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BELIZE FREE ZONE FEASIBILITY STUDY
TECHNICAL AND LEGAL ANALYSIS

Prepared for the Ministry of Economic Development of the Government of Belize

Phase II
Final Report

February 28, 1990

Submitted by:

The Services Group, Inc.

In association with:

Bechtel Civil, Inc.

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ACRONYMS AND ABBREVIATIONS

ACP	African, Caribbean, and Pacific countries
BCCI	Belize Chamber of Commerce and Industry
BEB	Belize Electricity Board
BEIPU	Belize Export and Investment Promotion Unit
BTL	Belize Telecommunications, Ltd.
CDB	Caribbean Development Bank
CDC	Caribbean Development Corporation
CDSS	Country Development Strategy Statement
CEDC	Canadian Export Development Corporation
CPDF	Caribbean Project Development Facility
CZF	Corporacion de la Zona Franca
DFC	Development Financial Corporation
EC	European Community
ECU	European Currency Unit
ECA	Export Credit Agency
EIB	European Investment Bank
EPZ	Export Processing Zone
ERR	Economic Rate of Return
FZC	Free Zone Committee
ft	foot
FZL	Free Zone Law
FZO	Free Zone Office
FZO/MED	Free Zone Office of the Ministry of Economic Development
GOB	Government of Belize
GTE	General Telephone and Electric
HVAC	Heating, Ventilation and Air Conditioning
IEAT	Industrial Estate Authority of Thailand
IFC	International Finance Corporation
IFI	Intermediate Financial Institution
IR	Implementing Regulation
IRR	internal rate of return
kv	kilovolt
kva	kilovolt amperes
kw	kilowatt
kwh	kilowatt hour
LF	linear foot
MED	Ministry of Economic Development
mph	miles per hour
OPIC	Overseas Private Investment Corporation
psi	pounds per square inch
ROE	return on equity
SFB	standard factory building
sq.ft.	square feet
TSG	The Services Group, Inc.
USAID	United States Agency for International Development
WASA	Belize Water and Sewerage Authority

FOREIGN EXCHANGE RATE
US$1 = BZ$2

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EXECUTIVE SUMMARY

Purpose. The purpose of this report is twofold: to recommend a legal and regulatory structure for the development of a Belizean free zone program, and to evaluate the physical, financial and economic feasibility of the development of a private free zone project in San Andres, Belize.

Background. This report has been prepared by The Services Group, Inc., with the support of Bechtel Civil, Inc., under contract to the U.S. Agency for International Development (USAID) for the Belize Ministry of Economic Development (MED). The report extends the analyses and conclusions contained in the previous study under this contract, Belize Free Zone Feasibility Study: Market and Labor Demand Analysis, which assessed the potential for free zone development in Belize, and focused on an evaluation of potential market demand for under-roof space in a Belize free zone. The direct market survey of 70 firms in high-potential sectors identified eight firms with a total immediate demand for under-roof space of 67,000 sq.ft. in a private free zone located in the Corozal area. Five of the highly interested firms were Belizean, while the remaining three were from the United States. Most of the firms were engaged in export-oriented apparel and other light manufacturing activities.

Site Identification. The preliminary site selection effort focused on four prospective sites: the 40-acre existing commercial free zone area in Santa Elena; a 28.5-acre private plot of land in San Andres; a plot adjacent to the Belize City Port; and an area near the Ladyville Industrial Estate. Based upon an extensive evaluation of the sites on the basis of such factors as physical suitability of the terrain; distance from transportation hubs; quality and availability of factor inputs and support services; cost, distance and availability of nearby eligible-age labor force; proximity, cost and quality of external transportation and communications infrastructure and services; availability of land for future expansion; and good utilities provision, the San Andres plot was identified as the most suitable for free zone development.

Site Feasibility Assessment. Investigations of the San Andres site indicated that the site is well-suited for industrial development, with favorable physical characteristics requiring minimum land preparation efforts. The location of the site is quite good, with favorable access to factor inputs, utilities and transportation and communications facilities and services. However, the soil and geological characteristics of the site indicate that the use of a packaged sewage treatment plant or aeration pond is required to adequately treat industrial waste.

Environmental Impact Assessment. The environmental assessment of the project indicated that the impact of free zone development at San Andres on the environment would be negligible, if properly configured. Potential zone industrial activities pose no threat to the environment if mitigated by normal industrial protective measures. The environmental analysis corroborated the site engineering findings that alternative methods for waste water disposal should be utilized to mitigate the potential harmful effects to the groundwater emanating from the use of septic tanks.

Proposed Zone Design. The proposed configuration of the San Andres Free Zone is based upon the facilities and services requirements of the high-potential industry sectors identified. The preliminary master plan of the zone provides for the development of 305,500 sq.ft. of under-roof space on the 28.5-acre site. A total of 15 easily sub-divided standard factory buildings will be constructed, ranging in size from 13,000 to 32,500 sq.ft. The zone will also provide office space and a 3,000 sq.ft. administrative/Customs office facility. Water will be supplied by dedicated wells on-site, and non-toxic waste water and sewage will be treated on-site through extended aeration settlement. Overall, the proposed zone layout emphasizes an enhanced physical appearance, with extensive landscaping, green areas and expansion space.

Proposed Zone Services and Amenities. The following regular services will be offered by the free zone:

- 24-hour perimeter security, surveillance and lighting;
- full provision of electricity, water, telecommunications and other utility connections;
- pre-built factory and office space;
- non-toxic liquid and solid waste collection and disposal;
- grounds, common facilities and external building maintenance;
- general assistance with complying with government regulations and in obtaining requisite permits.

In addition, over time the free zone will offer a package of innovative services including: assistance with labor procurement; on-site medical clinic; preferential linkages with local vendors and service providers for shipping, insurance, legal assistance, banking, repair and maintenance services, and the like. The zone should also establish special ties with vocational and management training schools, and special linkages with independent operators to establish a shelter program on-site, as well as preferential ties with local subcontractors. Although other services should be offered as demand warrants, it is important to plan for and promote these services in advance to maximize promotional appeal. Such services can be provided on a "self-liquidating" basis -- either funded through additional fees to zone tenants or franchised to independent local providers.

Proposed Organizational Structure. Experience has shown that organizational simplicity is essential in the early stages of project development. The management team proposed for the San Andres Free Zone will include a General Manager, who will be directly responsible to the zone's Board of Directors for the financial and operational performance of the project -- strategic planning, lease negotiations, hiring, marketing and promotion, community relations, etc. An Executive Secretary will be responsible for general administration tasks. The staff will also include an Engineer, to oversee the maintenance and construction of physical facilities and maintenance personnel. The organizational structure will be altered over time, but will be streamlined for maximum efficiency.

Projected Investment Requirements. The total cost of land development, building construction and overall project development is estimated at about BZ$11.6 million, or US$5.8 million in current terms, based upon an "all-in" development cost per square foot of rentable under-roof space of BZ$36.22 or US$18.11. Based upon the results of the demand survey, experience in similar projects elsewhere, and expert opinion in Belize, a two-phase, 4-year development schedule for the free zone is envisaged. Phase I (Years 1-2) involves the land development and construction of eight standard factory buildings, equivalent to 175,500 sq.ft. of factory space; Phase II (Years 3-4) envisages the construction of an additional 7 buildings, equivalent to 130,000 sq.ft. of under-roof space. The actual execution of the entire development plan would be contingent on the rate of effective demand, and would result in the full development of the 28.5-acre site.

Proposed Financial Structure and Capitalization Sources and Requirements. Total capitalization requirements for the development of the San Andres free zone as planned are about BZ$11.6 million, with a small increment for working capital needs. The financing plan calls for a debt/equity structure of 60:40; conservatively assuming the availability of about BZ$4.7 million (US$2.3 million) in equity or risk capital, and the remainder comprised of long-term debt financing available for a 12-year term including a four year grace period on repayment of principal, at an annual interest rate of 12 percent. Potential sources of such long-term finance include: (i) international sources of debt financing from bilateral and multilateral lending organizations such as the World Bank, USAID, OPIC, IFC, EIB, CDB, among others; (ii) private foreign industrial estate and free zone developers; and (iii) local commercial banks.

Because of the size of the project, delays in accessing of funds, and stringent requirements imposed, most public sector-oriented multilateral and bilateral sources of debt financing (such as the World Bank and Caribbean Development Bank) do not appear appropriate. Similarly, given local commercial banking practices, local debt financing options are limited. The potential to access

a combination of debt financing and loan guarantees from such institutions as the IFC and OPIC is good, and should be pursued. The European Investment Bank is also a solid prospect if current restrictions on private project financing are removed. The potential to attract equity investment from private foreign institutions and development firms is also substantial, if certain risk-reducing elements are incorporated in project design.

Anticipated Financial and Economic Performance. Based upon conservative assumptions, the projected financial performance of the San Andres free zone is significant: over the 20-year period assessed -- including four years of construction and 16 years of full operation -- the project is expected to produce a cumulative surplus of BZ$15.4 million in current terms. The Internal Rate of Return on total investment is 11.2 percent over the first 10-year period, and 13.6 percent over the full 20 years. The Return on Equity is 16.9 percent after 10 years and 18 percent after the full 20-year period. Sensitivity analyses incorporating various pessimistic and optimistic assumptions do not seriously compromise the project's basic viability, given the conservative assumptions underlying the base case financial assessment.

The Economic Rate Return (ERR) analysis measures the contribution of the project to the national economy. The San Andres project should be undertaken only if the net economic benefit to society is positive and significant. By adjusting financial costs and benefits, the ERR is calculated at 23.5 percent over the 20-year period, a significantly positive return. Sensitivity analyses based upon various pessimistic assumptions do not seriously affect the project's economic impact, within the analytic parameters defined.

Proposed Institutional and Regulatory Framework. The Government of Belize has historically welcomed foreign investment in the country, and has enacted legislation to stimulate and support economic development and diversification. The drafting and implementation of a national free zone regime is consistent with Government policy. The draft free zone law and implementing regulation proposed for Belize as a part of this analysis build upon and enhance the policies and practices currently supporting the development of the non-traditional export sector in the country.

The zone incentives package, as drafted, is both competitive with other programs in the region and consistent with Government policies. Under the law, free zone status is extended to 100-percent export firms, including both foreign and domestic investors. Free zone developers/operators are also granted free zone status and are eligible for all incentives. In addition, all exporting firms may apply for free zone status, even those which are located outside traditional industrial complexes.

Key elements of the proposed free zone incentives package include:

- streamlined application procedures;
- duty-free treatment of zone imports and exports;
- 10-year tax holiday on business taxes;
- exemption in perpetuity from dividends tax, property tax, transfer tax, and sales-related taxes;
- freedom from price controls and licensing requirements;
- unrestricted access to foreign exchange;
- free repatriation of profits and dividends;
- sales to local market on a case-by-case basis;
- preferential access to expatriate work permits;
- opportunity for alternative (private) provision of basic services and infrastructure within the free zone facility;
- expedited on-site Customs inspection.

As proposed under the law, a public-private sector committee would be formed, chaired by the MED, with the authority to designate free zone projects. Committee members would include the MED, Ministry of Finance, Central Bank, Ministry of Lands, and three private sector representatives. Operationally, the proposed free zone program would be primarily administered by the MED, which would establish a new office responsible for overseeing the application process for potential zone users and facilitating zone investment and operations. This office would also serve as a technical arm for the free zone committee, reviewing applications submitted by zone development groups.

Conclusions. There is considerable potential for free zone development in Belize, and the San Andres project is a highly positive indicator of the dynamism of the Belize private sector and the leading role it can play in the establishment of an active zone program. The legal and regulatory issues raised in this report will require discussion and responsive action on the part of the Government, if existing opportunities are to be realized. It is highly recommended that the Government adopt free zone legislation similar to the draft documents, if Belize is to effectively compete in the regional free zone community. Whatever the ultimate decisions regarding the content and implementation of the law, Government offices and agencies must be firmly committed to supporting the free zone program if it is to be successful.

I. INTRODUCTION

1.01 This report has been prepared by The Services Group, Inc. (TSG), under contract to the United States Agency for International Development (USAID), for the Ministry of Economic Development (MED) of the Government of Belize (GOB). It summarizes the investigations and analyses that have been conducted in the final phase of a two-part feasibility study of private free zone development in Belize. This document has been prepared by TSG, with the input, advice, and assistance of Bechtel Civil, Inc. (Bechtel) and a cadre of independent consultants.

1.02 The Phase I study was conducted over a six-month period by TSG, Bechtel, and SRI International. The study was completed in February 1989, and a report was submitted to USAID and MED under the title Belize Free Zone Feasibility Study: Market and Labor Demand Analysis. Its purpose was to examine the market demand for private free zone facilities in Belize based upon the country's economic factor endowment, focusing on the availability of suitable and sufficient labor.

1.03 The findings of the first phase analysis were positive, indicating that the attributes of a Belizean location, including its preferential market access, natural resources endowment, English-speaking labor force, and geographic location, among others, were sufficient to attract foreign investment in key export sectors, providing a platform for the successful development of a free zone program. Moreover, the study concluded that ample domestic demand and, to a lesser extent, international demand exists for industrial facilities in Belize, and free zone space in particular. The labor analysis, focusing on the Corozal district in northern Belize, determined that there is a sufficient pool of available labor to support small-scale free zone development over the medium term.

1.04 Based upon the market analysis, the GOB gave authorization to proceed with Phase II of the study, encompassing site-specific technical and financial analyses, and recommendations as to the key elements of an institutional framework in support of zone development. Field work under Phase II was initiated in March 1989, by a team comprised of Cecilia Sager, Project Manager and William Haney, Project Coordinator (TSG); Don Raichle, Environmental Analyst (Bechtel); and Alex Quattlebaum and Clarence Matthews, Civil Engineers. During the initial field mission, a privately held industrial site in Corozal was selected by the GOB and USAID to be the focus of the technical analysis, and consequently, is the subject of the investigations and technical assessments summarized in this document.

1.05 A second field mission was conducted in May 1989, furthering the engineering and environmental investigations already underway

and encompassing the multifaceted investigations required for the development of a financing strategy for the project and a recommendation for an institutional framework for the development of a Belizean free zone program. The field team of TSG staff members James Emery, Financial Analyst, and William Haney, met with GOB and USAID officials, local technical consultants, and members of the Belizean financial sector to garner their input regarding project design and implementation.

