

UNCLASSIFIED

PD-AAC-389-B1

160

DEPARTMENT OF STATE
AGENCY FOR INTERNATIONAL DEVELOPMENT
Washington, D.C. 20523

CAPITAL ASSISTANCE PAPER

Proposal and Recommendations
For the Review of the
Development Loan Committee

JORDAN - VILLAGE DEVELOPMENT

AID-DLC/P-2111

UNCLASSIFIED

DEPARTMENT OF STATE
AGENCY FOR INTERNATIONAL DEVELOPMENT
WASHINGTON, D.C. 20523

UNCLASSIFIED

AID-DLC/P-2111

June 18, 1975

MEMORANDUM FOR THE DEVELOPMENT LOAN COMMITTEE

SUBJECT: Jordan - Village Development

Attached for your review are the recommendations for authorization of a loan to the Government of Jordan, (the "Government"), in an amount not to exceed Eight Million, Six Hundred and Fifty Thousand United States Dollars (\$8,650,000), to assist in financing the foreign exchange and local costs of providing basic village facilities in 23 of 36 communities located in the Jordan valley in order to improve the quality of life for valley residents and for those new settlers in the valley.

This loan is scheduled for consideration by the Development Loan Staff Committee on Tuesday, June 24, 1975; please note your concurrence or objection is requested at the meeting or by close of business on that date. If you are a voting member a poll sheet has been enclosed for your response.

Development Loan Committee
Office of Development Program
Review

Attachments:

Summary and Recommendations
Project Analysis
Annexes 1 - 13

UNCLASSIFIED

VILLAGE DEVELOPMENT PROJECT

T A B L E O F C O N T E N T S

	<u>Page No.</u>
I. <u>SUMMARY AND RECOMMENDATIONS</u>	1
II. <u>PROJECT BACKGROUND</u>	3
A. <u>Planning Process</u>	3
B. <u>Other Donor Activities</u>	4
C. <u>Previous Attempts at Village Development</u>	5
III. <u>PRIORITY AND RELEVANCE</u>	5
IV. <u>BENEFICIARIES</u>	6
V. <u>PROJECT DESCRIPTION</u>	7
VI. <u>PROJECT ANALYSIS</u>	8
A. <u>Technical Analysis</u>	8
1. Planning Design and Construction Supervision..	8
2. Grant-Financed Technical Assistance.....	9
3. Contracting Procedures.....	9
4. Design Criteria and Standards.....	9
5. Summary of Proposed AID-Financed Program and Cost Estimates.....	12
6. Proposed Construction Schedule.....	16
7. Summary of Technical Soundness.....	19
B. <u>The Proposed Mortgage Program</u>	19

	<u>Page No.</u>
1. Background.....	19
2. Objectives and Basic Parameters of the Proposal.....	20
3. Eligibility Criteria.....	23
4. Availability of Mortgage Financing.....	24
C. <u>Social Considerations</u>	24
1. Willingness to Pay.....	24
2. Replicability.....	25
3. Role of Women.....	25
D. <u>Financial Considerations</u>	25
1. Project Costs.....	25
VII. <u>BORROWER AND PARTICIPATING AGENCIES</u>	26
A. <u>Jordan Valley Commission</u>	26
B. <u>Housing Bank</u>	27
C. <u>Ministry of Public Works</u>	28
D. <u>Municipal and Village Loan Fund</u>	28
E. <u>Ministry of Education</u>	29
F. <u>Ministry of Social Affairs</u>	29
G. <u>Domestic Water Corporation</u>	29
H. <u>Forestry Services</u>	30
I. <u>Central Bank</u>	30
VIII. <u>IMPLEMENTATION PLAN</u>	31
A. <u>General Development Program</u>	31
B. <u>Village Housing Program</u>	32

	<u>Page No.</u>
C. <u>Contracting and Disbursement Procedures</u>	33
D. <u>Reporting Requirements</u>	34
E. <u>Evaluation</u>	34
F. <u>Monitoring</u>	34
IX. <u>Environmental Analysis</u>	35
X. <u>Repayment Prospects</u>	35
<u>Map 1</u>	36

ANNEXES

1. Sec. 611(e) Certification.....	37
2. Statutory Check List.....	38
3. Conditions Precedent.....	55
4. Valley Projects in Implementation.....	57
5. Technical Analysis.....	58
6. Agricultural Incomes' Paper.....	115
7. Logical Framework.....	134
8. Environmental Analysis.....	135
9. JVC Organization Chart.....	140
10. Draft Loan Authorization.....	141
11. Draft Grant Authorization.....	142
12. Balance of Payments Analysis.....	143
13. Housing Bank: Organization Chart, Financial Statements	

TABLES

1. Employment Distribution.....	6
2. Assistance Program by Village.....	13

	<u>Page No.</u>
3. Lot Construction Distribution by Village.....	14
4. Cost Estimate Summary.....	15
5. Amortization Schedule for Mortgages.....	22
6. Project Costs by Contributor.....	25

CHARTS

1. Construction Schedule.....	17
2. Procurement Schedule.....	18
3. Implementation of Mortgage Lending Program.....	33a

JORDAN

VILLAGE DEVELOPMENT PROJECT

I. SUMMARY AND RECOMMENDATIONS

1. Borrower: The Borrower will be the Hashemite Kingdom of Jordan (GOJ) acting through the Jordan Valley Commission.

2. a) Amount: Not to exceed eight million six hundred fifty thousand dollars (US \$8,650,000).

b) Terms : Repayable in 40 years, including a grace period of 10 years at an annual interest rate of two percent (2%) during the grace period and three percent (3%) thereafter.

3. Total Project Cost: The estimated cost of the project is \$13.6 million of which \$8.65 million will be from loan funds, \$335,000 from A.I.D. grant funds and \$4.6 will be from GOJ. The following division between foreign exchange and local currency expenditure is projected. 1/

	<u>US Dollars</u>		
<u>Funds</u>	<u>Foreign Exchange</u>	<u>Local Currency</u>	<u>Total Cost</u>
AID Loan	2,650,000 2/	6,000,000	8,650,000
AID Grant	335,000	--	335,000
GOJ	--	4,645,000	4,645,000
	<u>2,985,000</u>	<u>10,645,000</u>	<u>13,630,000</u>

4. Project Description: The project consists of (a) the construction of 9 clinics, 17 schools (170 classrooms), 8 municipal buildings, 11 commercial buildings, 1 social development center; (b) installation of water distribution systems for 13 communities in the

1/ The exchange rate used throughout this paper is one Jordanian Dinar (JD) equals US \$3.20 (312 fils equals one US dollar; 1000 fils equals one Dinar).

2/ FEX calculation based on present requirement to import pipe, ceramics, wire, etc. However, within one year it is possible that all pipe and ceramics required by the project will be produced in Jordan. If this production target is met, a decrease is expected in the foreign exchange component by approximately 60 percent.

central sector of the Jordan River Valley; (c) grading and graveling of about 50 kilometers of farm roads and asphalt paving of approximately 28 kilometers of settlement streets to a width of 4 meters on both 12 and 18 meter rights of way; (d) surveying, grading and leveling of about 900 housing plots; (e) establishment of erosion control areas and soil conservation activities in and around 17 priority settlements; (f) provision of furniture and equipment for the classrooms and clinics; (g) provision of \$2 million to finance mortgage lending to Valley residents to construct new housing or upgrade existing housing; (h) technical assistance (to be grant funded) to the Jordan Valley Commission to assist the Commission in project implementation and (i) technical assistance (to be grant funded) to the administrator of the mortgage lending aspect of the project.

5. Project Purpose and Justification: The purpose of the project is to provide basic health, education and municipal services to the inhabitants of selected villages in the Jordan Valley and to initiate a mortgage lending program, on an experimental basis, designed to permit the improvement of the housing stock. Both activities serve to upgrade the quality of life in the Jordan Valley and to provide a framework for increasing agricultural and other productivity from capital and social investments already made, and to be made, in the Jordan Valley.

6. Other Sources of Financing: The Export-Import Bank and the IBRD have informed A.I.D. that they are not interested in participating in this project.

7. Mission Views: The Mission endorses the proposed loan. Attached as Annex 1 is the certification required by the Foreign Assistance Act, Section 611(e).

8. Statutory Check-List: All statutory criteria have been met. (See Annex 2, statutory check-list for details).

9. Issues: None

10. Loan Administration: As applicable, either the Fixed Cost Reimbursement or Capital Projects Guidelines procedures will be adhered to in all implementing actions.

Recommendations:

(1) That a loan be authorized to the Hashemite Kingdom of Jordan for an amount not to exceed eight million, six hundred fifty thousand (US \$8,650,000).

(2) That a grant in the amount of three hundred and thirty-five thousand dollars (\$335,000) be authorized to finance technical assistance for project implementation in engineering and construction management, village planning and mortgage loan administration.

A. Interest and Terms of Payment of the Loan:

Borrower shall repay the loan to AID in United States dollars within forty years (40) after the first disbursement under the loan, including a grace period not to exceed ten (10) years. Borrower shall pay to AID in United States Dollars on the disbursed balance of the loan interest of two (2) percent per annum during the grace period and three percent per annum thereafter.

B. Other Terms and Conditions

1. Goods and services financed under the loan shall have their source and origin in the U.S., A.I.D. Geographic Code 941 countries and Jordan.

2. In addition to the usual A.I.D. requirements concerning legal opinions and the designation of Borrower representatives, the Loan Agreement shall provide for a series of conditions precedent to disbursement related to the different portions of the project, as detailed further in the body of the project paper and in Annex 3

II. Project Background

A. Planning Process

The economic development of the Jordan River Valley has been the subject of numerous studies, some of which date from the 1930's. In all of these studies the consensus has been that the Valley offers a great potential for agricultural development. However, no real progress was made toward realization of the agricultural potential of the Valley until the A.I.D. grant funded East Ghor Canal project was initiated in the early 1960's. Unfortunately, the completion of the canal was followed closely by the 1967 war with Israel and a period of internal strife which lasted until 1971, drastically reducing population and production. In 1971, under the aegis of the National Planning Council, a tentative development plan was formulated as a forerunner to the preparation of a complete developmental package for the Valley. During the second half of 1972, a committee was established to develop the final program for development of the Jordan River Valley. This committee, which in early 1973 was constituted as the Jordan

Valley Commission, prepared the "Rehabilitation and Development of the Jordan Valley (East Bank) 1973-1975" plan. Implementation of the plan is the sole function of the Jordan Valley Commission. Various donors, notably West Germany, the World Bank and A.I.D., have based their assistance efforts in the Jordan Valley on the development requirements set forth in the 1973-1975 plan.

During the last quarter of 1972, A.I.D. grant-funded a contract to review the village development aspects of the Social Services Sector of the 1973-75 Plan by a U.S. consultant. Based on the recommendations of the consultant, Planning and Development Collaborative International (PADCO), A.I.D. grant-funded a second contract with that firm in 1973 to assist the Jordan Valley Commission in refining the overall social development concept, establishing alternative standards for development and the preparation of physical plans for improving village social services and housing. A third grant-funded contract was executed with PADCO in the summer of 1974 for the preparation of detailed site planning for 36 villages. To date, A.I.D. and the GOJ have committed approximately \$300,000 to the planning phase of the project.

B. Other Donor Activities

Other donors, notably the International Development Association (IDA) of the World Bank Group and the West German aid agency, Kreditanstalt für Wiederaufbau (KfW), have developed projects complimentary to certain aspects of this village development project. Additionally, both organizations are supporting the intensification of agriculture through irrigation programs and the KfW program includes a village electrification and telecommunications program for the entire Valley. Abu Dhabi and Kuwait are assisting in the financing of the King Talal Dam which will be the storage reservoir of Zarqa River waters to be used in the A.I.D. funded East Ghor Canal Extension (Loan 278-H-009) and Zarqa Triangle (Loan 278-T-011) irrigation projects.

The "Jordan Valley Development: Southern Section," a project financed by the KfW consists of a sprinkler irrigation scheme for 1,263 hectares in the Hisban-Kafrein area; a potable water supply program for six settlements: South Shuna, Ghor Neimrin, El Kafrein, Sweima Karama, and Rauda; an agricultural Packing and Grading Center in South Shuna; electrification of all settlements in the Valley and a loan fund to assist farmers in purchasing sprinkler irrigation equipment. Total cost of the package is estimated at DM 44.5 million of which the GOJ is to provide DM 13 million equivalent. A loan agreement is expected to be executed for the project in the next two months.

The IDA "Northeast Ghor Irrigation and Rural Development Project" consists of the development of 7,700 hectares in the northern end of the Valley by providing irrigation to a new area of 1,040 hectares and improving the existing irrigation system in 6,660 hectares; furnishing domestic water supply to about ten villages, construction of three new health centers, about 150 classrooms, a vocational training center and ten community development centers; and improvement of about 60 kilometers of gravel farm roads. Construction under this project probably will be initiated in November or December of this year. Of the estimated \$17.5 million cost of the project, the GOJ is expected to contribute \$9.9 million equivalent.

C. Previous Attempts at Village Development

There have been three efforts at small scale village development in the Jordan Valley. The first program was a privately sponsored program at "new" Karama in response to the Israeli Army's destruction of the village in March of 1968; the second program was a self-help program sponsored by the Lutheran Federation at the former site of Karama; and the third program was a joint GOJ-AID self-help program at Damiya initiated in 1973. None of these programs were particularly successful for a variety of reasons. Drawing on these experiences and the lessons learned, the Jordan Valley Commission significantly modified its 1972 plans for village development.

III. Priority and Relevance

Under its "3 year plan for Economic Development," the Government of Jordan prepared both a comprehensive national development plan and a separate sub-plan for the East Bank of the Jordan River Valley. The rationale for a separate development plan for the East Bank Jordan Valley was that the agricultural potential for the area, in the short run, could generate more income and employment than any alternative investment in agriculture. In the preparation of the East Bank Plan [officially entitled, "Rehabilitation and Development of the Jordan Valley (East Bank 1973-1975)], the GOJ recognized that the full benefits expected to be realized as a result of the scheduled investments in productive infrastructure, primarily irrigation facilities, could not be realized without the orderly development of communities to support an expanded population and without the availability to that expanded population (and obviously the existing population as well) of its basic needs in terms of social and public services, e.g., housing, health, potable water, education, and governmental services. In support of the East Bank Plan, A.I.D., other foreign donors and lenders and the GOJ have committed approximately \$100 million to various infrastructure

projects. The first of these infrastructure projects will be completed in 1976 with the balance completed during 1977 and possibly 1978. Annex 4 contains the implementation schedules for all major projects being, or about to be implemented. The Village Development project described herein is the first phase of the seven-phased JVC program for the years 1976-1982 for the orderly development of settlements on the East Bank and for the provision of the social and public services to the inhabitants.

This program of sites, services and housing in conjunction with irrigation and other infrastructure projects is supportive of A.I.D.'s approach to rural development to improve the level of living of the poor majority residing in rural areas and in making the area economically self-sustaining. The development activities which make the process of rural development self-sustaining are the income producing irrigation and agricultural elements which are separate projects in themselves, but are integral parts of the East Bank development scheme.

IV. Beneficiaries

The project's intended beneficiaries for the infrastructure portion of the project are all of the residents of the existing settlements which are to be provided with the water supply systems, schools, clinics, streets, etc. This element of the project is not and cannot be directed at any one income level or social classification of people. However, the following table which presents the distribution of employment by heads of households in the Valley as of March, 1973, clearly shows the prime beneficiaries will be persons involved in agriculture. And, as is discussed later in the economic evaluation section, some 60 percent of these agricultural work force are tenants or share croppers earning about \$3.00 per day. Thus the rural poor will benefit directly from the infrastructure portion of the program.

TABLE 1

Employment Distribution by Heads of Households
Jordan Valley - 1973 (March)

<u>Activity</u>	<u>Total Families</u>	<u>Per Cent</u>
Agriculture	8,269	74
Civil Service	1,385	12
See Other	1,559	14
	<u>11,213</u>	<u>100%</u>

Source: Government of Jordan, Department of Statistics, "Social and Economic Survey of the East Jordan Valley 1973" Table 28, p. 140.

In respect to mortgage financing, the criteria for eligibility for loans will restrict availability of the bulk (70%) of the \$2 million to farm workers, share croppers, tenant farmers, owners of 3 hectares or less of farm land and employed persons earning JD 30 (\$96) per month and less. For the balance of the funds, a borrower must meet the eligibility requirements as spelled out in Section VI. The expected beneficiaries of the 30 percent allocation are service type people, e.g., nurses, school teachers, other government employees, mechanics, etc.

Given the small amount of funds available and the criteria for eligibility for mortgage loans, it is extremely doubtful there will be any significant influx of settlers directly in response to the availability of mortgage funds from the loan. The mortgage program is at best experimental and should be viewed as means to develop a delivery system for mortgage funds to the Valley in the event labor can be induced to settle in the Valley as a result of the availability of the basic social services and employment opportunities.

V. Project Description

The Government of Jordan has as its long-term objective the development of 36 settlements, distributed in linear fashion along the main north-south Road of the East Bank of the Jordan River Valley. For the past two and one-half years, the Jordan Valley Commission, assisted by an A.I.D. grant-financed consultant, Planning and Development Collaborative International (PADCO), has been preparing the design criteria and physical plans to be followed in the redevelopment of existing communities and development of ten new communities. These plans, which establish the location of existing and planned community facilities and boundaries of existing communities, the boundaries of proposed new villages and the location of the planned community facilities and the areas of new residential construction in new and existing villages, will be completed for all settlements by the end of CY 1975. The JVC has completed the initial planning objective of determining settlement boundaries, design criteria and physical plans for the 17 so-called "priority one" villages and, in addition, has established the immediate requirements for municipal facilities, classrooms, clinics and water supply in all 36 settlements. The proposed A.I.D. loan will, in conjunction with sub-projects of the IDA financed North East Ghor project and the KFW financed Southern Ghor project, permit the Jordan Valley Commission to meet the initial demands for municipal facilities, potable water, schools and clinics in established settlements throughout the Valley.

Map 1 shows the areas of the Housing Bank to be directly influenced by the several irrigation projects now underway or about to begin and the location of the settlements to be assisted under the project. Table 2 details the assistance planned for each settlement, including a notation of any activities in those villages to be financed under either the IDA or KFW loan.

Table 3 presents an illustrative distribution of new home construction among the priority settlements. The distribution can only be considered illustrative and actual distribution may vary greatly since effective demand is unknown.

In summary, the A.I.D. project will permit: (a) the construction of 9 clinics, 170 classrooms, 8 municipal buildings, 11 commercial buildings, one social development center; (b) installation of water distribution systems for 13 communities in the central sector; (c) grading and graveling of about 50 kilometers of farm roads and asphalt paving of 28 kilometers of settlement streets to a width of 4 meters on both 12 and 18 meter rights of way; (d) surveying, grading and leveling of about 900 housing plots; (e) establishment of erosion control areas and soil conservation activities in and around the 17 priority settlements; (f) provide mortgage funds to facilitate the construction or rehabilitation of approximately 900 homes and (g) the supply of furniture and equipment for the schools and clinics to be built.

In addition to the physical construction activities, technical assistance, on a grant basis, is proposed to assist the JVC in monitoring, scheduling and implementation of this project's activities and the several other projects being, or to be, implemented in the Valley. Technical assistance in loan mortgage administration will be made available to the Housing Bank, the financial institution selected to administer the mortgage financing aspect of the project. The JVC will fund the architect and engineering services associated with all aspects of construction.

VI Project Analysis

A. Technical Analysis

1. Planning, Design, and Construction Supervision

Planning concepts for the village resettlement project were developed by Planning and Development Collaborative International, a U.S. consulting firm under contract to the Jordan Valley Commission.

PADCO and the JVC have surveyed existing valley communities, selected those villages to be designated permanent settlements, determined sites for new settlements, and are now completing detailed physical plans for each of the proposed communities. A more comprehensive discussion of the work of the planning consultant is included in Annex 5.

The Jordan Valley Commission is completing negotiations with a joint venture of Jordanian engineering firms to provide other required engineering services, excepting the design of schools which will be the responsibility of the Ministry of Public Works. The MPW will also provide personnel for construction supervision.

2. Grant-Financed Technical Assistance

To insure that the Jordan Valley Commission adequately coordinates and monitors the multitude of design and construction activities which will be proceeding simultaneously in the valley, A.I.D. will grant finance a three-man technical assistance team to assist the Commission with these responsibilities. The team will include an urban planner, senior civil engineer, and construction engineer. Qualifications and responsibilities of these personnel are discussed in Annex 5.

*Why? Be -
have we
want them?*

3. Contracting Procedures

Construction Contracts envisioned under the A.I.D. loan will not be of sufficient size to attract U.S. contractors. There are, however, a sufficient number of competent local firms to insure adequate competition.

Bid documents will be developed in such a manner as to allow contractors to bid on all or only a segment of the work, and the JVC will retain the right to parcel the work so as to minimize overall costs.

The JVC will follow the contracting procedures outlined in Chapter 2 of the AID Country Contracting Handbook in procuring all construction services except for construction to be financed under the Fixed Cost Reimbursement procedure.

Handwritten scribble

4. Design Criteria and Standards

a. Housing

PADCO and the JVC have investigated several types of housing, including block and slab, precast concrete panels, and the traditional mud brick. In developing the basic housing design, the consultant has also considered climatic conditions in the valley and cultural restraints. The precast panel/concrete block house, which has been adopted for design purposes, provides high standard construction at a cost within the reach of the lower income families in the valley

and can be easily improved or expanded on a self-help basis. However, with the approval of the Jordan Valley Commission alternative housing will be allowed,

If sufficient interest is shown in the panel/concrete block houses, the Jordan Valley Commission intends to increase production of its precast panel plant to 100-125 panels per day. Loan funds will be utilized to procure the equipment required to effect this increase, if justified; otherwise, the funds will be utilized to meet contingency requirements or be deobligated at the completion of the project.

Based on the results of a number of percolation tests conducted in the valley, the planning consultant has determined that properly designed and constructed percolation pits will suffice as sewage disposal systems for individual residences. Prior to commencing home construction, additional tests will be conducted in those areas where soil conditions are suspect.

b. Public Facilities

(1) Health Centers

The allocation of health centers among the proposed communities is based on criteria developed by the Ministry of Health.

Health Centers will vary in size from 160 to 1600 m². The smaller facilities will provide clinic services only and will be staffed by a practical nurse. Intermediate centers will provide clinic, maternity and child care services, and the larger centers will provide extensive health services, including hospitalization for emergency cases. Equipment and furnishings required will also be financed under the loan.

The public health development program and technical details of the proposed health centers are summarized in Annex 5.

(2) Educational Facilities

Classroom requirements by community are based on demand projections made by the Ministry of Education. Elementary, preparatory, and secondary schools have been allocated to specific settlements on the basis of criteria developed by the Ministry. These projections and allocation criteria are discussed in Annex 5.

The proposed AID-financed project will include construction of classrooms in the central and southern sector required to meet immediate needs. Space requirements will be based on a total of 35 students per classroom.

(3) Municipal Buildings

Municipal facilities, which are intended to house government offices, postal and telecommunication facilities, libraries, and police posts, have been allocated on the basis of population densities and the condition of existing municipal buildings. Buildings containing 1300 M² of space will eventually be constructed in North and South Shuna and Karama, while the other settlements will be served by smaller facilities having 250 M² of space. Seven of the smaller structures and the larger facility planned for South Shuna are included under the proposed A.I.D. loan.

(4) Commercial Facilities

Commercial facilities in existing valley settlements have developed largely along the main north-south highway. As parking areas are limited, traffic congestion is common in the market areas, and the flow of through traffic is impeded. Under the land use patterns developed by PADCO, areas reserved for commercial facilities will be located away from the main highway, and adequate parking lots will be provided. To encourage shopkeepers to relocate to designated areas, a limited number of commercial facilities will be constructed in eleven settlements under the A.I.D. program. Shop keeper rental payments will be collected by the municipality.

(5) Social Development Center

A number of social development centers are eventually planned for Valley communities. To ascertain the reaction of residents to the services rendered by these centers, one center will be constructed under the A.I.D. loan. The facility will be centrally located in Kreiymeh and will contain 510 M² of space. This area provides sufficient space for a Director's office, meeting hall, offices for several social workers, and space for other secretarial and miscellaneous staff.

C. Infrastructure

1. Community Streets

The pavement design for community streets will consist of a 6" crushed stone base course and a 2" asphaltic concrete hot mix or penetration macadam surface course. Major loops will have an 18 meter right-of-way, while minor loops will have a 12 meter right-of-way. Under the initial program, pavement widths will be limited to 4 meters.

How? by reimbursement?

The AID-financed project includes street construction only in priority one communities, and allocations have been made on the basis of serving the maximum number of lots in these settlements.

Annex 5 includes a typical section of a community street, a detailed cost breakdown, and a summary of the proposed construction program.

How financed?
FCR??

2. Farm Roads

To provide access from village to agricultural land, construction of a limited number of farm roads will be financed under the AID program. Specific roads for inclusion under the project will be selected following completion of an inventory of existing roads.

All farm roads will be 3 meters in width. Roads along main irrigation canals will have a 6" crushed stone surface course, while secondary access roads will have a 4" crushed stone surface. The average estimated cost of these roads is \$2 per square meter.

3. Domestic Water Supply

how?

How AID-financed?

The water supply program to be financed under the AID loan is summarized in Annex 5. The program proposed will provide extensive distribution networks within priority communities in the central sector, from which public taps can be made available to serve local neighborhoods or individual house connections can be made. Sufficient piping is also provided to extend trunk mains to central locations within each of the other villages in this area. As these communities now obtain water from several untreated sources, including the East Ghor Canal, the program should contribute to a general improvement in the health of valley residents.

5. Summary of Proposed AID-Financed Program and Cost Estimates

By Govt?

Table 2 summarizes the activities to be carried out in each settlement under the AID-loan. The summary excludes general site grading and erosion control and the construction of farm access roads which at this stage cannot be allocated by community.

How financed?
extra allocations?

Table 4 provides a cost estimate summary for the entire project. The escalation rate used is based on an analysis of labor and material increases over the past several years. Material prices appear to be stabilizing; however, wage rates for both skilled and unskilled labor increased dramatically between December, 1973, and December, 1974, and due to the demand for labor in neighboring Arab States, these increases are expected to continue.

TABLE 2

SUMMARY OF AID-FINANCED PROJECT

Village	Streets	School Classrooms	Clinics	Municipal Facil.	Comm. Facil.	Social Devpt Center	Water Supply and Distribution			Lots Served
	Sq.Meters	Sq.Meters	Sq.Met.	Sq.Meters	Sq. Met.	Sq.M.	3"A.C.Pipe L.M.	4"A.C.Pipe L.M.	6"A.C.Pipe L.M.	
N. Shuna	10,600	IDA	IDA	IDA	-	-	IDA	IDA	IDA	-
Tel Arbaein	8,040	IDA	IDA	250	240	-	IDA	IDA	IDA	-
Kreiymeh	17,920	700	360	250	240	570	7,700	2,400	1,000	1,000
Diraz	8,000	350	160		120		3,000		1,000	400
Damiya	6,560	600	160	250	160		3,300	1,150	-	500
Karama	18,840				400		-	-	-	-
S. Shuna	16,500	200	1,250	1,300	240	-	KFW	KFW	KFW	-
El Kafrein	7,500	900	160	250	120		KFW	KFW	KFW	-
Manshiya	6,600	IDA	IDA	250	280	-	IDA	IDA	IDA	-
El Arda	5,400	750	160		240	-	300	500	-	62
El Rauda	8,500	900	360	250	240	-	KFW	KFW	KFW	-
Wadi El' Yabis		550	1,600	250	240		5,420	1,700	1,000	700
Sleikhat		250								
Balawineh		500					300	600		60
Eddbab		1,000						1,300		70
Sawalha		150					1,310	1,000		220
Ruweiha		150					500	1,300		80
Abu Ezegan		300					1,270			140
Er Rabea		250					250	3,700	2,500	30
El Twal		550					450	650		70
Sweima		400					KFW	KFW	KFW	-
Muaddi			160				4,400	650		400
Khazma							300	550		60
TOTAL	114,460	8,500	4,370	3,050	2,520	570	28,500	15,500	5,500	3,792

TABLE 3
Illustrative Distribution of New
Home Construction

<u>Village</u>	<u>Number of</u> <u>New Home</u>
North Shuna	47
Manshiya	37
Tel El Arbacin	37
Wadi El Yabis	56
Krieymeh	52
Dirar	27
Abu Ezgan	12
Swalahah	16
Mu'addi	152
El Arda	29
Damiya	32
Karama	132
South Shuna	132
El Kafrein	49
El Rauda	69
Sweima	19
	<hr/>
	898

TABLE 4
COST ESTIMATE SUMMARY

<u>Item</u>	<u>Unit</u>	<u>Quantity</u>	<u>Unit Price(\$)</u>	<u>Total</u>
1. Clinics	m ²	4,370	140	\$ 611,800
2. Equipment & Furnishings for Clinics		Lump sum		253,500
3. Schools (Furnished)	m ²	8,500 (170 Classrooms)	150	1,275,000
4. Municipal Facilities (Furnished)	m ²	3,050	140	427,000
5. Commercial Facilities	m ²	2,440	120	292,800
6. Social Center (Furnished)	m ²	570	140	79,800
7. Community Streets	m ²	114,460 (28 km)	7.50	858,450
8. Farm Roads	m ²	160,000 (53 km)	2.00	320,000
9. Water Supply				481,000
a. 3" AC Pipe LM		28,500	3.00	85,500
b. 4" AC Pipe LM		15,500	6.00	93,000
c. 6" AC Pipe LM		5,500	8.00	44,000
d. Storage Tank EA		2 @ 400 m ³	50,000	100,000
e. Water Meters EA		3,800 5/8"	30.00	114,000
f. Valves & Fittings		Lump sum		44,500
10. Site Grading, Drainage, and Erosion Control		Lump sum		500,000
11. Panel & Concrete Plant		Lump sum		150,000
		Sub Total		\$5,249,350
		Cost Escalation - 15% allowance		787,402
		Sub Total		\$6,036,752
		Contingencies 10%		603,675
		Sub Total		\$6,640,427
		Housing Mortgage Fund		2,000,000
		A.I.D. Grant Funded Technical Assistance		335,000
		Total AID Sources		8,975,427
		Land Acquisition (GOJ)		3,720,000
		Engineering and Supervision		500,000
		Additional JVC staff		225,000
		MPW engineering and supervision		200,000
		GRAND TOTAL		13,630,000

6. Proposed Construction Schedule

The Ministry of Public Works is finalizing bid documents for the construction of education facilities required to serve the present population of the valley, and we anticipate these documents will be ready for review on or about June 15, 1975. Construction of these facilities will likely commence during July or August, 1975. *not likely?*

Negotiations with the local engineering consortium for the provision of other required design services are expected to be completed June 15, 1975. Construction of the remaining infrastructure will be accomplished under a series of medium-sized contracts which will incorporate all required work in communities located in the same general vicinity. We anticipate that approximately five months will be needed for preparation of the bid documents for the initial construction package.

Charts 1&2 below summarize the construction and procurement schedules proposed for implementation of the resettlement program.

CHART 1

DESIGN AND CONSTRUCTION SCHEDULE FOR VILLAGE DEVELOPMENT PROJECT

NO. 24 10 X 10 PER INCH

BEST AVAILABLE COPY

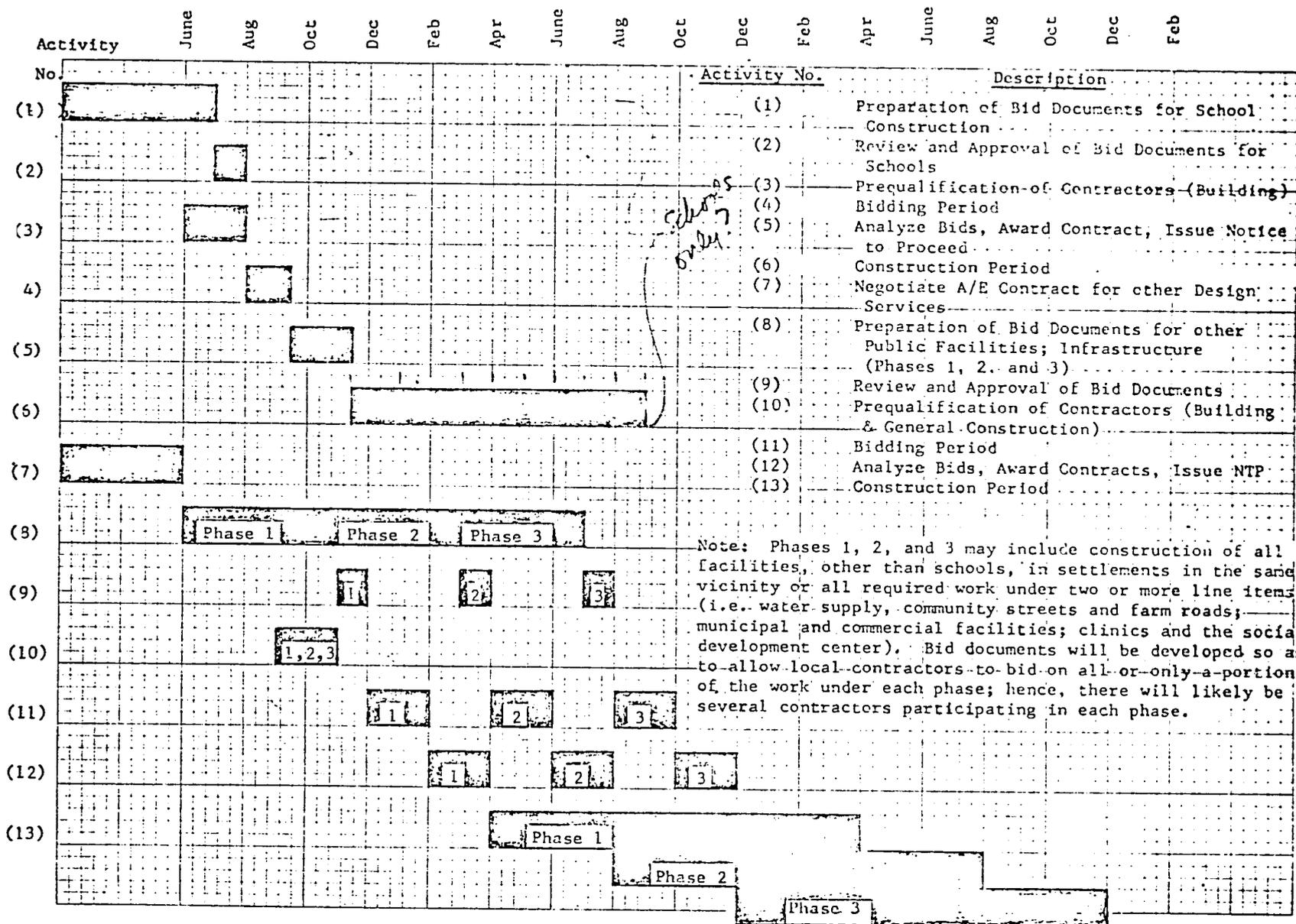
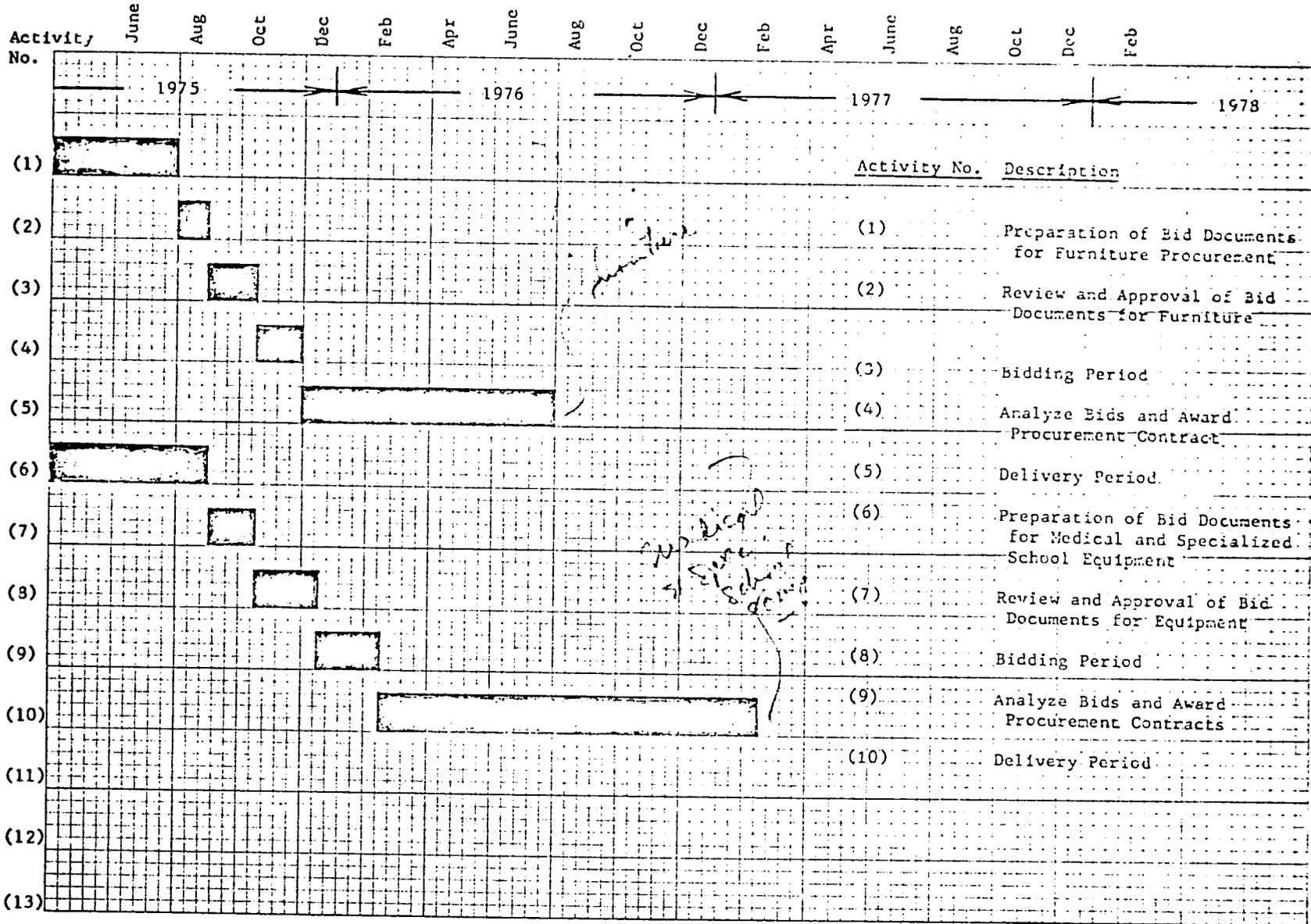


CHART 2

NO. 341-11 PROCUREMENT SCHEDULE FOR VILLAGE PROJECT METZGER CO.
 1 1/2 X 10 PER INCH



BEST AVAILABLE COPY

7. Summary of Technical Soundness

While only a limited amount of detailed engineering has been completed, the Jordan Valley Commission, other concerned Jordanian Ministries and agencies, and the consultant have developed adequate planning data and conducted sufficient preliminary engineering studies to determine the technical feasibility of the proposed project, and in accordance with Section 611(a) of the Foreign Assistance Act, cost estimates based on data available are deemed reasonable firm.

