

*5180030

ECUADOR

INTEGRATED SHELTER AND URBAN DEVELOPMENT

FY TO FY

PROJECT SUMMARY DESCRIPTION

HOUSING GUARANTY LOAN (TO INSURE US INVESTORS AGAINST DEFAULTS IN LOAN REPAYMENT) AND GRANT TO THE ECUADOREAN HOUSING BANK (BEV) WILL DEVELOP IN QUITO A MODEL INTEGRATED URBAN DEVELOPMENT PROGRAM FOR THE POOR. PROJECT WILL BE IMPLEMENTED BY BEV, THE NATIONAL HOUSING AUTHORITY, THE MUNICIPALITY OF QUITO, AND THE MARIANA DE JESUS FOUNDATION, UNDER THE MANAGEMENT OF USAID/ECUADOR AND RHO/PSA.

A COMPREHENSIVELY PLANNED RESIDENTIAL DEVELOPMENT OF THE HACIENDA SOLANDA IN QUITO WILL BE UNDERTAKEN. APPROXIMATELY 4,500 SHELTER SOLUTIONS WILL BE CONSTRUCTED FOR FAMILIES BETWEEN THE 10TH AND 45TH PERCENTILE OF QUITO'S INCOME DISTRIBUTION SCALE. UNITS WILL HAVE HABITABLE AREAS OF 20 SQUARE METERS (SM) TO 78 SM ON LOTS OF 60 SM TO 122 SM. ALL UNITS WILL HAVE INDIVIDUAL WATER AND SEWER CONNECTIONS AND SANITARY FIXTURES, BUT WILL REQUIRE COMPLETION/EXPANSION BY HOMEOWNERS. COMMUNITY FACILITIES, EG, SCHOOLS, A HEALTH CARE CENTER, PUBLIC AND PRIVATE COMMERCIAL OUTLETS, A COMMUNITY CENTER, AND OFFICES FOR COOPERATIVE ORGANIZATIONS, WILL ALSO BE CONSTRUCTED, AS WILL NECESSARY ON AND OFF-SITE INFRASTRUCTURE, SUCH AS WATER SUPPLY, SEWERS, ACCESS ROUTES, AND ELECTRICITY.

TECHNICAL ASSISTANCE WILL BE PROVIDED TO DEVELOP IN SOLANDA A MODEL COMPREHENSIVE COMMUNITY DEVELOPMENT PLAN, INCLUDING NEIGHBORHOOD ORGANIZATION, SOCIAL AND CONSTRUCTION ASSISTANCE, AND THE SUPPORT/CREATION OF SMALL BUSINESSES AND COMMUNITY-OWNED ENTERPRISES. EMPHASIS WILL BE PLACED ON USE OF APPROPRIATE FACILITIES, INCOME DISTRIBUTION, SELF-HELP HOUSING, CONSTRUCTION, AND HOME IMPROVEMENT. TECHNICAL ASSISTANCE WILL ALSO BE PROVIDED TO DEVELOP NATIONAL-LEVEL URBAN DEVELOPMENT AND LOW-COST SHELTER DESIGN STANDARDS, BASED IN PART ON RESULTS OF AN EVALUATION OF THE SOLANDA PROJECT, WITH EMPHASIS ON THE PROVISION OF COMMUNITY FACILITIES, ENVIRONMENTAL PROTECTION GUIDELINES, AND FINANCE POLICIES FLEXIBLE ENOUGH FOR APPLICATION TO LOW-INCOME FAMILIES. THE NEED FOR SHELTER RESOURCES OTHER THAN THOSE OF GOE WILL BE STRESSED. GUIDELINES FOR USER CHARGES FOR PUBLIC INFRASTRUCTURE AND OTHER LOCAL GOVERNMENT POLICIES AFFECTING SHELTER PLANNING WILL ALSO BE DEVELOPED.

DESCRIPTORS

COMMUNITY DEVEL MUNICIPAL DEVEL LOW INCOME HOUS URBAN PLAN POL URBAN PLANNING URBAN HOUSING

SUB-PROJECT NUMBER: 00

BATCH NUMBER: 50

5180030-2
FD-AAF-475-61

FEB 28 1980

175 p

ACTION MEMORANDUM FOR THE ACTING ASSISTANT ADMINISTRATOR (LAC)

FROM: LAC/DR, Marshall D. Brown 83

SUBJECT: Housing Guaranty and Grant for Integrated Shelter and Urban Development - Ecuador

Your approval is required for a Housing Guaranty in the amount of \$20,000,000 and for a grant of \$430,000 from the Technical Assistance, Energy, Research, Reconstruction, and Selected Development Problems appropriation for an Integrated Shelter and Urban Development project.

Discussion: The project is designed to be a model that can contribute to establishing an integrated urban development system to serve Ecuador's urban poor. The project will provide resources to support: (a) comprehensive planned residential development of the Hacienda Solanda site in Quito, including the construction of 4,500 shelter solutions, related community facilities (schools, health centers, day-care centers), and infrastructure (water, sewerage, access routes, electricity); (b) technical assistance directed at the development of national urban shelter policy, standards, and techniques; (c) technical assistance directed at social development and community development within the Solanda residential community; and (d) development of a model planning process which can assure coordination of public and private institutions in the execution of integrated urban development projects. The beneficiaries will be 4,500 low income families residing in the overcrowded center of Quito. The Borrower for the HG loan will be the Ecuadorean Housing Bank (BEV); the principal implementing institutions will be BEV, the National Housing Authority (JNV), the Municipality of Quito, and the Mariana de Jesus Foundation, a private non-profit organization serving as the developer for the project. The total cost of the project is \$64.69 million. A.I.D. will contribute \$630,000 in grant funds (\$430,000 in LAC grant funds and \$200,000 from DS/H) and a \$20.0 million guaranty. The balance of \$44.06 million will be financed as follows: BEV/JNV, \$7.9 million for construction of shelter units and urbanization; Municipality of Quito, \$11.5 million for offsite water and sewerage; Mariana de Jesus Foundation, \$22.83 million for the project site, social services, employment generation activity, and community facilities; and project beneficiaries, \$2.18 million in shelter downpayments.

As a result of the DAEC review, the following revisions have been made in the PP: (1) inclusion of the development of a project evaluation plan within the tasks of the long term technical advisor for national housing policy, and (2) clarification in the description of the process by which community participation is institutionalized in the administration of schools and medical dispensaries included in the project. At present, no funds are available for the \$430,000 grant. However, if all or a portion of such funds become available this year, they would be obligated for the project.

Concerns raised in the IEE have been satisfactorily addressed in the PP.

Recommendation: That you sign the attached authorizations for a \$20 million HG and a \$430,000 companion grant. Congressional Notification is required for the grant.

Attachments: TAB A - Guaranty Authorization
TAB B - Project Authorization

UNITED STATES INTERNATIONAL DEVELOPMENT COOPERATION AGENCY
AGENCY FOR INTERNATIONAL DEVELOPMENT
WASHINGTON, D C 20523

ASSISTANT
ADMINISTRATOR

GUARANTY AUTHORIZATION

PROJECT 518-HG-005

Provided From: Housing Guaranty Authority

For : The Government of Ecuador

Pursuant to the authority vested in the Acting Assistant Administrator, Latin America and the Caribbean, by the Foreign Assistance Act of 1961, as amended (FAA), and the delegations of authority issued thereunder, I hereby authorize the issuance of guaranties pursuant to Section 222 of the FAA of not to exceed twenty million dollars (\$20,000,000) in face amount, assuring against losses (of not to exceed one hundred percent (100%) of loan investment and interest with respect to loans by eligible U.S. investors (Investor) acceptable to A.I.D. made to finance shelter activities in Quito, Ecuador. The borrower shall be the Ecuadorean Housing Bank referred to herein as "borrower" or "BEV". This guaranty will assist in financing a housing project for low-income households primarily in the southern area of Quito known as the Hacienda Solanda site. Facilities and services eligible to be financed hereunder shall include:

- (a) Approximately 4,500 basic shelter solutions;
- (b) Community facilities (e.g., schools, clinics, and markets);
- (c) Necessary infrastructure (e.g., streets, sewerage, water and electricity);
- (d) A comprehensive development program to include neighborhood organization, social assistance, employment generation and construction assistance, and
- (e) A technical assistance program designed to assist the development of policies and institutions designed to address the needs of low-income shelter sector of Ecuador.

This guaranty shall be subject to the following terms and conditions:

1. **Term of Guaranty:** The loans shall extend for a period of up to thirty years (30) from the date of disbursement and may include a grace period of up to ten years on repayment of principal. The guaranty of the loans shall extend for a period beginning with the first disbursement of the loans and shall continue until such time as the Investor has been paid in full pursuant to the terms of the loans.
2. **Interest Rate:** The rate of interest payable to the Investor pursuant to the loans shall not exceed the allowable rate of interest prescribed pursuant to Section 223(f) of the FAA and shall be consistent with rates of interest generally available for similar types of loans made in the long term U.S. capital markets.
3. **Government of Ecuador Guaranty:** The Government of Ecuador shall provide for a full faith and credit guaranty to indemnify A.I.D. against all losses arising by virtue of A.I.D.'s guaranty to the Investor or from non-payment of the guaranty fee.
4. **Fee:** The fee of the United States shall be payable in dollars and shall be one-half percent (1/2%) per annum of the outstanding guaranteed amount of the loans plus a fixed amount equal to one percent (1%) of the amount of the loans authorized or any part thereof, to be paid as A.I.D. may determine upon disbursement of the loans.
5. **Other Terms and Conditions:** The guaranty shall be subject to such other terms and conditions as A.I.D. may deem necessary.

The project shall be governed by the following covenants:

1. **Cost Recovery:** The BEV will set a policy regarding loan terms which, while set to reflect the limited financial capacity of the project beneficiaries, will not contribute to a decapitalization of the institution.
2. **The Municipality:** The Municipality of Quito will make a commitment (e.g., budget allocation, signing of loans) to supply the Solanda Project with water and to schedule channeling of the Rio Grande for storm and waste water in those sections of the River adjacent to the Solanda site in accordance with the Project Delivery Plan.
3. **Community Services and Facilities:** The BEV or other implementing agencies will obtain formal commitments from the appropriate authorities to equip and staff the community facilities and to extend public transportation and other municipal services to the community in accordance with its development schedule. Further, there shall be formal agreements among the various implementing agencies defining areas of responsibility for delivery of Project components (e.g., off-site infrastructure, project design, community facilities).
4. **Beneficiaries:** The BEV will select beneficiaries with family incomes ranging between the bottom 10th and 45th percentiles of the metropolitan area's income distribution, with the shelter solutions to be designed to be affordable by a broad-range of beneficiaries within the above mentioned percentiles.

5. **Evaluation:** The BEV shall prepare a mutually agreeable evaluation plan for the Project based upon DS/H's Published Guidelines for Evaluation and Monitoring dated 1978, as amended.
6. **Other Terms and Conditions:** The Project shall be subject to such other terms and conditions as A.I.D. may deem necessary.

Edward Coy

Edward Coy
Acting Assistant Administrator
Bureau for Latin America and the Caribbean

Feb 29, 1980

Date

Clearances:

GC/LA:JKessler _____ Date _____
LAC/DR:MBrown *97* Date *2/28/80*
LAC/SA:RWeber _____ Date _____
DS/H:DMcVoy _____ Date _____
GC/H:MGKitay *7200* Date *2/21/80*
DS/H:MSorock *MS* Date *2/21/80*
FM/LD:ASmith _____ Date *2/21/80*

GC/H:RCOSER:prj:02/05/80

PROJECT AUTHORIZATION

Name of Country: Ecuador
Name of Project: Integrated Shelter and Urban Development
Number of Project: 518-0030

1. Pursuant to Section 106 of the Foreign Assistance Act of 1961, as amended, I hereby authorize the Integrated Shelter and Urban Development grant for Ecuador involving planned obligations of not to exceed \$430,000 in grant funds over a three-year period from date of authorization, subject to the availability of funds in accordance with the A.I.D. OYB/allotment process, to help in financing foreign exchange and local currency costs for the project.

2. The project consists of providing technical assistance and training to personnel of the Banco Ecuatoriano de la Vivienda (BEV) and the Junta Nacional de la Vivienda (JNV) in order for the BEV and the JNV to help implement the Integrated Shelter and Urban Development HG project.

3. The Project Agreements, which may be negotiated and executed by the officer to whom such authority is delegated in accordance with A.I.D. regulations and Delegations of Authority, shall be subject to the following essential terms and covenants and major conditions, together with such other terms and conditions as A.I.D. may deem appropriate:

Source and Origin of Goods and Services

Goods and services, except for ocean shipping, financed by A.I.D. under the grant project shall have their source and origin in the United States or in Ecuador, except as A.I.D. may otherwise agree in writing. Ocean shipping financed by A.I.D. under the grant project shall, except as A.I.D. may otherwise agree in writing, be financed only on flag vessels of the United States.

Acting Assistant Administrator
Bureau for Latin America
and the Caribbean

Feb 29 1980

Date

Clearances:

GC/LAC:JLKessler date _____
LAC/SA:RWeber date _____
LAC/DR:NParker date _____
LAC/DR:ILevy date _____
LAC/DR:MBrown date _____

Drafted:GC/LAC:GMW/ltter:ckg:2/14/80:ext:29182

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SUMMARY AND RECOMMENDATION

A. INTRODUCTION

After nine years of dictatorial rule, Ecuador recently elected a civilian government. The GOE administration which assumed office on August 10, 1979, has committed itself to begin major structural and social reforms that can more effectively deal with Ecuador's widespread poverty, and other serious development problems.

Throughout Latin America, Ecuador has become a symbol of the return to democracy and the potential of democratic governments to deal with fundamental development problems. For U.S. human rights policy, Ecuador is to South America what the Dominican Republic is to the Caribbean and Costa Rica is to Central America. What happens in these countries, particularly regarding their capacity to deal with widespread poverty, may well shape the evolution of democratic governments in the LAC region in the 1980s.

Within Ecuador the new Roldós government has been greeted with widespread enthusiasm. The President and Vice President emerged from the election with 70% of the vote and the largest electoral majority ever given to any candidate in Ecuadorean history. There is a great deal of euphoria about a new beginning. President Roldós (39 years old) and Vice President Hurtado (40 years old) represent the emergence throughout Ecuadorean society of a new group of young, democratically oriented technocrats who are strongly committed to overcoming Ecuador's historic development problems. As President Roldós has expressed, he fully hopes that a new page in Ecuadorean history will begin in January 1980 with the initiation of the GOE's new development program.

Yet Ecuadorean democracy is still very fragile. After nine years of dictatorial rule, the country is currently passing through a difficult readjustment period. Expectations, particularly among the poor, are high. The GOE must confront these expectations at a time of significant budget deficits, declining oil exports, stagnating agricultural production, and rising inflationary pressures. Serious institutional, technological, and human resource constraints must be overcome to significantly expand the delivery of resources and services to the poor.

Should these limitations frustrate the proposed reforms, major questions could be raised in Ecuador about the ability of democratic regimes to undertake fundamental development programs. For these reasons, the United States has a strong interest in cooperating with the new Roldós Government as it translates its socioeconomic policies into programs that benefit the poor.

The Project proposed herein will help the GOE address the problem of the urban poor in Quito. It will begin a series of AID activities designed to support model integrated urban development projects and new delivery systems that can better deal with Ecuador's growing urban poverty problem. A similar World Bank loan will help the GOE confront the problems of the urban poor in Guayaquil.

B. CONCEPTUAL FRAMEWORK

The Project proposed in this paper is the first in a series of integrated urban development projects that USAID and RHO/PSA may use to help the GOE utilize HG and other resources. The southern area of Quito will be the site of the first Project. The Project is designed as a demonstration model for other similar projects and will contribute to the emergence of a new GOE system for implementing urban development projects which combine low-cost housing, physical and social infrastructure, employment/training activities, and community organization.

Using the experience in Quito, an FY-1981 project directed to the secondary cities will be designed to follow. That project will be developed and channeled through the GOE's new integrated urban development mechanism. A third project in Guayaquil may be developed in later years to consolidate the entire system.

All of the Ecuador HG efforts will be tied together by one central objective: the establishment and operation of a new GOE system for planning, coordinating, financing, and implementing comprehensive programs that serve the needs of the Ecuadorean urban poor. Within the period 1980-85, it is expected that this GOE system will be made operational and a number of model projects will be completed. By 1985, this system should include a GOE policy framework, institutional capacity, new technological and methodological approaches, and appropriate staff to substantially increase the volume of resources directed to the urban poor.

The objective envisioned above demands a gradual approach at both the national and local levels. During 1980, it is expected that the GOE will be establishing its new integrated urban development system, with AID providing technical assistance through the activities proposed in this PP. AID-financed technical advisors will assist the GOE

to refine and implement its national low-cost housing policy, to identify appropriate policy and institutional changes, and to examine alternative construction standards and user charges for utilities. All of these activities will support the emergence, within the GOE, of a more effective policy and institutional framework for dealing with the housing and other problems of the urban poor.

At the same time that AID is supporting a dynamic policy and institution-building process within the GOE, a model action program (the Solanda Integrated Shelter and Urban Development Project) will be implemented. The Project is designed to provide a realistic example of the type of policy, and the institutional, technical, and human resource problems that must be addressed by urban development projects. The experience gained in this project, particularly by national level institutions such as the GOE's National Housing Board (JNV) and Ecuadorean Housing Bank (BEV), will be fed into the policy formulation and institution-building process so that the resulting GOE approach is based not only on abstract planning concepts but also on real experience. Thus, implementation of the Solanda Project and the AID-provided technical assistance program are integral parts of this policy formulation and institution-building process.

With carefully planned, directed, and managed AID resources, USAID and RHO/PSA believe that the 1980s can be as creative and as significant a period in GOE/AID programming as were the 1960s when AID successfully served as the catalyst for the establishment and operation of the BEV and the Ecuadorean savings and loan system.

C. PROJECT DESCRIPTION

The Project will finance approximately 4,500 low-cost housing units, complementary physical and social infrastructure, an employment/training program to increase the productivity and income of the urban poor target group, and community organization. A private Ecuadorean voluntary agency (the Mariana de Jesús Foundation) will be one of the principal implementing agencies. Approximately 70% of the proposed housing units will be targeted at those families at or below the 26th percentile on the income distribution scale. Within the total Project, AID will provide 80% financing for the housing solutions and grant-funded technical assistance for policy and institutional studies and project implementation.

The Project embodies, and will support, a number of significant concepts which, until now, have never been fully accepted by the GOE:

1. Recognition that lower-income groups need to be provided with shelter solutions that they can afford (up to 25% of their monthly incomes) without a government subsidy for housing construction and infrastructure costs;
2. A commitment to minimum infrastructure standards, and progressive housing solutions which can be improved or expanded through self-help construction;
3. The use of an integrated approach to deal with the multiple problems of the poor considering low-cost housing, physical and social infrastructure, employment training, and community organizations;
4. Acceptance of the financing of social interest projects at terms dictated by the marketplace;
5. Recognition of the need for integration of urban development via national planning, and a commitment to put such a process to work;
6. A new commitment to address the problems of the urban poor.

Taken together, all of these measures reflect a significant change in GOE policy and merit support by the international development agencies.

D. IMPLEMENTING AGENCIES AND SUMMARY FINANCIAL PLAN

The total cost of the project is \$64.69 million distributed as follows:

1. JNV/BEV: \$7.9 million, representing 26% of the cost of housing units and urbanization.
2. Municipality of Quito: \$11.15 million for the off-site water and sewerage systems.
3. Mariana de Jesús Foundation: \$22.83 million for the Project site and for the provision of social services, employment generation activities, and community facilities.
4. Beneficiaries: \$2.18 million, representing a 5% downpayment on the units.

5. A : \$20 million HG loan to the JNV/BEV to finance low-cost housing units, and up to \$630,000 grant funds for technical assistance and training. The BEV will be the Borrower of the HG, and the GOE will guarantee loan repayment to the lender.

E. ISSUES

During project development, three issues have been identified by USAID/Ecuador, RHO/PSA, and AID/W advisors. These issues are as follows.

1. Project Replicability

Concern about project replicability has been provoked by (a) the level of nonrecoverable investments by the developer of the Project (Mariana de Jesús Foundation) and the financial contributions of other Project participants; (b) the quality of the shelter solutions proposed; and (c) the types and standards of the Project's infrastructure and facilities. These three concerns will be examined separately.

a. Financial Contributions and Investments: Replicability of the Solanda Project is ultimately tied to the creation of a process of urban development and provision of low-cost shelter which is a major component of the national development program. The process will be based on clearly stated policy concepts, and specific plans for the implementation of such policies so as to allow for identification of priority areas and allocation of the appropriate resources.

The Solanda project will initiate an institution-building effort that will assure that the GOE examines the roles of the private and public sectors in the provision of low-cost shelter solutions. This examination will consider the impact of land and the provision of community facilities as vital components of urban shelter programs. The examination will result in determination of the most effective combination of private and public sector contributions so that higher levels of low-cost shelter production are assured.

The Solanda project will not cause the participating institutions any financial hardship. Rather it will provide an example of how the benefits derived from profitable land development and favorable tax treatment may be reinvested in the production of socially necessary housing and community facilities.

Both the BEV and the Mariana de Jesús Foundation will emerge from project completion with the financial strength and the project implementation experience that will greatly facilitate the production of comparably beneficial projects throughout the nation using Ecuadorean resources.

b. Shelter Solutions: The shelter solutions originally designed by the Foundation, under heavy pressure from the former President of BEV/JNV, were to consist of completed three-bedroom houses on lots of over 100 square meters. The estimated cost for such units was \$6,000 to \$7,000. The site design included a four-lane road around the project. Since the change in administration at the BEV/JNV, and with the active participation of AID, the original housing design and the site layout have been drastically changed.

USAID/E and RHO/PSA made clear to BEV/JNV and the Foundation that in view of the need to reach families of below-median income, shelter solutions such as sites and services, roof and floor (piso-techo), and core units must be provided. Considerable debate took place between the Ecuadorean institutions and AID. The sites and services alternative was evaluated from the economic, technical, and social perspectives. The Technical Analysis Section of the PP reviews the ultimate decision not to include sites and services solutions. In brief, this solution was not considered feasible due to the high cost of urbanized lots (requiring a sanitary core), and the burden of rent payments continuing while a habitable unit was being completed (all of the potential residents of Solanda are renters, unlike the squatters in Guayaquil and other locales).

The Technical Analysis indicates that the final solutions are to be core units, capable of expansion by the beneficiaries. The lot size for the bulk of the units is 60 m². This itself is a considerable innovation in the Ecuadorean context, and the solutions are affordable by families as low as the 10th percentile of the urban family income distribution.

c. Infrastructure and Facilities: The final site design reduces to minimum standards the construction of streets and other infrastructure. As designed, the streets contemplated are made of cobblestone, sidewalks are both paved and unpaved, and provision for parking is minimal. In addition, there are other cost savings for infrastructure now under discussion with the Municipality. These include using cement water pipes instead of steel pipes, wooden electric poles instead of precast concrete poles, and less rigid standards for large sewage pipes.

The community facilities designed for the Project have been substantially reduced since AID started negotiations with the GOE institutions. From a \$20 million program for community facilities, the total cost contemplated is now approximately \$8 million.

A careful analysis has been made of the nature of the facilities projected in Solanda. This analysis has included a review of the standards demanded by local authorities and of the composition of the

expected population, both at the site and in surrounding neighborhoods. An analysis was also made of the facilities available in the area, so as to eliminate duplication. In brief, the facilities contemplated are the minimum needed to adequately serve not only the population of Solanda but, to the extent necessary, the population of the adjacent areas.

The Solanda Project represents a significant step in helping the BEV/JNV design integrated urban development projects to serve low-income families. It also reflects a significant softening of the Quito Municipality's dogmatic approach to high standards of construction. USAID and RHO/PSA will continue their efforts in seeking other feasible reductions in project design that can result in lower-cost solutions.

2. HG Interest Rate

During the development of this PP, the high interest rates in U.S. capital markets have raised continuing concern among a number of GOE officials about utilizing HG resources. As indicated in the PP, the GOE has done very little foreign borrowing in the housing sector. There is still a feeling among some GOE officials that concessionary resources are necessary to fund a project like the one proposed herein. We also understand that during the recent trip to Ecuador of World Bank President McNamara, the GOE expressed some concern about the 7.95% interest rate and 15-year repayment terms that will be applied to the World Bank Integrated Urban Development Loan for Guayaquil.

The JNV/BEV does recognize that the 30-year repayment period and 10-year grace period on the AID Housing Guaranty Loan are extremely favorable terms, and they have requested the HG loan. (See JNV letter, Annex II-A.) Though there continues to be some concern about the burden on the BEV/JNV of the 11% to 12% interest rate, USAID believes that many of these concerns exist because the new GOE has not yet exhausted its analysis of various funding alternatives which exist internationally. Once the GOE fully understands the relative advantages of the HG terms, interest rates should no longer be an issue.

3. The Future Role of CONADE

The Project proposed in this PP anticipates that during 1980 an Urban Development Secretariat will be established within the GOE's new Consejo Nacional de Desarrollo (CONADE). CONADE was established in the 1978 Ecuadorean Constitution and its implementing legislation is now being rigorously debated in the Ecuadorean Congress. As proposed,

CONADE will have substantial influence over GOE budget allocations and will have direct planning and coordinating responsibility for GOE integrated development programs directed to the poor in both urban and rural areas. The GOE's Vice President will direct CONADE. The older National Planning Board (JUNAPLA) will be merged into CONADE once the new legislation has been approved. USAID believes that a stronger national planning and coordinating agency will emerge with CONADE.

CONADE's Urban Development Secretariat will be responsible for administering an Integrated Urban Development Fund. Through this fund, it will plan and coordinate the implementation of the type of integrated urban development projects proposed in this PP. Specific project activities will be implemented through regular GOE or other agencies (e.g., JNV/BEV for housing, municipalities for infrastructure), with CONADE providing overall coordination. In a sense, the Urban Development Secretariat will do much of the work that AID and the World Bank have done in planning integrated urban development projects because of the lack of an overall GOE planning and coordinating agency in this sector.

The future of CONADE is now uncertain. Its implementing legislation has been stalled in the Ecuadorean Congress for over three months, and it is not clear when it will emerge and in what form. This legislation is one of the centerpieces of the new Roldós administration's program, and it has become involved in the increasing conflict between the Ecuadorean legislative and executive branches of government. While USAID believes that CONADE will emerge in an acceptable form, there is a possibility that this may not occur or that its new legislation will be so diluted as to make CONADE ineffective.

Should CONADE not emerge in an acceptable form, the strategy proposed in this PP would aim to establish the planning/coordinating function for the new integrated urban development system within the JNV. In USAID's view, the CONADE system would be superior because of CONADE's greater ability to coordinate all GOE and autonomous agencies. However, the JNV, while less desirable, would be a feasible alternative to CONADE.

F. PROJECT COMMITTEE

The Project was prepared with the assistance of the following persons:

USAID/E:

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Lcdo. Rafael Cordero, Director of Social Services

Department

Arq. Ernesto Guevara, Director of Technical Department

Arq. Adolfo Olmedo, Head Architect of Solanda Project

Municipality of Quito:

Arq. Guillermo Pérez, Director of Planning

Arq. Alberto Viteri, Deputy Director for Planning

The Project was reviewed by the following Project Committee:

John A. Sanbrailo, AID Representative
Angel M. Diaz, Deputy Representative and Head of
Program Office
Patricio Maldonado, Program Officer

G. RECOMMENDATION

The Project Committee has judged the Project to be technically, socially, economically, financially, and institutionally feasible and sound, and it recommends that the Project be approved in the form proposed herein.

II

PROBLEM AND PROPOSED STRATEGY

A. THE URBAN POVERTY AND HOUSING PROBLEM IN ECUADOR

One of the most significant trends occurring in Ecuador over the past 30 years has been rapid rural to urban migration. In 1950 some 28.5% of the total population lived in urban areas (defined as all provincial and county capitals, a total of 115 cities and towns); by 1978 this percentage had risen to an estimated 42.8%. Considering that Ecuador's total population has been growing at about 3.4% a year, over the past 28 years the urban population has more than tripled, with an annual growth rate of 4.9%, or some 2.5 million persons.

While a majority of this migration has been from rural areas to small urban centers, a fairly large share has gone directly to the larger cities. Considerable migration has also taken place from smaller to larger urban centers. The World Bank estimates, for example, that 43% of Quito's population was born elsewhere. Almost half this number has migrated from rural areas while the other half has migrated from other urban centers. Both the World Bank and a recent Gallup survey confirm that the majority of the migrants are unskilled persons who come to the cities to fulfill economic aspirations. Another significant group are those who come to study at various levels and then remain.

The cities have been hard pressed to cope with this influx. The urban housing deficit is estimated at some 234,000 units, affecting some 45% of the urban population. The housing situation varies according to city. In Quito, and in most other Sierra cities and towns, migrants and other urban poor typically crowd into the older housing stock in the center of town. Typically each family rents one or two rooms, and shares washing and toilet facilities with other families, often 10 to 30 others. In Quito some migrants also build adobe houses in illegal settlements on hillsides surrounding the city, where water or sewerage services are not available; the Municipality of Quito has identified 56 such settlements. Thus in Quito, which is growing considerably faster than the urban average, the high population densities in the center and in the invasion areas are causing pressures to develop the undeveloped lands in the south of the city.

In Guayaquil approximately 50% of the population resides in a large marginal area called the suburbio. Migrants generally build simple one-room cane houses over the estuary, with precarious cane walkways connecting with other houses and eventually the nearest street. Little by little the residents fill in under their houses, and the Municipality is constantly extending streets and expanding water, light, and other services. As residents are able, they typically expand and/or otherwise improve their houses. The suburbio is therefore a mix of from the most primitive to somewhat acceptable housing. Recently, as the suburbio has moved farther out, new migrants are starting to invade public and private lands surrounding Guayaquil, though no services are available. Secondary cities on the Coast generally have their own smaller versions of the suburbio. Because of the extremely rapid growth of some of these cities (e.g., Machala, Santo Domingo de los Colorados, Quevedo, Babahoyo, Milagro) and the shortage of lands to invade, the housing situation there is tight.

The difficult housing situation is reflected in the national statistics. For all urban areas, 55.0% of the total units have only one or two rooms; 34.6% have three or more persons per room; only 40.9% are owned by those residing in them.

Local governmental entities have been hard pressed to provide adequate services to fast-growing urban areas. Though precise statistics are not available, the presence of tank trucks rumbling through many poor neighborhoods of Quito, Guayaquil, and other cities, selling water to residents at prices which are difficult for them to afford, attest that a substantial percentage of the urban poor does not have access to public water. Many urban areas ration electricity among neighborhoods on a regular basis, and invaded areas usually have no service at all. Many poor neighborhoods have no access to sewerage. USAID's experience with an OPG in a poor neighborhood of Quito demonstrates the overcrowded condition of the elementary school there, the difficult access to technical or high schools (the closest about an hour's ride by bus), the lack of health facilities, the lack of any sort of day care, the problems of communications (not a single telephone line to a neighborhood of 6,000 persons), and the problems of transportation.

Probably the worst effect of the migration has been an inability to create enough productive jobs for the growing urban labor force. The influx of workers has created a mass of underemployed individuals who work outside the occupations covered by minimum wage laws or social benefits. As the CDSS indicates, some 47% of the total urban families do not earn enough to cover the GOE's basic household basket of goods and services, and some 30% of the total fall into a poverty situation where it is difficult for them to meet even the most basic needs. The most recent World Bank Economic Report, using somewhat

different definitions, indicates that 50% of the urban population falls below the relative poverty line, 40% falls below the absolute poverty line, and 20% cannot afford the recommended nutritionally sound diet even if all their income were to go for food.

Unless concerted action is taken, the situation will likely grow worse. If the urban population increases to 60% of the total by the year 2000 (as USAID projects based on current trends), there will be 9.7 million people in urban areas, compared to 3.3 million at the end of 1978. If half continue to live in Quito and Guayaquil, the two cities combined will have 4.8 million persons, 2.8 times the current number.

At these rates of increase (5% per annum) housing production would have to equal 30,000 units per year to handle the numerical increase in urban area families. In the 1976 look at long-term housing production needs, the JNV estimated that the public sector would have to produce 60% of this amount. Thus, by the year 2000 public sector production in urban areas nationwide would have to be 18,000 units annually merely to cover the increase in households, not to deal with the accumulated stock of substandard or overcrowded dwellings.

With both the workforce and the student population increasing as a percentage of the total population, the country will have to find three times more jobs and school places than it now provides. And as AID's Shelter Sector Assessment shows, housing institutions will have to triple their real investment in housing just to satisfy increasing demands (i.e., keeping the current deficit from increasing). In short, it is unlikely that the country will be able to provide enough housing, water, electricity, schools, health care, jobs and other infrastructure and services for this growing urban population unless a more organized, planned, and systematic effort is undertaken, with substantially increased financial commitments.

B. MAJOR CONSTRAINTS

There are several constraints which have prevented the country from effectively addressing the housing/urban poverty problem and which continue to impede efforts to do so. These were detailed in AID's 1976 Shelter Sector Assessment for Ecuador. There are some signs of improvement under the new government's emphasis on this sector. The proposed Project will attempt to address these constraints through both the model project and TA.

1. The GOE has not developed effective policies to deal with low-cost housing and other problems of the urban poor. Urban development projects have generally been undertaken on a

targets-of-opportunities basis without any systematic policy and program framework. The National Housing Board (JNV) and the Ecuadorean Housing Bank (BEV) have narrowly concentrated on individual housing projects without concerning themselves about provision of complementary infrastructure, social services, and employment/training programs directed at the poor. No other institution (e.g., the National Planning Board) has moved to effectively fill the critical coordination gap. Other important policy issues (e.g., interest rates to homeowners, design standards, resource allocations) have not been resolved through a long-run commitment to low-cost housing.

2. Existing housing institutions have not focused on low-income groups. A recent conference in Quito, sponsored in part by AID, showed that the savings and loan system currently concentrates on the 66th to 88th percentile strata of urban income. Projects sponsored by JNV and BEV have almost completely focused on the 50th to 80th percentile income strata. Only one small JNV/BEV project, Hacienda Mena in Quito, has been able to reach a level below median income.
3. There has been inadequate institutional capacity to deal effectively with low-cost housing and integrated urban development. In the public sector, the JNV and BEV, though in excellent financial condition, have not had the human resources to deal with urban problems on a major scale. The private sector lacks the organizational capacity to participate in a major way in effectively attacking the problem. The savings and loan system is near capacity in the subsector in which it has been operating; there are no large housing construction firms; and domestic materials supplies have been inadequate to handle massive private nationwide housing projects.
4. There has been little innovation within Ecuadorean housing institutions on approaches to dealing with low-cost housing. There has been considerable resistance (now lessening) to housing technologies such as core solutions and sites and services. There has also been an almost total lack of research on more efficient building materials, designs, and methods appropriate for Ecuador.
5. No process exists which permits absorption into project design of the dynamics of acquisition and construction by low-income families of shelter, the management of these communities, and participation by these families in the provision of services. A key element of integrated shelter

projects is community-based organizations, nonprofit organizations, and other private and public institutions that can serve to assist low-income groups to best use the public and private resources available to them. The lack of institutions (public and private) capable of providing technical assistance to low-income families to make better use of their resources has been a serious impediment in addressing the urban poverty problem.