1.06 The resulting report together with the Phase I analysis can be seen as the first step in the formulation of a free zone development strategy for Belize. This document begins with an assessment of the locational attributes of the site(s) under investigation (Chapter 2) and continues with a preliminary analysis of the potential environmental impact of project development (Chapter 3). It then turns to the physical configuration of the project based upon the market requirements and the cost of its development (Chapter 4) and an analysis of the potential financial and economic performance (Chapter 5) of the project under study.

1.07 From a broader perspective, Chapter 6 recommends key elements of zone legislation in the context of the existing Belizean institutional and regulatory framework, while Chapter 7 addresses the administrative aspects of the free zone regime. Chapter 8 considers the steps to ensure effective zone management and operations from the zone developer's perspective. Chapter 9 presents general conclusions regarding the project's viability and outlines how best to proceed in the design and implementation of a free zone program in Belize.

1.08 In addition to the individuals already mentioned above, the following TSG staff members contributed to the research and analysis summarized herein: Carl Goderez, Technical Advisor; Mark Frazier, Technical Advisor; Kishore Rao, Economist; Robert Rauth, Institutional Analyst; Kathryn Bryk, Market Analyst; and Peter Ferrara, Legal Advisor. James Burke served as Technical Advisor for Bechtel, and Ariel Mitchell and George Moody of Mitchell-Moody Associates provided architectural and engineering assistance.

1.09 TSG wishes to thank Sharmaine Hyde, Permanent Secretary of the MED, and Harold Arzu and Fred Mangum of the MED staff for their guidance and assistance in the execution of the study. Pablo Espat and the other officers of the Belize Export and Investment Promotion Unit (BEIPU) have also contributed to the execution of the work program. Elton Jones, the owner of the San Andres site, was particularly helpful in providing information and assistance. Likewise, Art Villanueva and Mr. Pedro Perez of USAID/Belize have offered logistical support and technical guidance. Throughout the study, government representatives and members of the business community have all been generous with their time. The views expressed in this report are those of the project team and do not necessarily reflect those of the Government of Belize or USAID.

II. SITE FEASIBILITY ASSESSMENT

2.01 This chapter provides a preliminary assessment of the proposed free zone site in San Andres and determines the development strategy for zone design, including key physical and infrastructure elements of establishing a free zone in Belize. As a prelude to the discussion of the San Andres site, the chapter begins with a summary of previous locational analyses of alternative sites for zone development -- Santa Elena, the Belize City Port, and the Ladyville Industrial Estate -- and the evaluation process utilized to determine the site to be analyzed in this report.

A. STANDARD LOCATIONAL ANALYSIS CONCEPTS

2.02 The suitability of a location for industrial development, and for a free zone project in particular, traditionally depends on the relative cost associated with the procurement of raw materials and intermediate goods, their processing and/or assembly into a product or component, and the distribution of the product or component to a market or set of markets. Many free zones are located near transportation hubs and ports so as to minimize these costs to zone occupants; however, the determination of a least-cost location must take into account many other factors.

2.03 For most light manufacturing firms interested in establishing operations in free zones in the Caribbean and Central American region, the most important factor in their investment decision is the availability, cost, and composition of the labor supply. Other factors of production include raw materials and intermediate goods, energy and other utilities, character and availability of manufacturing facilities, and business support services. Complicating the assessment, the relative importance and impact of these factors on the cost of production is subject to variation due to the uncertainty of the future availability, composition, and price of each factor.

2.04 In analyzing locations for development of a free zone, the most critical factors (excluding the labor force) are generally:

> <u>Physical Suitability of the Terrain.</u> The suitability of a potential site for any industrial development project, including a free zone, is dependent upon the physical characteristics of the land, and costs associated with land preparation and development. Furthermore, the location of the site with respect to end-markets and distribution points, materials sourcing, and labor markets all critically affect the potential for zone development.

Infrastructure and Service Connections. The availability, quality, and cost of internal and external infrastructure, transportation, communications, and business support services are crucial in determining the suitability of an industrial location.

Social Amenities. The quality and cost of local social and recreational facilities, housing, and other quality-of-life indicators are major considerations in modern site-selection analysis.

B. SUMMARY OF PREVIOUS SITE INVESTIGATIONS

2.05 Previous field missions to Belize in 1986 and 1988 were undertaken involving, to various degrees, preliminary locational analyses of several prospective free zone sites as part of USAID projects investigating the potential for zone development in Belize. The primary site under consideration during the 1986 study (Prospects for Free Zone Development in Belize, September 1986, The Services Group) was a commercial free zone in Santa Elena located near the Mexican border in the Corozal District. The parcel of land under consideration at the Santa Elena site was adjacent to the Immigration and Customs post. The site currently houses a largely abandoned, 40-acre fenced, bonded-warehouse and manufacturing area and a modest duty-free shopping facility.

2.06 As part of the Phase I investigations for this study, three additional prospective sites were examined in September 1988 to provide a preliminary assessment of alternative zone locations: a private parcel of land in San Andres, Corozal District; a site adjacent to the Belize City Port; and the existing Ladyville Estate. The resulting evaluations of the sites with respect to zone development are summarized below:

Santa Elena. The irregularly shaped, 40-acre parcel of land is currently under-utilized as a bonded warehousing and manufacturing area and duty-free shopping center. The site contains 12-24 privately owned structures, most of which are abandoned or in various stages of deterioration. Few, if any, of the structures would be of use in free zone development, and their demolition would raise land development costs significantly. Overall, site topography is favorable, and existing vegetation could be cleared with minimal cost. Labor in Corozal District appears to be characterized by lower rates and higher productivity than in other areas of Belize, and energy and utilities provision for the prospective zone pose no apparent problems. Generally, the site appears suitable for industrial development based upon the available labor supply, infrastructure and service facilities, terrain, and location.

San Andres. A 28.5-acre plot approximately one mile from Corozal Town in San Andres is owned by a Belizean businessman engaged in apparel manufacturing activities. The owner has plans to build additional facilities on the site for expansion of his manufacturing activities as well as for lease or sale to foreign or local investors. The site currently contains an apparel operation, constructed in 1988, which is owned and operated by the site owner. The primary advantages of the site are: close proximity to low-cost, available labor in Corozal Town and surrounding villages; suitable terrain and land characteristics; and excellent infrastructure connections. The site could be hampered by lack of an adequate water supply and problematic soil characteristics. Nevertheless, it holds considerable potential for zone development.

Belize City Port. Ample land adjacent to the port makes this location a strong contender for zone development, as many zones throughout the world are ideally situated near primary transportation centers and plentiful supplies of labor. The site's topography, however, is somewhat problematic due to the insufficient load-bearing capacity of the soil and subgrade, thereby requiring substantial fill for industrial development. Furthermore, labor characteristics in the Belize City area appear less favorable than in other Districts, and this may adversely affect the attractiveness of the location.

Ladyville Industrial Estates. Located ten miles northwest of Belize City, Ladyville contains three standard factory buildings (SFBs). The site is close to the ocean port and airport, with plentiful supplies of labor nearby. At first glance, the location appears ideal for zone development, yet several negative factors may pose significant constraints. Intermittent labor shortages, poor worker productivity, high turnover rates, and high development costs have been reported in the industrial estate.

2.07 The evaluation of the four sites highlighted the relative disadvantages and advantages for each location in terms of its suitability for zone development. Several factors were seen to adversely affect sites near Belize City, primarily labor and infrastructure quality and development costs. The two locations examined in Corozal District were determined to be more suitable for development based on preliminary analysis.

C. DETERMINATION OF SITE TO BE ANALYZED

2.08 Based upon the findings of the preliminary site evaluations conducted during Phase I of the study and previous studies, the GOB and USAID/Belize indicated that two sites were under consideration for investigation during the second phase: the Santa Elena site and

the private plot of land being developed in San Andres, Corozal District. Field investigations by the project site assessment team in March 1989 revealed that although both sites were physically suitable for zone development, the Santa Elena site would require additional expense in land development costs due to the presence of structures on site in various stages of deterioration. Furthermore, the Ministry of Economic Development and the Ministry of Finance informed the project team that the ownership of various parcels of land comprising the Santa Elena site had been diluted among numerous individuals since previous investigations, further complicating near-term prospects for private zone development.

2.09 As a result of the complications in land ownership at the Santa Elena site, the GOB and USAID concluded that it was not a viable option for near-term zone development. The technical assessments described below, including all the engineering and environmental analyses conducted as part of the Phase II work program, were subsequently shifted to focus solely on the San Andres site.

D. PHYSICAL CHARACTERISTICS OF THE SAN ANDRES SITE

1. Topography and Vegetation

2.10 At present, no detailed topographical map exists for the San Andres site. The site appears to be situated on a high ridge, and the site and surrounding area is essentially flat, gently sloping to the east and to a lesser extent to the south near the site's southwestern corner. Rough topographical data suggest that the site is 40- to 50-ft. above sea level. According to the data, the slope of surrounding land increases to the east, indicating that San Andres rests on top of a slight knoll.

2.11 The site is small in comparison to other zones regionally, but this does not preclude successful zone development, particularly given the inexpensive cost of land in this particular case. Furthermore, the owner of the land possesses an option to purchase an additional 22 acres adjacent to the northern border of the site. Hence, the total area of the zone may approach 50.5 acres in the future.

2.12 The vegetation covering the eastern portion of the site is a young forest. Approximately 10 acres in the northeast portion has been cleared for industrial development. The western portion of the site was cleared by a previous owner for sugar cane cultivation, as were the lands to the north and west of the site. Scattered throughout most of the remaining site are derelict coconut trees remaining from previous production, and several large trees which were not destroyed by Hurricane Janet in 1955.

2. Existing Structures

2.13 A 7,000 sq.ft. factory building was constructed on the site in 1988 for use by Pleatex, Ltd., in the manufacture of apparel principally for the export market. The construction of two 15,000 sq.ft. factory buildings is currently planned for late 1989. In addition, a compacted aggregate driveway and loading ramp have been constructed connecting the factory to the San Andres road, and the property is separated from the San Andres road right-of-way by a low wire fence (much lower than accepted free zone standards).

3. Soil and Geology Characteristics

2.14 The soil analyses conducted by the architectural/structural engineering specialists indicate that the soil conditions on site are suitable for zone development. Six soil borings ranging from eight to eleven feet in depth were undertaken, each producing similar profiles. The top section of the profile, as seen in Figure 2-1, is organic topsoil with some decayed vegetation. The second layer appears to be primarily very dense cemented marl to approximately three feet, followed by an occasionally cemented marl to the concluding depth of the borings. Conditions below eleven feet have not been accurately described. In various excavations of the surrounding area for public works projects, as reported by the Ministry of Public Works, some underground caverns between the surface and a depth of 15 feet were discovered, as well as atypical porous soil conditions in certain locations.

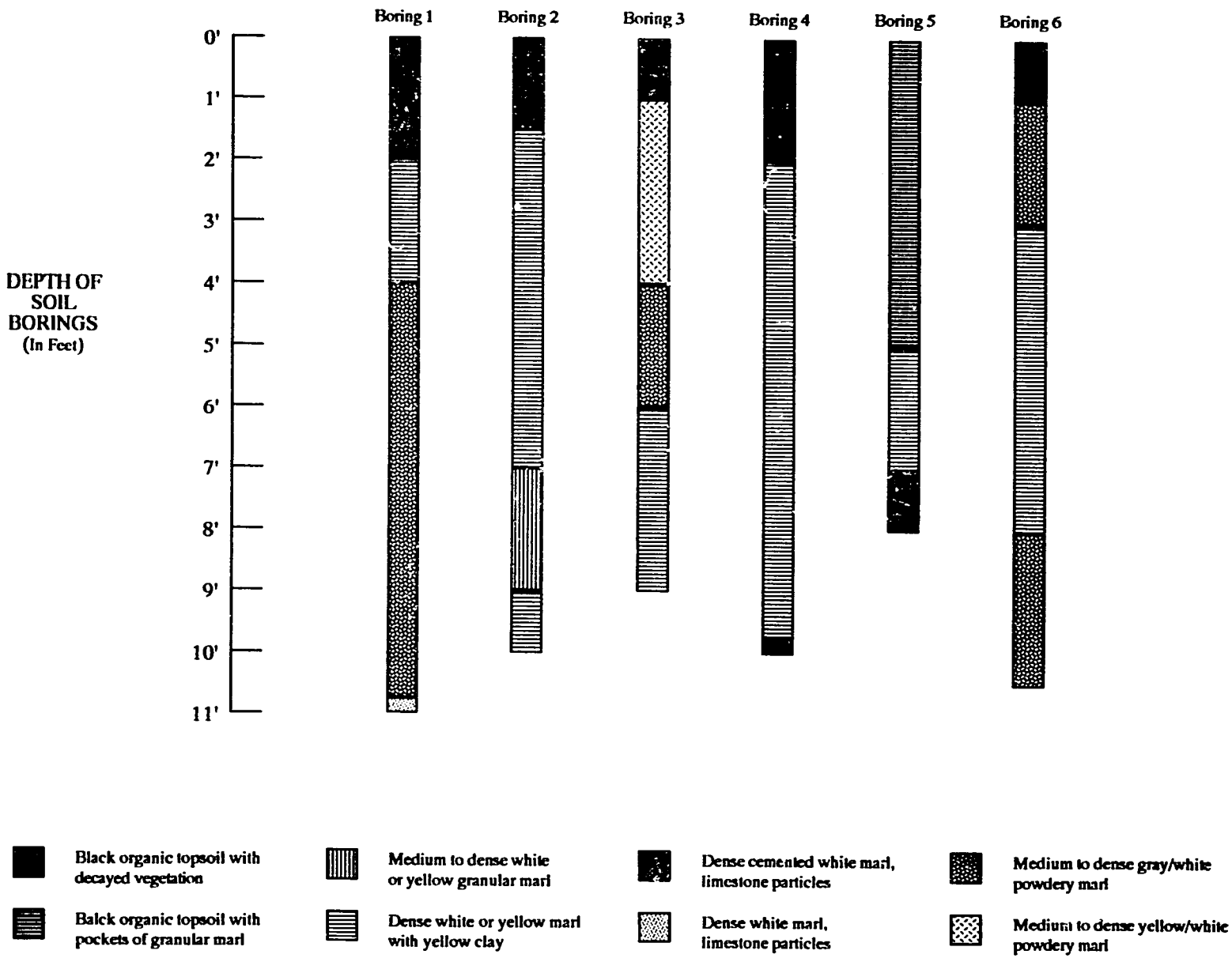
2.15 According to soil maps, the principal soil types for the area are of two varieties: Xaibe clay and Xaibe brown clay. The data suggests that there is usually a pavement beneath the topsoil, followed by an extremely hard, indurated surface which is generally impervious to water. Excess rain water runs laterally through the clay, draining between folds in the pavement layer.