Basic building designs adopted for all structures and details of other required infrastructure are relatively simple and are considered appropriate for conditions existing in the valley. Construction methods required to complete the project will not involve complex or specialized technology, and all work can be adequately handled by local contractors. Building construction and pipe laying, which are major segments of the project, will be largely labor intensive activities and will provide employment opportunities for both skilled and unskilled labor.

Operation and maintenance of public facilities and basic infrastructure included in the project will be the responsibility of the appropriate Ministry within the Jordanian Government, and the Jordan Valley Commission will obtain assurances in writing that each Agency has personnel and funds available for this purpose.

Considering the planning accomplished to date, we conclude that the technology adopted is appropriate for the area, operation and maintenance of the proposed facilities and infrastructure are within the capabilities of the Government of Jordan, and the project is technically sound.

B. The Proposed Mortgage Program

1. Background

An integral part of the upgrading of village life in the Valley is a program to improve housing conditions for present residents and provide options to new residents other than the standard mud brick. With formal planning of village reconstruction underway, the opportunity was seen to improve housing standards by controlling its location and growth within the village and the Valley generally and by provision of new financing for remodelling of existing homes and reconstruction of new. At the present time, however, there is no housing financing available to the Valley farmer of a kind that is reasonable and available under realistic terms. To find a method of financing and, hopefully, institutionalizing a source of mortgage money for Valley residents as a part of this project, AID funded a consultant to review the status and operation of the GOJ-recommended Jordan Housing Bank.

The consultant's report, Review of the Jordan Housing Bank and Recommendations for a Mortgage-Lending Program for the Jordan Valley, is available from the Loan Committee Chairman for detailed review.

For present purposes, his findings can be summarized as: (a) the Bank is a well run, well organized institution, (b) Its present policy and operation record indicates a reasonable skill at management of mortgage resources, and (c) it is willing and able to manage a mortgage lending program in the Valley. Based on these findings, the JVC has decided to contract with the Housing Bank to manage the fund to be established with AID loan funds. Estimating that over the next two years about 900 houses could be built in the Valley at an estimated \$2400 each, \$2 million of loan funds were allocated to the mortgage fund.

for the JVC
to LIC

2. Objectives and Basic Parameters of the Proposal

Aside from the need to introduce experienced financial management into the administration of that portion of the AID loan which will be devoted to housing in the Jordan Valley, a principal reason for involving the Jordan Housing Bank is the need to develop within the Valley an institutional capability for mobilizing savings to provide the financial resource base to make mortgage loans available to Valley residents, independent of foreign assistance, for new construction and expansion of existing and to-be-constructed dwellings.

Therefore, an attempt has been made to ascertain the financial feasibility of a housing mortgage program in the Jordan Valley which would reach the very low income families by making conservative assumptions. That is, the income level for wage-earning families has been assumed to be JD 225 per year and a high range mortgage amount of JD 800, implying commercial construction on a developed site provided at nominal cost by the Jordan Valley Commission. It has further been assumed that agricultural workers' nominal income, based on past experience, will rise at 5% per year. Given the probable increase in the prices of agricultural commodities produced in the Jordan Valley, especially in light of their export potential, an annual increase of 5% can be interpreted as a conservative assumption. Furthermore, it has been assumed that Valley residents would not be given significantly preferential interest rates; rather it has been assumed that mortgage loans would be made at 7%, only ½ point below the Bank's standard lending rate for individuals and equal to the rate charged to co-operatives. The use of the standard Bank lending rate is motivated, not only by a desire to demonstrate financial feasibility under stringent assumptions, but also to provide a means through which a smooth transition from the use of AID funds to the use of Bank funds in mortgage lending in the Valley can be facilitated.

Finally, it has been assumed that as much as, but no more than 25% of a borrower's income could prudently be devoted to a mortgage payment. This is a standard, not a conservative assumption, but it is nevertheless below the housing Bank's maximum of 30% of income and within the findings of Gary Deane in "A Report on the Feasibility of Housing for Workers in the Hashemite Kingdom of Jordan," AIFLD, December 1974 which reports that rents for workers average 24 to 28 percent of family expenditures.

By using conservative assumptions, in the main, to determine the conditions of financial feasibility, a margin for error is preserved. If family incomes turn out to be greater than JD 225 per year and/or if self-help methods of construction are employed to some degree, so that mortgage amounts are smaller, feasibility will be unaffected.

Table 5 contains a presentation of a feasible solution under the assumptions given above. The repayment plan provides for mortgage payments to rise as the borrower's income rises through the first ten years. Thereafter, mortgage payments revert to a standard, level payment providing for full repayment in twenty years. This proposal requires two changes in the Housing Bank's current operating procedures; (1) the proposal involves a variable payment procedure and (2) the proposal involves extending the term of the loan from the current 15-year maximum to 20 years.

Proposing a variable payment mortgage on 20-year terms should not, of course, be interpreted as a recommendation that all mortgages in the Jordan Valley be made on this basis. Where family incomes are sufficiently high or the mortgage amount sufficiently low to permit the use of the Bank's standard terms, there is no necessary reason to apply alternative terms. The variable payment mortgage is simply a method of reaching income groups who otherwise could not be served.

The desirability of using approximately standard interest rates, rather than preferential ones, should also be emphasized. In the long-run, it is desirable to establish the Bank as a viable financial institution in the Valley, making housing loans for its own account, not merely administering foreign aid resources. In this context, any subsidization which takes place in initiating housing development in the Valley should not be highly visible, as a subsidized interest rate would be. Site development, for example, is a much less visible form of subsidization and one which, once the basic infrastructure was in place, could easily be discontinued. Similarly, extending loan maturities from 15 years to 20 years, although not a subsidy, is a form of preferential treatment, relative to the Bank's current practices, which could subsequently be discontinued. Furthermore, the differential between the interest cost of the AID loan and the interest cost to borrowers could be used to establish a reserve fund against delinquency and/or to provide a source of funds for relending for additional housing development.

The Housing Bank is not a sub-borrower of funds. Its role is to make loans to those borrowers, making their own arrangements for house construction, who are approved by the JVC as eligible borrowers and certified by the Housing Bank as credit worthy and to make collection of the loans. In the case of a borrower who is eligible under the JVC criteria, certified as credit worthy by the Bank and who opts for construction of his home by one of the JVC selected site facilities contractors, the JVC will disburse the home construction monies to the contractors and the Housing Bank will be responsible for loan collection.

TABLE 5

-22-
AMORTIZATION SCHEDULE FOR VARIABLE

PAYMENT MORTGAGE

ASSUMPTIONS:

BORROWER HAS JD 225 FAMILY INCOME
WHICH WILL GROW AT 5% PER YEAR
TERMS ARE 7% INTEREST, 20 YEARS
MATURITY, FIRST YEAR INTEREST ONLY,
LEVEL PAYMENTS AFTER FIRST 10 YEARS,
25% OF INCOME ALLOCATED TO HOUSING

YEAR	PAYMENT		END-OF-YEAR BALANCE	BORROWER'S ANNUAL INCOME	AVERAGE MONTHLY PAYMENT	PERCENT OF INCOME FOR HOUSING
	INTEREST	PRINCIPAL				
1	JD 56.00	JD -	JD 800.00	JD 225.00	JD 4.67	24.9%
2	56.00	3.06	796.94	236.25	4.92	25.0%
3	55.78	6.24	790.70	248.06	5.17	25.0%
4	55.35	9.76	780.94	260.46	5.42	25.0%
5	54.66	13.71	767.23	273.49	5.70	25.0%
6	53.71	18.08	749.15	287.16	5.98	25.0%
7	52.44	22.94	726.21	301.52	6.28	25.0%
8	50.83	28.32	697.89	316.60	6.60	25.0%
9	48.85	34.26	663.63	332.43	6.92	25.0%
10	46.45	40.81	622.82	349.05	7.27	25.0%
11	42.18	44.66	578.15	366.50	7.24	23.7%
12	38.95	47.89	530.26	384.83	7.24	22.6%
13	35.50	51.34	478.92	404.07	7.24	21.5%
14	31.78	55.06	423.86	424.27	7.24	20.5%
15	27.80	59.04	364.82	445.49	7.24	19.5%
16	23.54	63.31	301.51	467.76	7.24	18.6%
17	18.95	67.90	233.61	491.15	7.24	17.7%
18	14.04	72.80	160.81	515.70	7.24	16.8%
19	8.79	78.05	82.75	541.49	7.24	16.0%
20	3.14	82.75	-	568.56	7.16	15.1%

3. Eligibility Criteria for Mortgage Loans and Mortgage Loan Policies of the Jordan Valley Commission

The Jordan Valley Commission has established the following criteria in order of priority for eligibility to participate in the mortgage lending program:

- a.
 1. Labor attracted to the Valley
 2. Natural population growth
- b. Accommodation of homeless people now residing in the Valley.
- c.
 1. Families living in mud houses in need of new quarters
 2. Families living outside the boundaries of sites designated for development
- d. Persons attracted to the Valley to staff the facilities being constructed.

Within these general eligibility classification the agreed distribution of the available mortgage loan funds is as follows:

- a. No less than 70 percent of the \$2 million will be made available only to farm workers, share croppers, tenant farmers, owners of three hectares or less of land and employs persons earning JD 30 (\$96) per month or less. ^{JD 30} Persons qualifying under this category will be required to own the plot on which the house will be built.
- b. 30 percent of the \$2 million will be made available to other eligible borrowers. It is expected that these borrowers will consist of teachers, nurses, technicians, etc. These borrowers will be permitted a maximum loan of JD 1,500 (\$4,800). A down payment of thirty percent of the amount borrowed in excess of JD 1,000 (\$3,200) will be required. The borrower must own the plot on which the house is to built.
- c. Home improvement loans will be permitted to eligible borrowers providing the applicant agrees to include as part of the home improvement the construction of a percolation pit if no sanitary facilities are available in the home.

The interest rate will be 7 percent per annum and payment of loans will begin in the first full month following completion of a home or home improvement.

Resale of homes and rental homes will be subject to prior approval of Jordan Valley Commission. The policies adopted by the Commission are identical to the policies followed by the Housing Corporation (a GOJ - home construction agency). For resale purposes, the seller must have paid his mortgage loan in full and prove he is leaving the area in which he was residing. The potential buyer must be an eligible owner as defined above and must reside in the house

15 dunums
= 1.5 HAs
= 3.75 acres

15 dunums = 1 acre

-24-

being purchased. For rentals, the owner must demonstrate that he is leaving the area temporarily and that he intends to return. The potential renter must meet the eligibility criteria of an owner. In addition, both the owner and tenant will be advised that the maximum allowable rent is the amount of the mortgage payment.

4. Availability of Mortgage Financing

Annex 6, is a discussion of the ability of farmers (owner-operator, tenants, sharecroppers and laborers) to service mortgage payments, and utility payments. This analysis concludes that the agricultural population sharecropping less than 15 dunums (1.5 hectares) probably will not be able to participate as buyers of the 800 JD house. This classification, sharecroppers of 15 dunums or less, constitutes 30 percent of the land holdings and about similar percentage of the sharecropper/tenant population in the Valley. Therefore, this group would presumably only be eligible for housing loans wherein the borrower would provide considerable sweat equity.

Farm laborer family income levels were calculated at between \$515 and \$1,740 per year. As is shown in Table 5, a current income of \$720 (JD 225) assuming an income growth of five percent a year, the use of a variable mortgage payment schedule over 20 years, is supportive of a mortgage for the minimum low cost house package proposed under the project. Although 25 percent of income is devoted to housing during the first ten years of the program, it is believed the families will be able to meet their additional expenditures for water and electricity which have been calculated by the KVV's consultants for water and electricity of 780 fils (\$2.49) per month for water and 650 fils (\$2.08) per month for electricity. An owner will not be subject to any other charges such as property taxes by either the municipal or national governments.

In summary it would appear that the 800 JD house may not be within reach of the lower 30 percent of sharecroppers and a small percentage of the farm laborers. However, these people are eligible to borrow for the procurement of materials or labor to construct whatever shelter is within their means.

C. Social Considerations

1. Willingness to pay

Because the eligibility requirements for mortgage loans is directed toward assisting a target population which would appear to represent a high-risk clientele, the loan committee attempted to structure the program to attempt to assure the maximum recovery of mortgage funds. Further since this program of mortgage financing of low income families' homes will be the first ever attempted in Jordan, there is no historical precedent on which to base any assessment of the

lower income families willingness to pay.

2. Replicability of the project

Given the design standardization adopted for community facilities based on population levels in the communities, there is no physical restraint evident to the replicability of these standard facilities throughout the Valley. The only restraints are funds and, in the case of health facilities, the availability of trained staff to operate any facilities in addition to those programmed under this project and the IDA North East Ghor project.

The mortgage program, can be duplicated using Housing Bank funds since the interest rate is compatible with the Housing Bank's usual interest rate. Also the combination of the real value of the home owner's subsidized plot (cost to the owner is JD 25 compared to estimated actual cost of JD 135) and the home owners JD 25 earnest money deposit represents all but five percentage points (for a JD 800 home) of the Housing Bank's normal requirement of a 75 percent loan to value ratio (that is the minimum equity of the borrower in the property must be at least 25 percent of its value, including land). Therefore, only an additional JD 40 will be required of a borrower to meet the Housing Bank's usual requirements. It is, of course, possible that the Housing Bank may alter its requirements if the program is successful.

3. Role of Women

This project is not expected to have any direct impact on increasing women's participation in the economy, although indirectly, to the extent the project contributes to increased school attendance by daughters, the opportunities for an expanded role for a new generation of women may be created through education.

D. Financial Considerations

1. Project Costs

The following table sets forth the financial disbursement required by fiscal years and the source of the funds.

Table 6

Source	FY 1976	FY 1977	FY 1978	Total
AID				
Loan	3,700,000	4,400,000	550,000	8,650,000
Grant	100,000	150,000	85,000	335,000
GOJ				
Land Acq.	1,240,000	1,860,000	620,000	3,720,000
Eng. & Sup.	250,000	175,000	75,000	500,000
Add. JVC Staff	75,000	75,000	75,000	225,000
MPW Eng.	100,000	50,000	50,000	200,000
Totals	5,465,000	6,710,000	1,455,000	13,630,000

The above program considers only acquisition and development of 20 percent of the total number of new housing plots required for full development of the seventeen priority villages. This level of development is approximately equivalent to the number of homes which might be financed under the mortgage program. Acquisition costs of land now privately held were estimated by the Jordan Valley Commission on the basis of the most recent sales prices of private land in and around the villages where development is to occur. The cost of land now owned by other Government agencies was assigned a nominal value of between \$1,300 and \$2,600 per acre depending on location and land classification.

2:25 to \$650/dunum

VII BORROWER AND PARTICIPATING AGENCIES

A. Jordan Valley Commission

The Jordan Valley Commission will be responsible for (1) providing overall policy planning in the implementation of the project; (2) assuring all terms and conditions of the loan agreement are met in a timely manner; (3) coordinating, scheduling, and organizing the implementation actions related to the project with the participating GOJ Ministries and agencies and the Housing Bank; (4) assuring coordination between the activities of this project and the related activities of other donors; (5) taking the necessary action to cause (a) the passage of the necessary law(s) required to acquire land for the project and (b) the allocation of sufficient funds from the National Budget to permit implementation of the program; (6) preparation and issuance of all procurement documents and award and signing of all contracts; and (7) supervision of construction of all construction activities.

The present staff of the Jordan Valley Commission can not undertake the above responsibilities and at the same time perform its supervisory role in regard to the six other major projects underway in the Valley. This fact is recognized by the Commission even though implementation of the six projects and parts of this project have been assigned to other GOJ agencies for implementation. The current organizational chart of the Commission is shown in Annex 9.

In order for the Commission to implement satisfactory the proposed village development project, the Commission has agreed to hire additional engineers for the Commission's permanent staff, to secure technical assistance in town planning, contract administration and coordination and construction management; to utilize the Ministry of Public Works for design of the schools and supervision of all construction; to secure the services of a consortium of Jordan's three engineering firms for design and balance of the project's elements and to utilize a private bank, the Housing Bank, to administer the mortgage-lending portfolio.

B. Housing Bank

The Housing Bank will serve as administrator of the mortgage program. No extensive technical assistance is required by the Housing Bank. Assistance is proposed only for the purposes of the initial establishment of procedures, basic tables and other activities necessary to implement the variable mortgage programs with subsequent follow-up visits for purposes of monitoring and problem-solving. A total of 14 man-weeks of service is suggested.

An organizational table of the Housing Bank, its balance sheet and statement of expenditures and revenues is included in Annex 13.

Prior to the disbursement of funds for the mortgage program it will be necessary for the Jordan Valley Commission to enter into an administrator's agreement with the Housing Bank setting forth the duties and responsibilities of the Housing Bank and the fees to be paid to the bank for services rendered. It will be necessary also that the necessary technical assistance be made available to the Housing Bank prior to implementation of the mortgage lending program so that the necessary procedures and documentation for implementation will be established. A Condition Precedent concerning this action will be included in the Loan Agreement.

*Can the T.A. be included
in meeting the C.P.
C.P.*

C. Ministry of Public Works

The Building Department of the Ministry of Public Works (MPW) is preparing the final design and construction drawings for the schools to be built under the IDA-financed North East Ghor project and the project proposed herein. The Department's technical staff is fully capable of accomplishing its assignment. Following completion of the design and drawings, the Ministry of Education and the JVC will review the work primarily to assure the compatibility of the proposed design with the physical sites.

Following award of the construction contracts the MPW is to provide, on a schedule to be developed compatible with the actual construction program, personnel for construction supervision from the Salt and Ibrid regional offices of the MPW. A Condition Precedent assuring this coordination will be included in the Loan Agreement.

The Director of Highways will provide the design standards for the farm roads and the settlement streets. The MPW will be responsible for maintenance of the farm roads subsequent to their completion. Depending on the capability of a given settlement, the settlement or the MPW will assume responsibility for maintenance of the settlement streets.

D. Municipal and Village Loan Fund

The Ministry of Interior is responsible for the "Municipal and Village Loan Fund" which is the vehicle through which municipalities and villages normally secure financing for the construction of various community improvements. Under the project, the Jordan Valley Commission proposes to build both municipal buildings and commercial facilities and to donate these facilities to the selected villages at some indefinite future time. The Ministry of Interior, on the other hand, has stated that as the commercial facilities are revenue producing the revenues should be used to repay to the Government the cost of the facilities and facilities should not be donated and, as municipal buildings are normally funded through the Loan Fund, these facilities should also be handled under normal GOJ procedures. In view of the apparent inter-agency disagreement as to the procedure to be followed is condition precedent to disbursement for construction of these facilities is receipt of the Government's position as to which procedure is to be followed. Letter of Implementation No. 1 will state that if the normal procedures are to be followed A.I.D. will require notification that the recipient settlement agrees to the construction of the proposed facilities and agrees to enter into a Loan Agreement with the Municipal and Village Loan Fund for repayment of the cost of construction. Letter of Implementation No. 1 will also state that if the facilities are to be donated to the recipient settlements that the turnover of these facilities be accomplished on completion of the facilities rather than at some indefinite future date.

E. Ministry of Education

The Ministry of Education has prepared a phased development program of school construction to meet the total educational needs of the Valley's student population through the mid-1980's. The first, and immediate, requirements have been specified and the Ministry of Public Works is preparing the construction drawings and site plans for the schools. The Ministry of Education is now preparing the lists of equipment and furnishings required in the schools to be built. The planning effort of the Ministry of Education has been thorough and complete.

Subsequent to completion of the school construction program, the Ministry of Education will be required to assume responsibility for the maintenance, operation and staffing of the schools. It is recommended that AID receive assurances from the Ministry of Education through the Jordan Valley Commission that the schools to be constructed will be fully staffed by qualified teachers and maintained. A Condition Precedent to disbursements for school construction providing such assurances will be included in the Loan Agreement.

F. Ministry of Social Affairs

The single community building to be built as part of this project will be the first actual construction under the Ministry of Social Affairs development plan for the Jordan Valley. The Ministry's request was for a more substantial facility and for facilities in several locations. However, the shortage of funds precluded the financing of more than one community building.

Before funds are committed for construction of the community building it will be necessary for the JVC to receive the Ministry of Social Affairs approval of the design and a commitment by the Ministry to assume responsibility for the facility after its construction and to staff, operate and maintain the community center. A Condition Precedent to disbursements incorporating the above requirement will be included in the Loan Agreement.

G. Domestic Water Corporation

The transmission line providing potable water to the central sector of the Valley was designed and constructed by the Domestic Water Corporation. All other activities through completion of construction of the distribution systems will be the responsibility of the Jordan Valley Commission utilizing the local engineering consortium for design and the Ministry of Public Works for supervision of construction.

On completion of the construction of the water system, the Domestic Water Supply Corporation will assume responsibility for the operation and maintenance of the system and the collection of fees. As a Condition Precedent to disbursement of funds for the construction of the system, it is recommended that the Domestic Water Corporation, through the JVC, formalize its agreement to assume responsibility for the system and to present its plan, and timetable for implementation of that plan, to establish the necessary offices and maintenance facilities in the Jordan Valley to service the system to be constructed and to collect water-use charges.

H. Forestry Service

The Jordan Valley Commission has recruited the former head of the Forestry Service to assist the Commission in developing a program of erosion control and land management in and around the settlements proposed for development and/or redevelopment. Any such program requires the services of the Forestry Service which is the GOJ agency responsible for such programs. The Forest Service has agreed to participate in the program and has within the Service the technical expertise to implement a land management and erosion control program. A Condition Precedent to disbursements for this program will require that the JVC and Forest Service execute an agreement whereby the Forest Service in conjunction with the JVC is to develop a program of land management and erosion control and whereby the Forest Service agrees to manage the implementation of the program.

I. Central Bank

The role of the Central Bank requires no prior commitments or agreements. The Central Bank will perform only its legal function of reviewing the proposed Loan Agreement prior to execution.

*What about
furnishing the E/C*

VIII. Implementation Plan

Implementation of the project can best be described if the general development program (schools, clinics, municipal facilities, water supply, etc.) is presented separately from the housing element of the project. It is recognized that some aspects of each element, such as acquisition of the land and site grading - home construction, are mutually linked in the implementation process but a clearer picture of the implementation program is possible if the two aspects are considered separately.

A. General Development Program

Following execution of the Loan Agreement, estimated to occur during the last week in June, the Jordan Valley Commission will promote the issuance of legislation through the Council of Ministers permitting the Commission to acquire the land necessary for the sites on which the public facilities are to be located and for the roads which will be built in the areas to be developed for housing. Although legislation exists for the acquisition of land for schools, clinics, etc., it is necessary that the full urbanization program proceed as one in order to minimize land speculation which could severely restrict the fulfillment of the project's objectives.

At present the Ministry of Public Works is preparing the final plans and specifications for the schools to be built under the AID and IDA projects. The Commission has agreed to try the fixed-cost reimbursement (FCR) procedure for construction of the schools and, if successful, to utilize the procedure for other aspects of the construction program. The procedure would greatly simplify the coordination and payment procedures since it is proposed to build the AID and IDA financed clinics simultaneously.

The Jordan Valley Commission will execute an agreement with the Ministry of Public Works for the supervision of all construction. This agreement should be completed by July 1, 1975.

The Jordan Valley Commission will execute an agreement with a consortium of three Jordanian engineering firms for the preparation of plans and specifications and bidding documents, evaluation of bids received, and recommendation of award to the Commission. The facilities to be included in this package include water supply; community, municipal and commercial buildings; site leveling; farm roads and settlement streets. The anticipated last date for execution of this agreement is August 1, 1975.

For
of
schools

The schedule of project implementation subsequent to execution of the contract for engineering services is shown in Chart 1.

B. Village Housing Program

The JVC has requested the Government to issue a Law declaring the East Ghor settlements as a "planning" areas. This law would prohibit further private land sales in the project area. After this law is passed the JVC will request a land value assessment and acquire the necessary land. Owners will be paid the assessed value of their land or, if the owner wished to dispute the assessors' valuation, the parties will pursue the matter through the court system. Under the proposed law, which is to be similar to the existing land reform law, the owner cannot prevent the taking of land by the Government; the owner can only dispute the price offered by the Government as compensation. The source of funds to the JVC for private land will be from JVC's budget and/or National Budget advances depending on the timing of the transactions, i.e., for the current fiscal year there is not provision in the JVC budget for land purchases; therefore, National Budget advances will be used, as necessary, over the balance of the year.

The land acquired will be surveyed and the plots staked. Subsequently, site preparation, house construction and installation of off-site facilities will be undertaken. At the six sites selected for the market testing of the acceptability of the proposed concrete panel and cement blocks homes, the Commission will build and furnish four houses, a total of 24 homes. The Commission was advised that the actual cost of these homes would be reimbursable once the required Conditions Precedent were met, provided the Commission formally requested A.I.D.'s agreement to the proposal in advance of construction.

Once the model homes are under construction, and estimated date for completion of construction is September 1, and before the pre-sale campaign is launched, the Housing Bank's technical assistance advisor should be in Jordan to assist the Housing Bank in setting up its procedures and records for administration of the mortgage-lending program.

On completion of the model homes, the Commission will launch its pre-sale campaign. Individuals may apply or, as is expected, cooperatives will submit the names of members to a JVC eligibility screening committee, to be established in the Valley. The Committee will pass on the eligibility of the applicants for a mortgage loan and forward their recommendations to the JVC headquarters in Amman for final approval. The list of eligible borrowers, together with a request for a loan will be transmitted to the Housing Bank for a determination of credit worthiness. The application to the Housing Bank will be accompanied by a refundable (in the event the application is rejected) earnest money deposit of JD 25 (\$80.00).

Once an applicant is certified as eligible to participate in the program, he will be allowed to select his plot(s). Any owner will be permitted to purchase a maximum of four plots at the following illustrative cost per plot: first plot JD 25 (\$80), second plot JD 200 (\$640) and subsequent plots at JD 315 (\$1,008) each.

The purchaser must agree to begin construction of his home within one year after purchase of his plot or the plot will revert to the Jordan Valley Commission and the purchase price will be refunded. The owner can build the home himself, borrowing for materials only; contract for construction by a private contractor or opt to have his home built by the contractor selected to construct the off-site facilities and perform site leveling. An individual desiring the Jordan Valley Commission to include the building of his home as part of the off-site construction contractor contract will have the option of not accepting the price quoted by the contractor if that price exceeds the estimated price quoted to the prospective owner by the Commission. If the contractor's bid price is lower than the price quoted by the Commission, the cost to the owner will be the lesser price. The options to the owner if the price is higher are to drop out of the program or have his home constructed by alternative methods or to accept the higher cost.

Based on the response to the pre-sale campaign a determination will be made regarding financial support to the upgrading of the panel plant.

How?
A.I.D. will release \$100,000 to the Housing Bank for deposit in a special account at the Bank, once the qualified buyers have selected their plots. This amount is expected to be sufficient to meet the initial demands for mortgage funds. Subsequent releases of funds will be linked to demand. Mortgage loans for houses constructed under JVC controlled contracts would be expended as part of the overall progress payments to the construction contractor.

The above procedure is schematically presented in Chart 3.

It is the intention of the Jordan Valley Commission to use the repayments for future mortgage loans in the Valley.

C. Contracting and Disbursement Procedures

1. Contracting. The procurement of medical equipment will be accomplished by the Jordan Valley Commission through the issuance of Invitations for Bid in conformity with normal AID procedures. |||

Construction of the schools, and probably clinics will be constructed under Fixed-Cost Reimbursement Procedures (FCR). Construction of the off-site facilities and site leveling will be on conformity with

normal AID contracting procedures unless the FCR method proves to be more satisfactory on the basis of experience gained in the school program.

*AID for
Contracting
work only*
The technical assistance to be financed under a grant project agreement will also be secured according to AID contracting procedures.

2. Disbursements. Disbursements for the procurement of medical equipment will be by the Letter of Commitment - Letter of Credit mechanism. FCR disbursements will be in local currency only, using the Direct Reimbursement Authority procedure.

Disbursements of mortgage money to the Housing Bank will be accomplished by conversion of U.S. dollars at the Paris, USDO facility and the issuance of Jordanian dinar denominated checks to the Housing Bank.

*Implementation
Letter No. 1
LC for FCR*
For the large construction contracts, local expenditures will be funded with Jordanian dinars converted at the Paris, USDO facility and the foreign exchange costs will be financed by the Letter of Commitment - Letter of Credit procedure.

D. Reporting Requirements

1. Monthly progress reports and a final report will be required of the Jordan Valley Commission. Implementation Letter No. 1 will provide guidance to the Commission as to the form and substance of the reports.

2. Shipping reports will be required. Implementation Letter No. 1 will advise the Jordan Valley Commission of this requirement.

E. Evaluation

The criteria for evaluation are the objectively verifiable indicators of project outputs as set forth in the Logical Framework (See Annex 7).

F. Monitoring

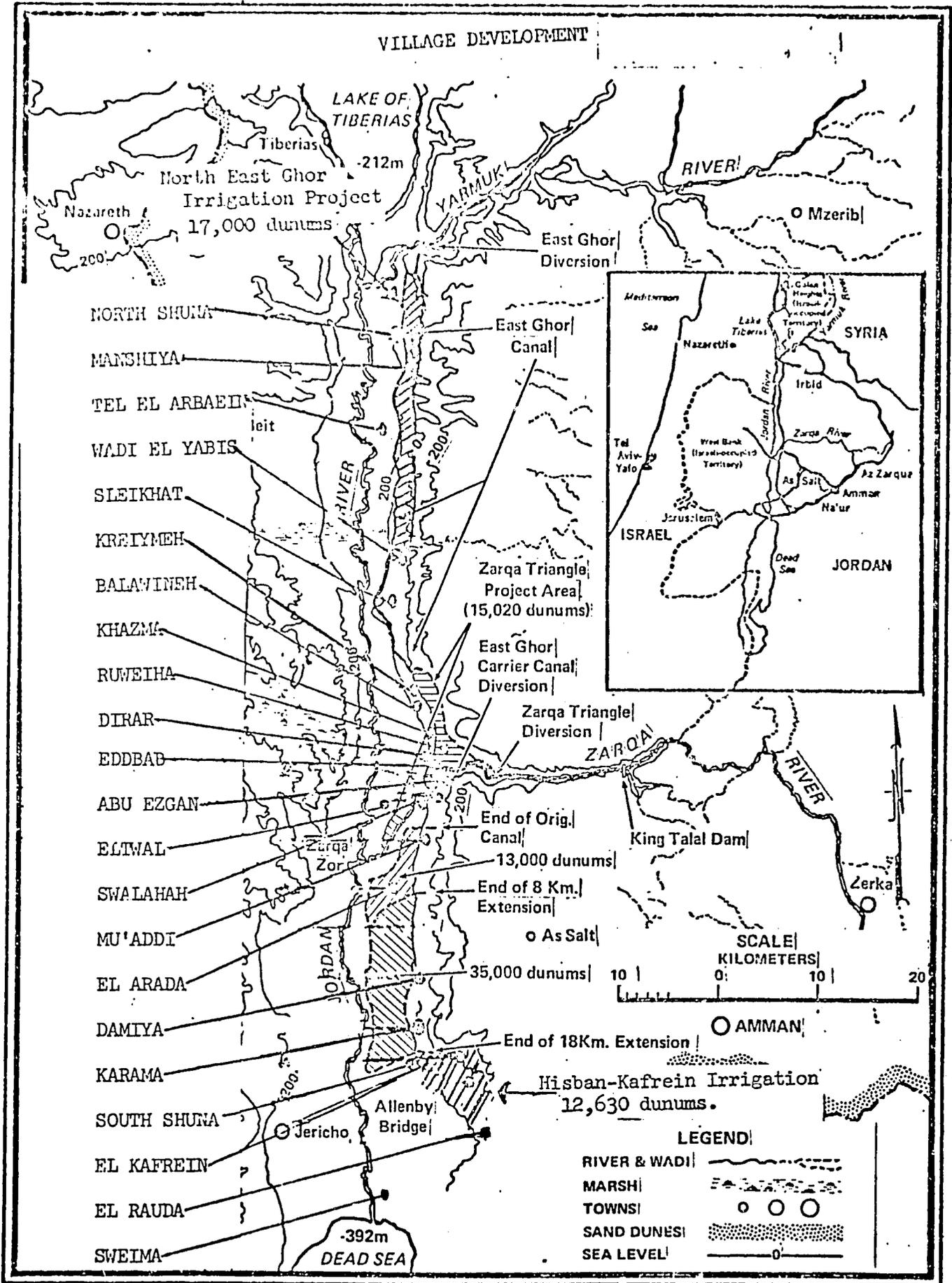
The AID Mission staff available for monitoring the four loan projects which should be under implementation simultaneously with this Village Development project consists of one U.S. direct-hire and one local-hire engineer. The AID Mission is in the process of securing the services of a second U.S. direct-hire and a second local-hire engineer. Given the close proximity of four of the projects (all in the Jordan Valley), the presence of qualified supervisory engineering firms on all projects, the ready availability of assistance from AID/W, and the retention of authority for contractual matters in AID/W, it is believed the Mission staff is adequate to meet the normal AID monitoring requirements for capital projects.