C. GOE POLICIES AND PRIORITIES

1. Past Performance

The recently elected constitutional government, which took office August 10, 1979, is the first Ecuadorean government interested in making a serious, major, concerted commitment to addressing Ecuador's constraints in a coherent and systematic manner.

The military governments in power from 1970 to 1979 recognized the problem of the housing deficit, particularly among low-income groups. They took several steps to carry out their policy. One was to lower BEV interest rates to 4% for poor families (setting a range from 4% to 12% based on family income and loan size). Another was to allocate several million dollars a year of petroleum revenues to the BEV at zero cost. A third was to establish the JNV as a significant production institution with Cabinet rank.

The military governments, however, mixed these production-oriented measures with concepts of housing standards which, to a considerable degree, undermined their efforts to truly reach the lower-income strata of the urban population. Basically, the JNV leadership held to a standard 70 m², three-bedroom house whose price, even with low-cost loans, could not be brought down to levels appropriate for the lowest-income half of the nation's families. Thus, the two public sector housing institutions (BEV/JNV and the Social Security Institute, IESS), as well as the savings and loan system, all evolved as housing producers for the middle to upper-middle class. In addition, no institution ventured to tie complementary urban development actions, such as social infrastructure and income-increasing activities directed to the poor, to their projects.

2. GOE Urban Development Strategy

The new government has given low-cost housing and urban development high priority. In public speeches, top officials have stated that low-cost housing in major urban centers is an urgent priority, and JNV/BEV and IESS are being encouraged to move forward quickly with

specific projects. One expressed GOE objective is to start construction of 10,000 houses within the next year in Guayaquil, with a maximum price per unit of 100,000 sucres (\$4,000). This effort is now underway.

In addition to undertaking projects, the GOE is in the process of developing a new housing/urban development strategy and related policies. The GOE has already issued a document outlining 13 basic goals and 21 programming points to guide it in its development programming; the document then details actions to be taken in certain key sectors. One of the goals listed is "to better the housing conditions for less-favored groups, in both urban and rural areas." In the detailed section on housing and urban development, the document states that the government will undertake "preparation of an urban development plan; begin research on new building materials, low-cost housing construction systems, and programs of provision of services to low-income neighborhoods; provision of incentives to the industrial sector to construct low-cost housing; reorientation of the public sector financial system toward low-cost housing; provision of organizational assistance, motivational training, and other technical assistance to beneficiary groups; and strengthening of the BEV and the savings and loan system."

The GOE Planning Office (JUNAPLA) is preparing the GOE's Urban Development Plan together with the advisors of the Vice President who are expected to head the new National Development Council (CONADE). The Plan is currently in draft. Some of the elements included in the draft stipulate that:

- Integrated urban development projects shall focus on the poor. BEV should concentrate on the lowest stratum (family income totaling the equivalent of one to two times the minimum wage (S/4,000 to S/8,000 or \$160 to \$320 per month as of 1 January 1980), IESS on income of three to four times the minimum wage, and the savings and loan system and other private entities on incomes from five times the minimum wage on up.
- Income should be the factor on which solutions and home mortgages are based, with low-income families paying no more than 25% of their incomes for monthly payments.
- Employment creation should be an essential part of urban projects.
- There should be a more organized and equitable use of land (e.g., controls to prevent speculation, use of expropriation when appropriate, use of zoning, municipal planning and controls, and programs of sites and services in areas where land invasions would otherwise occur).

- A coordinated system should be established for undertaking low-cost housing (integrating planning, financing, and implementation).
- Use of local organizations and participation of beneficiaries should be encouraged and assisted.
- Local small industries, particularly for production of construction materials, should be assisted. BEV loans may be used for such support.
- Massive capital flows should be encouraged to go toward low-cost housing (through elimination of capital gains taxes for the subsector, creation of a secondary mortgage market, use of tax incentives, and rediscounts from the Central Bank).
- Subsidies should be used discriminately, based on income of the recipients and on types of solutions.
- The private sector should be involved as much as possible in the subsector.
- Appropriate technologies should be utilized, and materials costs should be kept as low as possible (through state controls on materials prices, more competition, lowering of standards, TA to the construction and materials industries, use of unfinished solutions, and use of mass production).

3. GOE Plans for Implementing Its Strategy

USAID officials have met with Ecuador's Vice President and have held a series of subsequent meetings with his principal advisors. The Vice President specifically asked that AID assist in integrated urban development as one of the major areas of action for AID cooperation in Ecuador. He was aware that AID has already begun discussing the Solanda Project, and he agreed that it would be an appropriate first project.

The Vice Presidency is proposing the creation of an integrated urban development fund to finance essential elements of specific priority projects in this sector and the establishment of an administrative coordinating unit under CONADE for the sector, and is preparing legislation to present to the Ecuadorean Congress to place in motion the various measures proposed in the draft Urban Development Plan. While these measures together, which may take a year or more to become operational, will constitute a viable mechanism for addressing the sectoral constraints identified above in B, the Vice Presidency is

eager now to initiate integrated urban development projects such as the one proposed in this PP. By providing a replicable model, the Project will help to lay the foundation for the emergence and operation of a new process that can extend integrated urban development projects throughout the country. Also, following the publication early in 1980 of the GOE's total five-year Development Plan (which will include the Urban Development Plan), the Vice Presidency through CONADE intends to determine certain priority regional growth centers for future projects once the most immediate needs of Quito and Guayaquil are met.

4. Conclusion

In short, it is obvious that housing and urban development are of greater priority in the new government than in previous ones, that the sector will be approached from an integrated perspective, that the government understands the problems and constraints of the sector and is preparing policies to address them, that the government desires to undertake tangible action projects as soon as possible, and that the government is prepared to devote resources to the sector, probably in the form of a permanent integrated urban development fund. Clearly there are substantial opportunities at this time for external agencies to assist the GOE in establishing an effective institutional mechanism to deal with the housing/urban poverty problem, both through technical assistance and by supporting its priority action projects.

D. INTERNATIONAL DONOR ACTIVITIES

1. Historical Involvement

In the past, low-cost housing and urban development projects, particularly those directed to the poor, have not been considered of high priority. As a result, few external technical assistance or financial resources have been directed to the housing/urban development sector. With the exception of an AID seed capital loan in 1961, a HG in 1969, and one IDB loan in 1961, no external resources have gone to the BEV. In fact, in the last decade no external resources have been contracted by the public sector for housing in Ecuador.

Except for its 1961 loan to the BEV, IDB's involvement in the sector has been limited to urban infrastructure. A 1977 loan of \$12.2 million to the Municipality of Quito helped the Municipal Water Company conduct prefeasibility studies on new sources of potable water and helped the Municipal Sewer Company to expand trunk sewer lines. A 1977 loan of \$17.0 million to the Municipality of Guayaquil helped its Municipal Sewer Company expand its sewer system. IDB has also financed water systems in secondary cities and has assisted small and

medium-sized industry through ICIs. In general, these credits have fulfilled certain important identified needs in specific subsectors and have filled important resource gaps. These projects have, in general, not been carried out with long-term institution-building objectives nor have they been concerned about lower-income group targeting or integrated objectives. IDB at this time has no firm plans to undertake additional urban development projects, although it is open to consider new infrastructure credits of the type it has already financed if such opportunities present themselves.

2. IBRD Urban Development Program

Except for ICI-type industry credits and a 1974 loan to the Municipality of Guayaquil for water supply expansion, the IBRD has not been involved in the urban sector. It is now, however, in the final stages of negotiation with the GOE to help the latter in its low-cost housing and urban upgrading plans for Guayaquil, through an integrated project with many of the same elements as the Project proposed herein. The IBRD credit will be for \$31 million at 7.95% interest, fifteen-year term, four-year grace, to carry out four subprojects:

- urban upgrading in two squatter areas, which will provide basic infrastructure and latrines to 3,600 families;
- provision in two other areas of 3,700 serviced sites and 500 core housing units;
- provision of 9,700 home improvement loans in the suburbio through the BEV; and
- provision of some 6,400 small business loans through a private bank.

The total cost of the project is expected to be \$51.6 million. This is the only housing project with international financing in the process of discussion with the GOE other than the Project being proposed in this PP.

Low-cost shelter construction in Guayaquil has taken on a unique character since World War II. Invasion of virtually unbuildable land, nominally owned by the state or the Municipality, and the construction of cane houses on poles have created the suburbio. This area, at first devoid of any municipal services, traditionally becomes the focus of political movements, often demagogic, that lead to the gradual provision of streets and water supply. (Sewerage is provided only well after all other services.)

In recent years the invasions have begun to spread to land held in the GOE bank for future standard shelter projects. Construction in these areas follows the pattern of the rural, coastal areas that has become common in the suburbio.

The IBRD project is designed to help the municipality increase its capacity to deal with this spontaneous growth. The focus is on development of institutional staff and processes that will lead to more consistent efforts to upgrade already invaded areas and to receive the in-migration.

The sites and services component will attempt to convert the unique dynamic of the suburbio to sites on the periphery of the metropolitan area where a basic infrastructure network will be located. Street, electricity, water, and sewer networks will be installed. There will be no individual lot connections. Plot owners will have to pay for these as income permits. The unit cost of S/55,500 (\$2,200) will include a one-room cane structure without sanitary fixtures (S/14,100, \$564) and a 90 m² lot (S/41,412, \$1,656). The land and infrastructure costs are included; however, the solution does not include the cost of any community facilities.

The core housing component will result in production of masonry-walled units of sizes varying from 30 m² to 60 m². Individual sewer connections will be used. Community standpipes will provide water until municipal systems increase pressure and services to the area. Unit costs will run to a top of S/100,000 (\$5,000). Land will be included in the purchase price at a cadastral value well below actual market valuation. Community facilities will be the responsibility of the Municipality and costs will not be recovered by the beneficiaries' payments.

The sales price of the site and services solutions for the Mapasingue subproject of the IBRD program will run lower than the \$2,200 noted above because the Mapasingue area is already more developed than the other project areas. The \$2,200 price of the other solutions, however, is very close to the price of the lowest-cost core unit (Floresta), which is estimated at S/60,000 (\$2,400). Because of the geographic dispersion of the IBRD project sites, and because many areas are already inhabited, the effect of this narrow cost differential will not be market-tested and, therefore, does not serve for comparison with the solution strategy applied for the Quito area in the proposed Project. It seems probable that, were the units offered in close proximity, far lies would select the slightly higher cost, more complete core unit.

E. AID STRATEGY

1. Background

AID has played a major role in assisting Ecuador develop its housing institutions. In 1961-62 AID technical assistance grant funds and a seed capital loan of \$5 million contributed to the formation of the BEV. The loan was directed in part at the formation of the savings and loan system, and funds were disbursed through the BEV to the newly formed savings and loan associations.

In 1968 a HG was authorized to private Ecuadorean developers to finance the construction of 359 units located in the La Chala neighborhood of Guayaquil. The project was designed to show that a properly planned private sector housing project could stabilize the housing development occurring in the suburbio. The cost per unit was approximately \$3,900, and the HG drawdown approximately \$1.4 million.

A second HG project, authorized in 1969, was instrumental in the strengthening of the savings and loan system. Again, the BEV was the borrower, passing the funds through to different savings and loan associations as subprojects were developed. From these small initial AID investments the BEV and the savings and loan system have both grown to financially healthy institutions, which together are financing about 15,000 units throughout the country each year.

In anticipation of a possible reinitiation of the AID program in Ecuador, AID, in 1976, conducted a Shelter Sector Assessment. This study compiled available data, analyzed constraints, and made recommendations. Though certain financial data are now slightly outdated, the Assessment remains valid as to its analysis of constraints and its recommendations. It has served as a basis for developing the strategy detailed in the following paragraphs and the Project proposed in this PP.

2. Proposed Strategy

Based on their analysis and their talks with the new government, USAID and RHUDO/PSA have identified the urban poverty problem as a priority sector of involvement and intend to provide major assistance to the GOE in carrying out the latter's evolving integrated urban development strategy. The strategy, however, is not merely to construct a certain number of houses or effect a certain quantity of other outputs, but rather to develop new technologies and institutional arrangements (in short, a mechanism or system) for undertaking integrated urban projects in a systematic way. AID plans, therefore, to help the GOE finance a series of integrated demonstration projects over the next five years, as well as to provide the GOE with technical

assistance and other inputs that will lead to the emergence of this new system which can address the housing, employment, and infrastructure needs of the urban poor.

The key institutional elements of the new system will be the following:

- a more effective coordinating organization that can ensure that all elements necessary for implementing projects (e.g., low-cost housing, physical and social infrastructure, employment and training activities) are provided by either public or private sector agencies,
- an integrated urban development fund to provide financial support for such projects, and
- the emergence of a series of public and private sector "developers" who can design and implement integrated urban development projects at the target group level.

3. Components of the Strategy

a. Low-cost Housing: As physical and social conditions vary widely in Ecuador, low-cost housing solutions are also expected to vary widely. In each project undertaken, however, appropriate solutions will be provided to reach the 20th to 50th percentiles of the income distribution, with special efforts made wherever possible to lower the range to the 10th percentile.

b. Physical Infrastructure: The few low-cost housing projects undertaken in Ecuador to date have lacked some or all physical services. All projects undertaken will be assured of adequate water, sewerage, electric service, streets, access routes, proper drainage, and other physical infrastructure.

c. Social Infrastructure: The provision of adequate schools, health centers, markets, day-care centers, community centers, recreation areas, and other such facilities, though required by law, has been a constant problem in growing urban areas in Ecuador. All projects undertaken will include provision of such facilities based on a process of careful planning and interinstitutional coordination.

d. Job Creation: The target group is characterized by considerable underemployment, sometimes in the head of family, but more often in the second or third family member within the labor force (usually women). Each project will provide a means to train such persons and help them obtain more stable and productive work, most likely through small industry credits and technical assistance.

e. Social Organization: There is a tradition in Ecuador, in both rural and urban communities, of community members working together for the common good (the minga). All projects undertaken will help foster this tradition, through cooperatives and other forms of organization, so as to create community unity and to accomplish certain community participation in the design and implementation of projects.

f. Institutional Coordination: The execution of housing projects for all income levels has been marked by a lack of coordination among those institutions with the responsibilities for provision of the services and facilities mentioned above. For example, the JNV previously has not effectively coordinated with the municipal governments in the communities in which it has worked, often causing severe conflicts as to standards and the timing of implementation. Public and private entities wishing to serve as developers have also had problems coordinating with the JNV, perhaps contributing to the shortage of developers. There has also been poor coordination between developers and ministries. The GOE with AID assistance will attempt to establish a mechanism where in each project there is coordination among:

- The JNV, as the GOE's main policy-making agency for housing. The JNV will be expected to assist with the design and construction of both the housing and the physical infrastructure.
- A developer. The developer will coordinate all aspects of specific projects. The developer will be expected to provide the land, help design the project with the JNV, and carry out the social infrastructure, job creation, and social organization parts of the project. The developer may either be a public institution (e.g., IESS, a municipality) or a private one (e.g., a foundation, a housing cooperative).
- The financial entity. Usually expected to be the BEV, the financial entity will provide credits to meet the needs of the target group (see subsection g. below).
- Municipal government. The municipality will assure access to the required physical infrastructure and to needed municipally supplied or regulated services (e.g., public transportation, trash collection). The municipality must also approve all housing, physical infrastructure, and social infrastructure plans. Emphasis will be placed on developing standards which assure safe, sanitary conditions without unduly increasing project costs.

- The ministries. Ministries, such as Public Health, Education, and Labor, will provide necessary assistance in the planning, construction, and running of the social infrastructure and service facilities and programs.
- The private sector. The evolving policy of the GOE is to use the private sector in whatever ways possible in the execution of projects. Project planning will therefore carefully consider the role of the private sector, defining those areas where its contribution can be effective and where incentives to its participation are expected to result in lower costs.

g. Financial Mechanisms: Project financial planning will help establish mechanisms designed to assure access to all project elements by the target population. Lending techniques such as variable payment mortgages will be considered when appropriate. Utility tariff structures will be programmed so that infrastructure costs may be equitably distributed. Mechanisms will be created (perhaps through a central GOE urban development fund) to assure funding of the social infrastructure, credits for the job creation element, and other project components. The financial contributions of each institution will be carefully defined.

h. Urban Planning Concept: Each project activity will be designed to fit into the context of the urban area of which it is a part, as far as infrastructure, services, and other aspects are concerned. In addition, and perhaps more importantly, AID will assist the GOE with technical assistance in macro-level urban planning, so that projects are well planned and are coordinated among all concerned entities in accordance with GOE policies.

The objective of the GOE and AID is not only that each AID-supported project have the above elements, but that by undertaking demonstration projects a system be established to assure that all these elements are present even in projects not assisted by AID. In effect AID will be serving as a catalyst so that five years following initiation of this first proposed project, the GOE will have the capacity to effectively plan and carry out integrated urban development and shelter projects throughout the country.

As mentioned earlier, it is expected that within the next year the GOE will take several important steps toward establishing its integrated urban development system. Until these elements are in place, AID and the World Bank will have to play larger roles than will later be the case in the planning, coordinating, and financial aspects of the projects they assist.

USAID intends to support this integrated urban concept in a variety of ways. Grant-funded technical assistance is expected to strengthen certain key institutions, to assist with institutional coordination, and to engender the concept of comprehensive urban planning within the GOE. In each AID-assisted project, a HG is expected to assist with the housing solution costs, as well as certain utility financing when appropriate. When necessary, USAID will consider loan financing for other inputs, such as a credit fund for the job creation element and support for the GOE's urban development fund. USAID will also consider OPG or other grant financing for the social organization and related project elements.

III

PROJECT DESCRIPTION

A. HOW PROJECT FITS GOE/AID STRATEGY

It is proposed that the first AID project to be carried out in support of the GOE's integrated urban development program be the Solanda Project in Quito. The PID, completed in March 1979, before the change of government, discussed the problems of the sector and identified several possible projects, indicating that a HG-supported urban development approach could be productively applied to integrated projects in Quito, Guayaquil, and/or in the fast-growing secondary cities.

Subsequent analysis and discussions with the new government led USAID away from multi-locational efforts for this first Project, as both parties felt that focus on one city would make easier the creation of a system of planning and project coordination. The advanced state of the negotiations between the GOE and the World Bank also led AID away from considering a project in Guayaquil at this time, as it was believed that anything beyond the World Bank project plus the other GOE housing activities planned for Guayaquil would overly tax the capabilities of institutions in the Guayaquil area. Principally for these reasons, the GOE and USAID decided that the first AID urban poverty effort should focus on Quito. Furthermore, it was thought that a HG project in the capital city would most likely be able to attract the attention of the principal GOE agencies involved in urban development, and thus more easily contribute to full political support for an integrated urban development system.

The demand for housing and related urban development actions is as great in Quito as anywhere else in the country. The city has a population growth rate estimated at 5.6% per annum, higher than Guayaquil, and receives some 25,000 migrants per year. A large number of its nearly 900,000 inhabitants live in substandard conditions, principally in the central parts of the city and in spontaneous developments on the city's periphery. Based on an analysis of census and planning data, it is estimated that 9,000 dwelling units would be required annually if the city's housing needs were to be met as compared with the 2,500 being produced institutionally at present.

After extensive discussions with the JNV, during which a number of alternatives were analyzed, the Solanda Project was selected as the first HG-supported integrated urban development project for several

important, interrelated reasons. First, the Project provides an opportunity to plan a large, low-income section of Quito in a way that will relieve some of the pressure from the crowded center and from the spontaneous, unserviced settlements on the city's periphery. Quito is located in a long narrow valley, with development able to occur both north and south of the city's center. Most of the available land to the north has already been developed, and high land costs in that area preclude development of the little remaining unoccupied land for low-income populations. In the south, however, substantial tracts of land remain available, and this is the focus of JNV/Municipal planning for low-income groups. Some of the land is publicly owned, and most of the rest falls under a GOE regulation requiring that sale for development be approved by the JNV. The reasons these tracts have not been developed to date include the fact that access to essential infrastructure, particularly to water, has not been available in that part of the city, and the absence of coordination among all the parties with responsibilities to provide physical infrastructure, social infrastructure, essential services, approval for plans, and other related elements.

Solanda sits squarely in the center of the southern part of the city and will set an example for the development of the entire southern part. By assuring the initiation of work to provide this area with access to water and sewerage, and by setting up an effective institutional mechanism which the JNV expects can easily be replicated in adjoining areas, the Solanda Project should be the spur to rapid development of a large area for the benefit of the poor that can ultimately relieve the serious housing situation in the city.

A second reason for selecting Solanda is the existence of a commitment to development of that area of southern Quito for low-income groups. The developer of the Project, the Mariana de Jesús Foundation, has been working on project design and the financing over the past seven years. About three years ago, the Foundation signed an agreement with the JNV, committing both institutions to developing the tract to benefit low-income groups. Though certain problems stood in the way of implementation, these elements began to fall into place as the AID project development process got underway. AID, in effect, has served as a catalyst in bringing into being one of the most innovative integrated urban development projects to be developed in Ecuador. Thus, the Project can contribute to the GOE's objective of getting action projects underway as soon as possible, while providing the basis for development of the broad-scale integrated urban development system described above.

A third reason for selection of the Solanda Project is that its developer has the resources to carry out those elements of the Project which are its responsibility. Once the GOE's integrated urban development fund is created, it may well be possible for other developers

with more modest resources to undertake similar projects. For the time being, it is necessary to have a developer with a certain minimum of resources to finance the social infrastructure, job creation, and social organization elements of an integrated project.

A fourth reason for selecting Solanda is that the Project was largely developed and will be implemented by a local PVO (the Fundación Mariana de Jesús). This effort can forge an important working relationship between the Ecuadorean public and private sectors in dealing with the problems of the urban poor. Though the developers of future projects are expected to include other types of institutions, both public and private, current AID policy encourages support for and use of private nonprofit organizations in AID development programs.

The final, and perhaps the most important, reason for selecting Solanda is that it has all the elements of the GCE's proposed integrated urban development approach, so it is expected to serve as an ideal demonstration project. Because it has the participation of the full range of institutions, it will be possible to develop, formalize, and test a model of planning and coordinated implementation which can later be adopted for use throughout the country.

B. PROJECT GOAL AND PURPOSE

The proposed Project will be undertaken in support of USAID's sector goal of improving the income and well-being of the urban poor. The Project launches the first integrated shelter and urban development activity under the GCE's new urban strategy. A \$20 million HG loan and over \$40 million in counterpart contributions will support construction of a demonstration project combining infrastructure, social services, and income generation activities. A \$630,000 technical assistance program will support the establishment of the integrated urban development system by assisting in the formulation of national housing policies, urban planning, shelter and infrastructure financing, community-controlled enterprises and job creation activities, and target group participation in shelter and community services. The Project purpose, therefore, is to implement a model project that can contribute to establishing an integrated urban development system to serve Ecuador's urban poor.

C. PROJECT OUTPUTS

The outputs of the proposed Project will be as follows:

1. A planning process that can serve as a model for application in urban areas of the country and that will assure the

coordination of public and private sector institutions in the production of integrated shelter and urban development projects.

2. A comprehensively planned residential development of the Hacienda Solanda site in Quito, directed at families with incomes ranging between the 10th and 45th percentiles of the income distribution for the nation's capital. This Project will include:
 - a. Construction of approximately 4,500 shelter solutions, all of which will be units requiring completion or expansion by the homeowner. The units will have habitable areas ranging between 20 m² and 78 m² on lots of 60 m² to 122 m², with all units having individual water and sewer connections and sanitary fixtures (see Table 1).
 - b. Construction of the related community facilities, including schools, a health care center, day-care centers, public service outlets (e.g., police, post office, municipality), commercial outlets, a cultural and community center, and offices for cooperative organizations.
 - c. The necessary on-site and off-site infrastructure, including water supply, storm and sanitary sewers, access routes, and electricity.
 - d. A comprehensive community development program, to include neighborhood organization, social assistance, construction assistance, and the support or creation of small businesses and community-owned enterprises.
3. A technical assistance program which will result in, at the national level:
 - a. A set of urban development and low-cost shelter design standards with emphasis on the provision of community facilities, and environmental protection guidelines.
 - b. Shelter finance policies to reflect the need for flexibility when dealing with low-income families (financing of partial solutions, graduated-payment financing), and the need to maintain a healthy base of resources in addition to GOE funding available for investment in shelter programs.
 - c. A set of guidelines dealing with the setting of user charges for public infrastructure and other policies of

TABLE 1
DISTRIBUTION OF SOLUTIONS

<u>Type of Solution</u>	<u>Number of Solutions</u>	<u>%</u>	<u>Sales Price</u>	<u>5% Down Payment</u>	<u>Loan 25 Years</u>	<u>Monthly (1) Payment</u>	<u>Family Income(2)</u>	<u>Income Percentile</u>
A3	445	10	90,996	4,550	86,446	816	3,264	10th
A4	2,004	45	107,698	5,385	102,313	966	3,864	14th
A5	223	5	122,557	6,128	116,429	1,099	4,396	26th
B4	445	10	120,395	6,020	114,375	1,080	4,320	24th
B5	935	21	135,254	6,763	128,491	1,213	4,852	36th
D	<u>400</u>	<u>9</u>	160,650	8,033	152,617	1,441	5,764	44th
TOTAL	4,452	100						

(1) Interest rate 10-1/2%

(2) Based on monthly payment = 25% of income

local government affecting shelter project planning and design.

4. A technical assistance program which will result in, at the Project level:
 - a. The application of a comprehensive planning process between the public and private sector institutions working on the implementation of the Hacienda Solanda Project.
 - b. The formulation and application of an evaluation system for the Solanda Project. The results of such evaluation will be incorporated into the overall formulation of a national system for integrated urban programs for the poor.
 - c. A model program of community development and organization with emphasis on the design and use of appropriate facilities and income generation.
 - d. A program for assisting self-help housing construction and home improvement.

D. PROJECT INPUTS

1. Financial Inputs

Table 1a. reflects the financial inputs to the Project.

2. Institutional Roles

a. GCE

Banco Ecuatoriano de la Vivienda. The BEV will:

- borrow the HG funds, obtaining the guaranty of the GCE for this loan,
- lend and process the mortgage loans made to the project beneficiaries,
- provide financing for the site preparation and dwelling unit construction,
- analyze its interest rate structure and make adjustments as necessary to assure maintenance of its capital base,
- expand the financial options available to low-income families to assure a greater access to adequate housing,

TABLE 1a

ALLOCATION OF FUNDING

(000's)

<u>Uses</u>	<u>Sources</u>						<u>Total</u>
	AID		BEV		Municipality		
	<u>HG loan</u>	<u>Grants</u>	<u>Fun-</u> <u>dación</u>	<u>Project</u> <u>Benef.</u>			
Land			\$ 9,900				\$ 9,900
Urbanization/ Housing	\$20,000		\$7,900		\$2,180		30,080
Community Facilities				11,490			11,490
Comm. Devel. Program				1,440			1,440
Off-site water and sewer						\$11,150	11,150
Technical Assistance		\$630					630
Total	\$20,000	\$630	\$7,900	\$22,830	\$2,180	\$11,150	\$64,690

- analyze the possibility of increasing the resources available for low-income shelter programs, and determine ways in which the private sector can be encouraged to participate in such programs.

Junta Nacional de la Vivienda. The JNV will:

- coordinate execution of the construction program including off-site infrastructure work,
- execute the on-site infrastructure program (earth movement, water, sewer, electricity networks, streets, sidewalks),
- construct the dwelling units,
- assist in the review and adjustment of municipal standards by providing design assistance and the experience of work on a nationwide scale.

b. Fundación Mariana de Jesús. The Foundation will:

- donate the land for the Solanda Project,
- have responsibility for the construction of the community facilities,
- elaborate and execute the community development program, including neighborhood organization, operation of community centers and such programs as social assistance and construction assistance for home expansion or completion, and support for and organization of small businesses and community enterprises.

c. Municipality of Quito. The Municipality, operating where appropriate through its water and sewer authorities, will:

- coordinate the construction of off-site infrastructure projects (water and sewer),
- authorize the extension of public transportation service,
- review and adjust infrastructure and dwelling unit standards to minimize construction costs,
- review public utility tariff structures to develop a program of equitable distribution of capital investment costs,
- extend the planning process to include long-term budgeting of infrastructure needs.

d. Agency for International Development. AID will:

- obtain the guaranty of the U.S. Government for the HG loan,
- provide funding for the technical assistance program as follows:

Housing Advisor	24 months
Housing Finance Specialist	4
Construction Technology Specialist	4
Urban Designer/Environmental Specialist	4
Social Planning and Development Advisor	24
Community Development Specialist	7
Employment Generation Specialist	4
Self-help Housing Specialist	3

E. BENEFICIARIES

The Solanda Project has been designed to meet the needs of families living for the most part in the congested neighborhoods in and surrounding downtown Quito and in peripheral squatter neighborhoods.

In a preliminary effort to establish a target population, the Foundation published an announcement in the newspapers in 1975 requesting an indication of interest in acquiring housing in Solanda. The initial response by 1,800 families was analyzed and indicated that 75% of those interested came from neighborhoods surrounding the central city area, most of the remainder from the spontaneous neighborhoods on the sides of the city. The Project, designed to serve this population, will appeal to families who currently do not own housing and are residing in substandard units in Quito.

The initial investigation was carried out to permit the Foundation to select 40 families for a pilot project on the Solanda site. This pilot project has given the Foundation the opportunity to acquire a more complete understanding of the needs and expectations of the target population and to develop techniques with respect to community development and management which will be valuable as the larger stages of the project are implemented.

In 1977 the Foundation updated the information on those families who had indicated an interest in 1975. Little publicity accompanied the updating process but 952 families did reconfirm their interest. The information collected indicates that these families have an

average size of more than six persons and are principally occupied in domestic service and small commercial activities; 60% of the 952 families questioned reported family incomes per month of \$200 (S/5,000) or less.

It is estimated that the median income for the Quito metropolitan area is about \$250 per month per family. The Project is designed to deal with families with incomes ranging between the 10th and 45th percentiles, with 65% of the solutions reaching families below the 25th income percentile.

IV

TECHNICAL ANALYSIS

A. SITE ANALYSIS

The City of Quito now officially covers an area of roughly 9,000 hectares, running in a north-south direction in a valley of about 2,900 meters altitude. The valley, which is sharply defined by ridges on either side, is broken roughly in the middle of the developable area by the Panecillo Hill and by the canyon of the Rio Machángara. Historically, most of the development of the city has proceeded northward from the Panecillo, where it is now reaching the limits of easy development. To the south, much of the land was previously used for cattle ranching and dairy farming; this land, subject to some flooding, is quite flat. In recent years the shift in the focus of residential development, particularly for low-income families, has been toward this section.

The Solanda site lies right in the center of the southern half of the valley, squarely in the path of the city's growth. The 156-hectare site is bounded on the north by the Rio Grande and on the east by the Rio Machángara and was previously subject to flooding (see Figure 1). The Panamerican Highway runs to the east of the site between the Rio Machángara and the Cordillera Pucará and has been the magnet for development in this section of the city. To the west of the site runs the second major access to the southern part of the valley, the Avenida Bahía de Caráquez, which has not been extended in a paved form beyond this section of the city and which, therefore, does not yet carry traffic comparable to that of the Panamerican Highway. Some low-cost housing has been formally developed between the Avenida and the group of mountains further to the west called Pichincha. The hillsides of Pichincha have also attracted a considerable amount of spontaneous development.

As part of the project planning, the Foundation developed a 40-unit experimental program on the site. The units are two-story row-houses on 60 m² lots. The buildings cover 40 m² and provide families with 80 m² of living space. The cost at the time of construction (1976) was around \$5,000. The experimental program enabled the Foundation to test various construction materials and infrastructure systems.

The development of the Hacienda Solanda site will influence the type of units and the level of services applied to future development in the southern part of Quito. Consequently, special effort has been made to design a project of importance that will provide both minimum housing solutions and a level of services that can be replicated by national and local government institutions.



**PLANO DE LA CIUDAD
DE SAN FRANCISCO DE QUITO**



The project area occupies about 100 hectares of the total Solanda site. Completion of the single-family HG-financed units plus a small number of multifamily units to be financed by the Foundation will attract approximately 5,500 families (some 33,000 people) and result in a gross density of about 330 inhabitants per hectare. Fifty percent of the land will be reserved for open space, community facilities, and streets.

B. PHYSICAL OUTPUTS

1. Housing Solutions

A range of shelter solutions has been developed, modifying designs originally negotiated by the JNV and the Foundation. In order to reduce costs, these solutions draw on the concept of progressive unit construction. The range provides enough cost flexibility to permit a solution tailored to the specific financial capacity of families with incomes below the median urban area level.

Lot sizes have been purposely kept small so that residents will be encouraged to make maximum use of community open space, a component that is lacking in most of Quito, and of the community facilities, which have been located centrally according to neighborhood. Three rectangular lots sizes have been selected. The smallest lot is about 60 m², the medium size is about 80 m², and the largest is 122 m². All lots will be connected to water and electricity networks, to a combined stormwater and sewage network, and to streets or pedestrian walkways.

The housing solutions are to be unfinished shells designed in modules which can be added to for either vertical or horizontal expansion. The shell unit is earthquake-proof and built with brick or cement block exterior walls, metal windows, wooden doors, a corrugated asbestos sheet roof on a wooden frame, a sanitary core which includes a shower, water closet, and kitchen sink, and an outside laundry area with laundry sink. The remaining interior space is left unpartitioned. The floors are smooth cement slab. The interior walls are unpainted or unfinished. No ceiling is included.

The shell house involves an appropriate technology approach to shelter design which enables the beneficiaries to occupy the new unit immediately. Through both organized and informal self-help and community efforts, beneficiaries are expected to add interior partitions and finish off or expand the unit as needed. As time, money, and lot sizes permit, expansion can be either at the first floor level, or a second floor can be added easily. All houses will have a rear unfinished patio of at least 20 m². The foundations for the walls around the patio are included.

The basic solution design in terms of lot size and constructed area may be seen in Figures 2-4. (More detailed designs and specifications may be found in Annex III.) These figures show that the design is based on modules of approximately 10 m². Units labeled "A" are set on 60 m² lots, those labeled "B" on 80 m² lots, and those labeled "D" on 122 m² lots. The "D" lots are corner lots which have special set-back and street-related requirements set in the municipal code, and will be made available to families intending to install small businesses in addition to their residences. Units labeled A5, B5, and D3 are constructed with an unfinished second story in place. The homeowner must add the stairs and upstairs flooring to make this space habitable.

Although the Project was originally designed in accordance with the published construction codes and regulations of the Municipality of Quito, the staffs of the Foundation and the JNV have argued for lower building standards in order to assure that costs are held to a minimum. As a result of these continuing negotiations, the Municipality has now approved in principle the overall concept of the Project, that is, small lots, cobblestone secondary streets, a combination of paved and unpaved sidewalks, and reduced parking requirements and street widths. There are, however, other cost-saving infrastructure materials that have not yet received the Municipality's approval, such as cement water pipes instead of steel pipes, wooden electric poles instead of precast concrete poles, and less rigid standards for the large sewage pipes. Approval of these alternatives will be included in the final approval of Project design by the Municipality.

