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Project Planning Assistance

to the

Ministry of Housing

Zimbabwe

QUARTERLY REPORT NO 1

1 Jan 83 - 31 Mar 83

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**Best Available Document**

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## I. Introduction

The first full quarter of the implementation of the Limited Scope Grant Agreement for technical assistance to the Ministry of Housing in Zimbabwe has met with a number of problems not entirely unanticipated at the beginning of the project period. The Ministry's commitment to use brigades to build low-income housing has hardened with early reports of their apparent efficiency and effectiveness in two Secondary Towns. The use of aided self-help under the USAID project is currently, seen as a "one-off" exercise which will not have a lasting influence on national housing policy in urban areas.

The size of the smallest acceptable core house is presently four times what the minimum wage earner can afford. Reliance on the services of expatriate advisors is low and often then only for routine administrative functions.

Fortunately there are tentative signs that at least at the technical level the Ministry's attitudes on all four issues may change during the next few months. It is not impossible that political attitudes will also change once the financial consequences of current policies become better known both within and without the Ministry.

As a consequence of the above mentioned difficulties progress in implementing the USAID - funded schemes has been slower than anticipated. It has been difficult to define a goal - oriented work program. Before outlining particular tasks accomplished during the quarter, a brief description of the modus operandi of the Ministry of Housing is given with a view to defining how advisors fit into the work scene.

## II. Modus Operandi

The modus operandi of the Ministry of Housing is based on the following four premises :-

1. Policy making is essentially a political process in the hands of the Minister and his Deputies.
2. Civil Servants are subservient to policy-makers and are seen as the instrument by which policy is implemented.
3. Expatriate advisors have no role in advising on policy matters lest they be perceived as dictating policy.
4. Expatriate advisors have no role in implementing policy except in cases of local staff shortage.

Underlying these premises is the assumption that all policies can be made to work given the right technology.

In other words the Ministry of Housing has adopted a firm policy of using its expatriate technical assistance advisors in a highly controlled manner. Ministerial Advisors are seen as agents of foreign aid organizations employing them and not as representatives of the Ministry. As such they fall under the protocol required of foreign visitors to the country. The channels of communication between advisors and parties outside the Ministry are strictly controlled. To avoid situations where M.O.H. might be seen as having policy being dictated by foreign agents, advisors are never consulted on matters of policy. To avoid the possibility of advisors subverting government policy they must attend meetings only in the company of bona fide Ministry representatives.

The principles of this new post-Independence modus operandi were spelled out in a high-level meeting held between RBUDO and MOH in Harare on 20 January 1983. Refer to Annex A. It is important to note that the two USAID advisors are the first long-term technical personnel to be fielded by USAID in Zimbabwe. They are among the first advisors ever to be attached to the Ministry of Housing. The current Secretary came to the Ministry (and also to Government) only days before the arrival of the Advisors. It is only natural, therefore, that working relationships need time to be established and loyalties developed. At no time have issues been personalized.

### III. Work Accomplished

The following description of work accomplished follows the terms of reference outlined in the advisors contact :-

1. Assist MOH to establish system for project identification, feasibility analysis and selection

Preparation of Project Delivery Plans for the Secondary Towns is seen as the vehicle by which such a system can be developed. The PDP contains the definitive description of a project. Council officials in Marondera, Kadoma and Chinhoyi have been requested to draft sections of their respective Plans making reference to standard costing tables. See Annex B. After review by the Ministry it is possible that PDP format will be established as the standard way of documenting projects for submission to MOH for approval.

It is envisaged that a micro-computer could prove useful in the preparation and review of project delivery plans. To this end the advisor prepared a detailed justification for the acquisition of such a system for approval by USAID. See Annex C.

2. Co-ordinate with other donors to ensure rational use of scarce resources

Two potential areas of overlap with other donors are (1) procurement of commodities and (2) training of shelter sector personnel. Co-ordination with the UNDP/USAID - funded pilot project for Kwekwe and Gutu was achieved with regard to acquisition of vehicles and equipment. No duplication of these items will occur. See Annex D for approved list for USAID - funded equipment currently being procured. No items have been received to date.

Although implementation of training programs is some months away, liaison with the following agencies has already occurred to minimize duplication and maximize co-operation:

UNCES/Danida	Mr Yap Kioe-Sheng
UNCES	Mr David Pasteur
IBKD	Mr Ian Hamilton

Contact will be made next quarter with the ODA team established in Ministry of Local Government and Town Planning.

3. Provide recommendations to MOH based on analyses of critical constraints in the low-cost shelter delivery system

With the realization that the Ministry's position on the minimum size of core house was hardening the advisor prepared a detailed and unsolicited "options" paper analyzing the relationship between housing standards and prices in the particular case of Parkridge/Fontainbleau.

The paper, currently being reviewed by the Secretary and his two Deputies, recommends a reduction in the size of the minimum acceptable core house designated for below-median income households. See Annex E.

The advisor prepared a short paper on the impact of the "growth pole" strategy of development on the operation of the Ministry. This paper was requested by the Secretary.

Two other papers making recommendations about the role of the private sector and the future use of brigades are dealt with under paras 4 and 5 below.

4. Assist in developing monitoring and evaluation systems

Activities on this task during the quarter were confined to a special exercise to determine actual costs of brigade-built core houses meeting the Ministry's current minimum standard of 50m<sup>2</sup> and four rooms. The advisor and a Ministry representative visited five Secondary towns to monitor construction and production brigade operations and obtain verifiable cost information. The findings are summarized in Annex F. Only two of the five centres were actually operating construction brigades. Current house costs were reasonable but there were indications that significant increases would be incurred in the near future. These would be caused by weak site supervision (Kwekwe), wearing out of existing plant and equipment and exhaustion of currently "free" materials for making concrete blocks (Marondera), and increased labour costs owing to trade testing (Kwekwe and Marondera). In all cases it was clear that the level of brigade production was considerably below that needed to cope with the backlog of housing in each area. The recommendations are currently being reviewed by the Secretary.

5. Assist with project implementation

(a) Parkridge/Fontainbleau Phase I

The advisors recommended reinvesting the \$5 million in escrow for a further 3 months ending 30 April 1983 on the assumption that a revised PDP developed in liaison with the City would be substantially completed by 25 Feb 83. Unfortunately the new modus operandi dictated that the channels of communication with the City of Harare go through the Town Clerk. Official authority to liaise with the Council was received by the advisors on 18 March 1983. By that time the affordability issue was sufficiently focused to render meaningful work on the FDP very difficult. It is likely that a decision to reinvest the money for another 3 months will be required before the end of April.

The advisor Co-ordinated Ministry review of the proposed training program subsequently approved by the Secretary.

(b) Parkridge/Fontainbleau Phase II

The Project Managers have proceeded to tender all infrastructure work for the 3,264 stands in Phase II. The advisor has acted as Ministry liaison in the matter, owing to a shortage of staff in the Ministry.

(c) Secondary Towns

The advisor has monitored the progress of the physical design of the site plans for Marondera, Kadoma and Chinhoyi. They are all complete at 1:2500 and are being reviewed by the Councils. Chinhoyi's plan was approved by Council in January, during a visit by the Advisors.

Each town is working on its PDP. The advisor visited each town at least once during the quarter to assist in this process. The Ministry awaits receipt of the Housing Demand Survey for Kadoma. Copies of surveys for Marondera and Chinhoyi have been sent to the Councils for comment. See Annex G for a progress report on the whole project as of 31 March 1983.

(d) Other Projects

The advisor reviewed site plans for Mutare, Masvingo and Bulawayo during the visit by the World Bank Mission in March.

The advisor also participated in the review of the housing finance report prepared by UNCHS consultant Claude Bove. See Annex H .

6. Assist MOH to determine need for Short-term technical assistance from USAID

There was no activity on this task during the quarter. Lack of progress on the whole has prevented the identification of specific tasks requiring external technical assistance. As the four local authorities become more involved in implementing their respective schemes, such needs will become evident. At the Ministry level there is little enthusiasm for additional outside advice at the moment. While a system of monitoring and evaluation MOH sponsored work would provide rational feedback on policy decisions made with little technical input, there is little support for the idea at present. This is especially true if the source of technical assistance can be identified with a specific policy bias.

7. Prepare draft TOR'S for Short-term T.A.

See para 6 above.

8. Work closely with short-term T.A.'S

See para 6 above.

9. Participate in forward planning

One issue of particular interest falling under this task concerns the Ministry's position on housing for the employees of private sector companies. The case in point involves a mining company in Chinhoyi that has succeeded in convincing the Council that municipal brigades should build rental housing for the Mine's employees. The financing of the project and its subsequent administration would be the responsibility of the company. However Chinhoyi Municipality will undertake to provide and service the land, and construct four-room core houses using brigades. The original intent of the proposal was to provide housing for homeownership but this was rejected as being impractical in the event that employees left the service of the mine company. The advisor indicated the possible shortcomings of the proposal. The unsolicited advice, attached at Annex I, has not yet been acknowledged.

IV. Issues Requiring Resolution

The major issue requiring resolution concerns the affordability of the minimum acceptable core house. Annex E refers. Until agreement is reached between Government and USAID on this issue, little substantive progress will be made in finalizing the necessary Project Delivery Plans, including those for the Secondary Towns.

A second issue requiring resolution concerns the number of units to be built by brigades at Parkridge/Fontainbleau. This issue has a bearing on the volume of aided-self help work to be anticipated. This in turn influences the decision of how best to provide credit to the owner-builder households, i.e. in cash, in kind or a combination of both. There are real constraints on the option to issue building material loans in kind for 6 000 or more houses with full services in a two year period.

Current thinking by MOH and the City would link the decision to the reactions of a sample of potential allottees who have had a chance to examine the demonstration houses. This implies a delay of several more weeks. It is recommended that an interim decision be made whereby the City organizes one brigade at Parkridge to build 500 units per annum.

A third issue of concern is the high standard of design of the house types for Parkridge/Fontainbleau. Although the Ministry has approved the plans and has urged that demonstration houses be built by brigades with all haste, it remains that the average cost of a core house is \$9,600. The estimate, prepared by the City of Harare, is high owing to the following factors :-

- (a) Large Size of Unit (50m<sup>2</sup>)
- (b) Complex nature of house design
- (c) High standard of fittings
- (d) High cost of overheads applied by the City.

Allottees will have the right to come up with their own design. However in practice beneficiaries tend overwhelmingly to chose standard plans. It is clear that none of the approved plans will be affordable by the below-median income families. It is recommended that a second set of core designs be developed which overcome factors (b) and (c) above. Factors (a) and (d) are given, for the time being.

#### V. Proposed Work Programme

Given the large element of uncertainty surrounding the issues mentioned in IV above it is difficult to assess what tasks can be accomplished during the coming second quarter of 1983. Nevertheless attempts will be made to achieve the following :-

1. Assist with resolution of outstanding policy issues.
2. Preparation of draft TOR's for monitoring and evaluation study
3. Preparation of revised PDP for Parkridge Phase I
4. Preparation of PDP for Parkridge Phase II and the Secondary Towns
5. Installation of micro-computer and beginning of elaboration of the project identification system
6. Finalize comments on Housing Demand Studies
7. Prepare slide/tape show on aided self-help for presentation to local authorities.