IX. ENVIRONMENTAL ANALYSIS

AID/W Engineering Office has prepared a detailed analysis of the effects of this project on the environment in the Jordan Valley. See Annex 8.

X. REPAYMENT PROSPECTS/BALANCE OF PAYMENTS

In 1972 and 1973, the average ratio of debt service requirement to export of goods and services was 7.3 percent. Jordan debt consists mainly of highly concessional financing from foreign aid donors. It is not anticipated that this ratio will change substantially over the next five years. This relative stabilization in the debt service/export ratio is predicted in the increased export of phosphates, other minerals and agricultural development. The proposed loan, considering the concessionary terms recommended, will have minimal impact on the debt service/export ratio. See Annex 12 for further discussion of Jordan's balance of payments.



-37-

UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT

AMMAN - JORDAN

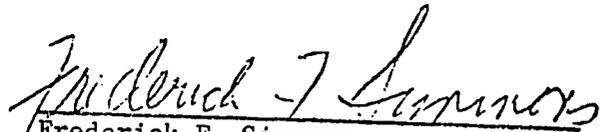
وكالة الولايات المتحدة للانماء الدولي

عمان - الاردن

ANNEX 1

CERTIFICATION PURSUANT TO SECTION 611 (e)
OF THE FOREIGN ASSISTANCE ACT OF 1961,
AS AMENDED

I, Frederick F. Simmons, the principal officer of the Agency for International Development in Jordan, having taken into account, among other things, the maintenance and utilization of projects in Jordan previously financed or assisted by the United States, do hereby certify that in my judgement Jordan has both the financial capability and the human resources capability to effectively maintain and utilize the capital assistance project, Jordan Valley Village Development.



Frederick F. Simmons
AID Representative

Date: May 7, 1975

BEST AVAILABLE COPY

CHECKLIST OF STATUTORY CRITERIA

The following abbreviations are used:

FAA - Foreign Assistance Act of 1961, as amended.

FAA, 1973 - Foreign Assistance Act of 1973.

App. - Foreign Assistance and Related Programs Appropriation Act, 1974.

MMA - Merchant Marine Act of 1936, as amended.

BASIC AUTHORITY

1. FAA § 103; § 104; § 105;
§ 106; § 107. Is loan being made

a. for agriculture, rural develop-
ment or nutrition;

Inapplicable

b. for population planning or health;

c. for education, public administration,
or human resources development;

d. to solve economic and social develop-
ment problems in fields such as trans-
portation, power, industry, urban
development, and export development;

e. in support of the general economy of the
recipient country or for development pro-
grams conducted by private or inter-
national organizations.

COUNTRY PERFORMANCE

Progress Towards Country Goals

2. FAA §201 (b) (5), (7) & (8); § 208

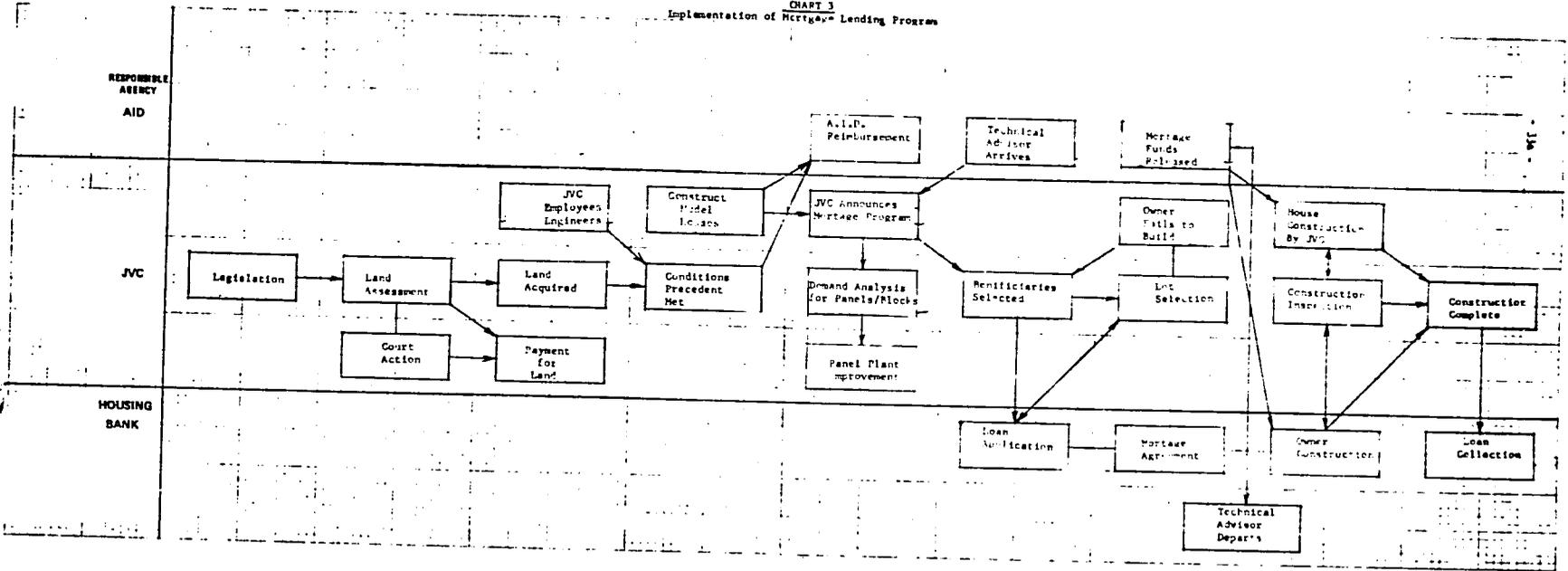
A. Describe extent to which country is:

(1) Making appropriate efforts to

BEST AVAILABLE COPY

10-10-58
2-10-58
10-10-58

CHART 3
Implementation of Mortgage Lending Program



increase food production and
improve means for food storage
and distribution.

inapplicable

(2) Creating a favorable climate
for foreign and domestic private
enterprise and investment.

inapplicable

(3) Increasing the public's role in
the developmental process.

inapplicable

- (4) (a) Allocating available budgetary resources to development. inapplicable
- (b) Diverting such resources for unnecessary military expenditure (See also Item No. 20) and intervention in affairs of other free and independent nations.) (See also Item No. 11) inapplicable
- (5) Making economic, social, and political reforms such as tax collection improvements and changes in land tenure arrangements, and making progress toward respect for the rule of law, freedom of expression and of the press, and recognizing the importance of individual freedom, initiative, and private enterprise. inapplicable
- (6) Willing to contribute funds to the project of program. inapplicable

(7) Otherwise responding to the vital economic, political, and social concerns of its people, and demonstrating a clear determination to take effective self-help measures.

inapplicable

B. Are above factors taken into account in the furnishing of the subject assistance?

inapplicable

Treatment of U.S. Citizens and firms.

3. FAA § 620(c). If assistance is to a government, is the government liable as debtor or unconditional guarantor on any debt to a U.S. citizen for goods or services furnished or ordered where (a) asuch citizen has exhausted available legal remedies and (b) debt is not denied or contested by such government?

No such situation exists at this time.

4. FAA § 620(e) (1). If assistance is to a government, has it (including government agencies or subdivisions) taken any action which has the effect or nationalizing, expropriating, or otherwise seizing ownership or control of property of U.S. citizens or entities beneficially owned by them without taking steps to discharge its obligations toward such citizens or entities?

No such action has been taken by the GOJ.

5. FAA § 620(o); Fisherman's Protective Act § 5. If country has seized, or imposed any penalty or sanction against, any U.S. fishing vessel on account of its fishing activities in international waters,

a. has any deduction required by Fishermen's Protective Act been made?

b. has complete denial of assistance been considered by A.I.D. Administrator?

No such action has been taken by the GOJ

Relations with U.S. Government and Other Nations.

6. FAA § 620(a). Does recipient country furnish assistance to Cuba or fail to take appropriate steps to prevent ships or aircraft under its flag from carrying cargoes to or from Cuba. No

7. FAA § 620(b). If assistance is to a government, has the Secretary of State determined that it is not controlled by the international Communist movement? The Secretary has so determined

8. FAA § 620(d). If assistance is for any productive enterprise which will compete in the United States with United States enterprise, is there an agreement by the recipient country to prevent export to the United States of more than 20% of the enterprise's annual production during the life of the loan?

9. FAA § 620(f). Is recipient country a Communist country? No

10. FAA § 620(i). Is recipient country in any way involved in (a) subversion of, or military aggression against, the United States or any country receiving U.S. assistance, or (b) the planning of such subversion or aggression? No

11. FAA § 620(j). Has the country permitted, or failed to take adequate measures to prevent, the damage or destruction, by mob action, of U.S. property? No

12. FAA § 620(l). If the country has failed to institute the investment guaranty program for the specific risks of expropriation, in convertibility or confiscation, has the the A.I.D. administration within the past year considered denying assistance to such government for this reason? The GOJ has instituted such a program

13. FAA § 620(n). Does recipient country furnish goods to North Viet-Nam or permit ships or aircraft under its flag to carry cargoes to or from North Viet-Nam? No
14. FAA § 620(q). Is the government of the recipient country in default on interest or principal of any A.I.D. loan to the country? The GOJ has not been in default in payment to the U on any FAA loan.
15. FAA § 620(t). Has the country severed diplomatic relations with the United States? If so, have they been resumed and have new bilateral assistance agreements been negotiated and entered into since such resumption? The GOJ has not severed diplomatic relations with the U.S.
16. FAA § 620(u). What is the payment status of the country's U.N. obligations? If the country is in arrears, were such arrearages taken into account by the A.I.D. Administrator in determining the current A.I.D. Operational Year Budget? The small arrears in certain assessments were taken into account by the Administrator in the OYB.
17. FAA § 481. Has the government of recipient country failed to take adequate steps to prevent narcotic drugs and other controlled substances (as defined by the Comprehensive Drug Abuse Prevention and Control Act of 1970) produced or processed, in whole or in part, in such country, or transported through such country, from being sold illegally within the jurisdiction of such country to U.S. Government personnel or their dependents, or from entering the U.S. unlawfully? No
18. FAA § 659. If (a) military base is located in recipient country, and was constructed or is being maintained or operated with funds furnished by U.S., and (b) U.S. personnel carry out military operations from such base, has the President determined that the government of recipient country has authorized regular access to U.S. correspondents to such base? No such base is located in Jordan

Military Expenditures

19. FAA § 620(s). What percentage of country budget is for military expenditures? How much of foreign exchange resources spent on military equipment? How much spent for the purchase of sophisticated weapons systems? (Consideration of these points is to be coordinated with the Bureau for Program and Policy Coordination, Regional Coordinators and Military Assistance Staff (PPC/RC).)

(a) The GOJ allocated 31% of its 1974 budget to military purposes, both to prevent internal threats and for defense purposes. (b) The degree to which Jordan's foreign exchange resources are used to acquire military equipment is unknown. (c) The GOJ has no sophisticated weapons systems and is not spending any amount to acquire such systems. (d) The GOJ is not diverting development assistance to military expenditures. (e) Considering Jordan's military requirements for both internal and external security, it is our judgment that the GOJ is not diverting its own resources to unnecessary military expenditures.

CONDITIONS OF THE LOAN

General Soundness

20. FAA § 201(d). Information and conclusion on reasonableness and legality (under laws of country and the United States) of lending and relending terms of the loan.

Not Applicable

21. FAA § 201(b)(2); § 201(e). Information and conclusion on activity's economic and technical soundness. If loan is not made pursuant to a multilateral plan, and the amount of the loan exceeds \$100,000, has country submitted to A.I.D. an application for such funds together with assurances to indicate that funds will be used in an economically and technically sound manner?

Not Applicable

BEST AVAILABLE COPY

28. FAA § 209. Is project susceptible of execution as part of regional project? If so, why is project not so executed? Not Applicable
29. FAA § 201(b)(4). Information and conclusion on activity's relationship to, and consistency with, other development activities, and its contribution to reliable long-range objectives. Not Applicable
30. FAA § 201(b)(9). Information and conclusion on whether or not the activity to be financed will contribute to the achievement of self-sustaining growth. Not Applicable
31. FAA § 209. Information and conclusion whether assistance will encourage regional development programs. Not Applicable
32. FAA § Section 111. Discuss the extent to which the loan will strengthen the participation of the urban and rural poor in their country's development, and will assist in the development of cooperatives which will enable and encourage greater numbers of poor people to help themselves toward a better life. Not Applicable
33. FAA § 201(f). If this is a project loan, describe how such project will promote the country's economic development taking into account the country's human and material resource requirements and the relationship between ultimate objectives of the project and overall economic development Not Applicable

22. FAA § 201(b)(2). Information and conclusion on capacity of the country to repay the loan, including reasonableness of repayment prospects. Not Applicable
23. FAA § 201(b)(1). Information and conclusion on availability of financing from other free-world sources, including private sources within the United States. Not Applicable
24. FAA § 611(a)(1). Prior to signing of loan will there be (a) engineering, financial, and other plans necessary to carry out the assistance and (b) a reasonably firm estimate of the cost to the United States of the assistance? Yes. Preliminary plans have been reviewed by the U.S. and have been found satisfactory. A reasonably firm cost estimate has been made.
25. FAA § 611(a)(2). If further legislative action is required within recipient country, what is basis for reasonable expectation that such action will be completed in time to permit orderly accomplishment of the purpose of the loan? Legislation, needed only to clarify existing law, has only to pass the Council of Ministers.
26. FAA § 611(e). If loan is for Capital Assistance, and all U.S. assistance to project now exceeds \$1 million, has Mission Director certified the country's capability effectively to maintain and utilize the project? The principal A.I.D. officers certification is attached as Annex E

Loan's Relationship to Achievement of Country and Regional Goals

27. FAA § 207; § 113. Extent to which assistance reflects appropriate emphasis on: (a) encouraging development of democratic, economic, political and social institutions; (b) self-help in meeting the country's food needs; (c) improving availability of trained manpower in the country; (d) programs designed to meet the country's health needs; (e) other important areas of economic, political, and social development, including industry; free labor unions, cooperatives, and Voluntary Agencies; transportation and communication; planning and public administration; urban development, and modernization of existing laws; or (f) integrating women into the recipient country's national economy. Not Applicable

34. FAA § 281(a). Describe extent to which the loan will contribute to the objective of assuring maximum participation in the task of economic development on the part of the people of the country, through the encouragement of democratic, private, and local governmental institutions;
- Not Applicable
35. FAA § 281(b). Describe extent to which program recognizes the particular needs, desires, and capacities of the people of the country; utilizes the country's intellectual resources to encourage institutional development; and supports civic education and training in skills required for effective participation in governmental and political processes essential to self-government.
- Not Applicable
36. FAA § 201(b)(3). In what ways does the activity give reasonable promise of contributing to the development of economic resources, or to the increase of productive capacities?
- Not Applicable
37. FAA § 601(a). Information and conclusions whether loan will encourage efforts of the country to: (a) increase the flow of international trade; (b) foster private initiative and competition (c) encourage development and use of cooperatives, credit unions, and savings and loan associations; (d) discourage monopolistic practices; (e) improve technical efficiency of industry, agriculture, and commerce; and (f) strengthen free labor unions.
- (a) One goal is to increase fruit and vegetable export.
 - (b) All agricultural production is private.
 - (c) Coops and credit institutions are anticipated direct results of this project.
 - (d) project part of total effort to assist small land holders and limit size of large.
 - (e) specific goals of agric. and commerce.
 - (f) not applicable

38. FAA § 619. If assistance is for newly independent country; is it furnished through multilateral organizations or plans to the maximum extent appropriate?

Jordan is not a newly independent country.

Loan's Effect on U.S. and A.I.D. Program

39. FAA § 201(b)(6). Information and conclusion on possible effects of loan on U.S. economy, with special reference to areas of substantial labor surplus, and extent to which U.S. commodities and assistance are furnished in a manner consistent with improving the U.S. balance of payments position.

Not Applicable

40. FAA § 202(a). Total amount of money under loan which is going directly to private enterprise, is going to intermediate credit institutions or other borrowers for use by private enterprise, is being used to finance imports from private sources, or is otherwise being used to finance procurements from private sources.

Not Applicable

41. FAA § 601(b). Information and conclusion on how the loan will encourage U.S. private trade and investment abroad and how it will encourage private U.S. participation in foreign assistance programs (including use of private trade channels and the services of U.S. private enterprise).

Not a major goal. Some possibility for future agro-industrial development and investment.

42. FAA § 601(d). If a capital project, are engineering and professional services of U.S. firms and their affiliates used to the maximum extent consistent with the national interest?

Yes

43. FAA § 602. Information and conclusion whether U.S. small business will participate equitably in the furnishing of goods and services financed by the loan.

Small business will have an opportunity to provide services. No commodities will be purchased in the U.S.

44. FAA § 620(h). Will the loan promote or assist the foreign aid projects or activities of the Communist-Bloc countries?

No

45. FAA § 621. If Technical Assistance is financed by the loan, information and conclusion whether such assistance will be furnished to the fullest extent practicable as goods and professional and other services from private enterprise on a contract basis. If the facilities of other Federal agencies will be utilized, information and conclusion on whether they are particularly suitable, are not competitive with private enterprise, and can be made available without undue interference with domestic programs.

No technical assistance is expected to be financed under this loan.

Loan's Compliance with Specific Requirements

46. FAA § 110(a) ; § 208(e). In what manner has or will the recipient country provide assurances that it will provide at least 25% of the costs of the program, project, or activity with respect to which the loan is to be made?

Not Applicable

47. FAA § 660. Will loan be used to finance police training or related program in recipient country? No
48. FAA § 114. Will loan be used to pay for performance of abortions or to motivate or coerce persons to practice abortions? No
49. FAA § 201(b). Is the country among the 20 countries in which development loan funds may be used to make loans in this fiscal year? Not Applicable
50. FAA § 201(d). Is interest rate of loan at least 2% per annum during grace period and at least 3% per annum thereafter? Not Applicable
51. FAA § 201(f). If this is a project loan, what provisions have been made for appropriate participation by the recipient country's private enterprise? Not Applicable
52. FAA § 604(a). Will all commodity procurement financed under the loan be from the United States except as otherwise determined by the President? Yes
53. FAA § 604(b). What provision is made to prevent financing commodity procurement in bulk at prices higher than adjusted U.S. market price? No such procurement will occur under this Loan

54. FAA § 604(d). If the cooperating country discriminates against U.S. marine insurance companies, will the loan agreement require that marine insurance be placed in the United States on commodities financed by the loan?
- Jordan does not discriminate against U.S. marine insurance companies.
55. FAA § 604(e). If offshore procurement of agricultural commodity or product is to be financed, is there provision against such procurement when the domestic price of such commodity is less than parity?
- Not Applicable
56. FAA § 604(f). If loan finances a commodity import program, will arrangements be made for supplier certification to A.I.D. and A.I.D. approval of commodity as eligible and suitable?
- The loan does not finance a commodity import program.
57. FAA § 608(a). Information on measures to be taken to utilize U.S. Government excess personal property in lieu of the procurement of new items.
- The loan agreement will contain appropriate provisions.
58. FAA § 611(b), App. § 101. If loan finances water or water-related land resource construction project or program, is there a benefit-cost computation made, insofar as practicable, in accordance with the procedures set forth in the Memorandum of the President dated May 15, 1962?
- The loan is not financing such a project.
59. FAA § 611(c). If contracts for construction are to be financed, what provision will be made that they be let on a competitive basis to maximum extent practicable?
- A.I.D. has reviewed the competitive procurement procedures utilized and found them to be satisfactory.
60. FAA § 612(b); § 636(h). Describe steps taken to assure that, to the maximum extent possible, the country is contributing local currencies to meet the cost of contractual and other services, and foreign currencies
- Jordan is not an excess currency country. Jordan is financing the foreign exchange portion of contractual and other services.

owned by the United States are utilized to meet the cost of contractual and other services.

61. Section 30 and 31 of PL 93-189 (FAA of 1973). Will any part of the loan be used to finance directly or indirectly military or paramilitary operations by the U.S. or by foreign forces in or over Laos, Cambodia, North Vietnam, South Vietnam, or Thailand? No
62. Section 37 of PL 93-189 (FAA of 1973); App. § 111. Will any part of this loan be used to aid or assist generally or in the reconstruction of North Vietnam? No
63. FAA § 612(d). Does the United States own excess foreign currency and, if so, what arrangements have been made for its release? Jordan is not an excess currency country
64. FAA § 620(g). What provision is there against use of subject assistance to compensate owners for expropriated or nationalized property? The loan agreement will contain a provision limiting use of the funds for use on the project
65. FAA § 620(k). If construction of productive enterprise, will aggregate value of assistance to be furnished by the United States exceed \$100 million? No
66. FAA § 636(i). Will any loan funds be used to finance purchase, long-term lease, or exchange of motor vehicle manufactured outside the United States, or any guaranty of such a transaction? No
67. App. § 103. Will any loan funds be used to pay pensions, etc., for military personnel? No
68. App. § 105. If loan is for capital project, is there provision for A.I.D. approval of all contractors and contract terms? The loan agreement shall so provide.

69. App. § 107. Will any loan funds be used to pay UN assessments? No
70. App. § 108. Compliance with regulations on employment of U.S. and local personnel. (A.I.D. Regulation 7). The loan agreement shall contain a provision to ensure compliance.
71. App. § 110. Will any of loan funds be used to carry out provisions of FAA § 209(d)? No
72. App. § 112. Will any of the funds appropriated or local currencies generated as a result of AID assistance be used for support of police or prison construction and administration in South Vietnam or for support of police training of South Vietnamese? No
73. App. § 113. Describe how the Committee on Appropriations of the Senate and House have been or will be notified concerning the activity, program, project, country, or other operation to be financed by the Loan. Pursuant to section 113 and section 903 the Congress was notified at least 30 days prior to obligation.
74. App. § 601. Will any loan funds be used for publicity or propaganda purposes within the United States not authorized by Congress? no
75. App. § 604. Will any of the funds appropriated for this project be used to furnish petroleum fuels produced in the continental United States to Southeast Asia for use by non-U.S. nationals? No
76. FMA § 901.b; FAA § 640C.
(a) Compliance with requirement that at least 50 per centum of the gross tonnage of commodities (computed separately for dry bulk The Loan agreement shall contain a provision to ensure compliance.

carriers, dry cargo liners, and tankers) financed with funds made available under this loan shall be transported on privately owned U.S.-flag commercial vessels, to the extent that such vessels are available at fair and reasonable rates.

SECTION 3.01. Conditions Precedent to Initial Disbursement.

Prior to the first disbursement or to the issuance of the first Letter of Commitment or other authorization of disbursement under the Loan, the Borrower shall, except as A.I.D. may otherwise agree in writing, furnish to A.I.D. in form and substance satisfactory to A.I.D.:

- (a) An opinion of the Minister of Justice of the Hashemite Kingdom of Jordan or of other counsel acceptable to A.I.D. that this Agreement has been duly authorized or ratified by, and executed on behalf of, the Borrower, and that it constitutes a valid and legally binding obligation of the Borrower in accordance with all of its terms and that the person signing the Agreement on behalf of the Borrower has the authority to act as the representative of the Borrower in all matters pertaining to this Loan and Agreement, including the authority to designate other representatives pursuant to Section 8.02;
- (b) A statement of the names of the persons holding or acting in the office of the Borrower specified in Section 8.02, and a specimen signature of each person specified in such statement;
- (c) Evidence that a law has been issued by the Borrower which permits the Jordan Valley Commission to acquire title to all lands necessary for the implementation of the project.
- (d) An executed agreement between the Jordan Valley Commission and the Ministry of Public Works for supervision of all construction activities.
- (e) An executed contract for technical assistance approved by A.I.D. for project implementation, engineering, construction management and village planning, with an individual or firm acceptable to A.I.D.
- (f) Such additional information as A.I.D. may reasonably request.

55

SECTION 3.02. Additional Conditions Precedent.

a) Prior to the initial disbursement for school classroom construction and for other construction to be financed under the Fixed Amount Reimbursement Method, the Borrower shall submit or cause to be submitted the following in form and substance satisfactory to A.I.D.:

1. Assurances that the Ministry of Education will provide the funds and personnel necessary to staff, operate and maintain the schools to be built under the project.

2. Execution of a fixed amount reimbursement agreement between A.I.D. and the Jordan Valley Commission.

b) Prior to disbursements for construction financed other than under the Fixed Amount Reimbursement Method, the Borrower shall submit or cause to be submitted the following in form and substance satisfactory to A.I.D.:

1. An executed contract satisfactory to A.I.D. with an engineering firm acceptable to A.I.D. for the design of the facilities to be built.

2. A written commitment by the Jordan Valley Commission to acquire sufficient engineering staff for the purposes of project engineering and construction supervision.

3. The Government's plan, and timetable for execution of the plan, for the turnover of municipal building and commercial facilities to the recipient communities.

4. Assurances that the Ministries of Social Affairs and Health will provide the funds and staff necessary to operate and maintain the facilities to be built by these ministries.

5. The Domestic Water Corporation's plan, and timetable for implementation of the plan, to establish offices and shops in the Jordan

56 A

-1-

Valley for the maintenance of the water transmission and distribution system and the collection of water use charges.

c) Prior to disbursements for upgrading the panel plant, the Borrower shall submit, or cause to be submitted, the following in form and substance satisfactory to A.I.D.:

1. An analysis showing the existence of an effective demand for concrete panels and/or cement blocks sufficient to warrant the proposed expenditure for improvement of the plant.

2. A plan for the upgrading of the plan, including the requirements for equipment and personnel and the administrative/accounting system to be introduced and a schedule for accomplishing the upgrading of the panel plant.

3. The plan for turnover or lease of the facility to another Government or private organization once the plant improvement program has been completed.

d) Prior to disbursement of funds for the mortgage lending program, the Borrower shall submit, or cause to be submitted, the following in form and substance satisfactory to A.I.D.:

1. An executed contract for technical assistance services to the Housing Bank.

2. A building code for residential construction in the Jordan Valley.

3. An executed agreement between the Jordan Valley Commission and the Housing Bank for administration of the A.I.D.-financed mortgage lending program.

e) Prior to disbursement of funds for the afforestation program for soil erosion control, the Borrower shall submit, or cause to be submitted the following in form and substance satisfactory to A.I.D.

1. A plan, including an implementation schedule and cost estimate, for the afforestation program.

2. An executed agreement between the Jordan Valley Commission and the Forestry Service setting forth the responsibilities of each party in the implementation of the afforestation program.

MAJOR PROJECTS IMPLEMENTED

IN JORDAN VALLEY

<u>Project</u>	<u>Estimated Cost</u>	<u>Estimated Completion Date</u>
King Talal Dam	\$30,000,000	December 1976
East Ghor Canal Extension	13,000,000	November 1976
Zarqa Triangle Irrigation	7,000,000	September 1976
North East Ghor Irrigation	18,000,000	July 1977
Southern Ghor Irrigation	19,000,000	July 1977
Yarmouk Dead Sea Road	3,500,000	January 1977
Village Development	<u>13,630,000</u>	1978
	\$104,130,000	

SOURCE: Jordan Valley Commission

TECHNICAL ANALYSIS

1. Settlement Planning Concepts

Planning and Development Collaborative International, a U.S. consulting firm, is providing general planning services to the Jordan Valley Commission for the implementation of the settlement program in the Jordan Valley.

Under two earlier contracts, PADCO and JVC personnel surveyed each of the existing communities in the valley to determine the suitability of the site as a permanent settlement and to assess possibilities for expansion. Criteria used to evaluate each site included (1) proximity to farming areas, (2) ease of supplying potable water and other basic infrastructure, (3) preservation of existing settlements where possible, (4) availability of additional land for expansion and (5) avoidance of land difficult to develop due to rugged terrain and land suitable for cultivation. Based on an analysis of the information gathered, 36 communities were selected to be developed as permanent settlements. Each community was then placed into one of three categories depending on anticipated future population: (1) Class A settlements with population in excess of 8,000; (2) Class B settlements with population between 5,000 and 8,000; and (3) Class C settlements with population less than 5,000. Priorities for developing each settlement were established based on present population, expansion possibilities, and proximity to agricultural land to be irrigated under projects presently under implementation. The earlier contracts also required the consultants to develop planning principles, identify major planning issues, and consider alternative actions to resolve these issues. Table I outlines the general data developed during the initial phase of the planning process.

The consultant is now preparing detailed physical site plans for each of the planned communities from aerial photographs. The site plans delineate land use areas such as social infrastructure, commercial facilities, streets and paths and residential lots. As most of the villages are presently occupied, existing housing and basic infrastructure will be integrated into an overall development plan. Following completion of the basic plan, a field survey is made to determine the condition of existing housing, other buildings and basic infrastructure, and a summary of the field appraisal is prepared for each proposed settlement. Exhibit I includes the physical site plans and summaries of the field surveys developed for three existing settlements, Dirar, Karama and Kafrein, and the site plan developed for one new community, Damiya.

2. Detailed Engineering and Construction Supervision

The scope of work for the present PADCO contract does not require the consultant to conduct any ground surveys nor to produce final design drawings for any of the infrastructure required in the proposed settlements. In conjunction with the appropriate Jordanian Ministries, the consultant has prepared floor plans for the health centers, schools, social development centers, municipal buildings and commercial facilities, and the Ministry of Public Works is now in the process of finalizing structural drawings for the required educational buildings. *provision?*

The Jordan Valley Commission intends to ^{what?} negotiate a contract with a consortium of local architectural/engineering firms to provide other required engineering services. Each of the firms in the joint venture is certified by the local professional society, and the consortium has a sufficient number of professional personnel to accomplish the required work. *this one?*

We anticipate that the scope of work for the A/E contract will require the consultants to accomplish the following work:

- (1) Conduct preliminary field surveys to establish vertical and horizontal control points.
- (2) Prepare plan and profile drawings and typical sections for all community streets and farm roads.
- (3) Prepare a comprehensive grading plan for each proposed site.
- (4) Develop structural designs for all required public facilities. -
- (5) Design and prepare final engineering drawings for all required water transmission lines and distribution systems, water storage tanks, and ancillary equipment. - *Sources known supplies adjacent*
- (6) Prepare technical specifications for all required construction work.
- (7) Incorporate the above and general terms and conditions of contract into a complete set of construction bid documents.. *separate sets?*
- (8) Analyze bids submitted for the work and make recommendations for award of the construction contracts.

AID will reserve the right to review and approve the final scope of work for the engineering contract, and in accordance with normal AID procedures, will review and approve the bid documents developed for the construction activities. *Not in accordance w/ FOR?*

3. Residential Lots and Housing

For purposes of planning future housing development in villages, a lot size of 12 x 24 meters was ultimately adopted for the proposed communities. This area provides sufficient space for the living quarters, sewage disposal system and yard, with additional space remaining to accommodate domestic animals and for future expansion of the housing unit. Individual lots have been oriented on the site plans to provide most efficient access to utility distribution systems.

Site plans for each community delineate basic lots suitable for single household units. For extended families, lots will be allocated on the basis of the total number of households included in the family unit; subsequently, the lots may be developed independently by each household or combined into a single parcel to be developed as one unit.

The planning consultant has investigated several alternative types of basic housing, including block and slab, a prefabricated panel system and the traditional mud brick. The modular building system proposed provides high standard construction at a cost within the reach of the lower income groups in the valley and has been adopted for design purposes. The system can be adapted to the construction of any type of building, provides panels which are easily erected without special equipment, allows construction of a minimum shelter which can be improved on a self-help basis, and requires few imported materials. While the precast panel system does provide a reasonable solution to the housing problem in the valley, the Jordan Valley Commission does not intent to make its use mandatory and will allow the construction of alternative housing providing the Commission has approved the structural design.

*Photo taken
of village*

The basic house recommended for the valley settlements consists of two elements, the living rooms and the toilet/shower/kitchen complex. The living areas are of equal size, 3.6 x 5 meters, and in accordance with cultural constraints, there are no direct connections between the rooms. Each living room contains two windows and an external door. The kitchen is 2 meters by 3 meters and adjoins the toilet/shower complex to allow sharing of the required plumbing. The toilet/bath area is 2 meters by 2 meters and contains a squat toilet and shower. In these areas, natural ventilation is achieved through gaps between the wall and roof panels.

*See unit
and*

Utilizing these standard units, a number of different housing layouts have been developed. Exhibit 2 shows elevations and floor plans for several typical units. The cost estimate for the basic unit is summarized in Table 2.

(2000)

A sufficient number of the panel/concrete block houses have not yet been constructed to ascertain acceptance by valley residents. However, the JVC will initiate construction of several model homes in selected communities within the next few months and should then be able to reasonably forecast future demand. If demand is likely to be great, the JVC intends to increase plant production to approximately 100-125 panels per day, which are sufficient for 8-10 houses. To attain this production and to maintain adequate quality control, the following additional equipment will be required:

<u>Item</u>	<u>Description</u>	<u>Quantity</u>	<u>Use</u>
1.	$\frac{1}{2}$ - 1 c.y. stationary tilt drum concrete mixer	2	Mixing concrete in casting yard
2.	Overhead crane, 10 T	1	Handling forms in casting yard
3.	2 T Mobile crane	2	Transporting panels to curing/storage areas
4.	60 CFM portable air compressor	1	Operation of pneumatic concrete vibrators and sand blasting unit
5.	Lab. equip. for testing fine & course aggregates & concrete mixtures	Lot	Quality control
6.	7 T Flatbed trucks	'	Transporting panels to job sites

In addition to this equipment, consideration will be given to the establishment of a steam curing unit or to the use of vacuum process system. The steam curing unit maintains favorable moisture conditions at higher than normal temperatures and enables concrete to attain strength rapidly; consequently, forms may be stripped and reused shortly after casting. The unit would require the procurement of a steam boiler and perforated pipe and the construction of an adequate enclosure to house the panels during the curing process. The vacuum process also enables concrete to attain high early strength and permits the removal and reuse of forms immediately after the vacuum is applied.

The cost of the additional equipment and other improvements to be financed under the AID loan is estimated at \$150,000.

part of \$150
\$8.65 PA.?

4. Sewage Disposal

The planning consultant (PADCO) provided a sanitary engineer to investigate alternative methods of wastewater disposal in the communities proposed for the Jordan Valley. Alternatives considered included percolation pits, septic tanks, oxidation ponds, sludge digestion systems for production of methane gas, and package treatment plants. The latter three alternatives were rejected as prohibitively expensive considering the present population.

A sufficient number of percolation tests were conducted by PADCO to determine that properly designed and constructed percolation pits will adequately serve individual residences at this time. Test pits covered the entire valley from North Shuna to South Shuna, and observed average percolation rates varied from 5.5 to 29.0 centimeters per hour. The following table provides a summary of the results of these tests.

<u>Site</u>	<u>Average Percolation Rate</u> <u>cm/hr</u>
North Shuna	25.0
Mashare	17.2
Kreiymeh	21.2
Dirar	20.0
El-Arda	18.2
Damiya .	5.5
Karama	28.6
South Shuna	13.5

Based on this data and an anticipated water consumption rate of 80 liters per capita per day, percolation pits 2 meters in diameter x 2.5 meters in depth will suffice for the most critical condition. Each pit will be lined with concrete blocks and covered with a reinforced concrete pad having a 40 centimeter diameter manhole opening.

Prior to commencing home construction, additional percolation tests will be conducted in those areas where soil conditions are suspect and a complete engineering review of the entire sanitation program will be made when more settlements are fully occupied.