2.16 The structural characteristics of the soil appear satisfactory with a load-bearing capacity of between 4,000-6,000 pounds per square foot. This capacity is quite adequate for standard factory shells found in other free zones and industrial parks, which normally require a minimum load-bearing capacity of 1,000 pounds per square foot.

4. Hydrology

2.17 Hydrological information for the site and the surrounding area is limited. However, visual observations undertaken at the site indicate that there are no continuous flowing surface streams or rivers within the immediate area. Due to a rather impermeable layer of soil beneath the topsoil, excess rain water probably creates seasonal streams during the wet season.

FIGURE 2-1
SAN ANDRES SITE SOIL BORING SUMMARY



2.18 The aquifer beneath the site is currently used to supply the public water system for Corozal Town and surrounding communities. The direction of aquifer flow is not known. The quality of water from a nearby public well in Santa Rita is good, but would be rated "hard" because of the high concentration of dissolved mineral salts. The well extends to a depth of 80 feet. To treat the well water for potable use, only chlorination is needed. Varying information suggests that the top of the aquifer is between 12 and 30 feet below the surface.

5. Access to Infrastructure and Basic Services

2.19 Electrical power connections to the site are excellent. The one megawatt power substation for the Corozal area is located one half-mile from the site at Santa Rita. A step-down transformer at the substation reduces the voltage from 34.5 KV to 6.6 KV for distribution to smaller transformers for consumption by residents and commercial users in and around Corozal Town.

2.20 A primary six-inch public water main runs directly parallel to the San Andres road. The two public wells supplying the Corozal area with water are located in Santa Rita and Calcutta. The Belize Water and Sewerage Authority (WASA) states that the two wells combined pump on average approximately 230,000 gallons per day, and generally do not pump at a greater rate than 100 gallons per minute per well. Given this information, the capacity of the two public wells to supply zone needs is not sufficient based on demand estimates, and either WASA or the zone developer will be required to drill additional wells.[1] WASA has indicated that it may be willing to assume the cost of drilling additional wells to increase area supply capacity. However, WASA usually requires the consumer to incur capital and labor costs connected with the installation of distribution pipes and systems. Both public and private drilling equipment are readily available for rent, and WASA has recently acquired a ri capable of drilling to a depth of 600 feet; the standard WASA rigs drill to 300 feet. The cost for equipment rental is approximately BZ$50 per foot drilled.

2.21 There is currently no public system of waste water/sewage or solid waste disposal for San Andres or the community. Zone facilities will be required to provide such services for zone industries. Telecommunications equipment and service can be made readily available to the site, based upon conversations with Belize Telecommunications, Ltd.

2.22 Roads from San Andres to the Northern Highway, connecting Corozal District to Belize City and subsequently to the port and

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[1] See Chapter 4 for a detailed discussion of estimated water requirements for zone industries.

international airport, are excellent by local standards. The San Andres road and Xaibe road servicing the site are both paved (22-foot width). The road north from Corozal Town to the Mexican border at Santa Elena is in good condition according to the Ministry of Public Works, and primary roadways north into Mexico are excellent.

6. Land Preparation Requirements

2.23 As discussed earlier in the section detailing topography, the site is essentially level. Land development would require minimal, if any, cutting, filling, and grading operations in the construction of roads, foundations, and related systems. Furthermore, existing vegetation is not dense and minimal clearing, grubbing, or topsoil removal would be required.

E. LEGAL/REGULATORY ENVIRONMENT FOR SITE DEVELOPMENT

2.24 The site in San Andres and the surrounding community, with the exception of publicly held property, is currently not subject to any specific zoning regulations governing acceptable domestic or commercial development. However, the Statutes and Subsidiary Legislation of Belize and local regulations do include laws governing the registration of factories and necessary permits, inspections, and specifications for erection of industrial facilities.

2.25 Essentially, all proposed new factories must apply for registration approval from the Chief Factory Inspector and submit: drawings detailing factory (and related structures) elevations, sections, and floor plans; a master plan showing the relation of various buildings and structures to one another; and any additional information as required by the Inspector. The owners of new factories, whether utilizing new or old structures, must also submit the name of the factory, address, nature of activity, nature of mechanical power, and estimated or actual number of employees. The Inspector uses the information to insure that the activities undertaken by the factory pose no imminent risk to workers or other persons, and will conduct an on-site investigation to that effect seven days following the completion of construction of all new factory facilities. The Inspector is required by law to respond to applications for erection of new facilities within 30 days or the permit will be granted automatically. Permits for factories must be renewed yearly.

2.26 Local Districts maintain some regulations regarding required facilities and building specifications. By-Laws for the removal of refuse state that the occupant of every premise within each town or village must provide a suitable receptacle, including appropriate covering, for containing refuse. The occupant must

also arrange for the safe and effective removal and disposal of the refuse in a manner approved by the Senior Health Officer.

2.27 Regulations governing the use and construction of sanitary facilities are covered under the Privy Accommodation By-Laws. All manufacturing premises are responsible for the provision of adequate sanitary facilities as approved by the Senior Health Officer. At least one wall of any sanitary convenience must also be an external wall of the building, and the sanitary convenience shall provide adequate ventilation, minimum floor space of 15 square feet, and pipes separate from any water distribution system. Septic tanks cannot be constructed without the prior written permission of the Senior Health Officer and an on-site inspection of proposed systems and facilities.

F. OTHER CHARACTERISTICS

1. Local Land-Use Patterns

2.28 Currently there are a variety of land-uses on site and in the immediately surrounding area of San Andres. The site itself has been purchased exclusively for industrial development and currently houses one manufacturing operation on the northeastern corner. The site was originally part of a larger parcel of land (stretching to the west, north, and south) utilized for sugar cane, papaya, mango, and coconut production during various periods. Directly east of the site across the San Andres road lies the Corozal Community College and the community football field. Residential developments lie to the south along Xaibe road and to the northeast along the San Andres road.

2. Housing, Recreation, and Amenities

2.29 San Andres, Corozal Town, and surrounding villages are host to a variety of domestic dwellings, including scenic coastal properties and modern houses. Although little information on the availability or general cost of local housing was obtainable, informal discussions suggest that the construction of new residences may be necessary to accommodate many of the immigrants to San Andres and the surrounding region. It is estimated, however, that the majority of zone workers will be current residents of Corozal Town and area communities, and the zone's labor needs will not induce serious housing strains on nearby communities. Housing for expatriate personnel affiliated with zone industries may pose a greater problem, as upper-scale housing development in the Corozal area has been quite limited to date. It is likely that many of the expatriates would need to construct new houses in the area or commute longer distances to find available housing.

2.30 As tourism is one of the primary industries in Belize, the availability of recreational activities is excellent. Diverse activities exist both in the keys and on the mainland, including diving, fishing, sailing, hiking, and the like. Furthermore, neighboring countries such as Mexico and Guatemala are easily accessible and are rich with cultural and leisure activities.

G. ASSESSMENT OF SITE FEASIBILITY

2.31 The San Andres site can be considered a potentially viable location for free zone development. Based upon earlier analyses concerning market demand and labor supply, and recent investigations of terrain and required services and infrastructure, a small-scale zone has the potential to attract sufficient investment in typical light industries to assure a financially viable operation. More specifically, the soil conditions and topography of the site are suitable for industrial construction at reasonable cost.

2.32 Some potential constraints to development were noted above and will require further investigation and analysis. Preliminary data on subsurface soil characteristics indicate that the typical method of waste water and sewerage disposal through the use of septic tanks and natural percolation will be problematic. The relative density of subgrade layers is likely to result in the overflowing of septic tanks and ground saturation, posing a threat to zone occupants and local communities. Furthermore, a large concentration of septic tanks also risks contamination of the area aquifer supplying public systems and nearby developments. Adequate systems for waste water and sewerage disposal will be required to overcome the problematic soil conditions, and the zone may be required to seek alternative sources of water supply outside of the public system's current capacity.

2.33 The analysis presented in this chapter indicates that, with the above mentioned exceptions, the basic infrastructure and other factors exist for successful zone development in San Andres. More detailed analysis of the site's impact on the local environment will be presented in the following chapter, and successive sections will discuss proposed zone facilities and systems.

III. ENVIRONMENTAL ASSESSMENT

A. INTRODUCTION

3.01 The objective of this assessment is to provide a determination regarding the environmental suitability of the proposed San Andres free zone. It will also serve as a foundation and guide for any future environmental impact studies executed either in the development of other free zones or the approval of specific zone industries.

3.02 As a first step, an inventory of the existing biological, climatic, physical, and contextual site features has been undertaken. These factors, in turn, are examined to assess the resulting impact from the proposed zone development. Finally, mitigating measures to reduce negative impacts and identification of potentially irreversible impacts are reviewed.

3.03 It should be noted that while some conclusions regarding the development's environmental suitability can be reached as a result of investigations undertaken for this study, they should be regarded as preliminary in nature. At present, only a few specific industries have been identified as likely zone users. Consequently, only general impacts have been identified. In addition, current data regarding environmental conditions is limited. This section is comprised of information obtained from the few existing government documents available and from limited on-site investigations.

B. EXISTING ENVIRONMENTAL CONDITIONS

1. Climatic Features

a. Wind

3.04 The dominant winds affecting the site blow out of the northeast and east and average between 10 and 20 miles per hour (mph) as detailed in Figure 3-1. The site itself is situated 1 to 1.5 miles inland so that some of the cooling coastal winds are dissipated. Belize is also subject to storms and hurricanes that occur during the late summer and fall, peaking in September; the Corozal District was largely destroyed by Hurricane Janet in 1955. Generally, these storms approach from the east.

b. Precipitation and Temperature

3.05 Rainfall in the San Andres area averages 60 inches a year. The wet season extends from November to January, while the dry season falls between January and March. The mean monthly minimum

temperature for the country as a whole ranges from 14 degrees Celsius in the winter to 33 degrees Celsius in summer. The mean maximum temperature varies from 28 degrees Celsius in winter to 35 degrees Celsius in the summer.

2. Biological Features

a. Vegetation

3.06 The dominant vegetation for the San Andres area is comprised of Sapota-Mahogany forest. Species usually associated with this vegetation type include negrito, cabbage bark, turtle-bone, gombo-limbo, fiddlewood, grape, grande betty and glassywood. Some of the forest land has been cleared during various stages of ownership and planted with sugar cane, coconut, papaya, and mangos. Within and adjacent to the proposed site, five vegetative conditions have been identified, as detailed in Figure 3-2. These vegetation features include forest, disturbed forest, cleared areas, mango groves, and cane fields.

3.07 The forest covering the eastern portion of the site, as well as much of the surrounding area, appears to be of the Sapota-Mahogany type. While site investigations have not been undertaken to determine the exact species present, it is reasonable to assume that many of those specific types described above occur. It should be noted that the forest is relatively young, having developed since Hurricane Janet stripped most of the old growth in 1955. Scattered throughout the site is a derelict coconut grove which has been totally infiltrated by the new forest.

3.08 The western portion of the site has been cleared and appears to have been in recent cultivation for sugar cane. These cane fields extend to the north and west of the site and are subject to seasonal burning before harvesting.

3.09 Distinct from those areas that have been cleared by previous owners as part of harvesting cane or other agricultural products are several areas that have been cleared recently for industrial use. One such area is located on the northeast corner of the site where approximately ten acres have been stripped of most vegetation to allow for the construction of several manufacturing facilities including the existing apparel manufacturing factory building operated by Pleatex, Ltd.

3.10 South of the site, along Xaibe road, are areas of disturbed forest that have been partially cleared for residential development. Within these areas many of the larger trees have been saved while much of the underlying vegetation has been removed. To the east of the site is an expansive lawn surrounding the Corozal Community College, and a football field situated to the southeast of the site. To the north of the site are several acres

of mango groves, in addition to the sugar cane, which appear to be out of production judging by their condition and the limited number of trees remaining (as previously noted, some sub-plots may be subject to occasional burning).

b. Wildlife

3.11 To date no information has been obtained regarding wildlife species currently inhabiting the site and the surrounding area. However, it is reasonable to assume that the forest area and vegetation on site contain a variety of species since the site is presently the area least impacted by man, as can be seen in Figure 3-2. Forest habitat covers the central and southern portions of the site. Given the large habitat areas surrounding the site, it is reasonable to assume that site habitat are not unique, nor are species potentially endangered by site development. Nonetheless, the possibility exists that there are endangered species on the site, such as the black howler monkey, white collared peccary, and ocellated turkey, which are found in the northern region of the country.[1]

3. Physical Features

a. Geology and Soils

3.12 The specific soil type on the site has not yet been determined. However, according to 1:250,000 scale soil maps for the area obtained from the Department of Lands and Surveys, two soils, Xaibe clay and Xaibe brown clay, are likely to occur on the site and in the surrounding area. The two soils have very similar characteristics, although Xaibe brown clay is believed to be slightly more productive as an agricultural soil. The parent material for these two soils is tufaceous coral gravel and grit. Beneath the soils usually exists a coral pavement, beneath which is an extremely hard indurated surface. The latter crust is seldom altered by soil formation and is rarely penetrated by tree roots; furthermore, it is also generally impervious to water. Excess rain water tends to move laterally through the surface clay, then drains between folds in the pavement layer.

3.13 Recent soil investigations (conducted in June 1989) confirm the above soil description. Six borings ranging from eight to eleven feet in depth produced similar profiles, as evidenced by Figure 2-1. The top section of the profile (surface to 18 inches) is organic topsoil with some decayed vegetation. Below the topsoil a highly dense cemented marl to extends to approximately three

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[1] This is only a partial listing of endangered species in Belize.

feet, with a granular, occasionally cemented marl beneath it. Due to the relatively shallow depth of the borings, conditions below eleven feet have not been accurately described. In excavations for various public works projects in the surrounding area, some underground caverns and streams have been discovered, as well as more porous soil conditions.