PRESENT:

Mr. N.E. Changa : Secretary (Chairman)  
Mr. Kamugoni : Town Clerk, Harare  
Mrs. P. Euseby : Assistant Director RHUDD, USAID  
Mr. R. Chanda : Project Officer RHUDD, USAID

IN ATTENDANCE:

Mr. E. Matura : Under Secretary (Urban) Ministry of Housing.  
Mr. R. Beardmore : Ministry of Housing *Advisor*

1. The Chairman called the meeting to order at 3.00 p.m. He indicated that it was a meeting of the highest level and as such Messrs Matura and Beardmore were to take notes but not talk.
2. The Chairman outlined the new protocol arrangements governing visits to Zimbabwe of representatives of external agencies dealing with Housing. Ministry of Housing must be informed of all proposed visits and approve the holding of all meetings and their associated agenda. USAID officials undertook to clear all future meetings with the Harare City Council with the Secretary of Housing, before approaching the Town Clerk for appointment. The Chairman said it was Ministry policy to require all foreign advisors to be accompanied to meetings with outside officials by Civil Servants. This was needed to prevent advisors from subverting government policy. When asked by Mr. Chanda if the USAID - funded advisors could have counterparts assigned to them the Secretary replied that this had been considered but rejected on the grounds of current staff shortage and possible overspecialisation of the assigned personnel. The system would operate on the basis of various people assigned for various different tasks. In so far as advisors performing staff duties was concerned this was necessary from time to time owing to the staff shortage.
3. The Chairman addressed the issue of delays in project implementation by saying this was a general problem not confined to Parkridge/Fontainebleau alone. An indication of the seriousness of the situation was the proposed cut in the current year's financial allocation by more than Z\$20 million. Now that senior officials in both Central Government and Local Authorities were directly involved in expediting matters, the pace of implementation will quicken. Mr. Chanda indicated that USAID officials had been briefed by John Burrows and Partners, the Project Managers who forecast that one thousand stands would be ready for allocation each month beginning in mid-March, i.e. 4 000 would be available by mid-June yet there appeared to be serious delays occurring in (a) policy areas and (b) construction of site facilities. He said that the situation could be embarrassing for all concerned if plots could not be allocated shortly after their becoming available. Mr. Euseby asked if there could not be possible interim solutions to these delays pending the finalisation of the permanent structures, e.g. using models of Demonstration houses until demonstration houses were built.

2.

The Town Clerk stated that all information relating to progress at Parkridge could, in future, be obtained from him since he was regularly briefed by his Chief Officers. The Chairman requested that USAID officials bear with the Ministry while the new modus operandi was being implemented i.e. senior officers closely guiding and supervising the work of subordinates.

4. Mr. Chanda asked if the USAID - funded advisers could help expedite solutions to detailed technical issues. The Chairman said not yet since Ministry of Housing technical staff in liaison with HOC officials were doing the job. Give the new modus operandi a chance to work. Ms. Hussey stressed that Ministry of Housing should not look upon Mr. Beardmore and Mr. Wegge as USAID employees but rather as servants of the Ministry. The Chairman said this was no problem. Ms. Hussey suggested Mr. Wegge could be of great value to the HOC in planning and implementing the shelter component of Parkridge. The Town Clerk said any proposal to have Mr. Wegge work directly with the Council would have to come from the Secretary of Housing. It was affirmed and agreed that the USAID - funded advisers' advice represented their own best technical opinions and was not to be construed necessarily as official USAID policy.
5. The Chairman outlined the modes of construction adopted by Government for housing projects as follows:
  - (a) Building brigades to build council houses on unallocated stands and produce building materials.
  - (b) Private sector to construct infrastructural services and flats.
  - (c) Community facilities to be constructed by either brigades or private sector depending on merits of each situation i.e. giving regard to speed of building and construction standards.
  - (d) Houses on plots allocated to individuals to be built by mode chosen by the individuals concerned, i.e. private contractor co-op or brigade.
6. In respect of the HOC Project the Chairman said the principles of affordability, cost recovery and below-medium-income beneficiaries were to be scrupulously observed.

USAID officials said this coincided with earlier discussions on the subject with the Honourable Minister. The Chairman said that building brigades could not be given undue promotion over other modes but he expected the majority of individuals to opt for them because of the lower costs involved in this mode of construction.
7. In response to a request by the Chairman concerning advice on systems of plot allocations (i.e. ways to avoid cheating) the USAID officials replied that they would consider a request for short-term technical assistance on the matter. Alternatively the resident advisers could assist.
8. The meeting was adjourned at 4.00 p.m.

29441

HC/CHN  
EX/19/2

15th March, 1983.

Town Clerk,  
Chinhoyi Municipal Council,  
P.O. Box 93,  
CHINHOYI.

(Attention : Mr. Mudzimu)

Dear Sir,

AIDED SELF-HELP HOUSING PROJECT

Reference a meeting on /the above held in your offices on 14 January 1983 with representatives from the Ministry of Housing.

In order for my Ministry to gain USAID approval of the proposed scheme in your town, you are respectfully requested to prepare a brief project delivery plan describing the nature of the scheme and the proposed method of implementation. Please recall that the design of this scheme is to be based on four principles agreed with the USAID Mission. Firstly, the beneficiaries of this project are to be families earning less than the median urban household income for Chinhoyi. A draft report of a survey carried out by my Ministry in August 1982, a copy of which is attached, suggests that this limit is around \$118 per month. Secondly the cost of all proposals for serviced stands and housing units is to be affordable by participant households at the current NHF interest rate of 9% over 30 years. The analysis of affordability must also take into account the cost of monthly service charges. It may be assumed that the sum of all housing expenses should not exceed 25% of a households income. Thirdly, all costs incurred by the project must be recoverable. That is, there should be no major element of subsidy provided to the beneficiaries. It is Government's desire not to have new housing schemes become a drain on the financial resources of local authorities. Fourthly, beneficiary households should be willing to engage in a process of aided self-help, including co-operative efforts. Any applicants desirous of a brigade-built unit can be served from your on-going programme of brigade housing at the Chinhoyi Stream Site.

To assist you in the preparation of the project delivery plan please find attached the following enclosures:

- i) An outline of the required content of the document and a list of required drawings and schedules.
- ii) A set of four tables giving the financial analysis of the project.

As a further guide I attach a copy of an indicative financial plan for the scheme listing the proposed components, estimated costs and the source of funds. This financial plan formed the basis for the agreement

signed by the Governments of the United States and Zimbabwe in November 1982. Please note that should you wish to amend the programme with respect to community facilities to better reflect your current priorities in this area please indicate this in your project delivery plan. Please also note that if the scheme requires off-site (primary) infrastructure you should arrange for the funding of same through sources other than the National Housing Fund. As far as the method of implementation is concerned, we would welcome any proposals you may have with regard to maximizing employment, a secondary objective of the project.

Please note that this project delivery plan is not a substitute for a detailed application for borrowing powers in terms of section 23B of the Urban Councils Act. However its preparation will facilitate the work required to obtain funding from the National Housing Fund.

Officers and Advisors in my Ministry are available to assist you in all aspects of preparing the plan. In particular the undersigned and Cde. Wegge can be put at your disposal. Please do not hesitate to contact us to arrange a work programme in this regard.

We should be grateful to receive your submission in triplicate by no later than 29th April 1983.

We shall be writing to you later on the subject of your Council's participation in a Training Programme for the management of aided self-help housing projects to be held here in Harare sometime in May 1983. Your nominees for this programme should preferably be from among those of your officers who have assisted in preparing the present delivery plan and who will continue to be involved in the management of your aided self-help project.

We look forward to your continued co-operation in this matter.

Yours sincerely,

R.M. BEARDMORE  
FOR: SECRETARY FOR HOUSING

Encl:

RMB/WH:

## OUTLINE OF CONTENT FOR PROJECT DELIVERY PLAN

### I. Introduction

A brief statement of background to project.

### II. Description of Project

- A. Objectives : increased production of housing; greater institutional capacity to satisfy housing need/demand
- B. Principles : serve "below - medium" households provide affordable solutions achieve full cost recovery from beneficiaries give choice of mode of construction by individual households
- C. Physical Outputs : description of quantities and types of shelter solutions including demonstration houses, infrastructure services, community facilities with reference to standards
- D. Geographical Location : description of site, terrain, features, with reference to existing infrastructure services

### III. Method of Implementation

- A. Roles and responsibilities of MCH, local authority, consultants (if any), including organisation chart showing project management structure and assessment of training needs.
- B. Method of providing infrastructure i.e. contractor or direct labour with design by consultants or council staff.
- C. Beneficiary selection process including definitive list of eligibility criteria and medium urban household income limit to be used.
- D. Programme by which potential allottees can be fully informed of the implications of their involvement in the scheme, i.e. rights, obligations, etc.
- E. Plot allocation process with reference to how people, plans and plots are matched up.
- F. Programme for providing credit to allottees with reference to construction loans in cash or in kind. Where building materials are to be supplied give method of procurement, storage and disbursement; outline system for repayment.
- G. Programme for providing technical assistance to allottees and staged inspection of homes under construction.

### IV. Financial Analysis

- A. Complete Tables A, B, C and D giving, respectively -
- i) overall cost estimates for the project by component.
  - ii) Land use profile for the particular site layout.

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C O S T E S T I M A T E

Date prepared: \_\_\_\_\_ Site: \_\_\_\_\_

Costs given in Z\$; prices as of (date) \_\_\_\_\_

Project Component	Cost in Z\$	Source of Funding
<b>A. LAND</b>		
1. Acquisition	_____	
2. Survey	_____	
<b>Subtotal:</b>	_____	
<b>B. PRIMARY INFRASTRUCTURE (excl prof serv)</b>		
1. Roads and Stormwater Drainage	_____	
2. Water	_____	
3. Sewer	_____	
4. Electricity	_____	
<b>Subtotal:</b>	_____	
<b>C. SITE PREPARATION &amp; SERVICES (excl prof serv)</b>		
1. Roads	_____	
2. Stormwater drainage	_____	
3. Water reticulation	_____	
4. Sewer reticulation	_____	
5. Security/street lighting	_____	
6. Electrical reticulation	_____	
<b>Subtotal:</b>	_____	
<b>D. SELF-HELP HOUSE CONSTRUCTION (_____ loans)</b>		
1. Housing Loans	_____	
2. Site Staff Salaries & Overheads	_____	
3. Equipment & Vehicle Charge	_____	
<b>Subtotal:</b>	_____	
<b>E. COMMUNITY FACILITIES/DEMONSTRATION HOUSES</b>		
1. Primary Schools	_____	
2. Secondary Schools	_____	
3. Clinics	_____	
4. Commercial Facilities	_____	
5. Community/Administration Centre & Depot	_____	
6. Demonstration Houses	_____	
<b>Subtotal:</b>	_____	
<b>F. TECHNICAL ASSISTANCE</b>		
1. Project Administration Charge	_____	
2. Professional Services	_____	
<b>Subtotal:</b>	_____	
<b>TOTAL:</b>	_____	
<b>G. CONTINGENCIES</b>		
1. Physical	_____	
2. Price	_____	
<b>Subtotal:</b>	_____	
<b>GRAND TOTAL:</b>	_____	

Table B

LAND USE PROFILE

	No. of Stands	Area in m <sup>2</sup>	% of total Land Area
<b>A. <u>RESIDENTIAL AREA</u></b>			
1. _____ m <sup>2</sup> stands			
2. _____ m <sup>2</sup> stands			
3. _____ m <sup>2</sup> stands			
<u>TOTAL:</u>			
<b>B. <u>NON-RESIDENTIAL AREA</u></b>			
1. Health Clinic			
2. Primary Schools			
3. Secondary Schools			
4. Shops and Market areas			
5. Municipal offices			
6. Community halls			
7. Open space			
<u>TOTAL:</u>			
<b>C. <u>ROADS, PATHS (reserves)</u></b>			
1. On-Site roads (reserves)	-----		
2. On-Site paths (reserves)	-----		
<u>TOTAL:</u>			
<u><u>GRAND TOTAL:</u></u>			100.000

NOTE: Calculate number of residential stands per hectare: \_\_\_\_\_  
 (gross total area divided by number of stands)

Percent of useable land occupied by residential plots:

Refer Tracing No. \_\_\_\_\_ of (date) \_\_\_\_\_ by  
 Provincial Planning Office, Mashonaland.