The sewage disposal systems for schools, clinics and other community facilities, which will utilize more water, will consist of septic tanks and tile drain fields. The Ministry of Public Works will design the disposal systems for these facilities.

2092101A
V. J. ...
...

5. Public Facilities

a. Health Centers

Basic health services in the Jordan Valley will be provided by the Ministry of Health.

To determine the allocation of health centers, the valley has been divided into sectors 2 - 25 kms. long. When each community reaches its design population, each sector will contain some 30,000-40,000 inhabitants, and main health centers, subcenters, and first aid units, hereinafter designated type A, B and C health centers, will be established on the basis of population densities.

Type A clinics will contain some 1600 m² of space and will be staffed to provide extensive health services, including hospitalization services for emergency cases. Five type A units are eventually planned for the valley. The proposed AID-financed program includes one type A unit centrally located in Wadi El Yabis and a partial type A unit in South Shuna (the centers are being designed so as to enable the construction to proceed in stages). Equipment and furniture requirements and personnel needed to staff these units are listed in Tables 3, 4 and 5.

Type B centers will contain approximately 360 m² of floor space and will provide clinic, maternity, and child care services. Exhibit 3 is a typical floor plan of a type B unit and Table 6 lists personnel requirements.

Type C health centers will be located in the smaller communities and will be staffed by a practical nurse. General practitioners will visit these units 2-3 times weekly. Exhibit 4 is a floor plan of a typical type C unit.

The public health development program is summarized in Table 7. The AID-financed project will include construction of those units shown under the first phase of the program, excluding North Shuna, Manshiya and Tel El Arbaein which are covered under the IDA project.

b. Educational Facilities

To reserve specific school sites and to determine the total number of classrooms required for individual communities, the planning consultant has considered the allocation of school facilities on a valley-wide basis.

The Ministry of Education estimates that by 1985 approximately 30% of the total valley population will be students. The following table summarizes the Ministry's projections:

Projected Percentages of Students to Total Population by Cycle & Sex
1985

	<u>Male</u>	<u>Female</u>	<u>Total</u>
Elementary	9.88	9.12	19%
Preparatory	4.80	3.20	8%
Secondary	2.45	1.05	3.5%
Total			30.5%

These percentages were then applied to the design population of each village to determine school classroom requirements by cycle division and sex. The Ministry's standard of 35 students per classroom was utilized in making this determination. Tables 8, 9 and 10 provide projected elementary, preparatory and secondary school classroom demands for 1985.

The allocation of classrooms by community are based on the following criteria:

(a) Elementary Cycle

- (1) All planned communities will be provided with an elementary school.
- (2) Elementary schools will be limited to 420 students or 12 classrooms plus support facilities.

(b) Preparatory Cycle

- (1) Where possible, preparatory schools will be combined with secondary schools up to a maximum of 25 classrooms.
- (2) If secondary school exists, prep schools will be combined with elementary schools up to a maximum of 15 classrooms.
- (3) Where combining the prep school with the elementary or secondary school would result in the total number of classrooms exceeding the above maximums, the prep school will be located at an alternative site.

(c) Secondary Cycle

Nine valley-wide sites for boys and seven sites for girls were selected for secondary school sites. These sites are located near the more densely populated areas and are spaced so as to minimize travel distance to the smaller planned communities.

Table 11 summarizes the classroom allocation schedule based on these criteria. The proposed AID-financed program will be limited to the immediate 1975 requirements in the central and southern sectors.

All educational facilities will be constructed of reinforced concrete, and as noted earlier, the Ministry of Public Works is proceeding with the structural design for these facilities. Exhibit 5 includes a floor plan, elevation, and section of a typical school.

Space requirements for other activities will be provided in accordance with design criteria developed by the Ministry of Education and the planning consultant.

c. Municipal Facilities

Municipal building proposed for each planned community will house local government offices, post office and telecommunications facilities, agricultural extension agents and in the larger settlements, police posts, libraries and other national government offices.

The larger buildings planned for North Shuna, South Shuna and Karama will contain some 1300 m² of space while the smaller buildings will contain 250 m². The cost of these facilities is estimated at \$120 per square meter, including furnishings.

01/1/75
1200/01

The first phase of the program will include seven of the smaller structures and one larger facility planned for South Shuna. Allocations were made on the basis of population densities and the availability and condition of existing municipal facilities. Table 12 summarizes the proposed program.

6. Infrastructure

a. Community Streets

Major loops within each of the planned communities will have an 18 meter right-of-way and, ultimately, a 6 meter paved riding surface. Minor loops will have a right-of-way width of 12 meters with a 4 meter pavement. During the first phase of the program, street construction will be limited to settlements in the priority one category, and pavement widths will be limited to four meters. Allocations have been made on the basis of serving the maximum number of lots within these communities. Table 13 summarizes the street program proposed for the AID loan, including major and minor drainage structures required.

The pavement design will likely consist of a 6" crushed stone base course with a 2" asphaltic concrete hot mix or penetration

macadam surface course. A typical section for a community street is included as Exhibit 6, and a detailed breakdown of the cost per square meter is provided in Table 14.

Residential lots not fronting on the paved loops will be served by 6 meter, unpaved paths which will be developed during the site grading phase of the program.

b. Farm Roads

To provide access to agricultural land, construction of a limited number of farm roads in the central sector of the valley will be included under the AID loan. The Irrigation Division of the Jordan Valley Commission is in the process of placing the proposed access roads into priority categories depending on the condition of existing roads. Specific roads for inclusion under the AID project will be chosen following completion of this exercise.

Farm roads will consist of inspection and operating roads along the main canals, secondary roads along the secondary irrigation canals, and tertiary roads providing access to interior farms. Roads along the main canals will have a 6" crushed stone surface course, while secondary and tertiary roads will have a 4" crushed stone surface course. All roads will be 3 meters in width. The average estimated cost of these roads is \$2 per square meter.

c. Domestic Water Supply

Potable water to the northern sector of the Jordan Valley will be provided from the main irrigation pipeline to be financed under the IDA project, while the southern sector will be covered under the German aid project. The AID program will include the sector between Wadi El Yabis and Damiya.

Excepting Wadi El Yabis and Kreiymeh, potable water is supplied to the remainder of this sector from a well and reservoir system at Wadi Rajib. Ten and eight inch transmission lines are in place between the source and the southern end of the sector near Dahrat El Ramil. Six inch trunk lines extend from the main transmission line through Dirar to Ruweiha and through Deir Alla to Abu Ezegan. The four inch trunk line which will serve El Twal and Er Rabe has not been constructed. Exhibit 7 is a general layout of the transmission system serving this area.

The Natural Resources Authority of the Government of Jordan is developing additional well sites at Wadi El Yabis and Kreiymeh, and the proposed AID loan will include pumping and storage facilities and distribution systems in these settlements.

The remainder of the AID program is summarized in Table 15. The proposed program provides extensive distribution networks within priority communities in the central sector, from which public taps can be made available to serve local neighborhoods or individual house connections can be made. Piping required for service connections is not included. For other settlements in this area, sufficient piping is provided to extend trunk mains to central locations within each village.

*But in the
the piping
is not within
the area?*

As no design work has been done on the transmission and distribution systems proposed, the estimates shown must be considered preliminary. The engineering firm with which the JVC is presently negotiating will be expected to analyze the existing system and make recommendations regarding improvements to the transmission system and to prepare detailed designs for the required distribution networks.

7. Availability and Adequacy of Local Construction Firms

Construction contractors in Jordan are registered and prequalified by the Ministry of Public Works on the basis of the maximum size contract in which the firm is allowed to participate, and a distinction is made between building contractors and heavy construction contractors. Class 1 building contractors can bid on projects costing up to 150,000 dinars (\$480,000) without additional prequalification, while class 1 heavy construction contractors can participate in projects up to 250,000 dinars (\$800,000) without prequalification. As the contracts envisioned under the AID loan will not likely exceed these figures, prequalification will generally not be required. The contracts will not be of sufficient size to attract U.S. firms.

*am I right? Arab
contractors?*

At present, there are 14 class 1 heavy construction contractors and 36 class 1 building contractors registered with the Ministry of Works. Seven firms are included under both lists. A number of these contractors were prequalified for and bid on the AID-financed East Ghor Canal Extension Project, the Zarqa Triangle and the Yarmouk-Dead Sea Road. While there is considerable construction activity in Jordan at the present time, particularly in the proximity of Amman, there are a sufficient number of competent local firms to insure adequate competition for construction activities in the valley.

Time?

8. Grant Financed Technical Assistance

The contract of the planning consultant will expire at the end of calendar year 1975, and the Jordan Valley Commission does not have adequate staff to effectively coordinate and monitor the multitude of design and construction activities which will be

proceeding simultaneously in the valley, including activities associated with the IDA-financed project in the northern sector and the KFW project in the southern sector. We, therefore, recommend that the AID project include a grant-financed technical assistance team to assist the JVC with these responsibilities.

U/...?
...?
... T.A.?

The team will consist of an urban planner with qualifications similar to those of the personnel presently being provided by PADCO, a senior civil engineer with broad experience in engineering and construction management, and an additional civil engineer experienced in construction supervision.

The urban planner will be responsible for continuing the work of the planning consultant, providing advice on changes which may be required in the general development plans and providing on-the-job training for Jordanian counterparts. Under the direction of the President, Jordan Valley Commission, the senior civil engineer will coordinate the design activities of various Jordanian Ministries and the architect/engineering firm engaged by the JVC to provide consulting services under the AID-financed project, schedule construction activities, and provide other general construction management services. The construction supervision engineer shall monitor all construction activity and provide timely reporting to the JVC.

The three man team will be required for a 24 month period at a total estimated cost of \$300,000.

$$3 \times \$50,000/\text{yr for 2 years} = \$300,000$$

ANNEX 5
TABLE 1
GENERAL PLANNING DATA FOR JORDAN VALLEY RESETTLEMENT PROGRAM

Settlement	Sector	Present Population	Design Population	Class	New (N) or Old (O) Site	Plot Required	
						Total	Immediate
<u>First Priority</u>							
North Shuna	N	7,662	12,000	A	O	1,900	500
Manshiya	N	2,665	2,900	C	O	500	200
Tel El Arbaein	N	2,667	3,000	C	O	500	300
Wadi El Yabis	N	3,186	7,900	B	O	1,300	300
Kreiyemeh	C	6,678	7,900	B	O	1,300	300
Dirar	C	1,000	2,000	C	O	350	200
Abu Ezegan	C	270	1,500	C	O	250	100
Sawalha	C	1,181	1,500	C	O	250	50
Mu'addi	C	1,086	2,500	C	O	250	100
El Arda	C	1,176	4,000	C	N	560	300
Damiya	C	-	4,000	C	N	560	360
Karama	C	2,575	13,000	A	O	2,100	600
South Shuna	S	1,672	11,000	A	N	1,800	600
Sweima	S	824	2,000	C	N	560	200
Dead Sea Tourist	S	-	2,000	C	N	-0-	-0-
Subtotals		32,642	77,200			12,180	4,110
<u>Second Priority</u>							
Adasiya	N	830	2,000	C	O	350	200
Waggas	N	2,778	5,000	B	O	800	300
Mashare	N	6,436	7,900	B	O	1,300	300
Khazma	C	1,200	2,000	C	O	350	100
Deir Alla	C	2,578	1,500	C	O	250	100
Dahrat Er Ramil	C	-	7,900	B	N	1,300	300
El Kafrein	S	1,509	4,000	C	O	560	100
Subtotals		15,331	30,300			4,910	1,400
<u>Third Priority</u>							
Qleiat	N	905	1,500	C	O	250	0
Zemaliya	N	528	1,500	C	N	250	0
El Merazzeh	N	316	1,000	C	O	160	0
El Qarn	C	-	3,000	C	N	500	0
Sleikhat	C	386	1,500	C	O	250	0
Balawina	C	2,105	3,000	C	N	500	0
El Eddab	C	606	1,000	C	O	160	0
Er Rabe	C	1,072	1,500	C	O	250	0

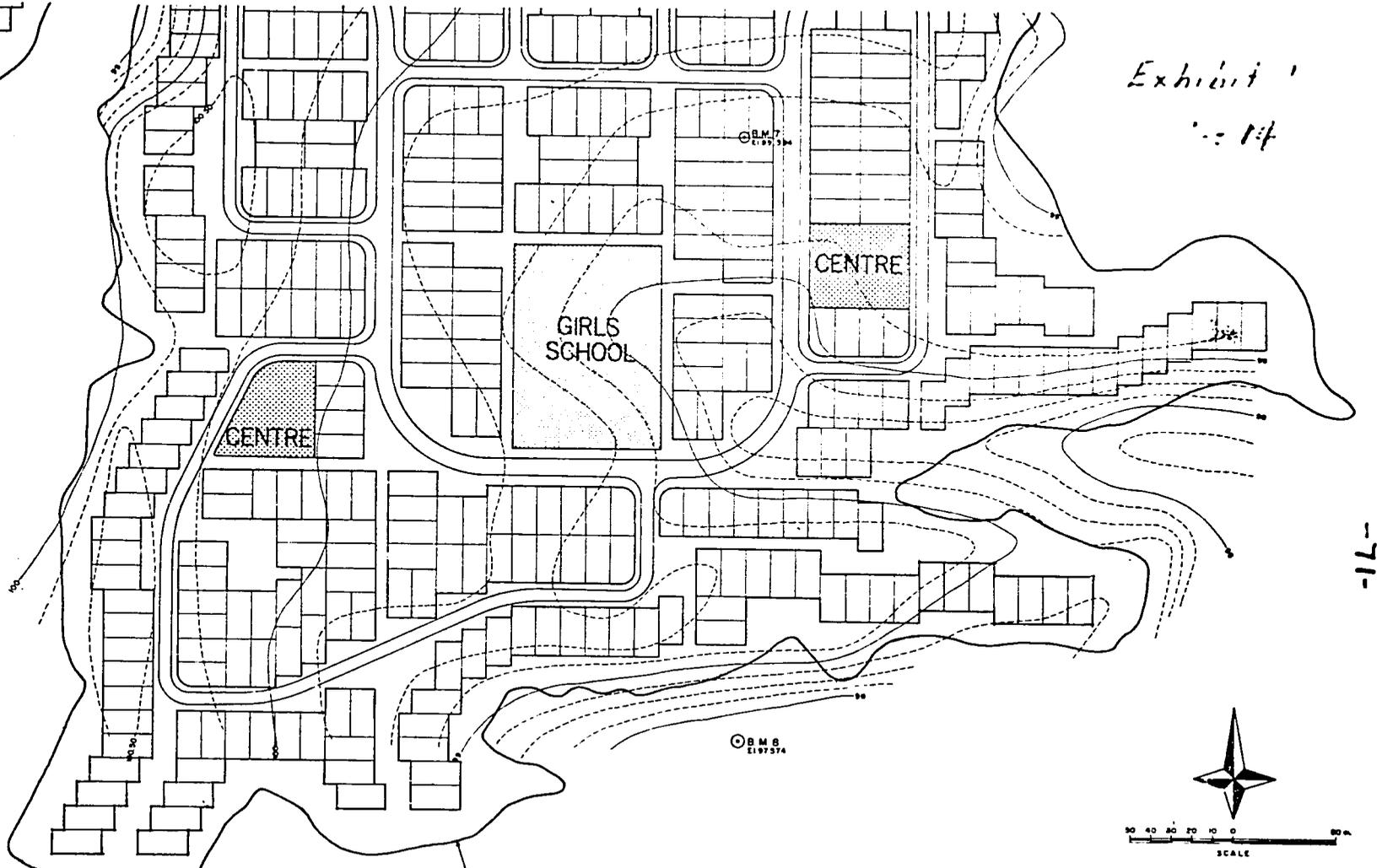
-69-

(CONTINUED)

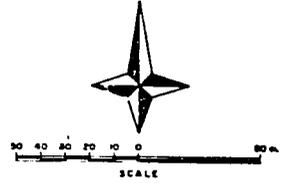
Settlement	Sector	Present Pop- ulation	Design Population	Class	New (N) or Old (O) Site	Plot Required	
						Total	Immediate
El Twal	C	2,067	2,500	C	O	400	0
Dahrat El Maqam	C	-	1,900	C	N	500	0
Ghor Nimrin	S	1,086	7,000	B	O	1,150	0
El Rauda	S	2,385	4,500	C	O	750	0
El Rama	S	1,156	1,500	C	N	250	0
Site X	S	-	3,000	C	N	500	0
Subtotals	?	12,613	34,400			5,870	0
TOTALS		60,586	141,900			22,960	5,510

Exhibit 1
14

BEST AVAILABLE COPY



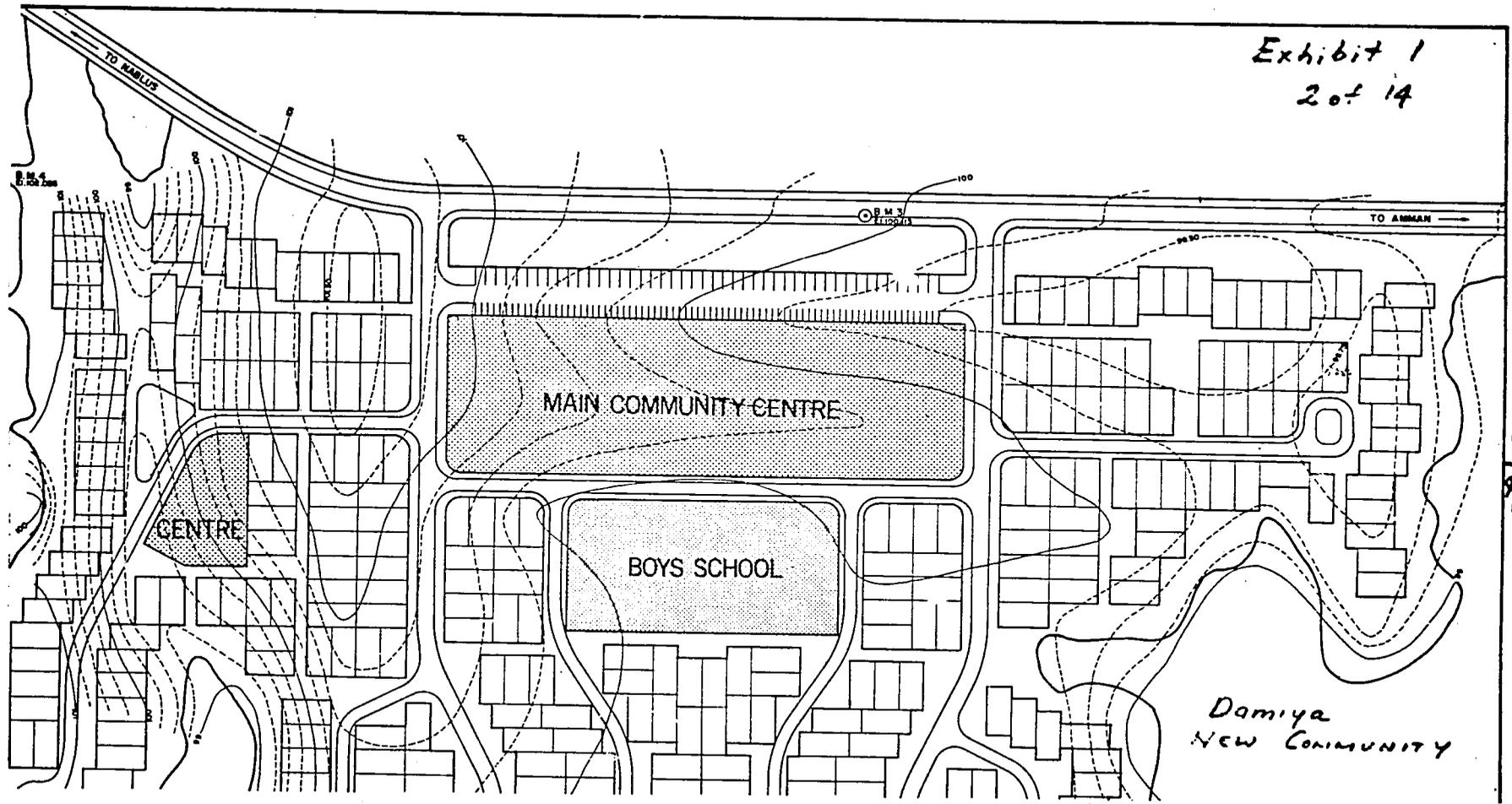
-11-



- LEGEND**
- HOUSE UNIT (562)
 - LOCAL CENTRE
 - SCHOOL
 - GREEN AREAS
 - MAIN CENTRE
 - 1- MOSQUE
 - 2- SHOPPING
 - 3- MUNICIPALITY
 - 4- POST OFFICE
 - 5- POLICE POST
 - 6- MEETING HALL & LIBRARY
 - 7- CLINIC
 - 8- CAFE & RESTAURANT

THE HASHEMITE KINGDOM OF JORDAN					
JORDAN VALLEY COMMISSION					
IN COLLABORATION WITH PADCO, INC. WASHINGTON					
ARCHITECT-PLANNER JOHN WAPK, MS, BAVIL, MS, AEP					
PLANNER HOLLISTER, SEY, BIRD, PAUL, AEP					
U.S.A.I.D. JORDAN "E & D" PROJECT 870-174					
DAMIYA NEW COMMUNITY					
BASE MAP					
DESIGN	BY	DATE	CHECKED	DATE	APPROVED
DRAWN	MAJID HAMEED	10/9/73	J. Ham. Mad	20-9-73	
TRACED					
ANMAN, JORDAN	DATE	12/9/73	DWG. NO.		

Exhibit 1
2 of 14



Damiya
NEW COMMUNITY

-78-

BEST AVAILABLE COPY

Exhibit 1
4 of 14

-74-

Scale	1:5000
North Arrow	
THE HASHEMITE KINGDOM OF JORDAN JORDAN VALLEY COMMISSION	
IN COLLABORATION WITH THE FEDERAL BUREAU OF SURVEY U.S.-J.O. JOINT U.S.O. PROJECT 210-80	
DIRAR COMMUNITY GENERAL PLAN	
Scale	1:5000
North Arrow	
Scale	1:5000
North Arrow	



BEST AVAILABLE COPY

Exhibit 1

IV. COMMUNITY STRUCTURE - DIRAR

CIRCULATION					
ROAD TYPE/WIDTH	LENGTH/M	PAVING/M ²	BRIEGES	CULVERTS	PAVED EXTG. ROADS IN R.O.W.
18/6M PAVING	1080 M	6480 M ²	-	1	970 M x 3M
12/4M PAVING	1700	6800	-	2	765 M x 3M
6M/UNPAVED	3655	-	-	1	-
TOTALS	6435 M	13,280 M ²	-	4	1735 M x 3M

RESIDENTIAL						
TYPE	PER-MANENT CONSTR.	MUDBRICK O.K.	MUDBRICK N.G.	OCCUPIED LOTS	NEW LOTS	TOTAL LOTS
RESIDENTIAL UNITS	4	235	9	188	278	466
ACCESSORY BLDGS.	-	60	10			
TOTALS	4	295	19			
BLDGS TO BE ACQUIRED		← --- 18 --- →				

COMMERCIAL		
LOCATION	LAND AREA DONUMS	NO. OF SEOPS
EXISTING	1.0	7
EXISTING TO REMAIN	-	-
NEW	6.0	25
TOTAL	6.0	25
PARKING	1.0	40

Exhibit 1

SCHOOLS

DERRAR

TYPE	EXISTING DONUMS	NEW DONUMS	TOTAL DONUMS	EXISTING CL.RMS.	IMMED. CL.RMS.	TOTAL FUTURE CL.RMS.
BOYS ELEM/PREP.	40	4.0	8.0	8		11
BOYS SECON.	SERVED	BY	DIER ALLA			
GIRLS ELEM/PREP.	4.0	4.0	8.0	3		9
GIRLS SECON.	SERVED	BY	DIER ALLA			

PUBLIC FACILITIES

FACILITY	EXISTING BUILDING	CORDITION	EXISTING SITE SIZE	NEW BUILDING	NEW SITE AREA
MUNICIPAL BUILDING	YES	GOOD	1.0 D.	YES FUTURE	2.0 D.
CLINIC	YES - IN MUN. BLDG.	GOOD	INCLUDED ABOVE	YES FUTURE	2.0 D.
POST OFF.	YES - IN MUN. BLDG.	GOOD	INCLUDED ABOVE	YES FUTURE	INCL. WITH MUN. BLDG.
MOSQUE	YES	GOOD	.86 D.	NO	-

Exhibit 1
7 of 14

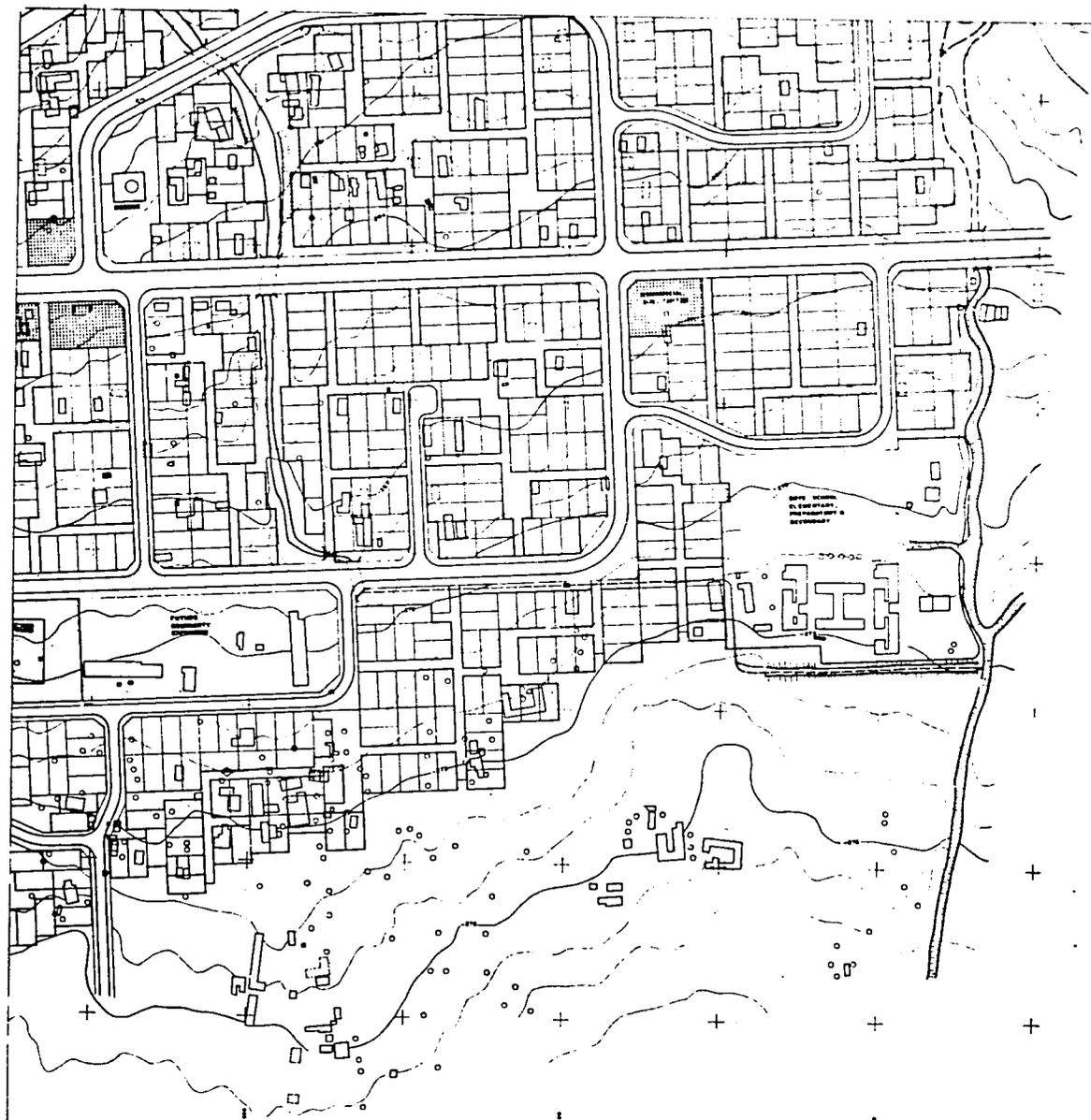
LEGEND
RESIDENTIAL
COMMERCIAL
INDUSTRIAL
PARKING
RECREATION
OPEN SPACE
UTILITIES
ROADS

-77-

THE HAWAIIAN DIVISION OF JORDAN
JORDAN VALLEY COMMUNITY

KARAMA COMMUNITY
GENERAL PLAN

DATE: 1970
DRAWN BY: JVC-020

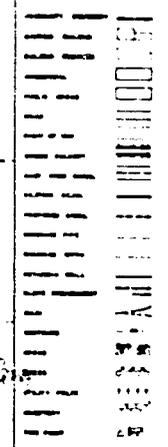


BEST AVAILABLE COPY

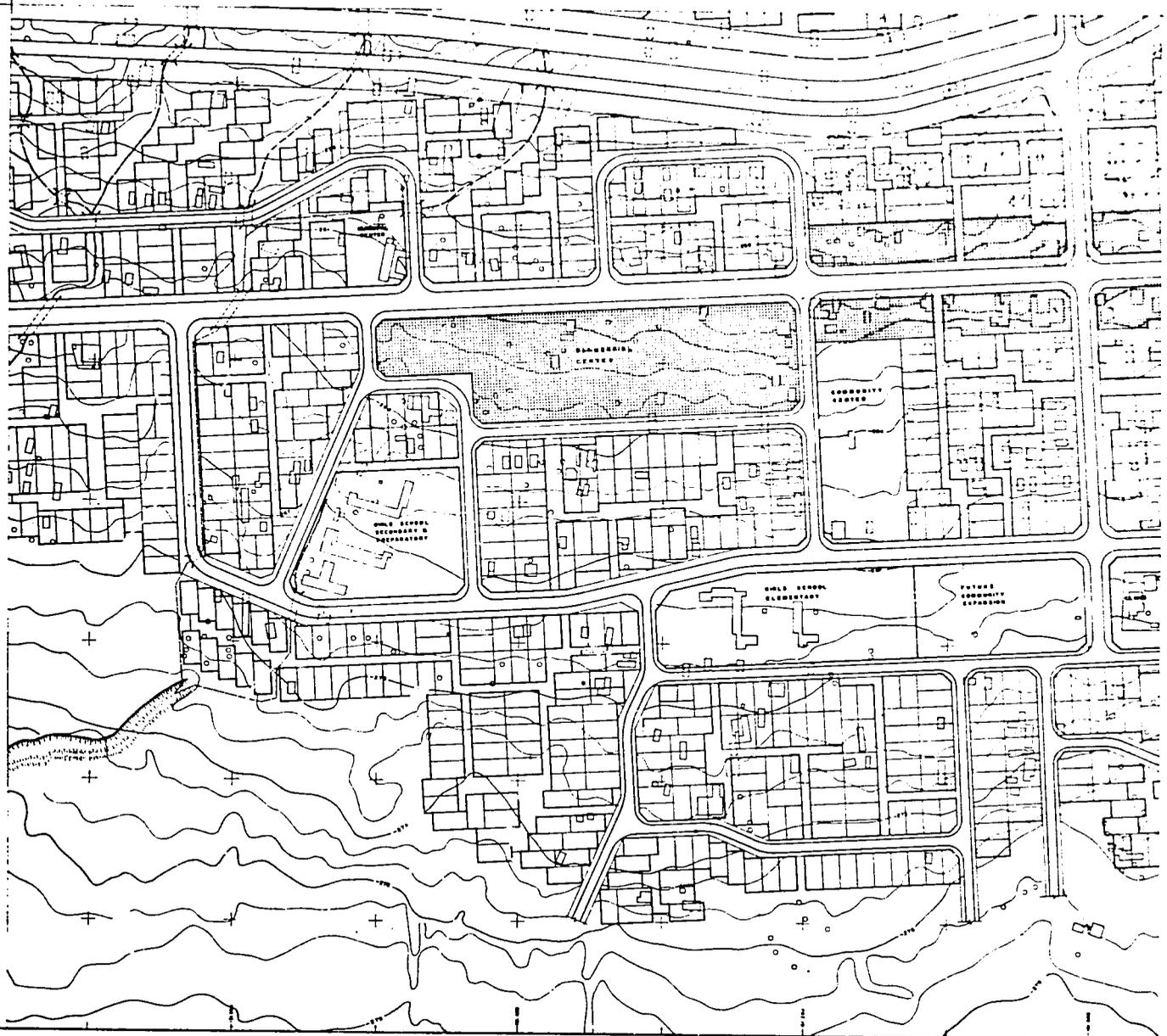
Exh. 6.7 1

8 of 14

LEGEND



-78-



BEST AVAILABLE COPY

THE HASHEMITE KINGDOM OF JORDAN
JORDAN VALLEY COMMISSION

IN COLLABORATION WITH THE JORDAN VALLEY DEVELOPMENT AUTHORITY
JORDAN VALLEY DEVELOPMENT AUTHORITY

**KARAMA COMMUNITY
GENERAL PLAN**

Scale: 1:5000
Date: 1975
Drawing No: JVC-029-2
Author: JORDAN VALLEY DEVELOPMENT AUTHORITY

IV. COMMUNITY STRUCTURE KARAMA

CIRCULATION

ROAD TYPE/WIDTH	LENGTH/M	PAVED/M ²	BRIDGES	CULVERTS	PAVED EXIST. ROADS IN R.O.W.
18/6% PAVED	4470 M.	26,820 M ²	1	7	-
12/4% PAVED	7990	31,960	-	9	-
6%/UNPAVED	14,340	-	-	4	-
TOTALS	26,800 M	58,780 M ²	1	20	-

NOTE: EXISTING VALLEY HIGHWAY AND PROPOSED BYPASS NOT INCLUDED ABOVE

RESIDENTIAL

TYPE	PER- MANENT CONS.	MODERN O.K.	MODERN N.G.	OCCUPIED LOTS	NEW LOTS	TOTAL LOTS
HOUSING UNITS	382	40	-			
ACCESSORY BLDG'S.	4	15	-	375	1930	2305
TOTALS	386	55	-			
BLDG'S TO BE ACQUIRED		← --- 23 --- →				

COMMERCIAL

LOCATION	LAND AREA DUMPS	NO. OF SEPS
EXISTING	16.2 D.	21
EXISTING TO REMAIN	16.2 :	21
NEW	20.5	109
TOTAL	36.7 D.	130
PARKING	INCL. ABOVE	200 CARS