2. Public Utilities and Services

a. Water: The Quito municipal potable water system consists of both surface water collection from the adjacent Andean ridges and local groundwater extraction from the Quito aquifer. With the rapid population growth of the region, increased sources of water are needed. The planned increases will come from surface water collection transported from increasingly distant sources, predominantly to the south of Quito where a series of snow-covered peaks are located.

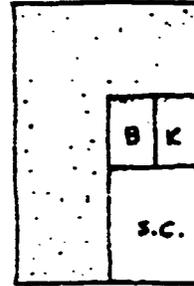
The southern section of Quito is currently the principal target for expansion and extension of the city's water supply system. To the north of the project site, water supply is handled by the Pitatambo treatment plant and network, which is now being expanded to its final stage of construction. The city's water company (EMAP), motivated by the planning for the Solanda Project, has developed a program which will provide water service to the Chillogallo Parish (the area in which the Project lies) by the end of 1981.

LOT TYPE (A)

Δ: 61.24 m²

COST: ₪ 38.093

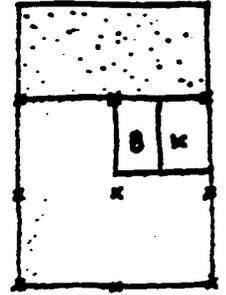
(A3)



CONSTRUCTION 21.20 m²

COST: ₪ 90.996

(A4)

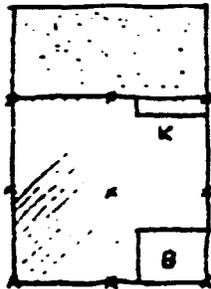


CONSTRUCTION: 42.50 m²

COST: ₪ 107.698

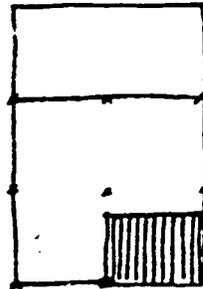
(A5)

STREET LEVEL



CONSTRUCTION 42.50 m²

2ND STOREY



CONSTRUCTION 36 m²

TOTAL BUILT-UP AREA: 78.50 m²

COST ₪ 122.557

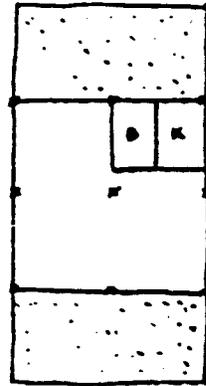
FIGURE 2

LOT TYPE (B)

A : 81.92 m²

COST : ₪ 50.790

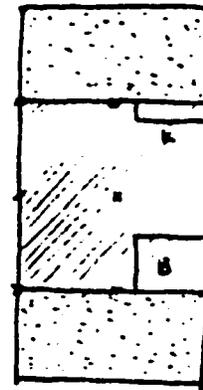
(B4)



CONSTRUCTION 42.50 m²
COST ₪ 120.395

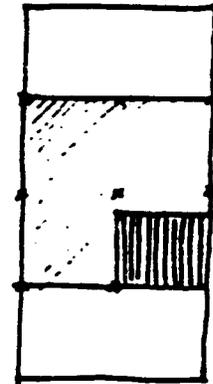
(B5)

STREET LEVEL



CONSTRUCTION 42.50 m²

2ND STOREY



CONSTRUCTION 36 m²

TOTAL BUILT UP AREA: 78.50 m²

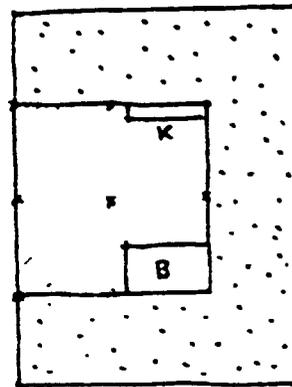
COST ₪ 135.254

FIGURE 3

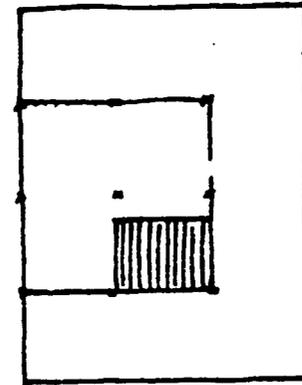
LOT TYPE ① A: 122.88 m² COST : ₹ 76.186

②

STREET LEVEL



2ND STOREY



CONSTRUCTION: 42.50 m²

CONSTRUCTION: 36 m²

TOTAL BUILT-UP AREA: 78.50 m²

₹ 160.650

FIGURE 4

This program will be the first of three stages targeted to cover the projected population of southern Quito up to 1989. Within this first stage, EMAP has isolated two phases so that the needs of the Solanda Project can be dealt with at the earliest opportunity. The first of these phases will result in the construction of an intake in the Monjas Ravine, transportation of the water to a treatment plant, construction of the plant, and distribution to the Solanda site and to a smaller IESS development projected on land adjacent to Solanda. Project costs for this phase have been estimated by EMAP at US\$6.8 million (S/172 million). EMAP intends to use a loan from Credit Lyonnais for approximately US\$4.4 million (S/110 million), and the remainder is to be financed by BEV and IESS. EMAP has estimated that the provision of water for Solanda might require a charge of US\$2.45 (S/61.82) per square meter of urbanized lot instead of the standard charge of US\$0.63 (S/16).

EMAP, BEV, and JNV have now agreed to discuss the manner in which the water for the project in southern Quito will be charged. The standard charge of US\$0.63 (S/16) per square meter (the one used in the calculations for this PP) is one of the alternatives contemplated. Further definition of these charges will be needed, and technical assistance in this area is contemplated at the early stages of project implementation. In the event charges are prorated on the basis of the higher rates, the increment in cost for an urbanized lot for Solanda will not represent more than a 10% increase in infrastructure costs. EMAP is now in the process of surveying the terrain and beginning the engineering designs of the facilities to be required. This first phase will bring the production flow up to 200 liters per second. It is expected that construction will begin by October 1980 and be completed by the end of 1981.

b. Sewerage: The Quito municipal sewerage system consists of a combined system of sewerage and stormwater channelling through the major watercourses of the metropolitan region. Approximately 20% of the capacity of the pipe is needed for sewage collection and the rest for stormwater collection (based on a 10-year heaviest storm). The system is planned out but still in the early stages of development; at this writing, about two of the 14 kilometers of the main river of Quito, the Machángara, are channeled. There is no treatment plant for Quito, nor has one been proposed. The sewage flows north of town into the open river, and natural processes are utilized for sewage treatment. Analysis supported by IDB notes that since there are no major population centers for over 300 km downstream from Quito, and since the Machángara and the river it discharges into, the Guayllabamba, have deeply incised their channels into the soft volcanic soils, the danger to human health downstream is minimized. By approximately 100 kilometers downstream from Quito, the natural

assimilative capacities of the rivers eliminate any harmful effects from the sewerage.

The Project has been designed to give priority to channelling the Rio Grande at least in that portion that lies contiguous to the Solanda site. If this is not done, the already polluted river could be a source of problem for Solanda Project residents who may go near it for one reason or another (e.g., children's play). The channelling project will fit into current sewer company (EMA) plans, using funding from an IDB loan and the newly negotiated Credit Lyonnais loan (same as for EMAP) to carry out the city-wide channelling program. As in the case of water charges, TA will be provided to EMA to help set user rates.

c. Electricity: At the present time, the Quito Electric Company is just barely covering total demand with its existing supply system. Out of seven generating stations, five are hydroelectric, one is diesel, and one is gas turbine. Because of heavy reliance upon hydroelectric power, shortages of water can result in electricity supply problems, thereby forcing the city's neighborhoods to rotate through a daily power blackout, which in one recent experience ranged from 5 to 10 hours per day.

A major effort is being mounted to ensure adequate supplies of electric power regardless of weather fluctuations. Two gas turbine plants totaling 20 MVA are now under construction and should be operational by February 1980. By November 1980, diesel motors totaling 34 MVA are to be installed, and in 1981 a network connecting other parts of the country that have more dependable supplies of hydroelectric power is to be completed. It appears, therefore, that by the time the Solanda units are built, the city will have an adequate supply of electricity.

The Epiclachima substation of 40 KVA, located one kilometer away from Solanda, will transmit electricity to the site. Transmission will be through aerial connection to each lot. Estimated connection costs (including meter) are about S/4,500 (\$180) per dwelling unit. According to the Power Company, a low-income housing project of 5,000 units would not significantly change the electricity consumption projections for the city.

d. Transportation: Existing transportation networks will undoubtedly be negatively affected by the construction of the Solanda project. At present, the Panamerican Highway, the focus for industrial development to the south of Quito, is heavily congested and only two lanes in width. As mentioned earlier, the Avenue Bahía de Caráquez has not yet been extended in a paved state much beyond the Solanda area. Because of the physical barriers presented by river channels to the north and east of the Project site, extension of the

Avenida Bahía de Caráquez along the western side of the valley will unquestionably be vital to an easing of the transportation problems for this section of the Quito metropolitan area.

At present, though bus rates to Solanda are no higher than for other sections of the city, a resident of the Solanda area may spend as much as one hour or more traversing the city center to the northern areas. Because the zone related to the Panamerican Highway is an attractive one for industrial development, and because an industrial park is expected to be developed further to the south, it is foreseen that many of the residents of the Solanda project will not need to travel north to work. Furthermore, careful planning for and provision of community facilities on the site will eliminate the need for many of the routine trips to the center and northern sections of the city.

Bus lines are handled on a franchise basis and usually follow any development fairly closely. These franchises are allocated by the Municipality's Consejo Superior de Transporte Público. The Consejo, in conjunction with technical assistance from the Ministry of Public Works, is now developing a better understanding of the city's public transportation needs. Origin/destination studies will be conducted to help in the development of a more efficient network of bus lines (e.g., all bus lines now go through the city center, resulting in congestion and overservicing of the area).

Because bus transportation is handled by the private sector exclusively, even with intervention by the Consejo on an "ad hoc" basis it is difficult to follow a planning process which relates the staged growth in the Solanda Project population to increases in service. Bus lines currently serving the project neighborhood are inadequate even for the 40 families now in residence. Buses often arrive at the project area already full. The cooperatives and concessionaires will push for extension of service only when the demand is obvious and when their capital base will permit the addition of vehicles. Information will be given to the Consejo in order to pave the way for timely allocation of extended or new franchises, but it must be expected that actual service will lag behind need. This condition makes all the more important the inclusion in the Solanda Project of as many of the social, commercial, and employment activities as possible.

e. Community Facilities: The Foundation's staff has applied a comprehensive approach to the planning of the Solanda community. The Foundation proposes to install a wide range of community facilities. The most essential facilities will be located within each of the subdivisions or major "barrios." Thus, for every 1,100 families there will be a primary school, recreational facilities, a kindergarten, a day-care center, a commercial center, and space for various cooperative or community endeavors. Larger facilities such as

a fully staffed health clinic, a boys' high school, a cultural center, sports areas, an administrative center, and the larger community-owned enterprises will be developed over time in a wide swath of land running down the middle of the Project. The Ministry of Education and the Provincial Council have accepted a donation of land on the edge of the project and the responsibility for building a girls' high school with a capacity of roughly 4,000 students. This will be the first girls' high school in the southern section of the city.

According to a municipal ordinance of Quito, builders of housing developments are required to provide all basic community services. Generally the developer builds the physical structure and turns these over to the respective ministries at little or no cost. Typically, the developer waits until the construction is nearly finished before advising the ministries, thus allowing little lead-time for proper planning and budgeting within the ministries. As a result, schools and clinics are often understaffed or not used at all for the first years after houses are occupied.

Within the Solanda Project, provision of the community facilities will be the sole responsibility of the Foundation, as confirmed by a contract signed between the Foundation and the JNV. Specifically, the agreement states that the Foundation will pay for the design and construction of the community facilities. Should the Foundation fail to build the facilities, the JNV will design and construct the facilities and charge the Foundation. All calculations for these community facilities are based on an estimated population of 40,000 people. The 5,500 units (4,500 single-family dwellings and 1,000 multifamily units) with an average of six family members per unit provide an estimated population of 33,000. An additional 7,000 people have been added to allow for population growth and use by residents of neighboring areas.

The specific costs and facilities are summarized in Tables 2 and 3. The number and nature of the facilities have been established on the basis of requirements set forth by GOE agencies, and by analysis of the estimated population and the presence or lack of similar facilities in the areas near Solanda.

3. Construction Cost Analysis

The site development cost per lot has been estimated at US\$19.80 (\$/500) per m². This price includes paved streets and sidewalks, electricity, water, and sewage and storm drainage lines (16 sueres per m² have been allocated for water and 8 sueres per m² for sewage). Figure 5 summarizes the costs of the three different lots and the

TABLE 2

SOLANDA: COMMUNITY FACILITIES

ITEM	M ² OF CONSTRUCTION	NO. OF UNITS	M ² TOTAL
Primary School	840	4	3,360
High School (Boys')	3,000	1	3,000
Kindergarten	500	4	2,000
Day-care Center	500	4	2,000
Clinic	400	1	400
Municipal Administration	100	1	100
Police	100	1	100
Fire Station	100	1	100
Post Office	100	1	100
Church	600	1	600
Shopping Center	2,000	1	2,000
Cultural Center	1,500	1	1,500
Buildings for Cooperatives	600	4	2,400
	SUBTOTAL	=	17,760 m ²
	12% RELATED SURROUNDING AREAS	=	2,119 m ²
	TOTAL	=	<u>19,779 m²</u>

TABLE 3

SOLANDA: COST OF FACILITIES

	<u>000 Sucres</u>	<u>US\$ (000)</u>
19,779 m ² x S/4,000.00 c/m ²	= 79,116	
Open Space and Sports	= 10,000	
Other Work and Materials	= <u>5,000</u>	
SUBTOTAL	= 94,166	3,767
Equipment and Furniture = 50%	= 47,033	
Infrastructure (100,000 m ²)	= <u>50,000</u>	
SUBTOTAL	= 191,199	7,648
Contingencies 10%	= <u>19,112</u>	
TOTAL	= 210,311	8,412

LOT TYPES

TYPE	TOTAL AREA m ²	SITE DEVEL. COST/m ²	LOT COST
 (A)	61.44	S. 500	+ 24% S. 38.093
 (B)	81.92	500	50.790
*  (C)	92.16	500	57.139
 (D)	122.88	500	76.186

UNIT TYPES

TYPE	BUILT-UP AREA	LOT COST	LOT COST + 24%	CONSTRUCTION COST + 24%	TOTAL COST (SQUARES)	COST (\$)
A3	21.20	30.720	38.093	52.903	90.996	(3,604)
A4	42.50	30.720	38.093	69.605	107.698	(4,265)
A5	78.50	30.720	38.093	84.464	122.557	(4,854)
B4	42.50	40.960	50.790	69.605	120.395	(4,768)
B5	78.50	40.960	50.790	84.464	135.254	(5,357)
C4 *	42.50	46.080	57.139	69.605	126.744	N/A
C5 *	63.40	46.080	57.139	89.999	147.138	N/A
C6 *	78.50	46.080	57.139	84.464	141.603	N/A
D3	78.50	61.440	76.186	84.464	160.650	(6,362)

* These units are no longer included in the project

FIGURE 5

housing units. These prices include a 24% JNV charge in addition to labor and materials. The charge may be broken down as follows: 10% administration, 2% monetary risk, and 12% construction financing. As mentioned earlier, land costs do not figure directly in this Project.

The "C" units included in Figure 5 (90 m² lots) were removed from project design as they offered no significant advantage in the effort to reach the lowest-income families. As mentioned earlier, the "D" lots are a special case. Because they are affordable for families with incomes below the median, and because their exclusion would significantly disrupt the site plan, it was agreed that they would be retained in the project design, though the HG-assisted element of the Solanda Project focuses on providing the majority of the solutions to families with lower incomes.

C. CONSIDERATION OF SITES AND SERVICES
AS AN ALTERNATIVE SOLUTION

Careful analysis of the possibility of offering a sites and services option in the project drew a negative conclusion. Most important among the reasons was the relatively high cost of such an option.

A 6 m² sanitary core on the 60 m² standard lot would cost S/78,503 (\$3,140). Though some S/12,500 (\$500) cheaper than the smallest core unit solution (A3), the resulting difference in monthly mortgage payments would be only about S/100 (\$4). This relatively high cost of the sites and services option is the result of the Project's high infrastructure costs versus the low costs for construction of the actual housing.

Analysis of the Project's target population made clear that, because of the cost similarities, the sites and services option would be rejected in favor of the completed 20 m² unit which offered immediate habitability. Presently in Quito the lowest-income families are living in rented rooms in masonry structures, sharing sanitary facilities. The valley's climate makes impermanent shelter (wooden or cane shacks such as employed in the lowlands) impractical and rarely used. Therefore, under a sites and services program for Quito, families would have to continue renting while constructing their houses. Because the 20 m² solution is accessible to families with incomes as low as the 10th percentile, it is doubtful that a market exists in which low-income families would be willing to continue renting while amortizing a loan at rates equal to or higher than their rental payments. Immediate habitability was judged, therefore, to be an overwhelming reason for acceptance of slightly higher monthly payments.

D. ENVIRONMENTAL CONSIDERATIONS

Field work for an IEE was carried out in June 1979. A positive threshold determination was recommended and approved, based upon the need to assure dry, stable ground for the physical development, and the availability of water, sewerage, and electricity. Subsequent detailed environmental analysis has determined that the principal concerns for project development remain the provision of an adequate supply of potable water and sewage treatment.

1. Potable Water Supply--Alternatives

Three types of water sources are theoretically possible for Solanda.

a. On-site Capacity: Currently the existing 40 units of the experimental phase utilize an on-site system of filtering galleries at the side of the Rio Grande gorge. But estimates only foresee capacity for about 200 more dwelling units. Originally, a well was sunk on the property, but it quickly became contaminated by up-slope iron concentrations and had to be closed. Municipal sources indicate that treatment of this poor quality well water would be too expensive for the target population. In addition, a long-term supply of adequate quantity and quality is threatened by the impending urbanization surrounding Solanda and up-slope from it. Therefore, on-site sources are not a feasible option for the contemplated Project.

b. Tie-in to Existing Municipal Supply: The capacity of all nearby public water lines is now being fully utilized. No extension of lines is feasible; rather, these existing sources need to be augmented themselves. Therefore, this alternative is not feasible.

c. Tie-in to Future Municipal Supply: This alternative is the only prudent and feasible solution. The initial development of the Chillogallo project, drawing water from the slopes and ravines of Atacazo Mountain (elevation 4,570 meters), appears to be the closest and best source of water. By the end of 1981, a sufficient source of water should be available for Solanda.

2. Sewerage System--Alternative

a. On-site Collection, Treatment, and Disposal: It is planned that a waterborne, individual-lot collector system will be utilized to remove all possibility of on-site health problems. Treatment and disposal of sewage by an on-site process does not appear prudent. The on-site requirements for sewage facility space, and for its financing and maintenance, would be too expensive for a low-cost housing project.

The goal of EMA is to convey all sewage generated by populations with a density of over 150 people/hectare into sewer lines laid in the river channels. Solanda will easily exceed this population density and therefore will require off-site facilities. Both rivers adjacent to Solanda are clearly indicated for channelization under the approved 1977 municipal plan (which projects sewerage needs to the year 2020). Thus, should on-site treatment and disposal facilities be recommended as a short-term solution, eventually some of Quito's poorest families will have to pay twice (for on-lot disposal now and off-site disposal later). This alternative is unacceptable.

The existing adjacent watercourses are already highly polluted, so the danger to Solanda residents would not be reduced at riverside no matter how effective an on-site treatment program worked. During the dry season, when the natural flow of the Rio Grande is estimated to drop to 25% of the average daily rainy-season flow, the upstream sources of contamination would have serious impact. Likewise, should a modification of this alternative call for open discharge of fully treated sewage (clean water) from Solanda into the watercourses, no off-site benefits would be gained because clean water would merely be discharged into the much higher flow of contaminated water.

b. An Off-site System of Raw Sewage Disposal: There should be no open-channel raw discharge sewage treatment under this proposal, so that additional degradation of the rivers would occur, increasing health hazards nearby and for all downstream development. This situation is clearly inimical to AID's stated environmental policy of sponsoring only that development which is not disruptive or damaging to the environment. Therefore, this alternative is unacceptable.

c. An Off-site System of Trunk Sewer Lines: Under this option, which is the recommended one, the on-site sewage would be discharged into a receiving trunk line in the adjacent watercourse (the Rio Grande). There would be no open channel in the vicinity of Solanda. Because of frontage and topographic drainage conditions, it may be feasible to channel just the Rio Grande instead of channeling both it and the Rio Machángara. (See Figure 6 for an indication of respective frontages.) This strategy would thus permit a minimum-cost approach.

3. Dry and Stable Ground

The original state of the ground in Solanda was characterized by swampy conditions with standing water reaching over 50 cm in particularly wet times. The Solanda program of draining the site (on-going since 1973) has been successful. At the present time there is no evidence of swampy conditions. The water table, monitored by a system of 42 small tubes throughout the site, is more than one meter

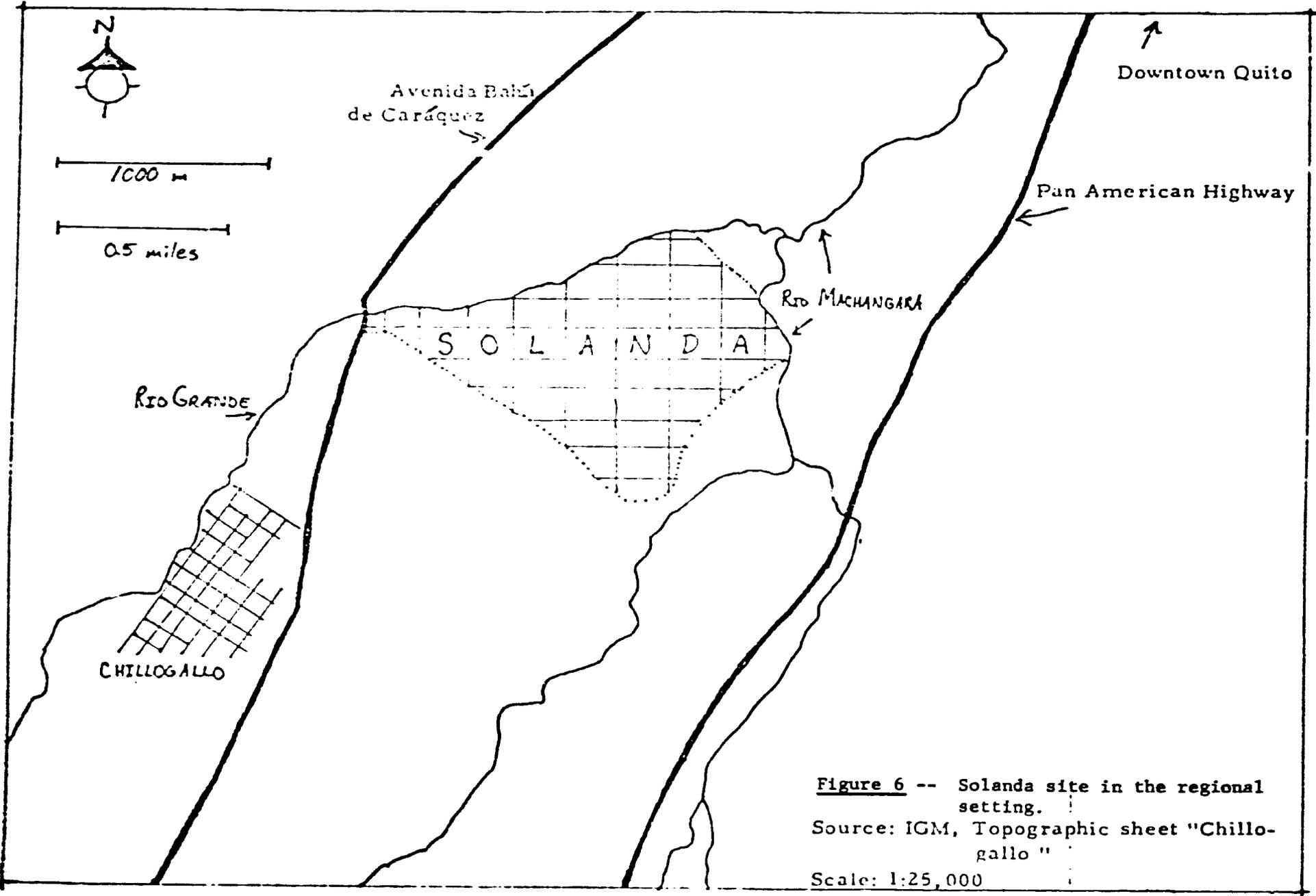


Figure 6 -- Solanda site in the regional setting.
 Source: IGM, Topographic sheet "Chillo-gallo"
 Scale: 1:25,000

below grade now. The existing drainage ditches, or a similar network coordinated within the overall urbanization, should be maintained. Both stormwater drainage and groundwater drainage features should be incorporated into the development. When urbanization is completed, there is every expectation that the increased amount of impervious surface (from roofs, roads, playgrounds, and the like) will assist in maintaining dry land.

To assure stable ground, a buffer zone of at least 25 meters should be preserved along the watercourses. These gorges, reaching as deep as 25 meters, are highly susceptible to erosion. In addition, shrubs and trees should be planted so as to offer a stabilizing influence to the ground. For the overall stability of the site the subsurface subsidence risk appears small. The presence of active geological faults in the regional setting indicates that the Solanda development should include earthquake-resistant structures, in accordance with the municipal code. The above protections are all incorporated in the Project's plans.

4. Energy Conservation

A solar energy water heating system has been installed recently in the 40-unit pilot project on a test basis. This experiment will provide information relating to the feasibility of such a system for the Project. Implementation decisions will follow.

5. Other Environmental Considerations

Given provision of adequate potable water and sewerage facilities, major adverse environmental effects should be avoided. This housing project of 100 hectares is otherwise expected to present no major environmental problems given its location, size, and timing.

Hacienda Solanda will change from open pasture land to an urbanized settlement within the Quito city limits. There will be a transfer of 100 hectares from underutilized rural to urbanized land. The process of channeling the adjacent natural rivers would continue to irreversibly change them from natural to managed watercourses.

Since no major adverse environmental effects are anticipated, there will not, by definition, be any countervailing benefits to nonexistent effects. Rather the perceived significant benefits of the Project should not be reduced by any appreciable negative effects. Comments and recommendations relating to the analysis of the environmental assessment capabilities of the participating institutions are contained in Section VII, Institutional Analysis.

SOCIAL SOUNDNESS ANALYSIS

A. IDENTIFICATION OF THE TARGET POPULATION AND ITS NEEDS

1. The Urban Area in General

The problem of urban slums is manifested differently in the cities of the Coast and the cities of the Sierra. In Coastal cities the migrants generally become squatters in one of the settlements known as Barrios suburbanos. In Guayaquil, the migrant groups build cane houses on silts above the swampland and estuaries where no government control is applied and where initially no government services can be provided.

In the Sierra, migrants usually crowd into a rented room in some of the older housing stock of the urban area. In Quito these families live in the area including and surrounding the colonial sector of the city, often replacing wealthier landlords who have moved out to the newer residential neighborhoods in the northern section of the city. Historical and aesthetic concerns which have led to the declaration of the center of Quito as a World Treasure have also led to strict controls over efforts to modernize or rebuild the housing stock. The result is that most of the houses in the city's center, some of which are as much as 400 years old, are used as apartment complexes for low-income families and/or for commercial purposes.

It is estimated that more than 110,000 occupants (approximately 18,000 families) crowd these center-city structures with densities that may reach as high as one person per square meter of living space. For the lowest-income tenants, landlords subdivide the available space to permit as many as 20 or 30 families to share one house.

In many cases, entire families live in one room which serves as a kitchen, bedroom, living room, and dining room. A study done by the city authorities in 1975 shows that 59% of the residents of the Panecillo area in downtown Quito were living in one room. Another 23% were living in two rooms. Over half had four or more persons per family. The same study also reported that only 19% of the residents had running water in their homes and only 14% had a private bathroom; 46% shared a bathroom, 8% used a latrine, and 31% were reported to have access to no toilet facilities at all.

Other low-income neighborhoods are scattered around Quito. A more recent study of one of these low-income neighborhoods completed by the JNV in 1978, reported findings similar to those described

above. The residents' family income ranged from S/800 (\$32) a month to a high of S/12,000 (\$480) per month, with 87% earning less than S/7,000 (\$280) a month. Thirty-four percent of these families, ranging in size from 2 to 12 people, lived in one room. The rooms, in which all family life took place were no larger than 12 square meters. Another 37%, ranging from 1 to 13 people per family, lived in two small rooms.

The population of the low-income neighborhoods of Sierra cities is young, with 71% of the inhabitants being less than 30 years old. Only 3% of the population of these neighborhoods is over 60, less than half the level of national statistics. The average number of people per family in the low-income neighborhoods of Quito, such as the Hacienda Mena Project and the neighborhoods from which the applicants come for the Solanda Project, ranges from 6.2 to 7.4. Employment is heavily concentrated in such occupations as street vendor, employment in small commercial establishments, and domestic employment. Men are also active as factory workers or in the construction industry as day laborers. Many of the economically active members of this population find work or make their work opportunities within a short distance of their living quarters.

Estimates of monthly family income for the Quito metropolitan area have been developed from data presented in the 1975 survey of the urban workforce carried out by the National Statistical Institute, supplemented by national urban area data presented by the National Planning Agency in 1978. Table 4 reflects the mid-1979 family income distribution by percentile for the poorest 50% of the metropolitan area's economically active population. The percent distribution was

TABLE 4

Income Distribution in Quito
(mid-1979)

<u>Income Distribution Percentile</u>	<u>Monthly Family Income</u>	
	<u>US\$</u>	<u>Sucres</u>
5	94	2,350
10	129	3,225
15	159	3,975
20	167	4,175
25	174	4,350
30	182	4,550
35	189	4,725
40	212	5,300
45	235	5,875
50	250	6,250

obtained through use of a Lorenz curve to adjust for the percentages of workers in the urban workforce spread throughout the income range.

The individual worker's income was converted to monthly family income through multiplication by a factor of 1.449, a factor developed by analysis of Solanda and Hacienda Mena Project applicants which indicated 2.2 wage earners per family on the average and 40% of the supplementary workers per family earning only 45% of the minimum wage. A further adjustment was made to reflect the data which indicated that the poorest 10% of the families had only one worker per family. A factor of 1.0 was used for these strata. All figures were converted at a rate of S/25 to the \$1.00, and were adjusted to June 1979 levels using official indices to reflect increases in the minimum wage during the 1975-79 period.

Because the center of the city and other traditional low-income neighborhoods cannot absorb the full impact of the growth of Quito's low-income population, new migrants and other city dwellers have combined to develop new communities on the outskirts of the city, generally in areas which cannot be reached by municipal facilities. As part of the analysis for its metropolitan plan, the Municipality has identified some 56 spontaneous neighborhoods, housing more than 120,000 people. In some cases these neighborhoods have been developed through a quasi-legal process in which cooperatives or individuals buy land from landowners who are violating local laws but who recognize the impotence of the municipal government to adequately control land sales and developments. The new owners of these properties do not have proper title, but they can be recognized formally after 10 years of occupancy of a property.

The families generally start with a small unit consisting of a room and a patio. Most of the units are built with adobe or cement block. As time goes on the houses typically are extended and begin to shelter additions to the family or relatives from other parts of the city or the nation. Over time, in recognition of the political sensitivity of these communities, some municipal facilities have been brought in. Water is often purchased from tank trucks. As the units are extended, owners also typically begin to rent rooms to unrelated persons. The more developed units consist of one or two rooms that open onto the main street and then a half a dozen connected rooms in the back constructed around the patio where the washing is done. Rental payments run from S/300 to S/700 a month (\$12 to \$28). Some of the renters join housing cooperatives, which have as their goal the acquisition of land for the members. In one known case, a fee of S/7,000 (\$280) is paid to join the cooperative, and a monthly charge of S/700 (\$28) is required. Land prices in the developing neighborhoods run from S/350 (\$14) per m² on up.

Living conditions in the spontaneous neighborhoods are as tenuous as those in the center of Quito. In a recent study of one such area, a family group of four children, mother, and aunt was occupying about

18 m² of space. They were using a dirt-floor kitchen next door. The rent was S/300 (\$12) per month, paid from the mother's work as a laundress. The upstairs neighbors, a young couple, had more comfortable space, paying S/500 (\$20) a month on a base salary of S/10,100 (\$404). A third neighbor, who payed S/700 (\$28) a month to belong to a housing cooperative, also was paying S/450 (\$18) a month for rent for one room. This family's income came from the husband's permanent, minimum wage job and from the wife's work as a laundress (she earns S/2 (\$0.08) per piece washed). The total income was S/3,000 (\$120) a month. Thus, the family was paying almost 40% of its income for housing-related expenditures. The renters in these neighborhoods, as well as in the center of Quito and in other traditional low-income neighborhoods, represent prospective beneficiaries of the Solanda Project.

The Hacienda Mena Project carried out by the JNV/BEV has provided housing institutions with a detailed, project-oriented experience in dealing with a population slightly better off than, but as close to that which is the target of the Solanda Project as any Sierra Project to date. Average family size for the first phase of the Mena project was 7.42 persons. In the second phase average family size was 6.55. There has been a continual growth in population of the community, presumably due to the influx of relatives, so that one school, for example, designed for 500 students now has a student body of 705.

In order to be eligible for the Mena Project (in the mid-1970s) families had to show a monthly income of between S/1,035 and S/3,500 (\$42-\$140). BEV loans were made with interest rates ranging from 4% to 7% depending on family income. Mortgages carried 25-year terms, and monthly mortgage payments were geared to represent approximately 25% of the family's monthly income. Eighteen percent of the Mena families chose to buy serviced lots and construct their own homes. These lots cost S/22,000 (\$880) in 1975 and 1976. Forty-five percent did not complete their homes. Of those who did, about half built homes whose designs were significantly different from that of the model homes used by the JNV. The Hacienda Mena Project was the first effort by the JNV/BEV to work with community development for low-income families on a large scale. Though some of the objectives of the Hacienda Mena program have not been realized, it has provided the JNV/BEV with excellent experience in dealing with problems of low-income communities, the efforts to develop low-cost shelter, and the problems of municipal regulation.

2. Solanda Beneficiaries

Identification of beneficiaries for the Solanda project began with a pilot project in 1975 when the Foundation decided to build 40 experimental houses, announcing the program through the press. The resulting demand was so great that long lines formed outside the Foundation's offices, and expectations were raised beyond any hope of

fulfillment given the small size of the pilot project. From this initial effort, however, a file of 1,800 names was established. These names served as the basis for a detailed analysis of the target population. The analysis also served to guide the Foundation in the preparation of the plans for the overall community.

The data from the 1975 analysis (actually carried out on 1,600 of the families who responded to the original announcement) indicated that the average family size was 6.2 persons, considerably above the national average of five but close to the family size typical of the Hacienda Mena Project. Forty-one percent of the families had more than seven members. Fifty-one percent of the total population was younger than 15 years of age, a statistic consistent with the national average. Only 1.5% was over 60 years old, below the national average of 6% and even lower than the 3% level determined to be the case for the spontaneous developments at the periphery of the city. The project appealed principally to families who currently do not own housing and who reside in substandard units in Quito.