FLOT SERVICING COSTS & BUILDING MATERIAL LOAN AMOUNTS

All costs given in Z\$; prices as of (date) \_\_\_\_\_

=====

I Plot servicing costs

Items recoverable through plot development charge  
(Select relevant items from Table A)

- 1. Land acquisition \_\_\_\_\_
- 2. Land survey \_\_\_\_\_
- 3. Roads \_\_\_\_\_
- 4. Stormwater drainage \_\_\_\_\_
- 5. Water reticulation \_\_\_\_\_
- 6. Sewer reticulation \_\_\_\_\_
- 7. Security / street lighting \_\_\_\_\_
- 8. Electrical reticulation \_\_\_\_\_

Subtotal: \_\_\_\_\_

- 9. Physical contingencies (15% of 3 - 7) \_\_\_\_\_
- 10. Engineering & Supervision \_\_\_\_\_
- 11. Interest during construction \_\_\_\_\_

Total: \_\_\_\_\_

Now percent of total costs above allocable to residential plots as a function of land use is \_\_\_\_\_% (See Table B)

Therefore plot development cost allocable to residential plots is: \_\_\_\_\_

And average plot development cost is: \_\_\_\_\_

II Building material loan amounts (per loan)

	Minimum	Average	Maximum
Basic building materials	_____	_____	_____
Site running costs	_____	_____	_____
Equipment charge	_____	_____	_____
Material depot charge	_____	_____	_____
Total	_____	_____	_____

Table D

MONTHLY CHARGES AND THEIR AFFORDABILITY

Charges in Z\$ based on prices as of (date) \_\_\_\_\_

	Plot Only	Plot plus minimum house loan	Plot plus maximum house loan
<b>I. <u>PLOT AND LOAN CHARGES</u></b>			
1. Cost per plot (see Table C):			
2. House construction loan:			
3. Subtotal (1 + 2):			
4. Deposit paid:			
5. Loan Balance (3 - 4)			
A. Monthly Plot/Loan Charge: / (repayment of loan balance over 30 years at 9½ %)			
<b>II. <u>SERVICE CHARGES</u></b>			
1. Loan Administration:			
2. Sewerage:			
3. Refuse Removal:			
4. Water:			
5. Electricity:			
6. Supplementary charge:			
B. Monthly Service Charges total:			
<b>III. <u>TOTAL MONTHLY COST TO OWNER:</u></b> (Line A above + line B above)			
<b>IV. PERCENTAGE OF ALL HOUSEHOLDS WHO CAN AFFORD CHARGES:</b> (total monthly charges can not exceed 25% of monthly household income)			

Financial Plan

CHINHOYI

	<u>Total Z\$</u>	<u>Total* US\$</u>
<u>1. U.S. Agency for International Development</u>		
a) <u>Shelter Solutions</u> Water, Sewer, Road and Stormwater Drainage Works and Electricity for 500 Serviced Plots	600,000	791,000
b) <u>Community Facilities</u>		
1. 1 Primary School @Z\$172,000	172,000	227,000
2. 1 Local Shopping Center	30,000	40,000
3. Landscaping	30,000	30,000
c) <u>Building Material Loans</u> 500 Loans @ Z\$1500 (ranging from Z\$1000-2000)	750,000	990,000
d) <u>Escalation and Contingencie</u>	242,000	311,000
<u>TOTAL:</u>	<u>1,824,000</u>	<u>2,400,000</u>
<u>2. Government of Zimbabwe</u>		
a) Land: 30 ha @ Z\$350 per ha	11,000	14,000
b) Project Design & Management	200,000	277,000
c) <u>Escalation and Contingencies</u>	169,000	209,000
<u>TOTAL:</u>	<u>380,000</u>	<u>500,000</u>
<u>3. U.S. Agency for International Development and Government of Zimbabwe</u>		
<u>GRAND TOTAL</u>	<u>2,204,000</u>	<u>2,900,000</u>

\* All figures rounded off to the nearest 1,000.

STATEMENT OF JUSTIFICATION FOR THE ACQUISITION OF A MICRO-COMPUTER FOR THE MINISTRY OF HOUSING OF THE GOVERNMENT OF ZIMBABWE

BACKGROUND

The Ministry of Housing is engaged in developing \$396 million worth of low-income shelter and related facilities during the three-year Transitional National Development Plan period ending in June 1985. Of this, the United States Agency for International Development's Housing Guaranty Program is funding \$50 million of shelter development in four urban centres. USAID is also providing technical assistance in support of the Housing Guaranty Program and to strengthen the institutional capacity of the central and local housing authorities.

Improving institutional capacity is a critical component of developing a rational and equitable shelter delivery system capable of meeting Zimbabwe's basic shelter needs, especially those of the below-median income population. These shelter needs are known to be enormous due to the combination of a number of factors, including the effects of post-war migration, the urgent need to reconstruct war-damaged settlements, the large backlog of housing demand not satisfied during the war years, rural-urban migration, previous neglect of lower-income housing, and rapid population growth (estimated at over 3.7%). However, although shelter needs are known in general terms, they have yet to be analysed critically to determine effective housing demand, affordability criteria, infrastructure needs and costs, materials flows, and shelter management requirements.

Although Zimbabwe has a relatively solid administrative infrastructure, a significant increase in the capacity of shelter institutions to manage the delivery of shelter is required. This increase is required at both the central government level, where the primary roles are planning and financing shelter, and at the local government level, where the primary roles are implementing projects and post-occupancy management. Generally, the required improvement in institutional capacity is most critical in the following areas: project planning and implementation; the delivery of aided self-help assistance; and the expansion of credit facilities to meet the needs of lower-income households. In each of these areas there is a significant need to improve the analysis, processing and management of shelter data. In each area this improvement could be substantially achieved by the application of an appropriate micro-computer to the tasks involved. Examples of these tasks are given below.

USES OF THE MICRO-COMPUTER

Applications of the micro-computer would include:-

1) Effective housing demand analysis:-

breakdown of numbers of households by income group and tenure status for a given area;  
projections of same using assumption re:  
population growth, both natural and migration;  
distribution of income.

- 2) Infrastructure efficiency analysis:-  
application of Bertaud and other models to design of infrastructure networks for various plot layouts, service standards.
- 3) Land use analysis:-  
calculation of land use profiles of alternative scheme layouts; results required for cost recovery proposals.
- 4) Cost recovery proposals:-  
analysis of alternative cost recovery strategies focusing on effects on income redistribution; determination of preferred pricing policies.
- 5) Cost estimatings:-  
determination of local/foreign costs of project components, e.g. core housing, under varying assumptions re: materials, mode of construction, inflation, devaluation, rate of construction.
- 6) Housing affordability analysis:-  
determination of affordability of proposed project plans by matching cost recovery proposals with effective housing demand schedules.
- 7) Project feasibility studies:-  
"time-value of money" studies based on projected cash flows.
- 8) Document productions:-  
preparation and revision of Project Delivery Plans, training materials and manuals using word-processing system.
- 9) Building materials inventory analysis:-  
determination of economic re-order levels. Notes this micro-computer would not be used for inventory control.
- 10) Processing of monitoring and evaluation data:-  
analysis of socio-economic characteristics of beneficiaries as contained in application forms (baseline) and follow-up instruments; monitoring of physical, financial progress.
- 11) Examination of alternative methods of repayments:-  
programme repayment method, level payments.

SELECTED SYSTEM

It is our belief that the acquisition of a micro-computer with a printer would greatly increase the Ministry's productivity in these areas. It would have especially great impact on the Ministry's capacity to assist local authorities in the planning and implementation of shelter projects. We would introduce the technology to the Ministry and

subsequently assist in the development of staff capability and procedures for using it to its fullest effect. Hardware and software would remain under our supervision until the above was accomplished, enabling the technology to be confidently transferred.

We have tentatively identified the following system as the appropriate one for our needs:-

- 1 No. Osborne Personal Business Computer with 64K RAM and 2 No. 200K double density disk drives with Data-base Certificate.
- 1 No. 12" Green Screen monitor with interface cable.
- 1 No. Printmaster F10 printer and interface cable.
- 1 No. Battery pack power supply.
- 1 No. START- PAC Kit (cassette-tape with manual for learning operating procedures).
- 20 No. Diskettes.

Software to include : WORDSTAR, SUPERCALC, CP/M, BASIC, C BASIC and DATA BASE II.

ADVANTAGES OF SELECTED SYSTEM

- 1) Built-in adaptor for 220/240 Volts.
- 2) Rugged construction with carrying case.
- 3) Portability, i.e. can be used in offices of Local Authorities.
- 4) Uses CP/M operating system which allows access to a very broad range of software including UNCHS's Urban Data Management System.
- 5) Estimated to cost less than US\$5 000 which is the amount available.
- 6) USA source and origin.
- 7) Serviceable in Harare by C.F. Tulley & Associates on a "Parts and time" basis.
- 8) Required software comes as standard package with the Osborne.
- 9) Compatible with electronic typewriter to be purchased with Grant funds.

MEMORANDUM

RHS.

TO: CDE. CHENGA  
through ACTING DIRECTOR,  
TECHNICAL SERVICES DEPARTMENT

FROM: CDE. BEARDMORE

TEL: 29445

FILE: F/3/60

DATE: 11th FEBRUARY 1963

EQUIPMENT FOR HOUSING GUARANTEE PROGRAMME

Please find attached a proposed list of equipment and materials for your review and comment. These items are required for the effective implementation of the above programme in general and the Project Management Training Programme in particular.

The following comments are in order:-

1. The estimated total cost of these items is Z\$11 000 available within the Limited Scope Grant.
2. All items become the property of Government and are to be used for project-related purposes.
3. All items except where noted are to be procured in the United States where they are readily available and relatively inexpensive. All items to be procured in the USA are manufactured there except where noted.
4. All electrical items are to be 220/240 volts and 50 cps.
5. All cost estimates are in Z\$ and exclude sales tax and customs duty.
6. All numbers in parentheses are references to the Brodhead - Garrett Catalogue obtained from the USAID Mission.
7. A waiver has already been obtained by the Mission to purchase item 2, likely to be of Japanese manufacture.
8. Waivers for the purchase of items 4 and 5 will be required. This would require a letter from Government to USAID stating that these items are standard government issue.

We recommend you approve this list and that it be forwarded to USAID for their further action.

Approved by Hon Min  
14/2/63

TECHNICAL ASSISTANCE SERVICES FOR LOW-COST SHELTER  
Commodity procurement

Item description / Justification / GOZ cost commitment	Est. Cost	Source / Origin
<p>✓ 1. 1 No. <u>overhead projector</u> (transparency) with acetate roll, spare lamp, especially useful in demonstration of the use of standard forms used by project staff. (e.g. BUHL Model 80/14, 220v 50cps.)(335907/18/29/30).</p>	360	To be procured in U.S.A.
<p>2. 1 No. <u>single lens reflex camera 35mm</u> with 80-200mm and 35-60mm wide angle lenses, flash, cases. (e.g. Nikon). Required for preparation of slide shows to be used during beneficiary and staff training. Also required for monitoring and evaluation. GOZ to bear cost of film, processing. (Japan).</p>	800	To be procured in U.S.A. (Waiver obtained).
<p>✓ 3. 1 No. <u>sound slide projector and 12 No. slide trays.</u> To have auto-focus, front and rear screen projection capability, built-in cassette recorder/player with synchronized pulse. Accessories to include carrying case, dust cover, foot switch, auto-timer, remote cords. (e.g. Telex Caramat 4494, 220/240v 50cps).</p>	1 500	To be procured in U.S.A.
<p>4. 1 No. <u>electronic typewriter</u> with variable type face, 15K memory, and interface RS-232 C (eg Facit 8111). Required to be used in production of project related training documents, manuals, reports. (Sweden). GOZ recurrent costs to cover servicing.</p>	1 300	Philpott & Collins, Cnr. Stanley and Sinoia. (Waiver required).
<p>5. 1 No. <u>photocopier</u> with reduction capability and document feeder, collator (e.g. Canon 400). Required for reproduction of project-related materials. GOZ costs to cover servicing, paper, etc. (Japan).</p>	5 000	- Ditto -
<p>✓ 6. 1 No. <u>combination punch and binder</u> required to bind project-related materials as described above. (289919).</p>	1 000	To be procured in U.S.A.
<p>✓ 7. 1 No. <u>drawing board 297 x 420mm</u> (e.g. Rotring). Required to be used in production of graphics for above materials, forms design.</p>	50	To be procured in U.S.A.