3.14 The structural characteristics of the soils on the San Andres site appear to be satisfactory, given the absence of random caverns between the surface and a depth of 15 feet. Based on an evaluation of recent soil borings, the architectural/engineering firm of Mitchell-Moody Associates has determined that the soil has a load-bearing capacity of 4,000 to 6,000 pounds per square foot. Consequently, the soil appears to be fully capable of supporting factory shells on all proposed site locations.

3.15 Erosion of the existing soils seems to be minimal due to the flat topography. Soils near the western portion of the site, however, have recently been used for sugar cane production and were subject to seasonal burning (see Figure 3-3). This burning and subsequent clearing of vegetation disrupts the soil and leaves the topsoil exposed to some potential erosion, and may affect neighboring soil characteristics depending upon the extent of burning. Soils recently cleared for construction may also have an erosion potential over long periods or during heavy rains.

b. Hydrology

3.16 Current hydrological information for the site and its surrounding area, as with other information, is limited. Nonetheless, general conclusions can be drawn from visual site observations made during dry weather. It appears that there are no continually flowing streams in the immediate area. Due to the presence of a nonpermeable soil layer eight inches to 18 inches below the site surface, seasonal streams probably occur during the wet season. Cracking in the topsoil, which is primarily clay, suggests that the soil becomes saturated during heavy rains. While surface water probably leaves the site as sheet flow down the gradual slope to the south and east and into depressions and ditches along Xaibe and San Andres roads, some areas of standing water are likely to occur as a result of the flat topography (see Figure 3-3).

3.17 The aquifer below San Andres is currently being used to draw water for domestic and commercial consumption in Corozal Town and surrounding villages. At this time the direction of aquifer flow has not been determined to a reliable degree. At Santa Rita, one mile to the north of the site, the Belize Water and Sewerage Authority operates a public well of 80 foot depth and pumping station servicing the public water distribution system. At present, the quality of water from the Santa Rita well and the well

at Calcutta has been described as "good" by local officials. While the water from the wells is fairly hard, only chlorination is needed to render it potable.

3.18 Three additional wells, not integrated into the public system, are located on the site of the Corozal Community College. The wells range in depth from 40 to 50 feet and provide water of varying quality, with dirty water appearing during the dry months. Conflicting information regarding these wells places the top of the aquifer between 12 to 30 feet below the surface. In addition, underground streams which flow through caves in the limestone substrata are said to exist in the area, though documented evidence was not available.

c. Topography

3.19 No detailed topographic information exists for the site. General information and site observations conclude that the site and surrounding area is flat, sloping gently to the east, and to a lesser extent to the south toward Xaibe road in the southeastern corner of the site. Interpolation of rough topographic data suggests that the site is located on relatively high ground, 40 feet to 50 feet in elevation above sea level. Further to the east of the site, the calculated slope on the topographical maps increases, indicating that the San Andres area and proposed site is situated on the crest of a slight knoll.

4. Contextual Features

a. Land-Use and Development Patterns

3.20 There are presently a variety of land uses on the site and surrounding area (see Figure 3-4). The western portion of the site appears to have been most recently utilized in the production of sugar cane. These cane fields, mixed with occasional mango groves, extend to the west and north of the site, and may still be in use off site. As noted in the earlier discussion on vegetation, light forest covers the eastern portion of the site and extends off site to the south and east. The remaining on-site land use is an apparel manufacturing plant located on the northeast corner of the site. To the south, along Xaibe road, some scattered residential development has occurred. Additional residential development is expected to extend eastward on Xaibe road as part of a new housing subdivision. To the east of the site is located the Corozal Community College and the San Andres Community Football Field.

b. Visual Perception

3.21 Because of the area's level topography, views into and off the site are limited, further limited by the dense forest screening the site along the roads (see Figure 3-4). Currently the only visual penetration into the site is from the San Andres roadway and adjacent Corozal Community College, facing west to the recently cleared area and new apparel facility. The site's existing visual character is dominated by the light forest and cane fields, and contributes to the areas "natural" and agricultural character.

c. Archaeology

3.22 The area including Corozal Town and the surrounding villages has proven to be rich in archaeological remains. Excavations over the last twenty years have shown that the area was once a large Mayan settlement, possibly a regional capital, in the period between 900 and 1350 AD. While much of the archaeological remains have been damaged or destroyed during Corozal's expansion, some major finds have been preserved (see Archaeological Sites Inset on Figure 3-4). The most notable find is the temple structure in Santa Rita. The temple pyramid and surrounding structures are located less than one mile northeast of the site. Excavation of the temple is continuing, and new ruins and artifacts are being discovered in the area, including some evidence of archeological structures on the grounds of the Corozal Community College.

3.23 As far as cursory field research can determine, no archaeological excavations or examinations have occurred on the proposed free zone site. Typical physical features that might suggest the existence of historical structures or remains, such as subtle mounding, have not been discovered on-site. However, because of: a.) the close proximity of the temple at Santa Rita to the site, b.) the finds on the community college campus, and c.) the discovery of settlement remains at Xaibe village to the west, it is conceivable that some archaeological remains may exist within the site boundaries.

d. Access

3.24 Local access to the site is very good (see Figure 3-4). Xaibe road, the primary artery connecting Xaibe and San Andres to Corozal Town, passes just to the south of the site. In addition, San Andres road passes adjacent to the site's eastern border and serves as the primary access route to the site. Along the site's northern boundary exists an unpaved government road and right-of-way. At present, it appears that the unpaved public road is not utilized except to access the cane fields to the north and west of the site.

C. POTENTIAL IMPACTS AND MITIGATION MEASURES

3.25 As noted in the introduction, only a limited number of potential industries and zone occupants have been identified to date. As a result, the provision of a comprehensive list of potential site development impacts is not possible at this time. The intent of this section is to identify generic impacts that are likely to result from the development of typical light manufacturing facilities and to determine if the site has basic evident environmental limitations. The inclusion of specific activities within zone borders may warrant detailed impact assessments in the future.

1. Climatic

3.26 Development of the site would not have a direct impact on the area's climate. However, the process involved in creating the master plan for site development should be sensitive to subsequent effects on the immediate microclimate and that of the area immediately surrounding the site. To avoid negative impacts, several factors should be considered as the final site master plan is developed.

3.27 Winds on the site are a positive aspect for the most part, providing cooling breezes. Buildings and ventilation systems should be oriented to take advantage of the dominant winds. Also, when locating activities producing unpleasant or toxic fumes and odors, wind direction and buffer zones should be considered to dissipate negative effects. These strategies will help minimize the impact of industrial activity both within the zone and in the surrounding area.

3.28 Precipitation should be controlled so that normal and excess water flow will not damage natural and man-made structures or give rise to potentially harmful by-products (e.g. from sewerage aeration pond, toxic waste storage, etc.). Backup systems for such sensitive structures should be provided so that spills or overflows from facilities do not escape the site's boundaries or percolate into the aquifer. In addition, drainage of surface run off should be handled on-site so that it does not flow onto adjacent properties.

3.29 Temperature and humidity would not be greatly affected by the type of development presently envisioned, but should be considered design issues in terms of minimizing reflected heat and light, the creation of shaded areas, and selection of appropriate building materials.

2. Biological

a. Vegetation

3.30 Preparation for development of any kind on the site will obviously have an impact on the local vegetation given the need for cutting and clearing. While the removal of such vegetation may be considered an irreversible impact of site development, it should not be considered a restricting factor since the vegetation found on site (forest and cane fields) extends in large quantities beyond the site. The importance of maintaining vegetation on the site relates more to wildlife preservation, soil conservation, visual aesthetics, and microclimate control. Most mitigation measures concerning preservation of site vegetation will therefore be discussed later in conjunction with the above mentioned items.

b. Wildlife

3.31 As the site is cleared, existing wildlife habitats will be altered or destroyed altogether. This is true for the cane fields as well as the forest. However, as in the case of site vegetation, this factor does not negate development since these habitats exist throughout the San Andres area. Furthermore, several mitigating measures can be taken to lessen the impact of development on local wildlife.

3.32 While it is unlikely that any man-made landscape can support the wildlife diversity of the existing forest, some existing or new animal species could continue to inhabit the site through the development of a sensitive site plan. Whenever possible, existing vegetation, especially larger trees, should be retained and incorporated into the final master plan. In addition, new vegetation could be planted throughout the site providing minimal cover. Potentially toxic wastes (chemical wastes, pesticides, sewage, etc.) that could be harmful to animals should be isolated from those species. While no wetlands were noted in the immediate area, if any are discovered in the future and it is determined that they are supplied by water flowing from the site, measures should be taken to ensure the wetlands' water supply is maintained. The overall goal of the site plan should be to allow for some existing species, particularly birds, to be able to pass through, rest, and possibly nest on the site, thus avoiding the creation of a "dead zone" that acts as a barrier to all wildlife.

3. Physical

a. Geology, Soils, and Topography

3.33 Geological and topological features would not be greatly affected by development of the site for manufacturing purposes.

Minimal grading and foundation work would be required for the site's construction, none of which would result in a significant impact. In fact, the development will benefit the area by providing positive rain water run off management.

3.34 Soils on-site would be disturbed and possibly stripped during grading and construction. While this can be considered an irreversible impact, its importance to the overall environment is not significant as long as steps are taken to minimize the potential for future soil erosion. Erosion can be mitigated by prompt re-vegetation (planting and landscaping) in those areas not stabilized by paving or structures. Removed top soil should be stockpiled for re-use on the site.

b. Hydrology

3.35 Potential impacts to the site's hydrology from development are significant. The most critical potential hazard is pollution of the ground water from industrial and sanitary wastes. As mentioned before, approximately 50 percent of Corozal's domestic water supply is obtained from a well located less than one mile north of the site. Additional wells of less shallow depth are located adjacent to the site, and new wells on the site itself are proposed for dedicated water supply. The potential to contaminate surface runoff also exists.

3.36 In order to mitigate the possible pollution of ground water, all secondary wastes must be adequately treated on site. Treatment of waste water and sewerage can be executed with either a lined aeration pond or packaged treatment plant. Both methods are acceptable if properly implemented and operated.

3.37 If the treatment pond option is selected, care must be taken to insure that the impermeable lining of the pond does not leak or chemically react with any of the potential wastes. The pond should be designed to hold the maximum amount of effluent that can accumulate in the course of ten days of zone activity (when fully developed). The effluent or gray water from either the pond or treatment plant should either be drained into a stream or channeled away from the site into an open or closed ditch. Finally, the pond, as well as alternative facilities, should be fenced for safety and screened by a vegetative buffer.

3.38 Another measure to protect both surface and ground water is to limit the potential for contamination through spills or contact with toxic materials. Handling of sanitary wastes, if extended aeration is used, should be designed to prevent overflow during heavy rains. Toxic chemicals or wastes should be stored where they cannot come in contact with water that may percolate into the soil.

3.39 Finally, any toxic liquids such as acids or heavy metals borne in the waste water through textile and apparel dyeing, food processing, solvents, metalworking, etc., must be neutralized prior to waste treatment by the individual zone firm. If treatment is not possible, the toxic waste must be collected, transported, and disposed of off site in an appropriate and approved facility. If such steps are taken, surface water should receive sufficient protection against pollutants and toxic substances and will be unlikely to flow off site or contaminate the soil.

3.40 An additional impact from site development that could affect the quality and availability of ground water is the drilling of new wells on-site for both sanitary and industrial use. Current information from public sources and site investigations suggests that there is sufficient water flowing in the area aquifer to supply the increased demand. However, to ensure that over-pumping does not occur, the quality of water from site and neighboring wells (particularly the public well at Santa Rita) should be monitored regularly.

3.41 Containment of storm water run off on site should be considered to mitigate peak run off problems. In addition to natural runoff, the extensive buildings and paved areas associated with site development would tend to intensify the amount of surface runoff during stormy periods. Since no storm drain system exists in the area, and the capacity of the drainage swale along San Andres road is limited, this runoff will have to be dealt with on site. To facilitate the control of runoff, if warranted, it may be necessary to construct a small retention pond to hold storm water until it can percolate into the soil.

3.42 Any industrial development producing wastes and consuming ground water may be considered to have an irreversible effect on local water quality. However, if care is taken in waste water treatment as noted above, and regular monitoring of water quality occurs, such impacts can be minimized, and will not significantly constrain development.

4. Contextual

a. Land Use and Development Patterns

3.43 As noted above, current land uses adjacent to the site include areas devoted to agricultural, residential, recreational (football fields), and institutional (community college) activities. Of these land uses, the residential areas would be subject to the greatest impact from site development. Noise and potential odors originating from the zone could affect those living in the immediate area unless the mitigating measures noted in the physical and biological features sections are implemented. It should be noted, however, that typical free zone light industries

rarely generate noticeable noise and air pollution on a level that could become objectionable to nearby communities. Additional measures to protect the quality of life of residents will be discussed in the following visual perception and access and infrastructure sections.

3.44 The development of industrial and manufacturing facilities on-site will certainly alter future development patterns for the area through increased activity and possible expansion, reducing the amount of agricultural land. However, shifting uses of land do not necessarily imply the existence of a negative irreversible impact, given proper measures to adequately mitigate potentially harmful effects. In fact, the net result of site development will probably be positive for the community as a whole.

b. Visual Perception

3.45 Presently the agricultural and forested character of the site and its surroundings are visually appealing. As the site is cleared and factories are constructed, the previous character will change. However, existing large trees on site should be saved whenever possible to mitigate visual alterations. In addition, a planted buffer around the zone's perimeter should be incorporated into the master plan, and additional planting should occur as needed within the zone.

3.46 The Standard Factory Buildings should be constructed with materials that will not deteriorate rapidly in the humid climate, and, if possible, will keep less attractive activities such as storage and mechanical systems out of sight from the adjoining properties and interior roads. While limited budgets may not allow much more than functional structures, those buildings facing the principal approach route, San Andres road, or primary internal circulation routes, should be as attractive as possible.

c. Archaeology

3.47 As noted in the section on existing conditions, no archaeological evidence has been discovered on-site to date, and it seems unlikely that any major finds will occur. To ensure that no potential historic remains are overlooked as the site is developed, the site developer and constructor should contact the National Department of Archaeology. The Department will be able to provide information regarding obvious signs of archeological remains.

d. Access and Infrastructure

3.48 Existing road access should be sufficient for transportation to and from the site. Since the existing traffic in the area is light, an increase in traffic linked to the zone is unlikely to impact the surrounding area. Most infrastructure issues are dealt with in other sections of this report. However, two issues -- use of ground water and waste disposal -- are pertinent to this environmental assessment.