Almost one-half of the population was economically active. The study did not differentiate between male and female workers but analyzed all economically active individuals as a group. Domestic services, a profession generally dominated by female employees, constituted 15% of the economically active population. Sixty-one percent of the families had more than two wage earners.

The majority of the adult population had completed or attended primary school. The proportion of men and women with primary school education was the same. Few men or women had any university training.

Approximately two years ago the Department of Social Services of the Foundation began an effort to update the files on these applicants. A much less publicized approach was taken, and 952 persons were reinterviewed, with no attempt made to contact the remaining applicants. The analysis showed that 44% of those responding were born in Quito with another 16.7% having lived in Quito for over 20 years. Only 11% lived in Quito less than 5 years. More than 46% of the applicants were living in the center city area or in communities immediately to the south with high densities. The remainder were living in other traditionally low-income neighborhoods and in the spontaneous neighborhoods to the north and south of the city. Tables IV.2-14 in Annex IV reflect the data developed at the time the 952 files were updated.

B. MEETING THE NEEDS OF THE TARGET POPULATION

1. Effective Demand

It is estimated that construction of 9,000 units per year would be necessary to cover the urban area's annual household growth with adequate housing options.

More than half of such production would be needed to meet the needs of the city's below-median-income population. In recent years the only project designed to serve, for the most part, the target population, the Hacienda Mena Project, turned out 2,136 solutions against a registration list of 10,000 families (drawn up in 1974-75). Some of the families not able to get a unit in Hacienda Mena were given lots in the north of the city (in the Comité del Pueblo area), but related services were not included.

The Foundation currently has some 1,200 names on its registry, a few of whom by now will have actual incomes too high for selection for the proposed Project. More are added daily, without the need for publicity. Official requests to the Foundation to include in its registry staff and members have been transmitted by a number of ministries and cooperatives.

The JNV turned away 500 families whose incomes were below the S/6,000 (\$240) per month floor set for the recently completed Carcelen Project. Preliminary announcements of a low-cost project to be developed in the southern section of Quito (to the south of Solanda), named Hacienda Salazar, have drawn 3,800 applications from families within the poorest half of the population. The fact remains that no project now under construction, or contemplated, includes solutions as low-cost as those developed for this Project. Analysis indicates that not one unit of the Solanda project will remain unsold. Differences of opinion about the market among the Project's institutional participants (JNV, Foundation, AID) have been limited, rather, to the number of applicants for the 20 m² core units.

As mentioned earlier, analysis of the Quito metropolitan area housing stock makes clear that rudimentary, impermanent dwelling units are not being used to absorb the in-migrating or growing population. As noted, there is a marked distinction between Ecuador's lowland and Andean regions in this respect. It is clear, therefore, that overcrowding of existing, permanent dwellings combined with some new construction in peripheral areas accounts for the absorption of the population increase. Preliminary analysis indicates that very low income small families now living in crowded conditions, such as women heads of household with few children, would find the 20 m² core unit attractive as a permanent improvement over existing conditions because of its low price. It is expected that these families will use the informal sector to realize expansion or improvement of the home.

The 20 m² core unit has been accepted by the Ecuadorean parties on an experimental basis. Evaluation of demand and suitability will be made during the first and second phases of project development. If the demand reaches expectation, up to 20% of the total Project will be devoted to this solution. Evidence of poor reception will result in removal of this solution from the third and fourth phases. Ecuadorean acceptance of this minimal core solution, even on an experimental basis, represents a major innovation in the design of housing programs for the Sierra region of the country.

2. Ownership Rights

The Solanda Project homes, like all social interest housing in Ecuador, will be sold under coverage of the Law of Family Patrimony. This law requires that a house remain in the family for two generations, permitting only the grandchildren of the original purchaser to sell the home on the open market. Except in the case of mortgage payment default, the house can never be taken away from the family. It cannot be mortgaged again or used to pay off any other debt. There are a few exceptions to the rule. If the owner can prove that he will invest the return from the sale in a more expensive house, or in one in a different part of the country, it may be sold. To do this the owner must go to court, and the proceeds from the sale must be held in escrow until payment is made on the next house. The process may take many months, and the court in the final analysis may decide against the owner if the change does not appear to be in the interest of the family. The law also prohibits the owner from moving out and renting the house for a profit. Although this law, in effect, freezes a family's major asset, it serves as valuable protection for the wife and children in cases of desertion. If the title was originally in the name of a husband who has deserted the family, the wife can sometimes have that title assigned to her through the offices of the sponsoring institution.

3. Effect on Family Income

Monthly mortgage payments will be calculated on the basis of 25% of monthly family income. This represents a modification in BEV policy, which normally permits assignment of up to 40% of family income for housing.

A study of Quito conducted by the Brookings Institution estimates that, on the average, low-income families spend about 20% of their income on housing. This study also shows that as the number of children per family and, consequently, the amount spent on food, increase the amount available for housing expenditures decreases. Studies of specific neighborhoods indicate that the percentage paid for housing ranges widely from as low as 10% to over 30%. Furthermore, families who are renting in Quito often join housing cooperatives whose goals

are to obtain land and homes for its members. Fees for joining such cooperatives can be as high as S/7,000 (\$280) to join and S/700 (\$28) per month. Families in these situations are paying as much as 40% of their income in housing-related expenses.

Participants in the BEV/JNV's Mena Project were also charged 25% of their incomes to amortize their mortgage loans. The default rate for this program is the lowest in the BEV. Subsequent evaluations of Mena families indicate that this percentage did not have an adverse effect on family economics. Income has increased through salary increases and supplementary wage earners, effectively reducing the proportion of monthly income spent on housing. This was achieved with no special efforts in the Project to increase income. Since a major element of the community development program in Solanda will focus on income generation, it is to be expected that the proportion of income allocated to housing will not affect the families adversely. It is recognized that families with low incomes are less able to accumulate the necessary capital for large downpayments and the other initial costs attached to buying and moving into a home. Therefore, a minimum downpayment of 5% of the total house cost has been proposed for the Project. Other closing costs (e.g., titling) will be included in the JNV's administrative costs.

4. Improvement of the Quality of Life

The Project will improve living standards for the benefiting population. Sanitary facilities, including toilet, shower, and laundry sinks, are almost always shared when they actually exist in the houses occupied by the prospective homeowners, to the detriment of health, decency, and convenience. Health, in fact, is the one principal factor that is almost always associated with better housing. Project beneficiaries will experience reduced levels of accidents, parasites, digestive disabilities, and respiratory problems. Furthermore, the ability to obtain in-house water at municipal rates, as opposed to those rates paid to the drivers of water trucks, should also reduce family expenditures.

A separate kitchen, that is, one that is not in or very close to sleeping quarters, will be an advantage since families can keep their homes cleaner and run less risk of fires. Although the use of separate sleeping areas is not always the first step that families take on moving into larger quarters--in some cases because they prefer to enlarge social areas, in others because relatives are moved in--room densities will drop, probably in an increasing degree as houses are improved and expanded.

Finally, it is planned that the location of the Project will eventually result in reduced transportation problems for the beneficiary families. This is because the site stands clearly in the line of development of the Quito metropolitan area and will benefit as

job opportunities continue to grow around the nucleus of industrial activity that surrounds the Panamerican Highway. Construction of the wholesale market is now nearly complete, and the important secondary school for girls will also bring considerable transportation relief and job opportunities for this neighborhood. The careful planning for community facilities of all kinds has been motivated by the concern regarding transportation.

5. Benefits for Women

Among the low-income families applying for the Solanda Project, almost 23% are women who, as heads of households, are responsible for the support of their families. An additional 40% of the total number of married women analyzed in the applications are economically active. Roughly one-quarter of the economically active women are involved in small commercial activities, the majority of which are shops and stands near their homes. For this reason, project designers have given special consideration to the need for commercial space as part of the residential neighborhoods.

C. SELECTION CRITERIA

As a result of their analysis of the base data, the Foundation and BEV have established a set of criteria to select families for the Project. These criteria reflect the Foundation's desire to reach those families at the lower end of the income scale. The Foundation has stated that in general terms the families selected are to be among those who often lack permanent jobs and are chronically underemployed, who are illiterate, and who live in a variety of family structures. The potential applicants have also been defined as those who do not have access to basic services of the larger society, such as health, education, and housing programs.

The head of household must be over 18 years old, but there are no limitations on the makeup of the family. Single parents, persons in consensual unions, and adults supporting siblings or parents are permitted. Income limits have been established as one minimum wage salary per adult and one-third minimum wage salary per minor up to a maximum per family of S/7,000 (\$280) per month. The minimum wage is currently S/2,000 (\$80) per month; it is expected to be increased to S/4,000 (\$160) in January 1980, and the institutions are now assessing its impact on the selection criteria.

Families must be able to prove residence in Quito for at least two years and must show that they do not own any other house nor have access to one through another program such as those of the IESS. Initial selection will be done by the Foundation using the criteria

agreed upon with the BEV. Once the home visit is completed and the family is accepted by the Foundation, the case will be sent to the BEV for formal and final review by a credit committee consisting of three representatives of the BEV and two of the Foundation.

D. COMMUNITY DEVELOPMENT PROGRAM/SOCIAL INFRASTRUCTURE

1. Rationale for Program

The Solanda Project has been conceived as an integrated program that will provide solutions to more than the shelter problems faced by the target population. The Foundation and JNV are attempting to build a program that uses the acquisition of improved housing as a vehicle to improve other important aspects of a person's life. This is one of the most important and innovative elements of this project. The provision of essential services, such as health, education, and improved opportunities for increased income are integral elements of the program, and will be fused with the provision of housing. The final objective is to build a community of people who are aware of their own needs and are able to meet those needs in a variety of ways for which they themselves will assume responsibility.

As outlined in the Technical Analysis Section, the Foundation has applied a comprehensive approach to the planning of the physical facilities of the Solanda community. The community facilities included are those considered by municipal authorities, as well as community development specialists, to be essential in order to provide citizens with basic services. As each phase of housing is completed, the Foundation will insure that complementary services are available, by providing a school, an EMPROVIT (grocery) store, and a clinic. Income generation opportunities will be developed simultaneously as well.

The Solanda Project is unique in insisting that such services be completed at the same time as the individual homes. Although required by municipal ordinance, these services are inadequately distributed throughout the city, reflecting a separation between the requirements of the ordinance and the ability of the municipal government to exact the required facilities from developers who must foot the bill. An analysis of eight neighborhoods surrounding the Solanda Project in the south of Quito points to a serious deficit in educational institutions, health facilities, and other related services (see Annex IV, Tables IV.15-21). Thus, when the Solanda community is finished, it will be one of the first to have the full complement of facilities considered essential for an urban area. In fact, it is anticipated that some of the services, such as the high schools, day-care centers, and health clinic, will service surrounding neighborhoods.

2. The Community Development Program for the Solanda Project

The community development program being prepared for the Solanda Project is comprised of three major elements: pre-move preparation, post-move intensive community organization, and post-move community assumption of responsibility. Pre-move preparation will begin with a home visit by a Foundation social worker. The interview schedule to be used in this visit will be developed in the first months of the Project by a joint committee of Foundation personnel and BEV staff. The interview will have several purposes. First, family eligibility for the Project will be established. Family income will be verified, housing conditions noted, and information on other criteria established for the Project will be gathered. Secondly, the interview will provide the needed base-line data for subsequent evaluations of the Project regarding impact on family income, employment, and housing conditions. Finally, it will be the first opportunity for the families to fully understand Project objectives and requirements, as the Foundation will include information and questions on such aspects as willingness of families to cooperate in community activities and willingness to move into a partially finished house.

Once the families have been selected by the Foundation and approved for credit by the credit committee they will begin a pre-move orientation program, run by the social work staff of the Foundation. This pre-move orientation will provide further information on the housing program, the Project's financial requirements, and the community services to be provided, and will move progressively toward the formation of groups to begin working on various phases of the community social services program (e.g., parents' committees for the schools, kindergartens, day-care centers; groups of artisans for community businesses; a community organization to handle the civic center and multiple purpose room; and committees to handle the sports facilities).

This work will prepare the way for the post-move phases. In these phases the new residents are expected to participate in all aspects of the community's development and to move into positions of policy input and decision-making for the various community facilities.

The Foundation does not intend to staff and maintain the community facilities. Rather once facilities are completed, it will become the responsibility of the respective ministries to provide for staffing, equipment, and maintenance. Each ministry will have the right to use the respective property, but the Foundation will retain legal ownership. It is expected that community organizations will interrelate with the respective ministries.

3. Training within the Community Program

A key element of project implementation is the training of both staff and community residents. For example, while the part-time social workers responsible for the home visits will likely be familiar with BEV's standard credit interview, they will be given intensive training via practice interviews in order to be sure they understand the differences between the Solanda project and other housing programs directed at middle- and upper-class families. There will also be a need to train the staff assigned by the various ministries to the community facilities in order for these individuals to understand the special role of the community facilities as a mechanism to build community solidarity and community participation.

The professional staff that will supervise the community development workers will be given the opportunity to visit similar programs in other countries. They will be able to select elements from these programs for incorporation in the Project and will be able to identify prospective instructors who can be brought to Quito to participate in the intensive in-country training. In addition, a specialist who has had considerable experience in community organization will be contracted to assist in developing the training programs.

In addition to the information-giving aspects of the pre-move training, community residents will be given training in motivation, group work, leadership development, and human relations skills. These are standard topics covered in courses in community organization and can be designed to fit the Project's needs through the assistance of an expert in community development programs. These courses will be continued into the latter phases of Solanda development where they are expected to be augmented by training in a wide range of specific skills.

Major elements in the Community Development program will be vocational training and nonformal education for adults. Such training will include literacy classes for adults and training in specific skills in order to increase the employability of the individuals. These programs will be tied to the industrial arts program planned for the boys' high school. Individuals are expected to be given opportunities to serve as apprentices in the various community businesses.

Gradually, as community groups gain experience and confidence in dealing with the administration and maintenance of the various facilities, training will include consideration of the transfer of legal ownership of the community facilities and of withdrawal of outside community development workers. The Foundation's staff is fully aware that a great deal of time may be needed to work with community members who have little prior experience in facilities management. The Foundation expects that it may be working with some community groups on certain activities for up to five years after the beginning of the Project, while other areas of involvement may require substantially

less assistance. The first community activities which committees can be expected to operate on their own are the sports facilities. This activity should require the least degree of administrative skill, and the sports areas are expected to be turned over to the community at the end of the first year of occupancy. It is estimated that the schools and medical dispensaries will require at least three years of continuing support and education from the Foundation's staff before their administration can be turned over to the community. At least five years is expected to be necessary for the employee-owned companies to achieve economic stability and for the workers to have received the necessary training and experience in the various phases of running a small business.

The Foundation will take advantage of the gradual development of the Project to make adjustments in the plans for community facilities, in order to best relate them to the actual needs and preferences expressed by the new resident population. The Foundation's planning for the community development aspects of the Project is based on considerable analysis both of theoretical models and of the actual experience of institutions like the Fundación Salvadoreña para el Desarrollo de Vivienda Mínima. It is expected that the community development aspects of the Project will serve importantly as a demonstration for future projects dealing with low-income segments of the population. It will clearly serve as a testing ground for ideas and as a source of information on the reaction of the resident population to the different services and their maintenance and staffing needs.

4. Income Generation Activities

In addition to employment resulting from construction of the Project, considerable spontaneous growth of individual businesses is expected. A recent survey of households in Hacienda Mena II showed that one out of every five households is running some type of small business in its home. Studies on women's participation in the labor force also provide evidence that home-based activities are a frequent source of income for women who wish to combine home child-care responsibilities with economic activity. In many low-income communities it is clear that adequate shelter serves as a primary source of increased income. A house with washtubs and a steady source of water can provide employment for a laundress. A house with an adequate kitchen allows women to prepare food commercially. A house that faces the street or walkway may be appropriate for a small shop. Many families in urban areas are accustomed to taking in relatives and even boarders to help pay the utilities or simply to share expenses. (In an analysis of a housing project in Colombia it was found that the most effective way to raise income to levels that made the cost of the new living conditions tolerable was to take in renters.)

Given experiences in other areas, plus the number of Soland applicants who are self-employed, Project designers decided to include

space for workshops within the residential areas in order not to disrupt the employment patterns of these individuals. The community development program will focus on increasing the ability of these individuals to run a business.

Employment opportunities will also be available for community residents in the various community facilities. Every attempt will be made to assure that ministries assign community residents to the such positions as clerical staff, cleaning staff, night watchmen, health educators, practical nurses, and professional staff. Community-run and community-owned facilities, such as the day-care centers, the EMPROVIT stores, the civic center, and the commercial centers are expected to train and hire local residents for the available jobs.

The most intensive and innovative effort to generate employment will be concentrated in the establishment of community-owned businesses which the Foundation anticipates will create a large number of new jobs within the Solanda community. Drawing on individuals' skills identified in the initial surveys, preliminary preparations have been made for a woodworking business. Forty-nine skilled workers and twelve who have lesser skills but have some industrial experience have been identified from the list of applicants as being appropriate for involvement with this business. Staff members of the Foundation have already had meetings with a small number of this group to explore their interest. Special attention is being paid to the use of appropriate technology.

An additional 16 to 20 businesses are expected to be formed during the life of the Project. In addition to sewing and carpentry businesses, two others will be formed during the first year. These will most likely be related to the construction industry, such as block and brick making, tiles for roofing, metal-work, plumbing, and fabrication of solar water heaters, in order to supply part of the market being created by the construction of Solanda. An additional eight businesses are expected to be formed in the second year, and four to six in the third.

The Foundation, at the beginning, will guarantee loans for working capital so that these businesses can be established and will provide legal and social assistance as necessary to help the residents establish the businesses on a sound basis. The Foundation staff will also provide training in the various aspects of business administration. The Foundation has agreed to contract a team of persons skilled in the areas needed for the adequate development of the businesses.

An essential element of the program for the small businessmen and women who are not included in the community-owned businesses is a source of credit. A credit fund will be established by the Foundation, and will be administered separately from the credit fund for the community businesses.

FINANCIAL ANALYSISA. MACROECONOMIC CONDITIONS1. Current Economic Situation

The Ecuadorean economy showed remarkable gains during the period 1970 through 1977 with an average annual growth rate of 9%. The petroleum boom was the single most important factor sustaining this growth. The value of petroleum exports increased from roughly \$1 million in 1970-71 to \$694 million in 1976-77. Crude petroleum represented only 1% of the value of total exports in 1970-71 but jumped to 51% of value in 1976-77. The petroleum boom allowed large increases in public spending--petroleum revenues contributed an extra 52% to the GOE budget in 1974 and an extra 30% in 1977--and, additionally, removed foreign exchange constraints. External public borrowings moved from \$126.3 million in 1974 to a high of \$771.0 million in 1977, tapering off to \$513.6 million in 1978. Total public external debt outstanding at the end of 1978 was over \$1,400 million.

The middle class benefitted to the greatest extent from the economic growth through the mid-1970s. The income share for the 55% of the population just above the 20th income percentile increased by 6%. This increase in income share came mainly from the upper-income class, whose share dropped 5.8%; however, part of the increase for the middle-income group was at the expense of the poorest 20% of the population.

Economic growth rates in 1978 dropped to 6.8%. Balance-of-payments constraints were a principal reason for the slowing in growth rates. The GOE implemented restrictive policies on the monetary and fiscal fronts and a more cautious debt strategy. The outlook for the medium- and long-term economic growth of Ecuador appears favorable, assuming a rationalization of the differences in domestic and export prices for petroleum and assuming increased investment in agriculture to offset anticipated declines in petroleum exports.

2. Balance of Payments

Balance-of-payments data for 1977 and 1978 are presented in Annex V. Difficulties with the balance of payments began to appear in 1977 as the trade balance showed a net deficit of \$208 million. A

slight trade balance surplus of \$6 million was recorded for 1978. Heavy new external borrowings were required to prevent dramatic drops in foreign reserves; the net decrease in reserves in 1977 was \$112 million, while 1978 showed an increase of \$37 million.

About two-thirds of the outstanding public external debt at the end of 1978 consisted of credits from the private sector, suggesting short terms and high interest rates. Table 5 bears out the shortening of terms and higher interest rates. Foreign debt service in 1978 was 14.1% of export earnings, a tolerable level but not far below the warning point of 15%. Projections of debt servicing indicate that 85% of external debt, including the undisbursed portion, is due before 1984. Debt service ratios are projected at a high of 18%-20% of export earnings over the medium term.

The proposed Project will help alleviate the medium-term balance-of-payments prospects facing Ecuador. The \$20 million HG loan with 30-year term and a 10-year grace on principal adds only \$2.3 million per year to debt-servicing requirements during the grace period. (This will increase if HG money costs more than 11.5%.) The foreign exchange component of project construction costs is estimated at \$2.9 million (estimate from local savings and loan league: 10% imported materials in material cost of construction = \$52.72 million X 54% X 10% = \$2.9 million).

A one-time fee of 2% is included in the housing solution costs to cover monetary risks. Based on estimated construction costs, approximately \$600,000 will be available to cover devaluation. The 2% fee is included in the mortgage.

3. Construction Industry Employment Generation

The Project will have a significant influence on the employment situation in Quito through provision of new sources of semipermanent work for a large number of laborers in the construction sector. The unemployment/underemployment situation in the metropolitan areas of Ecuador has been extensively appraised as one of the structural problems derived from rural/urban migration. It was estimated that in 1975, 18,700 persons in Quito worked in the construction sector or 9% of the total labor force. These laborers are mostly unskilled rural migrants and have found urban construction work as the best possible alternative to remaining as underemployed farmers. The construction sector thus plays an important role in the provision of incomes for unskilled workers. Underemployment statistics are the lowest in the urban economies of Ecuador; still the estimates of urban underemployment amounted to 33% of the workforce in 1975. Comparable statistics for underemployment in the construction sector showed a lower 20%.

TABLE 5

ECUADOR'S EXTERNAL PUBLIC DEBT

AMORTIZATION PERIODS AND INTEREST RATES 1974-1978

(US\$ Millions)

	1974	1975	1976	1977	1978
<u>Years of Amortization</u>					
1-5	-	6.9	18.7	-	63.0
5-10	5.3	88.4	216.2	537.6	327.1
10-15	-	23.9	7.0	100.8	52.6
More than 15	121.0	44.7	85.4	132.6	70.9
TOTAL	176.3	163.9	327.3	771.0	513.6
<u>Interest Rate (%)</u>					
0-3	59.4	19.3	11.8	24.4	59.1
3-6	1.5	33.9	-	11.3	1.0
6-9	62.9	62.7	151.1	173.6	113.2
More than 9	-	3.4	14.0	52.0	14.0
Not identifiable*	2.5	42.8	148.1	489.7	326.3
Without Interest	-	1.8	2.3	-	-
TOTAL	126.3	163.9	327.3	771.1	513.6

Source: Banco Central del Ecuador: Subgerencia de Balanza de Pagos

*Much of the "not identifiable" is at LIBOR + rates.

The Project should bring about increases in the income levels of construction workers, as it is expected that laborers on the Project will make at least the minimum legal wage of S/4,000 (\$160) per month (due to go into effect the beginning of 1980) because of GOE implementation of the program. (Figures for 1975 show that 19% of construction workers were paid below the minimum legal wage.)

The scale of construction estimated under this Project--over \$50 million in housing, urbanization, infrastructure, and community facilities construction--should significantly affect the size of the construction force. The JNV estimates that in terms of full annual employment 2.03 workers will be employed per housing unit under the Project, giving total employment on an annual basis for 3,012 workers, assuming a three-year construction period. Adding construction of the community facilities and off-site infrastructure yields an additional annual employment of 782 workers, giving a total full annual employment under the Project of about 3,800 workers (see Annex V, Exhibit A).

B. FINANCIAL ANALYSIS OF BEV

Condensed comparative balance sheets for the BEV for 1974 and 1978 are presented in Table 6. (Detailed balance sheets are presented in Annex V, Tables V.1 and V.2.)

TABLE 6

BEV: COMPARATIVE BALANCE SHEET
(US\$ Million)

	<u>1978</u>	<u>1974</u>	<u>Change</u>	<u>% Increase</u>
Assets	258.0	91.9	166.1	181
Liabilities	152.4	59.1	93.3	158
Capital	105.6	32.8	72.8	222
Total Liabilities and Capital	258.0	91.9	166.1	181

Total assets over the four-year period 1974-78 increased \$166.1 million or 181%. The principal asset increases were in the BEV's 1: portfolio, which jumped from a base of \$25.0 million at the end of 1974 to \$124.4 million as of December 31, 1978, and in other assets, primarily represented by construction in progress, which moved up \$61.0 million over the same period to \$92.2 million outstanding at the end of 1978. Housing investment, represented by the value of housing

units completed, totaled \$134.7 million over the four years. During this period, 18,412 housing units were completed. The average yearly housing investment was \$33.7 million, while the average number of units completed was 4,603, for a median cost per unit of \$7,300. Loan portfolio delinquencies decreased substantially over the four years, from 4.8% at the end of 1974 to a respectable 3.1% as of December 31, 1978.

The increase in assets was financed through a combination of increased liabilities and equity. The BEV relied principally on deposits, including regular savings and guaranty and term deposits, as a source of financing. These accounts grew from a base of \$12.3 million at the end of 1974 to \$81.1 million as of December 31, 1978, an increase of \$68.8 million. More modest increases were recorded in bonds (\$14.9 million) and long-term contractual debt (\$12.3 million).

Capital and reserves increased \$72.8 million, from \$32.8 million at the end of 1974 to \$105.6 million at the end 1978. Equity increases were almost entirely achieved through annual profits and GOE support, as shown in Table 7.

TABLE 7

BEV: EQUITY INCREASES
(US\$ Millions)

<u>Year</u>	<u>GOE Support</u>	<u>Profits</u>	<u>Total</u>
1975	11.1	3.2	14.3
1976	13.1	4.8	17.9
1977	13.1	4.4	17.5
1978	11.8	9.9	<u>21.7</u>
			<u>71.4</u>

The debt-to-equity ratio thus decreased from 1.8:1 as of December 31, 1974, to 1.4:1 as of the end of 1978, reflecting the heavy GOE support and reinvestment from profitable operations.

The BEV had revenues of \$31 million in 1978. Net income was \$9.9 million. Detailed comparative statements are presented in Annex V, Table V.2. Interest income for 1978 amounted to \$19.8 million, or 64% of the total income. Sources of interest income included earnings on loan portfolio, where interest rates ranged from 4% to 12% depending on loan size, annual charges of 12% on land and construction outlays, and a 2% monetary risk charge. Other income consisted principally of \$5.1 million from the mortgage loan insurance program administered by

the BEV and of \$3.2 million from recuperation of loans previously written off by the Bank.

The average weighted cost of capital to the BEV in 1978 was 4.2%, an extremely low percentage, resulting from the heavy contributions of capital from the GOE at no financial cost to the BEV. The interest rate spread of \$9.9 million in 1978, as represented by the difference between interest income (\$19.8 million) and interest expense (\$9.9 million) allowed the BEV to cover administrative costs of both itself and the JNV (a total of \$5.5 million) and contribute substantially to profits. These administrative costs are net of a 10% charge assessed on construction costs of housing built by the JNV. This charge is used to recuperate indirect costs associated with the JNV construction program. Other major expenses of the BEV included costs associated with its insurance program (\$3.9 million) and depreciation (\$1.4 million).

In conclusion, the BEV (together with the JNV, whose expenses are combined into the BEV budget) has shown remarkable growth over the past four years (asset growth of 181%), is in a solid financial position (current ratio 3.1:1; debt/equity ratio 1.4:1; loan portfolio delinquency rate 3.1%), and has substantially increased its profitability each year to a record level of \$9.9 million in 1978 (return on equity 10.6%; return on total assets 4.2%). Substantial GOE contributions to the BEV have played a major role in the Bank's financial success to date.

C. FINANCIAL ANALYSIS OF THE FOUNDATION

Condensed financial statements for the Foundation are presented in Table 8.

TABLE 8

MARIANA DE JESUS FOUNDATION:
CONDENSED FINANCIAL STATEMENTS

(US\$000s)

Balance Sheet 6/30/79

Current Assets	1,107
Fixed Assets	4,582
Total	<u>5,689</u>
Current Liabilities	2,738
Deposits	271
Fund Balance	<u>2,680</u>
Total	<u>5,689</u>

TABLE 8
continued

Income Statement

Revenue	184
Expenses	328
Excess of Expenses over Revenues	144

condition indicates an illiquid entity with negative working capital of \$1.6 million; an unfavorable current ratio of 0.4:1; investments and loans (\$1.9 million) in five different companies, three of which have accumulated losses; and the inability to generate a positive cash flow from operations.

There are two important considerations which must be taken into account, however, in an analysis of the Foundation's financial condition. First, the values of land and buildings held by the Foundation are recorded at cost at the time of donation, which in many cases go back to the early 1940s. Secondly, the Foundation is a majority partner (87%) in a profitable middle-income housing development, which partnership, for tax reasons, has not been reflected on the Foundation's books.

Land values and buildings held by the Foundation are recorded on the books at donated cost (\$0.766 million). These properties have a market value conservatively estimated at \$39.6 million (see Annex V, Table V.5, for listing). The Solanda land accounts for \$9.9 million of the total; the El Pedregal holding, which the Foundation plans to urbanize to throw off cash for the community facilities on the Solanda site, accounts for \$20.3 million.

Liquidation of the Foundation's majority interest in La Granja #1, a middle-class housing project, is about to be completed. The Foundation's share is calculated at 87% of profits (\$1.2 million), cash for land invested in the project (\$1.2 million), and cash for guaranties put up (\$0.2 million), for a total of \$2.6 million. Proceeds are to be reinvested in a comparable project in La Granja #2, in which the Foundation will be the sole owner.

Further evidence of the creditworthiness and financial condition of the Foundation is shown by its ability to borrow \$2.0 million short term on the signatures of the officers from a private financier in addition to its other outstanding debt.

The Foundation plans to finance the community facilities of the Solanda Project via the proceeds of urbanization of a portion of its El Pedregal holding. El Pedregal is a prime residential site located in north Quito adjacent to the Foundation's La Granja project. The Foundation plans to generate over \$20 million during the four-year period 1980-83 in the following manner:

TABLE 9

FOUNDATION'S EXPECTED PROCEEDS
FROM EL PEDREGAL PROJECT
(US\$000s)

		<u>Proceeds</u>
Total no. of lots	941	
m ² per lot	320	
Total m ² to sell	301,120	
Selling price (S/2,500 m ²)	S/99.0 Mil.	\$29,814
Less urbanization costs (S/500 m ²)	S/19.8 Mil.	<u>-5,962</u>
Profit		23,852
Less 10% contingency		<u>-2,385</u>
Net Proceeds		<u>\$21,467</u>

Feasibility studies have been completed for sewerage, which requires construction of an additional line. Approximately 100 lots located below the city's present water limit (2,800 m.) are for sale immediately. The main sewer line connections, phase two of the Pitatambo water project (now under construction), and water storage tanks higher on the mountain behind the project site must be completed before additional lots can be sold. The Foundation and its architect are working closely with the Municipality to see that water needs are met in a timely manner.

El Pedregal sales are planned as follows:

- 1980: 100 lots and construction of sewer
- 1981: a total of 40% of lots sold
- 1982: 40% more of lots sold
- 1983: final 20% of lots sold

Sales terms are 40% down, 30% in six months, final 30% in twelve months. Projected cash flow is as shown in Table 10:

TABLE 10

EL PEDREGAL: PROJECTED CASH FLOW
(US\$000s)

	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>
Net cash to Foundation	1,767	6,434	7,640	4,742	877

A match of cash flow from El Pedregal with the Foundation's Solanda Project commitments is as follows:

TABLE 11

EL PEDREGAL/SOLANDA:
SOURCE AND APPLICATIONS
(US\$000s)

	<u>Year 1*</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>
El Pedregal Proceeds	8,201	7,640	4,742	877
Solanda Requirements	<u>3,996</u>	<u>4,490</u>	<u>4,444</u>	=
Net	4,205	3,150	298	877

* Combines 1980 and 1981 from Table 10.

The Foundation has verbally agreed to place cash proceeds from El Pedregal in a special fund and, should the timing of the cash flow from El Pedregal not match Solanda's needs, to borrow funds to complete the work. After the selling off of El Pedregal to finance its counterpart in the Solanda project, the Foundation is expected to continue to have the assets to preserve good financial strength.

D. FINANCIAL PLAN

The financial plan for the Project was presented in Table 1 (page 30).

The AID contribution to the project is \$20,630,000, representing 32% of total Project costs. The AID-guaranteed loan of \$20 million will provide long-term financing of mortgage loans under the Project. The AID grant will finance \$630,000 in technical assistance priorities

identified during Project preparation with \$200,000 coming from IIPUP funds and \$430,000 from AID-appropriated funds.

The BEV contribution to the project is \$7.9 million, 12% of total Project costs. This contribution represents long-term financing of mortgage loans under the Project, and construction financing for the housing and infrastructure.

The Foundation's contribution to the Project is \$22,830 million, 35% of the total Project costs. This consists of land valued at \$9.9 million (\$10 per m²), the capital costs of community facilities estimated at \$11.29 million, and the additional staffing, operating, and capital costs necessary to carry out its community development and employment generation activities.

The beneficiaries' contribution to the Project is estimated at \$2.18 million, 3% of Project costs. This consists of a 5% housing downpayment (\$1.47 million) and utility meter/connection charges (\$710,000).

The Municipality's contribution to the Project is estimated at \$11.15 million, 17% of Project costs. This consists of the capital that will be needed to complete the first phase of the southern Quito water project and to channel the Rio Grande.

Summary cost estimates for housing, urbanization, community facilities, and the Foundation's operating expenses are shown in Annex V, Tables V.6 and V.7. Cost estimates are based on current prices, adjusted for inflation. Inflationary effects are estimated as follows, with construction planned over a three-year period:

Project Year One: 30% increase in construction costs based on a JNV study of the effects of the increase in the minimum wage from S/2,000 (\$80) per month to S/4,000 (\$160) per month and a decrease in the workweek from 44 hours to 40 hours.

Project Year Two: An additional 7% increase in construction costs applying an inflation rate of 12% to the materials component of construction costs only. The materials component of construction costs is estimated at 54% of total costs.

Project Year Three: An additional 10% increase in construction costs.

Total inflation for housing, infrastructure, and community facilities is thus estimated at \$11.63 million, or 18% of total Project costs.

E. COST RECUPERATION

Table 12 lays out the estimated recuperation of costs for the Project. Recoverable costs represent 65% of total Project costs. All urbanization costs allocated to lots plus all housing costs are recovered through a combination of mortgage loans and utility fees. The selling prices of the houses, covered by 5% homeowner downpayments and 25-year, 10.5% mortgages, allow recovery of all urbanization costs allocated to lots and housing construction costs, including the BEV/JNV's standard charges of 10% administrative overhead on construction, 12% per year for construction financing, and 2% monetary risk fee. The aggregate house selling prices amount to \$29.37 million. The 10.5% interest rate on the mortgage contract leaves a sufficient margin for the BEV to handle the additional cost associated with servicing some 4,450 loans. Utility meter and connection costs, estimated at \$710,000, are covered by appropriate fees charged by the utility companies.