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TECHNICAL ASSISTANCE SERVICES FOR LOW-COST SHELTER  
Commodity procurement.

Item description / Justification / GOZ cost commitment	Est. Cost	Source / Origin
✓ 8. 1 No. <u>film projection screen</u> 60" x 60" on tripod. Wonderlite Silver Lenticular (338189).	100	To be procured in U.S.A.
9. 4 No. <u>metal easels for flipcharts</u> at \$65	260	Philips Electrical, 62 Mutare Road.
10. 48 No. <u>pads of newsprint</u> for flipcharts at \$2,50. GOZ to supply additional pads as required.	120	- Ditto -
✓ 11. 1 No. <u>Training Kit</u> , a library of training materials for University Assoc. LaJolla CA.	150	To be procured in U.S.A.
✓ 12. 48 No. <u>Magio Marker</u> felt pens in assorted colours.	65	To be procured in U.S.A.
13. 12 No. rolls of <u>masking tape</u> .	15	} Art Stationery, 62 Speke Avenue.
14. 96 No. <u>pencils</u>	10	
15. 2 No. <u>paper punches</u> .	8	
16. 2 No. <u>staplers and stapleg.</u>	12	
17. 48 No. <u>A4-size note books</u> .	100	
18. 96 No. <u>A4-size writing pads</u> .	200	} To be procured in U.S.A.
✓ 19. 1 No. <u>overhead projection graphics kit</u> as per Lumo Colour Art No. 359 AV.	100	

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LOW-INCOME HOUSING PROJECT FEASIBILITY :  
A REVIEW OF CHOICES WITHIN CONSTRAINTS FOR  
PARKRIDGE/FONTAINBLEAU

Richard Beardmore  
Project Planning Advisor  
Ministry of Housing

March, 1983

Introduction

- A. Objective
- B. Constraints
- C. Assumptions
- D. Calculation of maximum size house
- E. Relaxed Assumptions
- F. Recalculation of maximum size house
- G. Reviewing of constraints
- H. Recommendations

## Introduction

There is an apparent dilemma on the question of standards of housing versus affordability as far as the USAID - assisted Self-Help Housing Programme is concerned. Current Ministry of Housing policy calls for "core" houses to be not less than 50m<sup>2</sup> in area. The Housing Guarantee Program Implementation Agreements call for housing solutions to be affordable by households earning less than \$175 per month in Harare, with no subsidy provided by Government.

The purpose of this paper is to analyze the relationships between housing standards and prices with a view to facilitating the resolution of this dilemma. The paper takes a rational approach to the issue by stating the constraints and assumptions relevant to achieving the objective of providing adequate shelter solutions. When the outcome of the calculations is seen to conflict with Ministry policy, even under the conditions of relaxed assumptions, the constraints are examined one by one. The implications of modifying the constraints are discussed and recommendations are made to resolve the dilemma stated above.

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A. Objective

The objective of the present exercise is to design an adequate range of shelter solutions consisting of serviced stand and varying structures at Parkridge/Fontainbleau affordable by an urban worker and family earning the legal minimum wage in Harare.

B. Constraints

The following constraints, defined as unalterable givens, impinge upon the design of adequate shelter solutions:

- 1) The current legal minimum wage is \$105,00 per month.
- 2) Loan repayments are blended level payments calculated at 9½% compounded monthly over 30 years (capital recovery factor is \$8,41/1000) .
- 3) Minimum monthly service charges in Harare are \$12,52 calculated as follows:-
  - a) Loan admin. Charge \$ 2,20
  - b) Sewerage charge 2,82
  - c) Refuse removal 1,05
  - d) Min. water charge 1,95
  - e) Supplementary charge 4,50

\$12,52
- 4) The actual plot development cost recovered directly from beneficiaries for a stand at Parkridge/Fontainbleau Phase I is \$450 calculated as follows:-

Land acquisition	226,600
Land survey	86,350
Roads	1 180,875
Storm drainage	230,000
Engineering fees	54,489
Interest during construction	70,000
Total for 4,135 stands	<u>1 848,313</u>

Therefore the cost/stand is (say) \$450,00.

NOTE: Costs for water, sewers and electricity are recovered through utility tariffs. Connection fees are ignored.

- 5) The minimum standard shelter solution shall include an initial four-roomed detached core house containing a toilet and shower, having

a minimum area of 50m<sup>2</sup>, and be capable of expanding to seven rooms.

- 6) There is no net subsidy given to householders, i.e. there is a policy of full cost recovery.

C. Assumptions

The following assumptions, defined as alterable givens, are relevant :

- 1) All households will make a minimum deposit of 5% of the total loan amount.
- 2) Total monthly payments for housing and related surveys do not exceed 27.5% of the household income.
- 3) The "square meter cost" of building materials is \$55,00 in March 1983 prices, as determined by recent brigade costing exercise.
- 4) The "square meter cost" of brigade labour and overheads is \$20 in March 1983 prices, as determined by recent brigade costing exercise.
- 5) The inflation rate on building materials costs is 2% per month compounded.

NOTE: Combining assumptions in Section C with the constraint calling for a minimum of 50m<sup>2</sup> of built space yields a unit cost of \$4 200 per unit, brigade built and \$3 200 for self help.

D. Calculation of maximum size of house

- 1) Monthly total for housing as per B1 and C2 :-  

$$27.5\% \text{ of } 105,00 = \$28,88.$$
- 2) Net available for loan repayment after paying for service charges as per D1 and B3 :-  

$$28.88 - 12.52 = \$16,36$$
- 3) Maximum affordable loan as per D2 and B2 :-  

$$\frac{16.36}{8.41} \times 1000 = \$1,945$$
- 4) Maximum cost of total housing package as per D3 and C1 :-  

$$1,945 + 5\% \times 1,945 = \$2,042$$

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3.

- 5) Maximum cost of house after allowing for serviced stand from D4 and B4 :-

$$\$2,042 - \$450 = \$1,592$$

- 6) Maximum size of brigade built core from D5, C3, C4, C5 :-

$$\frac{1,592}{(55 + 20)} = \frac{1,592}{75} = 21,2m^2$$

This result contradicts the constraint B5 which stipulates that a core shall be a minimum of 50m<sup>2</sup>.

- 7) Maximum size of self-help built core from D5, C3, C4, C5 :-

$$\frac{1,592}{55} = 28,9m^2$$

This result also contradicts constraint B5, even if all labour is either voluntary or paid for outside the loan.

Let us repeat this series of calculations after relaxing all the assumptions to their logical extremes.

E. Relaxed assumptions

- 1) All households make 15% deposit of total loan amount.
- 2) Total monthly payments for housing rise to a maximum of 35% of income.
- 3) Material costs, including plumbing, drop by 10% to \$50 per m<sup>2</sup>.
- 4) Labour and overhead costs drop by 10% to \$18 per m<sup>2</sup>.

F. Recalculation of maximum size of house

The steps in Section D are repeated as follows :-

- 1) 35% of \$105 = \$36,75;
- 2) \$36,75 - \$12,52 = \$24,23;
- 3) Max loan =  $\frac{\$24,23}{8,41} \times 1000 = \$2,981$

- 4) Max cost =  $2,881 + \frac{15}{100} \times 2,881 = \$3,313$
- 5) Max cost of house =  $3,313 - 450 = \$2,863$
- 6) Max size of brigade-built cores :-  

$$\frac{2,863}{50 + 18} = \frac{2,863}{68} = 42\text{m}^2$$

This result violates constraint B5 since the affordable area is less than  $50\text{m}^2$ .

- 7) Max size of self-help built core :-  

$$\frac{2,863}{50} = 57,3 \text{ m}^2$$

This result meets constraint B5. However it requires the household to put down \$432 deposit and provide "sweat equity" or cash valued at \$684 for labour, assuming \$12 per square meter. Survey research in Harare has shown that only one half of households earning \$105 p.m. have savings and that the amount saved averages \$120 per household.

#### G. Reviewing the constraints

It would appear that a feasible housing project meeting all the assumptions given in Section C would necessarily require some alterations to the previously "unalterable" constraints in Section B. Let us look at each one in turn.

The following discussion of possible options assumes that the Ministry of Housing has the necessary power to convince the relevant authorities in each case to implement the proposed changes.

##### 1. Increase the legal minimum wage

The minimum wage is regulated by the Ministry of Labour and Social Services. It is reviewed regularly and periodic increases are decreed in the Government Gazette. The decision to increase the minimum wage is a delicate one involving economic and political variables. It is based in part on an analysis of the increase in cost of living indices for the lower income groups. These indices include housing costs as only one component. It is unlikely that the minimum wage would be raised by an amount sufficient to render the cost of the current minimum house affordable by those now earning \$105 per month.

Using the assumptions given in Section C which assumes that the 50m<sup>2</sup> self-built core house and serviced stand cost \$3 200, the minimum wage would have to be increased to \$143 per month to allow payments of principle and interest of \$26,90 and service charges of \$12,52.

2. Revise finance terms

There are four ways to alter the finance terms governing the repayment of loans by low-income borrowers. They are:-

- a) Reduce interest rates to homeowners.

The current interest charged on NHF loans is 9½%. This rate established by the Ministry of Finance, is a function of the rates at which MFEPD borrows money to put into the NHF. Using the assumptions given in Section C, interest rates would have to drop to 4.55% p.a. to permit the minimum wage earner to afford the minimum approved house costing \$3,200. That is, the loan would effectively be a grant with a 4.55% p.a. administration fee. Such terms would constitute a subsidy, which contradicts constraint B6.

- b) Lengthen the repayment period of the loan.

The current repayment period is 30 years. This implies a repayment rate of \$8,41 per thousand dollars borrowed. By lengthening the period by, say 50% to 45 years, this amount drops by only 4.5% to \$8,03. In other words there is very little to be gained by lengthening the repayment period.

- c) Introducing graduated repayment scales.

This approach involves setting repayments at the low end of the

scale at the beginning of the loan period and increasing them each year in keeping with the assumed increase in a household's income, such that the full debt is amortized by the end of the period. Although the advent of inexpensive computers has made the management of these progressive repayment schemes easier they still present significant administrative problems. Each borrower must be made aware of how much his payment increases and on what dates.

More over the theory assumes that increases in incomes can actually keep pace with the progressive increase in repayments to keep the proportion spent on housing the same, i.e. 27.5% of income. In order to make initial payments significantly lower than those called for under level payment systems, and in order to minimize the erosion of the value of money, the progressive increases have to be large; larger in fact than the borrower can afford under normal rates of income increases.

In addition, by deferring major capital repayment, to the later stages of the repayment period under conditions of continuous and often acute economic inflation, the "time value" of money repaid is lower than under traditional systems. In the medium term this reduces the volume of funds available for recycling into new projects.

In other words a meaningful application of the approach only serves to defer the day the borrower realizes he cannot afford the house. To our knowledge graduated repayment schemes have never been applied to any large-scale low-income shelter project.

- d) A combination of a), b) and c) above.

It should be clear that reducing interest rates, lengthening repayment periods, and introducing progressive repayment scales, all at the same time, cannot achieve the desired objective of affordability.

3. Reduce monthly service charges

At present monthly service charges cover the cost of recurrent items such as loan administration services, rubbish collection, water supply and road maintenance. It also covers some times of capital expenditure such as water and sewer reticulation and provision of electricity and security lighting. A reduction in the first group of charges would suggest a lowering in the level of service provided. A reduction in the second group would lead to the introduction of subsidies by not recovering all capital costs.