SCHOOLS

Karama

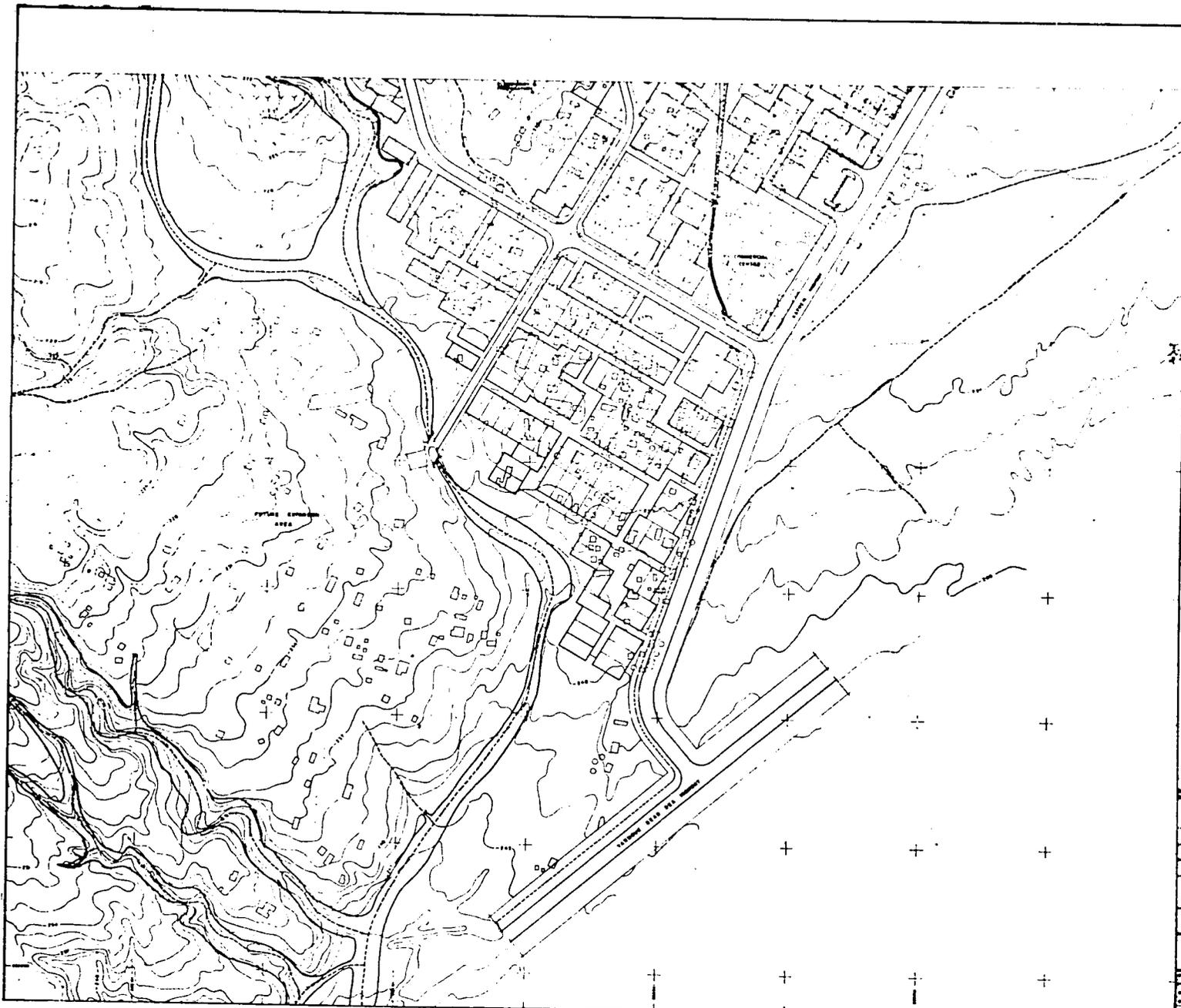
TYPE	EXISTING SITE AREA	NEW SITE AREA	TOTAL SITE AREA	EXISTING CL. REQS.	IMMED. CL. REQS.	TOTAL FUTURE CL. REQS.
BOYS ELEM/ PREP/SEC.	10.0	10.6	20.6	28	28	38
BOYS #2 ELEM/PREP.	-	8.0	8.0	0	0	16
GIRLS ELEM.	7.0	4.2	11.2	15	15	15
GIRLS PREP/SEC.	7.0	2.5	9.5	13	13	13
GIRLS ELEM/PREP.	-	8.4	8.4	0	0	14

PUBLIC FACILITIES

FACILITY	EXISTING BUILDING	CONDITION	EXISTING SITE AREA	NEW BUILDING	NEW SITE AREA
MUNICIPAL BUILDING	YES	GOOD	2.4 D.	NO	-
COMMUNITY CENTER	NO	-	-	YES	8.6 D
CLINIC	YES	GOOD	5.0 D.	NO	-
POST OFF.	YES	FAIR	.5 D.	YES - INCL. W/MUN. BLDG.	-
MOSQUE	YES (U.C.)	GOOD	3.1 D.	NO	-
OTHER					

Exhibit 1
11 of 14

-81-



BEST AVAILABLE COPY

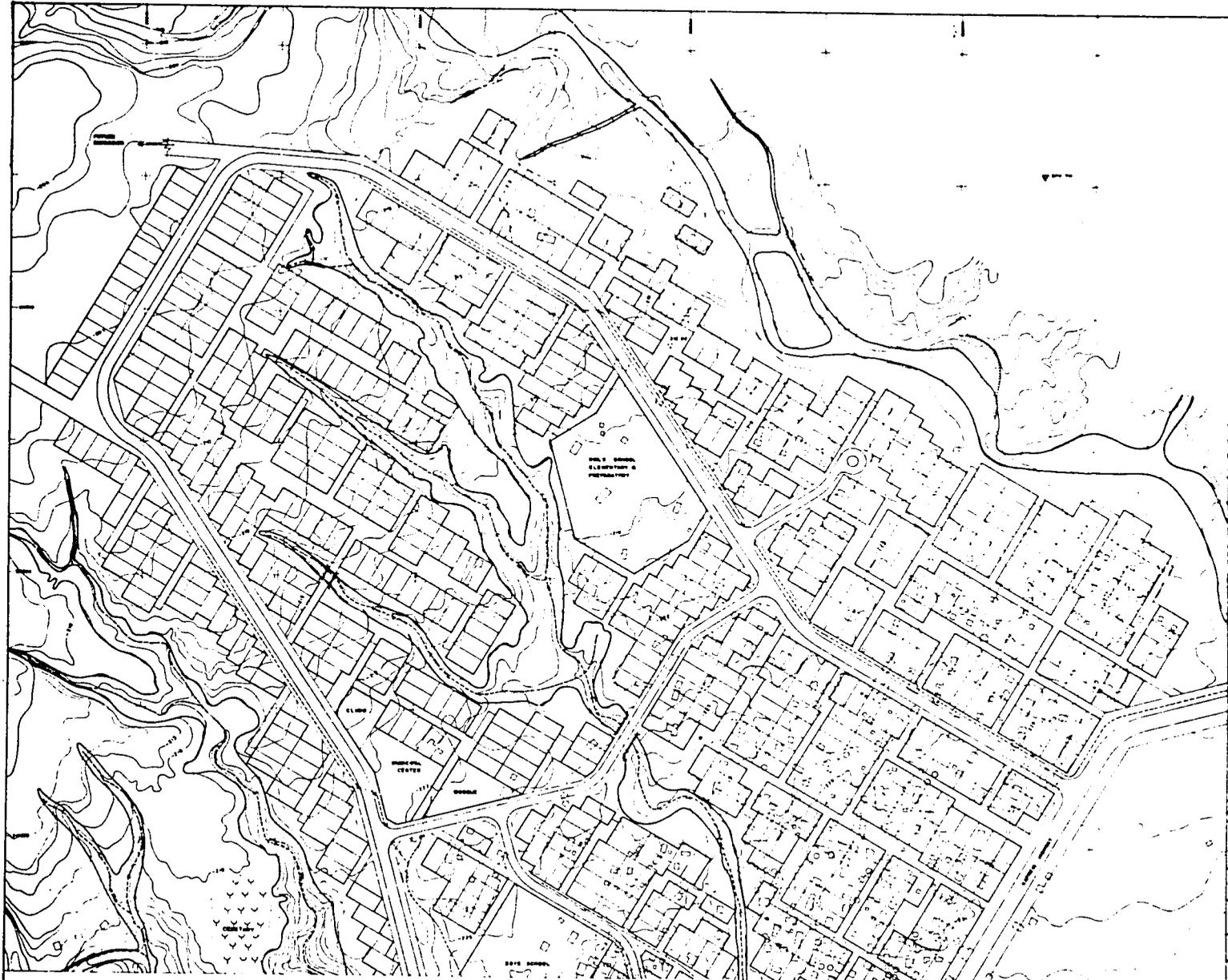
THE MAGNETITE REGION OF JORDAN JORDAN VALLEY COMMISSION	
EL KAFREN COMMUNITY GENERAL PLAN	
DATE	NOV 1952
SCALE	1:50,000
PROJECT NO.	32-i

Exhibit 1

12 of 14

-82-

BEST AVAILABLE COPY



THE HASHEMITE KINGDOM OF JORDAN	
JORDAN VALLEY COMMISSION	
IN COLLABORATION WITH THE LOCAL GOVERNMENT OF EL KAFREN	
EL KAFREN COMMUNITY	
GENERAL PLAN	
Scale	1:50,000
North Arrow	
Project No.	32-2
Scale	1:50,000
Project No.	32-2
Scale	1:50,000
Project No.	32-2

IV. COMMUNITY STRUCTURE **KAFREIN**

CIRCULATION

ROAD TYPE/WIDTH	LENGTH/M	PAVED/M ²	BRIDGES	CULVERTS	PAVED EXTG. ROADS IN R.O.W.
18/6' PAVED	1870 M.	11,220 M ²	-	3	-
12/4' PAVED	890	3560	1	4	-
UNPAVED	7020	-	-	-	-
TOTALS	9780 M.	14,780 M ²	1	7	-

RESIDENTIAL

TYPE	PER- MARKET CONS.	MURPHY O.K.	MURPHY N.G.	OCCUPIED LOTS	NEW LOTS	TOTAL LOTS
EXISTING LOTS	7	500	38			
ACCESSORY BLDG.	-	225	-	332	516	848
TOTALS	7	725	38			
BLDG. TO BE ACQUIRED		← 54 →				

COMMERCIAL

LOCATION	LAND AREA DUNES	NO. OF SHOPS
EXISTING	3.0 D.	15
EXISTING TO REMAIN	1.0	3
NEW	7.5	45
TOTAL	8.5	48
PARKING	INCL. ABOVE	42 CARS



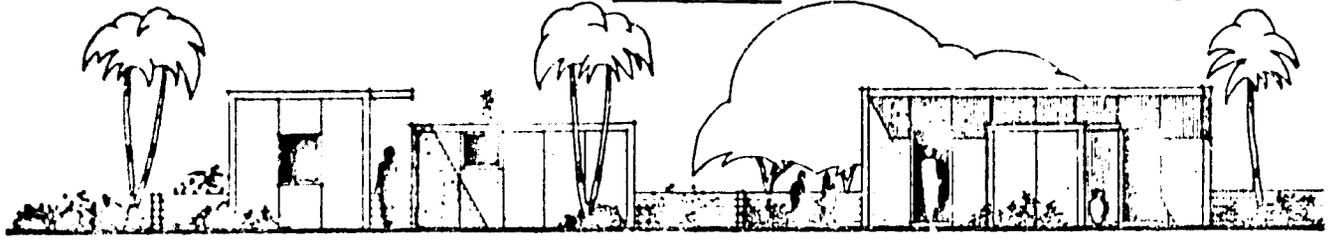
SCHOOLS

KAFREIN

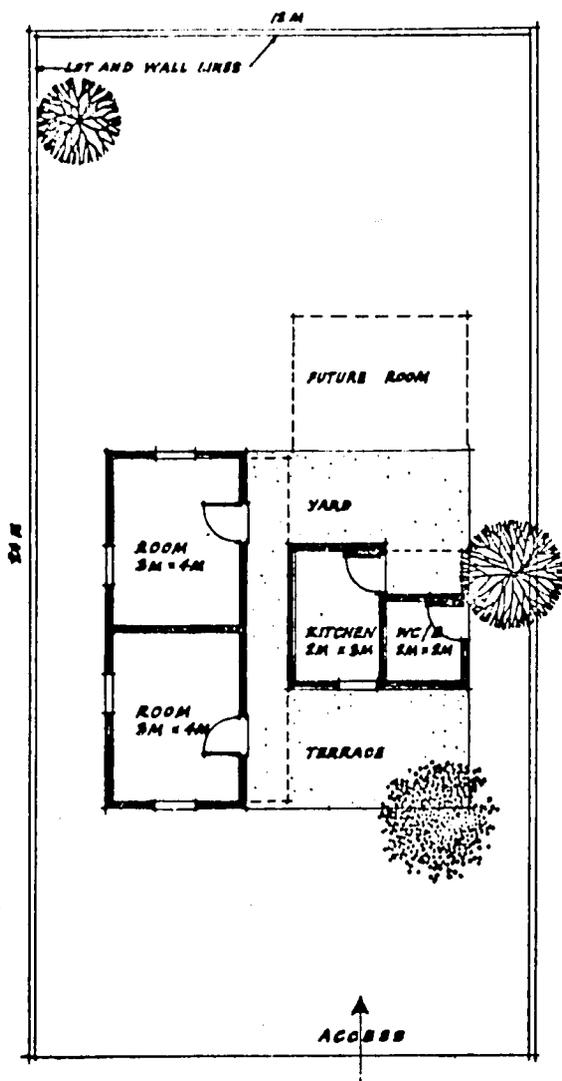
TYPE	EXISTING DONUMS	NEW DONUMS	TOTAL DONUMS	EXISTING CL.RMS.	IMMED. CL.RMS.	TOTAL FUTURE CL.RMS.
BOYS ELEM/PREP.	-	10.75 D.	10.75 D.	-		17
BOYS SECON.	SERVED	BY SOUTH SHUNA				
GIRLS ELEM/PREP.	-	10.0 D.	10.0 D.	-		14
GIRLS SECON.	SERVED	BY SOUTH SHUNA				

PUBLIC FACILITIES

FACILITY	EXISTING BUILDING	CONDITION	EXISTING SITE SIZE	NEW BUILDING	NEW SITE AREA
MUNICIPAL BUILDING	NO	-	-	YES	5.4 D.
CLINIC	NO	-	-	YES	1.0 D.
POST OFF.	YES	FAIR	.5 D	YES - WITH MUN. BLDG.	-
MOSQUE	YES	GOOD	1.0 D	NO	-

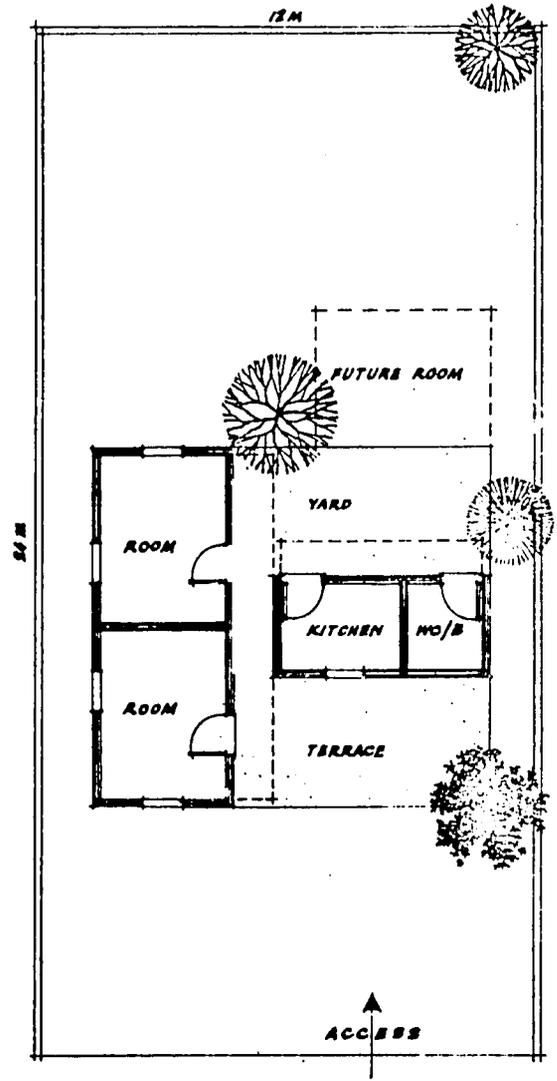


T Y P I C A L E L E V A T I O N S



T Y P E 1

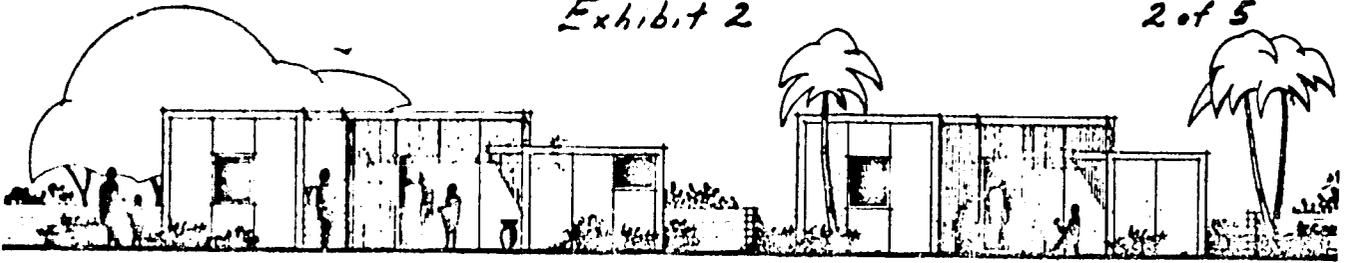
VARIABLE ORIENTATIONS
ENCLOSED FLOOR AREA: 34 SQ.M.
MINIMUM LOT AREA : 360 SQ.M.



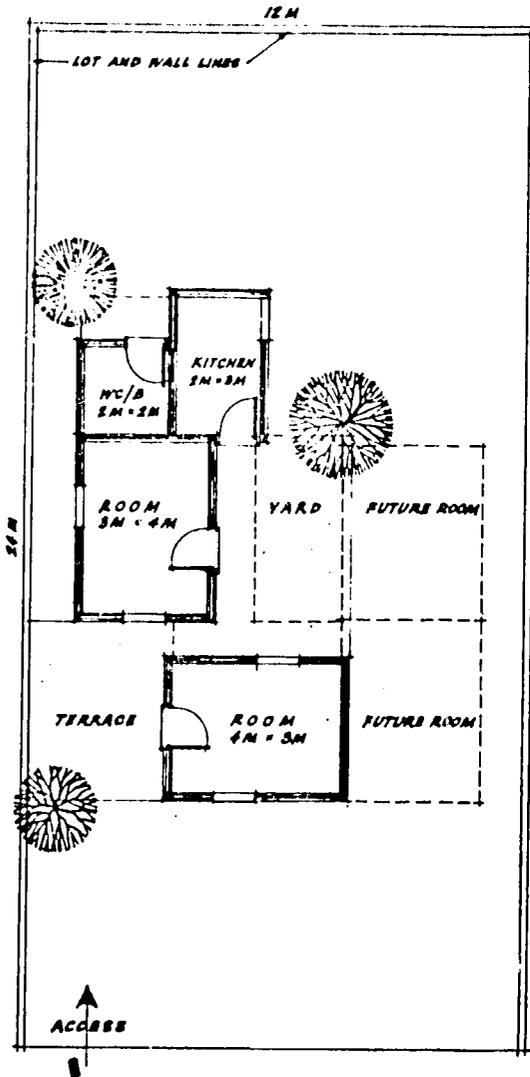
T Y P E 2

UCOPAN BUILDING SYSTEM
TYPICAL DWELLING UNITS

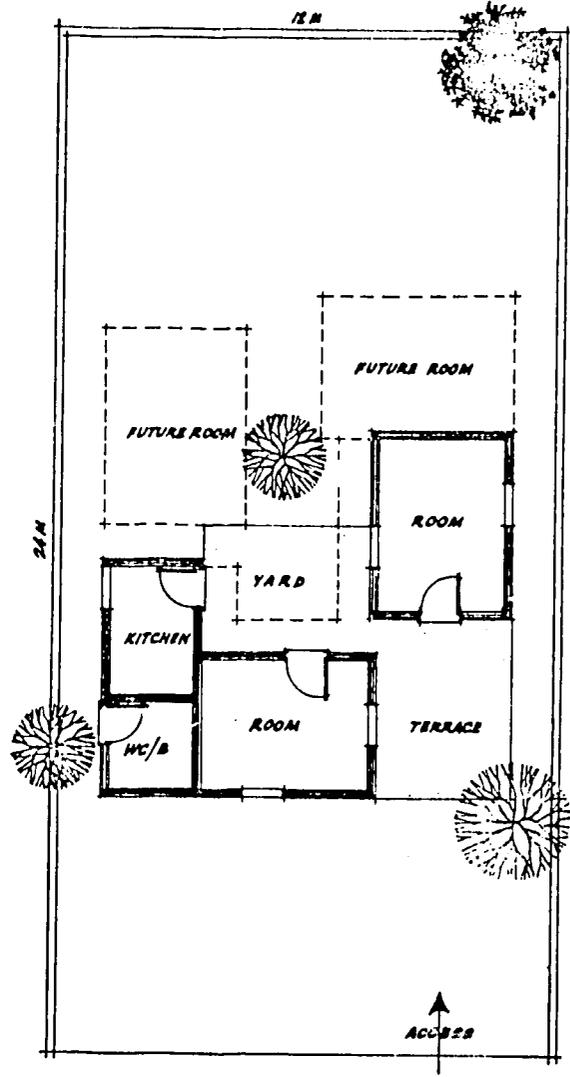
THE HASBANI KINGDOM OF JORDAN
Jordan Valley Commission
IN COLLABORATION WITH PICO INC. WASHINGTON
ARCHITECT - PLANNER JOHN WARE, AIA, AIAF
ENGINEER: JESSE ZELINSKI, P.E.
USAID JORDAN EGS PROJECT NUMBER 270-174
Typical Dwelling Unit Types



TYPICAL ELEVATIONS



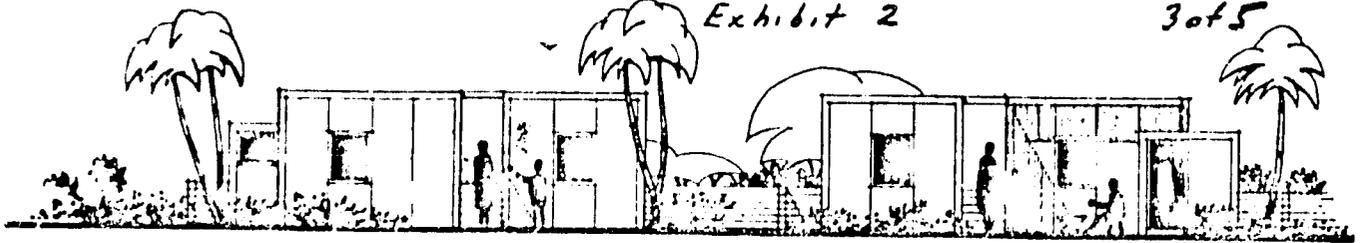
TYP E 3



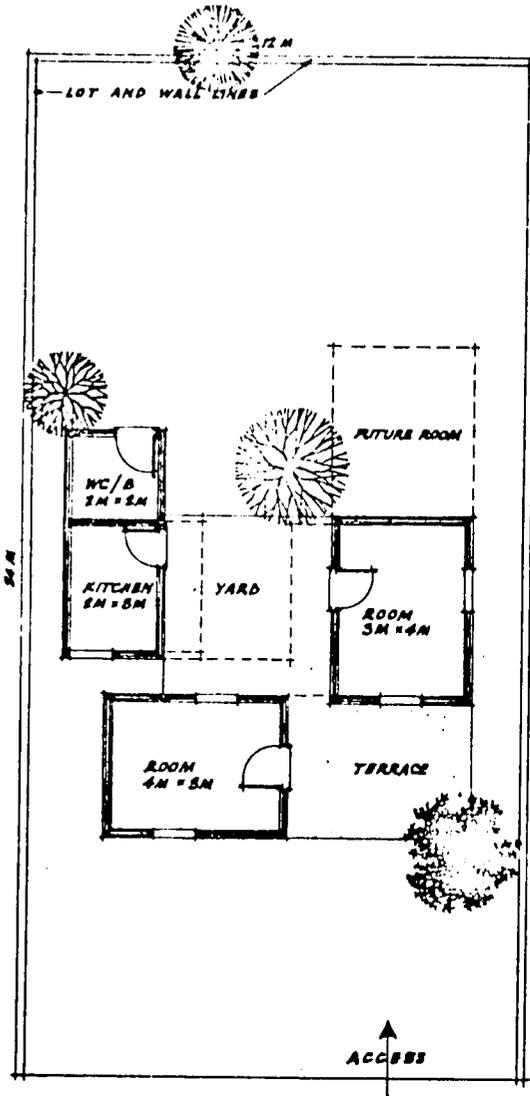
TYP E 4

UCOPAN BUILDING SYSTEM
TYPICAL DWELLING UNITS

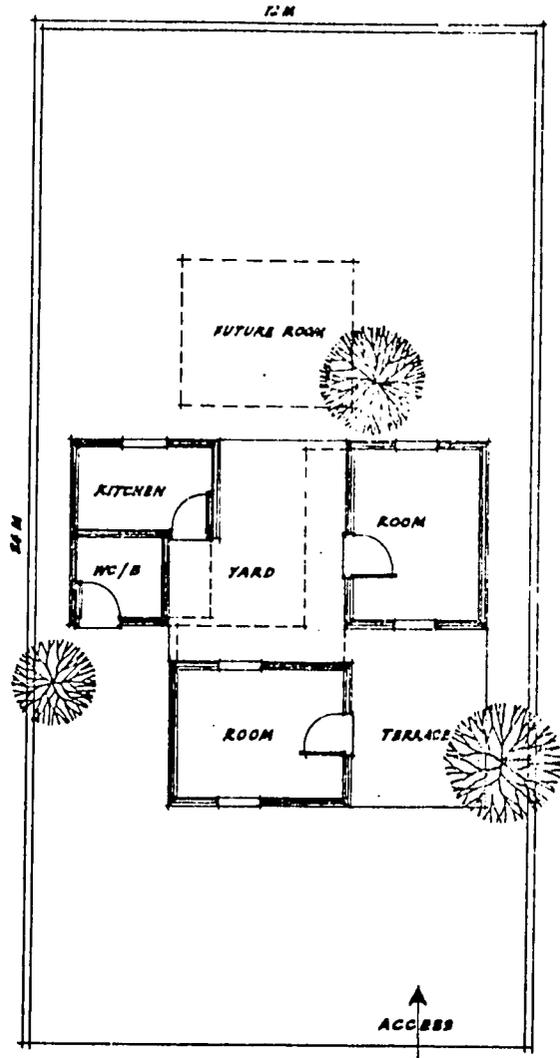
THE HASBANIYAT KINGDOM OF JORDAN
Jordan Valley Commission
IN COLLABORATION WITH: PRCO INC. WASHINGTON
ARCHITECT-PLANNER: JOHN ISAAC, AIA, AIA
ENGINEER: EDWIN FELDMAN, P.E.
USAID JORDAN EOD PROJECT NUMBER 278 124
Typical Dwelling Unit Types



T Y P I C A L E L E V A T I O N S



T Y P E 5



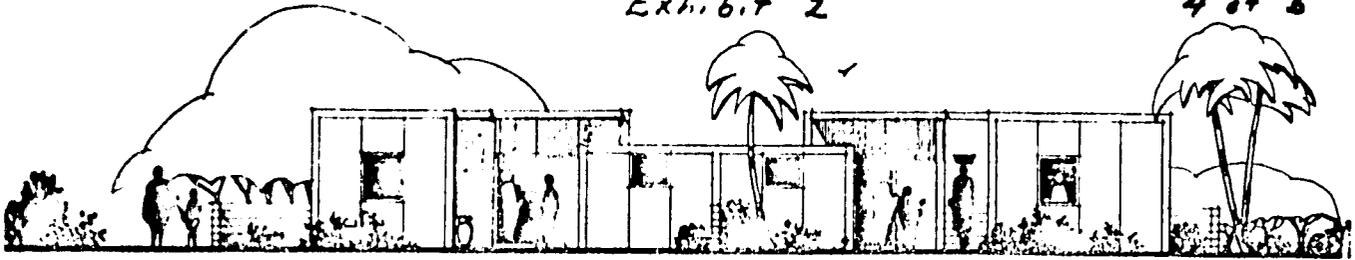
T Y P E 6

UCOFAN BUILDING SYSTEM
TYPICAL DWELLING UNITS

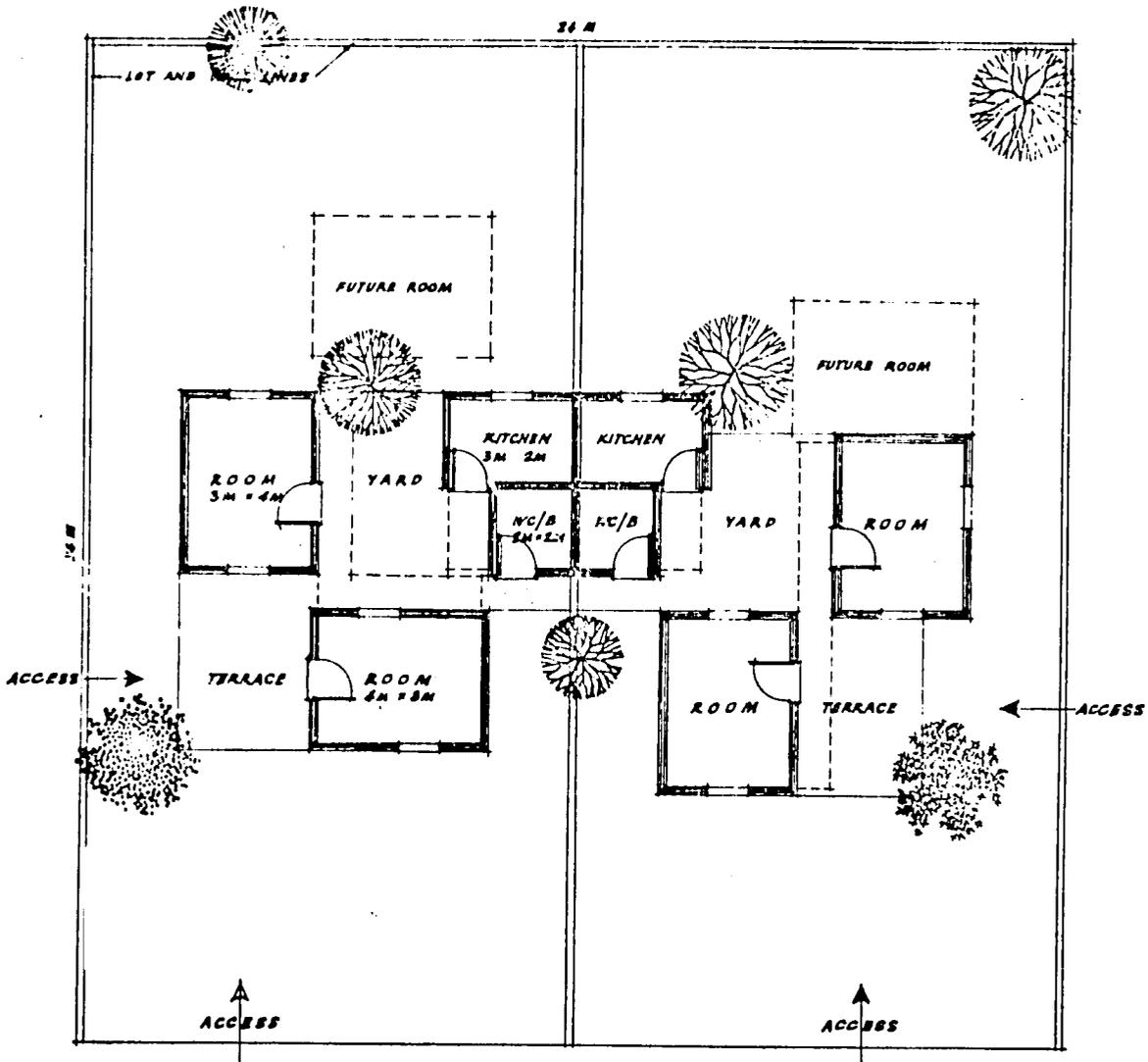
THE HASHEMITE KINGDOM OF JORDAN
Jordan Valley Commission
IN COLLABORATION WITH INCEC INC WASHINGTON
ARCHITECT-PLANNER JOHN WARD ALLAN
ENGINEER JOHN WARD ALLAN INC
USAID JORDAN E.C.O. PROJECT NUMBER 378 776
Typical Dwelling Unit Type

-88-
Exhibit 2

4 of 5



T Y P I C A L E L E V A T I O N S



T Y P E 9

T Y P E 10

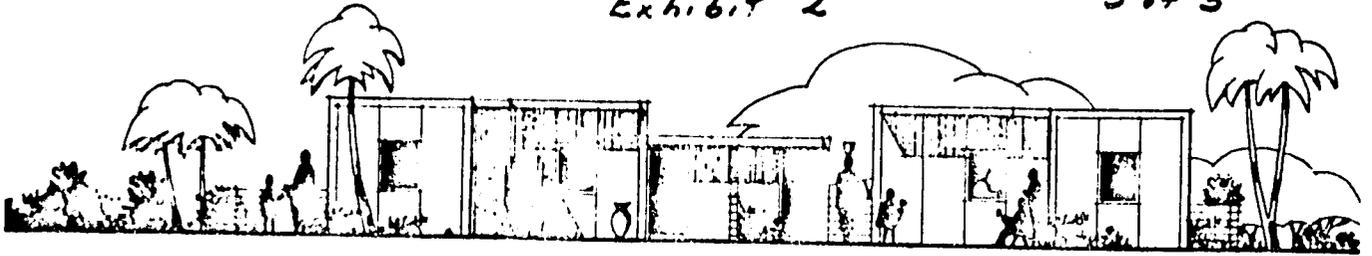
UCOPAN BUILDING SYSTEM
TYPICAL DWELLING UNITS

THE HASHEMITE KINGDOM OF JORDAN
Jordan Valley Commission

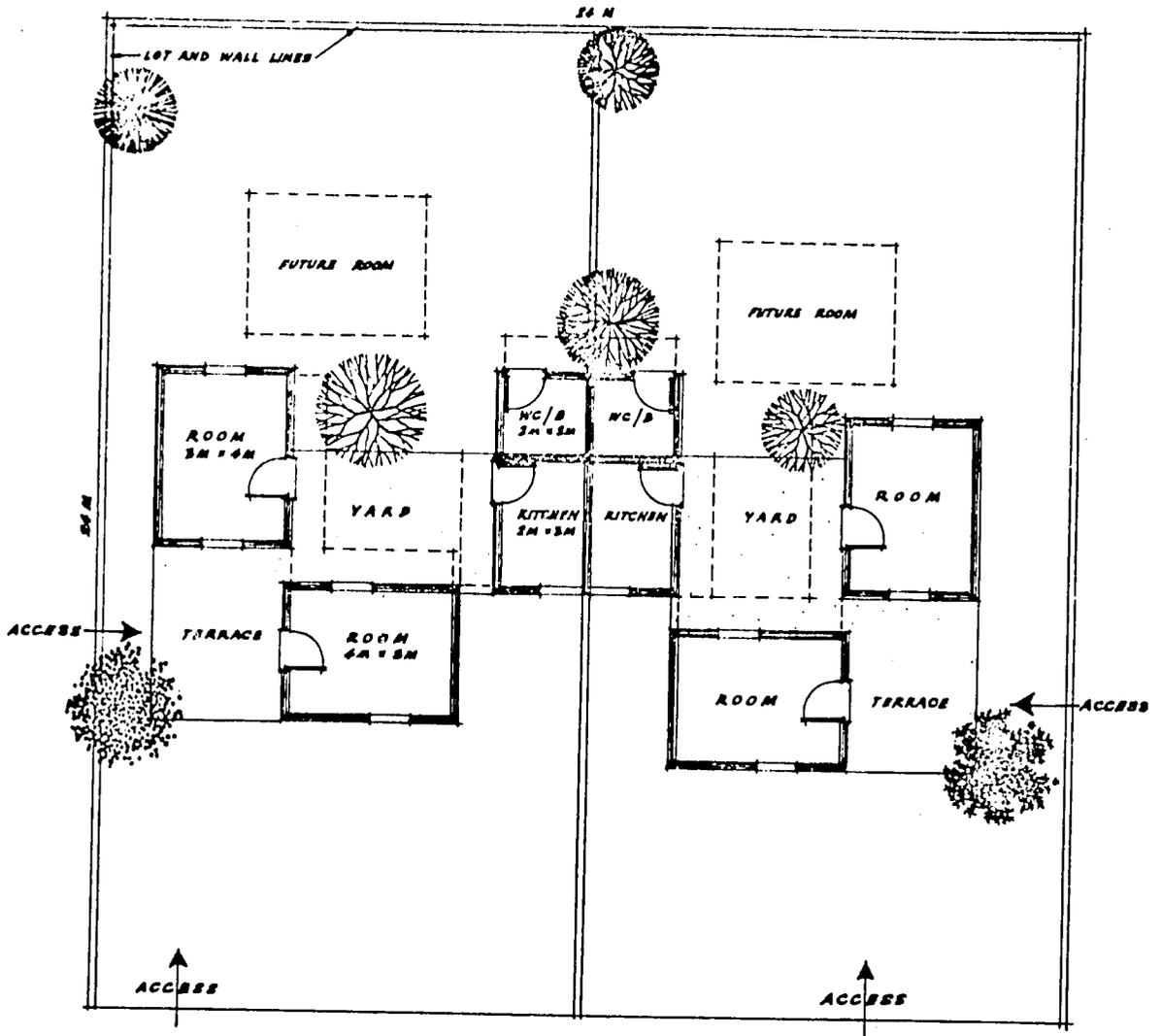
IN COLLABORATION WITH: PRICE P.C. WASHINGTON
ARCHITECT-PLANNER JOHN WARE, AIA, AIA
ENGINEER ZENON ZELUNDRA, PhD
USIAID AFPMO ECL PROJECT NUMBER 370-104

Typical Dwelling Unit Types

BEST AVAILABLE COPY



TYPICAL ELEVATIONS



TYPE 7

TYPE 8

VARIABLE ORIENTATIONS
ENCLOSED FLOOR AREA: 34 SQ.M.
MINIMUM LOT AREA : 888 SQ.M.