The capital cost of off-site infrastructure in the amount of \$11.15 million is recovered through the application of tariffs, administered and collected by the appropriate utility companies. Costs of utility services used are to be recovered through user tariffs. Maintenance of streets, garbage collection, and street lighting are recovered through municipal taxes. Operating costs of community facilities, depending on the nature of the facility, are to be funded from appropriate ministry budgets and user fees.

The principal nonrecoverable costs include donations of land, construction of community facilities, and that part of the urbanization allocated to community areas by the Foundation. Also nonrecoverable are the costs of the Foundation's staff, operations, and equipment associated with the community development and employment generation activities. Total nonrecoverable costs attributed to the Foundation are \$22.8 million.

F. INTEREST RATE POLICY

The current interest rate scale on mortgage loans granted by the BEV is shown in Table 13. These rates were put into effect in early 1979 as a result of negotiations with the IBRD. Previous rates ranged from 4% to 12%. According to a BEV analysis, the most frequent rates charged are 9% and 10%. BEV's estimated 1978 average yield on its loan portfolio was 9.3%.

TABLE 12.

RECUPERATION OF COSTS

<u>Component</u>	<u>\$000's</u> <u>Amount</u>	<u>Recuperation Source</u>	<u>%</u> <u>Recup.</u>	<u>Remarks</u>
Land	9,900*	None	0	Donated by Foundation
Urbanization	11,770		100	
Streets				
Water		Mortgage loan, meter		Mortgage loan covers capital
Sewer		connection fees		cost; fees cover meter &
Electricity				connection charges
Housing	18,310	Mortgage loan	100	
Off Site Infra-structure	11,150	Tariffs	100	
Community Facilities				
Capital Costs	11,490	None	0	Donated by Foundation
Operative Costs		Ministry budgets/ user fees	0	Facilities turned over to GOE or residents
Community Development-FMJ Staff, operations & equipment	1,440	None	0	Donated by Foundation
Loan Capital for employment generation		Loan repayment	100	Loans/guarantees provided by FMJ to businesses
Utilities use		Tariffs	100	
Maintenance of streets, garbage collection, street lighting		Municipal taxes	100	
Technical assistance	<u>630</u> \$64,690	None	0	AID grant

* est. market valuation

TABLE 13

BEV: CURRENT INTEREST RATE SCALE

<u>Cost of House</u> (Sucre)	<u>Current Mortgage</u> <u>Interest Rates</u>
0 - 100,000	7%
100,001 - 200,000	8%
200,001 - 300,000	9%
300,001 - 400,000	10%
400,001 - 500,000	11%
500,000 - 600,000	12%

Analysis of BEV's interest rate policy and practices should begin with its 1978 weighted average cost of capital, approximately 4.2%. The sources and costs of capital to the Bank are shown in Table 14.

TABLE 14

BEV - SOURCES AND COSTS OF CAPITAL

	<u>Capital Structure</u> (US\$ Millions)				
	<u>12/31</u>		<u>1978 Weighted Average</u>		
	<u>1977</u>	<u>1978</u>	<u>Average</u>	<u>Interest</u>	<u>Cost of Capital</u>
<u>Debt</u>					
<u>Savings and Deposits</u>					
8-10% term deposits	8.3	7.5			
5% guarantee "	27.3	25.9			
7% downpayment "	5.4	4.2			
Passbook savings	39.6	27.3			
<u>Internal loans and bonds</u>					
8%-10 yr. FONADE					
loan	11.7	8.0			
Central Bank Loan	2.4	3.7			
7% obligatory bonds	27.4	21.0			
<u>International Loans</u>					
4%-18.5 ys. AID loan	3.1	3.4			
2%-23 ys. IDB loan	7.2	7.7			
9%-24 ys. FHLB loan	5.7	5.8			
<u>Other Debt</u>	<u>14.3</u>	<u>16.4</u>			
Total debt	\$152.4	\$130.9	\$141.7	\$9.9	7.0%
Equity	<u>105.6</u>	<u>81.0</u>	<u>93.3</u>	-	-
Total Capital					
Structure	\$258.0	\$211.9	\$235.0	\$9.9	7.0%

A portion of the "other debt" and of the BEV's equity listed in Table 14 are related to the Bank's insurance operations. If these amounts are excluded, the BEV's average cost of capital approximated 4.2% in 1978. The interest rate spread on the BEV's loan portfolio thus equaled 5.1%, giving a net yield of roughly \$5.0 million on the average portfolio outstanding.

Sources and costs of BEV's funds for the first six months of 1979 were as shown in Table 15.

TABLE 15

BEV: SOURCES AND COSTS OF CAPITAL
FIRST HALF 1979

<u>Source</u>	<u>US\$</u> <u>Millions</u>	<u>Interest</u> <u>Rate</u>
Loan portfolio recuperation	9.6	4.5%
Deposits	13.9	6.5%
GOE support	5.8	0
Bonds	1.8	7.0%
Central Bank loan	<u>4.0</u>	<u>5.0%</u>
Weighted average cost of capital		4.7%

The weighted average cost of marginal capital added to the Bank during the first half of 1979 was 4.7%. This figure, rounded to 5%, is used as the basis for the BEV's cost of capital for Project analysis purposes and for the determination of final interest rates to the ultimate borrowers of Project funds.

The interest rate proposed for the mortgage loans under the Project attempts to balance the need to hold costs as low as possible with the capital-generating needs of the BEV. If the cost of Project funds is set at 9.7% (AID HG funds at 11.5% combined with BEV funds at 5.0%), and an administrative charge of 0.5% is added to cover marginal costs associated with servicing an additional portfolio of approximately 4,450 loans a 10.5% mortgage rate is set that leaves a small positive contribution to BEV's earnings. An interest rate of 10.5% on a 25-year mortgage, the terms proposed for subborrowers under this Project, in combination with the estimated costs of housing solutions offered, allows a monthly payment such that the people at the 10th percentile of income can be reached at the lowest solution cost and people at the 44th percentile at the highest solution cost.

The marginal increase in the cost of capital to the BEV after taking into account the HG loan of \$20.0 million and the IBRD loan of \$11.2 million is estimated at 6%, as indicated in Table 16.

TABLE 16

BEV: ADDITIONAL EXPECTED SOURCES OF CAPITAL

<u>Source</u>	<u>Amount (US\$ Mil.)</u>	<u>Interest Rate</u>	<u>Interest Cost (US\$ Mil.)</u>
AID/HG Loan	\$ 20.0	11.50%	\$ 2.3
IBRD Loan	11.2	7.95%	0.9
New Savings	104.3	6.50%	6.8
New Bonds	17.3	7.00%	1.2
GOE Support	<u>35.2</u>	<u>0%</u>	<u>0</u>
	\$188.0	6.00%	\$11.2

The higher cost of capital is offset by higher interest rates on mortgage loans proposed under the IBRD project (10%) and the AID/HG Project (10.5%). If the BEV, however, is to undertake a significant role in social interest housing, interest rates, particularly at the lower end of the Bank's scale, must be adjusted upwards to reflect not only higher costs of capital, but also a probable decrease in GOE support from oil revenues and other sources. Technical assistance is proposed for the Bank to assist it in developing medium- and long-range financial strategies and plans in the above areas, in addition to innovations in financing techniques applicable to low-income buyers, such as escalating payments.

G. CASH FLOW PROJECTIONS/ABILITY OF BORROWER TO REPAY

A 30-year cash flow projection for the BEV, the borrower under the loan, is shown in Annex V, Table V.8. The projections using these assumptions show positive cash flows to the BEV (after debt servicing, administrative costs, and delinquencies), ranging from \$227,000 in the third year to \$741,000 in the tenth year, and leveling off at slightly under \$400,000 from the eleventh to the twenty-fifth years. Negative cash flows approximating \$3.2 million annually are forecast for the twenty-sixth to thirtieth years, since the BEV subloans have terms of 25 years while the HG loan has a term of 30 years. Discounting the net cash flow stream at 9% (BEV's current yield on its loan portfolio), in order to account for reinvestment and loan term differentials, yields a present value of \$3.4 million over debt-servicing

requirements, thus indicating more than sufficient capacity to service the HG loan debt.

Due to the volatility of the capital markets in the United States, sensitivity analyses were carried out using two sets of assumptions, as follows:

1. HG loan carries interest rate of 12.5%; infrastructure subloan carries interest rate of 12.5%; all other loan terms the same.
2. HG loan carries interest rate of 12.5%; infrastructure subloan carries interest rate of 12.5%; mortgage subloans carry interest rate of 11%; all other loan terms the same.

Under analysis 1, positive cash flows are still maintained over the first 25 years, although in lesser amounts. Cash flows range from \$130,000 in the third year to \$533,000 in the tenth year and level off at \$230,000 from the eleventh to twenty-fifth years. The same negative annual cash flows (\$3.2 million) are maintained from the twenty-sixth to thirtieth years. Discounting the net cash flow stream at 9% gives a present value of \$1.6 million, sufficient to service debt. The contribution margin to the Bank under this analysis is negative at 0.4%, suggesting a higher interest rate to mortgage loan subborrowers.

Under analysis 2, positive cash flows are maintained over the first 25 years, resting between the first set of cash flow projections and analysis 1. Debt-servicing capacity thus also falls between the above two sets of projections and is sufficient. The contribution margin to the Bank under analysis 2 is again positive at 0.1%, indicating a slightly better than breakeven situation.

An increase in the interest rate to 11% would increase monthly payments to subborrowers from S/816 (\$33) to S/847 (\$34) for the lowest-cost solution and S/1,441 (\$58) to S/1,496 (\$60) for the highest-cost solutions, thus moving the target group reached from the 10th to 44th percentile of income (interest rate 10.5%) to the 11th to 46th percentile of income (interest rate 11%), still clearly within AID's target group definition (Table 17).

TABLE 17

DISTRIBUTION OF SOLUTIONS

<u>Type of Solution</u>	<u>Number of Solutions</u>	<u>%</u>	<u>Sales Price</u>	<u>5% Down Payment</u>	<u>Loan 25 Years</u>	<u>Monthly (1) Payment (2)</u>	<u>Family Income *</u>	<u>Income Percentile</u>
A3	445	10	90,996	4,550	86,446	816 (1)	3,264	10 th
						847 (2)	3,388	11 th
A4	2,004	45	107,698	5,385	102,313	966 (1)	3,864	14 th
						1,003 (2)	4,012	16 th
A5	223	5	122,557	6,128	116,429	1,099 (1)	4,396	26 th
						1,141 (2)	4,564	30 th
B4	445	10	120,395	6,020	114,375	1,080 (1)	4,320	24 th
						1,121 (2)	4,484	28 th
B5	935	21	135,254	6,763	128,491	1,213 (1)	4,852	36 th
						1,259 (2)	5,036	38 th
D	<u>400</u>	<u>9</u>	160,650	8,033	152,617	1,441 (1)	5,764	44 th
Total	4,452	100				1,496 (2)	5,984	46 th

* Based on monthly payment = 25% of income

(1) Interest rate 10-1/2%

(2) Interest rate 11%

The debt/equity ratio of the Bank at the end of four years, the proposed start of amortization of the IBRD loan, is estimated at a modest 1.68:1, as shown in Table 18. Prospects for loan repayment thus appear excellent. The GOE will also act as guarantor of the loan.

TABLE 18

BEV CAPITAL STRUCTURE
AT END OF PROJECT
(US\$ Million)

Liabilities	\$297.9
Equity	<u>176.8</u>
Total Capital Structure	<u>\$474.7</u>

VII

INSTITUTIONAL ANALYSIS

A. THE JNV/BEV

The BEV was established in 1961 and has gradually become the Government's principal housing finance institution. The establishment of the JNV in 1973 showed a recognition by the GOE that a greater commitment from the public sector was required if low-cost housing production were to reach levels related to the nation's needs. In recent years these two institutions, which are jointly managed by a common president, have produced on the average about 5,000 units a year; more than 8,000 units were in the pipeline for 1979 production. Achievement of this level of activity would represent major progress on the part of these two institutions. Unit costs have been ranging above \$7,000 and as high as \$12,000. The average unit cost for 1979 is in the neighborhood of \$8,600.

Over the last five years the JNV and BEV have produced or designed several projects to meet the needs of families around median-income levels and one project (Hacienda Mena) for low-income families. Though this production has not reached proportionately significant levels, it has provided the institutions with a base of experience which makes possible a larger-scale entry into the low-cost shelter market.

The JNV is currently in the process of producing a clearer and more workable definition of "social interest housing." Proposals being discussed include defining minimum space per person, encouraging progressive housing solutions running from sites and services to completed units, and defining lot sizes as a minimum of one and one-half times the street floor area of the house. The end result will be recognition of the fact that "social interest housing" must be less expensive than the middle class units which currently carry the label.

1. JNV's Design and Construction Capabilities

Customarily, all work involved in project design is carried out by JNV's technical staff. In a few cases, owing mainly to excessive workloads, the JNV has contracted with architectural and engineering firms.

Construction work is divided into three categories: housing, infrastructure, and community facilities. All housing construction work has been performed by the JNV through "direct administration." The JNV has few construction personnel, and the labor required is hired directly in quantities appropriate to perform a specific project. On the average about 50% of infrastructure construction has been done by the JNV. The remaining construction has been done by private contractors who are first prequalified, and then selected by public bidding. About 50% of the community facilities construction has also been done by JNV, depending upon the structural complexity of the facility. For instance, a large two-story high-school building would be most likely contracted out since it would require major construction equipment. The JNV has a sizeable stock only of small construction equipment, including trucks, concrete mixers, diggers, and wheel barrows. For these items JNV has a full-time operations and maintenance staff.

Owing to the shortage of construction materials in Ecuador, the JNV has acquired partial ownership in several factories producing such construction materials as cement, bathroom fixtures, bricks, and concrete sewage pipes. In some cases the production of materials is substantial--e.g., 80,000 bricks per day is more than the JNV's own needs--thus allowing the surplus to be sold to private builders. A bathroom fixtures factory is currently exporting its surplus production to Bolivia and Venezuela. The cement plant, representing a major investment by the JNV/BEV, is now running material tests and is due on-line in early 1980. Other construction materials such as roofing, windows, doors, and hardware are directly purchased by the JNV from factories at substantial discounts.

The savings generated by the low-cost construction materials and by use of labor only when needed have permitted the JNV to build at the lowest construction cost per m² in the country even though 10% for administration, 12% for construction financing, and 2% for monetary risk are added to the direct costs. The administration charge includes project programming, design, building by direct administration, supervision, operation and maintenance of construction equipment, and selection, qualification, and adjudication of units. The total cost per m² varies from as low as \$/1,800 to about \$/4,000, depending upon the type of construction.

Though the private sector in theory should be a more efficient construction performer in Ecuador, the profit margin per unit on minimum-cost unfinished houses is so limited that such projects appear not to be attractive for the private builder. Thus, the public sector acts as general contractor for all or the great majority of socially oriented housing built in the country. It is therefore contemplated that the JNV itself will build the Solanda housing units in order to maintain the lowest per-square-meter cost possible, even if new GOE

policies call for its withdrawal from broad-range contractor operations. The private sector, however, is expected to have an important role building part or all of the infrastructure as well as the community facilities. Also, private contractors will likely get involved in the construction of the approximately 1,000 multifamily units, not financed with HQ funds, contemplated in the overall Solanda Project.

2. The BEV's Financial Role

BEV normally provides the financing for projects designed and constructed by the JNV. The BEV's current portfolio is composed of some 40,000 loans. The BEV has computerized its loan portfolio in Quito, moving from a service bureau operation to in-house computer facilities, following an extensive rewriting of software. The only step remaining is conversion of loan payment documents to a computer format, expected in the immediate future.

Project loan applicants will be selected by a joint Foundation/BEV team. The selection process, and the subsequent servicing of 4,400 loans will increase BEV's loan volume by about 11%. This should present no problems or excessive additional administration costs to the BEV. A small, low-overhead branch office may be required to service borrowers.

The BEV has a low delinquency ratio (3%) and has been punctual in amortization of its foreign debt (BID, AID, and the Federal Home Loan Bank of New York). The historical record suggests that the BEV will administer the Project in a conscientious, if somewhat conservative, manner. Minor management adjustments may be necessary, particularly in Quito where the BEV's top management is also responsible for the local office operations. The BEV's steadily profitable earnings performance makes clear that the dramatic growth of the late 1970s has not outpaced management's controls. The arrival of the new Government offers an opportunity for more emphasis on definition of the BEV's long-term role. The Project includes technical assistance to help with such planning.

B. THE MARIANA DE JESUS FOUNDATION

The Foundation is a nonprofit, charitable organization established in the late 1940s by a wealthy resident of Quito, Doña María Augusta Urrutia de Escudero. Señora de Escudero, who is in her seventies, continues to be active and is President of the Foundation's Board of Directors. She has provided for continuation of the Foundation following her death.

Foundation policies are established by a Board of Directors representing leadership in the financial, commercial, and religious communities of the city and country. An Executive Director is responsible for carrying out Foundation policy. The staff is divided into three departments: a technical department, including three architects and two engineers; a department of social work with three professionals and a secretary; and an accounting department with a staff of fourteen. The technical department is responsible for all project design and project implementation. The department of social work is responsible for identifying the target population, establishing selection criteria, and developing and implementing community services programs. The accounting department has responsibility for financial controls, legal affairs, and sales activities.

Over the years the Foundation has been involved in a variety of social welfare programs, generally directed at the urban poor in the center of Quito. Today its assets are principally real estate holdings, and the focus of its attention is the development of this integrated Project for low-income families in which the provision of shelter will be integrated with the provision of appropriate community facilities and economic programs.

The Foundation first began to direct its attention to urban development projects in the late 1960s when it developed preliminary designs for a low-cost housing project on a site call La Granja, a property located in the northerr section of Quito where the most intense residential and commercial development was beginning and is now taking place. The Municipality opposed the use of the site for construction of shelter solutions for low-income families because it considered development of such a neighborhood inappropriate for this predominantly upper-income area of the city. The Foundation reacted by developing a high-cost residential project on the site with the view that profits from successful real estate development would later assist in the financing of low-cost shelter projects elsewhere in the city.

The Foundation began to consider the possibilities for a low-income project of major proportions following donation by the Señora de Escudero to the Foundation of the Hacienda Solanda, a 156-hectare tract of land in the southern section of the city. In November 1969 the Foundation signed an agreement with the Municipal authorities which permitted the beginning of the analysis and planning for a workers' neighborhood on the Solanda property.

In order to develop its internal capability to handle such projects, the Foundation established close ties with the Fundación Salvadoreña para el Desarrollo de Vivienda Mínima in San Salvador. Staff members have been sent to El Salvador for training, and many of

the techniques developed in El Salvador have been fit into its program by the Ecuadorean group.

In 1976 the Foundation began discussions with the JNV and BEV in an effort to obtain the required financing. A 40-unit pilot project was prepared for implementation as a test of the principles which would govern the Project and as part of an effort to gain experience. In 1977 the Government institutions and the Foundation reached a preliminary agreement relating to development of the Solanda site; this has subsequently been finalized by a contract. The agreement called for the Foundation to cede the land to the BEV at no cost as the infrastructure placement process began. The agreement also established the responsibility of the Foundation for preliminary project design and for provision of community facilities to be provided at no initial cost to the area's residents. The JNV agreed to supervise all construction.

The Foundation will require additional staff to carry out the Solanda Project, particularly in the areas of community development and employment generation activities. Staffing needs are shown in Table 19.

TABLE 19

INCREMENTAL STAFFING NEEDS:
MARIANA DE JESUS FOUNDATION

Year 1

	<u>Staff</u>	<u>Total Time</u>
1.	Team of lawyer/economist/ accountant	12 months
2.	Graduate social worker	12 months
3.	6 Part-time social workers (home visit interviews)	4 months
4.	Social work supervisor (consultant status)	15 days
5.	4 Graduate social workers	3 months
6.	2 Other professionals	6 months

TABLE 19
(continued)

Year 2

<u>Staff</u>	<u>Total Time</u>
1. Team of lawyer/economist/ accountant	12 months
2. 6 Part-time social workers	8 months
3. Social work supervisor (consultant status)	10 days
4. 6 Graduate social workers	12 months
5. 2 Other professionals	12 months

Year 3

<u>Staff</u>	<u>Total Time</u>
1. Team of lawyer/economist/ accountant	12 months
2. 6 Part-time social workers	8 months
3. Social work supervisor (consultant status)	10 days
4. 8 Graduate social workers	12 months
5. 2 Other professionals	12 months

The Foundation has had considerable experience with project construction, having completed the first stage of the La Granja single-family and multifamily housing development and having begun work on the second stage. Nevertheless, to complete design work on community facilities for the Solanda Project, additional staff, consisting of two architects with community facilities design experience and two draftsmen, will be needed for approximately six months.

The Foundation staff is expected to be most challenged by the community development aspects of the Project. A technical assistance program (detailed in Section VIII) has been designed to provide the experience necessary to carry out this vital component of the Project. The Foundation has, nevertheless, spent considerable energy planning the Solanda Project and recognizes the complexity of the task ahead. The Foundation will also be responsible for coordination of the inputs from the various GOE agencies so that the community facilities will be staffed adequately and will respond to the special needs of the target population. The Foundation has already established appropriate ties to the Health and Education Ministries.

C. MUNICIPALITY OF QUITO

The role of the Municipality in the Project includes the approval of plans, granting of permits for urbanization and construction, providing of water and sewer services through the municipal public utilities, and granting franchises for public transportation by the Concejo Superior de Transporte Público.

The Municipality proscribes construction codes and regulations for housing and urbanization. During negotiations concerning approval of the overall project concept in principle, the Municipality agreed to certain exceptions to its codes so as to lower solution costs. There are additional cost savings which could be generated through substitution of materials and lowering of specifications which at this stage have not been accepted by the Municipality. Technical assistance in urban development and construction standards appropriate to low-cost housing will be provided under the Project to help the Municipality better understand the potential for effecting cost reductions.

Off-site water and sewer infrastructure is to be provided by the Municipality's public utility companies. The water company (IMAP) and sewer company (EMA) were established in the early 1960s as municipal public enterprises. The mayor of Quito is the chairman of the board of directors of each company. Representation on the boards includes councilmen, technicians from the private sector, and members representing the companies' clientele. Studies prepared by IDB and a private consultant in 1977 show that EMAP and EMA have the technical and administrative capabilities to carry out large infrastructure construction programs, but that neither of the entities generates enough resources from services provided to be financially self-sufficient. The companies rely to a great extent on municipal taxes and contributions and on GOE contributions which have no relation to services provided. The financing situation is further complicated by a system of levies charged to developers for off-site infrastructure in order to raise capital.

The amount of the levies is determined and assessed on the basis of additional costs of off-site infrastructure needed to connect the development with the main systems. As a result, projects such as Solanda and other areas of southern Quito, which will probably develop as the low-cost housing section of the city, will face much higher levies than in the already highly developed northern half of Quito, where the majority of middle- and upper-class housing is located. The technical assistance component of the Project includes the provision of expertise so that the Municipality may design a base for the rationalization of water and sewer tariffs and levies which contains better provisions for future needs, and also distributes the assessments of cost more equitably.

D. ENVIRONMENTAL INSTITUTIONS

The lead agency in the housing sector, JNV, does not have trained environmental planners. Rather, its staff is composed of personnel with traditional architectural and engineering backgrounds. As a result, no process is applied involving coordination with environmental institutions, guidelines, or advanced planning and coordination using baseline environmental data.

Ecuador's environmental organizations are specialized institutions. The 1976 national environmental law established the Ecuadorean Institute of Sanitary Works (IEOS) as the coordinating agency for environmental assessment. IEOS, however, concentrates its efforts on its other roles of developing the nation's potable water and sewerage systems and does not have the staff or the capabilities to carry out its environmental function.

There are several institutions that collect environmental data which could be use of use to the JNV. The Ecuadorean Institute of Hydraulic Resources (INERHI), which is primarily involved in irrigation, collects data on drainage and soil use. The National Institute of Meteorology and Hydrology (INEMHI) is a research agency which gathers meteorological, climactic, and hydrological data for the entire country. The Ministry of Agriculture and Livestock has a National Regionalization Program, established in 1975, which is gathering information concerning the physical, socioeconomic, and agricultural environment nationwide. The GOE's Remote Sensing Center (CLIRSEN) is beginning to use satellite imagery for environmental data collection.

To assure the application of the findings of these GOE agencies to the problems of urban area projects, the Project includes TA funds for an expert to work with the JNV, the Municipality, and the other agencies as appropriate to develop environmental guidelines which will be introduced as part of JNV's project planning process.

VIII

PROJECT IMPLEMENTATION

USAID/E and RHO/PSA will be jointly responsible for managing this Project.

A. DISBURSEMENT PROCEDURES

HG loan disbursements will be scheduled over a three-year period to correspond with the construction schedule established in the Project Delivery Plan. The early disbursements will be directed at the initiation of the infrastructure construction program, and will consist of a construction advance. Subsequent disbursements will be made on presentation of eligible mortgages indicating occupancy of the constructed units. Development grant and IIPUP TA disbursements will be made prior to final HG loan negotiations to provide technical assistance so that the General Housing Advisor and the Social Planning and Development Advisor may assist the JNV/BEV and the Foundation to finalize the plans, budgets, and agreements required as conditions precedent to loan disbursement.

B. TECHNICAL ASSISTANCE PROGRAM

The technical assistance component of the Project has been designed to assure that the innovations in unit size and design, in community facilities planning and community organization, and in such areas as municipal planning and environmental assessment are incorporated formally into the project development process. The technical assistance component is the insurance that turns the pilot project into a replicable one.

The technical assistance program is structured to provide the following:

1. Long-term technical support to assist the JNV and the GOE to develop an integrated urban development system, to formulate a national housing policy, to create an urban development fund, and to implement the Solanda Project.

2. Long-term technical support to assist the JNV/BEV and the Foundation with the development of the community organization and social assistance components of the Solanda Project, including coordination of the short-term technical assistance activities.
3. Short-term technical assistance to the JNV, Municipality, the GOE's National Bureau of Standards, and agencies with environmental responsibilities to help with the definition of urban development and construction standards, particularly those appropriate for low-cost shelter projects.
4. Short-term technical assistance to the BEV and related GOE institutions to permit evaluation of the nation's housing finance policies with a view toward establishing an interest rate structure which reflects market conditions, which takes into account GOE funding capabilities, and which expands the range of financial mechanisms available to low-cost shelter project beneficiaries.
5. Short-term technical assistance to assist the JNV, the Municipality of Quito, and other institutions in improving comprehensive urban development planning, with special consideration for planning and budgeting of public utility investments and setting user charges.
6. Short-term technical assistance and travel funds to help the Foundation and other potential developers develop community owned business and other income-generating activities; the assistance is expected to include visits to non-Ecuadorean programs (e.g., in Costa Rica and Colombia) and the short-term assignment in Ecuador of specialists in small-enterprise organization, management, and marketing.
7. Short-term technical assistance and travel funds to assist the Foundation and other potential developers with their self-help housing and social activities; this assistance is expected to include on-site work as well as visits to selected non-Ecuadorean programs, such as those in Panama and Bolivia (Acción Comunal).
8. Substantial short-term technical assistance to the Foundation in community development to help with design and execution of staff training programs and of the in-community training programs related to motivation, community leadership, and the management of community organizations. Additional short-term technical assistance will be provided as needed in the areas of public health, day-care center operation, vocational training, and other adult education. Assignment of experts will be carried out by the long-term advisor so as to coordinate with the specific needs of each step of the Project.

The Project implementation schedule (see PPTN, Annex VI) indicates that once the long-term TA advisors are in place, certain short-term social development experts will be quickly required, as will specialists in setting user charges for water and sewerage. The Solanda project will be successful only if the full complement of social programs is operating or ready for implementation at the time the first houses are ready for occupancy. Therefore, considerable advance planning and training will be required. On the other hand, the technical assistance which deals with urban development planning, construction standards, public utility finance, and alternative techniques for long-term housing finance can be delayed until somewhat later during the Project's implementation, since such TA will be strengthened by evaluation of the Project's performance. Table 20 summarizes the TA program costs.

TABLE 20

TECHNICAL ASSISTANCE PROGRAM

<u>Type of Assistance</u>	<u>Person Months</u>	<u>Estimated Cost in US\$</u>	<u>FY of Expenditure</u>
<u>National Housing Policy and Development</u>			
Housing Advisor	24	\$170,000	80
Housing Finance Specialist	4	40,000	80/81
Construction Technology Specialist	4	40,000	81
Urban Designer/ Environmental Specialist	4	<u>40,000</u>	81
Subtotal		<u>\$290,000</u>	
<u>Social Planning and Community Development</u>			
Social Planning and Develop- ment Advisor	24	170,000*	80
Community Development Specialist	7	70,000	80/81
Employment Generation Specialist	4	40,000	81
Self-help Housing Specialist	3	30,000*	81
Travel		<u>30,000</u>	81
Subtotal		<u>\$340,000</u>	
Program Total		<u>\$630,000</u>	

*To be funded by an IIPUP grant.

TABLE 20
(continued)

<u>Breakdown by Year and Category</u>	<u>FY 80</u>	<u>FY 81</u>	<u>Total</u>
Development Grant	\$280,000	\$150,000	\$430,000
IIPUP	<u>200,000</u>		<u>200,000</u>
Total	\$480,000	\$150,000	\$630,000

C. PROJECT AGREEMENTS

Prior to disbursement of the HG loan, the following agreements will have to be signed in the order in which they appear:

1. Implementation Agreement between AID, the BEV/JNV, the Foundation, and the Municipality of Quito, detailing the procedures for the execution of the Project, the reporting requirements, and limitations on the uses of the HG funds.
2. Development Grant and IIPUP Grant Agreements between AID, the JNV/BEV, and the Foundation, specifying the beneficiary institutions and the uses of the funds.
3. Guaranty Agreement signed by AID, assuring any investor against loss.
4. Host Country Guaranty, guarantying AID against any loss due to the inability of the Ecuadorean borrower to meet its financial obligations.
5. Loan Agreement between the BEV and the U.S. party or parties selected as investors.

D. COVENANTS

In the Implementation Agreement, the participating institutions will be required to covenant the following:

1. The BEV will make available all funds necessary to begin construction of solutions and infrastructure according to the schedule established by the Project Delivery Plan.
2. The BEV will provide long-term mortgage financing to the extent not covered by HG funds and the beneficiaries' downpayments.

3. The BEV will set a policy regarding loan terms which, while set to reflect the limited financial capacity of the project beneficiaries, will not contribute to a decapitalization of the institution.
4. The Municipality will make a formal commitment (e.g., budget allocation, signing of loans) to supply the Solanda Project with water from the EMAP Chillogallo project according to the schedule established by the Solanda Project's delivery plan.
5. The Municipality will provide a formal commitment (e.g., budget allocation, signing of loans) to schedule channeling of the Rio Grande for storm and waste water in those sections of the River adjacent to the Solanda site in accordance with the Project delivery plan.
6. The JNV and the Foundation will obtain formal commitments from the appropriate authorities to equip and staff the community facilities and to extend public transportation and other municipal services to the community in accordance with its development schedule.
7. The JNV will agree to investigate, with TA as necessary, the way in which environmental impact assessment can be incorporated into the Project planning and development process.
8. The Foundation will arrange financing for and construction of all community facilities included in the Project Delivery Plan.
9. The Foundation will formally commit itself to expand its staff or to contract the necessary personnel to carry out the community facilities and social development programs identified in the implementation agreement. In so doing, the Foundation will agree to create within its organization a department whose staff is exclusively focused on the Solanda Project.
10. The Foundation will agree to deposit in a special account the net cash received from El Pedregal sales in the amount necessary to cover its commitments under the Project.
11. The Foundation will borrow any additional funds needed to complete, in a timely fashion, its commitments under the Project.
12. The BEV will select beneficiaries with family incomes ranging between the 10th and 45th percentiles of the metropolitan area's income distribution, with the solutions to be distributed according to income as follows:

<u>Income Percentiles</u>	<u>Distribution of Solution</u>	<u>Estimated Solution Type</u>
10th-13th	10%	A ₃
14th-26th	60%	A ₄ , B ₄ , A ₅
27th-36th	21%	B ₅
37th-44th	<u>9%</u>	D ₃
	100%	

E. CONDITIONS PRECEDENT

Prior to the search for a U.S. investor, AID will require that the following conditions be met:

1. Submission for approval of a Project Delivery Plan by the JNV/ Foundation that details project timing, project financing, project output, and the delivery of that output to the beneficiaries. The Project Delivery Plan should make clear the Foundation's program for developing community facilities and the projected budget for this effort. It should also include the plan for off-site infrastructure being executed by EMAP and EMA. The Project Delivery Plan will be approved by AID.
2. Formal agreement among the JNV/BEV, the Foundation, and the Municipality defining areas of responsibility for delivery of Project components (i.e., off-site infrastructure, project design, community facilities).
3. Preparation of a staffing plan by the Foundation reflecting the projected increase in staff and the training program which will be required in order to assist in project implementation.

F. EVALUATION

Because the Solanda Project has been designed and selected for its influence on the development of the southern section of Quito and for its influence on the process of integrated urban development to be applied at the national level, evaluation of progress is essential. The Project implementation schedule (see the PPTN) calls for four evaluations during the execution of the Project. Each one will be carried out in such a way that all the Project participants can review how their own inputs are coordinated with those of their associates and

can decide what adjustments need to be made in the Project delivery process.

The first evaluation will fall at a time when first-phase dwelling unit construction is about to begin, permitting a check on the progress of infrastructure (on- and off-site) construction, and on the progress of the beneficiary selection process. It will also permit evaluation of the considerable social organization TA to date and on the beginnings of the national policy and mechanism-related TA. The interim evaluations will have special importance in that they will serve to evaluate the effort to develop integrated projects throughout the nation's urban areas. Only the effective delivery of this type of activity will permit achievement of the project goal. These interim evaluations will therefore have an important bearing on the development of future HG projects. The final evaluation is mandatory in all AID projects, but is critical in this case in helping AID to determine if the goal and objectives of the Project were achieved, or if not, what the causes were for the shortfall. Since USAID is planning a series of integrated urban development projects for Ecuador, this final evaluation will be of crucial programming importance.

G. PROJECT PERFORMANCE TRACKING NETWORK

Annex VI enumerates the events of the Project Performance Tracking Network (PPTN) for the Solanda Project. These events are charted graphically as well.

ANNEX I

LOGICAL FRAMEWORK

**PROJECT DESIGN SUMMARY
 LOGICAL FRAMEWORK**

(INSTRUCTION: THIS IS AN OPTIONAL FORM WHICH CAN BE USED AS AN AID TO ORGANIZING DATA FOR THE PAR REPORT. IT NEED NOT BE RETAINED OR SUBMITTED.)

Life of Project:
 From FY 80 to FY 80
 Total U.S. Funding \$20,650,000
 Data Prepared:

Project Title & Number: 518-0030 and 518-BG-005 Ecuador: Integrated Urban Devel.

