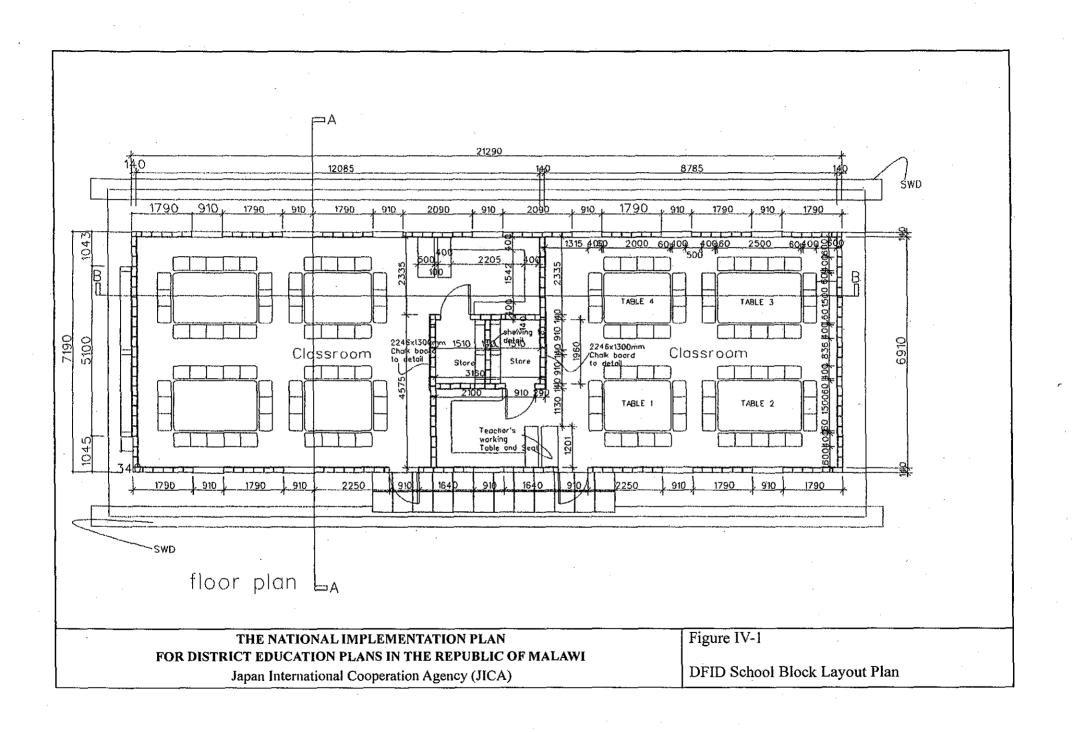


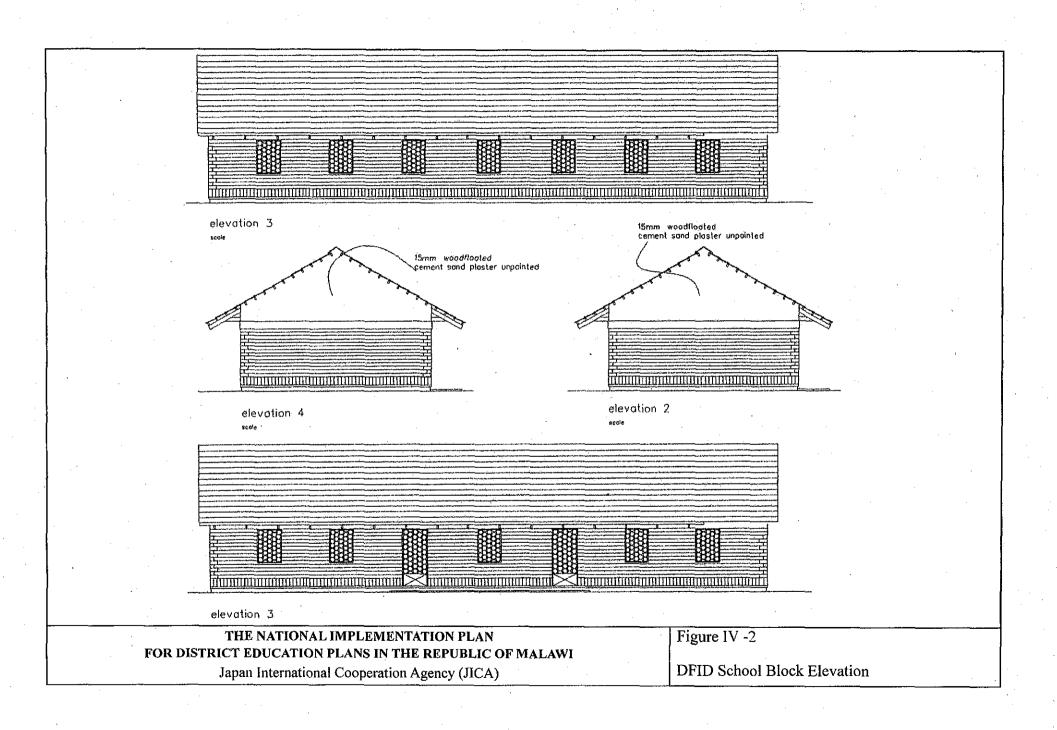
DATA OF NIPDEP CONSTRUCTION PILOT PROJECTS

- IV -1 Drawing of International Development Partners
- IV -2 Drawings for NIPDEP Projects
- IV -3 Building Maintenance Manual and Discussion Papers for Community School
 Based Management for Construction Project
- IV -4 Contract Form Prepared for NIPDEP Micro Projects
- IV -5 Bills of Quantities Prepared for NIPDEP Micro Projects (4 Hole Pit Latrine)

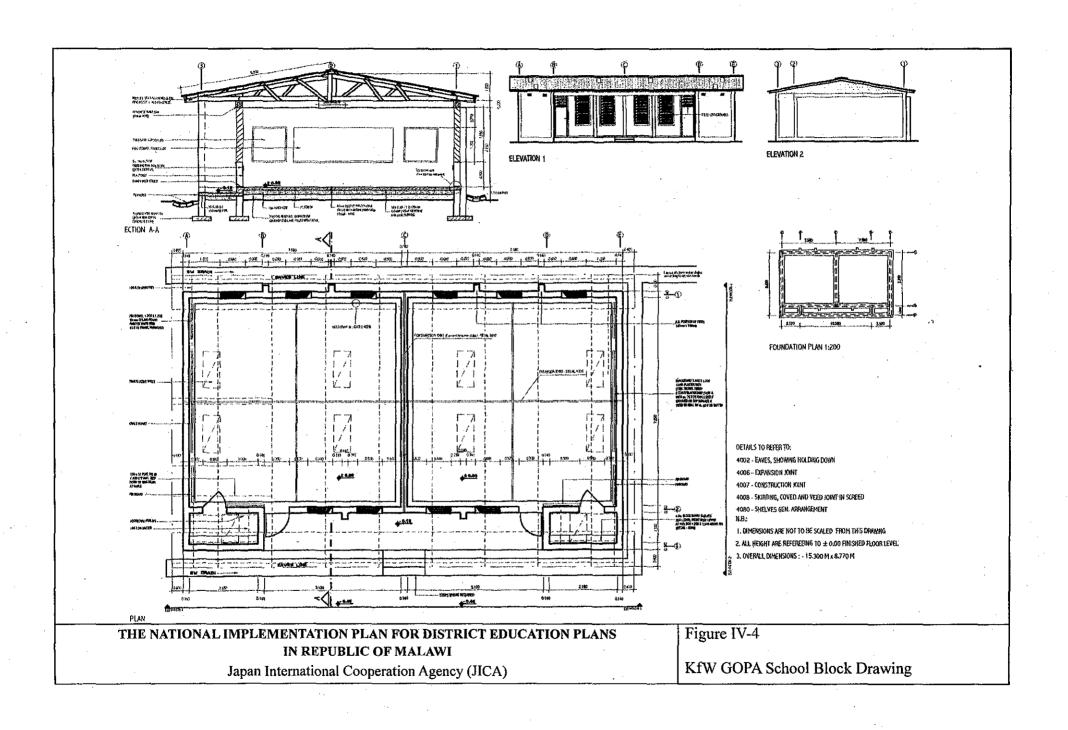


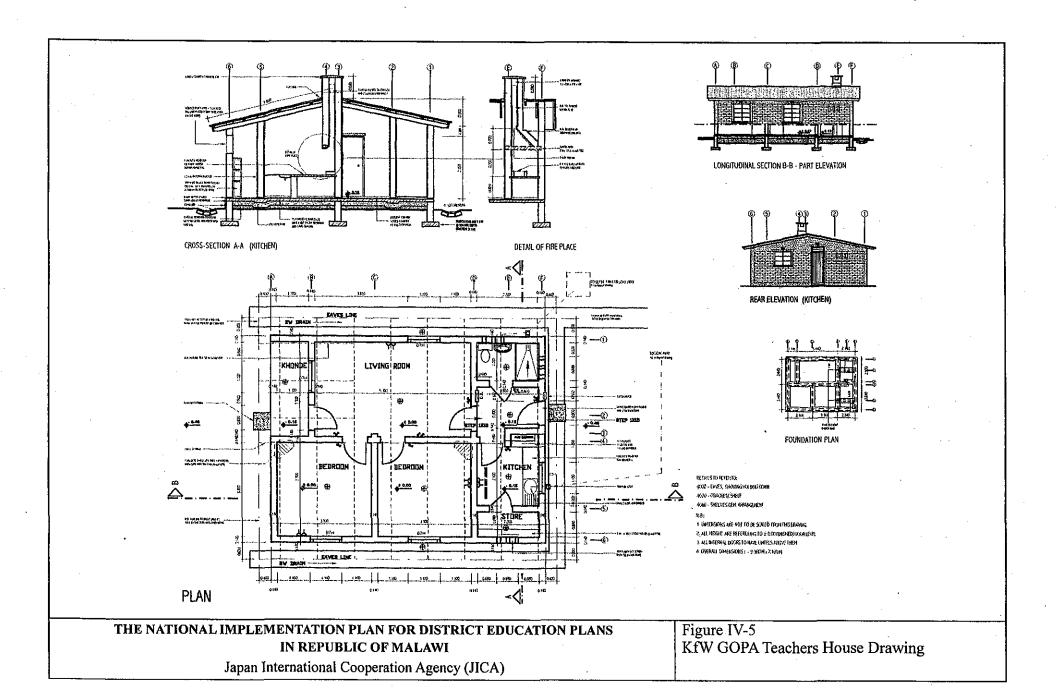
IV -1 Drawing of International Development Partners