3.49 Because of the large water demand for the site,[2] current public water supplies in the area will be insufficient to meet zone demands. To compensate for the short supply, wells will be drilled on-site for both sanitary and industrial use. The potential impacts to the aquifer and proposed mitigation measures are discussed in the hydrology section of this chapter.

3.50 While the disposal of sanitary and some liquid wastes were considered above, the removal of solid wastes has not been discussed. It is likely that such wastes will be produced in substantial quantities. Solid waste should be temporarily stored on-site according to local regulations in such a way that it is protected from rain and wind by appropriate covers. Potentially toxic wastes must be stored as recommended by the manufacturer or local health department. All solid and toxic wastes should be disposed of off-site in an approved refuse dump or processing plant. The burning of solid wastes should not be permitted in any location on the site, except in a modern packaged incinerator equipped to minimize the generation of air-borne particle matter.

D. IMPLICATIONS FOR SITE DEVELOPMENT

3.51 As noted in the introduction of this chapter, this assessment should be regarded as preliminary. Adequate base information has been obtained and analyzed to suggest that the site appears suitable for zone development, but additional site investigations are required, particularly concerning the nature of ground water, and to a lesser extent subsoils, and their effects and availability on the design of water and sewerage systems. Since only a few specific zone industries have been identified to date, the mitigation measures described may have to be amended as additional information is gathered on specific zone occupants. Therefore, it may be appropriate for either the zone developer or the proposed zone tenant to undertake additional environmental impact assessments as each proposed industrial plot is activated.

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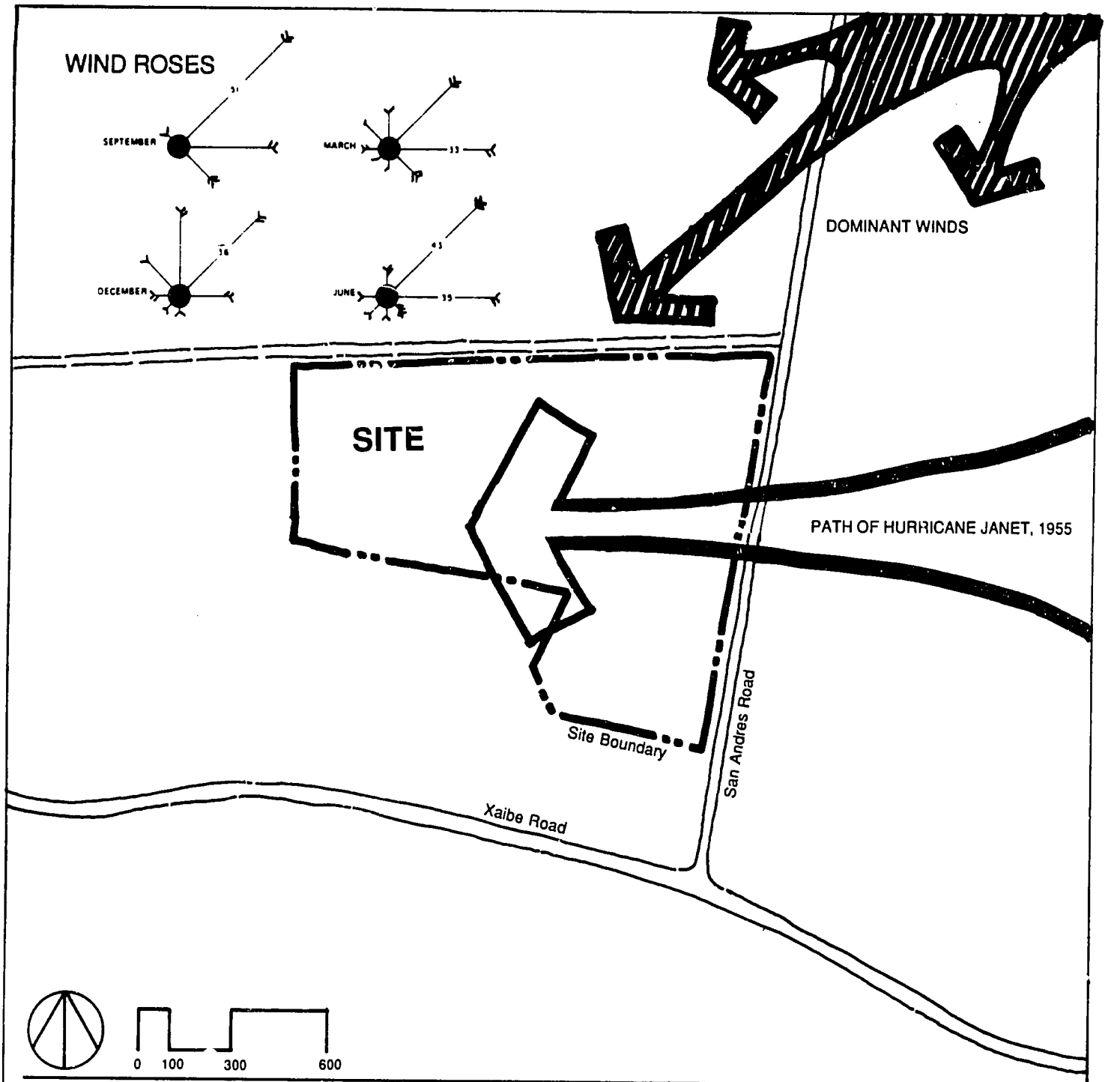
[2] Estimated at 250,000 gallons per day at peak demand. See Chapter 4 for a comprehensive discussion of probable zone consumption of water.



NOTES

WIND ROSES ARE FOR KEYS / COASTAL AREAS. ACTUAL WINDS ON SITE SHOULD BE SLIGHTLY LESS. WIND IS GIVEN IN DIRECTION OF ARROW; LENGTH OF ARROW INDICATES % OF WIND FROM THAT DIRECTION; NUMBER OF FEATHERS INDICATES VELOCITY(0 = 1MPH, 1 = 1-3MPH, 2 = 4-7MPH, 3 = 8-12MPH, & 4 = 13-18MPH).

RAINFALL AVERAGES 60" PER YEAR.

DOMINANT WINDS FROM THE NORTHEAST EXCEPT IN THE SPRING WHEN THEY COME FROM THE WEST.

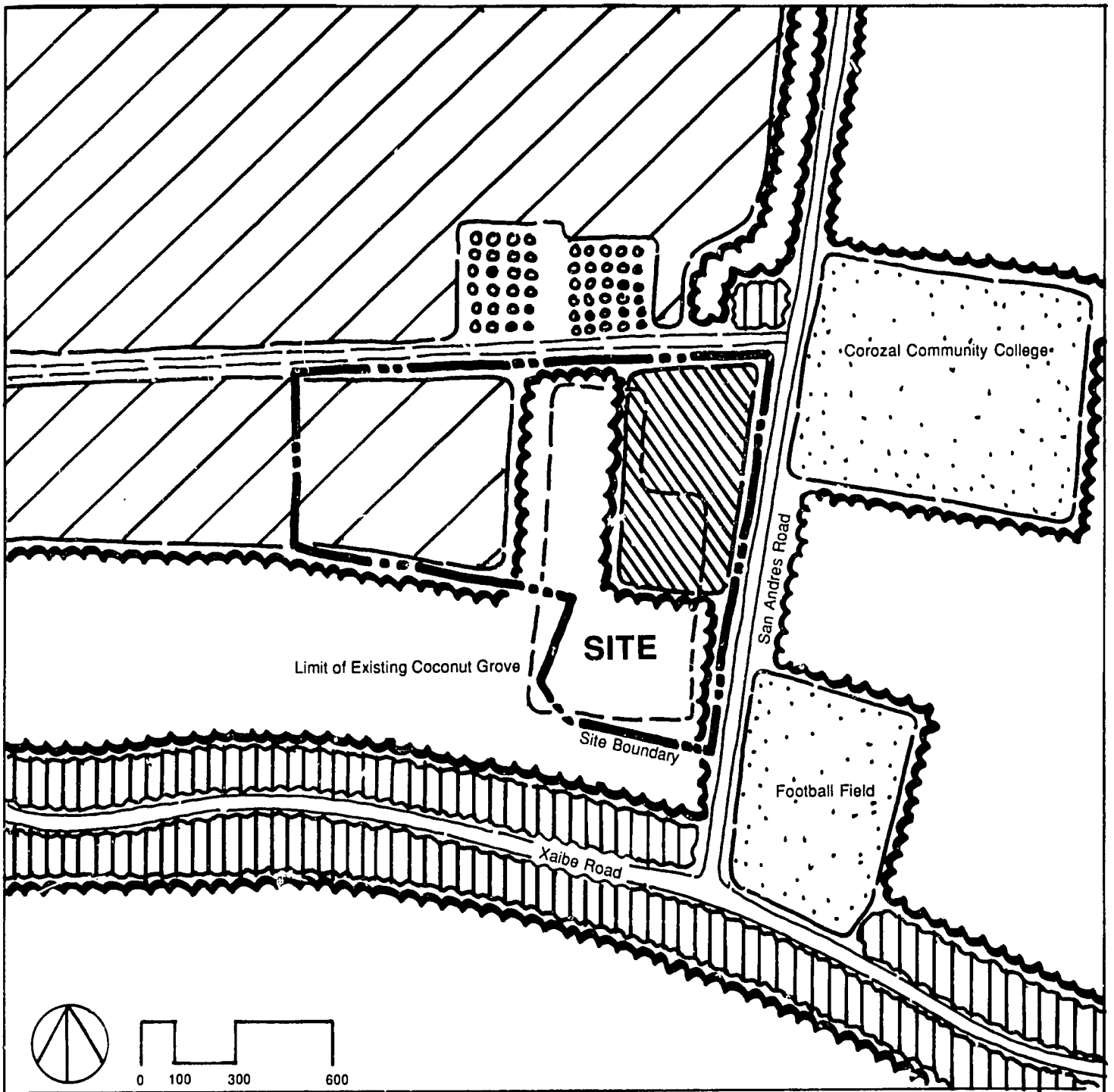
MOST CONSTANT WINDS ARE IN JULY.

STRONGEST WINDS COME FROM THE NORTHEAST.

TEMPERATURE VARIES FROM MEAN WINTER LOW (16°C - 17°C) AND HIGH (28°C), TO MEAN SUMMER LOW (24°C - 25°C) AND HIGH (32°C - 33°C).

WET SEASON IS NOVEMBER TO JANUARY, DRY SEASON FROM JANUARY TO MARCH.

FIGURE 3-1 CLIMACTIC FEATURES PLAN



LEGEND

- EXISTING FOREST
- RESIDENTIAL AREA WITH SOME SOME TREES
- SUGAR CANE FIELDS
- CLEARED, LANDSCAPED AREA
- DISTURBED FOREST, CLEARED FOR MANUFACTURING
- MANGO GROVES

NOTES

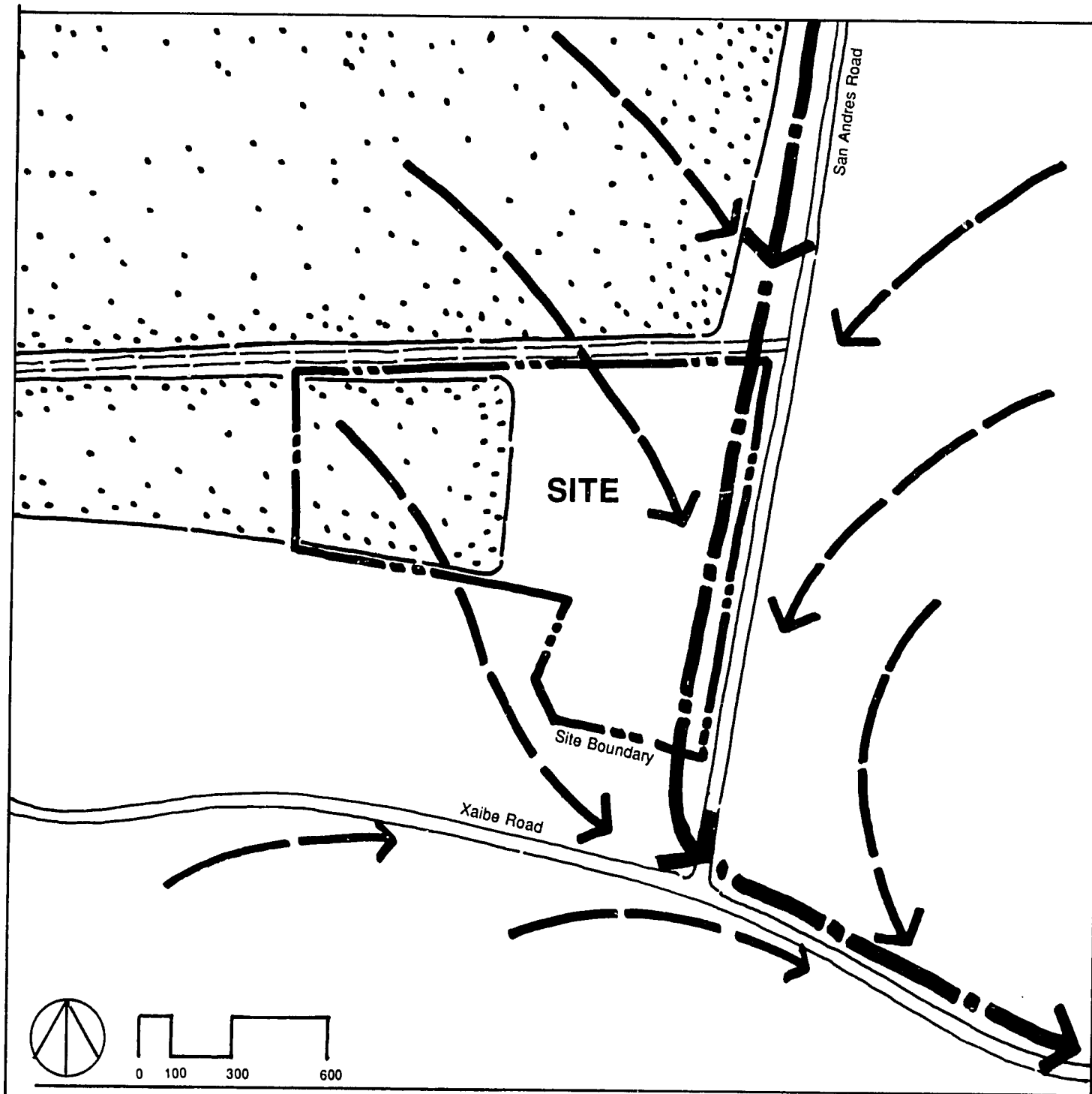
1/2 OF SITE IS COVERED WITH ABANDONED COCONUT GROVE INFILLED BY FOREST.