RELATIVE STIMULI	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>Program or Sector Goal: The longer objectives to which this project contributes: (A-1)</p> <p>Improved shelter and income for the urban poor as the result of GOE policies and programs which specifically direct public and private sector production of integrated shelter and urban development projects.</p>	<p>Measures of Goal Achievement: (A-2)</p> <p>The existence of a GOE plan for urban development which has set priority areas for comprehensive low-cost shelter projects, and by five years from project start, the execution of programs producing about 5,000 units yearly</p>	<p>(A-3)</p> <p>The Mariana de Jesús Foundation will make an end-of-Project evaluation of the Solanda Project, using studies of other neighborhoods as comparison. Baseline data will continue to be collected on future Solanda beneficiaries.</p>	<p>Assumptions for achieving goal targets: (A-4)</p> <p>GOE continues to have as a high priority the provision of shelter, social services, and employment opportunities to the urban poor.</p>

PROJECT DESIGN SUMMARY
LOGICAL FRAMEWORK

Life of Project: _____
From FY _____ to FY _____
Total U.S. Funding _____
Date Prepared: _____

I

AND 1000-20 (5-72)
DHQP/LS/MS/1

Project Title & Number: _____

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>Project Purpose: (B-1)</p> <ol style="list-style-type: none"> To provide an example to both the GOE and municipal governments of the planning procedures and techniques which are necessary to carry out integrated shelter and urban development projects, and to help in the establishment of guidelines which can be applied to future projects. To provide an example of the types of community organization and social support programs which should be applied to low-cost shelter programs in order to maximize the benefit to the economic welfare of the project residents. 	<p>Conditions that will indicate purpose has been achieved: End-of-Project status. (B-2)</p> <ol style="list-style-type: none"> Existence of a coordinating entity and a fund at the highest GOE level which provide policy and funding direction for integrated shelter and urban development projects designed for low-income families. Completion of a housing project which has required coordinated production of shelter solutions with on-site and off-site infrastructure (as necessary), and with social development programs designed to help the project beneficiaries make the most productive use of their new conditions. Published guidelines which reflect careful analysis of the dynamics of low-income neighborhoods, and set standards of construction and services which are related to progressive improvements in income and community interaction. 	<p>(B-3)</p> <p>Joint AID/JNV Foundation final evaluation of Project.</p> <p>(B-2 Cont'd.)</p> <ol style="list-style-type: none"> Revision of municipal building and subdivision codes to reflect the concept of progressive subdivision development which more closely relates to the financial capacity of low-income families. 	<p>Assumptions for achieving purpose: (B-4)</p> <p>The Office of the Vice President continues to support the concept of integrated urban development.</p> <p>The JNV/BEV, municipalities, and private institutions are willing to work together in a coordinated fashion on integrated urban development projects, and are willing to adopt policies and standards appropriate for low-income beneficiaries.</p>

PROJECT DESIGN SUMMARY
LOGICAL FRAMEWORK

Life of Project:
From FY _____ to FY _____
Total U.S. Funding _____
Date Prepared: _____

Project Title & Number: _____

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>Project Outputs: (C-1)</p> <ol style="list-style-type: none"> 1. A planning process that can serve as a model for application in urban areas of the country which will assure the coordination of public and private sector institutions in the production of integrated urban development projects. 2. A comprehensively planned residential development of the Hacienda Solanda site in Quito, directed at families with incomes ranging between the 10th and 45th percentiles of the income distribution for the nation's capital. 3. A technical assistance program directed at the development of national policy, standards and techniques. 4. A technical assistance program directed at social development and community organization. 	<p>Magnitude of Outputs: (C-2)</p> <ol style="list-style-type: none"> 1. Construction of approximately 4,500 shelter solutions, all of which will be units requiring completion or expansion by the homeowner. The units will have habitable areas ranging between 20 m² and 78 m² on lots of 60 m² to 122 m², with all units having individual water and sewer connections and sanitary fixtures. 2. Construction of the related community facilities including schools, a health care center, day-care centers, public service outlets (e.g., police, municipal), commercial outlets, a cultural and community center, and offices for cooperative organizations. 3. The necessary on-site and off-site infrastructure, including water supply, storm and sanitary sewers, access routes, and electricity. 4. A comprehensive community development program, to include neighborhood organization, social assistance, construction assistance, and the support or creation of small businesses and community-owned enterprises. <p>...</p>	<p>(C-3)</p> <p>Project records and evaluations.</p> <p>(C-2, Cont'd)</p> <ol style="list-style-type: none"> 5. A set of urban development and low-cost shelter design standards, and environmental protection guidelines. 6. Shelter finance policies to reflect the need for flexibility when dealing with low-income families (financing of partial solutions, graduated-payment financing, and the need to maintain a healthy base of resources in addition to GOE funding available for investment in shelter programs. 7. A set of guidelines dealing with the setting of user charges and other policies of local governments affecting urban planning and design. 8. The application of a comprehensive planning process between the public and private sector institutions working on the implementation of the Hacienda Solanda Project. 9. The formulation and application of an evaluation system for the Solanda Project. The results of such evaluation will be incorporated into the overall formulation of a national system for integrated urban programs for the poor. <p>...</p>	<p>Assumptions for achieving outputs: (C-4)</p> <p>Costs remain within budget, and the beneficiaries' incomes at least keep up with inflation costs.</p> <p>(C-2, Cont'd)</p> <ol style="list-style-type: none"> 10. A model program of community development and organization with emphasis on the design and use of appropriate facilities and income generation. 11. A program for assisting self-help housing construction and home improvement.

AID 1020-20 (11-75)
SUPPLEMENT 1

PROJECT DESIGN SUMMARY
LOGICAL FRAMEWORK

Life of Project: _____
From FY _____ to FY _____
Total U.S. Funding: _____
Date Prepared: _____

Project Title & Number: _____

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>Project Inputs: (D-1)</p> <ol style="list-style-type: none"> 1. HG Loan 2. AL Grants for T/A 3. BEV Mortgage Lending 4. Homeowner Downpayments 5. Foundation Donation of Land and Community Facilities 6. Municipal Government Infrastructure Investment 	<p>Implementation Target (Type and Quantity) (D-2)</p> <ol style="list-style-type: none"> 1. \$20 million 2. \$630,000 3. 7.9 million 4. 2.8 million 5. 22.83 million 6. 11.15 million <hr/> <p>\$64.69 million</p>	<p>(D-3)</p> <p>Project records and evaluations.</p>	<p>Assumptions for providing inputs: (D-4)</p> <p>Foundation, JNV and BEV remain financially sound and carry out their roles in the project. Municipality of Quito continues its support of Project and carries out infrastructure work in timely way.</p> <p>Water and sewerage installation rates are as indicated in PP.</p> <p>A U.S. investor can be found.</p>

ANNEX II

LEGAL DOCUMENTS



JUNTA NACIONAL DE LA VIVIENDA

APARTADO 3244

TELEX 2399 "DEV-ED"

202-4

QUITO - ECUADOR

0979

Señor
Jhon A. Sanbrailo
JEFE DE LA MISION DE LA A.I.D.
EN EL ECUADOR
Ciudad.-

29 NOV. 1979

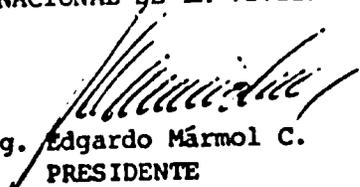
Distinguido Señor Sanbrailo:

Por la presente queremos ratificar a Usted el interés del Banco Ecuatoriano de la Vivienda para recibir un crédito de hasta por Veinte Millones de Dólares que financiaría la construcción de 4.500 unidades habitacionales de bajo costo en el sector de Solanda, al Sur de la ciudad de Quito.

Como es de su conocimiento en varias oportunidades se han adelantado conversaciones para concretar la viabilidad de dicho proyecto el mismo que se encuentra en su fase mas adelantada, por lo que estimamos ratificar a Usted nuestro deseo de continuar adelante con las negociaciones referidas.

Aprovecho la oportunidad para reiterar a Usted, los sentimientos de mi mas alta consideración y estima.

Muy atentamente,
JUNTA NACIONAL DE LA VIVIENDA


Ing. Edgardo Marmol C.
PRESIDENTE

DEPARTMENT OF STATE
AGENCY FOR INTERNATIONAL DEVELOPMENT
WASHINGTON, D.C. 20521

THE HOUSING GUARANTY PROGRAM

STATUTORY CHECKLIST

Answer YES/NO

A. General Criteria Under HG Statutory Authority.

Section 221(a)

Will the proposed project meet the following criteria:

(1) is intended to increase the availability of domestic financing by demonstrating to local entrepreneurs and institutions that providing low-cost housing is financially viable;

YES, PP. 6, 8, 17, 24, 87

(2) is intended to assist in marshalling resources for low-cost housing;

YES-See Financial Plan

(3) supports a pilot project for low-cost shelter, or is intended to have a maximum demonstration impact on local institutions and national policy; and

YES, 26, 27, 28, 29

(4) is intended to have a long run goal to develop domestic construction capabilities and stimulate local credit institutions to make available domestic capital and other management and technological resources required for low-cost shelter programs and policies?

YES, 28, 29, 30

Section 222(a)

Will the issuance of this guaranty cause the total face amount of guaranties issued and outstanding at this time to be in excess of \$1,555,000,000?

NO

Will the guaranty be issued prior to September 30, 1982?

YES

Section 222(b)

Will the proposed guaranty result in activities which emphasize:

(1) projects providing improved home sites to poor families on which to build shelter and related services;

N/A

- (2) projects comprised of expandable core shelter units on serviced sites;
- (3) slum upgrading projects designed to conserve and improve existing shelter;
- (4) shelter projects for low-income people designed for demonstration or institution building; and
- (5) community facilities and services in support of projects authorized under this section to improve the shelter occupied by the poor?

YES, 37, 38, 45

N/A

YES, 26, 27, 28, 29

YES, 26, 27, 28, 38, 39

Section 222(c)

If the project requires the use or conservation of energy, was consideration given to the use of solar energy technologies, where economically or technically feasible?

YES, P. 52

Section 223(a)

Will the A.I.D. guaranty fee be in an amount authorized by A.I.D. in accordance with its delegated powers?

YES

Section 223(f)

Is the maximum rate of interest allowable to the eligible U.S. Investor as prescribed by the Administrator not more than one percent (1%) above the current rate of interest applicable to housing mortgages insured by the Department of Housing and Urban Development?

YES

Section 223(h)

Will the Guaranty Agreement provide that no payment may be made under any guaranty issued for any loss arising out of fraud or misrepresentation for which the party seeking payment is responsible?

YES

Section 223(j)

- (1) Is the host country a country that is presently receiving development assistance under chapter I of part I of the Act or one that has received such assistance in the preceding two years?
- (2) Will the proposed Housing Guaranty be coordinated with and complementary to other development assistance in the host country?
- (3) Will the proposed Housing Guaranty demonstrate the feasibility of particular kinds of housing and other institutional arrangements?

Statute Repealed

YES

YES, 37, 38, 45

(4) Is the project designed and planned by A.I.D. so that at least 90 percent of the face value of the proposed guaranty will be for housing suitable for families below the median income, or below the median urban income for housing in urban areas, in the host country?

YES, 100% will be below median income

(5) Will the issuance of this guaranty cause the face value of guaranties issued with respect to the host country to exceed \$25 million in any fiscal year?

NO

(6) Will the issuance of this guaranty cause the average face value of all housing guaranties issued in this fiscal year to exceed \$15 million?

NO

Section 238(c)

Will the guaranty agreement provide that it will cover only lenders who are "eligible investors" within the meaning of this section of the statute at the time the guaranty is issued?

YES

B. Criteria Under General Foreign Assistance Act Authority.

Section 620/620-A

1. Does the host country meet the general criteria for country eligibility under the Foreign Assistance Act as set forth in the country eligibility checklist prepared at the beginning of each year?

YES

2. Is there any reason to believe that circumstances have changed in the host country so that it would now be ineligible under the country statutory checklist?

NO

I-5

**UNITED STATES INTERNATIONAL DEVELOPMENT COOPERATION AGENCY
AGENCY FOR INTERNATIONAL DEVELOPMENT
WASHINGTON D C 20523**

GUARANTY AUTHORIZATION

PROJECT 518-HG-005

Provided From: Housing Guaranty Authority

For: The Government of Ecuador

Pursuant to the authority vested in the Acting Assistant Administrator, Latin America and the Caribbean, by the Foreign Assistance Act of 1961, as amended (FAA), and the delegations of authority issued thereunder, I hereby authorize the issuance of guaranties pursuant to Section 222 of the FAA of not to exceed twenty million dollars (\$20,000,000) in face amount, assuring against losses (of not to exceed one hundred percent (100%) of loan investment and interest) with respect to loans by eligible U.S. investors (Investor) acceptable to A.I.D. made to finance shelter activities in Quito, Ecuador. The borrower shall be the Ecuadorean Housing Bank referred to herein as "borrower" or "BEV". This guaranty will assist in financing a housing project for low-income households primarily in the southern area of Quito known as the Hacienda Solanda site. Facilities and services eligible to be financed hereunder shall include:

- (a) Approximately 4,500 basic shelter solutions;
- (b) Community facilities (e.g., schools, clinics, and markets);
- (c) Necessary infrastructure (e.g., streets, sewerage, water and electricity);
- (d) A comprehensive development program to include neighborhood organization, social assistance, employment generation and construction assistance, and
- (e) A technical assistance program designed to assist the development of policies and institutions designed to address the needs of the low-income shelter sector of Ecuador.

This guaranty shall be subject to the following terms and conditions:

1. Term of Guaranty: The loan shall extend for a period of up to thirty years (30) from the date of disbursement and may include a grace period of up to ten years on repayment of principal. The guaranty of the loans shall extend for a period beginning with the first disbursement of the loans and shall continue until such time as the Investor has been paid in full pursuant to the terms of the loans.

2. Interest Rate: The rate of interest payable to the Investor pursuant to the loans shall not exceed the allowable rate of interest prescribed pursuant to Section 223(f) of the FAA and shall be consistent with rates of interest generally available for similar types of loans made in the long-term U.S. capital markets.

3. Government of Ecuador Guaranty: The Government of Ecuador shall provide for a full faith and credit guaranty to indemnify A.I.D. against all losses arising by virtue of A.I.D.'s guaranty to the Investor or from non-payment of the guaranty fee.

4. Fee: The fee of the United States shall be payable in dollars and shall be one-half percent (1/2%) per annum of the outstanding guaranteed amount of the loans plus a fixed amount equal to one percent (1%) of the amount of the loans authorized or any part thereof, to be paid as A.I.D. may determine upon disbursement of the loans.

5. Other Terms and Conditions: the guaranty shall be subject to such other terms and conditions as A.I.D. may deem necessary.

The project shall be governed by the following covenants:

1. Cost Recovery: The BEV will set a policy regarding loan terms which, while set to reflect the limited financial capacity of the project beneficiaries, will not contribute to a decapitalization of the institution.

2. The Municipality: The Municipality of Quito will make a commitment (e.g., budget allocation, signing of loans) to supply the Solanda Project with water and to schedule channeling of the Rio Grande for storm and waste water in those sections of the River adjacent to the Solanda site in accordance with the Project Delivery Schedule.

3. Community Services and Facilities: The BEV or other implementing agencies will obtain formal commitments from the appropriate authorities to equip and staff the community facilities and to extend public transportation and other municipal services to the community in accordance with its development schedule. Further, there shall be formal agreements among the various implementing agencies defining areas of responsibility for delivery of Project components (e.g., off-site infrastructure, project design, community facilities.)

4. Beneficiaries: The BEV will select beneficiaries with family incomes ranging between the 10th and 45th percentiles of the metropolitan area's income distribution, with the shelter solutions to be designed to be affordable by a broad-range of beneficiaries within the above mentioned percentiles.

5. Evaluation: The BEV shall prepare a mutually agreeable evaluation plan for the Project based upon DS/H's Published Guidelines for Evaluation and Monitoring dated 1978, as amended.

6. Other Terms and Conditions: The Project shall be subject to such other terms and conditions as A.I.D. may deem necessary.

<hr/>	<hr/>
Edward Coy	Date
Acting Assistant Administrator	
Bureau for Latin America and	
the Caribbean	

Clearances:

GC/LA:JKessler	_____	Date	_____
LAC/DR:MBrown	_____	Date	_____
LAC/DR:NParker	_____	Date	_____
LAC/SA:RWeber	_____	Date	_____
DS/H:DMcVoy	_____	Date	_____
GC/H:MGKitay	_____	Date	_____
FM/LD:ASmith	_____	Date	_____

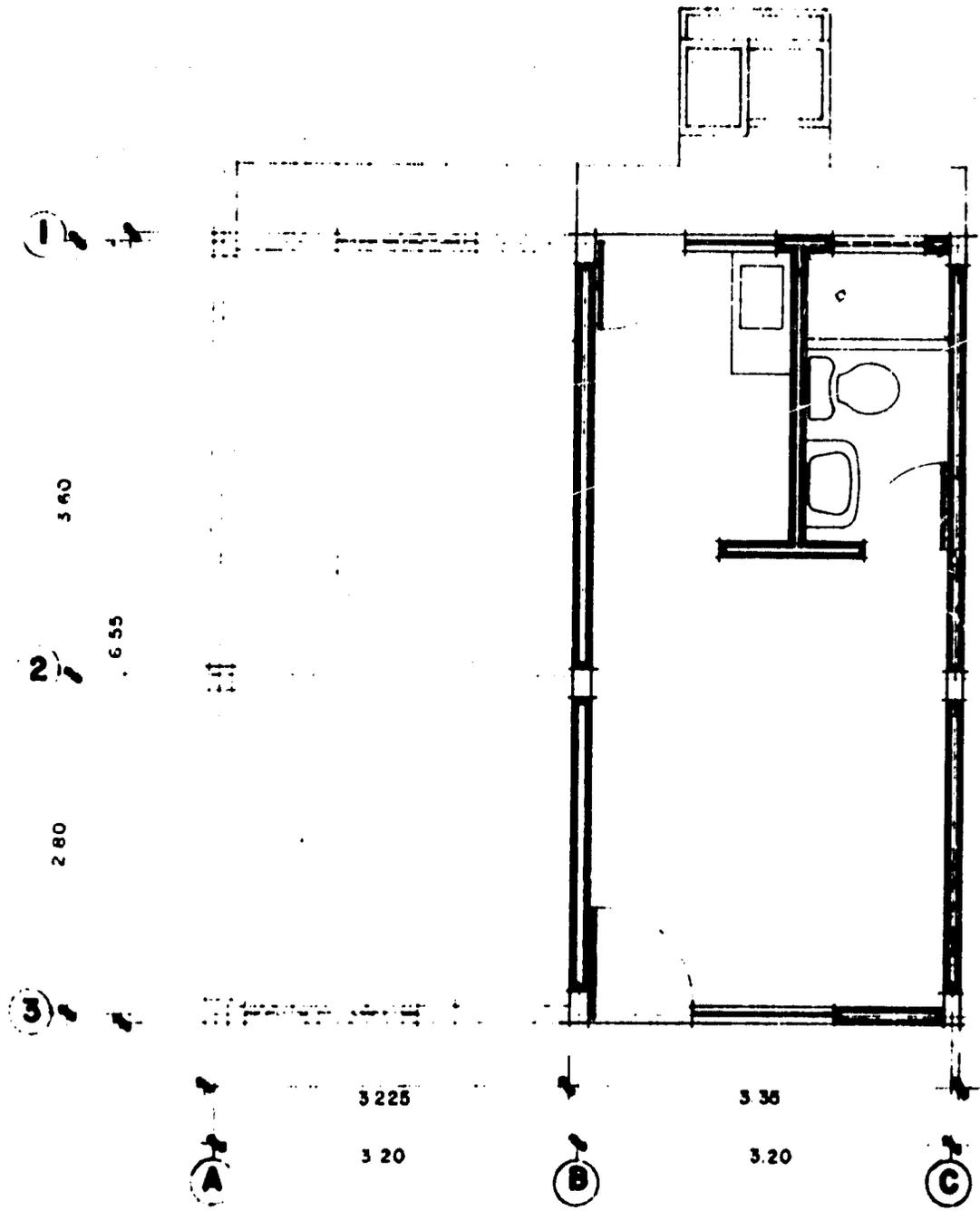
DRAFTED:MKitay:SFBG:1/4/80

ANNEX III

TECHNICAL PLANS OF HOUSING SOLUTIONS

ANNEX III

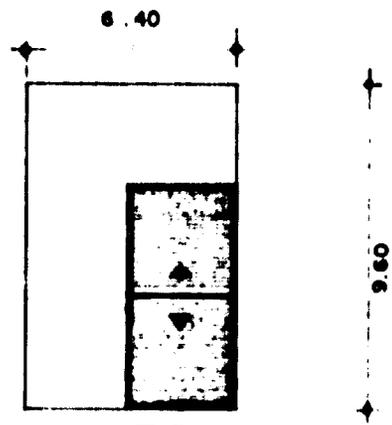
Type A-3



Type A-3

ESPECIFICACIONES

- 1.- CIMENTACION CIMENTOS DE PIEDRA, PLINTOS DE HORMIGON CICLOPEO.
- 2.- PAREDES. LAORILLO JABONCILLO COMUNES.
- 3.- ESTRUCTURA DE HORMIGON ARMADO TOTAL, COLUMNAS Y VIGAS
- 4.- CUBIERTA DE ETERRIT CON CUBIERTA DE MADERA
- 5.- PISO CONTRAPISO DE HORMIGON SIMPLE -ENCEMENTADO DE COLOR.
- 6.- PUERTAS 3 UNIDADES DE MADERA TRIPLEX COMUN
- 7.- VENTANAS DE HIERRO DE 1" x 1/8" SIN PROTECCION
- 8.- VIDRIOS 2 y 3 mm
- 9.- INSTALACIONES SANITARIAS AGUA FRIA-HIERRO GALVANIZADO, DESAGUES-TUB. CEMENTO.
- 10.- PIEZAS SANITARIAS LAVABO, INODORO, DUCHA, LAVANDERIA, LAVAPLATOS SIN ESCURRIDERO
- 11.- INSTALACIONES ELECTRICAS EMPOTRADAS (PANEL ELECTRICO)
- 12.- BAÑO CON AZULEJO COMUN, CLASE B
- 13.- CERRAJERIA 3 CHAPAS DE LLAVE Y BOTON
- 14.- LOSETA DE M.A. ALISADO DE COLOR DE 1M DE LONGITUD EN LA COCINA
- 15.- CERRAMIENTOS: SOLO CIMENTACION



TIPO A3

AREA LOTE 61.44 m²
 AREA VIVIENDA 21.90 m²
 COSTO LOTE \$/38.083
~~.....~~ \$2,903 COSTO VIVIENDA
~~.....~~
 COSTO TOTAL \$/10,986 90,996
 PORCENTAJE DE VIVIENDA 10 %

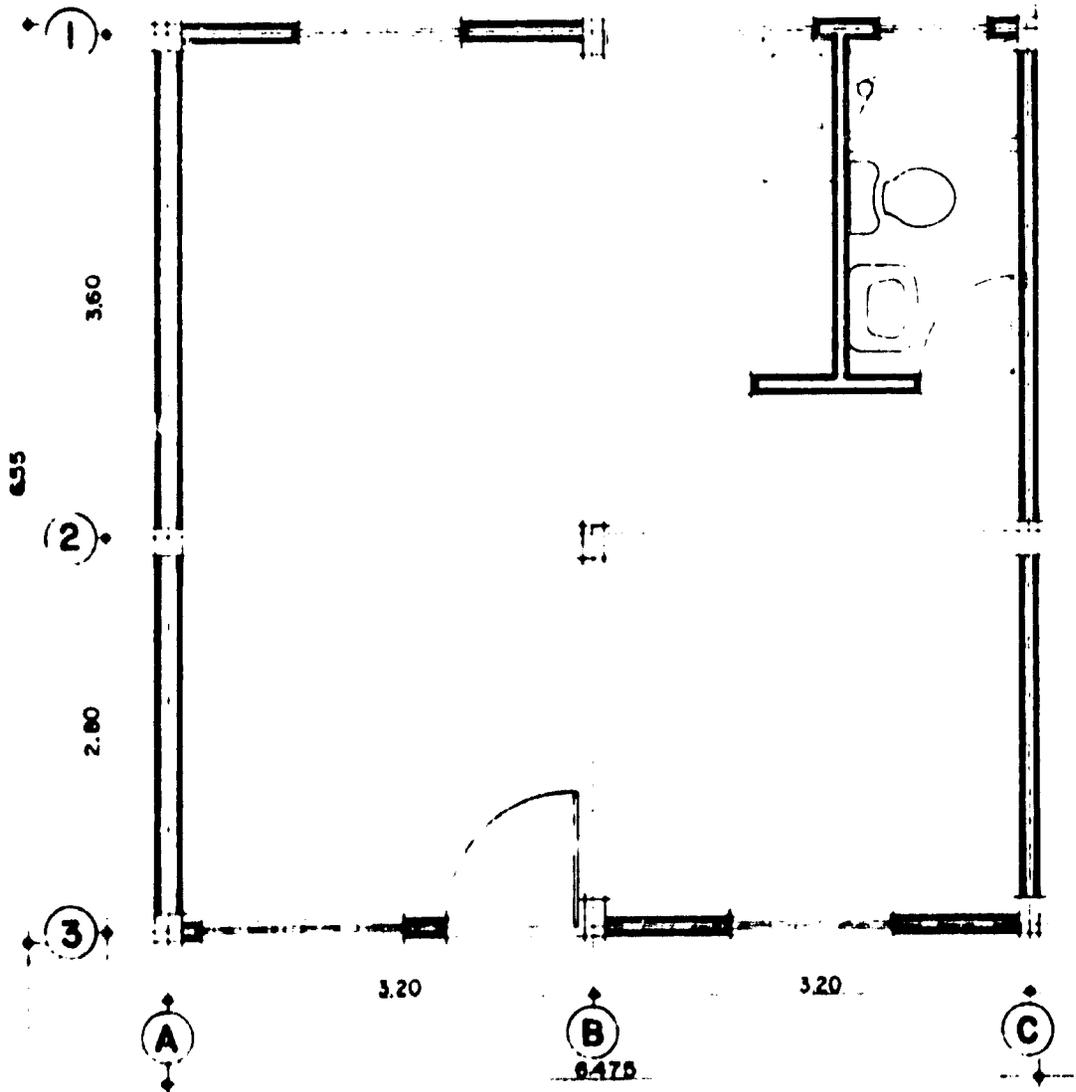
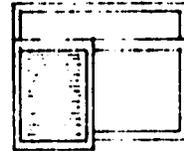
Tipos A₄, B₄

VIVIENDA TIPO INDIVISA

PAREDES PERIMETRALES, UNIDAD SANITARIA

ESTRUCTURA DE HORMIGON ARMADO

AREA CONSTRUCCION 42.50 m²



Tipos A4, B4

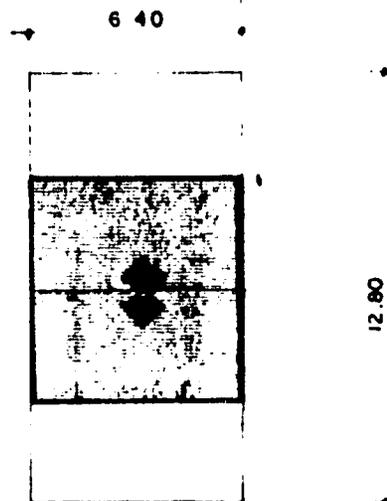
ESPECIFICACIONES

- 1 CIMENTACION: CIMIENTOS DE PIEDRA; PLINTOS DE HORMIGON CICLOPEO
- 2 PAREDES LADRILLO MAMBRON Y JABONCILLO COMUNES
- 3 ESTRUCTURA DE HORMIGON ARMADO TOTAL; COLUMNAS Y VIGAS
- 4 CUBIERTA DE ETERNIT CON CUBIERTA DE MADERA
- 5 PISO CONTRAPISO DE HORMIGON SIMPLE Y ENCEMENTADO DE COLOR
- 6 PUERTAS: 3 UNIDADES DE MADERA TRIPLEX COMUN
- 7 VENTANAS: 5 UNIDADES DE HIERRO DE 1" x 1/8" SIN PROTECCION
- 8 VIDRIOS: 2 y 3 m.m.
- 9 INSTALACIONES SANITARIAS: AGUA FRIA-HIERRO GALVANIZADO, DESAGUES-TUBERIA DE CEMENTO
- 10 PIEZAS SANITARIAS: LAVABO, INODORO, DUCHA, LAVANDERIA, LAVAPLATOS SIN ESCURRIDERA
- 11 INSTALACIONES ELECTRICAS: EMPOTRADAS (PANEL ELECTRICO)
- 12 BAÑO CON AZULEJO COMUN; CLASE B
- 13 CERRAJERIA: 3 CHAPAS DE LLAVE Y BOTON
- 14 LOSETA DE H.A. ALISADO DE COLOR DE I.M. DE LONGITUD
- 15 CERRAMIENTOS SOLO CIMENTACION



TIPO A-4

AREA LOTE: _____ 61.44 m²
 AREA VIVIENDA: _____ 42.50 m²
 COSTO LOTE: _____ / 38.093
 COSTO VIVIENDA: _____ / ~~120,395~~ 69,605
~~COSTO TOTAL~~ _____ / ~~158,488~~ 107,698
 COSTO TOTAL _____ / ~~158,488~~
 PORCENTAJE DE VIVIENDA 45%

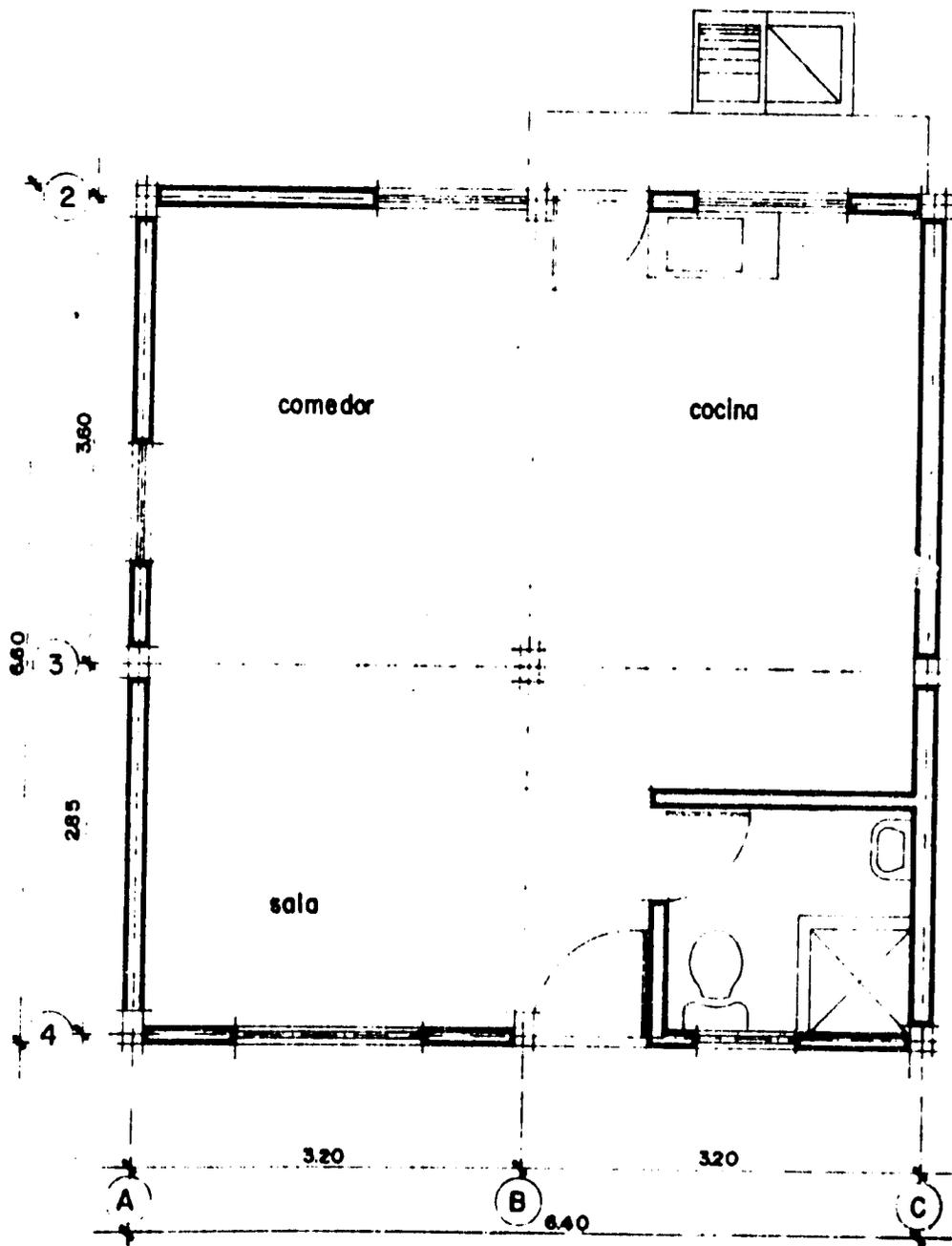


TIPO B4

AREA LOTE: _____ 81.90 m²
 AREA VIVIENDA _____ 42.50 m²
 COSTO LOTE _____ / 50.790
 COSTO VIVIENDA: _____ / ~~120,395~~ 69,605
~~COSTO TOTAL~~ _____ / ~~158,488~~
 COSTO TOTAL _____ / ~~158,488~~ 120,395
 PORCENTAJE DE VIVIENDA 10%

Types A₅, B₅, D₃VIVIENDA TIPO INDIVISA

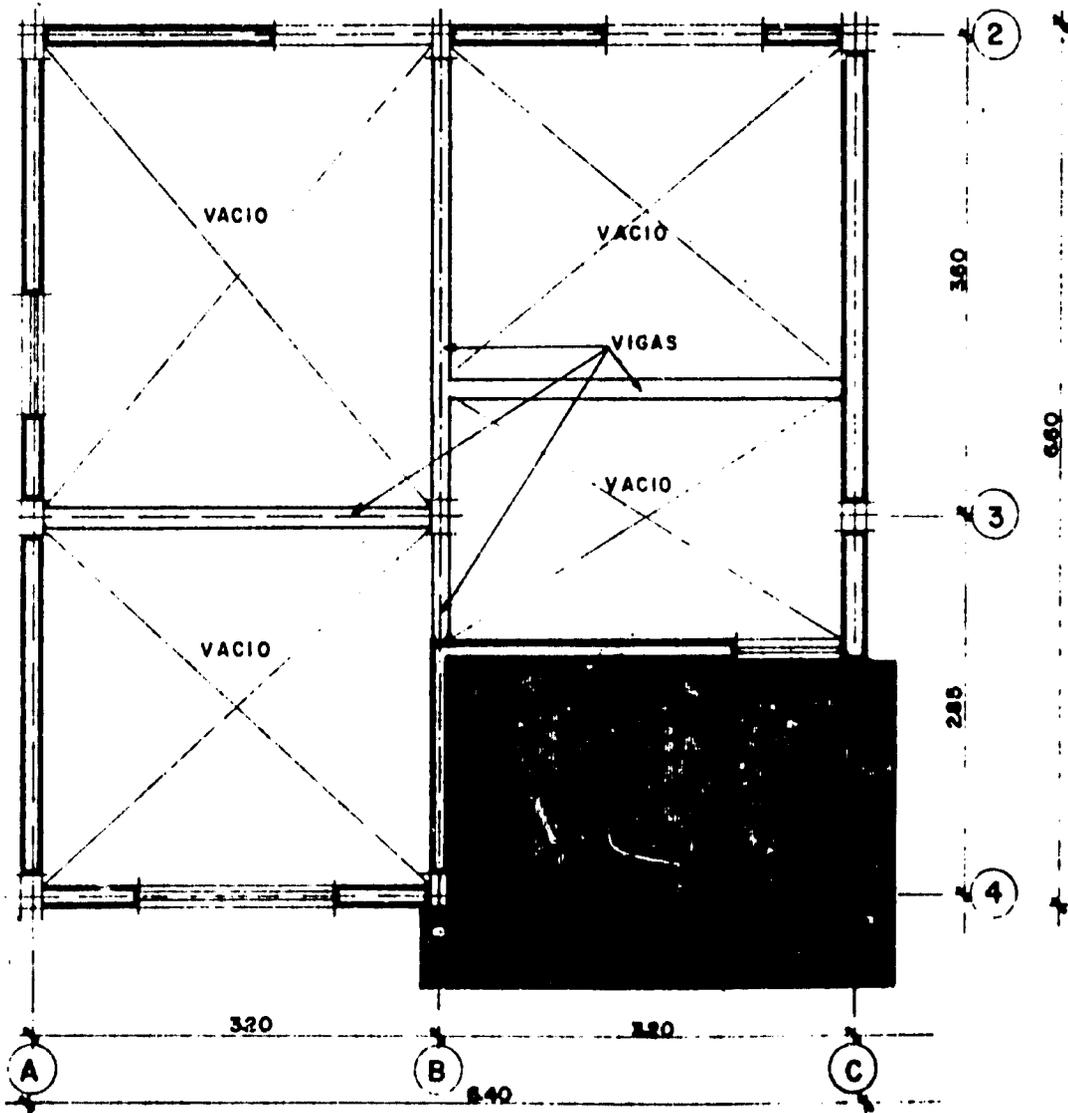
PAREDES PERIMETRALES EN PLANTA BAJA Y
PLANTA ALTA, SIN ENTREPISO NI GRADA, ESTRUCTURA DE H.A.