4. Reduce plot development charges

The plot development costs given in B4 are actual costs incurred in acquiring, surveying and servicing the land. The total of \$450 per plot includes a notional \$13 for engineering fees and \$25 of capitalized interest. This latter amount assumes that construction took ten months and that 7.9% interest on half the cost of the works had accrued by the end of the period. Because the work is already near completion these actual costs cannot be changed.

It is theoretically possible however to revise the formula by which these actual costs are allocated. That is, a policy decision could be made to recover some of the costs from sources other than the lower-income beneficiaries or not to recover the costs at all. GOZ could absorb the cost of the land and survey fees. The City Council could charge the cost of roads to their rates fund. MOH could charge consultants fees to the Extraneous Professional Assistance Vote and could waive the interest during construction. If all these rather drastic measures were taken and no plot development costs were passed onto to residential plot holders, i.e. eliminate plot development charges, then the following would result. Refer to F5, and use relaxed assumptions:

Max cost of house = \$3, 313

∴ Max size of self-built core: =  $\frac{3313}{50}$

=  $66m^2$

That is, eliminating the plot development charge by granting "free" serviced stands to allottees would allow the minimum acceptable core house of 50m<sup>2</sup> to be built from the start. Under this set of assumptions, however, a deposit of \$720 and "sweat equity" of \$800 are still required. Moreover applying assumption C6 concerning a conservative estimate for the inflation of building material costs means that core houses built in the second year of the programme would be at least 26.8% smaller than the 66m<sup>2</sup> affordable in the first year, i.e. 48m<sup>2</sup>.

Thus the gains achieved by a complete subsidy of infrastructure costs, amounting to \$1,848,000 for Parkridge Phase I, evaporate by the end of the first year. In addition the precedent set by allocating "free" plots would be difficult to overcome in subsequent projects.

#### 5. Introduce financial cross-subsidies

Many of the alternatives discussed above involve the introduction of net subsidies in one way or another. These subsidies are created by way of the public sector absorbing certain cost items, e.g. survey fees or the opportunity cost of below-market interest rates. Net subsidies reduce the overall volume of government resources available to tackle the low-income housing problem. There are however kinds of subsidies which do not reduce resources but which in fact can increase governments' ability to deal with the problem. These are cross subsidies, whereby the "haves" contribute to solving the housing problem of the "have-nots". This is an enormously complex issue involving many public, parastatal and private sector authorities and their respective pricing policies. The subject is clearly beyond the scope of this paper. And indeed it does have its limits in that there are relatively few "haves" in Harare: less than 4% of all households earn more than \$1 200 per month. However the possibilities of generating significant cross-subsidies should be investigated for their consistency with

Governments' desire to redistribute income in the long term as part of the process of socialist transformation of the nation.

#### 6. Revise physical design standards

The last remaining option to consider deals with the spatial and temporal dimensions of physical standards. At Parkridge-Fontainebleau this option confines itself to house design since the standards of services are already fixed for obvious reasons. Two approaches can be taken and they are both linked to the notion that standards should be minimal but upgradable. In

the first case a policy decision could be taken to fix the size of the minimum acceptable core to an affordable one such as 12m<sup>2</sup>, or one room plus separate toilet and shower. This approach suggests that a local authority would approve house plans showing this minimal standard and it would be satisfied if the plot allottee built a structure in conformity with the plan within a specified time limit, say, one year. The second approach anticipates the allottees desire to have a proper house within a few years. In such a case the local authority would only approve house plans meeting current Ministry standards. It would also require the allottee to build the sanitary core and one room within, say, one year. However it would not put a time limit on the period during which the allottee must complete additional rooms. This second approach need only be applied in the case of stands being developed with aided-self help methods, either individually or co-operatively based. Stands being developed by brigades could still have the four-roomed core house for allocation to middle-income households where such allocations are authorised.

#### H. Recommendations

In view of the constraints imposed upon the design of affordable low-income shelter solutions at Parkridge-Fontainebleau it is recommended that

- 1) In the long-term the possibilities of generating financial cross-subsidies within the housing sector be investigated with a view to putting shelter opportunities for the low-income groups on a more equal footing with their wealthier compatriots.
- 11) In the short-term, a core house of four rooms be set as the minimum standard with the proviso that where they are to be constructed with self-help methods, the beneficiary, after constructing a toilet and one room within say one year, need not build more than he can afford at any given time.

# MEMORANDUM

To Cde. Chenga  
thru' Acting Director, T.S.B.

*UMB* *CA*

From Cde. Beardmore and Hovik

Ref F/3/57

Tel

Date 11 April, 1983,

## BRIGADE BUILT HOUSES

Please find attached summaries of our findings on the cost of building four-roomed core houses in the following towns:-

Marondera (Dombo Tombo)	\$ 3 318	50.1m <sup>2</sup>
Kwekwe (Mbizo)	3 777	52.0m <sup>2</sup>
Mvuma (Mushayavudzi)	4 092	57.0m <sup>2</sup>
Mutare (Danganvura)	5 446	57.25m <sup>2</sup> (estimate)
Kadoma (Rimuka)	not available	

Our narrative report on the investigations is under preparation.

# BRIGADES HOUSE CONSTRUCTION UNIT COSTS SUMMARY

Town: MARONDERA Prices as of: APRIL 1983  
House Plan No.: 192 A Area of House: 50.1m<sup>2</sup>

<u>ITEM</u>	<u>\$/UNIT</u>
Materials <del>(XXXXXX XXXXXXXX XXXXXXXX)</del>	2 037
Labour	578
Water, sewer & electricity connections (incl materials, labour, & fees)	240
Site salaries (clerks, security, etc.)	85
Site establishment & disbursements	-
Transport of materials	58
Plant, equipment, clothing & tools	20
Materials procurement & handling (5 %)	145
Town Engineers charge (2½ %)	80
Interest during construction (2.3%)	75
	<u>3 318</u>
TOTAL	

## COMMENTS

1. Rate of construction assumed to be 128 units in 8 months i.e. 200 p.a.
2. All walls are 115mm concrete block ; blocks produced at a cost of \$0.19 each (materials and labour only) Note: all water, sand and quarry dust are free; no allowance for depreciation, maintenance of plant and equipment, no allowance for "down-time".
3. Not all labour had been trade-tested by Manpower.
4. Marondera has quickly adopted the brigade strategy which closely resembles their pre-Independence mode of construction which involved contracted labour.
5. There have been no "contractor-built" houses therefore price comparisons are not possible. Average cost per m<sup>2</sup> is \$66.

# BRIGADES HOUSE CONSTRUCTION UNIT COSTS SUMMARY

Town: KWEKWE

Prices as of: January 1983

House Plan No.: 1593

Area of House: 52 square metres

<u>ITEM</u>	<u>\$/UNIT</u>
Materials (incl 5% contingencies)	2,816
Labour	638
Water, sewer & electricity connections (incl materials, labour, & fees)	70
Site salaries (clerks, security, etc.)	38
Site establishment & disbursements	6
Transport of materials	-
Plant, equipment, clothing & tools	31
Materials procurement & handling ( 5%)	-
Town Engineers charge ( 2½ %) (+\$6)	91
Interest during construction ( 2.5%)	67
<b>TOTAL</b>	<b><u><u>\$ 3,777</u></u></b>

## COMMENTS

1. All houses have 150mm external walls (i.e. new MOH standard).
2. All houses have pedestal WC partitioned from remainder of bathroom as per MOH standards./
3. Capital cost of establishing block-making facility is included in price of blocks (i.e. prices of \$0.30 for 110mm block and \$0.35 for 150mm block cover capital, production, and transport costs); costs unverified.
4. Labour and site costs and charges based on assumed rate of production of 759 houses per annum.
5. Labour hired in stages as needed as project was established; only six houses completed as of 31.3.83.
6. All materials by-pass Central Stores; delivered direct to site.
7. Trade-testing of skilled labour will add an estimated 15% to labour cost.
8. Brigade construction adopted by Kwekwe this year, all previous work done by contractors supplying labour and materials or labour only (materials supplied by municipality).

## Cost Comparison: (January 1983 prices)(cost of completed unit)

- A. Contractor-built (labour & materials)(estimate) : \$128/m<sup>2</sup>
- B. "Labour-only" contract built (house plan 1592) : 69/m<sup>2</sup>
- C. Brigade-built : 72/m<sup>2</sup>

## BRIGADE'S HOUSE CONSTRUCTION UNIT COSTS SUMMARY

Town: MVUMA (RC) Prices as of: MARCH 1983  
House Plan No.: Unnumbered Area of House: 57m<sup>2</sup>  
17 October 1982  
(Mushayavudzi)

<u>ITEM</u>	<u>\$/UNIT</u>
Materials (incl 5% contingencies)	3 170
Labour	751
Water, sewer & electricity connections (incl materials, labour, & fees)	-
Site salaries (clerks, security, etc.)	-
Site establishment & disbursements	-
Transport of materials	47
Plant, equipment, clothing & tolls	27
Materials procurement & handling ( 5%)	-
Town Engineers charge ( -%)	5
Interest during construction (2.3%)	92
<b>TOTAL</b>	<b>4 092</b>

### COMMENTS

1. 32 units produced in 4 working months using labour team of 30 men and 1 foreman.
2. All walls are 115mm concrete blocks of very poor quality. Foreman supplies blocks at \$0.39 each from his own block making facility.
3. It is unclear who actually employs the labour, i.e. Area Committee or Foreman. Method of wage payment open to abuse, i.e. all moneys paid out through Area Secretary and Foreman.
4. Virtually uncontrolled issue of materials from Stores. It can be assumed that material price of approx. \$3.170 includes large element of "shrinkage".
5. All houses being allocated on a rental basis. Monthly charge totals \$45,60 including \$34 for "rent".
6. Very poor value for money, anticipate major maintenance problems in the near future.
7. Cost information not final but derived from available incomplete data.

### Cost Comparison

- A. Contractor-built (labour & materials) : \$188/m<sup>2</sup>  
(estimate based on 2 year old project)
- B. "Brigade built" \$ 72/m<sup>2</sup>

# BRIGADES HOUSE CONSTRUCTION UNIT COSTS SUMMARY

Town: MUTARE Prices as of: JANUARY 1983

House Plan No.: 15/A/248 of 28/12/82 Area of House: 57.52m<sup>2</sup>

<u>ITEM</u>	<u>\$/UNIT</u>
Materials <del>(XXXXXXXXXXXXXXXXXXXX)</del>	3 617
Labour	784
Water, sewer & electricity connections (incl materials, labour, & fees)	270
Site salaries (clerks, security, etc.)	47
Site establishment & disbursements	23
Transport of materials	72
Plant, equipment, clothing & tolls	376
Materials procurement & handling ( %)	-
Town Engineers charge ( %)	135
Interest during construction ( %)	122
<b>TOTAL</b>	<b>5 446</b>

## COMMENTS

1. These figures are estimates (approved by MOH) and do not reflect actual costs since no work done/to date.
2. All external walls to be 150mm and internal walls to be 115mm. Actual cost of brigade-produced 115mm block is \$0.27.
3. Site (Danganvura) is 14km from centre Mutare.
4. The core house is large when compared to other units approved by MOH.
5. Costings assume production rate of 500 units p.a.

## Cost Comparison

- A. Contractor built (estimate) 125/m<sup>2</sup>
- B. Brigade built \$95/m<sup>2</sup>

NOTE: Mutare has recently completed (Jan. 83) construction of a primary school of 1345m<sup>2</sup> by "direct-labour" at a total cost of \$180,000, excluding landscaping. This gives a m<sup>2</sup> cost of \$134.