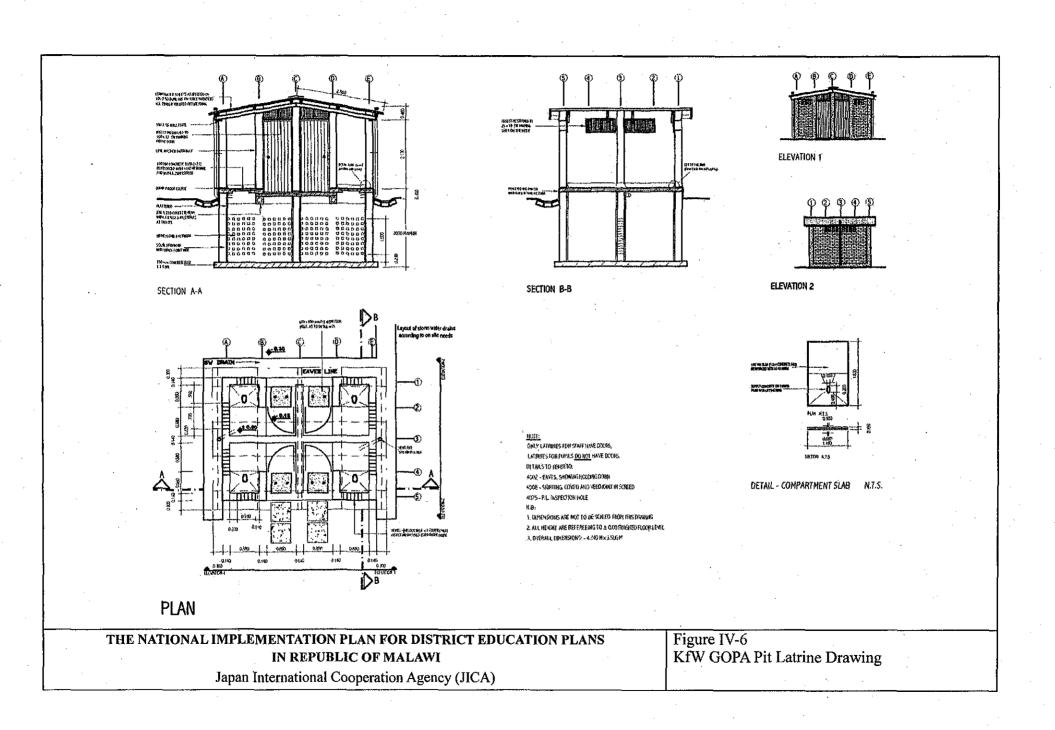


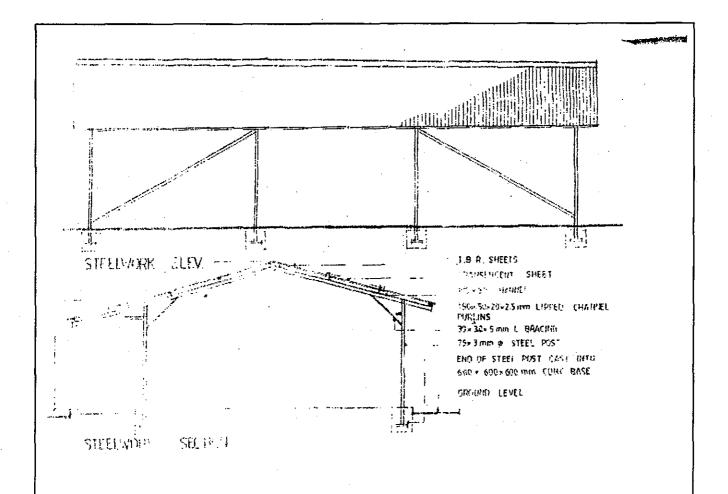


Notes Roof Pitch 30 Degreese Parry tiles on 75x50mm Sawn and treated softwood Battens at 500mm centres on Trusses composed of 150x50mm Sawn and treated softwood Rafters 100x50mm Sawn and treated softwood Strutts 150x50mm Sawn and treated softwood Tiebeam at 1200mm centres 840x590mm Poster hang on hooks fixed on every (1) 15mm wood floated cement sand plaster 510×25mm thick steel trowelled cement sand plaster band along the walls pointed green 2246x1300mm cement steeltrowelled Chalk bac painted green 15mm wood floated cement sand plaster unpainted 50mm thick 100mm Concrete slab concrete flags 140x290x90 thick concrete A98 Mesh 50mm Sand blinding 230 230 500x200mm mass concrete footing at 1000mm deep below ground level 150mm well compacted Hardcore Figure IV-3 THE NATIONAL IMPLEMENTATION PLAN FOR DISTRICT EDUCATION PLANS IN THE REPUBLIC OF MALAWI **DFID School Block Section** Japan International Cooperation Agency (JICA)





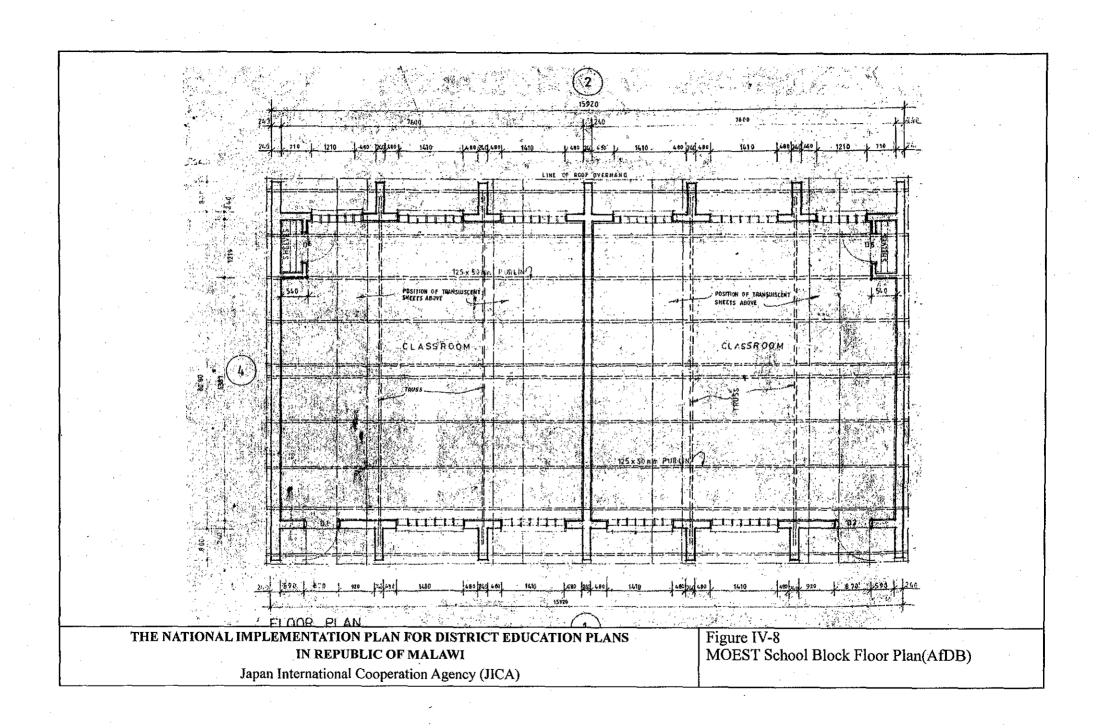


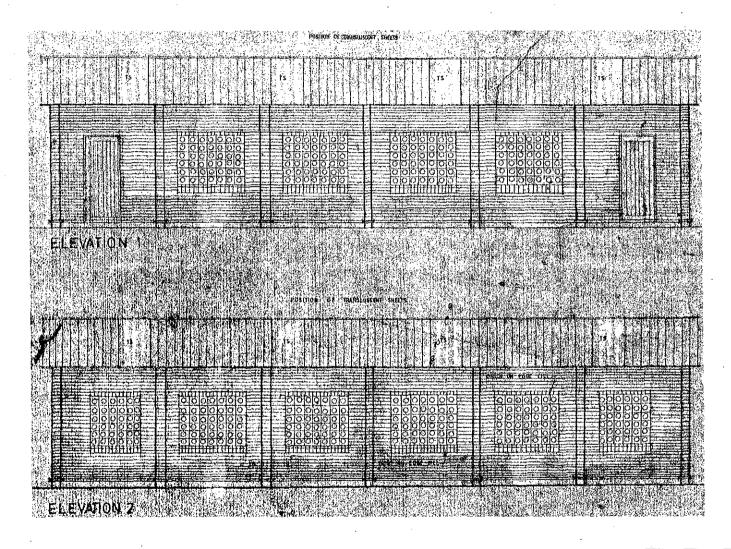


Japan International Cooperation Agency (JICA)