PLANTA BAJA

TIPO CASA (2 PLANTAS)

A5
B5
D



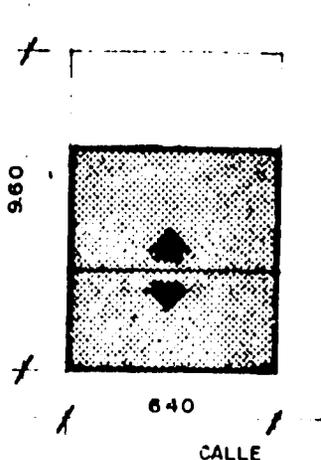
PLANTA ALTA

Lot Fit Types A5 B5 D3

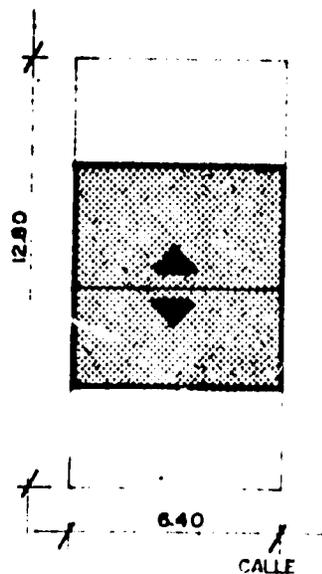
ESPECIFICACIONES

Vivienda tipo , indivisa.

- 1.Cimentación: cimientos de piedra, pilotos de hormigón ciclópico.
- 2.Paredes de ladrillo mamporrón y jaboncillo comunes.
- 3.Estructura de hormigón armado total, columnas y vigas.
- 4.Cubierta de eternit con cubierta de madera.
- 5.Piso: contrapiso de hormigón simple y en cementado de color.
- 6.Puertas: 3 unidades de madera triplex común.
- 7.Ventanas: 10 unidades de hierro de 1"x1/8" sin protección.
- 8.Vidrios de 2 y 3 m.m.
- 9.Instalaciones sanitarias: agua fría: hierro galvanizado; agua caliente: tubería cemento.
- 10.Piezas sanitarias: lavabo, inodoro, ducha, lavandería, lavaplatos sin escurridera.
- 11.Instalaciones eléctricas empotradas (panel eléctrico).
- 12.Baño con azulejo común, clase B.
- 13.Cerrajería: 3 chapas de llave y botón.
- 14.Loseta de hormigón armado, alisado de color, de 1m. de longitud.
- 15.Cerramiento, solo cimentación.



TIPO A5

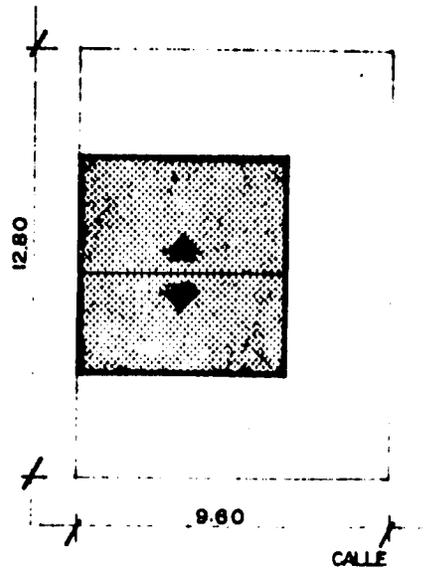


TIPO B5

AREA DEL LOTE	61.50 m ²
AREA VIVIENDA	78.00 m ²
COSTO DEL LOTE	✓ 38.093.00
COSTO VIVIENDA	✓ 122,557 84,464
COSTO TOTAL	✓ 160,650 122,557
PORCENTAJE DE VIVIENDA	5 %

AREA DEL LOTE	61.90 m ²
AREA VIVIENDA	78.00 m ²
COSTO DEL LOTE	✓ 50.790.00
COSTO VIVIENDA	✓ 122,557 84,464
COSTO TOTAL	✓ 173,347 195,254
PORCENTAJE DE VIVIENDA	21 %

Lot Fit Types A₅ B₅ D₃



TIPO D3

AREA DEL LOTE	122.40 m ²	
AREA DE VIVIENDA	78.00 m ²	
COSTO DEL LOTE	v. 76.186.00	
COSTO VIVIENDA	v. 8.000.00	84,464
<hr/>		
COSTO TOTAL	v. 84.186.00	140,650
PORCENTAJE DE VIVIENDA	9%	

ANNEX IV

SOCIAL ANALYSIS - SUPPORTING TABLES

TABLE IV - 1MONTHLY EXPENDITURES OF THE AVERAGE URBAN WORKER

Costs in Dollars as of November, 1977

General Index	\$	%
<u>General Index</u>	<u>179.88</u>	<u>100.0</u>
Food	101.89	56.6
Housing	29.67	16.4
(rent, taxes, utilities)		
Furnishings	6.49	3.6
Clothing	17.98	9.9
Miscellaneous	24.18	13.4

Source: Carlos Luzuriaga's Poverty in Ecuador. TABLE 9. USAID, Quito.
February, 1979.

TABLE IV - 4

FAMILY COMPOSITION OF APPLICANTS FOR SOLANDA PROJECT

No. Of Family	No. Of Families	% Per Group
1	5	.5
2	35	3.7
3	120	12.7
4	158	16.5
5	170	17.8
6	153	16.0
7	110	11.5
8	90	9.4
9	49	5.1
10	24	2.5
11	21	2.2
12	12	1.2
13	3)	
14	2)	.5
	<hr/>	
TOTAL	952	100

Source: Original Data, Fundación Mariana de Jesús, Quito, 1979

TABLE IV - 5

FAMILY INCOME

<u>Income</u>	<u>Number</u>	<u>%</u>
Up to 1,500	30	3.2
1,501 - 3,000	192	20.0
3,001 - 5,000	357	37.5
5,001 - 7,000	200	21.0
more than 7,000	<u>171 (a)</u>	<u>18.0</u>
Total	952	100

Source: Original data, Fundación Mariana de Jesús - Quito, 1977
(a) applicants whose income exceeds the maximum established by the Fundación.

TABLE IV - 6

AGE OF APPLICANTS FOR THE SOLANDA PROJECT

Age Group	Number	%
15 - 19	4	1.3
20 - 25	18	5.7
25 - 30	59	18.7
31 - 35	48	15.2
36 - 40	55	17.4
41 - 45	34	10.8
46 - 50	41	13.0
51 - 55	32	10.0
56 - 60	13	4.0
60 +	12	3.7
TOTAL	316	99.9

Source: Original data, Fundación Mariana de Jesús, Quito-Ecuador, 1977.

TABLE IV - 7

LEVEL OF EDUCATION OF APPLICANTS FOR "SOLANDA" PROJECT

<u>Level of Education</u>	<u>No.</u>	<u>Percentage</u>
None	6	2.0
Primary (0-6, incomplete and complete)	212	67.0
Secondary (7-12, incomplete and complete)	88	27.8
University (incomplete and complete)	7	2.2
Other	Not asked	
No Reply	3	.9
TOTAL	316	99.9

Source: Original data, Fundación Mariana de Jesús Survey, Quito, 1977.

TABLE IV - 8

TIME LIVING IN QUITO OF APPLICANTS FOR SOLANDA PROJECT,
BY YEARS

Years in Quito	Number of Applicants	%
<u>Less than 5 years</u>	<u>34</u>	<u>10.8</u>
0 - 1	6	1.9
2 - 5	28	8.9
<u>6 - 10 Years</u>	<u>27</u>	<u>8.5</u>
<u>10 - 20 Years</u>	<u>57</u>	<u>17.9</u>
11 - 15	28	8.8
16 - 20	29	9.1
<u>More than 20 years</u>	<u>47</u>	<u>16.7</u>
20 - 30	24	7.6
31 - 40	18	5.7
41 - 50	7	2.2
50 +	4	1.2
<u>Native of Quito</u>	<u>139</u>	<u>44.0</u>
<u>Other</u>	<u>6</u>	<u>1.8</u>
No response	4	1.2
In Venezuela	2	.6
TOTAL	<u>316</u>	<u>99.9</u>

Source: Original data from Fundación Mariana de Jesús, Quito, 1977

TABLE IV - 9

PLACE OF ORIGIN WITHIN QUITO, OF APPLICANTS FOR THE "SOLANDA" PROJECT		
PRESENT PLACE OF RESIDENCE	NUMBER	%
CENTER (downtown) (Including but not limited to Casco Histórico)	191	20.0
CENTER SOUTH (Panecillo, Las Dos Fuentes, La Magdalena, Villa Flora)	155	16.3
SOUTH, Western Side (La Colmena, San Roque, Hermano Miguel, Marco- pamba).	98	10.3
SOUTH, Eastern Side (Luluncoto, Chiriacu Alto, Ferroviaria, Guajaló)	248	26.0
SOUTH - "El Pintado," Mena	157	16.4
COMITE DEL PUEBLO (North) (People's Committee)	28	2.9
NORTH	75	7.9
TOTAL	952	100.0

Source: Original data from Fundación Mariana de Jesús survey, Quito, Ecuador - 1977.

TABLE IV - 10

NUMBER OF ECONOMICALLY ACTIVE PERSONS IN HOUSEHOLD BY LEVEL OF INCOME,
APPLICANTS FOR SOLANDA PROJECT

Income Level	Number of Persons						TOTAL
	1	2	3	4	5	6	
0 - 500	1						1
500 - 1000	5						5
1000 - 1500	9		1				10
1500 - 2000	12	1	2				15
2000 - 2500	10	4	5	2			21
2500 - 3000	19	7	5				31
3000 - 3500	13	1	1				15
3500 - 4000	26	11	2	2			41
4000 - 4500	9	15	3	7			34
4500 - 5000	13	7	5	3			28
5000 - 5500	8	4	5	1			18
5500 - 6000	4	11	2	3	1		21
6000 - 6500	1	9	4	2			16
6500 - 7000	3	3	1				7
7000	6	15	15	10	4	3	53
TOTAL	139	88	51	30	5	3	316
X	28	16	9	1.5	.9		99.4

Source: Original data from Fundación Mariana de Jesús survey, Quito, Ecuador, 1977

TABLE 11 - 11

 OCCUPATIONAL CATEGORIES OF APPLICANTS FOR SOLANDA
 PROJECT (a)

Agricultural	8
Bars and Hotels	24
Warehouse and storekeepers	11
Shoe Industry: Artisans	22
Operators	3
Commercial Activities: Street Vendors	63
Store Owners	37
Communications	8
Janitors and guardians	68
Construction workers	27
Electricians and radio technicians	22
Draftsmen - Topographers	4
Printers - Photographers	13
Hospital workers	34
Jewellers - watch repair shops	8
Laboratorists	2
Wood Industry: Artisans	58
Operators	16
Metalmechanic: Artisans	33
Operators	39
Military:	13
Office employees	50
Bakers	10
Barbers	6
Painters	25
Policemen	15
Teachers	14
Domestic Service Employees	66
Salesmen and tenders	20
Garment-Textile Industry: Artisans	63
Operators	43
Miscellaneous: Artisans	6
Operators	23
Services	8
TOTAL	952

Source: Original data, Fundación Mariana de Jesús- Quito, 1977

(a) Male and female applicants

TABLE IV - 12

WOMEN'S OCCUPATIONS AS SUPPLEMENTARY OR SOLE FAMILY WAGE EARNERS,
SOLANDA PROJECT

Occupation	Number	%
Small Commercial Activities (a)	34	21.0
Domestic Worker (b)	32	20.0
Seamstress	28	17.0
Factory Worker	15	9.0
Nurse's Aid	15	9.0
Public Employee	7	4.0
Weaver	4	2.5
Teacher	2	1.5
Street Vendor	4	2.5
Nurse	1	1.0
Instrumentalist (c)	1	1.0
Miscellaneous	6	3.6
Nonspecified	14	8.5
TOTAL	163	99.6

Source: Original data, Fundación Mariana de Jesús - Quito, Ecuador, 1977.

- (a) These include women who have stores within their homes, and women with stalls in other parts of the city.
- (b) These include women with their own workshops within the home as well as women who work in shops.
- (c) There may be more women working as domestics than recorded, for those interviewing did not always distinguish between those who said "domestic work" as being housewife or domestic worker for remuneration.
- (d) This category includes a salesclerk, helpers in stores, waitresses,

TABLE IV - 13

(a)		
NUMBER OF SINGLE HEADS OF HOUSEHOLDS AMONG APPLICANTS FOR SOLANDA PROJECTS		
Number		% of Total Population
Women	(b) 69	21.8
Men	(c) 9	2.8

Source: Original data, Fundación Mariana de Jesús, Quito-Ecuador, 1979.

- (a) Single head of household is defined as a household where the spouse of the opposite sex is not present and the remaining spouse is the sole economic support of the family.
- (b) Two additional cases were found in which the husband was present, but the woman was the sole economic support.
- (c) Two additional cases were found where teenage sons had applied for a house in their names, but they do not have sole economic responsibility.

TABLE IV - 14

NUMBER OF ECONOMICALLY ACTIVE WIVES IN CONSENSUAL UNION OR MARRIAGES;
SPOUSE PRESENT

(a)		
Economically Active	Number	% of Total number of marriages and consensual union
Yes	93	39.7
No	(b) <u>141</u>	<u>60.1</u>
TOTAL	234	99.8

Source: Original data, Fundación Mariana de Jesús, Quito-Ecuador, 1977.

- (a) The women are engaged in economic activity both inside and away from the home.
- (b) Two of the 141 were continuing their studies.

TABLE IV - 15

NEIGHBORHOODS ADJACENT TO SOLANDA, BY POPULATION

<u>Neighborhoods</u>	<u>Est. Population, 1979</u>
1. Chillogallo	35.000 Inhabitants
2. Mena 2	6.000 "
3. Arrayanes	1.700 "
4. Mena 1	9.500 "
5. Barrionuevo	2.000 "
6. Santa Anita	3.600 "
7. El Calzado	9.000 "
8. Santa Rita	<u>6.000</u> "
TOTAL:	72.000

Source: Original Investigation, Dept. of Social Services, Junta Nacional de la Vivienda, Quito, Ecuador, 1979.

TABLE IV - 16

CUADRO RESUMEN

1. EDUCACIONAL

<u>SECTOR</u>	<u>ESCUELAS</u>	<u>COLEGIOS</u>	<u>JARDINES</u>	<u>INSTITUTOS</u>
---------------	-----------------	-----------------	-----------------	-------------------

CHILLOGALLO

MENA 2

ARRAYANES

MENA 1

BARRIONUEVO

SANTA RITA

SANTA ANITA

EL CALZADO

7 FUNCIONAN	3	3 FUNCIONANDO	2 FUNCIONANDO
4 EN CONSTRUCCION	EN FUNCIONAMIENTO	3 EN CONSTRUCCION	

2. OTROS SERVICIOS

<u>DISP. MEDICO</u>	<u>IGLESIA</u>	<u>SALA COMUNAL</u>	<u>OP.TELEF.-CORREO</u>	<u>EMPROVIT</u>	<u>RETEX POLICIAL</u>
---------------------	----------------	---------------------	-------------------------	-----------------	-----------------------

CHILLOGALLO

MENA 2

ARRAYANES

MENA 1

BARRIONUEVO

SANTA RITA

SANTA ANITA

EL CALZADO

1 FUNCIONAN			2 FUNCIONANDO		1 FUNCIONANDO
2 CONSTRUCC.	4	5 FUNCIONANDO	1 NO FUNCIONA	2 FUNCIONAN	2 NO FUNCIONAN
1 NO FUNCIONA		2 CONSTRUCCION	2 EN CONSTRUCCION	2 CONSTRUCC.	2 CONSTRUCCION

TABLE IV - 17

DISPENSARIO MEDICOS

<u>SECTOR</u>	<u>NOMBRE</u>	<u>PERSONAS ATENDIDAS FOR DIA</u>	<u>CAPACIDAD REAL</u>	<u>EXCEDENTE</u>	<u>OBSERVACIONES</u>
CHILLOGALLO	SUBCENTRO DE SALUD CHILLOGALLO				
	A.- MEDICA	10	16	--	ATENDIDO POR DOS MEDICOS
	B.- DENTAL	10	40	--	ATENDIDO POR DOS ODONTOLOGOS
SANTA ANITA	-----	-	-	--	PROYECTADA LA CONSTRUCCION - DE UN CENTRO DE SALUD.
MENA 2	-----	-	-	--	TIENE LOCAL PARA DISPENSARIO PERO NO FUNCIONA.
EL CALZADO	-----	-	-	--	PROYECTADA LA CONSTRUCCION - DE UN CENTRO DE SALUD.
MENA 1	-----	-	-	--	NO DISPONE
BARRIONUEVO	-----	-	-	--	NO DISPONE
SANTA RITA	-----	-	-	--	NO DISPONE
ARAYANES	-----	-	-	--	NO DISPONE
TOTALES	1 EN FUNCIONAMIENTO	20	56	--	
	2 EN CONSTRUCCION				
	1 NO FUNCIONA				

NOTA; PARA LA ZONA SUR SE ESTA CONSTRUYENDO UN HOSPITAL GENERAL.

TABLE IV - 18

ESCUELAS:

<u>SECTORES</u>	<u>NOMBRES</u>	<u>ALUMNOS</u>	<u>PARALELOS</u>	<u>CAP.REAL</u>	<u>EXCEDENTE</u>	<u>OBSERVACIONES</u>
CHILLOGALLO	FISCAL DE NIÑOS 23 DE MAYO	970	21	750	220	INSUFICIENTE
	MARQUESA DE SOLANDA	957	23	650	307	INSUFICIENTE-FUNCIONA EN DOS JORNADAS: MAÑANA DE 1º a 3º GRADO TARDE DE 4º a 6º GRADO
PERA # 2	OS ALDO VACA LARA -NIÑAS	580	14	350	230	POR LA MAÑANA FUNCIONAN TRES GRADOS EN LA ESCUELA DE NIÑOS.
	RIGUEL LEORO IRANCO -NIÑOS	540	13	450	90	FUNCIONAN TRES GRADOS EN EL LOCAL DE LA ESCUELA - DE NIÑAS - POR LA TARDE.
PERA # 1	OS ALDO QUAYASA IN	756	18	500	256	DOS PARALELOS FUNCIONAN EN EL LOCAL DEL JARDIN - DE INFANTES Y CUATRO PARALELOS EN UN LOCAL ACONDICIONADO.
ARRAYANES	-----	---	-	--	--	NO TIENE ESCUELA
SANTA ANITA	EN CONSTRUCCION					UNA ESCUELA COMPLETA
CALZADO	EN CONSTRUCCION					TRES ESCUELAS COMPLETAS
SANTA RITA	-----	---	-	--	--	NO TIENE ESCUELA
BARRIONUEVO	POLICIA NACIONAL	650	14	560	90	INSUFICIENTE -DESTINADO A HIJOS DE POLICIAS EN UN 90% Y 10% PARTICULAR.
TOTALES:	6 ESCUELAS EN FUNCIONAMIENTO 4 EN CONSTRUCCION	4.453	103	3.260	1.193	

NOTA: EN NUEVA COLMENA FUNCIONA UNA ESCUELA DE EDUCACION ESPECIAL Y EN BARRIONUEVO EL INSTITUTO NACIONAL DE CIEGOS.

TABLE IV - 19

<u>COLEGIOS:</u>						
<u>SECTOR</u>	<u>COLEGIO</u>	<u>ALUMNOS</u>	<u>PARALELOS</u>	<u>CAPITAL</u>	<u>EXCEDENTE</u>	<u>OBSERVACIONES</u>
CHILLOGALLO	UNTO SANTA RITA	900	19	760	140	FUNCIONA EN EL LOCAL DE LA ESCUELA DE NIÑAS 23 de MAYO - POR LA TARDE.
BARRIONUEVO	POLICIA NACIONAL	400	9	400	--	FUNCIONA EN LA TARDE EN EL LOCAL DE LA ESCUELA POLICIA NACIONAL - DE 1º a 5to. CURSO.
SEMA 1	JOSE DE LA CUADRA	250	7	250	--	FUNCIONA POR LA TARDE EN EL LOCAL DE LA ESCUELA OSWALDO GUAYASAMIN DE 1º a 3er CURSO.
MENA # 2	-----	--	-	--	--	NO TIENE COLEGIO
ARRAYANES	-----	--	-	--	--	NO TIENE COLEGIO
SANTA ANITA	-----	--	-	--	--	NO TIENE COLEGIO
SANTA RITA	-----	--	-	--	--	NO TIENE COLEGIO
CALZADO	-----	--	-	--	--	NO TIENE COLEGIO
TOTALES	3	1.650	35	1.410	140	

NOTA: ESTA PROYECTADA LA CONSTRUCCION DE UN GRAN COMPLEJO EDUCACIONAL PARA LA ZONA SUR EN EL SECTOR DE SOLANDA, MEDIANTE UN CONVENIO INTER - INSTITUCIONAL.

TABLE IV - 20

JARDIN DE INFANTES

<u>S E C T O R</u>	<u>N O M B R E</u>	<u>A L U M N O S</u>	<u>PARALELOS</u>	<u>CAP. REAL</u>	<u>EXCEDENTE</u>	<u>OBSERVACIONES</u>
CHILLOGALLO	DELA PINARGOTE DE URILLO	160	4	120	40	INSUFICIENTE
AREA 2	MERCEDES DE NOCOSO	120	3	90	90	INSUFICIENTE
BARRIONUEVO	POLICIA NACIONAL	90	2	90	-	
AREA 1	-----	--	-	-	-	EXISTE EL LOCAL QUE ES - OCUPADO POR LA ESCUELA.
EL CALZADO	-----	--	-	-	-	EN CONSTRUCCION DOS JAR- DINES.
SANTA ANITA	-----	--	-	-	-	EN CONSTRUCCION UN JAR- DIN DE INFANTES.
ARRAYANES	-----	--	-	-	-	NO TIENE
SANTA RITA	-----	--	-	-	-	NO TIENE
TOTALES	3 EN FUNCIONAMIENTO 3 EN CONSTRUCCION 1 OCUPADO POR ESCUELA	<u>370</u>	<u>9</u>	<u>300</u>	<u>70</u>	

INSTITUTO DE CORTE Y CONFECCION

CHILLOGALLO	TELMO PAZ Y NIÑO	36	-	80	-	
AREA 2	-----	--	-	-	-	NO DISPONE
ARRAYANES	-----	--	-	-	-	NO DISPONE
AREA 1	-----	--	-	-	-	NO DISPONE
CALZADO	-----	--	-	-	-	NO DISPONE
SANTA ANITA	-----	--	-	-	-	NO DISPONE
BARRIONUEVO	-----	--	-	-	-	NO DISPONE
SANTA RITA	-----	--	-	-	-	NO DISPONE

TABLE IV - 21

MERCADOS:

EN LA ZONA SUR EXISTEN CINCO MERCADOS

- a. EL CAÑAL
- b. CHIMBACALLE
- c. SANTA LUCIA
- d. VILAFLOA
- e. MAGDALENA

ATIENEN A LOS SECTORES INVESTIGADOS

FUTURAS CONSTRUCCIONES: 1. MERCADO DISTRAL DEL SUR - UBICADO ENTRE LOS PROGRAMAS DE VIVIENDA SANTA ANITA Y ARRAYANES COSTADO ACCIDENTAL DE LOS MISMOS.

2. GRAN MERCADO MAYORISTA EN EL SECTOR DE SOLANDA - PROYECTADO PARA ATENDER A TODA LA POBLACION DE LA CIUDAD.

OTROS SERVICIOS:

<u>SECTOR</u>	<u>IGLESIA</u>	<u>SALA COMUNAL</u>	<u>OP. TELEFONO - CORREO</u>	<u>EMPROVIT</u>	<u>RETE POLICIAL</u>
CHILLOGALLO	1	1	1	-	1
MEHA 2	1	1	1	1	NO FUNCIONA
ARRAYANES	-	1	-	-	-
MEHA 1	1	1	NO FUNCIONA	1	NO FUNCIONA
BARRIONUEVO	1	1	-	-	-
SANTA RITA	-	-	-	-	-
SANTA ANITA	-	EN CONSTRUCCION	EN CONSTRUCCION	EN CONSTRUCCION	EN CONSTRUCCION
TOTALES	4	5	2	2	1
		2 EN CONSTRUCCION	1 NO FUNCIONA 2 EN CONSTRUCCION	2 EN CONSTRUCCION	2 NO FUNCIONAN 2 EN CONSTRUCCION

ANNEX V

FINANCIAL ANALYSIS - SUPPORTING TABLES

ANNEX V - EXHIBIT A

EMPLOYMENT AND PAYROLL CALCULATIONS

Housing units	<u>4,452</u>
Construction period	<u>3 years</u>
Units/year	<u>1,484</u>
Workers/Unit/year	<u>2,03</u>
Workers/year	<u>3,012</u>

To extrapolate additional employment due to community facilities it is assumed that the ratio of workers/construction costs of housing, urbanization, and infrastructure remains constant for community facilities, thus:

<u>Annual employment H - U - I=</u>	<u>Annual employment in CF</u>
H - U - I construction costs at current prices	CF Construction costs at current prices
$\frac{3,012}{32,059} = \frac{x}{8,329}$	
x = 782	

Construction costs are broken down as follows: 30% labor, 54% material, 16% overhead, and profits. Applying the percentage devoted to labor (30%) to total construction costs at current prices (\$40.4 million) and dividing by three years gives an annual payroll of \$4.04 million. Dividing by the number of workers (3,794) gives an annual income per worker of \$1,065. The present minimum wage is \$950 per year.

TABLE V - 1

SUMMARY OF BALANCE SHEETS

Banco Ecuatoriano de la Vivienda (BEV) (In millions of Sucres)

<u>ASSETS</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>	<u>1978</u>
Current Assets	662	643	664	534	622
Loans Receivable	632	984	1362	2130	3143
Fixed Assets	789	1246	2164	2334	2329
Other	<u>237</u>	<u>207</u>	<u>375</u>	<u>353</u>	<u>421</u>
Total	2320	3080	4565	5351	6515
 <u>LIABILITIES</u>					
Current Liabilities	76	112	209	224	201
Sight Deposits	311	682	1275	1639	2049
Bonds	314	391	563	529	691
Long-Term Debt	450	609	564	720	761
Other Liabilities	<u>342</u>	<u>134</u>	<u>349</u>	<u>194</u>	<u>145</u>
Total	1493	1928	2960	3306	3847
Capital and Reserves	827	1152	1605	2045	2668
TOTAL	2320	3080	4565	5351	6515
 <u>KEY INDICATORS</u>					
Current Ratio	8.7	5.7	3.2	2.4	3.1
Debt: Equity	1.8	1.7	1.8	1.6	1.4
Debt: Assets	.6	.6	.7	.6	.6
Capital Adequacy	1.3	1.2	1.2	1.0	.9
Loans: Assets	.3	.3	.3	.4	.5
Profit	66.9	79.7	121.7	109.5	249.1
Return on Assets	2.9	2.6	2.7	2.0	3.8
Return on Equity	8.1	6.9	7.6	5.4	9.3
Delinquency Rate	4.8	2.7	2.2	2.6	3.0
Housing Investment	\$512.0	\$617.3	\$1166.9	\$809.1	\$608.3
Housing Completions	3323	4427	5639	4660	3686

TABLE V - 2

BANCO ECUATORIANO DE LA VIVIENDA
Income Statements
(Millions of Sucres)

	1974	1975	1976	1977	1978
INCOME					
Interest	111.7	175.6	275.2	362.2	499.5
Bonds and Securities	5.1	3.5	1.7	2.4	1.5
Bad Debt Recovery	34.7	30.0	41.8	58.4	81.6
Insurance Premiums	13.9	18.1	30.0	N/A	64.8
Insurance Reserve	16.8	22.8	32.0	45.5	63.8
Other	<u>20.5</u>	<u>56.6</u>	<u>45.9</u>	<u>42.2</u>	<u>70.6</u>
TOTAL	202.7	306.6	426.6	510.7	781.8
EXPENSES					
Administration	35.9	52.4	76.3	98.6	137.7
Interest	63.0	103.2	160.8	198.2	245.4
Commissions	4.8	5.3	3.2	3.5	3.4
Depreciation	3.1	23.6	10.6	78.0	34.8
Currency Exchange	3.7	4.2	0.0	0.0	0.1
Unspecified	1.3	1.7	6.2	3.1	8.3
Insurance Reserve	22.8	32	45.5	0.0	94.8
Insurance Claims	1.1	0.8	1.1	0.0	2.5
Other	<u>0.1</u>	<u>3.6</u>	<u>1.2</u>	<u>19.8</u>	<u>5.7</u>
TOTAL	135.8	226.8	304.9	401.2	532.7
KEY INDICATORS					
Profit Million Sucres	66.9	79.8	121.7	109.5	249.1
Profit/Income (%)	33.0	26.0	28.5	21.4	31.9
Admin: Expenses (%)	26.4	23.1	25.0	24.6	25.8
Admin: LOANS (%)	4.2	2.3	1.8	1.2	0.8
Admin: Assets (%)	1.1	0.8	0.5	0.5	0.4

TABLE V - 3

SUMMARY OF BALANCE SHEETS

Fundación "Mariana de Jesús"

(Millions of Suces)

	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>	<u>1978</u>
<u>ASSETS</u>					
Current Assets	20.2	26.9	19.5	14.9	20.0
Investments	8.2	8.9	14.3	16.2	27.1
FIXED ASSETS	13.2	20.3	20.1	20.6	20.8
Work in Process	16.9	15.3	18.3	26.2	35.0
Stock	<u>1.2</u>	<u>1.2</u>	<u>1.2</u>	<u>1.2</u>	<u>1.2</u>
TOTAL	59.7	72.6	73.4	79.1	104.1
<u>LIABILITIES</u>					
Current Liabilities	4.9	15.4	5.5	7.4	36.1
Equity	<u>54.8</u>	<u>57.2</u>	<u>67.9</u>	<u>71.7</u>	<u>68.0</u>
TOTAL	59.7	72.6	73.4	79.1	104.1
<u>KEY INDICATORS</u>					
Current Ratio	4.1	1.8	3.6	2.0	.6
Debt: Equity	.1	.3	.1	.1	.5
Debt: Assets	.1	.2	.1	.1	.4
Profit (Million Suces)	NA	-1.4	10.7	3.8	-3.6
Return on Assets	NA	.0	.2	.1	.0
Return on Equity	NA	.0	.2	.1	-.1

TABLE V - 4FUNDACION MARIANA DE JESUS - INCOME STATEMENTS

(Thousands of Sucre)

	<u>1975</u>	<u>1976</u>	<u>1977</u>	<u>1978</u>
<u>INCOME</u>				
Interest	469.9	315.5	1338.9	-
Investments	5.7	1.4	2.3	1.9
Real Estate	937.6	906.0	4757.8	3036.5
Agricultural Products	1267.7	1119.0	2499.1	1413.0
Other	119.0	13,394.2	842.0	200.6
TOTAL	2799.9	15736.1	9440.1	4652.0
<u>EXPENSES</u>				
Real Estate Administration	430.1	651.3	831.7	946.0
General Administration	2515.2	2693.6	3350.6	3848.0
Agricultural Production	569.3	620.2	486.7	591.4
Depreciation	172.9	192.3	220.8	309.7
Interest	-	-	-	1750.6
Other	483.6	844.3	771.2	841.7
TOTAL	4171.1	4997.7	5661.0	8287.4
<u>KEY INDICATORS</u>				
Profit (loss)	(1371.2)	10738.4	3779.1	(3635.4)
Profit/Income (%)		68.2	40.0	-
R.E./Expenses (%)	10.3	13.0	14.7	11.4
General/Expenses (%)	60.3	53.9	59.2	46.4

Source: Fundación "Mariana de Jesús"

TABLE V-5

MARKET VALUE OF FMJ's LAND HOLDINGS

Millions of Suces

BUILDINGS

Office	3.0
University Center	15.0
Rentals - 3	11.0

LAND

Calle Sucre	2.0
Calle Miras	3.0
Pedregal	512.0
La Granja	100.0
Calle Amazonas	50.0
El Recreo	14.0
Industrial Zone	40.0
Solanda	<u>250.0</u>

TOTAL S. 1,000.0

\$ 39.6

TABLE V-6

COST ESTIMATE- HOUSING AND URBANIZATION

<u>URBANIZATION</u>	<u>#</u>	<u>Unit Cost</u>	<u>Sucres Total</u>	<u>Sucres</u>	<u>\$</u>
61.44 M ² Lots - A	2.672	38,093	101,784,496		
81.92 M ² Lots - B	1.380	50,790	70,090,200		
122.88 M ² Lots - D	400	76,186	30,474,400	202,349,096	8,013,825
 <u>HOUSING</u>					
21.20 M ² - A3	445	52,903	23,541,835		
42.50 M ² -A ₄ , B ₄	2,449	69,605	170,462,645		
78.50 M ² -A ₅ , B ₅ , D	1,558	84,464	<u>131,594,912</u>	325,599,392	12,895,025
 <u>INFLATION</u>					
	Yr 1	30%	20,234,909		
	Yr 2	7%	85,192,276		
	Yr 3	10%	<u>108,172,215</u>	<u>211,644,400</u>	<u>8,461,164</u>
 TOTAL				<u><u>741,592,888</u></u>	<u><u>29,370,014</u></u>

TABLE V-7

COST ESTIMATE COMMUNITY FACILITIES & FOUNDATION OPERATIONS

Community Facilities - Capital Cost (See Attached)				<u>Sucres</u>	<u>\$</u>
				210,310,900	8,329,145
- Inflation	Yr 1	21,031,690			
	Yr 2	25,938,344			
	Yr 3	<u>32,948,708</u>		<u>79,918,142</u>	<u>3,165,075</u>
TOTAL				<u><u>290,229,042</u></u>	<u><u>11,494,220</u></u>
Foundation Operations - Staff					
	Yr 1	1,641,000			
	Yr 2	1,755,000			
	Yr 3	<u>2,012,000</u>		5,408,000	
- Equipment and Supplies					
	Yr 1	1,015,000			
	Yr 2	714,000			
	Yr 3	<u>670,000</u>		<u>2,399,000</u>	
				<u><u>7,807,000</u></u>	<u><u>309,188</u></u>
- Loan Capital Guarantees					
	Yr 1	7,120,000			
	Yr 2	14,240,000			
	Yr 3	<u>7,120,000</u>		<u><u>28,480,000</u></u>	<u><u>1,127,920</u></u>

TABLE V-8

BEV PROJECT CASH FLOW

\$ 000's

	1	2	3	4	5	6	7	8	9	10	11-25	26-30
SOURCES												
Construction Cost Loan	3,179	11,757	12,964									
BEV Infrastructure Loans (off-site)	2,830	2,170										
Down Payments	294	735	441									
AID/HIG Mortgage Loan		9,629	10,371									
BEV Permanent Financing		3,800	4,100									
Mortgage Loan Repayments			1,522	3,162	3,162	3,162	3,162	3,162	3,162	3,162	3,162	837*
Infrastructure Loan Repayments	163	450	575	575	575	640	640	640	640	640	640	
TOTAL	6,466	28,541	29,973	3,737	3,737	3,802	3,802	3,802	3,802	3,802	3,802	837
Applications												
Urbanization & Housing Const.	3,473	12,492	13,405									
Infrastructure Const.	2,830	2,170										
Mortgage Loan Admin Costs			53	107	117	128	140	154	169	186	205	
Mortgage Delinquencies			135	279	413							
Construction Cost Loan Repayment		13,429	14,471									
AID/HIG Loan Repayment	163	450	1,682	2,875	2,875	2,875	2,875	2,875	2,875	2,875	3,200	3,200
TOTAL	6,466	28,541	29,746	3,261	3,415	3,003	3,015	3,029	3,044	3,061	3,405	3,200
Net Cash Flow	0	0	227	476	322	799	787	773	758	741	397	
Cum. Cash Flow	0	0	227	703	1,025	1,824	2,611	3,384	4,142	4,853	10,808	(4,355)

* Received in 30th year

TABLE V-8 (cont'd)

BEV - PROJECT CASH FLOW

ASSUMPTIONS

Construction Cost Loan

BEV borrows funds to cover construction costs. See urbanization and housing costs for explanation of interest cost recovery.