# BRIGADES HOUSE CONSTRUCTION UNIT COSTS SUMMARY

Town: KADOMA

Prices as of:           -

House Plan No.:           -

Area of House:           -

<u>ITEM</u>	<u>\$/UNIT</u>
Materials (incl 5% contingencies)	
Labour	
Water, sewer & electricity connections (incl materials, labour, & fees)	
Site salaries (clerks, security, etc.)	
Site establishment & disbursements	
Transport of materials	
Plant, equipment, clothing & tolls	
Materials procurement & handling ( %)	
Town Engineers charge ( %)	
Interest during construction ( %)	
<b>TOTAL</b>	

## COMMENTS

1. Brigades not yet established for construction of production.
2. Costing of proposed house plans not done.
3. Application for borrowing powers not yet submitted.
4. Detailed analysis of block slab set-up using casual labour shows production cost of 150 and 110mm block are \$0,40 and \$0,27 respectively. Local commercial prices for 115mm block is \$0,33; 150mm block not commercially available.
5. Current "upgrading" of Rimuka being done using sub-contracted labour using "old" MOH funds. Average house costs are \$72/m<sup>2</sup> using this method.
6. Kadoma Town Clerk claims a local contractor was willing to undertake construction of houses for approximately \$70-85/m<sup>2</sup> including supply of materials. It was alleged that the same contractor had constructed 21m<sup>2</sup> in houses for \$57.14/m<sup>2</sup> in October 1981, i.e. \$83/m<sup>2</sup> in today's prices.

# MEMORANDUM

*PMB*

To Cde Changa  
Thru' Acting Director, TSB

From *a.f.*  
Cds Hovik and Beardmore

Ref F/3/57

Tel.  
Date 13th April, 1983

## REPORT ON VISITS TO BRIGADE HOUSING PROJECTS

Herewith our observations on the operations of Local Authority brigade programmes for Marondera, Kwekwe, Mvuma, Mutare and Kadoma, visited during the period March 30 to April 7, 1983.

This report should be read in conjunction with our findings on actual costs submitted to you under separate cover. Recall that the costs analysed included the house only and not the serviced stand.

There were important lessons learned about brigades and their establishment in each centre visited. Please find our summarized observations as follows :-

### A. Marondera

1. Introduction of the brigade approach in Marondera did not pose great organizational problems because the Municipality had used a similar method for the last fifteen years. i.e. labour subcontract. They already had a developed material stores system and necessary transportation. They had had experience in costing and controlling house construction by stage for both labour and materials. The high quality of workmanship indicates they have adequate levels of supervisory and artisan skills for their current level of production. There was also evidence of a "team spirit" amongst the council officers.

2. The current strength of the construction brigade is 55 approximately. Planned production target is equivalent to 200 units per year. Progress to date suggests this target will not be met. Council officials indicated productivity had dropped by as much as 25% compared with the sub-contracted labour approach. They attributed this to the new system of payment on permanent terms. When all artisans are trade-tested, thus increasing the cost of labour, productivity is expected to further decline, i.e. output per dollar of labour will drop.

3. The "square metre" costs are the lowest of the five centres visited, despite the high level of finishes called for. This is because :-

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2/....

- (i) all materials for blocks are "free" except cement.
- (ii) all existing buildings and equipment are fully depreciated i.e. no "charge" passed on to houses.
- (iii) no site offices were set up since the Dombo Tombo Area is close to their permanent offices.
- (iv) All walls, internal and external, were 110 mm concrete block.

Inevitably as the quarry becomes exhausted of materials, as equipment needs replacing, as areas further away from centre town are developed, and walls are made with 150 mm blocks costs will go up.

B. Kwekwe

1. The Mbiso houses are the first ones to be undertaken by Kwekwe at such a scale using the "direct-labour" approach, i.e. brigades. The Town Engineer has had to develop all necessary technical procedures to implement the programme since he joined the Council in July 1982. There was evidence that setting up the brigades was achieved at the expense of other municipal programmes, i.e. shortage of transport and equipment created by diversion to brigades, to say nothing of the Town Engineer's time. Recent resignations of Town Treasurer and his deputy could at best lead to a slow down in the works and at worst to loss of financial control of the project. It has also placed additional responsibility on the Town Engineer, already heavily burdened with numerous technical tasks. Cursory inspection of the site revealed some problems with the quality of workmanship, probably owing to lack of adequate site supervision. e.g. "setting-out" levels of the foundations were often too low, and block work roughly finished.

2. Based on progress to date, it is unlikely that all 300 units will be completed by 30 June 1983 as planned, using the 160 - person brigade presently employed. It is not clear what production targets were being used to set the pace of the project. The Town Engineer estimated that labour costs for 1983/84 will go up by 15% owing to higher salaries payable trade-tested artisans.

3. Rough calculations show that 110 mm and 150 mm blocks are being produced at unit costs of \$0,21 and \$0,29 respectively. This contrasts sharply with "selling" prices of \$0,30 and \$0,35 respectively. Transportation of blocks from slab to site could account for some of this difference.

4. Although Stores does order materials and undertakes verification of deliveries and annual stock checks, all goods go directly to site and are under the control of a clerk who reports to the Town Engineer. This suggests (a) there should really be a cost item for materials procurement and handling; and (b) control of materials on site could be somewhat lacking.

5. The apparent dependency of the whole operation on one man, the Town Engineer, indicates lack of depth in the Municipality's organisation. This could put future brigades efforts at risk, if efforts are not made to strengthen the technical arm of the Municipality.

C. Mvuma

1. The construction of 32 houses at Mushayavudzi is Mvuma Area Committee's first attempt at implementing the brigade approach. Unfortunately the Area Secretary was on leave during our visit and many of our queries went unanswered. Nevertheless several serious problems were identified.

- (a) There was no clear evidence that the workforce did, in fact, constitute a brigade as understood by our Ministry. A description of the conditions of employment and evidence of proper salary payment were not available for our review. None of the labour force was wearing protective clothing.
- (b) The "brigade foreman" was also the supplier of concrete blocks thus creating a clear case of conflict of interest, more particularly since the quality of block was amongst the lowest we have ever seen anywhere. Moreover the price for 110 mm units was \$0,39 plus transport, i.e. higher than in any other of the five centres visited.

- (c) Poor quality materials were not confined to the blocks alone. Internal doors were seriously warped throughout. Work was too far advanced to permit inspection of foundations and slabs. The workmanship was generally poor. This suggests a lack of supervision and/or lack of basic building skills. It was also noted that the estimate of \$12 000 for labour had already been exceeded by at least \$12 000.
  
- (d) Members of the Area Committee admitted that there was a general lack of control on the issue of materials from the Store to site. Materials were issued to anyone from the work force without authority from the foreman. It was perhaps coincidental that some of the materials used to construct an extension to the Area Offices bore a striking resemblance to those used in the 32 houses.
  
- (e) Funds amounting to \$110,000 for 32 units had to be stretched to cover the cost of on-site water and sewer reticulation including a link to the existing sewage ponds. This suggests that an overall development plan for the Mushayavadzzi Scheme was lacking at the time of project approval. On top of it all, we suspect that the sewer system may be somewhat underdesigned.
  
- (f) The Area Committee's tabulation of expenditure to date showed that actual costs had exceeded \$150 000 as compared with the estimate of \$107,000 approved by the Ministry in January, 1983. This excess of \$43,000 includes expenditure on services and roads.

2. Mvuma is a clear case where the perception of what a brigade is differs markedly from that of the Ministry's perception.

D. Mutare

1. City of Mutare has submitted an application for borrowing powers totalling \$3,371 million to cover the cost of 440 houses and services at Dangamvura. It has not however begun its brigade programme owing to lack of funds from Government. It has established a block-making facility using its own funds. After stock piling 90,000 blocks, the labour has been laid off. The City Engineer reiterated his concern about employing brigade labour on a permanent basis without a written undertaking from Government to finance the resultant wage bill.

2. The cost estimates submitted by Mutare and approved by the Ministry allow for an average unit cost of \$5,446, considerably higher than the other centres. This figure includes a large amount for plant and equipment running costs (e.g. \$21,000 per tractor per annum) and high estimates (standards, quantity and rates) for materials (\$62,88/m<sup>2</sup>). It is likely that the tender prices for materials will be considerably lower than the approved estimates.

E. Kadoma

1. Kadoma has not yet prepared nor submitted an application for borrowing powers for 1982/83 for brigade housing.

2. It was clear from our discussions with Kadoma officials that there was much planning to be done before any application would be forthcoming.

3. Kadoma has established with its own funds a block-making set-up producing 110 mm and 150 mm blocks at the rate of 1400 per day. These blocks were by far the highest quality ones seen in the five centres visited.

F. Recommendations

Of the five centres visited only two, Marondera and Kwekwe, have established brigades in the accepted sense of the word. Mvuma's effort is badly off the rails and Mutare and Kadoma have yet to start. Current levels of production of brigade-built housing are still low compared to the total demand for shelter as described in the National Transitional Development Plan.

The following recommendations formulated as a result of our tour are made with a view to increasing the effectiveness of the brigade approach to shelter provision :-

1. The Ministry should ensure that proposed projects receive adequate supervision both at the Local Authority level and on site. Details of such supervision should be spelt out clearly in all applications for borrowing powers.
2. Attempts should be made at the Local Authority level to monitor physical progress of projects using simple tools such as bar charts.
3. All building material handling operations, i.e. Stores, should be supervised by an authority other than the one responsible for running the brigades. This would provide a double - check on control of material receipts and issues.
4. An attempt should be made by the Ministry to identify acceptable incentive systems to encourage labour productivity without contradicting existing labour laws. This applies to both production and construction brigades.
5. No NEF funds should be released to a Local Authority until an application for borrowing powers completed in accordance with standing instructions has been received and approved by the Ministry. It is recommended that these standing instructions be revised to make them more comprehensive. Use could be made of a few simple forms to standardize the way in which cost information is presented. This would expedite the approval process and would form the basis for follow-up cost-control exercises.
6. It is recommended that a series of standard house designs be prepared with accurate schedules of materials. Local Authorities could select one or more for use in their area and submit them as part of their application. Applications using standard plans would receive speedier approval than those using "one-off" designs.

It is recommended that the prices for building materials included in applications for borrowing powers be based on competitive tenders. This has the following advantages :-

- (i) The Local Authority would be ready to start work immediately upon receipt of funds.
- (ii) The total cost of materials would be lower than if based on "telephone quotes", thus allowing more units to be funded from any given sum of money.
- (iii) Since tender prices would only be valid for 60 days, the Ministry would have to expedite approval within this period to avoid the L.A. having to re-tender.

# Brigades building reputation

URBAN councils sceptical about building brigades should follow the example of towns such as Kwekwe and Marondera, the Minister of Housing, Cde Numbengegwi Mumbengegwi, has said.

Speaking after a tour of inspection in the two towns last week, the minister said the expense that brigades were too expensive and not comparable with private contractors were unfounded.

The minister, who also inspected a house-upgrading scheme in Kadoma, labelled these councils "arsenical builders" and challenged them to visit areas where the brigades were operating to see how successful they were.

In Marondera a 12-man materials production brigade

produces between 1200 and 1400 building blocks a day. They had made more than 13 000 blocks with a brick-making machine acquired only two weeks ago.

The Marondera Town Clerk, Cde Norman Chidzwa, said of the brigade: "They have their hearts in the job and know that they are working for the people, and so work with minimum supervision."

The blocks they make cost 18c each compared with 50c charged by private retailers.

These blocks are used for building houses in the high-density suburb. The 50-member construction brigade has already completed 24 houses and is working on 23 others. With two builders for outside walls and one for

partitions, it takes four days to complete a house.

The town council hopes to complete 120 units by mid-July this year. Each of the four-roomed houses, with provision for extension, costs \$3 000.

Kwekwe's materials production brigade produces various sizes of building blocks, standard bricks, breeze blocks, slabs and blocks for prefabricated walling. Formed last December, this is one of the most productive brigades.

The Town Engineer, Cde George Mille, said the town council's heads of department met every week to review the work of the brigade while the full council did a monthly review of their work.