UCOPAN BUILDING SYSTEM
TYPICAL DWELLING UNITS

THE HASHEMITE KINGDOM OF JORDAN
Jordan Valley Commission

IN COLLABORATION WITH: P.O.C.C. INC. WASHINGTON

ARCHITECT - PLANNER: JOHN WARE, AIA, AIA
ENGINEER: ZEKIEN ZELUBAL, P.E.

USAID JORDAN EGD PROJECT NUMBER 378 (78)

Typical Dwelling Unit Types

ANNEX 5
TABLE 2
COST ESTIMATE FOR BASIC HOUSING

ITEM	UNIT	QUANTITY	UNIT PRICE (DINARS)	TOTAL PRICE (DINARS)
1. Grading	Complete	Lump Sum	-	6.000
2. Foundation	3	10.0	1.600	16.000
Excavation	M			
3. Foundation	3			
Concrete	M	7.0	12.000	84.000
4. Concrete in				
Columns &	3			
Beams	M	1.1	20.000	22.000
5. Crushed Stone				
Base Course	M	7.0	3.000	21.000
6. Concrete in	3			
Floor Slab	M	7.0	15.000	105.000
7. 6" Hollow				
Concrete	2			
Block Work	M	95.0	1.300	123.500
8. Reinforcing				
Steel	lbs.	200	0.120	24.000
9. Precast Panels				
(a) 1x4 roof				
panels	Ea	10	6.000	60.000
(b) 1x3 roof				
panels	Ea	5	4.000	20.000
(c) 1x2.6 Door				
panels	Ea	2	18.000	36.000
(d) 1x2.2 Door				
panels	Ea	2	16.000	32.000
(e) 1x2.6				
window				
panels	Ea	4	13.000	52.000
(f) 1x2.2				
window				
panels	Ea	1	12.000	12.000
10. W.C./shower incl.				
floortrap and				
connections	Complete	Lump Sum	-	50.000
11. Sink incl.				
connections				
and internal				
pipng	Complete	Lump Sum	-	41.000
12. Percolation				
Pit incl.				
pipng	Complete	Lump Sum	-	65.000
13. Internal				
Electrical	Complete	Lump Sum	-	35.000
st			-	
Total				804.000
= \$2,412,00				

Annex 5

Table 3

TYPE A HEALTH CENTER-MEDICAL
EQUIPMENT AND SUPPLIES

<u>SERVICE</u>	<u>DESCRIPTION</u>	<u>ESTIMATED COST JORDANIAN DINARS</u>	<u>U.S. Dols.</u>
X-RAY	Medium Size X-Ray Unit, including Dark Room facilities	16,000	\$48,000
OPERATING THEATER	Equipment, Instruments, Utensils and other Supplies	10,000	30,000
LABORATORY	Basic Equipment and Supplies Excluding Glassware	5,000	15,000
DENTAL	Dental Clinic	3,000	9,000
MATERNAL AND CHILD CARE	Clinic and Home Delivery Supplies	500	1,500
VACCINATION & SANITATION		500	1,500
	Totals	JD 35,000	\$105,000

- Notes: 1. Ministry of Health is preparing detailed technical specifications for equipment and supplies required for all health centers.
2. The cost of equipment for Type B Centers is estimated at JD 4,000 = \$12,000 and for Type C Centers, JD 500 = \$1500.

Annex 5

Table 4

TYPE A HEALTH CENTER FURNITURE REQUIREMENTS

<u>ITEM</u>	<u>DESCRIPTION</u>	<u>QUANTITY</u>
1	DESK, 6 DRAWERS	1
2	DESK, 4 DRAWERS	27
3	ARMCHAIR	18
4	CHAIR, STRAIGHT	145
5	TABLE WITHOUT DRAWERS	13
6	TABLE, INSTRUMENT	11
7	TABLE, DINING	3
8	TABLE, TYPEWRITER	4
9	TABLE, LOW	4
10	TABLE, COFFE, SMALL	20
11	COUCH, EXAMINATION	12
12	TABLE, CONFERENCE	2
13	STOOL, METALLIC	20
14	BENCH, VISITORS	24
15	TABLE, REHYDRATION	1
16	WARDROBE, TWO DOOR	14
17	CABINET, FILING W/LOCK	11
18	CABINET, STATIONARY	11
19	CABINET, DRUGS	5
20	LOCKER, BEDSIDE	10
21	BED, PATIENT	10
22	BOOKSHELF	28
23	SCREEN, FOURFOLD	10
24	BOARD, IRONING	1
25	TRAY, PAPER	58
26	REFRIGERATOR, DOMESTIC	8
27	WASHING MACHINE	2
28	FAN ELECTRIC	34
29	RANGE, COOKING W/OVEN	3
30	RANGE, COOKING TABLE TOP	5
31	TYPEWRITER ARABIC	2
32	TYPEWRITER ENGLISH	2
33	DUPLICATING MACHINE	1
34	BLANKET, WOOL	60
35	BED COVER	15

- NOTES:
1. Expendable items not included.
 2. Estimated cost of furnishings is Jordanian Dinars 11,000/= U.S. Dols. 33,000.
 3. Furnishings for Type B & C health centers, will include a limited number of the items included above. The cost for Type B Centers is estimated at \$12,000 and for Type C Centers \$1500.

Table 5

TYPE A HEALTH CENTER PERSONNEL REQUIREMENTS

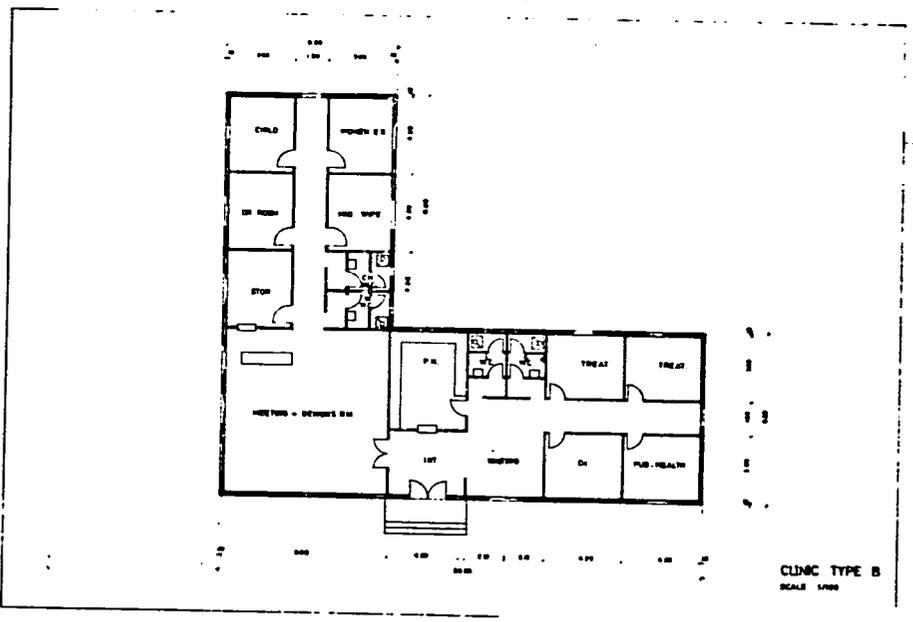
<u>PERSONNEL</u>	<u>No.</u>
General practitioners	2
General Practitioner for school Health Program	1
Clerks	2
Typists	2
Medical records	2
Accountant	1
Information & Tel. Operators	4
Qualified Nurse Female	1
Practical Nurse Female	3
Practical Nurse Male	3
Dentist	1
Dental nurse	1
Assistant Pharmacist	2
Midwife	2
Assistant midwife	2
Orderly for chest diseases	2
Sanitarian	1
Social Worker	1
Malaria inspectors	2
Assistant for school health program	1
Laboratory technicians	2
X-Ray technicians	2
Drivers	3
Domestic Service	10
	<hr/>
Total	53

Supplemental Personnel for Emergency Section, if included:

Surgeon	1
Anesthetist	1
Assistant nurse	2
Practical Nurse, Male	2
Housekeeper	1
Cook	2
Servant	5
	<hr/>
Total	14

ANNEX

EXHIBIT 3



BEST AVAILABLE COPY

Annex 5

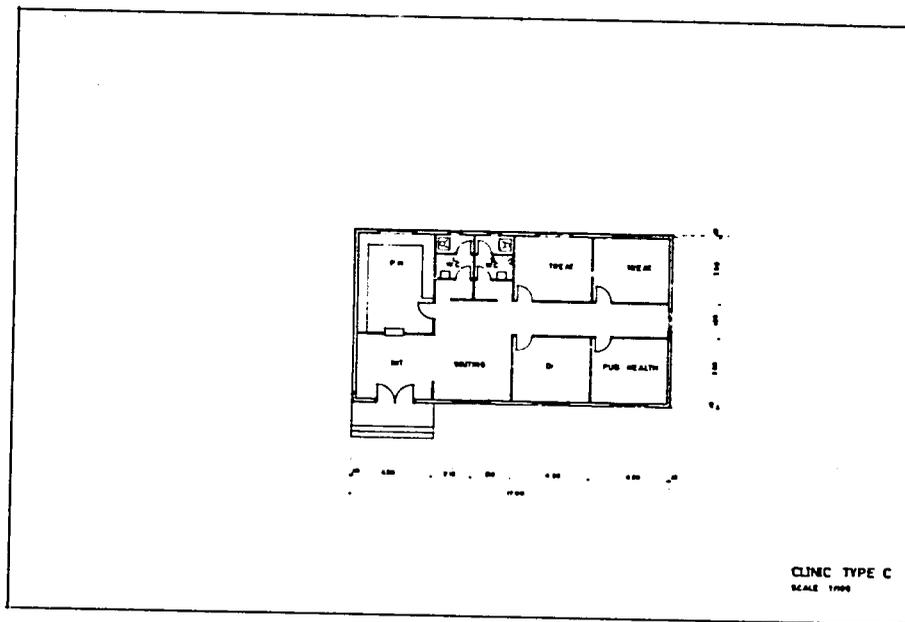
Table 6

TYPE B HEALTH CENTER PERSONNEL REQUIREMENTS

	<u>Maximum</u>	<u>Minimum</u>
General Practitioner	1	-
Practical Nurse, Male	2	1
Assistant Nurse, Female	1	-
Midwife	1	1
Assist. Midwife	1	1
Sanitarian	1	-
Maid	2	1

ANNEX

EXHIBIT 4



ANNEX 5
TABLE 7

PUBLIC HEALTH DEVELOPMENT PROGRAM							
SETTLEMENT	TYPE	SQUARE METERS	FIRST PHASE	SECOND PHASE	THIRD PHASE	LATER PHASES	REQUIRED 1 SITE (DUNUMS)
ADASIYA	C	160	---	160	---	---	1
NORTH SHUNA	A	1600	1250	---	---	350	5
MANSHIYA	C	160	160	---	---	---	1
WAQQAS-QLEIAT	B	360	---	160	---	200	2
TELL EL ARBAEIN	C	160	160	---	---	---	1
ZEMALIYA	C	160	---	---	160	---	1
MASHARE	B	360	---	160	---	200	2
EL MEKRAZZEH	C	160	---	---	160	---	1
WADI EL YABIS	A	1600	1600	---	---	20	6
						Beds.	
EL QARN	C	160	---	---	160	---	1
SLEIKHAT	C	160	---	---	160	---	1
KRIEYMEH	B	360	360	---	---	---	4
BALAWINEH	C	160	---	---	160	---	1
KHAZMA	C	160	---	160	---	---	1
DIRAR	C	160	160	---	---	---	1
ER RUWEIHA	C	160	---	160	---	---	1
DEIR ALLA	A	1600	---	1250	---	350	5
EL EDDBAB	C	160	Purchase Existing	---	---	160	1
ABU EZEGAN	C	160	Rented Bldg	---	---	100	1
SAWALHA	C	160	---	---	---	160	1
ER RABE	C	160	---	---	160	---	1
EL TWAL	C	160	---	---	160	---	1
MUADDI	B	360	160	---	---	200	2
EL ARDA	C	160	160	---	---	---	1
DAMIYA	C	160	160	---	---	---	1
DAHRAT ER RAMIL	B	360	---	360	---	---	2
DAHRAT EL MAQAM	C	160	---	---	160	---	1
KARAMA	A	1600	Existing UNRWA	1250	---	350	5
SOUTH SHUNA	A	1600	1250	---	---	350	5
GHOR NIMRIN	B	360	---	---	360	---	2
EL KAFREIN	C	160	160	---	---	---	1
ROUDA	B	360	360	---	---	---	2
RAMA	C	160	---	160	---	---	1
EL X	C	160	---	---	160	---	1
SUWEIMA	B	360	Existing	160	---	200	2
TOTAL			5940 M ²				

Note: Health centers in North Shuna, Manshiya, and Tel Arbaein are being financed under the IDA project. AID loan will include remainder of clinics shown under phase one of the program.

ANNEX 5

TABLE 8

PROJECTED ELEMENTARY SCHOOL CLASSROOM DEMAND 19.0%

Community	Design Population	Students		Classrooms	
		Boys	Girls	Boys	Girls
Adasiya	2000	198	182	5.6	5.2
North Shuna	12000	1186	1094	33.9	31.3
Manshiya	2900	287	265	8.2	7.6
Waqqas/Qleiat	6500	642	593	18.3	16.9
Tell El Arbaein	3000	296	274	8.5	7.8
Zemaliya	1500	148	137	4.2	3.9
Mashare	7900	781	720	22.3	20.5
Wadi El Yabis	7900	780	721	22.3	20.5
Merazzeh	1000	99	91	2.8	2.6
Sleikhat	1500	148	137	4.2	3.9
El Qarn	3000	296	274	8.5	7.8
Krieymeh	7900	781	720	22.3	20.6
Balawineh	3000	296	274	8.5	7.8
Khazma	2000	198	182	5.6	5.2
Dirar	2500	247	228	7.1	6.5
Deir Alla	1000	099	091	2.8	2.6
Eddbab	1000	99	91	2.8	2.6
Sawalha	1500	148	137	4.2	3.9
Abu Ezegan	1500	148	137	4.2	3.9
Er Rabe	1500	148	137	4.2	3.9
El Twal	2500	247	228	7.1	6.5
Mu'addi	2500	247	228	7.1	6.5
El Arda	4000	395	365	11.3	10.4
Damiya	4000	395	365	11.3	10.4
Dahrat Er Ramil	9800	968	894	27.7	25.5
Karama	11000	1087	1003	31.1	28.7
South Shuna	13000	1284	1186	39.6	33.9
Ghor Nimrin	7000	692	638	19.8	18.2
El Kafrein	4000	395	365	11.3	10.4
El Rauda	4500	445	410	12.7	11.7
El Rama	1500	148	137	4.2	3.9
El X	3000	296	274	8.5	7.8
Suweima/Dead Sea	4000	395	365	11.3	10.4
Total		14041	12942	403.5	369.3

ANNEX 5

TABLE 9

PROJECTED PREPARATORY SCHOOLS CLASSROOM DEMAND 8.0%

Community	Design Population	Students		Classroom	
		Boys	3.2	Boys	Girls
Adasiya	2000	96	64	2.7	1.8
North Shuna	12000	576	384	16.5	11.0
Manshiya	2900	139	93	4.0	2.7
Waqqaq/Qleiat	6500	312	208	8.9	5.9
Tell El Arbaein	3000	144	96	4.1	2.7
Zemaliya	1500	72	48	2.1	1.4
Mashare	7900	379	253	11.0	7.2
Wadi El Yabis	7900	379	253	10.8	7.2
Merazzeh	1000	48	32	1.4	0.9
Sleikhat	1500	72	48	2.1	1.4
El Qarn	3000	144	96	4.1	2.7
Krieymeh	7900	379	253	11.0	7.2
Balawineh	3000	144	96	4.1	2.7
Khazma	2000	96	64	2.7	1.8
Dirar	2500	120	80	3.4	2.3
Deir Alla	1000	48	32	1.3	0.9
Eddbab	1000	48	32	1.4	0.9
Sawalla	1500	72	48	2.1	1.4
Abu Ezegan	1500	72	48	2.1	1.4
Er Rabe	1500	72	48	2.1	1.4
El Twal	2500	120	80	3.4	2.3
Mu'addi	2500	120	80	3.4	2.3
El Arda	4000	192	128	5.5	3.7
Damiya	4000	192	128	5.5	3.7
Dahrat Er Ramil	9800	470	314	13.4	9.0
Karama	11000	528	352	15.1	10.0
South Shuna	13000	624	416	17.8	11.9
Ghor Nimrin	7000	336	224	9.6	6.4
El Kafrein	4000	192	128	5.5	3.7
El Rauda	4500	216	144	6.2	4.1
El Rama	1500	72	48	2.1	1.4
El X	3000	144	96	4.1	2.7
Suweima/Dead Sea	4000	192	128	5.5	3.7
Total		6810	4542	195	129.8

ANNEX 5

TABLE 10

PROJECTED SECONDARY SCHOOLS CLASSROOM DEMAND 3.5%

COMMUNITY	Design Population	Students		Classroom ³	
		Boys	Girls	Boys	Girls
Adasiya	2000	49	21	1.4	0.6
North Shuna	12000	294	126	8.4	3.6
Manshiya	2900	71	30	2.0	0.9
Waqqas/Qleiat	6500	159	68	4.5	1.9
Tell El Arbaein	3000	74	32.0	2.1	0.9
Zemaliya	1500	37	16.0	1.0	0.5
Mashare	7900	194	83	5.5	2.3
Wadi El Yabis	7900	194	83	5.5	2.4
Merazzeh	1000	24	11	0.7	0.5
Sleikhat	1500	37	16	1.1	0.4
El Qarn	3000	74	32	2.1	0.9
Krieymeh	7900	118	83	5.5	2.3
Balawineh	3000	45	32	2.1	0.9
Khazma	2000	48	22	1.4	0.6
Dirar	2500	61	26	1.7	0.7
Deir Alla	1000	25	11	0.7	0.3
Eddbab	1000	24	11	0.7	0.3
Sawalha	1500	37	16	1.1	0.4
Abu Ezegan	1500	37	16	1.1	0.5
Er Rabe	1500	37	16	1.1	0.5
El Twal	2500	61	26	1.7	0.7
Mu'addi	2500	61	26	1.7	0.7
El Arda	4000	98	42	2.8	1.2
Damiya	4000	98	42	2.8	1.2
Dahrat Er Ramil	9800	240	103	6.9	2.9
Karama	11000	270	116	7.1	3.3
South Shuna	13000	319	137	9.1	3.9
Ghor Nimrin	7000	172	74	4.9	2.1
El Kafrein	4000	98	42	2.8	1.2
El Rauda	4500	110	47	3.1	1.3
El Rama	1500	37	16	1.1	0.5
El X	3000	74	32	2.1	0.9
Suweima/Dead Sea	4000	98	42	2.8	1.2
Total		3480	1493	99.3	42.3

ANNEX 5
TABLE 11

Classroom Allocation Schedule
for Educational Development Program

Community	No. School Cycles	Existing Std. Rms.	Planned 1975	Required 1977			Required For Design Imp.			Site	
				E	P	S	E	P	S	Exist	New
Adasiya	1. Boys E/P	-	6	3	2	-	6	3	-	-	x
	2. Girls E/P	4	-	3	1	-	5	2	-	x	-
North Shama	1. Boys Sec-F	18	4	-	6	9	-	9	12	x	-
	2. Boys E/P	15	-	12	3	-	12	4	-	x	-
	3. Boys E/P	0	-	12	3	-	12	4	-	-	x
	4. Boys E	0	-	-	-	-	10	0	-	-	x
	1. Girls Sec-P	0	-	-	8	4	-	11	5	-	x
	2. Girls E	0	10	10	-	-	10	-	-	-	x
	3. Girls E	0	-	12	-	-	12	-	-	-	x
	4. Girls E	0	-	-	-	-	9	-	-	-	x
Manshiya	1. Boys E/P	12*	-	8	4	-	8	4	-	x	-
	2. Girls E/P	-	7	8	2.50	-	8	3	-	-	x
Waqas Qisat	1. Boys Sec-I	0	-	-	3	5	-	3	6	-	x
	2. Boys E	0	-	9	3	-	9	3	-	-	x
	3. Boys E	0	-	3	-	-	9	3	-	-	x
	1. Girls Sec	0	-	-	4	2	-	6	3	-	x
	2. Girls E	0	-	8	-	-	8	-	-	-	x
	3. Girls E	0	-	3	-	-	9	-	-	-	x

* in Manshiya Agr. Land

Notes: E = Elementary Cycle
P = Preparatory Cycle
S = Secondary Cycle

BEST AVAILABLE COPY

TABLE II

2 of 7

Community	No. School Cycle	Existing Std. Rms.	Planned 1975	Required 1977			Required Per Design pop.			Intg.	Site New
				E	J	C	E	J	C		
Fall El Arbasin	1. Boys E/P	10	-	8	4	-	9	4	-	x	
	2. Girls E/P	0	9	7	2.50	-	8	3	-		x
Ismaliya	1. Boys E/P	0	3	2	1	-	4	2	-		x
	2. Girls E/P	0	-	2	1	-	4	2	-		x
Mashara	1. Boys E/P	5	7	10	6	-	10	6	-	x	
	2. Boys E/P	0	9	9	3	-	12	5	-		
	3. Girls E/P	0	8	12	3	-	12	3	-		x
	4. Girls E/P	0	6	6	3	-	9	4	-		x
Wadi El Yabis	1. Boys E-P	0	-	-	5	8	-	5	12		x
	2. Boys E/P	9	6	6	1	-	11	3	-	x	
	3. Boys E/P	0	-	6	-	-	11	3	-		x
	1. Girls E-P	0	-	-	4	3	-	7	5		x
	2. Girls E	0	5	5	-	-	10	-	-		x
	3. Girls E	0	-	6	-	-	11	-	-		x
Marasah	1. Boys E/P	0	-	1.5	4	-	3	1.5	-		x
	1. Girls E/P	0	-	1	.50	-	3	1.0	-		x

BEST AVAILABLE COPY

Table 11

3 of 7

Community	No. School Cycle	Existing Std. Pns.	Planned 1975	Required 1977			Required per Design Pop.			Extg.	Site	
				E	F	S	E	F	S		Now	Prop.
Eladkhat	1. Boys E/P	0	5	2	1	-	4	2	-		x	
	1. Girls E/P	0	-	2	1	-	4	2	-		x	
El Qarn	1. Boys E/P	0	-	3	1.5	-	9	4	-		x	
	2. Girls E/P	0	-	3	1	-	8	3	-		x	
Kriaymah	1. Boys S-F	0	-	-	5	5	-	5	9		x	
	2. Boys E-1	0	13				11	3	-		x	
	3. Boys E	0	-	10	2	-	11	3	-		x	
	1. Girls E/F	14	-	10	-	-	11	-	-	x		
	2. Girls E/P	0	-	9	-	-	10	-	-		x	
	3. Girls See	0	-	-	6	2	-	7	4		x	
Salawinah	1. Boys E/P	18	-	7	3	-	9	4	-	x		
	2. Girls E/F	0	10	6	2	-	8	3	-		x	
Khasma	1. Boys E/P	0	-	4	2	-	6	3	-		x	
	2. Girls E/P	0	-	4	1	-	5	2	-		x	
Mirar	1. Boys E/P	8	3	4	2	-	7	4	-	x		
	2. Girls E/P	3	4	4	1	-	7	2	-	x		
Deir Alla	1. Girls See-P	13	-	-	1	5	-	3	7	x		

BEST AVAILABLE COPY

TABLE II

1 of 7

Community	No. School Cycle	Existing Std. Nos.	Planned 1975	Required 1977			Required Per Design Pop.			Extg.	Site	
				E	I	B	E	I	S		New	
Mashab	1. Boys E/P	11	-	8	4	-	6	5	-	x		
	2. Girls E/P	0	6	11	-	-	7	-	-		x	
	3. Boys Sec	0	14	-	-	12	-	-	14		x	
Sawalha	1. Boys E/P	6	3	4	2	-	4	2	-	x		
Mr Maswaha	1. Boys E-P	0	3	3	-	-	4	2	-			
	1. Girls E-P	0	-									
Abu Kagan	1. Boys E/P	5	4	2	1	-	4	2	-	x		
	2. Girls E/P	3	2	2	.50	-	4	1.5	-	x		
Mr Kaba	1. Boys E-P	4	3	3.5	2	-	4	2	-	x		
	2. Girls E-P	3	2	3	1	-	4	1.5	-	x		
Al Fual	1. Boys E-P	-	6	6	3	-	7	3.5	-		x	
	2. Girls E-P	3	5	6	2	-	7	2	-	x		
Ma'addi	1. Boys E-P	15	-	4	2	-	7	3.5	-	x		
	2. Girls E-P	8	-	4	1.50	-	7	2	-	x		
Al Arfa	1. Boys E-P	0	9	6	3	-	11	5	-		x	
	2. Girls E-P	0	6	6	2	-	10	4	-		x	

BEST AVAILABLE COPY

TABLE II

5.17

Community	No. School Cycle	Existing Std.Em.	Planned 1975	Required 1977			Required Per Design Pop.			Extg.	Site New	
				E	F	S	F	I	S			
Damiya	1. Boys E-P	0	6	4	2	-	11	6	-		x	
	2. Girls E-P	0	6	4	1.5C	-	10	4			x	
Dahrat El Hamil	1. Boys Sec-P	0	-	-	4	3	-	13	10		x	
	2. Boys E	0	-	8	-	-	14	-	-		x	
	3. Boys E	0	-	-	-	-	14	-	-		x	
	1. Girls Sec-P	0	-	-	3	2	-	9	4		x	
	2. Girls E	0	-	8	-	-	13	-	-		x	
	3. Girls E	0	-	-	-	-	13	-	-		x	
Karama	1. Boys Sec.	17	-	-	9	5	-	12	8	x		
	2. Boys E	8	-	10	-	-	11	-	-	x		
	3. Boys E-F	0	-	8	-	-	10	3	-		x	
	4. Boys F	0	-	-	-	-	10	-	-		x	
	1. Girls Sec-P	16	-	-	0	2	-	10	3	x		
	2. Girls E	16	-	10	-	-	14	-	-	x		
	3. Girls E	0	-	7	-	-	14	-	-		x	

BEST AVAILABLE COPY

TABLE II

6 of 7

Community	No. School Cycle	Existing Std.Emm.	Planned 1975	Required 1977			Required for Design Pop.			Site Extg.	New
				I	F	S					
South Shama	1. Boys See-P	18	-	-	3	4	-	6	17	x	
	2. Boys E-P	0	-	6	-	-	9	6	-		x
	3. Boys E-P	0	-	-	-	-	9	6	-		x
	4. Boys E	0	-	-	-	-	12	-	-		x
	5. Boys E	0	-	-	-	-	12	-	-		x
	1. Girls See-P	7	4	-	2	2	-	9	7	x	
	2. Girls E	0	-	6	-	-	12	-	-		x
	3. Girls E	0	-	-	-	-	12	-	-		x
4. Girls E-P	0	-	-	-	-	10	3	-		x	
Ghor Nimria	1. Boys E-P	0	-	4	2	-	10	5	-		x
	2. Boys E-P	0	-	-	-	-	10	5	-		x
	1. Girls E-P	0	-	4	1	-	9	3	-		x
	2. Girls E-P	0	-	-	-	-	9	3	-		x
El Kafrein	1. Boys E-P	0	8	5	2	-	11	6	-		x
	2. Girls E-P	0	10	4	2	-	10	4	-		x

-90-

TABLE II

7.47

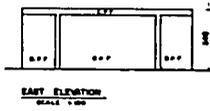
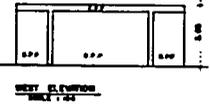
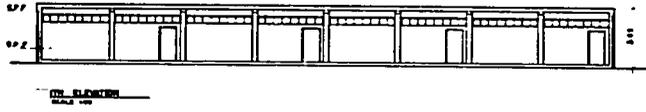
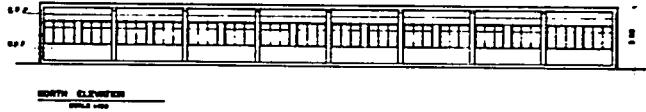
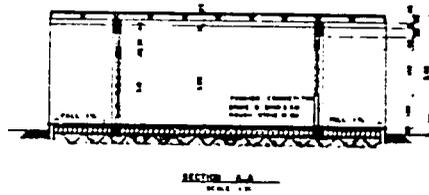
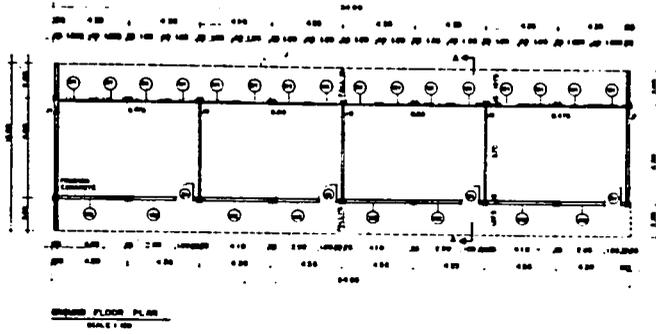
Community	No. School Cycles	Existing Std. Nos.	Planned 1975	Required 1977			Required Per Design Pop.			Site Extg.	New
				E	P	S	E	P	S		
El Ronda	1. Boys E/P	0	8	7	3	-	13	6*	-	x	
	2. Girls E/P	0	10	7	2	-	12	4*	-	x	
Er Rama	1. Boys Sec-P	0	-	-	3	4	-	2	9	x	
	2. Boys E	0	-	3	-	-	4	-	-	x	
	1. Girls Sec-P	0	-	-	1	2	-	2	4	x	
	2. Girls E	0	-	3	-	-	4	-	-	x	
Site X	1. Boys E-P	0	-	-	-	-	-	-	-		
	2. Girls E-P	0	-	-	-	-	-	-	-		
Swina	1. Boys E-P	0	8	3	1	-	-	-	-		
	2. Girls E-P	0	-	3	1	-	-	-	-		
Total		273	238	427	179	79					

* These Cl. Nos. may be reduced if new site are developed for expanded population

BEST AVAILABLE COPY

ANNEX 5

EXHIBIT 5



LEGEND.
 11C P.P. = CONCRETE WITH CORNET PLASTER FINISH
 21C P.P. = CONCRETE SLAB WITH CORNET PLASTER FINISH
 NOTICE
 SEE ROOF & WINDOW DETAILS ON SHEET 11

THE HASHEMITE KINGDOM OF JORDAN	
JORDAN VALLEY COMMISSION	
SCHOOLS	
SHEET 3	
FOUR CLASS ROOM BUILDING	
FLOOR PLAN, ELEVATIONS, EXTERIORS & SECTION	
DATE OF PREPARATION:	APPROVED:
DATE OF DESIGN (1952):	BY:
DESIGNED BY:	DRAWN BY:
CHECKED BY:	DATE:
APPROVED BY:	DATE:

REV.	DATE	REASON FOR REVISION	BY	CHECKED

BEST AVAILABLE COPY

ANNEX 5

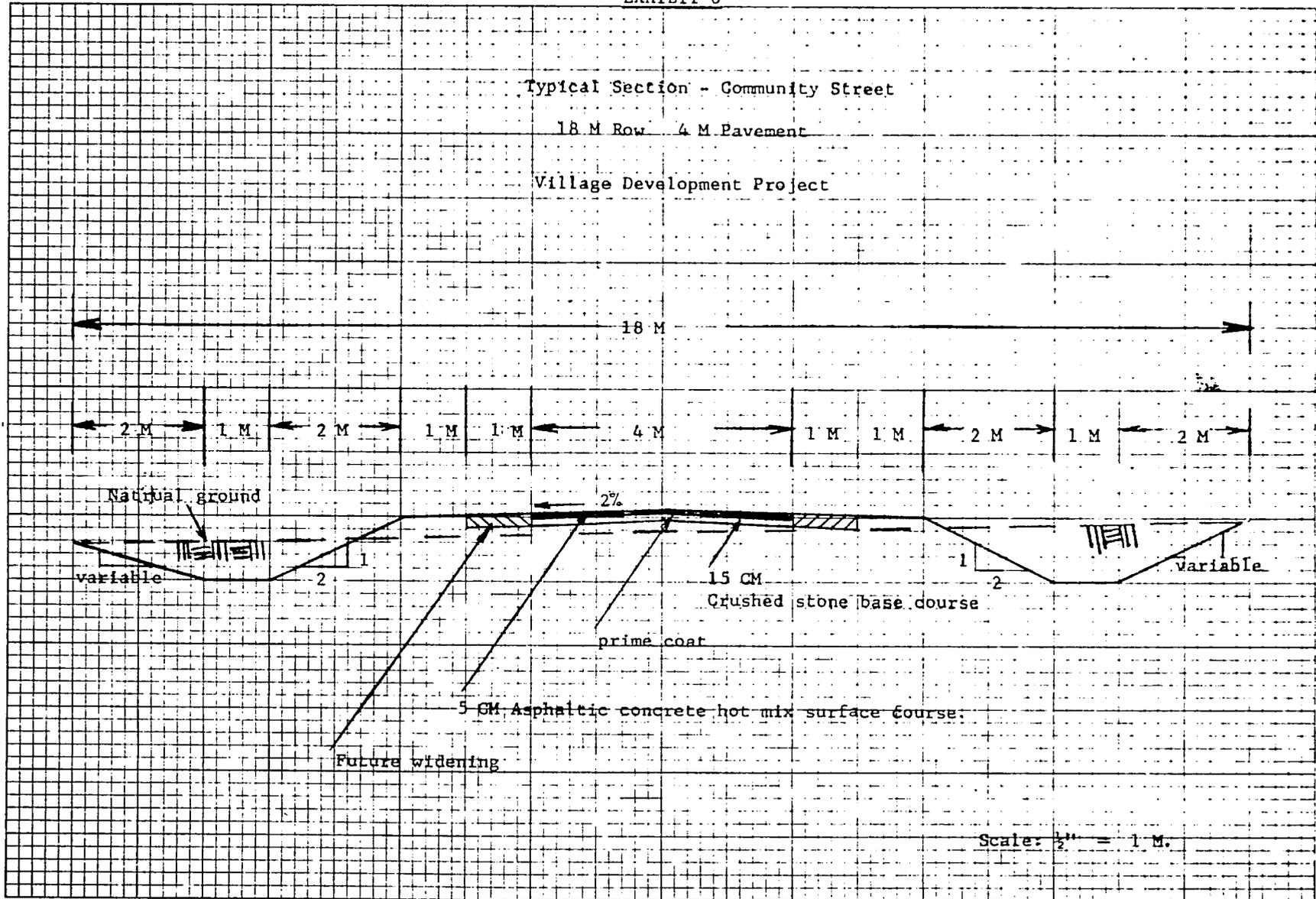
TABLE 12

MUNICIPAL FACILITIES DEVELOPMENT PROGRAM

SETTLEMENT	TYPE	SQUARE METERS	FIRST PHASE	SECOND PHASE	THIRD PHASE	SITE REQUIRED (DUNUMS)
ADASIYA	C	250		250	---	1
NORTH SHUNA	A	1300	Standard Existing	---	---	--
MANSHIYA	C	250	250	---	---	1
WAQQAS-QLEIAT	B	250	---	250	---	1
TELL EL ARBAEIN	C	250	250	---	---	1
ZEMALIYA	C	250	---	---	250	1
MASHARE	B	250	Standard Existing	---	---	1
EL MERAZZEH	C	250	---	---	250	1
WADI EL YABIS	B	250	250	---	---	1
EL QARN	C	250	---	---	250	1
SLEIKHAT	C	250	---	---	250	1
KRIEYMEH	B	250	250	---	---	1
BALAWINEH	C	250	---	---	250	1
KHAZMA	C	250	Standard Existing	250	---	1
DIRAR	C	250		---	---	-
ER RUWEIHA	C	250	---	250	---	1
DEIR ALLA	-	---	---	---	---	-
EL EDDBAB	C	250	---	---	250	1
ABU EZEGAN	C	250	---	250	---	1
SAWALHA	C	250	---	250	---	1
ER RABEA	C	250	---	---	250	1
EL TWAL	C	250	Temporary Existing	---	250	1
MUADDI	C	250		250	---	1
EL ARDA	C	250	---	250	---	1
DAMIYA	C	250	250	---	---	1
DAHRAT ER RAMIL	B	250	---	250	---	1
DAHRAT EL MAQAM	C	250	---	---	250	1
KARAMA	A	1300	Rent UNRWA Adm. Bldg.		1300	5
SOUTH SHUNA	A	1300	1300	---	---	5
GHOR NIMRIN	B	250	---	250	---	1
EL KAFREIN	C	250	250	---	---	1
ROUDA	C	250	250	---	---	1
RAMA	C	250	---	250	---	1
EL X	C	250	---	---	250	1
SUWEIMA	C	250	---	250	---	1
TOTAL			3050	4300	2500	39