Figure IV-7
Title World Bank EDMU School Block

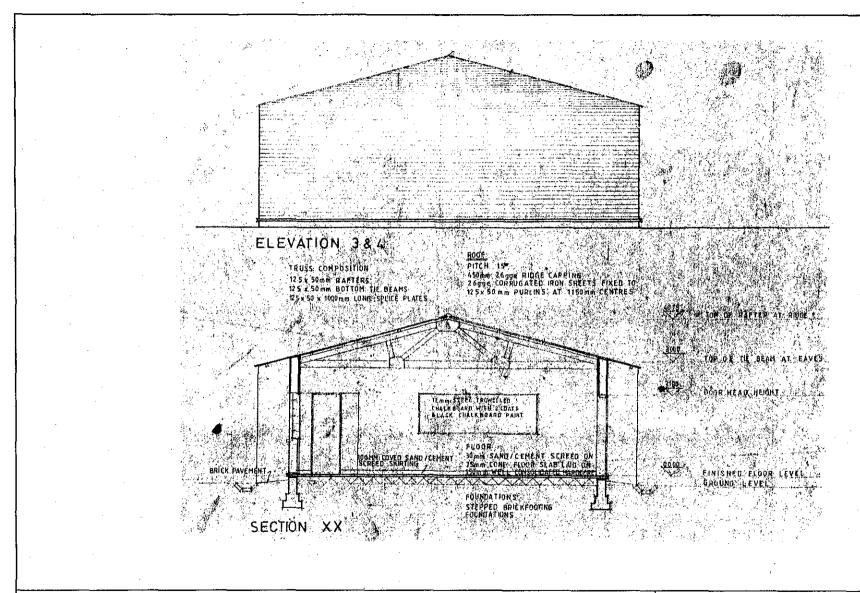
Drawing





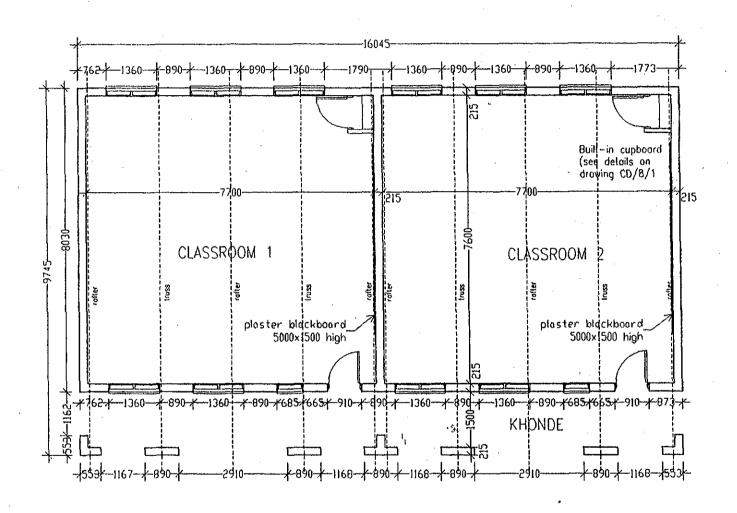
Japan International Cooperation Agency (JICA)

Figure IV-9 MOEST School Block Elevation (AfDB)



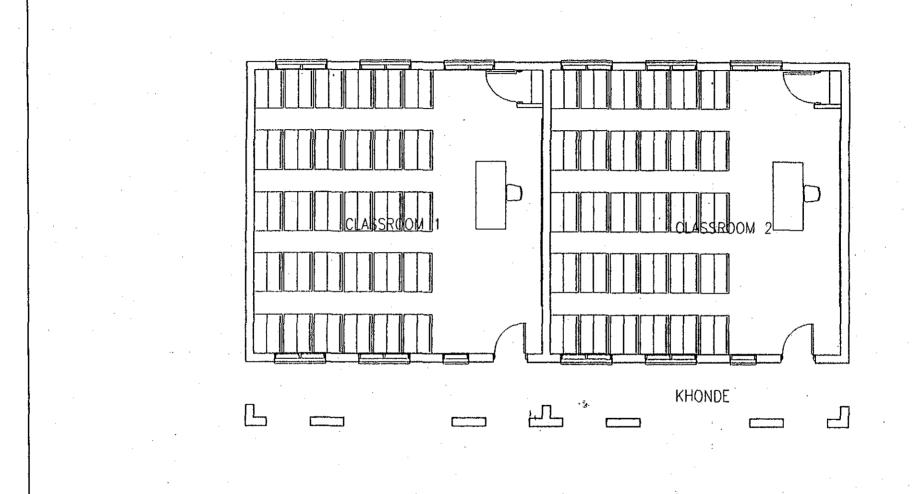
Japan International Cooperation Agency (JICA)

Figure IV-10
MOEST School Block Elevation 2 (AfDB)



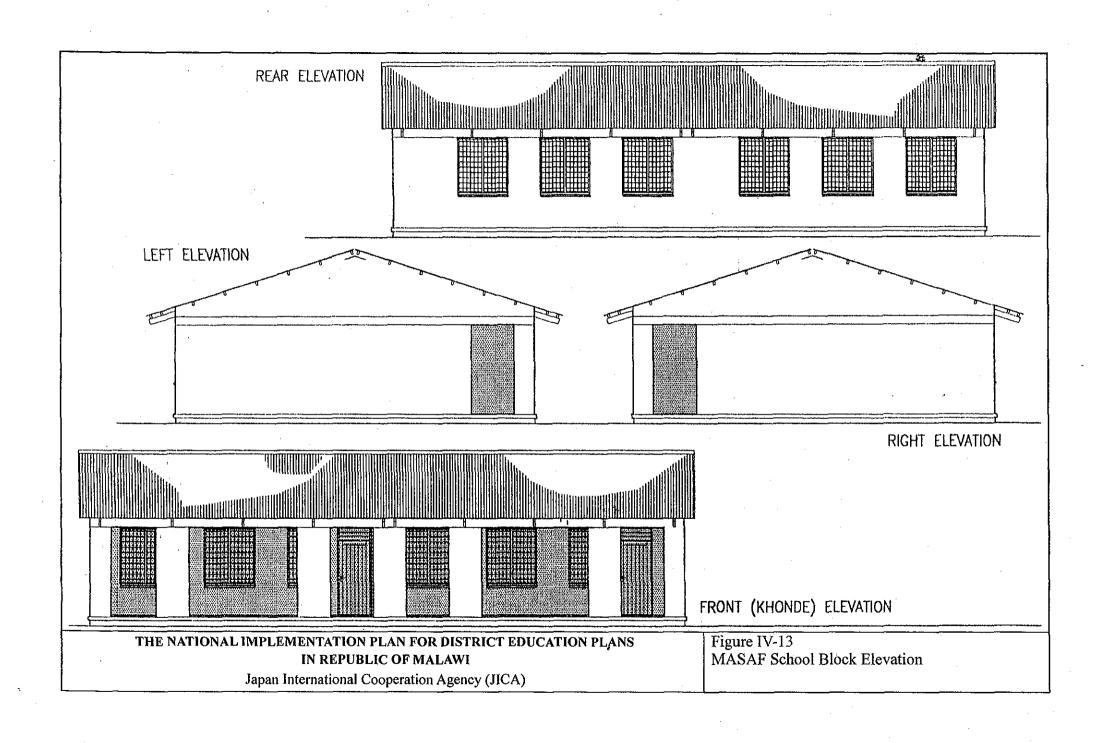
Japan International Cooperation Agency (JICA)

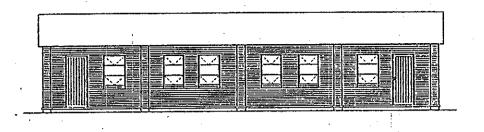
Figure IV-11
MASAF School Block Floor Plan

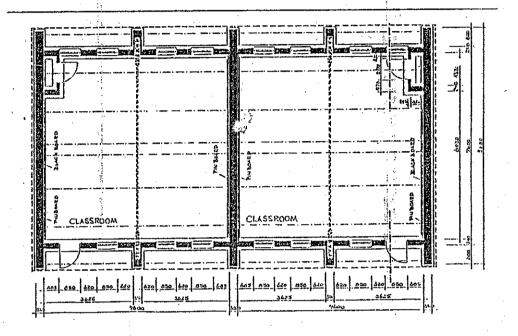


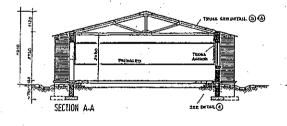
Japan International Cooperation Agency (JICA)