Thirty-three four-roomed

houses are nearing completion and 44 others are above foundation stage in the town's Mhizo high-density suburb. Each house costs \$4 200.

Cde Mumbengegwi said he expected Kwekwe to charge less for the houses because it had a lot of locally obtainable materials. Block and reinforced steel for making slabs was being obtained from scrapyards of local companies.

Kadoma Town Council is in the process of pulling down 674 slum houses and another lot of "chimney" houses occupied by about 800 families. It is expected that the programme will be complete by 1985.

To date, 18 houses have been completed and the council hopes to build an average of 24 houses each month.—ZAR.



CDE NUMBENGEGWI

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## MINISTRY OF HOUSING

Progress Report : Low-Income Shelter

USAID Project Number 613-HG-001

Information in this report is derived from consultants reports, liaison with Harare City Council and MOH records. Data on infrastructure progress is as of February 28, 1983.

I. General Status of Project : Phase One

This project is somewhat behind schedule, on both the infrastructure and housing development sides of the project.

On the infrastructure side, significant progress has been made, but, overall development of serviced plots is about six weeks behind schedule. It is estimated that the first 1,000 fully serviced plots will be available for allocation by early April and that virtually all of the planned 4,135 plots will be ready by mid-June.

The primary reasons for delays in infrastructure construction have been rain, the need to mechanically stabilise road sub-grades, and the unavailability of primer for sealing road surfaces. However, delays on the infrastructure side are not anticipated to cause problems in the orderly allocation of plots to beneficiaries.

On the housing development side of the project, major delays have been experienced in establishing a project implementation programme. Substantial background work has been done, but a comprehensive policy and management framework has not yet been produced.

The primary reasons for delay have been the lack of a sound working relationship between the City Council of Harare and the Ministry, lack of coordinated and directed policy and programme development, and consequent delay in revising the Phase One Project Delivery Plan by which housing development will be managed. Overall, this side of the project is about three months behind infrastructure development. It is anticipated that plot allocation will not begin before virtually all Phase One plots have been serviced.

II. Progress on Specific Project Components : Phase OneA. Infrastructure1. Roads and Stormwater Drainage

Roads and stormwater drainage are about 77% complete in Unit One, 49% complete in Unit Two, and 44% complete in Unit Two Extension and Units Three and Four. Overall, Phase One road and stormwater construction is about 55 to 60% completed. Most road sub-surfaces have required mechanical stabilisation; the soil does not compact well due to changes in the soil from extensive prior use as farmland. The contract completion dates in early March could not be met because of the lack of road surface primer. Completion will be delayed at least one month for Units One and Two. Work in Units Two Extension, Three, and Four should be completed on schedule, but some overexpenditure on all three road contracts is likely.

## 2. Water Reticulation

Work on water reticulation is virtually complete in Unit One, including installation of house connections, which were extra to the contracts. In Unit Two, water reticulation is about 23% complete and work is far behind schedule. An extension of time will be justified for installation of house connections, which are extra to the contract. In Units Two Extension, Three and Four, work is about 13% complete and progress has been good despite encountering rock during trench excavation.

## 3. Bulk Water Supply

The 600 mm water main has been completed by the City of Harare. Water should be available throughout the site by the time plot allocation begins.

## 4. Sewerage Reticulation

Sewers are virtually completed in Unit One, including house connections. Work in Unit Two is about 78% complete and progress has been good. In Units Two Extension, Three, and Four, work is about 65% complete despite the need to re-route sewers to avoid rock outcrops.

## 5. Electrical Reticulation

No work yet undertaken. The City of Harare Electricity Department is waiting for contractors to complete a unit before beginning work. However, it is anticipated that electrical reticulation will not delay plot allocation; tower lighting will be prepared before allocation and laying of cables to supply houses will only be undertaken when demand for electricity is sufficient.

## 6. Administration Centre, Depot, Training Centre

The frame structures for the administration centre, training centre, and house materials depot are completed. However, plans for the completion of these buildings are not yet fully drawn. It is expected that when drawings are complete, permission will be sought for a selective tender to enable a contractor to start work quickly. Completion of construction is anticipated by mid-July.

## 7. Site-Fencing

Work is complete.

## B. Housing Development

### 1. Revision of the Project Delivery Plan : Drawn-down of EG Loan

USAID informed MOH in January 1983 that the PDP submitted in October 1982 would require revision and up-dating before approval could be granted. As a consequence of this, MOH advised the Ministry of Finance, Economic Planning and

Development to re-invest Housing Guaranty loan funds in escrow until May 1, 1983. The funds were scheduled to be drawn-down on February 1, 1983.

Considerable background work outlining issues and procedures for implementing the project has been done. However, a significant amount of work remains to be done in order to develop a comprehensive plan. Progress has been made with regard to beneficiary selection, staffing, and administrative operations. Areas requiring work include stores operation, legal agreements, lending procedures, community development, project oversight roles and functions, cost recovery management, technical assistance programming, beneficiary orientation and training, monitoring and evaluation, and project scheduling.

The critical area requiring work is, in general, developing a construction programme which produces housing meeting MOH standards while observing the principles of affordability, full cost recovery, and targeting of below-median-income beneficiaries.

In late March the City of Harare and MOH established a working relationship to enable MOH housing advisors to assist HCC in preparation of the revised PDP. Although work has begun, it is anticipated that a revised PDP is unlikely to be completed and agreed upon by MOH and HCC before May. It is expected that allocations of plots can not take place before mid-June and that HC loan funds in escrow will have to be re-invested again.

2. Demonstration Houses

Eight core house designs of 4-rooms each have been developed, together with designs for extending the cores to seven rooms. The 16 demonstration units will be constructed by Harare City Council Department of Works construction brigades on a site near the administration centre at a construction cost estimated at Z\$195,000 plus \$37,000 for plant and equipment. MOH has approved the designs and given HCC permission to begin construction, although an effort will be made to reduce costs considerably. It is anticipated that the houses will be completed by July 1.

3. Management Training Programme

MOH has approved the Management Training Proposal prepared by USAID consultant Dr. Fred Fisher. HCC has been requested to provide dates for carrying out the programme. However, since plot allocation and housing construction is unlikely to begin before mid-June and it is undesirable to train staff prematurely, it is anticipated that the training programme will not be held before late May or early June.

#### 4. Commodity Procurement

MOE has requested the Central Mechanical Equipment Department to order project vehicles. It is anticipated that the Peugeot Saloon will be available to project staff by early April, the Toyota van by mid-July, and the two trucks by September.

With regard to commodity procurement for training, MOE received approval in late March from USAID to purchase the locally-available equipment and will now proceed to purchase it. However, it is unlikely that equipment purchased from the United States by the USAID Mission will reach MOE in time to be used in the Management Training Programme.

### III. General Status of Project : Phase Two

#### A. Parkridge-Fontainebleau

This phase of the project follows development in Phase One. On the infrastructure side, contracts have and are being let, and some site work has begun. On the housing development side, little progress has yet been made pending development of project implementation plans for Phase One.

##### 1. Infrastructure

Work has begun and is progressing satisfactorily on setting out roads and laying sewer lines in Unit Seven. Tenders have been received for work in Units Five and Six. Sketch plans for the District Centre have been prepared. It is expected that development costs will reflect the recent increase in fuel prices, particularly with regard to transport of dense materials, and that a considerable portion of the contract contingency sums will be needed.

##### 2. Housing Development

It is anticipated that work on the Phase Two Project Delivery Plan will start shortly after the Phase One PDP is completed.

#### B. Secondary Towns

##### Infrastructure and Housing

Site plans for projects in Marondara, Kadoma and Chinoyi have been virtually completed by the Provincial Planning Office. The towns have been requested to provide portions of the Project Delivery Plan to MOE by April 29. It is anticipated that considerable liaison work between MOE and the three towns will be required in order to develop the PDP. In effect, the Phase Two PDP portion dealing with the three secondary towns will be prepared as an exercise separate from preparation of PDP portions dealing with Phase Two at Parkridge-Fontainebleau.

STATUS REPORT AND SUGGESTIONS  
ON THE  
KWEKWE AND GUTU PILOT HOUSING PROJECTS  
ZIM/81/004

SPONSORED BY THE  
GOVERNMENT OF ZIMBABWE  
AND THE  
UNITED NATIONS DEVELOPMENT PROGRAM  
UNITED NATIONS CENTRE FOR HUMAN SETTLEMENTS

WITH ASSISTANCE FROM THE  
U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT  
AND THE  
ZIMBABWE BUILDING SOCIETIES

NATIONAL SAVINGS AND LOAN LEAGUE

PREPARED BY: CLAUDE J.J. BOVET

DATE: FEBRUARY, 26, 1983

The writer visited Harare from the 19th to the 26th February, 1983, as a follow-up to his previous visit in June 1981, to evaluate the present status of the KweKwe and Gutu projects and to assist in the setting up of necessary financial mechanisms to assure their viability and immediate implementation.

#### A - COSTS

It was found that project costs have risen substantially from those originally estimated, because of the impact of (a) naturally rising prices under inflationary pressures and (b) expanded sewerage and core-house specifications, as follows (all figures supplied by UNCHS staff):-

	<u>KWEKWE</u> Z\$	<u>GUTU</u> Z\$	<u>TOTAL</u> Z\$
Original project cost estimates	2 273 800	361 400	2 635 200
Increased costs due to rising prices (Note 1)	936 565	349 392	1 285 957
Increased costs due to expanded standards (Note 2)	4 492 247	1 052 728	5 544 975
	<u>Z\$ 7 702 612</u>	<u>Z\$ 1 763 520</u>	<u>Z\$ 9 466 132</u>

The foregoing revised cost estimates break-down as follows for the individual housing units in each project:-

	<u>KWEKWE</u>	<u>GUTU</u>	<u>TOTAL</u>
Number of Houses	1045	198	1243
Total Cost	Z\$ 7 702 611	Z\$ 1 763 520	Z\$ 9 466 132
Cost per house	Z\$ 7 371	Z\$ 8 907	Z\$ 7 616
a) Serviced stand (Note 3)	Z\$ 1 475	Z\$ 2 743	Z\$ 1 677
b) Fully constructed core (Note 4)	Z\$ 5 896	Z\$ 6 164	Z\$ 5 939

These increased project costs prompt the following questions, which should be answered to the project sponsors' satisfaction before proceeding without further changes:-

- 1) Is there a ready market for this number of housing units at their substantially increased prices?
- 2) If such a market exists, does it fall within the lower income levels that the project sponsors wish to reach?
- 3) Can the additional financing requirements be met from existing or supplementary sources?

#### B - FINANCING

It appears that, if the preceding questions (1) and (2) can be answered affirmatively, required additional financing could be raised by the building societies as a group (or by Beverley Building Society individually should the others remain outside the program).

This would leave project costs to be met as follows:-

	2.	<u>KWEKWE</u>	<u>GUTU</u>	<u>TOTAL</u>
Project costs		Z\$ 7 702 611	Z\$ 1 763 520	Z\$ 9 466 132
Experimental and Promotional costs (February '83 rate)				Z\$ 948 246
<b>Total costs</b>				<u>Z\$10 414 378</u>
By: Purchaser down-payments (Note 5)		Z\$ 385 131	Z\$ 88 176	Z\$ 473 307
National Housing Fund (EX USAID)				2 600 000
Building Societies				6 392 825
UNDP (non recoverable)				948 246
<b>Total</b>				<u>Z\$10 414 378</u>

As regards the purchaser down-payment requirement, it would presumably be waived (or, in any event, proportionately reduced) in the case of aided self-help and cooperative construction programs. This would not significantly increase financing requirements from other sources (i.e. building societies) as these particular construction solutions are deemed to result in substantial savings in cash/labour costs.