WEST END OF SITE HAS BEEN CLEARED FOR SUGAR CANE PRODUCTION.

MANGO GROVE NORTH OF SITE IS NO LONGER IN PRODUCTION.

GREATEST VARIETY OF WILDLIFE HABITATS EXIST IN THE FOREST.

FIGURE 3-2 BIOLOGICAL FEATURES PLAN



LEGEND

- SOILS SUBJECT TO BURNING
- EXISTING DRAINAGE SWALE
- DIRECTION OF SHEET DRAINAGE

NOTES

SURFACE DRAINAGE IS MOSTLY SHEET FLOW TO THE SOUTH AND EAST.

SUBGRADE CONSISTS OF CEMENTED MARL WHICH IS FAIRLY IMPERVIOUS TO WATER.

TOP SOIL IS MOSTLY CLAY.

UNDERGROUND STREAMS AND CAVERNS MAY EXIST ON SITE.

FIGURE 3-3 PHYSICAL FEATURES PLAN

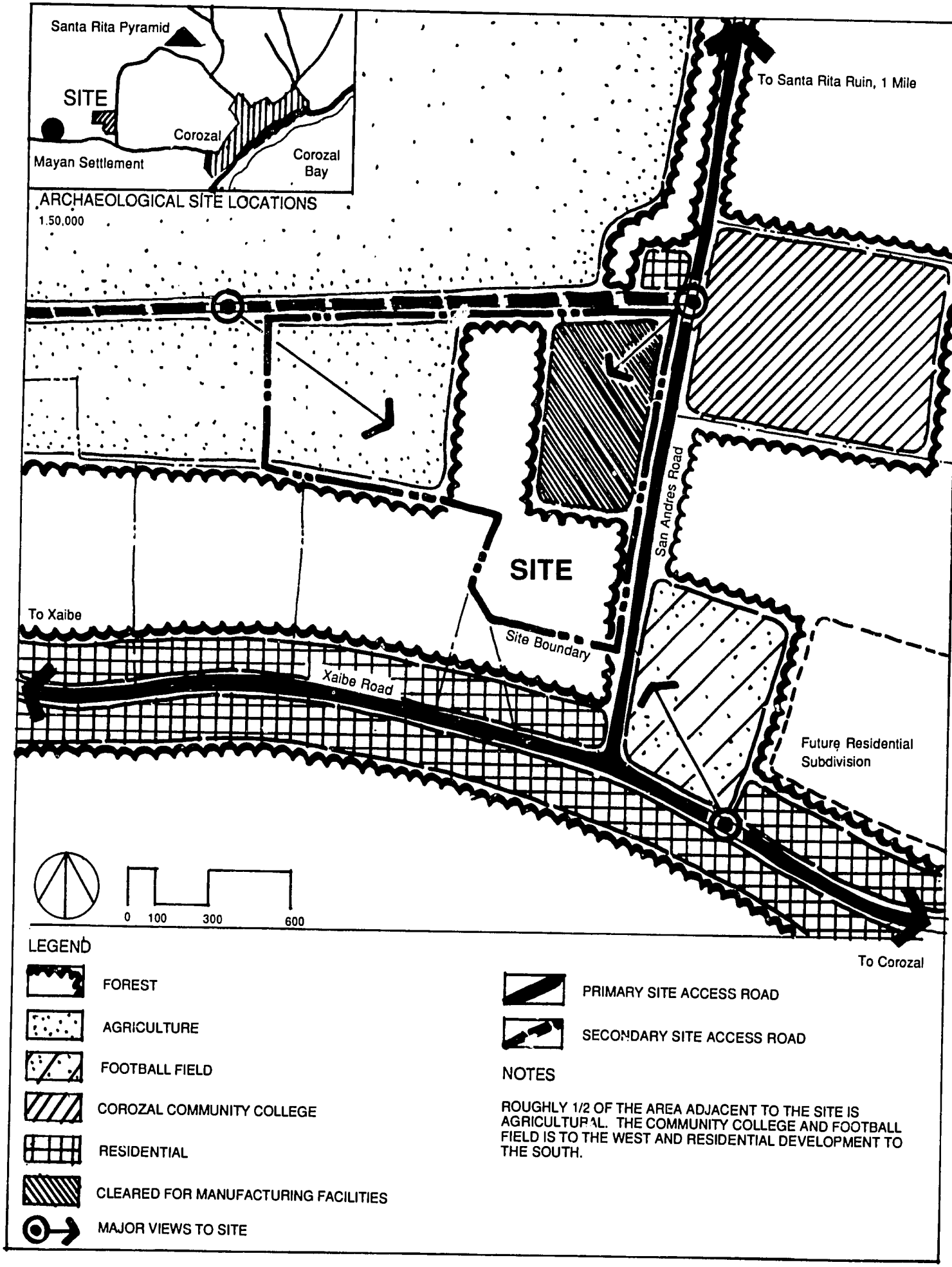


FIGURE 3-4 CONTEXTUAL FEATURES PLAN

S OF PRIORITY ZONE INDUSTRIES

fied in the sector analyses of the Phase I report, ary users of a free zone facility in Belize -- uring firms, agro-processing firms, and other light terprises -- have certain facilities and service In order for a private free zone in Belize to ternative locations in Central America and the ccessfully attract investors, the zone management wledgeable and responsive to the specific needs of pants.

l, the types of firms profiled as high potential share to some degree common characteristics, such

in typical light manufacturing sectors will ly be engaged in the production of "lower-end" utilizing standardized production techniques and ses.

sers will typically be interested in occupying to medium-size standard factory shells for light cturing activities.

irms will be composed of both experienced and first-time offshore manufacturers.

- zone firms will be employing production technology that places a premium on a trainable, low-cost workforce.

4.03 By focusing zone design and marketing strategies on a determined set of common user characteristics, the zone's potential for success can be strengthened.

1. Physical Features and Facilities

4.04 The size of the proposed zone should be sufficient to provide a positive financial return (analyzed in Chapter 5) as well as the usual economic benefits (such as job creation, foreign exchange earnings, and technology transfer, among others). Experienced industrial analysts generally place the lower size limit for cost-effective industrial development at approximately 30 acres; beyond a size of 150 acres no further substantial economies of scale are realized. The site should slope slightly (six percent grade) to allow for optimal rain water drainage.

4.05 The master plan for the zone site should allow for some degree of flexibility in plot layout, providing for a spacious, aesthetically attractive configuration. However, the site must not be developed so luxuriously as to jeopardize the project's financial viability. Most free zones and industrial parks throughout the world assume that about 25 percent of the total site area is dedicated to development of common facilities such as roads, easements, administration and service buildings, and green areas. The remaining 75 percent of site acreage comprises the manufacturing plots, with roughly 40-50 percent of the plots utilized for actual under-roof manufacturing space (including office space). Although these land-use and industrial-use ratios vary somewhat among zones, developers should be aware of the dangers of overdevelopment or underdevelopment. Zone revenues should be optimized, rather than maximized. In the latter case, overcrowding and unattractive development can be detrimental to the function of the zone. Furthermore, such conditions detract from operating efficiency and marketability of the project, especially to first-line, sophisticated firms who are in aggregate the most desireable occupants or users. Underdevelopment can lead to financial crisis and inadequate return on investment.

4.06 The proposed site design should follow the natural contours of the land to maximize aesthetic appeal. A premium should be placed on creating an attractive environment including extensive landscaping and provision of green areas; cosmetic improvements to augment the proposed SFB design; and the development of a first-class, attractive sign system for the zone.

4.07 To isolate the activities and movement of production inputs in accordance with general Customs procedures in duty-free areas, the master plan should consider security needs as warranted by local conditions and authorities, including outside lighting and at least an eight-foot fence around the entire zone. Physical divisions between individual plots are not usually necessary. Security experts should be consulted for comprehensive plans.

4.08 In order to accommodate the diverse activities of small- to medium-size light manufacturers, zone management must provide investors with easily alterable manufacturing facilities allowing for facility customization. The zone facilities must strive to relieve the investor of the time-consuming and costly process of acquiring land, planning structures, and constructing facilities. Investors in the sectors normally interested in free zone production have historically shown a clear preference for fully serviced standard factory shells with easy partitioning, subdivision, and expansion as needed. Infrastructure requirements are not extraordinary; however, zone design should ensure the reliable supply and provision of requisite services.

4.09 In free zones throughout the region, SFBs are typically of a rectangular, modular design, with 15,000 to 30,000 square feet

of under-roof space per factory shell, though in practice buildings vary between 6,000 and 45,000 square feet. In projects where demand for zone space is uncertain, medium-size SFBs of 15,000 to 20,000 square feet are generally constructed. Of more importance, however, is the need for the building design to allow for easy partitioning and subdivision. Most SFBs are constructed with 14 to 18 foot clear height to the eave and 22- to 26-ft. to the ridge line or peak of the roof. The SFB design should routinely provide excellent ventilation. The ability to allow for the installation of a second floor is a useful feature, but adds to the cost and may not be needed in many cases. Air conditioning and special installations (such as carpeting, sound-proofing, refrigerated areas, kitchens, etc.) are normally the responsibility of the occupant firm, but could be undertaken by zone management provided the extra investment cost is covered in the agreed rental rate and other lease terms and conditions.

2. Support Services and Amenities

4.10 In addition to physical facility requirements, companies frequently seek specific support services and amenities from the zone. The types and degree of support services offered by various zones is extensive, and varies by market, user, and location.

4.11 The following list of possible services and amenities is presented as a comprehensive guide for project development, rather than a recommended set; nonetheless, many of these options may be attractive to prospective zone occupants:

- on-site Customs office and full-time officer, allowing firms and transporters expedited Customs clearance on demand for both inbound and outbound goods;

- assistance in complying with government regulations concerning requisite permits, reporting, procedures, etc.;

- assistance with labor hiring through the provision of a job bank, interview, or screening process;

- provision of security services such as guards, fences, buffer zone, lighting, electronic detection, etc.;

- commercial banking contacts to secure debt finance at competitive commercial cost, loan guarantees, and equity investment funds;

- retail banking branch for the zone workforce and daily transactions by zone enterprises;

- incubator business services such as the provision of shared business facilities, temporary office services, and other related services to assist infant enterprises;

- emergency child-care facilities and/or full-service day care provision;

- medical/emergency clinic staffed by a full-time registered nurse and frequented by a doctor as required;

- on-site cafeterias, designated eating areas, or daily catering contractors;

- strategic links and cooperative arrangements with governmental, parastatal, and private technical training institutions;

- linkages with equipment and computer repair firms, vendors, and services companies such as trucking and freight firms, accounting and law firms, insurance, and secretarial services, (both locally and in major supply locations);

- express and postal mail service to post offices and international courier points;

- organized transportation for zone workers to and from primary urban centers or transportation hubs;

- shelter plan operations involving the provision of the requisite labor force, physical plant, and administrative support;

- meeting rooms and temporary office space;

- land and/or building purchasing, or leasing with an option to purchase.

4.12 One of the primary concerns of small- and medium-size firms is the relative difficulty of establishing operations in a new free zone location offshore. Unlike experienced multinational corporations which undertake exhaustive analyses of prospective international locations for sourcing, manufacturing, assembly and packaging, distribution, and sales, smaller firms generally commit to a free zone location more quickly, often soon after a site visit. A free zone in Belize can increase its regional competitiveness through the provision of specific programs and facilities that support the establishment of infant firms and defray some of the initial costs of operation. In some cases, the mere provision of a completed SFB can allow a marginal firm the option of rapidly activating operations and generating financial returns.

4.13 As competition among regional free zones has risen, zone managers have increasingly begun to offer many of the above services and amenities, either at specified additional cost or as part of the fixed lease rate. The package of services differentiates the zone from competitors and enhances user-appeal and marketing leverage. As zones develop and progress, the offering of a wider range of services has been a natural evolution to facilitate market segmentation. However, the true value of these services varies among industries and firms, and caution must be maintained in loading too many services into the zone rental rates. For some firms the provision of specialized services is gaining importance relative to rental rate considerations, as the number of zones increase and zone users scrutinize prospective offshore locations in greater detail.

4.14 A Belizean free zone management team should be selective about the types and degree of support services and amenities to be offered to zone tenants. The service package offered must achieve a realistic balance between meeting the necessary requirements of target sectors without deleterious impacts on the project's financial performance. Initial users of the zone will in many cases be firms operating under significant cost constraints, and additional costs resulting from useful but non-essential services, either on a fee for services basis or as an invisible component in the rental charges, may be inappropriate in the early stages of zone development.

4.15 According to the responses from firms contacted during the market survey conducted for the Phase I report, the most vital services for free zone users are: on-site Customs officers; health care and emergency day-care facilities and services; specialized links with training institutions; and the option to purchase manufacturing facilities. Transportation services were also considered significant, particularly if the zone is located away from major international transportation centers. Other support services and amenities such as on-site cafeterias, banking services, etc., can be offered as demand warrants. However, it is important that zone management envisage all possible service alternatives, monitor demand, and incorporate an appropriate level of flexibility in the initial design of the zone.

4.16 The importance of planning for the eventual provision of additional services and amenities after initial zone development cannot be overestimated. For example, the physical master plan for the zone should allocate a suitable area for a simple health care/emergency clinic even if the service is not provided until a later phase of zone development. Furthermore, promotional materials should accurately and clearly define all services to be offered in the future. The actual provision of the services, of course, should be phased in gradually as demand warrants. In some cases, the zone management may decide not to offer the services directly, but to contract them to local providers. In either case,

the services should be provided on a "self-liquidating basis," whereby costs are directly covered through additional fees and charges to zone users or franchising agreements with independent local operators. The role of the zone management generally focuses on coordination of the services, and in the provision of facilities for services providers, rather than the direct provision of the services per se.