Figure IV-12 MASAF School Block Layout Plan







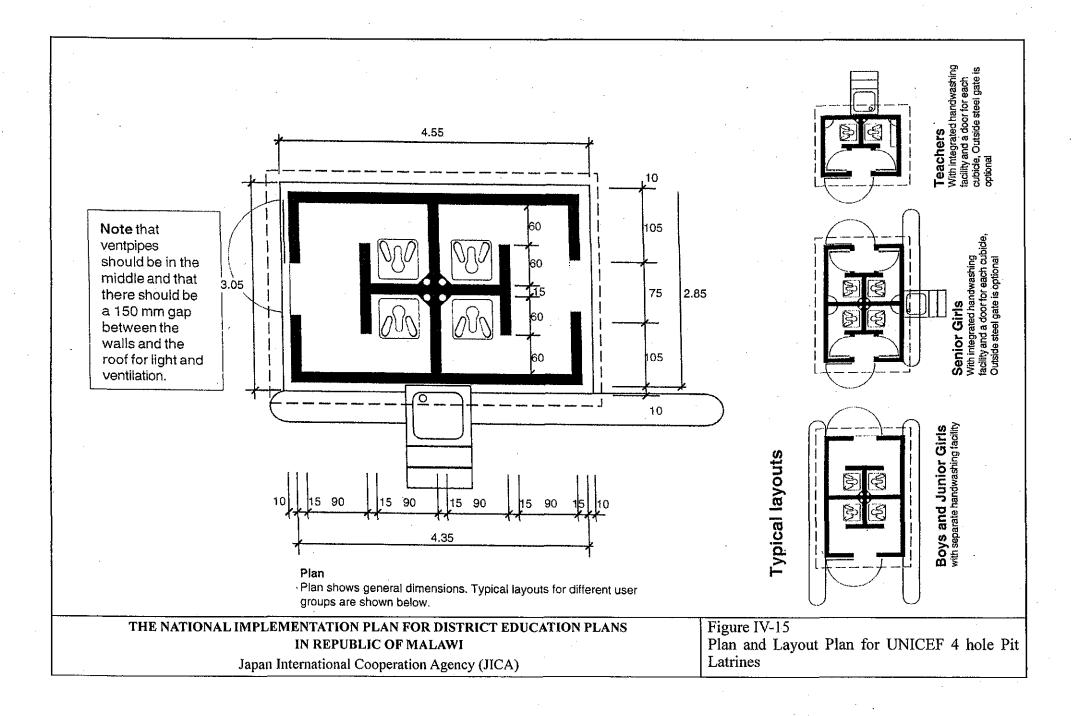


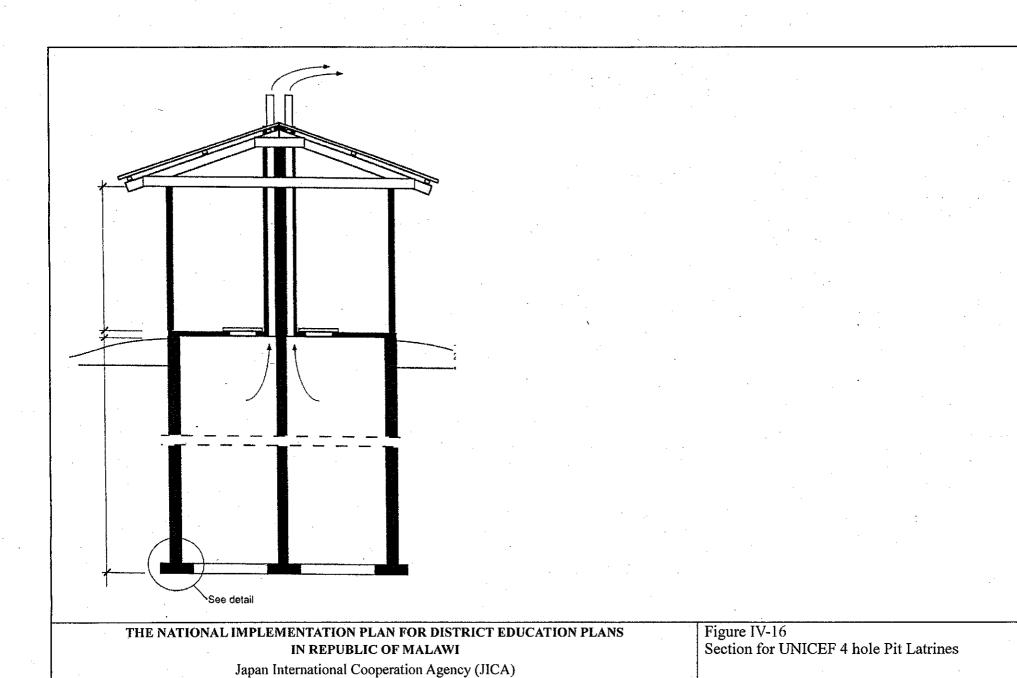


Japan International Cooperation Agency (JICA)