Downpayment

BEV requires accumulation of downpayment in Bank saving accounts which pay 7%. Downpayment = 5%.

BEV Infrastructure Loan (off-site)

Water project completed within 1-1/2 years; channeling of river completed in 2 years. Drawdowns are based on expected financing needs of EMA and EMAP. Amount = \$5 million.

HG Mortgage Loan

One-half of houses completed at end of 2nd year; remainders at end of 3rd year. Drawdowns are based on mortgages presented. Amount = \$20.0 million.

BEV Permanent Financing

BEV's contribution to the project. Amount = \$7.9 million.

Mortgage Loan Repayments

Mortgage loan terms are 10-1/2% interest, 25 years

Offsite Infrastructure Loan Repayment

Infrastructure loan terms are 11-1/2% interest, 25 years, 5-year grace on principal. These terms may be revised in further BEV negotiation with EMA and EMAP.

Urbanization and Housing Construction

Includes all urbanization allocated to lots, housing costs, inflation, 10% for BEV indirect costs, 12% for construction financing, and 2% monetary risk. See HG mortgage loan above for construction schedule.

Mortgage Loan Administration Costs

Based on \$2.50/mortgage serviced/month, assuming low marginal costs to service additional loans due to BEV's computer capability. Costs increase 10%/year.

Mortgage Delinquencies

Based on historical record of BEV of 3% delinquencies on portfolio.

Delinquencies build up to 3% of portfolio over a 3-year period and remain at this level.

Construction Cost Loan Repayment

Based on repayment at time AID and BEV supply long-term financing, i.e., end of 2nd year and end of 3rd year.

HG Loan Repayment

Terms are 11-1/2% interest, 30 years with 10-year grace on principal. Amount = \$25.0 million.

ANNEX VI

PROJECT PERFORMANCE TRACKING NETWORK

ECUADOR - HG - 005

EVENTS

1. **Implementation Agreement Signed.**
Begin negotiation with GOE on non-project specific T/A.
Housing Advisor and Social Planning Advisor selected.
Final working drawings for physical components begun (JNV/PMJ, EMAP, EMA).
2. **Begin planning for staffing and training components of Social and Community Development Programs.** (FMJ) (AID)
Begin T/A training, planning travel to non-Ecuadorian examples. (FMJ-AID)
3. **Complete design and working drawings for on-site infrastructure (JNV).** Begin design of Community facilities. (FNJ).
4. **Publish announcement soliciting bids from investors (BEV).**
Finalize and approve financing plan of infrastructure (on-and off-site) (BEV).
5. **Establish credit committee.**
Finalize interview format.
Acquire two vehicles for staff use (social work).
Pre-select members of carpentry business.
Establish carpentry business.
Select Community Development Specialist.
Select Employment Generation Specialist.
Begin interview process - first phase.
6. **Select contractor for on-site infrastructure. (JNV)**
Solicit bids for off-site infrastructure (EMAP, EMA).
Begin construction, on-site infrastructure (JNV).
7. **Approve T/A program design (GOE), identifying priorities and special needs (this may be done by a group of Institutions under the Consejo Nacional de Desarrollo, or individually.)**
8. **Select contractors for off-site sewer and water projects. (EMAP, EMA).**
Complete unit design and construction schedule (JNV).

9. **Select Investor (BEV)**
Sign loan agreements (BEV)
Drawdown first disbursement (for off-site water and sewer projects) (BEV).
Select T/A expert for analysis of interest rate structure and the expansion of options available for home financing (BEV) (AID).
Begin analysis (BEV-AID).
10. **Complete design of Community Facilities (FMJ).**
Begin construction of first phase (FMJ).
11. **Select T/A expert for work with GOE on identification of urban development priorities (areas, components of need) (GOE-AID).**
Begin search for Environmental Planning and Public utilities finance experts. (AID).
12. **Begin intensive program of preparation of first phase families for move to community (FMJ).**
Select T/A personnel for day-care and public health programs. (FMJ-AID).
Finalize Community Facilities staffing plan. (FMJ)
Begin evaluation of progress to date (FMJ).
13. **Drawdown (2nd.) against HG loan to fund advance of off-site infrastructure (BEV).**
Begin activity to locate and open a BEV branch in Solanda (BEV).
Begin evaluation of financial activity to date (BEV).
Begin work with FMJ to approve list of first phase occupants (BEV).
14. **Begin evaluation of T/A program and formalization of GOE urban development planning mechanism. (GOE-AID).**
Select short term T/A specialist in Environmental Planning and Public Utilities finance. (GOE, Municipality, AID).
15. **Begin construction 1100 dwelling units. (JNV)**
Begin evaluation of construction program to date. (JNV, EMAP, EMA).
Begin construction, second phase of Community Facilities Program. (FMJ).

16. **Begin move-in training of 1100 families. (FMJ)**
Complete selection of first phase occupants. (FMJ-BEV)
Hire and train additional staff to man community facilities program. (FMJ)
Begin selection process, second phase families (1100). (FMJ)
17. **Complete first evaluation of project. (All participants)**
Initiate all adjustments to program identified in evaluation. (All participants)
18. **Select short-term T/A to carry out program adjusting standards for application to low-cost shelter programs. (GOE, Municipality, JNV, AID)**
Begin assessment of standards. (GOE, Municipality, JNV, AID)
19. **Drawdown (3rd) against HG loan to fund mortgage financing for first phase of Solanda Project (1100 loans), and to advance continuation of Rio Grande channelling project. (BEV)**
Begin Review of FMJ selections for second phase of Solanda. (BEV)
Complete analysis of interest rate structure and alternative financing mechanisms. (BEV-GOE)
Begin preparation of policy for financing low-cost shelter programs. (BEV)
20. **Begin selection process, third phase families. (FMJ)**
Begin actual occupancy of first phase dwelling units. (FMJ-BEV)
Begin community facilities use (first phase). (FMJ)
Initiate neighborhood organization program. (FMJ)
Select self-help housing specialist. (FMJ-AID)
Begin intensive pre-move program for second phase families. (FMJ)
21. **Deliver 1100 dwelling units. (JNV)**
Complete off-site infrastructure program providing potable water. (EMAP)
Begin construction, second phase dwelling units. (JNV)
Begin construction, third phase community facilities. (FMJ)
Complete first phase community facilities. (FMJ)
22. **Complete T/A program. (GOE, Municipality, AID)**
Begin identification of priority regions and projects for application of comprehensive (integrated) urban development process.
23. **Drawdown (4th) against HG loan to fund mortgages of second phase families (1100). (BEV)**
Begin Review of first selections for third phase of Solanda. (BEV)
Begin evaluation of progress to date (2nd. evaluation). (BEV)
Begin preparation of financial components of similar, non-HG, projects according to GOE plan. (BEV)

24. Begin selection process, fourth phase families. (FMJ)
Begin occupancy, second phase families. (FMJ-BEV)
Begin Community facilities use (second phase). (FMJ)
Expand community enterprises program, reflecting skills and interests of additional residents. (FMJ)
Begin intensive pre-move program for third phase families. (FMJ)
Begin evaluation of progress to date. (FMJ)
25. Delivery of 1100 units (second phase). (JNV)
Begin construction, third phase units. (JNV)
Begin construction, fourth phase community facilities program. (FMJ)
Complete second phase community facilities program. (FMJ)
Begin second evaluation of progress in construction activities to date. (EMAP, EMA, FMJ, JNV)
26. Complete second comprehensive evaluation of project progress. (All participants)
Initiate adjustments to Program required by evaluation. (All participants)
27. Begin implementation of a series of integrated urban development projects directed at a nationwide production of 5,000 low-cost units annually. (GOE, JNV, BEV, FMJ as appropriate).
28. Drawdown (5th) against HC loan to fund the mortgage financing for third phase families (1100) and the final construction of the Rio Grande channelling project. (BEV)
Begin review of final phase families. (BEV)
29. Begin occupancy, third phase families. (FMJ, BEV)
Begin community facilities use, third phase. (FMJ)
Begin intensive pre-move training for final phase families. (FMJ)
30. Deliver 1100 units (third phase). (JNV)
Begin construction, final phase units. (JNV)
31. Drawdown (6th) against HC loan to fund mortgage financing for final phase families (1100). (BEV)
Begin evaluation of progress of Solanda Project to date (3rd. evaluation). (BEV)
32. Begin occupancy of final 1100 families in Solanda (HC financed) Project. (FMJ)
Begin community facilities use, final phase. (FMJ)
Begin evaluation of social program progress to date. (FMJ)
33. Delivery of final 1100 units. (JNV)
Completion of community facilities construction. (FMJ)
Begin evaluation of construction progress to date. (FMJ, EMA, JNV)

34. **Third comprehensive evaluation completed. (All participants)**
Initiate adjustment to non-HC programs as required by evaluation.
(All participants)
35. **Completion of channelling of Rio Grande. (EMA)**
Begin preparation of final project evaluation. (All Participants)
36. **Completion of first series of integrated urban development projects,**
reaching production of 5,000 units annually. (GOE)
37. **Final project evaluation completed. (All participants)**

ANNEX VII

PID CABLES

UNCLASSIFIED
Department of State

OUTGOING
TELEGRAM

PAGE 01 STATE 259230
ORIGIN RD-31

0856

STATE 259230

INFO OCT-80 /035 R

DRAFTED BY LAC/DR: N/PARKER: ASN
APPROVED BY AA/LAC: ECOY
LAC/DR: CLEONARD; H LUSK
LAC/DR: ILEVY; M BROWN
LAC/OP: J FRANCIS (DRAFT)
GC/LAC: G WINTER (DRAFT)
LAC/SA: BLUMBER (DRAFT)
DS/M: MSOROCK (DRAFT)
DESIRED DISTRIBUTION
3B ACTION LA CHRON 2 3 6 INFO , DC , PC GC GCFLD GCLA FM NO ES SER FHLB
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P 072314Z OCT 79
FM SECSTATE WASHDC
TO ANEMBASSY QUITO PRIORITY
INFO ANEMBASSY PANAMA PRIORITY

UNCLAS STATE 259230

AIDAC PANAMA FOR MARIO PITA, RHUDD

E.O. 12065: N/A

TAGS:

SUBJECT: SUPPLEMENTAL GUIDANCE FOR LOW-INCOME HOUSING PP

REF: STATE 127170

1. A REVIEW WAS HELD ON AUGUST 28, 1979, BY LAC STAFF ON THE DISCUSSION PAPER FOR THE DOLS. 20 MILLION HG FOR THE LOW-INCOME HOUSING PROGRAM IN QUITO, THE HACIENDA SOLANDRA PROJECT. AS A RESULT, THE MISSION IS REQUESTED TO SUBMIT AN INTERIM REPORT FOR DAEC REVIEW AND APPROVAL PRIOR TO SUBMISSION OF THE PP. THE FOLLOWING IS SENT AS SUPPLEMENTARY GUIDANCE FOR THE INTERIM REPORT AND PROJECT DEVELOPMENT.

2. STRATEGY: REFTEL GUIDANCE REGARDING THE SHELTER ASSESSMENT UPDATE REMAINS VALID. IN ADDITION, THE MISSION IS REQUESTED TO SUBMIT AN INTERIM REPORT WHICH DESCRIBES IN AS MUCH DETAIL AS POSSIBLE THE ROLODS ADMINISTRATION'S SHELTER SECTOR STRATEGY INCLUDING ITS COMMITMENT TO UNDERTAKE LOW-INCOME HOUSING PROGRAMS. PARAMOUNT IN ANY STRATEGY SHOULD BE THE GOE'S COMMITMENT TO THE TARGET GROUP AS EVIDENCED BY THE RANGE OF SOLUTIONS OFFERED WHICH ARE AFFORDABLE BY LOW-INCOME FAMILIES. FURTHER, THE MISSION'S SHELTER STRATEGY SHOULD BE DISCUSSED, AND THE PROPOSED

HACIENDA SOLANDRA PROJECT SHOULD BE PLACED WITHIN THE CONTEXT OF THAT STRATEGY AND THE GOE'S. IF PREFERABLE, THE MISSION'S HOUSING STRATEGY CAN BE SUBMITTED AS PART OF THE COSS INSTEAD OF THE INTERIM REPORT. THE MISSION IN DEVELOPING ITS STRATEGY MAY WISH TO RECONSIDER THE ROLE OF THE S AND L SYSTEM IN A LOW-INCOME PROGRAM AND MAY WISH TO PROPOSE A RATIONALIZATION OF THE BEV AND S AND L SYSTEMS COUNTRY-WIDE.) A STRONG GOE COMMITMENT TO LOW-INCOME HOUSING IS NOT REFLECTED IN THE HOUSING SOLUTIONS PROPOSED IN THE CURRENT SOLANDRA PROJECT, E.G., THE CHEAPEST CORE HOUSE IS DOLS 3,780 INCLUDING THE OPTIONAL HOME IMPROVEMENT LOAN WHICH IS ONLY AFFORDABLE BY BENEFICIARIES AT THE UPPER ENDS OF THE LOW-INCOME SCALE. IT IS LIKELY THAT QUITO'S MUNICIPAL HOUSING CODE MAY REQUIRE REVISION TO PERMIT LOW-COST DESIGNS SUCH AS CORE HOUSING, OR SITES AND SERVICES; BOTH ARE POTENTIAL COMPONENTS OF A LOW-INCOME HOUSING PROGRAM. IN LIGHT OF THE SOLANDRA PROJECT'S

INSTITUTION BUILDING OBJECTIVE, POLICY ISSUES SUCH AS HOUSING CODES SHOULD BE ADDRESSED IN THE INTERIM REPORT.

3. INSTITUTIONAL COORDINATION: AS POINTED OUT IN THE DISCUSSION PAPER, EXTENDING MUNICIPAL SERVICES AND COMMUNITY FACILITIES TO POOR, URBAN RESIDENTS IS A DIFFICULT PROBLEM. IN THE PAST, THE MUNICIPALITY OF QUITO AND THE BEV/JNV HAVE NOT BEEN SUCCESSFUL IN WORKING TOGETHER. PRIVATE ORGANIZATIONS HAVE ALSO ENCOUNTERED DIFFICULTIES WORKING WITH NATIONAL AND MUNICIPAL LEVEL AGENCIES. THE INTERIM REPORT SHOULD ADDRESS THIS PROBLEM OF COORDINATION AMONG THE THREE ORGANIZATIONS INVOLVED, I.E., THE FUNDACION, BEV/JNV, AND THE MUNICIPALITY OF QUITO, AND INSURE THAT COORDINATION OF OBJECTIVES AND ACTIVITIES WILL BE ACHIEVED BY THE PROJECT DESIGN.

4. EFFECTIVE DEMAND - SOLANDRA PROJECT: THE DISCUSSION PAPER PROPOSED THREE HOUSING SOLUTIONS UNDER THE PROJECT. IF THE MISSION AND BEV DECIDE TO PROCEED WITH THESE SOLUTIONS, EFFECTIVE DEMAND FOR THESE SPECIFIC HOUSING DESIGNS AND THEIR AFFORDABILITY BY THE TARGET GROUP IN THE SOLANDRA PROJECT AREA SHOULD BE CLEARLY DEMONSTRATED IN THE INTERIM REPORT. OTHER REQUIREMENTS FOR THE DEMAND ANALYSIS DESCRIBED IN REFTEL SHOULD APPEAR IN THE PP.

5. INTEREST RATE POLICY: THE BEV'S INTEREST RATE POLICY REMAINS AN ISSUE AND SHOULD BE ADDRESSED PER REFTEL IN THE PP.

6. FUNDING: CONCERN WAS EXPRESSED REGARDING THE MAGNITUDE OF THE HG BECAUSE OF THE POTENTIAL PROBLEMS OF ABSORPTIVE CAPACITY OF THE BEV AND THE FUNDACION WHICH MAY

BE CREATED BY THE INCREASE IN THE RATE OF CONSTRUCTION PROPOSED BY THE PROJECT. THE INTERIM REPORT SHOULD EXAMINE THIS POTENTIAL PROBLEM AND PRESENT A STRONG RATIONALE TO SUPPORT A DOLS. 20 MILLION HG IN THE PROPOSED SOLANDRA PROJECT AREA.

7. WE UNDERSTAND THE GOE IS CURRENTLY LESSENING ITS OPPOSITION TO UNDERTAKING A HOUSING PROJECT FINANCED BY THE HG AND THAT RHUDD/PANAMA ASSISTANCE HAS BEEN HELPFUL IN THIS RESPECT. PLEASE CONFIRM. CHRISTOPHER

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DRAFTED BY LAC/DR: NJPARVER: GAM
APPROVED BY AA/LAL: HNBROW, ACTING
LAC/DP: JFRANCIS (DRAFT)
LAC/DP: JSANBRAID (DRAFT)
LAC/GC: GVINIKH (INFO)
LPC/SA: ERDWIN
LAC/DR: HBASSFORD, ADENJAHIN
LAC/DR: HNBROW
DS/ : SOROCK
LAC/DR: TJBROWN

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FM SECSTATE WASHDC
TO AMEMBASSY QUITO PRIORITY
INFO AMEMBASSY PANAMA PRIORITY

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AIDAC : PANAMA FOR MARIO PITA

E.O. 12065: N/A

TAGS:

SUBJECT: DAEC REVIEW PID FOR LOW INCOME HOUSING

THE DAEC REVIEWED THE SUBJECT PID ON APRIL 19, 1979. THE PID WAS TENTATIVELY APPROVED PENDING SUBMISSION AND APPROVAL OF THE IEE. THE MISSION IS REQUESTED TO TAKE INTO CONSIDERATION THE FOLLOWING ISSUES DURING PP PREPARATION:

1. SHELTER ASSESSMENT: THE 1976 SHELTER ASSESSMENT SHOULD BE UPDATED AS PART OF INTENSIVE REVIEW AND CONTAIN AN ANALYSIS OF ALTERNATIVE SHELTER STRATEGIES TO ADDRESS THE HOUSING DEFICIT IN ECUADOR. THE ASSESSMENT ALSO SHOULD FOCUS ON THE CAPABILITIES OF EXISTING INSTITUTIONS TO CARRY OUT ALTERNATIVE SHELTER STRATEGIES. A RATIONALE FOR SELECTING THE STRATEGY PROPOSED IN THE PID (INCLUDING THE EXCLUSIVELY URBAN FOCUS IN THE NEAR TERM) AND THE SELECTION OF THE HG INSTRUMENT EXCLUSIVELY TO IMPLEMENT THE STRATEGY SHOULD BE INCLUDED IN THE REVISED ASSESSMENT.

2. GOE COMMITMENT TO LOW-INCOME HOUSING: THE NEW GOVERNMENT'S COMMITMENT TO UNDERTAKE A LOW INCOME HOUSING PROGRAM SHOULD BE DESCRIBED IN THE PP. BECAUSE THE NEWLY ELECTED GOVERNMENT DOES NOT TAKE OFFICE UNTIL AUGUST, THE MISSION MAY WISH TO CONSIDER POSTPONING THE SUBMISSION OF THE PP TO ALLOW SUFFICIENT TIME FOR POLICY DISCUSSIONS WITH APPROPRIATE GOE OFFICIALS, UNLESS THESE OFFICIALS CAN BE IDENTIFIED BEFORE AUGUST 10 AND PROJECT DISCUSSIONS HELD WITH THEM.

3. PROJECT DESIGN CONSIDERATIONS:

-----A. INSTITUTIONAL DEVELOPMENT AND COORDINATION. THE PP SHOULD CLEARLY STATE THE INSTITUTION-BUILDING PURPOSE OF THE PROJECT AND ANALYZE THE INSTITUTIONAL CONSTRAINTS WITHIN BEV/JHV WHICH LIMIT THEIR ABILITY TO UNDERTAKE A LOW INCOME HOUSING PROGRAM. THE TECHNICAL ASSISTANCE PROPOSED SHOULD ADDRESS THESE CONSTRAINTS AND BE LINKED DIRECTLY TO ACHIEVING THE PROJECT PURPOSE. THE PP SHOULD CONTAIN A DETAILED DESCRIPTION OF PROJECT IMPLEMENTATION ARRANGEMENTS WITHIN BEV/JHV; THE MECHANISMS WHICH WILL BE USED TO COORDINATE THE VARIOUS INSTITUTIONS WHICH MAY BE INVOLVED IN THE PROJECT; AND DISCUSSION OF POLICY CHANGES WITHIN BEV THAT MIGHT BE REQUIRED PRIOR TO INITIATION OF

THE PROJECT.

-----B. INTEREST RATE POLICY.

THE PP SHOULD PROVIDE A DESCRIPTION OF AN APPROPRIATE INTEREST RATE POLICY FOR THE BEV TO FOLLOW TO ASSURE THE FINANCIAL VIABILITY OF THE PROJECT AND THE ABILITY OF THE BEV TO REPAY THE LOAN. POSSIBLE CONSOLIDATION OF BEV'S VARIOUS INTEREST RATES SHOULD ALSO BE REVIEWED.

-----C. GUAYAQUIL SUBURBIO COMPONENT

DURING INTENSIVE REVIEW, PROJECT DEVELOPMENT IN THE SUBURBIO SHOULD BE CLOSELY COORDINATED WITH THE DEVELOPMENT OF THE WORLD BANK'S 1979 \$30 MILLION URBAN DEVELOPMENT LOAN, A PORTION OF WHICH INCLUDES HOME IMPROVEMENTS IN THE SUBURBIO. IN ADDITION, IDB PROPOSED AND ON-GOING ACTIVITIES IN THE GUAYAQUIL AREA SHOULD ALSO BE DISCUSSED. WE HAVE REQUESTED COMMENTS ON PRELIMINARY PROJECT DESIGN FROM BOTH WORLD BANK AND IDB AND WILL REPORT THEIR COMMENTS WHEN RECEIVED. SEE PARA 7 BELOW.

4. DEMAND ANALYSIS: THE PP SHOULD DESCRIBE THE DEMAND FOR HOUSING LOANS AMONG THE TARGET GROUP INCLUDING THE FOLLOWING: (1) THE TARGET GROUP'S WILLINGNESS TO BORROW MONEY FOR VARIOUS HOUSING SOLUTIONS; (2) THE AMOUNT OF MONTHLY REPAYMENTS THEY CAN AFFORD; AND (3) THEIR PERCEPTIONS OF INTEREST RATES. DURING THE DAEC REVIEW, IT WAS SUGGESTED THAT A SAMPLE SURVEY WOULD BE THE MOST EFFECTIVE TECHNIQUE TO ASSESS DEMAND, DEFINE AN AFFORDABLE RANGE FOR MONTHLY REPAYMENTS, AND IDENTIFY

ATTITUDES TOWARD INTEREST RATES.

5. TARGET GROUP: IN ADDITION TO THE TARGET GROUP CONCERNS MENTIONED ABOVE, SPECIAL ATTENTION SHOULD BE PAID IN THE PP TO HOW THE BEV/JHV WILL INCLUDE COMMUNITY GROUPS AND OTHER LOCAL AGENCIES IN THE PROJECT DESIGN. WHAT TYPES OF LINKAGES OR MECHANISMS MUST BE ESTABLISHED IN ORDER TO REACH THESE GROUPS? WILL TA AND TRAINING OF BEV/JHV STAFF BE REQUIRED IN ORDER FOR THEM TO WORK MORE CLOSELY WITH LOCAL GROUPS?

6. ENVIRONMENTAL ASSESSMENT: THE MISSION IS REQUESTED TO SUBMIT AN IEE AS SOON AS POSSIBLE TO PERMIT FINAL PID APPROVAL. ASSUMING A POSITIVE RECOMMENDATION TO CONDUCT AN ENVIRONMENTAL ASSESSMENT, IT SHOULD BE CONDUCTED AS PART OF INTENSIVE REVIEW AND BE SUBMITTED PRIOR TO OR ACCOMPANY THE PP.

7. FOLLOWING DAEC REVIEW, REPS OF LAC/DR AND LAC/DP MET WITH DS/H AND NSL CONSULTANT ED ROBBINS TO DISCUSS PROJECT DEVELOPMENT AND DESIGN OPTIONS PRIOR TO THE SCHEDULED ECUADOR VISIT OF ROBBINS AND M. PITA. IN VIEW OF UPCOMING INAUGURATION OF NEW GOE ADMINISTRATION, IF POSSIBLE, WE WOULD LIKE TO HAVE AVAILABLE FOR ANNOUNCEMENT IN MID-AUGUST AT LEAST PART OF LOW COST HOUSING PROJECT. MISSION WITH TDY HOUSING OFFICER AND CONSULTANTS SHOULD DETERMINE IF NEW ECUADOREAN HOUSING OFFICIALS CAN BE IDENTIFIED AND, TO THE EXTENT POSSIBLE, ATTEMPT TO DISCUSS WITH THEM THEIR FUTURE POLICIES AND PRIORITIES REGARDING LOW COST HOUSING. WE WOULD OBVIOUSLY NOT WANT TO ACCELERATE THE DEVELOPMENT OF ANY PROJECT THAT DOES NOT CLEARLY REFLECT THE PRIORITIES OF THE NEW ECUADOR ADMINISTRATION. WITH THIS OBJECTIVE IN MIND, IT MIGHT BE ADVISABLE FOR THE PROJECT DEVELOPMENT TEAM TO CONSIDER NARROWING THE PROJECT FOCUS TO CONCENTRATE INITIALLY ON ONLY ONE PROGRAM COMPONENT AND DEFERRING OTHER COMPONENTS FOR LATER DEVELOPMENT. IN CONSIDERING WHICH OF THE THREE

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PROGRAM COMPONENTS TO SELECT, MISSION SHOULD REVIEW FOLLOWING CONSIDERATIONS:

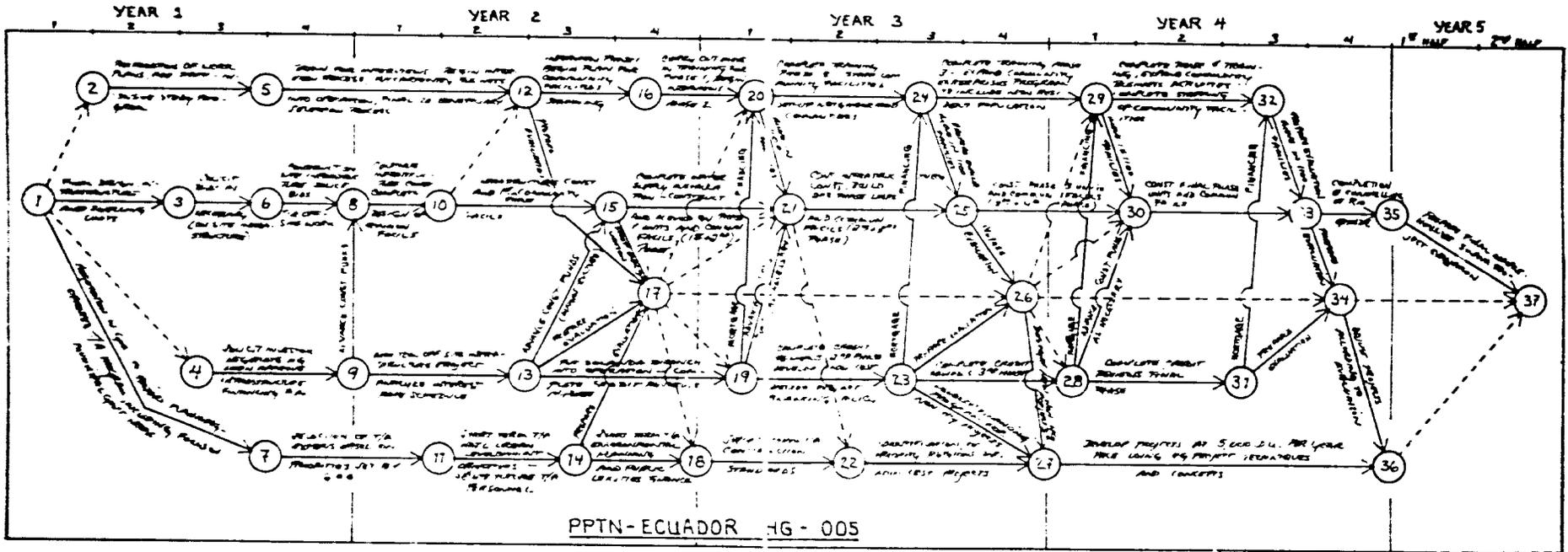
----- (I) GUAYAQUIL -- WE WOULD BE VERY INTERESTED IN ANNOUNCING AN INNOVATIVE LOW COST HOUSING PROGRAM FOR BARRIOS SUBURBANOS, HOWEVER, WE ARE CONCERNED THAT A. I. D. PROJECT MAY DISRUPT NEW WORLD BANK URBAN DEVELOPMENT PROGRAM. WHILE WORLD BANK HAS NOT AS YET FORMALLY REPLIED TO A. I. D. INQUIRY OUTLINED ABOVE IN PARAGRAPH 3C, INFORMAL COMMENTS FROM WORLD BANK TECHNICAL OFFICERS INDICATE THAT A. I. D. PROJECT MAY STRAIN LIMITED ABSORPTIVE CAPACITY OF GUAYAQUIL MUNICIPALITY. WORLD BANK PROJECT IS NEARING FINAL APPROVAL AND PROJECT DEVELOPMENT TEAM SHOULD CAREFULLY EXAMINE ABSORPTIVE CAPACITY ISSUE. POSSIBLE ALTERNATIVE IMPLEMENTING AGENCIES FOR LOW COST HOUSING IN BARRIOS SUBURBANOS, SUCH AS S & L SYSTEM AND SOCIAL SECURITY SHOULD ALSO BE EXAMINED. WE RECOGNIZE THAT IT MAY NOT BE POSSIBLE TO PROCEED IMMEDIATELY WITH GUAYAQUIL PORTION OF A. I. D. PROGRAM BECAUSE OF ALREADY PLANNED WORLD BANK PROJECT.

----- (II) SECONDARY CITIES -- WE BELIEVE THAT THIS PORTION OF THE PROGRAM SHOULD BE UNDERTAKEN WITHIN THE CONTEXT OF THE NEW GOVERNMENT'S PROGRAM OF DECENTRALIZATION. IN THIS CONNECTION LOW COST HOUSING SHOULD BE IMPLEMENTED AS ONE COMPONENT OF A MORE COMPREHENSIVE RURAL DEVELOPMENT PROGRAM SUCH AS IS BEING DONE IN THE PANAMA RURAL GROWTH AND SERVICE CENTER LOAN OR THE PERU INTEGRATED REGIONAL DEVELOPMENT LOAN. WE WOULD THEREFORE PREFER TO SEE THIS ELEMENT OF THE HIG PROGRAM DEFERRED UNTIL FURTHER POLICY ANALYSIS AND PLANNING CAN BE COMPLETED WITH THE NEW GOVERNMENT. THIS WOULD ALSO ALLOW THE MISSION ADDITIONAL TIME TO DEVELOP WITH THE GOVERNMENT A REGIONAL OR SECONDARY CITIES DEVELOPMENT STRATEGY INTO WHICH A LOW COST HOUSING ELEMENT CAN BE PLACED.

----- (III) QUITO - THIS PORTION OF THE PROGRAM MAY PROVE THE MOST FEASIBLE FOR INITIAL PROGRAM ACTIVITIES ALTHOUGH WE WILL LOOK TO THE MISSION'S PROJECT DEVELOPMENT TEAM FOR A FINAL ASSESSMENT. WHILE WE BELIEVE THAT A PROGRAM FOR RELOCATING THE URBAN POOR FROM QUITO'S URBAN CORE REQUIRES EXTENSIVE FEASIBILITY ANALYSIS, A SIMPLER LOW COST HOUSING PROJECT, PERHAPS IN THE SOUTHERN PART OF THE CITY, COULD POSSIBLY SERVE AS A MODEL FOR DEALING WITH THE HOUSING REQUIREMENTS OF QUITO'S URBAN POOR. WE BELIEVE THAT THIS MORE LIMITED APPROACH SHOULD BE ANALYZED BY THE MISSION AND ITS PROJECT TEAM.

WE WILL LOOK TO MISSION PROJECT TEAM FOR FINAL RECOMMENDATIONS ON DESIGN OF MOST APPROPRIATE PROGRAM. VANCE

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YEAR 3

YEAR 4

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