4.17 The provision of transportation for workers, as mentioned above, is an important service for both firms and their employees. It can usually be provided by outside contractors, thereby placing little or no demand on zone revenues. On the other hand, the necessary provision of security facilities and services can be executed directly by the zone, with costs built into the SFB rental rate. Services such as a health care clinic and day-care center, Customs, and a training facility can be provided by external bodies, with the zone providing minimal physical facilities.

4.18 The coordination and provision of training services for zone firms may require a more concerted planning and implementation effort. Firms contacted in the market survey stressed the importance of having access to a trained workforce with skills tailored to the needs of specific industries. Other regional zones, including Cartago in Costa Rica, Itabo in the Dominican Republic, and several industrial estates in Barbados have formed linkages with national training institutions to train workers for specific export manufacturing firms.

4.19 For the provision of more general training, appropriate vocational institutions could offer courses to prospective employees in fields such as industrial sewing using donated equipment or operational facilities. More specialized technical training, such as in industrial equipment maintenance and repair, will also be valuable, though such training is likely to occur on a smaller scale. Special linkages with local community colleges could provide users access to graduates with skills, and offer prospects for improving skills for existing employees.

4.20 The pricing of non-essential services and amenities should be approached with caution. Zone management must construct a clear distinction between those services that are loaded into the cost structure of the rental rate and those that are charged on an individual or incremental basis. Some services are normally included in the base rental rate: zone security for all entry/exit points and the site perimeter; availability of adequate electricity, water, telecommunications, and other utility connections; non-toxic liquid and solid waste disposal; grounds and public areas maintenance; external building maintenance; and landscaping. Zone users are generally responsible for payment of all utilities (telephone, water, gas, electricity, etc.) used or consumed for their operations, in addition to special facilities or utility installations required.

4.21 The majority of remaining services can be assessed on an individual and self-liquidating basis. In certain instances, the zone may benefit from absorbing a portion of the cost of a highly valued service through the provision of facilities for use by a independent local operator such as a health clinic. The direct provision of such services is often not cost effective, particularly in the early stages of zone development, and can be provided indirectly through concessions to outside firms to operate cafeterias, day-care, medical services, etc. Local businesses providing these services can be expected to pay rent for facilities provided by the zone and such payments augment the basic revenue stream derived from user industries.

B. ZONE DESIGN BASIS

4.22 The demand forecasts detailed in the Phase I report were based on trend extrapolation.[1] The base-line forecasted demand for free zone space as presented in the Phase I report is depicted below.

4.23 In designing the zone master plan and determining the optimal phased construction schedule, the pace of land development and SFB construction must correspond to effective demand. In some zone programs, development has outpaced demand, resulting in devastating financial burdens for the developer(s). On the other hand, zone development should also proceed at a pace marginally ahead of demand to accommodate, to the extent possible, new investors requiring immediate occupancy of SFBs.

TABLE 4-1
BASE-LINE FORECAST OF DEMAND FOR UNDER-ROOF SPACE IN BELIZEAN FREE ZONES

Year	Demand (Sq.Ft.)
1988	423,000
1989	486,000
1990	560,000
1991	658,000
1992	790,000

Data compiled by The Services Group, 1988.

[1] For detailed information on the methodology and results of the market demand analysis, refer to Belize Free Zone Study: Market and Labor Demand Analysis, Phase I Final Report, February 20, 1989, The Services Group, Inc.

4.24 As discussed in the Phase I report, the demand forecast presented above may be optimistic; however, estimates of demand corroborated by market survey data suggest that such levels of potential demand for under-roof space are realistic. It should be noted that many factors affecting demand for free zone space are out of the control of zone management, such as industrialized country economic welfare, national economic policy, civil unrest, etc. Financial and physical constraints preclude the development of a single zone offering 800,000 square feet of under-roof space by 1992. The analysis undertaken in this report therefore assumes that the initial zone project located on the 28.5-acre site can realistically accommodate between 275,000 and 325,000 square feet of under-roof space, equivalent to approximately 15 SFBs ranging in size from 16,250 to 32,500 square feet.

1. Proposed Land- and Industrial-Use Ratios

4.25 The preliminary master plan has been configured to yield the following land-use ratios (refer to Figure 1 in Annex C):

TABLE 4-2
PROPOSED LAND- AND INDUSTRIAL-USE RATIOS FOR THE SAN ANDRES FREE ZONE

$$\frac{\text{Industrial Plots}}{\text{Total Site Area}} = \frac{955{,}000 \text{ sq.ft.}}{1{,}241{,}460 \text{ sq.ft.}} \times 100 = 77\%$$

$$\frac{\text{Under-Roof Area}}{\text{Total Site Area}} = \frac{305{,}500 \text{ sq.ft.}}{1{,}241{,}460 \text{ sq.ft.}} \times 100 = 25\%$$

$$\frac{\text{Under-Roof Space}}{\text{Industrial Plots}} = \frac{305{,}500 \text{ sq.ft.}}{955{,}000 \text{ sq.ft.}} \times 100 = 32\%$$

4.26 The portion of land allocated for industrial plots as a percentage of the total site area (77 percent) in this case is in accordance with the standard practice and experience of other zones. The remaining 23 percent of the total site area has been allocated to common structures and service facilities (administration/Customs building, buffer zone, gatehouse, sewerage treatment area, etc.), roads, and green areas. However, as evidenced by the under-roof/total site area and under-roof/industrial plot ratios (25 and 32 percent respectively), the development of SFB under-roof manufacturing and office space in the

preliminary master plan is lower than in most other zones. The general standard for such ratios are 30 to 33 and 40 to 50 percent, respectively.

4.27 The lower ratios in the preliminary master plan for San Andres are the result of three factors: the odd configuration of the site; the inexpensive cost of land; and local design practice. At BZ$0.10 per square foot, the low cost of land allowed for a more luxurious zone layout without a significant financial impact on the project.

2. Proposed Facilities and Services

4.28 As mentioned previously in the section detailing potential zone services, a free zone in Belize should be cautious and selective regarding the types and extent of services offered to zone occupants, particularly in the initial stages of development when working capital and the revenue stream are limited. The services package offered must cover essential services (as defined by zone occupants and operating conditions) and provide non-essential services as warranted, achieving a balance between meeting the requirements of zone firms while maintaining the project's financial viability.

4.29 Given the documented needs of prospective zone users and the experience of other regional free zones, as well as the typical requirements of light export manufacturing operations in Belize, the proposed San Andres free zone should phase in the following package of services and amenities to zone firms over the construction period:

- Standard Package of Essential Services. This package should include: zone security including perimeter fence, guarded access gates, and lighting; on-site Customs clearance and control for expedited shipments; access to infrastructure and utility connections; non-toxic waste water/sewage and solid refuse collection and disposal; grounds, common facilities, and basic SFB maintenance, and landscaping; and general assistance in complying with government regulations, obtaining necessary permits, and understanding regulatory procedures.

- Assistance with Labor Procurement. Provide zone firms with assistance in hiring through: the maintenance of detailed prospective employee database including salary requirements, skills, experience, etc.; contract screening and interviewing; review of pay schedules and incentive plans; and assistance in obtaining necessary permits.

- On-Site Health Care and Emergency Day-Care Facility. Either through direct provision or contract arrangements, zone firms can be offered health care services and supplies. The clinic would be staffed by a qualified nurse providing simple care for employees and related personnel. The facility could also serve as an emergency day care facility for workers with dependents, under special circumstances.

- Establish Linkages with Service Providers. The zone should endeavor to establish strong relationships and arrangements with off-site providers for services not provided directly by the zone. The providers may be engaged in equipment sales and repair, food and beverage vending, retail banking, insurance, or legal services, local and foreign transportation linkages for zone workers and export products, and mail and courier services. As discussed previously, the zone may wish to provide on-site space for the provision of contracted services, either at the zone's cost or for lease.

- Establish Strategic Links with National, Local, and Private Training Institutions. Zone firms have indicated that access to a readily trainable or trained workforce is essential in successfully activating new operations offshore. The zone can at a minimum facilitate workforce training through the provision of key contacts at various training institutions and the maintenance of a database containing the names of specialized training personnel. The zone can also provide space for training sessions, either in dedicated facilities using donated equipment or in actual factories after operating hours.

- Provide Shelter Plans and Subcontracting Services. Some foreign firms may wish to minimize investment risk through shelter plan and subcontracting arrangements with local manufacturers. Initially, a smaller SFB or portion of an SFB can be outfitted and equipped for quick-response production and assembly by an independent contractor. The shelter plan entails the provision of a pre-selected, captive workforce (with basic light manufacturing skills) and competent junior management. The zone can also provide prospective investors with a database of available zone or area contractors, and arrange initial meetings.

4.30 In conjunction with this suggested package of services and amenities, zone management should continually monitor the need for additional services and make them available as demand warrants. Shared secretarial services, additional office space and meeting rooms, and special exhibition areas for zone products are some

examples of services and amenities that may evidence increased demand as the zone expands and industries evolve. Once the zone approaches full development, the total package of services and amenities will form a singular marketable product reflected in competitive rental rates and incremental charges.

C. DESCRIPTION OF ZONE FACILITIES AND INFRASTRUCTURE

1. Plot Plan

4.31 The preliminary master plan (Figure 1 in Annex C) is the first approach in the design and configuration of any industrial park or free zone. The master plan is, at this stage, only a preliminary exercise providing the basis for realistic estimation of costs. The plan shows the site location, boundaries, plot divisions and roads, SFBs, and appropriate common facilities. Due to the configuration of the San Andres site, roads and plots have been optimally arranged in a standard grid design, utilizing cul-de-sacs at the end of primary road arteries. All SFBs are planned to be constructed over a four-year period, but the construction schedule can be accelerated or slowed as demand warrants. Eventually the site will be fully developed with more or less 15 SFBs, including a sewerage treatment facility and administration/Customs building near the main entrance.

4.32 The developer of the site has cleared about 40 percent of the total area and has erected a 6,000 sq.ft. factory on Plot 1. Plans also exist to construct a 15,000 sq.ft. SFB on Plot 2, and an additional 15,000 sq.ft. SFB, by late 1989. The developer has also secured an agreement with the owner of the surrounding land to purchase 22 acres adjacent to the original site.

2. Infrastructure

4.33 Zone infrastructure comprises all the common installations needed by industrial enterprises in order to operate efficiently, including, inter alia: roads, electrical power, water, sewerage, telecommunications, and fences. At this early stage of physical planning, estimates of infrastructure needs can be calculated based on both the assumed occupancy rates of SFBs and the number of total workers and staff in zone firms. The estimates are approximations, of course, but represent typical experiences of zones in similar countries and conditions, thereby providing useful parameters for cost estimation and financial analysis.

a. Roads and Storm Water Drainage

4.34 The road network as shown on the preliminary master plan includes primary roads and plot driveways. The principal east-west

road bisecting the site has been allocated a right-of-way measuring 60 feet. The entrance right-of-way to the zone from San Andres road has been widened to 100 feet to facilitate the ingress/egress of tractor-trailer trucks. The secondary internal site road running north-south would be allocated a 50-foot right-of-way.

4.35 All roadway beds are assumed to be two lane measuring 24 feet wide (12 feet per lane), with ample room on the shoulder to allow for drainage ditches, six-foot wide sidewalks (only on one side of the roads), and green areas. The entrance road would be comprised of two single 15-foot lanes separated by a 10-foot wide grassed median housing a security/Customs gatehouse. The allocated right-of-ways provide a more open and attractive layout and lend the design an appropriate degree of flexibility for future development.

4.36 Street parking should be prohibited and will not be provided in the plan. Minimal parking for each plot and the administration/Customs facility is included in the plan. Individual requirements for specific occupants could be addressed during final design of industrial plots or negotiations with prospective tenants. Adequate paved parking, turning areas, and loading areas for trucks has been provided for each SFB as well.

4.37 Drainage systems (and to a similar extent, grading of the site) are installed to keep unwanted water from entering building structures and keep surface runoff from damaging any natural or man-made structures during periods of heavy rainfall. Open and closed systems are the two basic methods for collecting, transferring, and disposing of surface and storm water runoff. Open systems control the water through the shape and form of the topography, while closed systems consisting of sub-surface piping are necessary due to problematic site location or land-use patterns. For the site in San Andres, the most cost-effective and appropriate method appears to be open drainage.

4.38 The critical factors in designing the drainage system are topography, soil characteristics, vegetation, site size, land use, and precipitation rates. The drainage system utilized for the proposed San Andres zone must respond to the natural flow of water from the site to the east, and water flow must be channelled from the western edge of the site and drain toward the public drainage ditch on the northern edge of the San Andres Road. Sub-surface piping may be utilized near the zone entrance and common facility to enhance aesthetics.

4.39 The storm and water drainage system would be designed in full detail as part of the final engineering design. The collected water runoff would be channelled and discharged on the eastern side of the site into public drainage ditches, canals, and pipe culverts as provided by the Ministry of Public Works. The need for auxiliary pumping in topographic depressions or SFB loading ramps

may be required depending upon the variation in site slope and final plot design, as well as the dimensions of ditches and culverts. These issues will be addressed in the final phase of engineering design.

b. Electrical Power

4.40 The average power requirements of light manufacturing operations such as apparel and footwear manufacturers are approximately 100 KVA per 20,000 sq.ft. of under-roof space over an eight-hour shift, reaching 200 KVA during peak consumption periods. Preliminary estimates provide for a total of approximately 3000 KVA servicing 305,500 square feet of factory space and additional structures when the zone is fully developed. This estimated capacity should provide sufficient power supply for zone industries during peak demand periods.

4.41 The substation in Santa Rita currently has electrical capacity of one megawatt. The estimated level of zone usage indicates that local public capacity may need to be expanded after three or four years of zone development, depending on actual consumption patterns by zone occupants. This aspect of operations should be monitored and the Belize Electricity Board (BEB) should be consulted. The BEB foresees no problems in providing physical connections to the site. Power lines currently run parallel to the San Andres road and connect with both the existing SFB on-site and the community college adjacent to the site.

4.42 The BEB has also formulated innovative schemes for the provision of electrical power in areas previously without service. In cases where the capital expenditure required to provide service to a new customer exceeds BZ$20,000, the capital investment risk for the purchase of requisite equipment and labor is transferred to the consumer (usually a commercial entity). In this scheme, the consumer secures financing for capital requirements (as specified by the BEB). The BEB in turn extends full credit for the capital investment to the consumer against monthly electricity consumption until the investment has been repaid.