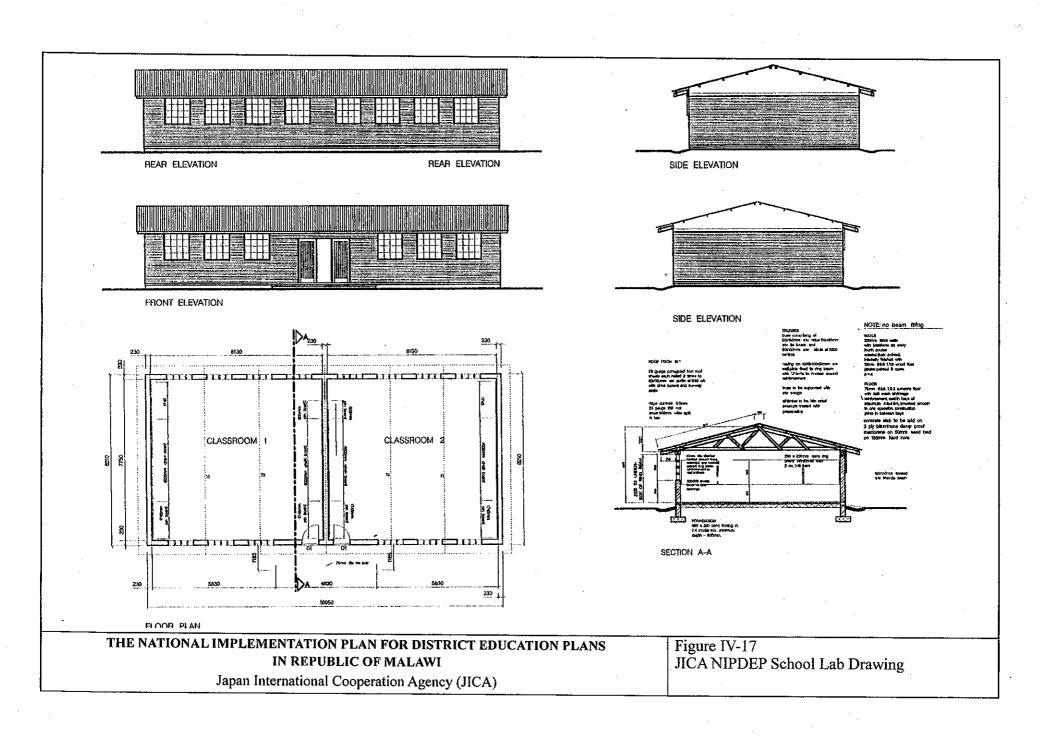
Figure IV-14

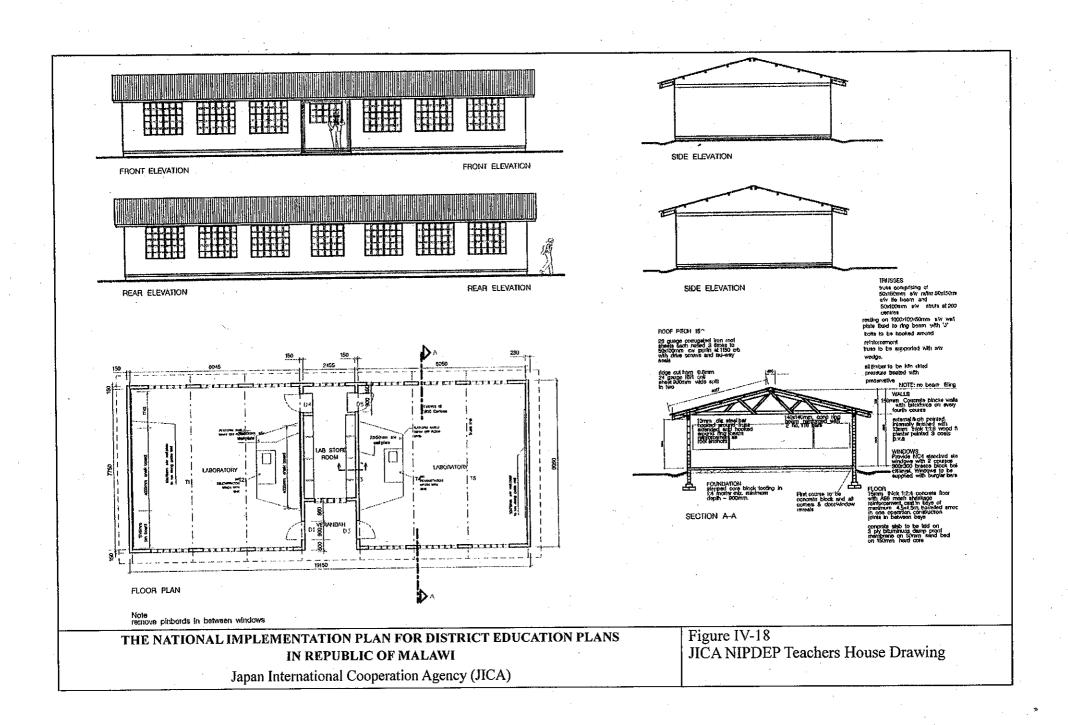
Design for Self Build Construction

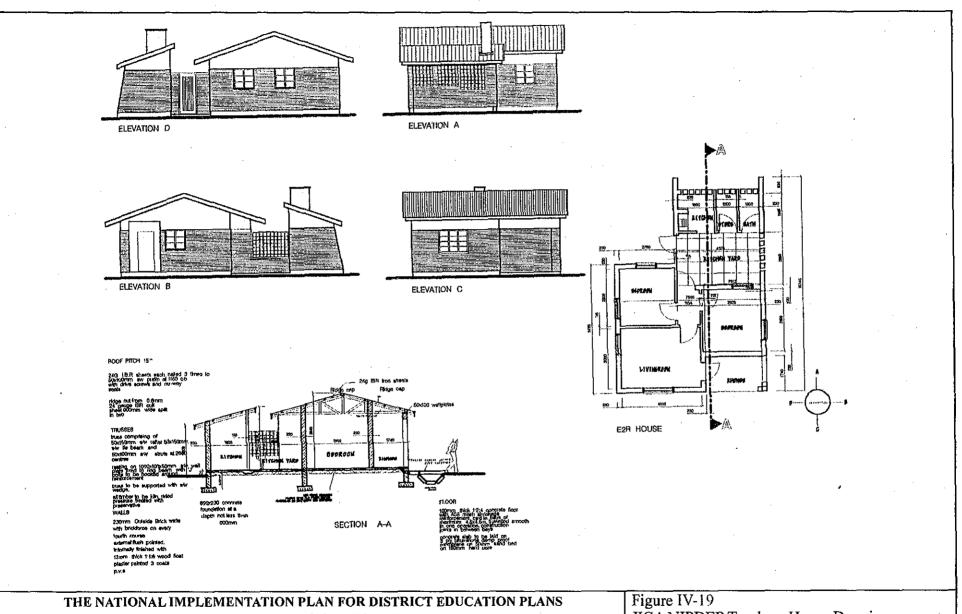




IV-2 Drawings for NIPDEP Projects



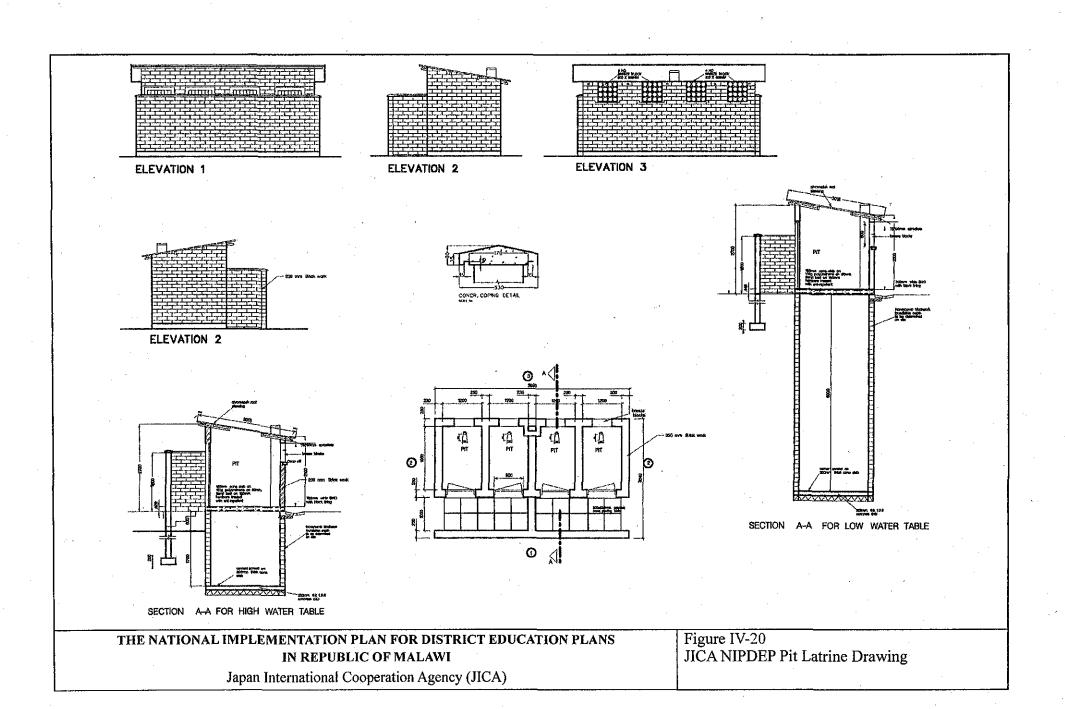




IN REPUBLIC OF MALAWI

Japan International Cooperation Agency (JICA)

Figure IV-19
JICA NIPDEP Teachers House Drawing



IV-3 Building Maintenance Manual and Discussion Papers for Community School Based Management for Construction Project



NATIONAL IMPLEMENTATION PROGRAMME FOR DISTRICT EDUCATION PLANS (NIPDEP)

FOR COMMUNITY SCHOOLS AND OTHER STRUCTURES

NIPDEP JICA Project Team

August 2004

NIPDEP PROJECT

Maintenance Notes for Community Schools and other Structures.

1.0 Building General

1.1 These notes are intended to serve as a stop-gap (immediate) guideline for District Community groups and would be used by maintenance personnel at all times. All maintenance works and/or replacements would however be undertaken in accordance with materials and fittings specified or used on school stock type buildings and approved by the District Task Force Chairperson and the Maintenance Supervisor. (Normally notes of this nature are issued to users or recently commissioned facilities). It is also advisable that the users are trained to operate some of these safely and properly to avoid breaking the same because of lack of knowledge.

1.2 In general terms the following shall apply:

- 1.2.1 Where glass louvers are fitted to windows they shall be operated slowly and firmly. Violent slamming of the blades during closing will eventually strain the mechanism and will result in spaces appearing between the blades when closed. Any additional pressure applied when this state of affairs exists may exists may result in the operating handle being bent and broken. The same is applicable to glassed window paves.
- 1.2.2 Covered stormwater channels where applicable shall be regularly examined to ensure that rubbish and rooted grass have not accumulated and causing blockage of the system. Storm drains of the dish type should be checked for erosion on the edges and be repaired to sustain the shape of the dish drain.
- 1.2.3 Doors generally where required to be left open during the hot weather or for some function purposes shall be wedged and not kept open by bending back slamming shut.

- 1.2.4 Floors, worktops and walls shall be cleaned by washing down with water and detergent and must not be polished with polish or similar as this will make the floor slippery.
- 1.2.5 Where any proprietary building system or materials have been used it is strongly recommended that any repairs or replacements are carried out by the relevant specialists. For instance the wattage of all electric light bulbs and fluorescent tubes shall be maintained as originally specified on electrical drawings and replacements shall be in accordance with the original schemes.

1.3 Every Six Months

- 1.3.1 Lightly oil all locks, hinges and lever bolts. Check all window handle fixings and tighten as necessary. Re-grease all window slides as necessary. Brush mosquito gauze, check for damage and repair or replace as necessary.
- 1.3.2 Examine all timber work for termite attack and eradicate as necessary if found.
- 1.3.3 Thoroughly examine drainage and plumbing systems where applicable check for defects and rectify where necessary.
- 1.3.4 Clean dust off breeze block holes and ensure adequate light penetration into internal spaces.

1.4 Every Year

- 1.4.1 Examine roofs and for damage and adequately fix and rectify as necessary by calling in the appropriate subcontractors if originally done by subcontractors.
- 1.4.2 Examine precast concrete coping stones and flashings for adhesion and stability and make good as necessary.

- 1.4.3 Examine precast and installed concrete aprons and paving for movement and where necessary relay or re-grout in joints. Inspect grounds and environs of buildings for signs of termites and if found eradicate as necessary and/or seek advice and possible action from local specialist firms such as Anti-pest.
- 1.4.4 Examine all glazing and remove and replace any cracked louver blades or panes of glass.

1.5 Every Two Year

1.5.1 Repaint all external painted surfaces.

1.6 Every Three Years

1.6.1 Repaint all internal painted surfaces including lacquered finishes.

1.7 Every Five Years

1.7.1 Inspect and test entire electrical and all mechanical installations where applicable.

2.0 Site Works

2.1 Storm Drainage

- 2.1.1 The following applies to storm drain constructed either in concrete channels with removable covers around buildings or open brick and stone lined channels.
 - a) All storm drains shall be inspected prior to <u>commencement of the rainy</u> <u>season</u> to ensure they are not filled with rubbish etc.
 - b) In conjunction with the above all roofs shall be inspected and cleaned down from loose material to avoid blockage of rain water pipes.
 - c) Grass shall not be allowed to grow into drains since when it roots it can break up the brick, concrete or stone linings.
 - d) Care shall be taken while cutting grass during rainy season ensuring that dry grass does not get carried by storm water into pipes and culverts and cause blockages and backing up of storm water.

- e) All covered channels, pipes and culverts shall be regularly inspected during rainy seasons to ensure that silting up does not occur and cause backing up of storm water.
- f) Regular inspections will be required to determine the state of repair storm drainage and how to programme maintenance work. This will prevent serious deterioration occurring, and in consequence saving a great deal of heavy maintenance expenditure.

2.2 Water Reticulation

This section applies only to the external reticulation up to stop valves on tees from the main pipe, and to materials and fittings of originally installations.

2.2.1 The following items of maintenance are considered essential:

- a) Regular inspection of all stop valves and hydrants to determine condition and to be broken down and greased at twelve month intervals and repainted every three years.
- b) Where water mains installation provides for sections to be taken out during repair and maintenance periods, entire premises supply shall not be cut off except that immediately involved. Stop valves in water mains shall be closed before commencement of maintenance works.
- c) Visual inspection of water in tanks and piping shall be carried out regularly in order to determine when remedial action is required.
- d) Every maintenance section for each district shall keep up to date records of as built drawings that give details of water reticulation, and all other services.

2.3 Soil Drainage

2.3.1 The following items of maintenance are considered essential:

a) Regular inspections shall be made of all runs of soil drains to check for blockage especially at collection manholes from toilets. No flow through a manhole indicates a blockage above that manhole. A regular watch shall be kept at the septic tank, so at to detect any immediate sign of blockage.

- b) Regular inspections shall be made of the condition of plaster inside manholes so that remedial work can be carried out at any early date to avoid heavy maintenance expenditure.
- c) Gully traps inside buildings shall be kept with water at all times to avoid smells in buildings concerned.
- d) Seating to manhole covers shall be kept sealed with a sand/grease mixture as originally installed.
- e) Growth of trees within three metres of drainage runs shall be prevented. Tree roots seek water and will break up soil drains if allowed to penetrate. Maintenance Units shall keep record of drawings that give details of soil drainage.

2.4 Pit Latrines

- 2.4.1 The following items of maintenance are considered necessary.
 - a) Regular inspection area around the pit latrine to check that the pit is not falling in. Make sure that backfill around pit latrines leads water away from the pit latrine hole. Use concrete slabs around pit latrines and avoid erosion in area around the slabs.
 - b) Check that storm water is not led into the pit latrine as this will make it full and not fit for use prematurely.
 - c) Make sure a <u>samplat</u> system is used in pit latrines. The cover to the pit will prevent breeding of flies in the pit latrine making it more user friendly.
 - d) Growth of trees within 3-4 metres of the pit latrine shall be prevented. Since some portion of the pit latrine is honey comb, brickwork, tree roots seeking water will break up the foundation brickwork causing toppling of the pit latrine.

2.5 Roads

2.5.1 Regular inspections of approach roads to facilities shall be made to road surfaces and signs of deterioration of surfaces shall be rectified at an early stage to avoid the surface breaking up and resulting in astronomical maintenance costs.

A WAY FORWARD

IN

BUILDING COMMUNITY BASED MANAGEMENT FOR SCHOOLS

Α

PAPER

PRESENTED

- AT

MONITORING AND MAINTENANCE OF SCHOOL FACILITIES WORKSHOP

HELD AT

KOREAN GARDEN LODGE CONFERENCE HALL

ON

14TH NOVEMBER, 2003

PREPARED AND PRESENTED BY:

VICTOR PETER MATAYATAYA
DISTRICT COMMUNITY DEVELOPMENT OFFICER
P.O. BOX 99,
NKHATA BAY

Tel. 01352270 Cel. 08312705

RATIONALE FOR O & M

Various development processes and environmental factors have necessitated the desire for Community Based Management for school facilities and education system.

The Vision 2020

The Vision 2020 is Malawi's Long-Term development policy framework in which one of the aspirations of the people is the attainment of a Vibrant Society by the year 2020. The attainment of a Vibrant Society has, therefore to be influenced in this regard by putting in places community based management for schools plans and actions.

The Malawi Poverty Reduction Strategy.

The MPRSP on Educational Characterists states that there is very little differences between poor and non-poor household in regard to the proportion of primary school aged children, however children from poor households are likely to drop out of school before reaching standard 5 Dropout increases with the educational ladder. The Community based management for schools seeks to promote and facilitate the empowerment of woment of women, men, girls and boys to effectively participate in and contribute to National Education Development goal relevant changes and programmes have to be carefully planned and implemented with particicular attention to attain education for all.