Since the Building Societies do not have the above resources immediately available (their combined deposit base has not grown at all in the last two years), it is believed that they could be allowed to free necessary funds by a proportionate and controlled reduction of their liquidity requirements. In effect, they could be authorized to hold their liquidity below the current 20% requirement (but not below the original 15% requirement) if the released funds are used to finance socially desirable projects (such as KweKwe and Gutu) and, possibly also, if these funds are withdrawn from private sector depositories rather than from Treasury sources.

#### C - INDIVIDUAL MORTGAGE LOANS

Following upon discussions with Mr. Richard Collier, General Manager of Beverley Building Society, it was determined that, rather than pursuing some of the financial structures proposed in the National Savings and Loan League report of July 1981, the opportunity of a much simplified mechanism now presented itself as a means of making jointly available to individual house purchasers the public and private sector resources being applied to these two pilot projects of KweKwe and Gutu and, by extension, to other future projects which could be developed on a similar joint basis.

The principal elements of this proposal are:-

- 1) The Government of Zimbabwe, through the National Housing Fund, and the participating building societies agree to pool their respective financial contributions in single joint individual mortgage bonds. As it turns out, in the KweKwe and Gutu projects, the government participation in each such mortgage bond would be 'equal to the cost of the serviced stand, while the building societies' contribution would then equal the cost of the house built on such serviced stand.
- 2) Although such a joint mortgage bond could theoretically allow for different maturity terms on the public and privately funded sectors, it is recommended that both be for equal periods; e.g. 25 years.

- 3) Conversely, there is no need to equalize interest rates on each of these two segments, particularly since it is currently foreseen that public funds will be made available at a 9.5% rate and that the building societies funds could possibly be reduced to a 10% rate. In any event, interest rates on both segments should be allowed to float under the rules presently applicable to building society loans.
- 4) Both the National Housing Fund and the participating building societies in this joint mortgage bond should retain the right to request separation of their respective interests at any time and to have these then represented by separate mortgage bonds in their respective names. Since in this case, the National Housing Fund's bond would probably by necessity have to be subordinated to the building society's bond, the Fund should retain the right to purchase, if it so chose, the building society's interest at par.
- 5) For as long as the mortgage bond was a joint one, its servicing should be done by the participating building society on its behalf and that of the National Housing Fund, to whom it would periodically turn over its respective share of monthly bond payments. Whether or not the building should charge a service fee for this concept is something to be determined by the parties themselves. The possibility of having the participating building society also collect municipal rates and any other regular charges affecting the mortgaged property, could equally be contemplated, bearing in mind the cost-saving and efficiency-enhancing advantages of using the proven systems and experience available to the building society system rather than having to at least initially, implement new and expensive duplicate systems in the public sector.
- 6) Approval of loan applications to be done jointly by each of the participating lenders (although either one could hopefully delegate in the other its part of the approval process) based on:
  - (a) the applicant's placement on a "qualifying list" maintained by the corresponding local government; and
  - (b) the applicant's demonstrated "credit worthiness" as measured by his ability to meet the required down payment (or corresponding self-help features) and the ensuing monthly payment charges.
- 7) Loan guarantees on the participating building society's portion of the loan to be secured as per current practices.

#### D - THRIFT GENERATION

One of the very first considerations of these two pilot projects was that they should help to encourage thrift accumulation by population sectors not previously known to save within the country's financial network.

It is believed that this will be clearly achieved under the presently proposed framework of joint lending by the National Housing Fund and participating building societies where, additionally it is the building societies themselves who will be servicing the loans and encouraging adequate contacts with existing and prospective borrowers. In the particular cases of KweKwe and Gutu, Beverley Building Society already has a working branch in the former and is ready to operate a mobile branch facility in the latter.

Although thrift and deposit promotions in these areas will surely follow established patterns, it can also be expected that additional programs will be enacted to attract further savings from:-

- (a) all applicants on the local governments' housing lists, who will be encouraged to save regularly for the accumulation of their down-payment requirements.
- (b) all beneficiaries in these two projects, who should be encouraged to save for future home expansions, improvements and furnishings, as well as for other usual family needs.
- (c) the surrounding population at large, who will see the benefits brought to their communities by the participating building societies in collaboration with the government's social programs and would, presumably, thus be encouraged to actively participate therein.

These additional programs could take the form of (a) special bonus or lottery promotions; (b) tax free savings accounts such as are presently offered by the Post Office Savings Bank; or (c) any other that may be thought of, bearing in mind that, insofar as these new programs fall within existing procedures employed by the building societies, they will attain their ends without incurring additional start-up costs, servicing charges, staffing problems or other negative features.

#### E - EXPERIMENTAL FEATURES

An equally important aspect of these two projects was the experimental nature of certain features which, going beyond the mere provision of housing, could set patterns for future development of financial, technical, labour, materials and promotional elements conducive to expanded and more economical housing solutions for lower income groups.

It is important to adapt and retain the general thrust of these features in the currently modified circumstances of the KweKwe and Gutu projects, as it is they which will set the mold for future probable replications thereof. These features are:-

- 1) Encouraging private sector financial institutions (e.g. building societies) to participate in the provision of mortgage loans for lower income groups.

As presently proposed, the joint mortgage bond financing by the National Housing Fund and the participating building societies, would achieve the initial goals and also leave in place a mechanism whereby the private sector could not only continue to participate in such joint financings but also generate the internal growth

to allow it to pursue low income financing for its own account.

- 2) Mobilizing local social and cooperative participation in the building process itself, with a view to enhancing the local labour component as well as to reducing costs.

It is believed that the proposed use of (a) building brigades; (b) cooperative efforts and (c) aided-self-help will achieve these goals, as long as the relative mix of these various solutions is judiciously maintained.

- 3) Making mortgage financing available to progressively lower income groups. The current upward revision of building requirements in KweKwe and, particularly, in Gutu could, unless otherwise compensated, result in the exclusion of families with insufficient income to face the increased loan levels.

Three such possibly compensating measures suggest themselves. First, adoption of a graduated mortgage payment plan (where initial monthly payments are reduced below the average and final monthly payments pick up the slack) could help those families who to-day could not otherwise afford it but who, on the expectation of rising incomes, could well afford to commit themselves.

Second, an extended use of the aided-self-help solution, particularly if the borrowers are given long enough periods in which to complete their expanded core units, could make these projects affordable to a greater segment of lower-income groups.

And, lastly, for those families able and willing to take on lodgers, the additional rental income thus derived could help them meet otherwise unaffordable monthly payments.

- 4) Developing a project framework which enhances the following areas:
- (a) Training local project personnel, community development workers, small building promoters, store managers etc.
  - (b) Establishing information and educational back-up systems for project administrators and beneficiaries.
  - (c) Establishing current monitoring and subsequent evaluation guidelines and procedures.

- 5) Pursuing the possibility of reducing conveyancing and other costs, such as:-
- (a) "Deed of Grant" instead of "municipal conveyance".
  - (b) "Note of Hand" instead of "mortgage bond".
  - (c) Waiving or reducing the government mortgage guarantee commission; approval of plan fees; water, electricity and sewerage connection fees.

F - ANNEXES

ANNEX I

Estimated housing cost prices by different construction methods and resulting mortgage payment levels.

<u>KWEKWE</u>	<u>BUILDING BRIGADES</u>	<u>CO-OP</u>	<u>AIDED SELF HELP</u>
Cost of stand	1 475	1 475	1 475
Cost of house construction	6 857	5 672	5 156
Total	8 332	7 147	6 631
Downpayment by Beneficiary (5%)	417	357	331
Mortgage loan	7 915	6 790	6 300
Monthly Payment (25yrs., 10% Interest)	71,95	61,72	57,27
<u>GUTU</u>			
Cost of stand	2 743	2 743	2 743
Cost of house construction	7 170	5 930	5 391
Total	9 913	8 673	8 134
Downpayment by Beneficiary (5%)	496	434	407
Mortgage loan	9 417	8 239	7 727
Monthly Payment (25yrs., 10% Interest)	85,60	74,89	70,24

NOTE: Costs are estimated September 1983 costs.

ANNEX II

Sample graduated mortgage payment plans.  
(to be included later).

ANNEX III

## List of Persons Visited

MINISTRY OF HOUSING

Cde. M.M. Chenga	Permanent Secretary
Cde. E.E. Mataura	Acting Director
Cde. S. Naggo	Architect

MINISTRY OF LOCAL GOVERNMENT AND TOWN PLANNING

Cde. D. Naik	Deputy Secretary
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MINISTRY OF FINANCE, ECONOMIC PLANNING AND DEVELOPMENT

Cde. Nyawo	External Aid Division
Cde. A.J. Nduna	Registrar of Building Societies
Cde. Tshabangu	Assistant Registrar

ASSOCIATION OF BUILDING SOCIETIES

Cde. R. Collier	Chairman
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UNITED NATIONS DEVELOPMENT PROGRAM

Cde. A. Ambatchew	Resident Representative
Cde. J. Frippiat	Deputy Resident Representative
Cde. B.O. Jensen	Program Officer
Cde. T.S. Chana	Chief Technical Advisor, UNCHS
Cde. D. Inglis	Project Architect, UNCHS
Cde. F. Chiganze	Local Consultant, UNCHS
Cde. Y. Gurur	Senior Housing Advisor, UNCHS

U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT

Mr. R. Stacey	Director
Mr. J. Hicks	Deputy Director

NOTES1) Rising Prices

The inflation index for the building industry, from June 1981 when the original estimates were drawn up has been:-

1981 - 40% 6 months	} to Feb. 1983
1982 - 27% 12 months	
1983 - 30% (estimated) 2 months	

On to this has been added price contingencies at 1983 rates to June for Infrastructure contracts and to September for House Construction (midway through purchasing period).

In the case of Gutu increased costs also include errors in the original budget; costs of tower construction which had been left out of tower lighting budget; and costs of drains, which had been left out of original budget.

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2) Standards

Infrastructure standards have been raised to water borne sewerage and individual water connections from pit latrines and public standpipes in Gutu, and to water borne sewerage and individual electricity supply from pit latrines, individual water supply and no electricity in KweKwe.

House standards have been raised to a 4-roomed, 57,5m<sup>2</sup> house from an original core of 1-room with possible 1 to 3 roomed extensions.

3) Serviced Stands

The cost breakdown of a serviced stand in February, 1983 are as follows:-

	<u>KWEKWE</u>	<u>GUTU</u>
P & Gs		
Land	132	315
Roads and Drains	86	97
Water	374	546
Sewerage	270	397
Office/Stores	321	742
Electricity	24	126
Price Increases	98	202
	170	218
<b>Total</b>	<b>1 475</b>	<b>2 743</b>

4) Core House

- (a) Building Materials costs have been taken from an August 1982 Bill of Quantities for a 64m<sup>2</sup> house in Harare and adjusted as follows:-

August 1982 Costs for 64m <sup>2</sup> house..	Total \$3 434
Less Sanitation	470
	<u>\$2 964</u>
Cost per meter square	46,30/m <sup>2</sup>
57,5m <sup>2</sup> standard house costs	\$2 663
Plus sanitation	470
	<u>\$3 133</u>
August 1982 Total	\$3 133
Inflation to Feb. 1983 at 27%/annum (2,25%/month x 7 months = 15,75%)	493
	<u>\$3 626</u>
Harare Feb. 1983 Total	\$3 626
Additional costs outside Harare	
extra 10% KweKwe	363
extra 15% Gutu	
	<u>545</u>
	\$3 989
Stores Overheads 10%	399
	<u>417</u>
4-Roomed House Feb. 1983 Total	\$4 388
	<u>\$4 588</u>

- (b) Labour Costs. It has been assumed that the houses will be built by the following methods:-

33% Self Help	-	Material costs only
33% Co-operative	-	10% of material costs
33% Brigade Built	-	33% of material costs

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5) Down Payments have been established at 5% of the mortgage loan. Beneficiaries would start to save this amount in monthly instalments once selected as potential participants, thus demonstrating their ability to borrow and subsequently meet their regular repayment obligations.