ANNEX 5

EXHIBIT 6



Annex 5

Table 13

SUMMARY OF STREET CONSTRUCTION PROGRAM

<u>Community</u>	<u>18 Meter row</u>	<u>12 Meter row</u>	<u>Drainage Structures</u>	
	<u>4 Meter Pavement</u>	<u>4 Meter Pavement</u>	<u>Major</u>	<u>Minor</u>
Kafrein	1275 L.M.	600 L.M.	1	2
Damiya	850 L.M.	790 L.M.	—	2
Tel Arbaein	500 L.M.	1510 L.M.	—	3
Karama	1850 L.M.	2860 L.M.	1	2
Birar	850 L.M.	1150 L.M.	1	1
Manshiya	675 L.M.	975 L.M.	—	2
North Shuna	1050 L.M.	1600 L.M.	2	1
South Shuna	2000 L.M.	2125 L.M.	1	3
Kreiymeh	1625 L.M.	2855 L.M.	1	3
El Arda	625 L.M.	725 L.M.	—	—
El Rauda	1500 L.M.	630 L.M.	—	1
Totals	12,225 L.M.	16,390 L.M.	7	20

Annex 5

Table 14

COST ESTIMATE FOR COMMUNITY STREETS

<u>Item</u>	<u>Description</u>	<u>Unit</u>	<u>Unit Price</u> <u>(Jordanian Dinars)</u>
1.	Earthwork	m ²	0.250 (variable)
2.	Finegrading & Compaction of Subgrade	m ²	0.160
3.	Crushed Stone Base Course (15 cm.)	m ²	0.750
4.	Prime Coat	m ²	0.250
5.	Asphaltic Concrete Hot Mix Surface Course (5cm.)	m ²	0.490
6.	Drainage Structures	m ²	0.600
			<hr/>
		JD	2.500 = \$7.50

Source: Ministry of Public Works

Annex 5

Table 15

SUMMARY OF WATER SUPPLY PROGRAM

<u>Community</u>	<u>3"AC</u>	<u>4"AC</u>	<u>6"AC</u>	<u>Storage tanks</u>	<u>Lots served</u>
	<u>Pipe</u>	<u>Pipe</u>	<u>Pipe</u>	<u>400 m³</u>	
	<u>L.M</u>	<u>L.M</u>	<u>L.M</u>	<u>EA</u>	<u>EA</u>
Dirar	3000	---	1000	---	---
Damiya	3300	1150	---	---	500
Abu Ezegan	1270	---	---	---	140
Muaddi	4400	650	---	---	400
Swalha	1310	1000	---	---	220
Kreiyemeh	7700	2400	1000	1	1000
Wadi El Yabis	5420	1700	1000	1	700
Balawinea	300	600	---	---	60
Khazma	300	550	---	---	60
Eddbab	---	1300	---	---	70
Ruweiha	800	1800	---	---	80
El Twal	450	650	---	---	70
Er Rabea	250	3700	3500	---	30
<hr/>					
<u>Totals</u>	28,500	15,500	5500	2	3730

Agricultural Incomes in the East Jordan Valley

I. The Problem

The primary objective of the Village Development Project is to attract additional settlers to the Jordan Valley. Agricultural labor, both farm family and hired labor, is regarded by the Jordan Valley Commission (JVC) as being one of the constraints to further development in the area. ^{1/} A market for "commuter" labor exists in Jordan. In some cases laborers are hired in the uplands and transported on a daily basis to and from the Valley, a distance of some 50-60 kilometers. In other cases "commuters" maintain their families in the uplands and rent accommodations in the Valley on a week-to-week or month-to-month basis. The attraction of settlers to the Valley is to be supported by housing and community services intended to improve the quality of life for current residents and for new settlers above that of their present places of residence.

Currently 8,671 of the 11,213 existing housing units in the Valley are of mud brick or of mud and rubble, and 1,251 are tents. ^{2/} The current stock provides an average of 6.2 square meters of living space per person.

Only two of the villages in the Valley are equipped with a central domestic water system. Only one of these is chlorinated, and neither is filtered. The remaining villages are supplied with hand carried water from uncontrolled sources ... the canal, rivers, or springs. Sewage disposal is by percolation pits or dumping on the ground. Intestinal diseases are regarded as the primary health problem.

An important issue arising under the project is the estimation of demand for housing. The issue has several dimensions, not all of which can be adequately addressed here.

It is not possible, for example, to fully specify the demand function. This is particularly the case for projections into the future. It is possible to estimate current incomes on a per household basis for some of the projects' beneficiaries: farm owner-operators, farm renters, and hired farm laborers. For farm operators, both owner-operators and renters, income projections into the future are also given.

^{1/} The JVC has done some benefit-cost work on aggregated development projects in the Jordan Valley and estimates an internal rate of return of 19 percent if farm labor requirements are fully met. This drops to 12 percent if all labor must be supplied by the currently existing Valley population and its estimated natural increase. These IRRs are probably only suggestive due to simplifying assumptions about rates of project development, size distribution of farms, and distribution of labor among farms and over seasons.

^{2/} This description of the present housing stock is summarized from the final report of PADCO, "Settlement Planning and Housing Recommendations for the East Ghor Valley". Amman, November 1973.

Available survey data permit some general statements to be made about the distribution of project benefits (i.e. housing constructed under the project) among the three groups. Project execution policies of the JVC (selection of villages for development, criteria for selecting recipients of new housing, housing prices, mortgage terms, etc) are critical to precise estimation of the distribution of benefits.

II. Agricultural Incomes

A. Owner-operators and Tenants

1. Income Estimates from Farm Budgets

Farm budgets have been prepared for two appraisal reports on irrigation projects in the Jordan Valley. The first applies to a 30 dunum (3 hectares) farm in the region of the Zarqa Triangle Project approved for financing by AID. The second applies to farm models of different sizes and crop mixes in the North East Ghor Irrigation and Rural Development project appraisal by the International Development Association of the World Bank Group.

The North East Ghor Project area is that from Wadi Yabis north to the Yarmouk River. The Zarqa Triangle, in turn, lies approximately 20 kilometers down the Valley from Wadi Yabis, about midway between the Yarmouk and the Dead Sea.

Household incomes to farm families, owners and renters, are shown in summary form in Table 1. ^{3/} For the three hectare farm, share-cropper family incomes range from JD 230 at present to JD 724 after development. The range of owner-operator incomes on this farm size is from JD 459 without the project to JD 1465 with the project. Estimated incomes for larger farms range up to JD 6281 on 15 hectare fruit-vegetable farms. These income estimates do not include allowances for fixed commitments such as long-term debt, business or personal, except land taxes of JD 1.000/ha on annually cropped land and JD 6.000/ha and JD 15.000/ha on citrus and banana land, respectively. Repayment of loans for sprinkler equipment on farms to be so equipped is included in production costs.

^{3/} These income estimates were made using, essentially, 1973 data. Subsequent inflation probably puts them on the conservative (low) side. The consumer price index for food items in Amman, for example, rose 35 percent between 1973 and 1974. It rose 19 percent between January 1974 and January 1975. For all consumer goods, the corresponding increase are 20 percent and 12 percent.

-3-

TABLE 1

Incremental Incomes to Farm Families due to Zarqa
Triangle and North East Ghor Projects

Farm Type and Size	Net Returns		Incremental (Jordanian Dinars)
	Without Project	With Project a/	
A. Zarqa Triangle			
1. Thirty dunum owner-operator	459	1,352	893
2. Thirty dunum sharecropper	230	676	446
B. North East Ghor			
1. Three ha. vegetable farm, owner operator			
a. Sprinkler	674	1,183	509
b. Gravity	674	1,170	496
2. Three ha. fruit-vegetable farm, owner-operator			
a. Sprinkler	1,026	1,465	439
b. Gravity	1,026	1,453	427
3. Fifteen ha. fruit-vegetable farm, owner-operator			
a. Sprinkler	3,225	6,281	3,056
b. Gravity	3,225	6,265	3,040
4. Four ha. citrus farm, owner-operator	1,422	2,156	734
5. Fifteen ha. citrus farm, owner-operator	3,614	5,705	2,091
6. Three ha. vegetable farm, sharecropper			
a. Sprinkler	307	603	296
b. Gravity	307	556	249
7. Three ha. fruit-vegetable farm, sharecropper			
a. Sprinkler	492	724	232
b. Gravity	492	704	212

a/ Project year 6 for Zarqa Triangle farms, the first year in which full development incomes are reached and farmers are still repaying sprinkler loans. This is the same basis on which with project incomes for North East Ghor farms are shown. These are projected to be reached in project year 5 in areas in which project works are completed.

Source: Appendix Tables 1 and 2

Including fixed commitments would reduce estimated farm family incomes somewhat and, thereby, reduce the family's ability to acquire new housing.

A conservative estimate of ability to pay may be obtained by assuming that without project farm family incomes are totally committed to fixed expenses or to subsistence. Incremental income thus becomes the amount out of which expenditures for new housing are made. From Table 1, the lowest estimate of incremental income is JD 212 per year. Annex presents an analysis of mortgage repayment schemes for families receiving a household income of JD 200 per year. Using the rule-of-thumb, 25 percent of income to be spent on housing, a mortgage of JD 700 is within that family's ability to pay. A summary of the analysis and its assumptions are shown below in Table 2.

Table 2. Summary of Mortgage Repayment Plan for Family Receiving Current (1975) Income of JD 200 per year.

Year	Average Family Income	Average Mortgage Payment	Payment as Percent of Income
	(JD)	(JD)	(Pct)
1-5	221.02	55.03	24.9
6-10	282.11	70.46	25.0
11-15	360.02	74.28	20.6
16-20	459.50	77.42	16.8

Assumptions

1. Income grows at 5 percent per year
2. Mortgage terms are 20 year repayment with 7 percent interest on unpaid
3. Mortgage payments increase annually to JD 74.28 per year in the 11th year and remain constant through the 19th year. The payments total JD 90 in the 20th (last) year of the mortgage.

A minimum housing package of concrete block and panel construction is estimated to cost JD 820 (Annex) and payment-in-kind (self-help) arrangements may be necessary for families unable to assume a mortgage greater than JD 700.

In addition to the mortgage, home service of electricity is estimated by the JVC to cost each family JD0.650 each month for 360 watt-hours per day (2 hours daily) at the outset. As additional generating capacity is made available, this service is projected to increase to 3600 watt-hours per day in 1984.

Domestic water service of an estimated 13 cubic meters per household per month will cost JD0.780 per month for those families taking individual home water connections.

The 25 percent rule may be evaluated against some survey data on the cost of living in Amman. In examining the feasibility of housing projects for workers in Jordan, Deane reports that rents average 24 to 28 percent of family expenditures. ^{4/} The consumer price index gives rent a weight of 0.17 in Amman and 0.18 in Zarqa, both for 1967 base years. ^{5/} For Irbid and Zarqa, rent was weighted 0.08 in each index (base year 1969) ^{6/}. In a cost of living survey for civil servants in Amman in 1968, rent received a weight of 14 percent of total expenditures. ^{7/}

These weights are based on consumer expenditures and would, therefore, be somewhat lower as percentages of income. In comparison with these weights, the 25 percent rule is a rather conservative basis for estimating housing costs.

^{4/} Gary A. Deane. "A Report on the Feasibility of Housing for Workers in the Hashemite Kingdom of Jordan". The Asian-American Free Labor Institute, Washington, Dec. 1974, page 5.

^{5/}, ^{6/}, ^{7/} The Hashemite Kingdom of Jordan, Department of Statistics. "Consumer Price Index for Amman, Zarqa, Irbid, Aqaba, and Civil Servants." Amman, January 1975. In the index rent is weighted separately from other housing costs such as fuel, water, and electricity.

Current rents for housing in the Jordan Valley are reported to be approximately JD6 per month (JD 72/year) for a one room concrete block house and JD4 per month (JD48/year) for one room in a 2 room house of mud brick. Neither dwelling would have water, sewer, or electrical connections.

2. Land Tenure and Distribution of Holdings ^{8/}

A 1973 survey of the East Jordan Valley ^{9/} presents information on the distribution of land by size of holding and by tenancy class (full tenants, full owners, mixed). The distribution of area and number of holdings of all tenancy classes is summarized in table 3 for the Valley as a whole. These distributions are essentially unchanged when shown for each of the north, middle, and south portions of the Valley.

Almost 60 percent of all holdings are at most 30 dunums in size. Almost one-half of these, 1286, in the size category 0-15 dunums. The farm budget summaries of Table 1 suggest that 15 dunums is a sufficiently large owner-operated farm to provide the income necessary to carry the estimated JD 700-800 mortgage on a block and panel house. Fifteen dunums may be too small an area to permit a sharecropper to carry that mortgage without the irrigation development planned for the North East Ghor Project and the AID financed Zarqa Triangle and East Ghor Canal Extension Projects.

^{8/} A holding is defined for this purpose as the parcel or parcels of land operated as a unit by the owner(s) or tenant(s).

^{9/} The Hashemite Kingdom of Jordan, Department of Statistics, "Social and Economic Survey of the East Jordan Valley, 1973". Amman, June 1973.

-7-

Table 3. Distribution of Area and Numbers of Holdings by Size Category
in the East Jordan Valley, 1973

<u>Size Category</u>	<u>Land Area</u>		<u>Holdings</u>		<u>Average Size</u> Du.
	<u>Area</u> Du.	<u>Percent</u>	<u>Number</u>	<u>Percent</u>	
0-15	13,448	7	1286	29	10.5
16-30	32,116	18	1295	29	24.8
31-50	37,309	21	980	22	38.1
51-100	43,861	24	621	14	70.6
100-200	30,395	17	219	5	138.8
Over 200	24,404	13	74	2	329.8
Total	181,533	100	4475	100	

Source: "Survey", op. cit. Table 31

As shown in Table 4, the incidence of full tenancy, over 95 percent of which is sharecropping, tends to be greatest in the small size categories, 0-15 and 16-30 dunums. This is particularly the case in the middle and southern portions of the Valley where irrigation development is less far advanced.

The argument that fifteen dunums may be too small to permit the sharecropper to carry the mortgage was based on the "worst case" assumption that only the incremental farm income would be available for that purpose, and that the family did not supplement income from work off its own farm.

Both assumptions are conservative. To the extent that they hold, however, a portion of the sharecropper families in this smallest farm size category will not be demanding new housing until after the Zarqa Triangle and East Ghor Projects are completed, perhaps as late as 1980's.

Jordanian law places maximum and minimum size limitations on government-developed irrigated land ownership. The minima are 30 dunums of class I and II land and 50 dunums for class III land. The maximum is 200 dunums. The 30 dunum minimum has been in law since 1959, and by one interpretation, at least, some success has been achieved in narrowing the size range of recorded ownership over the years and over various revisions of the law.

"In 1960, ownership sizes in the EGCP { East Ghor Project } ranged from 10 to 1000 dunums or more. By 1971, the range had narrowed to 20 to 400 dunums. The average size of ownership for the entire area fell from 43.1 dunums in 1960 to 24.2 dunums in 1971. While holdings {ownership} under 1000 {sic. The accompanying table shows this as 100} dunums in 1960 represented 92 percent of the owners and 46 percent of the area, with an average size holding {ownership} of 21.8 dunums, by 1971 holdings of this size accounted for 94 percent of the owners and 86 percent of the area, with an average size holding {ownership} of 21.6 dunums. The number of owners in the EGCP area increased from 3,668 in 1960 to 5,388 in 1971." 10/ The 1973 survey revealed 779 fully owner-operated holdings of 13,277 dunums in the 0-30 size category 11/ and for all tenancies there were 2581 holdings of 45,564 dunums in that size range (Table 3). Considerable room for further elimination of the 0-30 dunum size category remains.

10/ Jared E. Hazelton. "The Impact of the East Ghor Canal Project on Land Consolidation, Distribution, and tenure". The Hashemite Kingdom of Jordan, Royal Scientific Society, Dec. 1974, pages 31, 32. Surveys are incomplete. The 1961 data account for 158,296 dunums, those for 1971 account for 130,125. The 1973 survey shows 181,533 dunums in the East Jordan Valley and 522 full ownership holdings of 20 dunums or less, more than one-third of all such holdings.

11/ "Survey", op cit, Table 31.

Table 4. Percentage Distribution among Tenancy Classes of the Total Number of Holdings in the East Jordan Valley by size 1973

Region and Holding Size Category (dunums)	Percent Distribution of Holdings			Total
	Mixed Tenancy	Full Tenants (percent)	Full Owner	
1. Entire Valley				
0-15	2	67	31	100
16-30	3	67	29	100
31-50	6	52	41	100
51-100	15	47	38	100
101-200	25	42	33	100
Over 200	30	27	43	100
All holdings	7	59	34	100
2. North				
0-15	3	46	51	100
16-30	3	62	35	100
31-50	6	52	42	100
51-100	19	46	35	100
101-200	30	46	24	100
Over 200	29	36	36	100
All holdings	9	52	39	100
3. Middle				
0-15	1	72	26	100
16-30	5	66	29	100
31-50	8	52	40	100
51-100	15	48	37	100
101-200	25	38	37	100
Over 200	52	22	26	100
All holdings	6	62	31	100
4. South				
0-15	0	81	19	100
16-30	0	89	11	100
31-50	0	60	40	100
51-100	1	48	51	100
101-200	0	29	71	100
Over 200	0	21	79	100
All holdings	0	71	29	100

B. Farm Laborers

Household incomes for farm laborers are more difficult to estimate. Wage rates are reported on an hourly or daily basis. What is also required is information on the number of days worked per year and the number of farm laborers in each household.

Data from different sources, not entirely consistent, permit the estimation of a likely range of household incomes for farm laborers. The derivation of this estimate is based upon survey data on total labor requirements per dunum of different crops and the average amount of that requirement provided by the farm family. These are combined with official estimates of the area in the Valley devoted to each crop to give aggregate estimates of total and family labor use (Appendix Table 3).

Total labor, man-days	4,845,355
Family labor, man-days	<u>2,149,312</u>
Hired labor, man-days	2,696,043

It is estimated that there are 15,734 agricultural workers resident in the Valley. ^{12/} Of these 9040 are estimated to be farm family workers. ^{13/} The remainder, 6694, are hired. The assumption that all family labor is supplied by holders and their families permits the estimation of the number of family workers per household and the number of days employment per family worker per year (Table 5).

Table 5 - Total employment, employment per family worker, and number of workers per farm family, East Jordan Valley

<u>Item</u>	<u>Total Employment</u> Man-hours	<u>Number of Workers</u>	<u>Number of Holdings a/</u>	<u>Family Workers per Farm Family</u>	<u>Dates Emp. per Worker</u>
Family workers	2,149,312	9040	4475	2.02	238
Hired workers	2,696,043	6694	-	-	402

a/ "Social and Economic Survey of the East Jordan Valley, 1973", Table 31.

^{12/} "Survey", op cit, Table 11a

^{13/} "Survey", op cit, Table 39

For the hired labor category the resulting 402 days is, of course, not feasible. Monthly labor requirements are highly variable, and much of the labor is supplied by "commuters". The extent of commuter labor is not known, and no data exist on the number of workers in each hired labor household.

A range of household incomes for resident farm laborer was computed for different percentages of total labor supplied by residents, three different numbers of workers per household, and two different daily wage rates 14/. The results of this exercise are shown in Appendix Table 5. The maximum likely range of annual employment is between 161 and 242 days per worker per year, and the maximum likely range of household incomes is between JD 161 and JD 544 per year. 15/

These, of course, are very judgemental and cannot be verified without much additional research. They are based, in part, upon the previously estimated bench marks for the farm family itself:

- (1) 238 days employment per worker per year
- (2) 202 workers per family
- (3) JD 230 - JD 1026 without project annual income for the 30 dunum farm.

Considering the status of the farm laborer throughout the world, the lower end of this range, JD 161 - JD 300 is probably the most typical.

The mortgage carrying ability of the lowest income household may not be great enough for the JD 820 brick and panel home without a very large element of self-help. This family may be forced to resort to mud brick construction for its housing.

The assessment of the ability of a family with a current annual income of JD 200 per year to carry a JD 700 mortgage was based on an income growth of 5 percent per year over the life of a mortgage.

Such rates of growth for wage earners cannot, of course, be predicted with a high degree of certainty. Irrigation development in the Valley will increase the demand for labor, and higher wage rates, as well as greater amenities may be required to induce the migration.

14/ Daily wages are reported to be JD 1.000 to JD 1.500 for a five or six hour day. The five hour day is reported to be the most typical.

15/ Interviews with farmers and farm laborers in the Valley suggest modal annual incomes in the JD 200-300 range.

Farm labor wage rates were reported to be about JD0.474 per day (male workers, females receive one-half the male wage) in 1966 16/. A 1974 wage rate of JD1.000 per day implies a growth rate of almost 10 percent over that period.

16/ The Hashemite Kingdom of Jordan, Jordan River and Tributaries Regional Corporation, "Jordan Valley Project, Agro-and Socio-Economic Study", volume III, Annex E, Table E-59, April 1969

APPENDIX TABLE I

ZARQA TRIANGLE IRRIGATION
PROJECT
BUDGET SUMMARY FOR 30 DUNUMS OWNER OPERATED FARM MODEL
UNDER VEGETABLE - FOLDER ROTATION WITH SPRINKLER
IRRIGATION

ANNEX 6

Page 13 of 10

ITEM	BEFORE DEVELOPMENT, VEGETABLE - CEREALS ROTATION	After Development						
		YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7 and on
(Jordanian Dinars)								
A. Inflows								
Value of production	795.6	1000.00	1300.00	1300.00	1600.00	1800.00	2018.35	2018.35
Loan for sprinkler equipment	-	390.00	-	-	-	-	-	-
Total Inflow	795.6	1390.00	1300.00	1300.00	1600.00	1800.00	2018.35	2018.35
B. Outflows								
Cost of sprinkler equipment	-	390.00	-	-	-	-	-	-
Irrigation costs	-	145.00	150.00	150.00	155.00	163.20	163.20	163.20
Other production costs	318.2	280.00	315.00	315.00	350.00	375.00	396.20	396.20
Interest on short-term production credit at 8%	18.00	19.00	20.60	20.60	22.30	23.50	24.40	24.40
Repayment of sprinkler loan with interest at 6%	-	23.40	101.40	96.70	92.00	87.40	82.70	-
Total Outflows	336.20	857.40	587.00	582.30	619.30	649.10	666.50	583.60
C. Net return, owner-operator	459.40	532.60	713.00	717.70	980.70	1150.90	1351.65	1434.55
D. Net return, share cropper ^{1/}	229.70	266.30	356.50	358.85	490.35	575.45	675.92	717.28

^{1/} Net returns to the sharecropper are estimated at 50% of those to the owner-operator. This probably overstates the sharecropper's relative position somewhat. Preliminary data from a recent farm survey carried out in the Valley by the Royal Scientific Society (RSS) show that the 50-50 crop share for produce is the arrangement for 85.5 % of share leases. For these, the overwhelmingly model sharing arrangement for variable expenses is also 50-50, except for hired labor. The bulk of this expense is on the tenant. The RSS findings confirm those of a 1966 survey. See the Hashemite Kingdom of Jordan, Jordan River and Tributaries Regional Corporation. "Jordan Valley Project Agro-and Socio-Economic Study", April 1969, Annex E. Agro-Economic Conditions, page 81.

Source: Agency for International Development. "Capital Assistance Paper, Jordan-Zarqa Triangle Irrigation Project". AID-DLC/P-2048. June 1974. Annex II, Exhibit 8, Tables 9 and 10.

-127-

Appendix Table 2: Land & Crop Values for Different Technologies and Sizes in the South West Area
Highland, Lowland, and Rural Revival and Project Area Page 14 of 19

<u>Farm Type and Size</u>	<u>Gross Value of Production</u>	<u>Total Production Costs 1/</u>	<u>Net Return</u>
	<u>(Jordanian Dinars)</u>		
A. Three ha. vegetable farm			
Without project	1,020	346	674
With project, sprinkler irrig.	1,805	622	1,183
With project, gravity irrig.	1,805	635	1,170
B. Three ha. fruit & vegetable farm			
Without project	1,423	397	1,026
With project, sprinkler irrig.	2,345	899	1,446
With project, gravity irrig.	2,345	892	1,453
C. Fifteen ha. fruit & vegetable farm			
Without project	7,192	3,967	3,225
With project, sprinkler irrig.	11,595	5,314	6,281
With project, gravity irrig.	11,595	5,330	6,265
D. Four ha. citrus farm			
Without project	1,634	482	1,152
With project, gravity irrig.	3,136	980	2,156
E. Fifteen ha. citrus farm			
Without project	7,110	3,426	3,684
With project, gravity irrig.	11,760	6,055	5,705
F. Share Cropper farms 2/			
I. three ha. vegetable farm			
Without project, total	1,020	346	674
" " "tenants' share	510	203	307
With project, sprinkler, total	1,805	618	1,187
" " " " "tenants' share	902	299	603
With project, gravity, total	1,805	635	1,170
" " " " "tenants' share	902	346	556

BEST AVAILABLE COPY

- 128 -

Annexin Table 3 (Continued)

- 2 -

2. Three ha. fruit vegetable farm				
Without project, total	1,423	397		1,026
" " , tenants' share	712	220		492
With project, sprinkler, total	2,345	600		1,485
" " , tenants' share	1,172	465		724
With project, gravity, total	2,345	600		1,453
" " , tenants' share	1,172	465		704

BEST AVAILABLE COPY

-129-

1/ Sprinkler-irrigated farm costs include amortization of sprinkler equipment loans. The project estimates sprinkler equipment costing JD 300,000 on 2700 hectares, or JD 120 per hectare. Farmers are to contribute 20 percent of this cost and the remainder is to be financed by loans from the Agricultural Credit corporation with repayment over 7 years at 6 percent. The annual payment required is JD 19 per hectare planted to vegetables. (Fruits are to be gravity irrigated).

2/ On sharecroppers' farms the produce is divided equally. Orchard establishment costs are paid by the owner, sprinkler equipment by the owner, and hired labor by the tenant. At present interest on operating capital is paid by the owners. In the future it will be shared equally. All other production costs are shared equally.

Source: Budgets developed for project submitted for financing to the International Development Association of the World Bank Group.

APPENDIX TABLE 3

TOTAL AND FAMILY LABOR USE IN THE JORDAN VALLEY BASED ON 1974 CROPPING PATTERNS AND LABOR REQUIREMENTS FOR EACH CROP

Product	North East Ghor					Middle East Ghor					Total fam- labor used ^{3/} (hr)
	Area, 1974 ^{1/} (du)	Total labor Requirement ^{2/} (hr/du)	Total labor Used ^{3/} (hr)	Family labor Requirement ^{2/} (hr/du)	Total family labor used ^{3/} (hr)	Area ^{1/} (du)	Total labor Requirement ^{2/} (hr/du)	Total labor Used ^{3/} (hr/du)	Family labor Requirement ^{2/} (hr/du)		
Tomato	16283	156.45	2547475	69.72	1155271	40355	151.10	6173160	71.32	2915775	
Eggplant	21673	139.40	3021216	58.54	1269737	15475	143.64	2225224	67.21	1044350	
Pepper	3051	127.31	388423	61.70	187247	4642	94.00	436.343	29.50	136.09	
Potato	541	64.44	34962	27.44	14745	0	N.R.	-	N.R.	-	
Broad beans	3741	113.86	444655	46.91	186713	1154	46.65	54306	0	-	
String beans	240	93.75	22500	31.14	7474	632	137.71	87033	53.25	37443	
Peas	0	N.R.	-	N.R.	-	0	N.R.	-	N.R.	-	
Cowpeas	133	91.67	12192	53.29	7088	0	N.R.	-	N.R.	-	
Cucumber	885	100.77	89181	41.05	36329	0	N.R.	-	N.R.	-	
Squash	2001	118.12	236358	56.26	113777	2357	65.92	155373	61.42	144767	
Watermelon	5507	47.70	262663	10.35	56997	4363	30.09	348833	36.15	157.03	
Sweet melon	1192	52.50	62560	52.50	62500	7373	14.60	107646	9.00	66257	
Cauliflower	2641	89.94	237532	27.24	71741	1833	52.50	86232	52.50	86232	
Cabbage	4858	87.64	422840	23.83	116009	262	25.20	7207	6.40	1820	
Radish	120	N.R.	-	N.R.	-	0	N.R.	0	N.R.	0	
Green onion	0	52.50	-	0.5	-	0	N.R.	0	N.R.	0	
Parsley	0	N.R.	-	N.R.	-	0	33.26	0	12.6	-	
Lettuce	649	45.17	29315	13.33	8651	580	N.R.	-	N.R.	-	
Spinach	206	11.62	4787	5.62	1158	0	N.R.	-	N.R.	-	
Okra	427	77.60	33135	51.95	22175	500	22.50	13050	2	1160	
Mallow	3012	82.57	249701	29.60	87343	355	72.00	27310	0	-	
Wheat, irrigated	31771	9.93	267431	5.76	183001	223	N.R.	-	N.R.	-	
Wheat, irrigated	9490	3.63	34412	2.46	23321	37750	3.41	130663	2.41	94611	
Earley, irrigated	2967	10.47	31064	5.78	17149	25273	1.38	34865	0.28	6019	
Barley, irrigated	466	6.99	3257	4.13	1925	4748	7.99	37807	7.99	37807	
Citrus, bearing	32757	121.40	3976700	50.10	1641125	1925	6.25	91133	6.25	91133	
Maize, irrigated	1088	35.44	66911	12.16	22853	190	143.36	27253	59.25	11339	
Citrus, unbearing	2102	83.74	186531	39.04	82062	0	N.R.	-	N.R.	-	
Banana, bearing	1897	222.83	444991	100.62	200938	392	134.55	52744	57.50	22540	
Banana, unbearing	2119	202.26	432634	88.07	189372	2353	236.43	556319	54.43	121074	
Totals^{3/}	152727		13563416		5746222			18663361		5000340	

N.R. - Not Reported

BEST AVAILABLE COPY

- 150 -

APPENDIX TABLE 3 (continued)

- 1/ Source for area: The Hashemite Kingdom of Jordan, Department of Statistics. "The Agricultural Sample Survey in the Chors 1974". Amman, February 1975. The Agricultural Survey defines the North East Chor as the area in the East Jordan Valley from the Yarmouk River in the north to approximately the village of Dirar in the south. The Middle East Chor is defined as the remaining portion of the Valley south to the Dead Sea.
- 2/ Source for labor requirements: Unpublished data of the Jordan Valley Commission (JVC) which were gathered for use in a regional linear programming model for agriculture in the Valley. This survey divided the Valley into its North, middle, and south portions. The JVC's north portion corresponds roughly to the Statistics Department's North East Chor, and the JVC's south portion is approximately that of the Statistics Department's Middle East Chor.
- 3/ Labor totals exclude crops for which no labor requirements are reported.

Appendix Table 4
 Number of Days Employment in Agriculture in the East Chor, 1974
Total and Per Farm Family Worker

Labor Category	Man-hours Employment 1/	Man-days at an average 5 1/2 hr./day 2/	Days Employment Per Family Worker 3/ 4/
Total Labor	24,226,777	4,841,355	-
Family Labor	10,746,562	2,149,312	238
Hired Labor	13,480,215	2,692,043	-

Totals see Appendix Table 3

- 1/ The sum of North and Middle East Chor
- 2/ Dr. Akram Statieh, agricultural economist of the University of Jordan, in conversation, reports the five-hour day as being very much the modal working day from his contact with farmers in the Jordan Valley.
- 3./ The Hashemite Kingdom of Jordan, Department of Statistics, "Social and Economic Survey in the East Jordan Valley 1973, Amman, June 1973 (Table 39) reports 9840 family workers on farms in the Jordan Valley.
- 4/ Much of the hired labor on farms is supplied by short-term "commuters", but the proportion of total hired labor employment in the commuter category is unknown. The survey reports data on residents only. Using this data to compute number of days employment per worker for all workers or hired workers would be meaningless. Some alternatives are presented in the next table.

-132-

Appendix Table 5

Number of Days Employment for Hired Workers under Alternative Assumptions of Percentage
of Total Hired Labor Supplied by Residents and Annual Household Incomes for
Hired Farm Labor Under Alternative Assumptions of Number of Workers

Total Hired Labor <u>1/</u> (man-days)	Percentage Supplied by Residents (pct.)	Resident Hired Labor (Man-days)	Days per Year Employment per Hired Resident (days/yr)	Annual Household Incomes at Various Wage Rates and Workers per Family ^{3/}					
				per Family and Usage Rates		Annual Household Incomes at Various Wage Rates and Workers per Family			
				Ave. 1 worker /hh	Ave. 1.5 workers/hh	Ave. 2 workers/hh			
				JD1,000/da	JD1,500/da	JD1,000/da	JD1,500/da	JD1,000/da	JD1,500/da
2,696,043	100	2,696,043	403	403	604	604	907	806	1,209
	90	2,426,439	362	362	543	543	814	724	1,086
	80	2,156,834	322	322	483	483	724	644	966
	70	1,887,230	282	282	423	423	634	564	846
	60	1,617,626	242	242	363	363	544	484	726
2,696,043	50	1,348,022	201	201	301	301	452	402	603
	40	1,078,417	161	161	242	242	362	322	483

-133-

1/ See Appendix Table 4

2/ See "Social and Economic Survey of the East Jordan Valley, 1973" Tables 11a and 39. Table 11a reports 15,734 residents working in agriculture. Table 39 reports 9040 family workers. The difference in 6694 hired workers resident in the Valley.