Decentralisation Policy.

The Local Government Act of 1998 provides that District Assemblies shall develop District Development Plans covering all the major development Sectors this empowers all local planning institutions village Development Committees, Area Development Committees and others build capacity by utilising community based approaches and systems development to sustain development programmes at the district and community levels.

Gender

Equal participation for sustainable development entails removal of inequalities and disparities between women, men, girls and boys. Despite various gender initiatives, especially focussing on women and girls, gender disparties are still pronounced in society such as unequal opportunities in education leading to higher illiteracy rates in females than in males, low representation in decission making bodies, not having positions of influence. Poverty and Cultural values that accentuates gender gaps that promotes low participation in community based management of Development processes.

The HIV/AIDs Pandemic

The prevalence of HIV/AIDs is threatening to undermine all attempts to reduce poverty in Malawi through the resulting shortages of skilled human resources at community levels that can speerhead development processes in all sectors.

Human Rights

With the advent of democracy the community based approaches are a hub to the promotion and protection of human rights as a fundemental issue to facilitate freedom of expression, particition, contribution and association that give civic duty and responsibility for every Malawian to take part in the development process. The community based management seeks to enhance awareness and taking a functional participation in all sectors of development.

This presentation will seek to discuss Community Based Management approaches for schools.

1. School Maintenance Committee

It is important to focus on the Project Implementation Committee (PIC) or the Project Management Committee (PMC) which played a crucial role in the construction phase of the projects (schools blocks, school lab and teacher's houses). There is need to turn the PIC/PMC into a School Maintenance Committee (SMC).

The SMC will be responsible for

- 1. Regular Maintenance
 - cracked floors
 - broken window pens
 - broken doors and door frames for schools, T/houses and toilets
 - -' broken drainage system
 - brokendown watersource
- 2. Preventive Maintenance
 - Regular checks
 - Formation of bye-laws on the handling of desks and school materials
- 3. Type of Maintenance
 - 1. Long-term Planning Maintenance
 - 2. Regular Preventive Maintenance

It is important that the Maintenance Committee submits Maintenance Action Plans to the school committees basing on types of maintenance to be carried.

1.1 Role of the School Maintenance Committee

The Committee must be responsible for:-

- The collection of money towards a maintenance fund.
- Persuading the teachers to pay house rentals or small levy on use of school blocks by other stakeholders.
- Educating the Community and pupils on how to look after the buildings and other school property effectively.
- Organising the community
 - Skilled labour
 - Bricklayers
 - Carpenters
 - Borehole repairer

Ensuring that maintenance work is done.

1.2 Relationship with PTA, School Committee and other Stakeholders

The School Maintenance Committee shall be a Sub Committee of the School Committee and the purpose of its establishment is the maintenance of the school buildings, chairs, tables and desks and boreholes.

1.2 Membership

The School Maintenance Committee should at least have 10 members elected from each village surrounding the school. The elected members should elect among themselves a chairperson, Vice Chairperson, Secretary, Vice Secretary and Treasurer others will become committee members. In case of a male person being elected Chairperson of the Committee, the Vice-Chairperson should be elected from among the women members and vice - versa.

The term of office for SMC members shall be three years unless otherwise replaced.

2. Resources / Funds for O & M

It is important to create strong tenet of Community Based Management through generating own funds. Suggested activities are:-

- 1. Establishment of Income Generating Activities at Schools.
 - Vegetable growing
 - Orchards
 - Woodlots
 - Guinea Fowl Keeping
 - Rabbit Keeping
 - Paper Recycling
 - Envelopes
 - Chrismas Cards
 - Farming crops like cassava, g/nuts, maize etc

- 2. Contributions in form of a small levy.
 - House Rentals
 - Use of TDCs
- 3. Fundrising Activities
 - Through raising the profile of the school and its work
 - Big Walk
 - Open days
 - Jambo Sales

These activities have a benefit that will provide a learning process for the pupils and community members, surrounding the schools in Sustaining Community Projects, pupils will acquire the knowledge and skills that can create a fertile ground for learning, also community members (pupils / parents) will have access to foods that provide the much needed food nutrients hence the reducation of illness that contribute to pupils not attending classes when ill.

4. Social Contract

The objective of the Social Contract is that all stakeholder's roles and responsibilities in the Community based management for school are negotiated, defined and agreed in the form of a Social Contract, which will then be communicated, implemented and monitored.

The Social Contract is a Key Mechanism for delineating roles and responsibilities in Community Based Management for any development process. It minimises confusion of roles and responsibilities and at the same time ensures that every ones contribution is clearly delineated this will ensure the smooth running of the schools, and the quality of education of children/students who attend school.

The following outlines how this can be done.

- a) Social Contract drawn by pupils/students, teachers, PTA, School Committee, School Maintenance Committee and the proprietor separately, bring individual Social Contracts to plenary for negotiation and agreement.
- b) Detail in the Social Contract things like.
 - Roles and responsibilities
 - Procedures for monitoring
 - Statutory rules and requirements
- c) Review the Social Contracts on an annual basis and refine the contracts as need arises.

NOTE: An opportunity arise for each school to develop a School Action Plan

5. Problems / Contraints

- Individualistic mentality and being protective of ones Operations.
- Desire to acquire as many resources as possible for oneself on the Expenses of others and the work
- Power relations
- Social relations
- Social relations
- Rivalry
- Poor record Keeping
- Mismanagement of funds and materials
- Improper handovers when new members are chosen
- Poor leadership of Chair, Secretary, and Treasurer
- Unwillingngness of the community to participate in development activities
- Inactive members who don't attend meetings

6. Lessons Learnt and Way Forward

There are successful cases through this process of community based management that has seen communities making a continuation of school development.

a) Community Primary Schools

This was funded by DFID, all stakeholders developed and negotiated the Social Contracts the school facilities are well maintained.

b) NASAF Projects

Communities build trust on the PIC/PMC that is elected because there is effective communication, proper record keeping and Transparecy and Accountability, monthly meetings all these ensures community based management.

c) School Sanitation and Hygiene Promotion (SSHP)

Funded by DFID and Supported by Unicef. The project has built capacity that will ensure sustainability of SSHP in Kasungu and Nkhata Bay District.

These areas were focused:

- Community planning
- Selection of Sanitation Options by users themserves
- Formation of Health Clubs
- Development of Hygiene messages

7. Sustainable Community Participation

6.1 Transparency and Accountability

All Stakeholders involved in the community based management of schools should be and at all times.

- Communities need to be sensitised on the importance of transparency and accountability for school maintenance committee they have elected.
 - Financial Management
 - Material Management
 - Record Keeping

6.2 Communication

Information dissemination through effective communication cannot be underestimated careful consideration should be given to how information flow from both "bottom-Up" as well as "top down" and the means by which this information is communicated stakeholders should be clearly communicated from the outset. Failure to do so will ultimately lead to confusion, misunderstanding and possible conflicts. Establish channels of communication.

6.3 Community Sensitization

Communities are empowered to participate in the community based management of schools through awareness of their roles and Civic responsibilities and also the importance of community participation and contribution through use adult learning techniques and participatory methods.

Sensitization of communities should begin with community leaders (Councillors, MPs, Church Leaders, Retired Persons, Role Models etc) these will support us during the meetings. Other Crosscutting issues of development need to be mainstreamed during the sensitization meetings.

- HIV/AIDs
- Gender and
- Environment.



IV-4 Contract Form Prepared for NIPDEP Micro Projects



JICA NIPDEP MICROPROJECTS BUILDING WORKS CONTRACT LIST OF CLAUSES

- 1. Definitions
- 2. Contractor's obligation
- 3. Architect/Representative's instructions
- 4. Statutory obligations, notices fees and charges
- 5. Contractor's Representative
- 6. Sub-Contracting
- 7. Commencement, Progress and Completion
- 8. Insurance
- 9. Practical Completion Defects Liability
- 10. Payment
- 11. Determination by Employer
- 12. Determination by Contractor
- 13. Arbitration

MICROPROJECT BUILDING WORKS CONTRACT

	FOR
164444444444444444444444444444444444444	

	AT
**************************************	***************************************

AGREEMENT

MICRO PROJECTS BUILDING WORKS CONTRACT

provisions of the contract

manner prescribed by the contract

4.

This	Contract Agreement made this day of
	een
WHE	EREAS the Employer is desirous that the works outlined below shall be executed by the Contractor
	ISTRUCTION OF 4No 4 HOLE PIT LATRINES AT MPINJI AND GOLIATI PRIMARY GOOLS, IN THYOLO DISTRICT
contr	has by the letter of award of contract dated
,	(amount in words and figures)
NON	VIT IS HEREBY AGREED AS FOLLOWS
1.	The following documents shall be deemed to form and to be read and construed as part of the contract
	a) Notification of the award of the contract dated
2.	All the aforesaid documents are hereinafter referred to as the "contract" and shall be taken as complementary mutually explanatory of one another but in the case of ambiguities or discrepancies shall take precedence in the order set out above
3.	In consideration of the payment to be made by the contracting authority to the contractor as bereinafter mentioned, the contractor bereby covenants with the contracting authority to execute

and complete the works and remedy any defects therein in conformity in all respects with the

The contracting authority hereby covenants to pay the contractor in consideration of the execution

of the works and the remedying of any defects therein in the contract price at the times in the

IN WITNESS whereof the parties hereto have hereunto set their hands the day and the year first above written.

Signed by the	Chairperson for and on be	half of Task Force 7 (Thy	olo)
Name			
Addres	5S		**********
		······································	*********
Occup	ation		
	f fully authorised in the prese P Study Team	ence of	
The Project National Im JICA Educat P O Box 303 Lilongwe 3, Malawi	Coordinator, plementation Programme ion Office, 21		ins (NIPDEP),
Name	***************************************		
Address			

Occupation	***************************************		
		· ·	
Signed for an	d on behalf of the Contract	or ·	
Representativ	e of the contractor duly auth	orised	

or the common sear or the contractor	***********************
	•
	•••••••••••••••••••••••••••••••••••••••
was hereunto affixed by	
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n the presence of	
Name	Seal
Address	
TOM GO	
	+
Occupation	

THEREFORE THE PARTIES HERETO HAVE AGREED AND DO HEREBY AGREE THE FOLLOWING CONDITIONS

1.0 Definition

- 1.1 The following are the definition of terms used throughout these Conditions notwithstanding that such terms may have alternative meanings in other usage.
 - (i) "Employers Representative" means the Architect, or other person appointed by the Employer to supervise the execution of the works in this contract.
 - (ii) "Contract Document" means Drawings, Bills of Quantities and Specification of Works the conditions herein contained together with any circular letters sent out during the tender period and any documentation related to post tender discussions and/or decisions which shall be taken and read together as a whole.
 - (iii) "practical Completion" means that all the works contained and described in the Contract Documents together with any additional works which have arisen as a result of Architects/Representative's instruction or the expenditure of Provisional Sums and Contingency Sums including any work by Sub-Contractors of whatever nature has been completed to the satisfaction of the Architect/Representative, and that there are no obvious defects in such work. The works shall be regarded as practically complete notwithstanding that there may be latent defect in the work which do not appear until a later time.
 - (iv) "Must" means that the action referred to are mandatory upon the persons to whom they refer. There shall be no element of choice or discretion.
 - (v) "May" means that the actions referred to are discretionary upon the person or persons to whom they refer. There shall be an element of choice and the persons may execute the action described in whole or in part or may decline to execute the action in whole or part at his discretion.

Where Clause numbers are referred throughout these Conditions they shall be deemed to refer to the Clauses so numbered in these Conditions.

2.0 Conditions Herein Before Referred To:

Contractor's Obligation

2.1 The Contractor shall with due diligence and in a good and workmanlike manner carry out and complete the works to the reasonable satisfaction of the Architect/Representative.

3.0 Architect/Representatives Instructions

- 3.1 The Architect/Representative may issue written instructions which the Contractor shall forthwith carry out. The instructions given orally shall forthwith be confirmed in writing by the Architect/Representative.
- 3.2 The Architect/Representative may without invalidating the Contract, order an addition to or omission from or other change in the works or the order or period in which they are to be carried out and such instructions shall be valued by the Architect/Representative on a fair and reasonable basis.

4.0 Statutory Obligations, Fees and Charges

4.1 The Contractor shall comply with all notices required by statute, any statutory instruction, rule or order or any regulation or bye law applicable to the works and shall pay all fees and charges in respect of the works recoverable from him.

5.0 Contractor's Representative

5.1 The Contractor shall at all reasonable times keep upon the works a competent person in charge.

6.0 Sub-Contracting

The Contractor shall not Sub-Contract the works or any part thereof without the written consent of the Architect/Representative.

7.0 Commencement, Progress and Completion

7.1	The works may be commenced on	41.,,,,,,,,,,,,,		and sl	hall be con	npleted
	by	with	a	mobilisation	period	from
	directly	precedi	na coi	mmencement.		

7.2 Contractor's Programme

The Contractor shall within fourteen (14) days after the starting date provide a programme of his/her intended activities. The Contractor shall at all times proceed with the works with due expedition and reasonably in accordance with his/her programme or any modification thereof which he/she may provide or which the Architect/Representative may request.

7.3 If it becomes apparent that the works will not be completed by the date for completion inserted in sub-clause 7.1 hereof (or any extended date inserted therein in accordance with the provisions of this sub clause) for reasons beyond the control of the Contractor, then the Contractor shall so notify the Architect/Representative who shall extend the time for completion by a reasonable period.

8.0 Insurance

8.1 The Contractor shall make suitable Insurance to protect the Public and the Employer against liability, loss or claim which might result from execution of works and which is due to negligence, omissions or default on the part of the Contractors of any person for whom the Contractor is responsible. The Contractor shall also make appropriate Insurance to cover work accidents and injuries which might befall his own staff/worker. The Contractor shall submit Policies and Certificates for Insurance to the Employer for acceptance before the works commence.

9.0 Practical Completion - Defects Liability

9.1 The Architect/Representative shall certify the date when in his/her opinion the works have been practically completed.

- 9.2 Any defects, excessive shrinkage or other faults which appear within six (6) months of the date of practical completion and are due to materials or workmanship not in accordance with the Contract shall be made good by the Contractor entirely at his/her own cost unless the Architect/Representative shall otherwise instruct.
- 9.3 The Architect/Representative shall certify the date when in his/her opinion the Contractors obligations under this Clause have been discharged.

10.0 Payment

10.1 Interim Payment

If the period for completion of the works exceeds one month the Architect/Representative shall if requested by the Contractor at intervals of four (4) weeks calculate from the date for commencement inserted in Clause 7.1 certify interim payment to the Contractor in respect of the works executed, including any materials and goods on site for the purposes of the works and any amounts either ascertained or agreed under Clause 3, the Employer shall pay to the Contractor the amount so certified within twenty eight (28) days of the date of the Certificate.

10.2 Retention

Retention will be 10% of the certified amount. A moiety of this retention will be paid to the Contractor upon practical completion of the works. The remaining 5% of the Contract value will be paid to the Contractor upon the rectification of all defects under Clause 10.

10.3 Interest for Late Payment

If the Employer fails to pay the Contractor the amount certified by the Architect/Representative within twenty eight (28) days at the date of the certificate, the Contractor shall be entitled to compound interest at 2% above the Commercial Bank's overdraft rate. The amount accruing from this interest will be added to the value of the next progress payment Certificate or the Final Account.

10.4 Penultimate Certificate

Provided the Contractor shall have supplied all documentation reasonably necessary for computation of the amount to be certified the Architect/Representative shall fourteen (14) days after the date of Practical Completion certified under Clause 10.1 certify payment to the Contractor at 95% of the total amount to be paid to the Contractor under Clause 3 less only the amount of any Interim payments made under Sub Clause 11.1 hereof and the Employer shall pay to the Contractor the amount so certified within fourteen (14) days of that Certificate.

10.5 Final Certificate

Provided the Contractor shall have supplied all documentation reasonably necessary for the computation of the amount to be certified the Architect/Representative shall within fourteen (14) days after the date certified under Clause 10.3 issue a Final Certificate certifying the amount remaining due to the Contractor or due to the Employer as from the fourteen (14) days after the Employer receives the Final Certificate be a debt payable as the case may be by the Employer to the Contractor or by the Contractor to the Employer.

11.0 Determination by Employer

The Employer may but not unreasonably by notice by registered post or recorded delivery to the Contractor forthwith determine the employment of the Contractor under this Contract if the Contractor shall make default in anyone or more of the following respects that is to say:-

- (i) if the Contractor without reasonable cause fails to proceed diligently with the works or wholly suspends the carrying out of the works before completion.
- (ii) If the Contractor becomes bankrupt or make any composition or arrangements with his creditors or has a winding up order made or a resolution for voluntary winding up passed or a Receiver or Manager of his business is appointed or possession is taken by or on behalf of any creditor of any property the subject of a Charge. Provided always that the right of determination shall without prejudice to any other rights or remedies which the Employer may possess.

12.0 Determination by Contractor

The Contractor may but not unreasonably by notice registered post or recorded delivery to the Employer forthwith determine the employment of the Contractor under this Contract if the Employer shall make default in any one or more of the following respects that is to say:-

- (i) if the Employer fails to make any Interim Payment due under the provision of Clause 11 within the specified days of such payment being due;
- (ii) if the Employer or any person for whom he is responsible interferes or obstructs the carrying out of the works or fails to make the premises available for the Contractor in accordance with Clause 7;
- (iii) if the Employer becomes bankrupt or makes a Composition or arrangement with his creditors. Provided always that the right of determination shall be without prejudice to any other rights or remedies which the Contractor may possess.

13.0 Arbitration

If any dispute or difference concerning this Contract shall arise between the Employer or the Architect/Representative on his behalf and the Contractor such dispute or difference shall be and is hereby referred to the arbitration and final decision of a person to be agreed between the parties or, failing agreement within fourteen (14) days after either party has given to the other a written request to concur in the appointment of an arbitrator, a person to be appointed on the request of either party by the Chairman of the Board of Architects and Quantity Surveyors of Malawi.

SPECIAL CONDITIONS

14.0 Safety, security and protection of the environment

- 13.1 The contractor and any sub-contractor engaged in the performance of the contract shall provide and equip, as appropriate, all workers in hazardous occupations with protective clothing, gloves, goggles, masks, footwear and headgear manufactured to such a standard as to ensure adequate protection against injury and accident
- 13.2 The contractor shall provide and maintain adequate first aid facilities appropriate to the conditions and scope of the works, and shall submit for the Architect/Representative's approval details of those facilities and the means by which full access to them and their administration will be provided
- 13.3 The contractor shall, within 24 hours of the occurrence of any accident on the site or in connection with the execution of the works, report such an accident to the Architect/Representative's representative. The contractor shall also report any such accident to the competent authority whenever such a report is required by law.