3/ Daily wage rates of between JD 1.000 and JD 1.200 are reported by the Jordan Valley Commission. One worker per household is a minimum. Data from the "Social and Economic Survey" suggest 2.92 workers per farm family (See "Survey tables 39. There are 9040 family workers on 4475 holdings for an acreage of 2.02 family workers, including the holder, per holding.) The number of workers per hired labor household is probably not larger than this.

4/ The annual household earnings lying within the rectangle defines the likely maximum range of earnings for the hired farm labor household.

PROJECT DESIGN SUMMARY
LOGICAL FRAMEWORK

Annex 7

Life of Project
From FY _____ to FY _____
Total U.S. Funding _____
Date Prepared _____Project Title & Number: Jordan Valley Village Development

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>Program or Sector Goal: The broader objective to which this project contributes:</p> <p>Jordan Valley Development Goal:</p> <p>Improved welfare and productivity of present and future residents of the East Bank of Jordan River Valley</p>	<p>Measures of Goal Achievement:</p> <p>% of persons in sub-standard housing reduced, even as population increases. Scattered settlements minimized.</p> <p>100% people have specified social services available in 19 villages</p> <ul style="list-style-type: none"> -Water -Health facilities -Classrooms <p>Residents indicate they are pleased with new arrangements.</p>	<p>Demographic survey.</p> <p>Demographic survey.</p> <p>Community records, demographic survey.</p> <p>Survey interviews</p>	<p>Assumptions for achieving goal targets:</p> <p>Village resettlement plan completed.</p>
<p>A.I.D. Project Goal:</p> <p>Stable, self-sustaining communities with basic social services established in villages supported under AID loan plus complement investments previously made by the Government of Jordan.</p>	<p>Measures of Project Goal</p> <p>Beneficiaries repay debts.</p> <p>Social services maintained at the national standard.</p> <p>Homes and community facilities maintained.</p>	<p>Housing Bank and GOJ records.</p> <p>Community and GOJ records; observation.</p> <p>Observation</p>	<p>Assumptions for Project Goal:</p> <p>Mid-East peace maintained.</p> <p>Employment opportunities and income opportunities of new production infrastructure adequate to stabilize settlers.</p> <p>An average person receiving fair share of production gains (income).</p>
<p>Project Purpose:</p> <p>Population locates itself in specified, serviced settlements.*</p> <p>* - Evaluation to concentrate on settlements where housing aid and sites available.</p>	<p>Conditions that will indicate purpose has been achieved: End of project status.</p> <p>900# housing sites sold by 1977.</p> <p>600# housing units completed or effectively underway by 1977.</p> <p>100% children attending school in 17 villages.</p> <p>13 villages provided with potable water</p> <p>Government services</p> <p>% health facilities are available to residents of 7 villages.</p>	<p>Housing Bank and GOJ records*, on-site studies by AID</p> <p>* -includes JVC and local government records.</p>	<p>Assumptions for achieving purpose:</p> <p>Valley residents willing to locate.</p> <p>New settlers will go to planned areas.</p> <p>Income levels of population sufficient to purchase sites; build homes.</p> <p>Population can afford water connections.</p> <p>Employment opportunities attract settlers from outside Valley.</p>
<p>Outputs:</p> <p>Housing sites developed and financing available.</p> <p>Village streets.</p> <p>Health facilities constructed and operational.</p> <p>Municipal buildings constructed and in use.</p> <p>Classrooms constructed and operating.</p> <p>Commercial buildings constructed and in use.</p> <p>Water supply mains and distribution system.</p> <p>Improvements to concrete panel plant.</p> <p>Social Development Center</p> <p>Houses constructed or remodeled.</p>	<p>Magnitude of Outputs:</p> <p>898 plots</p> <p>28 kilometers</p> <p>9 villages</p> <p>8 in specified villages</p> <p>175 classrooms in 17 villages.</p> <p>8 villages, as listed.</p> <p>13 villages, as listed.</p> <p>1 at Dnmiya.</p> <p>1 at Kreiymeh</p> <p>\$2 million in loans</p>	<p>Housing Bank records, reports and Mission/AID-W inspection of sites (monitoring information).</p>	<p>Assumptions for achieving outputs:</p> <p>GOJ provides budget and staff to operate facilities effectively.</p> <p>Housing finance arrangements satisfactorily established.</p>
<p>Inputs:</p> <p>Technical Assistance to JVC (Grant Financing) for project implementation/monitoring.</p> <p>Technical Assistance to the Housing Bank (Grant Financing) to establish Administrator's accounts.</p> <p>Provision of budget funds by GOJ to permit JVC to acquire land.</p> <p>Additional technical staff hired by JVC.</p> <p>Additional technical staff hired for USAID Housing Bank purchases mobile bank unit.</p> <p>AID/GOJ; Loan & National Budget Funds</p>	<p>Implementation Target (Type and Quantity)</p> <p>3 experts--engineering & urban planning</p> <p>1 expert--financial management</p> <p>Staff as required when facilities</p> <p>Staff as required by project progress.</p> <p>1 DH and 1 local hire during half 1977.</p> <p>Accomplished June 1975.</p> <p>Loan Agreement</p>	<p>A.I.D. records</p> <p>A.I.D. records</p> <p>GOJ records, site visits by AID Personnel</p> <p>A.I.D. Monitoring</p> <p>A.I.D. records</p> <p>A.I.D. inspection</p> <p>A.I.D.</p>	<p>Assumptions for providing inputs:</p> <p>Execution of Grant Agreement and technical assistance is secured.</p> <p>Execution of Loan Agreement and conditions precedent are met.</p> <p>A law is passed permitting acquisition of land by JVC.</p> <p>JVC issues a building code for the Valley.</p>

BEST AVAILABLE COPY

ENVIRONMENTAL ANALYSIS

I. Project Description

A. Location

The project area is located in the Jordan Valley and encompasses the land on the east bank of the Jordan River extending from the Dead Sea in the south to Lake Tiberias in the north. The valley is approximately 65 miles in length and ranges from 3 to 10 miles in width. Elevations vary from 650 feet in the north to - 1300 feet in the vicinity of the Dead Sea.

B. Present Development Activities

At this time, the Agency is financing three other development projects in the Jordan Valley: (a) the Yarmouk - Dead Sea Road, (b) the East Ghor Canal Extension and (c) the Zarqa Triangle Irrigation Project. The environmental impact of these activities on the project area has been discussed in previous loan papers.

In addition to AID-financed activities, the IDA is proceeding with a irrigation/rural development project in the northern sector, and the Jordan Valley Commission is completing negotiations with the Federal Republic of Germany for a rural development project in the southern sector and a rural electrification project which will cover the entire valley.

C. Activities Planned Under AID Loan

Funds provided under the proposed AID loan will be utilized to finance approximately 1000 housing units and related infrastructure in selected villages in the valley. Community facilities to be constructed include schools, clinics, municipal facilities, and social development centers. Other infrastructure will include community streets, water distribution systems, and farm access roads.

II Environmental Assessment

A. General

The basic objective of the resettlement project is to improve the human environment of the present and anticipated future inhabitants of the Jordan Valley by providing housing and basic social and public services to all planned communities. The provision of these services must necessarily proceed in stages, as the capital costs of all proposed improvements exceed presently available funds.

B. Physical Aspects

1. Land Use Planning

Heretofore, community development in the Jordan Valley has not been guided by professional planning techniques and has thus proceeded in a less than desirable fashion. With the assistance of a planning consultant, the Jordan Valley Commission has analyzed existing communities and selected 36 old and new sites to be designated as permanent settlements. Criteria used in the selection process included (1) proximity to agricultural land (2) ease of supplying potable water and other basic infrastructure (3) avoidance of land difficult to develop (4) availability of additional land for expansion and (5) preservation of existing settlements where possible. Site plans for each proposed settlement delineate land use areas such as schools, clinics, municipal and commercial facilities and residential lots and will enable further development to be effected on an orderly basis.

Land designated for the expansion of existing communities or for the development of new settlements is largely unsuitable for agricultural purposes. The small amount of arable land which has been reserved for community development is considered inconsequential.

2. Housing

The basic housing unit which has been adopted for the resettlement program is of high standard construction, provides adequate shelter and can be expanded at a later date through self help or other measures. The design has taken into consideration the need for open shaded areas because of intense heat and absence of rain during the summer months, and houses will be oriented so as to maximize shade during the afternoon.

While the Jordan Valley Commission will not limit residents to the modular design proposed, they will reserve the right to approve alternative designs and will thus exercise control over the erection of substandard housing.

3. Wastewater Disposal

Residences in the Jordan Valley presently have no sewage disposal system or depend on individual percolation pits. Central collection and treatment facilities do not exist in any of the valley settlements.

Alternative wastewater disposal methods considered for the planned communities included percolation pits, septic tanks, oxidation ponds, and package treatment plants. Based on the results of numerous percolation tests conducted throughout the valley and anticipated per capita water consumption rates, it has been determined that properly designed, constructed and maintained percolation pits will suffice for individual residences at this time. Disposal systems for public facilities utilizing larger volumes of water will consist of septic tanks and absorption fields.

The Jordan Valley Commission will not permit the construction of new housing without adequate provisions for disposing of wastewater.

4. Drainage and Erosion Control

Many of the existing villages designated as permanent settlements, particularly those adjacent to the foothills rising to the east of the valley, have serious drainage problems and are consequently subject to heavy erosion. Grading plans developed for each community will include diversion ditches, water control structures, and other drainage structures required to adequately dispose of stormwater runoff. In addition, the foothills adjacent to these settlements will be terraced and reforested to arrest further erosion.

C. Socio/Cultural Aspects

1. Housing

The basic housing design has taken into consideration the social traditions prevailing in the valley, the most important of which dictates a separation of the areas in which men and women perform their daily activities. The two living rooms provided are not directly connected and are thus visually screened from one another. When entertaining guests, this arrangement also allows the men and women to gather in separate rooms.

2. Relocation of Area Residents

At present, there are some 48 recognized communities in the valley with a total population of approximately 65,000. While every effort was made to preserve existing communities, the large number of very small villages resulted in some of these settlements being excluded from the program. Thirty-one of the existing vilages have been designated permanent settlements and will be developed in accordance with the planning consultant's recommendations. Inhabitants of the remaining communities, estimated at approximately 3500 or 5% of the present population, must relocate or forego some of the facilities and services which will be available in the planned settlements. Regardless of their decision, these people will also benefit from the program, as health centers and educational facilities proposed will serve all valley residents.

In addition to those residing in communities not included in the village development program, a limited number of households within the planned communities must be relocated. Homes located in areas designated as right-of-way for village streets or reserved for public facilities will be removed and their inhabitants relocated to other areas. The Jordan Valley Commission will appraise all structures which must be demolished and reimburse the owners accordingly. On the basis of field surveys conducted to date, the number of households which will be affected is estimated to be less than 5% of the total number of households.

3. Educational Facilities

Many of the structures^{*} now serving as schools for valley residents are in extremely poor condition, and the number of classrooms available is not adequate to meet the demands of the present population. As a result, most schools are overcrowded, and many are operating in two shifts to accommodate more students. The development program outlined by the Ministry of Education reveals an immediate need for 230 additional classrooms, and expanded facilities will be required as the population increases.

Some 170 new classrooms will be constructed under the proposed AID loan, and the remaining classrooms now required will be financed under the IDA-sponsored project in the northern sector of the Valley.

4. Commercial Facilities

The majority of the existing Valley communities which have been designated permanent settlements are adjacent to the main north-south road, and commercial establishments have for the most part developed linearly along the highway. As areas available for parking are limited, traffic congestion is common, and the flow of through traffic is impeded. To remedy this situation, site plans developed for each community designate specific areas for commercial centers and subcenters. Major commercial areas will be located away from the highway, and adequate parking for vehicles will be provided. Subcenters will serve neighborhoods located at some distance from the main centers, and parking areas will not be required. To induce merchants to relocate to designated areas, a limited number of commercial facilities will be constructed under the proposed project.

D. Public Health Aspects

1. Domestic Water Supply

The proposed AID-financed project will include water distribution systems for twelve communities located in the central sector of the valley. The transmission line which will serve these communities is in place and extends from the source at the Wadi ^{...} wells to the southern end of the sector at Damiya, and the water is chemically treated. The Natural Resources Authority is developing groundwater resources in the other two villages, and the AID project will include storage and treatment facilities in these communities, in addition to the required distribution networks.

Inhabitants of these villages presently obtain water from several untreated sources, including the East Ghor Canal, and the incidence of water-borne intestinal disorders is high. Provision of potable water should, therefore, dramatically improve the general health of valley residents.

2. Health Services

Health clinics presently serving the Valley population are limited

in number, and many of the structures are in poor condition.

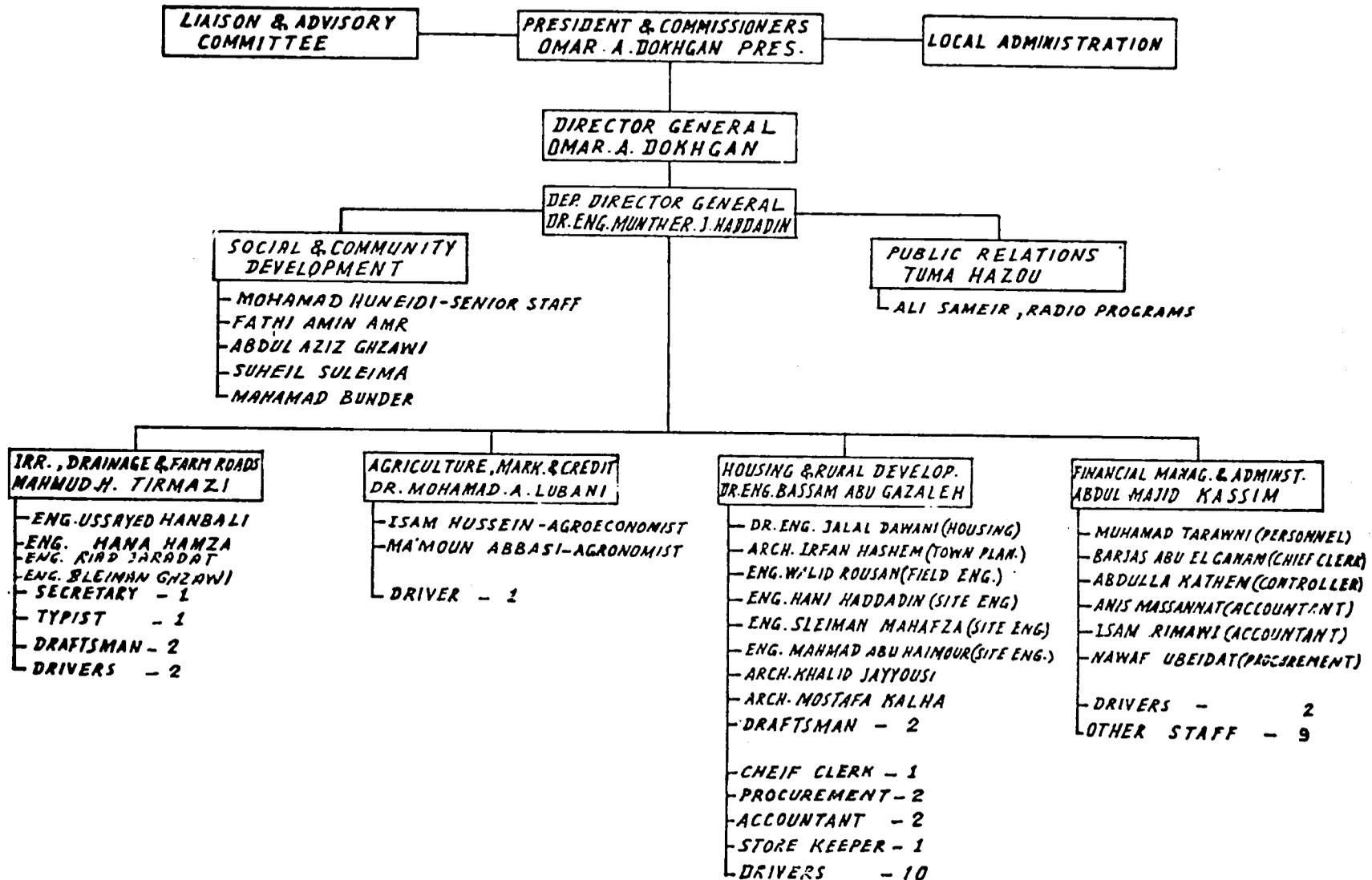
The public health development program outlined by the Ministry of Health ultimately provides for 5 type A health centers, 8 type B centers, and 24 type C centers. Type A centers will provide extensive health services, including hospitalization for emergency cases. Type B centers will provide clinic, maternity, and child care services, Type C centers will provide first aid treatment. The first phase of the program will include 3 Type A units, one to be financed by the IDA in the northern sector, 2 Type B units and 7 Type C units, 2 of which are included in the IDA project. All required equipment and furnishings will also be financed under these projects, and the Ministry of Health has agreed in writing to fully staff the facilities proposed.

The centers included under phase 1 will provide adequate health services for the present residents of the Valley, and as the population increases additional facilities will be constructed.

III. Summary and Conclusions

Activities to be undertaken under the AID loan will enable the general Valley populace to have access to improved housing and educational facilities and more comprehensive health and governmental services, and infrastructure development will result in a vast improvement in the physical environment. The adverse effects which cannot be avoided - the dislocation of a relatively small percentage of the population and the acquisition of a small amount of potentially arable land for community expansion - are negligible when compared to the overall benefits to be derived from the project. The net result of the proposed program will be a discernible improvement in the human environment.

**JORDAN VALLEY COMMISSION
ORGANISATION CHART**



DRAFT

Loan Authorization

Provided from: FAAct Section 532 ("Security
Supporting Assistance Funds")

(Jordan: Village Development Loan)

Pursuant to the authority vested in the Assistant Administrator, Bureau for Near East and South Asia, Agency for International Development, ("A.I.D."), by the Foreign Assistance Act of 1961, as amended, (the "Act"), and the delegations of authority issued thereunder, I hereby authorize the establishment of a loan, (the "Loan"), pursuant to Part 2, Chapter 2, Section 532, Security Supporting Assistance Funds, of said Act, to the Government of Jordan, (the "Government"), of not to exceed Eight Million, Six Hundred and Fifty Thousand United States Dollars (\$8,650,000), to assist in financing the foreign exchange and local costs of providing basic village facilities in 23 of 36 communities located in the Jordan valley in order to improve the quality of life for valley residents and for those new settlers in the valley. The Loan shall be subject to the following terms and conditions:

1. Interest Rate and Terms of Repayment

The Loan shall be repaid in United States Dollars by the Government within forty (40) years after the date of the first disbursement thereunder including a grace period of not to exceed ten (10) years from the date of the first disbursement. The interest on the unrepaid balance of the Loan shall accrue from the date of the first disbursement at the rate of two percent (2%) per annum during the grace period and at the rate of three percent (3%) per annum throughout the remaining life of the Loan.

2. Other Terms and Conditions

- (a) Unless A.I.D. otherwise agrees in writing, equipment materials and services financed under the Loan shall have their source and origin in countries included in A.I.D. Geographic Code 941, and in Jordan.
- (b) Such other terms and conditions as A.I.D. may deem advisable.

Assistant Administrator
Bureau for Near East and South Asia

DRAFT

Grant Authorization

Provided from: FAAct Section 532 ("Security Supporting Assistance Funds")

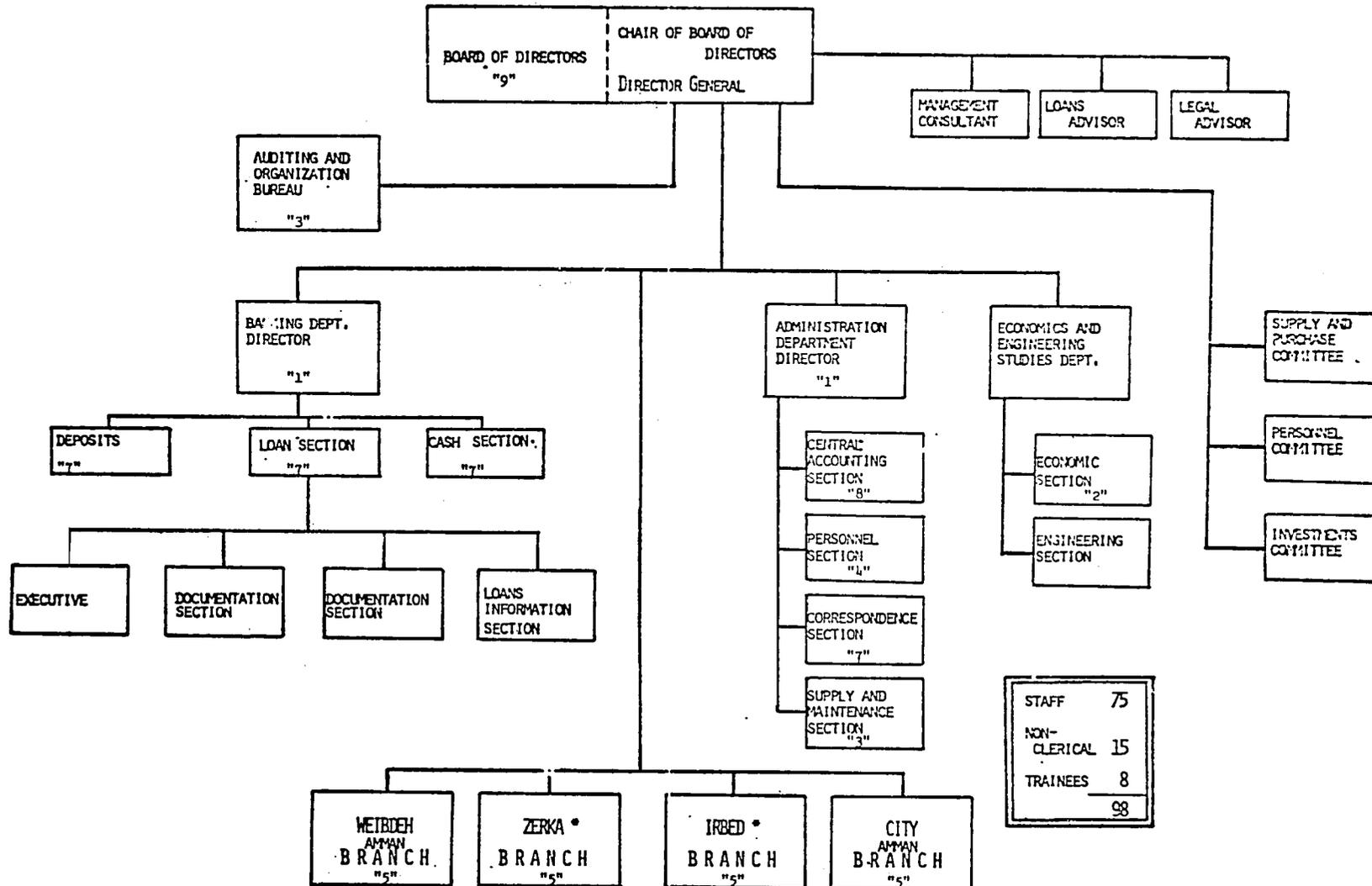
(Jordan: Village Development Grant)

Pursuant to the authority vested in the Assistant Administrator, Bureau for Near East and South Asia, Agency for International Development, ("A.I.D.") by the Foreign Assistance Act of 1961, as amended, (the "Act"), and the delegations of authority issued thereunder, I hereby authorize the establishment of a grant, (the "Grant"), pursuant to Part 2, Chapter 2, Section 532, Security Supporting Assistance Funds, of said Act, to the Government of Jordan, (the "Government"), of not to exceed Three Hundred and Thirty-five Thousand United States Dollars (\$335,000) to assist in financing the foreign exchange costs of technical advisory services required by the Government in the areas of community planning, engineering and construction management and mortgage lending. The Grant shall be subject to the following terms and conditions:

- (a) Unless A.I.D. otherwise agrees in writing, goods and services financed under the Grant shall have their source and origin in the United States of America.
- (b) The Grant shall be subject to such other terms and conditions as A.I.D. may deem advisable.

Assistant Administrator
Bureau for Near East and South Asia

JORDAN HOUSING BANK



STAFF	75
NON-CLERICAL	15
TRAINEES	8
	98

-143-

CONSOLIDATED BALANCE SHEET OF THE

JORDAN HOUSING BANK

As of March 31, 1975
(Thousands of Dinars)

	Main Branch	City Branch	Al-Wabedeh Branch	Zerka Branch	Irbid Branch	Total
Cash	12	6	2	2	4	26
Balance with Banks	6757	-	-	17	10	6784
Current Acct. with Main Branch	-	127	312	85	55	579
Housing Loans	1455	-	1	34	21	1511
Fixed Assets	59	16	7	5	3	90
Other Assets	74	3	-	24	-	101
Total of Assets/ Liabilities	8357	152	322	167	93	9091
Deposits	5575	152	319	165	93	6304
Deposits in Main Branch	562	-	-	-	-	562
Paid up Capital	2000	-	-	-	-	2000
Reserves	27	-	-	-	-	27
Other Liabilities	193	-	3	2	-	198

<u>Expenditures</u>	<u>JD</u>	<u>FILS</u>	<u>REVENUES</u>	<u>JD</u>	<u>FILS</u>
Interests paid on accounts subject to notice	4,268	423			
Interests paid on time deposits	12,372	286			
Interests paid on saving accounts	977	361			
Interests paid on housing saving accounts	92	648			
Interests paid on current accounts	32,344	160			
Interests on Branches' accounts	6,200	342			
Interests paid on foreign currency deposits	40	182			
Borrower's transactions expenses	281	155			
Interests paid on loans installments settled		578			
Interests paid on deposits against housing loans	698	017			
Expenses due for previous years	383	223			
Repair & maintenance of equipment	24	680			
Post	78	400			
Telegraph	14	010			
Banking study institute	97	643			
Advertisements	60	000			
Difference between income and expenditures	<u>26,814</u>	<u>737</u>			
	110,486	098		110,486	098

-146-

- 2 -

<u>Expenditures</u>	<u>JD</u>	<u>FILS</u>	<u>REVENUES</u>	<u>JD</u>	<u>FILS</u>
Bank contribution of provident fund	803	022			
Installments on employees' insurance	678	427			
Cost of living allowance (family)	1,856	077			
Study and training allowance	50	000	Difference in foreign currency	(1,639)	(267)
Electricity	31	314	Miscellaneous income	25	000
Water	14	700			
Binding of Books	35	050			
Stationery and prints	9,082	585			
Magazine and newspaper subscription	39	640			
Books	27	060			
Fees and subscriptions in banking institution	275	000			
Repair and maintenance of vehicles	107	400			
Telephone	95	605			
Equipments	69	780			
Janitorial expenditures	69	465			
Guests entertainment expenditures	146	405			
Miscellaneous administrative expenses	475	156			
Uniforms/janitors, drivers, etc.	53	400			

-96-

ANNEX 12

Housing Bank
 Administrative Affairs Dept.
 Central Accountancy Section

Statement of Expenditures and Revenues as of 3/31/1975

<u>Expenditures</u>	<u>JD</u>	<u>FILS</u>	<u>REVENUES</u>	<u>JD</u>	<u>FILS</u>
Compensation of members of the Board of Directors	600	000	Received interests on our deposits at local banks	80,731	768
Salaries, allowances & compensations of the General Manager & his deputy	750	000	Interests received on loan payments	17,783	772
Salaries and compensations of employees	7,364	213	Interests on housing loans	7,329	378
Salaries and compensations of daily paid employees and laborers	652	320	Interests received on Branches' accounts	64	809
Remuneration of experts and consultants	100	000	Commissions on borrowers' transactions	334	470
Compensation of unused annual leave	21	026	Commission of pre-paid loan installments	118	170
Travel and transportation expenses	353	278	Charges for transferred shares	2	500
Official travel allowances	365	500	Fines due on withdrawals of current accounts	4	204
Transportation allowance	135	000	Commissions and interests due	836	183
Rent	1,355	342	Interests on our foreign currency deposits	4,879	111
Fuel	45	825	Interests on arrear loan installments	6	000
Medical service	85	663	Commissions on merchants' loans	60	000

-147-

Jordan Balance of Payments
1970-74

The balance of payments improved by JD 15 million (U.S. 48.0 million) between 1970 and 1974, an increase of JD 12 million (U.S. \$38.4 million) was experienced in 1974 in spite of a fifty percent increase expenditure for imports of foodstuffs (sugar, rice and fruits and vegetables) and defense related commodity imports. Commodity exports almost tripled over the past three years (1972-1974) but were still only a third of imports in 1974. Favorable developments in the transfers account led to a JD 47 million (US \$150 million) improvement in the current account over the last five years. The capital account did not vary significantly during the same period. (See Table 1.)

Closure of the Suez Canal in 1967 and the Syrian frontiers from 1970 to 1972 blocked nearly all exports to the West, and concentrated Jordan's foreign trade on the Arab markets (72 percent of total commodity exports). Temporary closure of the Lebanese-Syrian frontier in 1973 and the October 1973 fighting in the Golan Heights also had adverse effects on export expansion. Subsequent to cessation of warfare in 1973, domestic commodity exports in 1974 increased almost threefold, from JD 19 million (\$61 million) to JD 50 (\$160 million). In 1974, food exports accounted for about 25 percent of total domestic commodity exports. Phosphate exports were growing steadily up to 1969 when closure of the Syrian frontier combined with over supply in world markets, reduced sales by one-third. By 1974 phosphate sales had recovered and contributed 49 percent to domestic commodity exports. Other industrial exports, primarily cement, comprise the balance of the domestic commodity exports.

Over a five year period (1969-1973) food imports represented 29 percent of the total trade deficit. In 1974 imports of food stuffs rose significantly accounting for 40 percent of the trade deficit.

The strong improvement in the services account (Non-Factor Sources-net) between 1970 and 1973 was initially the result of lower government spending abroad. However this was reversed drastically in 1974 and is the single category most responsible for the deficit incurred in services. Revenues from foreign travel also grew in the 1970's and at present is almost equal to the expenditures of Jordanians traveling abroad. The most important improvement in the non-trade current account was in worker's remittances which increased from JD 14.7 million (\$47 million) in 1973 to JD 24.1 million (\$77.1 million) in 1974, equivalent to almost fifty percent of commodity exports.

Foreign AID

Unrequited official transfers amounted to JD 62 million (\$198 million) in 1974, or about a fourth of East Bank GDP. A large part of the inflow

filters down into the economy through Jordan government salary payments, sustaining employment and standards of living. These foreign currency receipts finance the high level of imports. Before the 1967 war budget support came largely from the United States and England. The program was gradually being phased out with the growing strength of the Jordanian economy and stood at only JD 8 million in 1966. The outcome of the 1967 war deprived the economy of the West Bank production and the GOJ of West Bank tax revenues increasing at the same time the need for defense and refugee relief expenditures. Under the Khartoum agreement of August 1967 Saudi Arabia, Kuwait and Libya made available JD 37 million in annual budget support. The United States and England meanwhile discontinued their financial support. In 1970, Kuwait and Libya suspended their support, but the loss was almost completely offset by renewed support from the United States and some help from other Arab states. In 1972 Saudi Arabia and the United States both increased their support. Kuwait support was resumed in 1973. (See Table 2.)

The renewed Government attention to economic development combined with intensive project identification by the Government and foreign donors has led during the last three years to an increase in foreign development loans. Disbursements of development loans increased from an average level of JD 3 million in the 1967-71 period to about JD 11 million in 1973. New commitments rose from JD 16 million in 1972 to JD 30 million in 1973. Such commitments over the past three years were made by the United Kingdom (\$33.4 million), Kuwait (\$24.2 million), Federal Republic of Germany (\$34 million), World Bank (\$24.3 million) and the United States (\$25 million). Commitments from the foreign lenders have been highly concessionary. At the end of 1972 average interest on the outstanding and disbursed public foreign aid debt was 2 percent with a grace period of 9 years and maturity of 31 years. Foreign loans contracted in 1973-1974 were also highly concessionary so that the average terms on conditions will probably remain at 1972 levels. Servicing costs on the public foreign debt (excluding military loans) increased from \$7.9 to \$13.7 million. The ratio of debt service to export of goods and services (adjusted for transit goods, non-monetary gold exports and capital revenues) was 7.3 percent in 1972 and 1973. Although data for 1974 are not available, it is assumed due to the significant increase in exports, that the debt service ratio fell to between five and six percent.

Considering the long grace period on new debt and expected increases in the export of goods and services, particularly phosphate, cement and increased remittance revenue from expatriate Jordanians, the debt service ratio is expected to remain stable over the next several years. Beyond that time earnings from phosphate and other exports will probably grow at a slower rate and the debt service rate may start to rise. However, if the export potential from mining, processing of minerals, and agriculture is also successfully developed then the debt service ratio to export earnings is not expected to rise substantially over the longer term.

TABLE 1: BALANCE OF PAYMENTS
1970-1974
(millions of JD's)

	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
Export of goods f.o.b.	12	11	17	24	50
Import of goods c.i.f.	65	76	95	108	156
<u>Trade Balance</u>	<u>-53</u>	<u>-65</u>	<u>-78</u>	<u>-84</u>	<u>-106</u>
Non-factor Services (net)	-5	-3	-	3	-9
Investment income (net)	6	5	3	5	7
Workers Remittances	6	5	8	15	24
<u>Balance of Goods and Services</u>	<u>-46</u>	<u>-58</u>	<u>-67</u>	<u>-61</u>	<u>-84</u>
Transfers	40	37	68	65	87
<u>Current Account</u>	<u>-6</u>	<u>-21</u>	<u>1</u>	<u>4</u>	<u>3</u>
Private Capital (net)	-1	-1	-	-1	-1
Public Capital (net)	2	8	7	8	9
Others	3	2	1	2	1
<u>Addition to Reserves</u>	<u>-2</u>	<u>-12</u>	<u>9</u>	<u>13</u>	<u>+12</u>

Source:

Central Bank of Jordan, Monthly Statistical Bulletin, Vol. 11, No. 3, March, 1975
Table 15.

TABLE 2: PUBLIC FOREIGN AID RECEIPTS
1970-1974
(in millions of JD's)

	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
<u>Budget Support</u>	<u>33.1</u>	<u>34.9</u>	<u>44.0</u>	<u>44.7</u>	<u>52.9</u>
Saudi Arabia	14.8	15.0	22.7	14.4	} 38.7
Kuwait	11.6	-	-	8.5	
Libya	6.6	-	-	-	
Other Arab States	-	2.9	0.2	0.8	
U.S.A.	-	17.0	21.1	20.9	
<u>Budgeted Economic and Technical Assistance</u>	<u>2.4</u>	<u>0.5</u>	<u>0.4</u>	<u>0.3</u>	<u>0.3</u>
Arab League	2.1	0.3	-	0.2	N.A.
U.S.A.	0.3	0.2	0.4	0.1	0.3
<u>Other Current Transfers</u>	<u>3.6</u>	<u>0.1</u>	<u>21.6</u>	<u>16.1</u>	<u>8.8</u>
U.S.A.	-	-	14.4	9.8	N.A.
U.N. Agencies	4.5	3.6	6.8	6.6	8.8
Others	-0.9	-3.5	0.4	-0.3	N.A.
<u>Development Loans (gross)</u>	<u>3.0</u>	<u>9.4</u>	<u>10.8</u>	<u>12.7</u>	<u>8.9</u>
Saudi Arabia	0.5	0.4	-	-	-
Kuwait	0.3	0.3	0.7	1.0	1.0
U.S.A.	0.8	0.4	2.3	4.9	-
Germany (Fed. Rep. of)	0.1	0.6	5.2	2.4	4.6
U.K.	0.3	1.8	1.3	1.6	0.2
IDA	0.1	0.2	0.8	1.3	1.5
Others	0.9	5.7	0.5	-1.5	1.6
<u> Total</u>	<u>42.1</u>	<u>44.9</u>	<u>76.8</u>	<u>71.7</u>	<u>70.9</u>

Source:

Central Bank of Jordan, Monthly Statistical Bulletin, March, 1975, Vol. 11,
No. 3, Table 30.