15 Engagement of staff and labour

- 15.1 Children as defined by Government regulation shall not be employed under any circumstances.
- 15.2 The contractor shall pay rates of wages not less favourable than those approved by the government for the various classes of labour engaged. All payments shall be in cash unless employees request, in writing, payment by cheque or other negotiable financial instrument. Payment in kind or through trade goods of any sort are prohibited. Allowances will be over and above cash wages complying with the minimum levels described. Men and women shall receive equal rates of pay for the particular grade of work, trade or skill for which they are employed.
- 15.3 The contractor shall pay his/her employees promptly and regularly at the customary intervals, or as may be prescribed by law, and all employees shall be paid in full and up to date before the issue of the Certificate of Making Good Defects
- 15.4 In the event of default being made in payment of wages to any worker employed on the contract, by the contractor or his/her sub-contractor(s) and if a claim with satisfactory proof thereof is received by the Architect/Representative, the Architect/Representative may make the payment of such a claim out of the monies at any time payable under the contract, and the amount so paid shall be deemed payments to the contractor or sub-contractors under the contract
- 15.5 The contractor and sub-contractors shall provide on site, throughout working hours, adequate and easily accessible supplies of safe drinking and other water for the use of their employees

- 15.6 The contractor shall provide and maintain efficient, adequate and sanitary latrine and washing facilities constructed to comply with any government regulation in force for the use of the employees on the works, with separate arrangements for men and women, and shall keep the whole of the site and latrines in a clean and sanitary condition to the satisfaction of the Architect/Representative and in accordance with the requirement of the health authorities of the government. The contractor shall thoroughly disinfect and fill all latrine pits, swamps and trenches when no longer required
- 15.7 In the event of any outbreak of illness of an epidemic nature, the contractor shall comply with and carry out any such regulation, orders and requirements as may be made by the government or the local medical or sanitary authorities for the purpose of dealing with such an epidemic
- 15.8 The contractor shall at all times, during the continuance of the contract, display in conspicuous places on the site or in any other place occupied by him/her for the execution of the contract, in convenient, prominent and accessible positions or locations, notices informing employees of the foregoing provisions of this clause and their conditions of work
- 15.9 The contractor shall keep proper records of the days, dates and hours worked by every employee engaged on the contract, their gender, the class of work on which employed, whether as a casual or permanent employee, and the wages (and allowances, if any) paid. These records shall be available at any time for inspection by the Architect/Representative or any authorised representative of the government. Monthly summaries in a format to be agreed by the Architect/Representative will be forwarded to the employer

EXPLANATORY NOTES TO THE CONDITIONS OF BUILDING CONTRACT

Clause 2 – Levels and Setting out of the Works

The contractor shall check or agree the existing contours and levels if shown on the drawings and shall give written notice to the Architect/Representative if he is not satisfied with their accuracy before plant is placed on the site or excavations are commenced.

<u>Clause 2 – Materials, Goods and Workmanship to conform to Description, testing and inspection</u>

The contractor shall make available at his own expense all general goods and timber and the like for approval as required by Architect/Representative to ensure that such goods and materials comply with their specifications .

IV-5 Bills of Quantities Prepared for NIPDEP Micro Projects



	FOUR HOLE PIT LATRINE			
	MATERIALS SUPPLIED BY THE DISTRICT ASSEMBLY(Community Contribution)			
Α	Sand	6 m3	RATE	10
В	Aggregate	4 m3	RATE	10
c	Bricks	16000 No	RATE	O
	MATERIALS SUPPLIED BY DISTRICT ASSEMBLY			
D	(Procurement) Portland cement	96 Bags		
E	Black bituminous paint	2 litres		
F	A252 mesh reinforcement	8 m2		
G	Damp proof course	25 m1		
Н	Damp proof membrane	5 m2		
ı	Ant repellant	6 litres		
J	28 gauge corrugated iron sheets, 3500mm long	9 No		
K	50 x 75mm softwood timber	25 m1		
L	50 x 150mm softwood timber	16 m1		
M	FLBB timber door	4 No		
N	900 x 2100mm metal door frame	4 No		
0	3mm galvanised steel binding wire	5 m1		
Р	Brickforce	383 m1		
Q	3 lever lockset and furniture se	4 No		
R	Rubber door stop	4 No		
S	Undercoat	5 litres		
T	Polyurethane varnish	1 litre		
υ	Gloss paint	1 litre		
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A.	PVA paint		4 litres			•
В	Metal primer		1 litre			
2	Wood primer		1 litres			
) .	Acrylic brick sealer	· • •	3 litres			
=	Sand paper		9 sheets		ļ	
F	Alabastic filler		1 kg			
G	Lacquer thinners		1 litre			
Н	Turpentine		1 litre		-	
i	110mm diameter vent pipe		6 m1			·
J	110mm diameter vent cowl		1 No	·		
ĸ	110mm diameter bend		2 No			
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	FOUR HOLE PIT LATRINE			
•	LABOUR ONLY CHARGES FOR THE FOLLOWING AS DESCRIBED			
	SUBSTRUCTURE			
	Excavation			
Α	Digging foundation from reduced level for strip footing, 0 to 1500mm deep	4 m3		
В	Digging pit from reduced/natural ground level for pit latrine, 0 to 1500mm deep	15 m3		
С	Ditto, 1500 to 3000mm deep	15 m3		
D	Ditto, 3000 to 4500mm deep	10 m3		
E	Selected earth filling, deposited, spread and compacted in 150mm layers, around pit latrine	2 m3		
F	Remove excavated material from excavations, transported a distance average 100 linear metres from excavations and deposit in spoil heaps on site	42 m3		·
	Lay only the following as described			
G	150mm Thick consolidated hardcore filling to pass a 50mm ring all ways, well compacted and rolled	16 m2		
н	50mm Bed of sand on hardcore rolled to receive damp proof membrane	16 m2		
1	250mm Microns (100 gauge) polythene damp proof membrane with welted joints, lapped 150mm at joints and laid on blinded hardcore	5 m2		
J	Apply approved ant repellant on hardore and top of walls	3 m2		
	<u>Sundries</u>			
К	Allow for keeping excavations free from water	Item		·
L	Allow for planking and strutting to sides of excavations	Item		. :
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*			FOUR H	OLE PIT LATRINI
	LABOUR ONLY CHARGES FOR THE FOLLOWING AS DESCRIBED Concretework			
Α	Mix and place plain in-situ concrete to form 200mm thick slab	14 m3		
В	Trowel finish slab on concrete slab	11 m2		
С	Mix and place concrete to form foundation footings	1 m3		
D	Mix and place plain concrete to form 75mm thick pavings	6 m2		
E F	Mix and place reinforced concrete to form 150 x 2410 x 2975mm long reinforced precast vibrated suspended slab with 2No 250 x 250mm holes Mix and place reinforced concrete to form 50mm "Sanplat"	2 No		
	cover slab size 600 x 600mm including 8mm diameter mild steel bar reinforcement at 150mm centres both ways and set on slab	4 No		
	WALL CONSTRUCTION			·
G	Lay one brickwall in english bond and reinforced with one layer of "Brickforce" reinforcement every third course	5 m2		:
H	Lay one brickwall built in honey comb	74 m2		
	<u>Finishes</u>			
]	Prepare and apply 15mm rendering (1:4) cement and sand finished with wood float, sponge finish on brick walls	7 m2		
j	Prepare and apply two coats of black bituminous paint on rendered walls	7 m2		
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		:	FOUR HO	LE PIT LATRINE
	LABOUR ONLY CHARGES FOR THE FOLLOWING AS DESCRIBED			
	SUPERSTRUCTURE			
	CONCRETE WORK			
Α	Mix and place plain concrete to form 60 x 230mm wide precast coping with a drip groove set on top of brickwork	7 m1	·	
В	Mix and place plain concrete to form precast cill, splayed rebated once grooved and two edges chamfered, finished fair and built into brickwork	5 m1		
С	Mix and place plain concrete to form $50 \times 460 \times 460$ mm pad set on top of brickwork as cover to flue	1 No		
	Cement and sand (1:2) breeze blocks, bedded, jointed and pointed in cement mortar (1:3)			
D .	Make and lay 230mm thick breeze blockwall, stack bonded	6 m2		
	WALL CONSTRUCTION			
E	Lay one brickwall, comprising two half brick skins in stretcher bond, with a 25mm wide mortar joint between tied together with short lengths of 125mm "Brickforce" reinforcement at the rate of five per square metre and reinforced with one		- -	
_	layer of "Brickforce" reinforcement every fourth course	32 m2		
F	Facework to one brick skin of brickforce for face work	36 m2		•
	Damp proof course			1
G	Lay 3 Ply malthoid damp proof course, over 230mm wide laid under brickwork	25 m1		
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			FOUR HO	OLE PIT LATRINE
	LABOUR ONLY CHARGES FOR THE FOLLOWING AS DESCRIBED			
	Roofing			
 	Take from store and fix only the following as described			
Α	28 Gauge galvanised steel cladding laid with one flute side laps and 300mm minimum end laps, fixed to timber purlins with and including 75mm long drive screws (purlins generally at 1150mm centres) and side laps with 6 x 25mm steel bolts at 600mm centres. All fixing to be complete with bitumen and flat galvanised steel washers	19 m2		
	Carpentry			
	Take from store and fix only the following as described	·	·	
В	50 x 75 x 850mm Long treated wrot softwood sprocket	10 m1		
С	50 x 150mm treated wrot purlins	24 m1		
D	813 x 2032mm High framed, ledged, braced and battened door, constructed having 50 x 100mm stiles, top, centre bottom rails and bracing, grooved, morticed, tenoned and glued together, clad one side with 25 x 100mm tongued and grooved "v" jointed boarding (all timber shall be hardwood)	4 No		
	<u>Metalwork</u>			
	Take from store and fix only the following as described			,
E	Metal door frame, size 877 x 2100mm overall suitable for one brickwall, complete with one pair of steel butts	4 No		
F	3mm Galvanised steel binding wire, 450mm girth, secure purlin to sprocket	10 No	. 1	•
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,				FOUR HOLE PIT LATRINE		
	LABOUR ONLY CHARGE FOR THE FOLLOWING AS DESCRIBED					
	Ironmongery					
	Take from store and fix only the following as described					
Α	"Union 2252 -76SC" 3 lever lockset and furniture set	4 No		,		
в	Rubber door stop, fixed to concrete/blockwall	4 No	-			
	<u>Finishes</u>		·			
С	Prepare, mix and point cement and sand mortar (1:4) in brickwork	36 m2				
D	Prepare and apply 15mm rendering (1:4) cement and sand finished with a wood float, sponge finish on concrete walls	55 m2				
	Painting and decorating			•		
Ε	Prepare, knot, stop, seal and apply two coats of polyurethane varnish on timber framed, ledged, braced and battened door (measured overall)	15 m2				
F	Prepare, prime and apply one undercoat and two finishing coats of full gloss enamel paint on metal door frames, 200 to 300mm girth	20 m1				
G	Prepare and apply one water thinned coat and two coats of internal quality PVA paint on rendered walls	55 m2				
Н	Prepare and apply two coats of styrene emulsion acrylic clear sealer on fair face brick walls	36 m2				
	<u>Pit cover</u>					
***	Mix and place vibrated concrete to form 75 x 250 x 500mm precast pit cover reinforced with and including one layer of A98 mesh reinforcement with lifting lugs loose laid	4 No				
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	MATERIALS	8.3		
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