4.43 If this new scheme is implemented for the free zone project, the developer may be required to bear the initial capital cost including debt service. However, the investment would eventually be reimbursed in conjunction with monthly rates of consumption of power by zone industries. Initial meetings with the BEB indicated that such a scenario would be unlikely, as the free zone project would not require extensive capital expenditure for power connection, nor is the proposed zone perceived as a risky capital investment by the utility.

c. Water Supply

4.44 Water consumption in free zones is generally divided into two components: (i) potable water for drinking, cooking, and sanitary use; and, (ii) water used in manufacturing, assembly, or processing activities such as dyeing, washing, and general cleaning. The water used for latter activities can often be of lower quality than generally used for drinking and cooking. In locations where the public supply of water is inadequate to service zone requirements, the zone must investigate possible alternative supply sources such as wells, rivers, lakes, and rain impoundment.

4.45 Average rates of water consumption in typical free zone industries can be calculated using two variables: number of zone employees and the nature of zone activities. At a minimum, water supply must be sufficient to cover domestic, fire-fighting, and industrial use (assuming the industries are not water-intensive). Due to the potential adverse effects of water-intensive industries (as discussed in Chapter 3 and Chapter 8), it is assumed that these industries will not be allowed to locate in the zone. Consequently, average rate of water consumption will fall between 35 to 70 gallons per worker per day, taking into consideration peak demand periods. The San Andres zone could potentially employ upwards of 3,000 workers, and the quantity of water consumed could reach 210,000 gallons per day, given one eight hour shift per day.[2] If several zone industries employ more than one shift per day, water consumption may reach as high as 250,000 gallons/day. The actual rates and characteristics of consumption can be monitored, and supply correspondingly increased as the zone expands.

4.46 Discussions with the Water and Sewerage Authority revealed that the public water supplying Corozal Town and the surrounding area is sourced from two wells located in Santa Rita and Calcutta, supplying 230,000 gallons per day combined. Both wells are approximately 60 to 70 feet deep. WASA advised against exceeding pumping rates of 100 gallons per minute due to the adverse effects on water quality. Nonetheless, the water from area wells is potable after chlorination.

4.47 Given the WASA information, the two existing public wells are of insufficient capacity to supply the incremental demand of the zone over time. In the absence of an adequate public supply available for zone use or plans by WASA to expand the public supply capacity, it is necessary for the zone to develop alternative sources for exclusive, dedicated zone use. Given the estimated

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[2] In free zones throughout the region, it is safe to assume 100-125 square feet of under-roof factory space per worker. In the case of the San Andres project, as many as 3,000 workers could be employed in 305,500 square feet of SFB space once the zone is fully developed.

supply requirements -- 210,000 to 250,000 gallons per day -- approximately two or three 150-ft. wells supplying 100 gallons per minute each should be sufficient for industry needs. It may also be possible for the zone developer to drill deeper wells of approximately 300 feet or greater depth, drawing on a larger, more reliable aquifer yielding higher rates of supply, thereby reducing the need for additional wells.

4.48 The important considerations in identifying the system of water delivery on site are pressure and reliable, uninterrupted flow. Both variables should be further analyzed during site development to ensure that generally accepted industrial standards are met. Pumps with a 15-horsepower capacity should be sufficient to draw as much as 200 gallons per minute from wells of 100 to 150 feet depth, and additional pumps can be placed along the distribution system to augment pressure. Static water pressure at ground level in the zone should be at least 20 pounds per square inch (PSI), and preferably 25 to 30 PSI. In addition, the developer may consider above-ground, surface or sub-surface storage tanks to provide a reserve for use during peak periods or the dry season. Elevated tanks can be utilized to augment line pressure. A reserve supply of up to eight hours consumption is standard. SFBs can also be fitted with cisterns to collect rainwater for sanitary and industrial use, as widely practiced in Belize, subject to normal dry periods or occasional drought.

4.49 Providing consistent pressure for the internal water distribution system is important for fire-fighting purposes. Portable pumps or elevated tanks can provide such pressure, and experts should be consulted to ensure that fire-fighting hoses and related equipment are compatible with the water delivery system. The preliminary master plan and capital cost estimates provide for the installation of three fire hydrants placed along the primary arterial points, accessing all manufacturing plots. Zone management should place the equipment in an accessible location.

d. Waste and Sewage Disposal

4.50 The disposal of waste water and sewage, as discussed in Chapter 3, must be given careful consideration. WASA currently has no public system in the Corozal region for waste water disposal or sewage treatment. Furthermore, the site's soil characteristics indicate that the commonly used practice of septic tanks, often placed in hollow, sub-surface soak-aways, would not sufficiently and safely dispose of waste water and sewage, posing a threat to zone occupants, the surrounding community, and the quality of water in underground aquifers.

4.51 Currently, the factory erected on the site utilizes two eight-foot diameter septic tanks for the disposal of sewage and waste water. The tanks convert solid waste but allow liquid waste

overflow to be discharged into the surrounding soil for treatment through natural percolation.[3] Preliminary analysis of the substrata, however, indicates that the potential concentration of septic tanks to service the developed 28.5-acre site would pose significant environmental problems.

4.52 Therefore, the preliminary master plan, as noted, includes an area in the southwestern portion of the site to be used for a sewage treatment facility. This plot can accommodate either an aeration pond or a prepackaged sewage treatment facility for the treatment and subsequent dispersal of treated gray water. In most cases, prepackaged sewage treatment facilities are utilized due to the limited availability and cost of additional land for a pond. The cost of land at the San Andres site, however, does not preclude the construction and utilization of an aeration pond, and this option may be more favorable.

4.53 The treatment plant and aeration pond utilize similar methods for liquid waste treatment. Prepackaged extended aeration plants are offered in varying sizes, and can be installed in parallel to compensate for site expansion. The plants are engineered specifically for smaller projects with capacities ranging from 4,000 to 300,000 gallons of effluent per day. The plants have features such as froth control, chlorination equipment, flow measuring devices, aerated sludge holdings tanks, and other options. In addition, the smaller capacity plants can be transferred with relative ease if necessary.

4.54 Given the estimated level of water consumption for the zone, the pond should accommodate approximately ten days of zone effluent; hence, the pond should be able to contain upwards of 2,500,000 gallons of sewage and waste water. The design of the pond should include aerators and channels for solid waste settlement, allowing for maximum treatment, as well as a chlorination tank for treatment prior to discharge into a leachfield, drainage ditch, or stream.

4.55 Based upon the analysis conducted thus far, it is recommended that a centralized sewage treatment facility be installed as part of the initial (Year 1) development program. Furthermore, any existing buildings utilizing septic tanks and soak-aways for waste water treatment and disposal should be switched over to the centralized system. Unless further analysis is conducted indicating that a septic tank/soak-away system would adequately dispose of waste water without adverse effects on the environment, such systems should not be used.

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[3] The solid waste is biologically broken down through the introduction of bacteria, a practice that is widely used with success.

4.56 The zone management will also be required to provide solid refuse containers with appropriate covers for each operation in accordance with local regulations. The zone or local contractors should regularly empty the refuse containers and transport the waste to an approved plant or dump. This service will be provided as part of the standard package of zone services.

e. Telecommunications

4.57 The basic telecommunications requirements for the zone will be provided by Belize Telecommunications, Ltd. (BTL), which has indicated that all telecommunications lines, necessary equipment, and installation to service the site and individual buildings will be provided by the company. The BTL estimates that installation of equipment generally takes four weeks.

4.58 A conservative estimate of service needed for the fully-developed zone allows for two phone lines for every 16,250 square feet of under-roof space and three additional lines for the administration/Customs building and service facilities. In total, approximately 22 lines would be required for the fully-developed site, installed incrementally according to the phased development of the zone. However, initial installation of lines to the site should allow for maximum flexibility and expansion. A trunk line of 50 or 100 pair running from the main exchange in Santa Rita would be sufficient for initial zone development of 28.5 acres, and could easily be expanded in the case of zone expansion to the 22-acre adjacent site.

f. Fences and Zone Security/Customs

4.59 In free zones throughout the world, the first line of security for zone activities is a perimeter fence with one or two controlled access points permanently guarded by security personnel and/or Customs officials. The perimeter fence serves as a deterrent rather than an absolute barrier, and is an acceptable compromise given varying cost and function factors relative to alternative methods of intruder control.

4.60 The standard fence for perimeter security, and most appropriate for the proposed San Andres zone, is an eight-foot chain-link fence with a two-foot barbed-wire extension. If the need for tighter security arises, an electronic barrier could be installed in addition to the fence, thereby detecting movement across the perimeter and alerting security personnel at the main access point. Cost and maintenance factors will determine which method or combination of methods is most cost-effective. The capital cost estimates in this chapter assume the utilization of an eight-foot fence, as described.

4.61 Belize Customs officials have indicated that at present there is no regulatory standard for properly securing a bonded Customs area such as the proposed free zone. However, Customs normally requires such areas to be surrounded by a six-foot chainlink fence with controlled ingress and egress and a dedicated Customs gatehouse or office space near the access point. These features have been taken into consideration in the preliminary master plan and the capital cost estimates. Furthermore, it is likely that Customs will prefer to locate a full-time Customs officer at the site for inspection of all goods in transit to and from the zone, and the salary of the officer would most likely be borne by the zone.

3. Building Specifications

4.62 The design and specifications for all zone buildings should reflect international standards but may be modified judiciously in accordance with local practice. Suitable levels of attractiveness should be maintained without incurring undue cost and affecting competitive rental structures.

4.63 As specified, the SFBs will be built in two sizes: 15,000 sq.ft., with an additional 1,250 sq.ft. of office space, and 30,000 sq.ft. with 2,500 sq.ft. of office space. The pre-fab structures will consist of: steel A-frames; walls of 8-inch cinder block, with knock-outs allowing for ventilation louvers and fans; and either aluminum, corrugated steel, or asbestos cement roofs. If the site is subject to damaging salt air, the design should lean toward cement roofs. Air-conditioning equipment has not been included in the SFB designs or capital cost estimates; such equipment will ultimately depend on the specific occupant and cannot judiciously be included at this stage of project development.

4.64 The 15,000-sq.ft. steel A-frame SFBs will measure 120 ft. x 125 ft., while the 30,000 sq.ft. SFBs will measure 120 ft. x 250 ft. Approximately three to four percent of under-roof manufacturing space will be reserved for the installation of sanitary facilities. Clear height to the eave is 16.4 feet. The SFBs are provided with two loading doors on one side.

4.65 Office space for the SFBs, as mentioned before, will range between 1,250 sq.ft. (25 ft. x 50 ft.) for 15,000 sq.ft. SFBs and 2,500 sq.ft. (25 ft. x 100 ft.) for 30,000 sq.ft. SFBs, though the exact design and specifications will vary according to each occupant. It is recommended that the pre-fab SFBs be erected first, and office space be constructed after the SFB has been leased, using local materials to the maximum extent possible.

4.66 The proposed administrative/Customs facility measures 3,000 sq.ft., or 50 ft. x 60 ft. The structure will house several administrative offices, a Customs office, a health clinic/emergency

day care facility, and possible rental office space as available. The preliminary master plan has allotted for possible expansion of the administration/Customs building should zone management wish to expand services for zone tenants. However, 3,000 sq.ft. of initial office space should provide the fully developed zone with adequate facilities.

4. Landscaping and Planting

4.67 Regardless of the size of a site or its location, its character is to a certain extent determined or defined by its intrinsic natural features. Vegetation cover and patterns, one primary natural element of any site, can be utilized in development as a visual resource increasing the zone's appeal and character. However, space dedicated to green areas may in some cases interfere with the development of manufacturing facilities.

4.68 Essentially there are three types of site vegetation: groundcover from one to 24 inches; understorey, from three feet to 15 feet; and canopy trees, from 35 feet and above. All three types of vegetation can be used effectively at the San Andres site. However, the vegetation planting or selective clearance plan should not attempt to reproduce original surroundings. In the case of zone planning, vegetation acts as a buffer between zone plots and activities as well as between the zone and external activities. Vegetation also serves to enhance architectural character.

4.69 The following are several common principles to consider in developing a planting plan:

- the plan should stress the predominance of one type of plant of similar texture, color, and form;
- select vegetation that possesses similar soil, water, and climate requirements;
- select vegetation with minimal maintenance requirements; and,
- utilize native vegetation to the greatest extent possible.

4.70 The preliminary master plan has been designed to provide for ample vegetation areas and planting. The zone is bordered on the eastern perimeter with a 35-ft. buffer to be landscaped and planted, thereby enhancing the visual characteristics of the site along the primary approach route. The remaining perimeter has been provided with at least a 20-ft. buffer to be planted with similar vegetation, utilizing existing and native vegetation and cover where possible. Industrial plots have also been allotted green areas for vegetation and where possible SFBs have been staggered

on industrial plots to create alternating wide and narrow setbacks between buildings, thereby creating a more open visual perception of the zone.

4.71 The site is essentially flat, and does not require fill or grading to any significant degree. Therefore, planting and vegetation cover in strategic areas is considered adequate to provide the zone with visual character.

D. CONSTRUCTION SCHEDULE AND FUTURE EXPANSION

4.72 In planning the construction and activation schedule of the zone, land development and SFB construction must be kept in close pace with effective demand for factory space. The San Andres site could contain 15 SFBs when fully developed; however, despite high levels of evidenced demand for free zone space in Belize, it is unrealistic to assume that the zone will be fully developed and occupied at once.

4.73 Current marketing initiatives undertaken by the prospective zone developer indicate six interested groups of investors with under-roof requirements totalling 125,000 sq.ft. Given local construction patterns and estimates of effective demand by both the developer and the Phase I report, the following construction schedule seems realistic:

TABLE 4-3
PHASED ZONE CONSTRUCTION SCHEDULE

Phase	Year	SFBs	Under-Roof Space (Sq.ft.)
1	1989	3	61,750
	1990	5	113,750
2	1991	4	65,000
	1992	3	65,000
TOTAL		15	305,500

4.74 The two phases are of two-year durations. The administrative/Customs facility measuring 3,000 sq.ft. would be constructed during Phase 1 with other common facilities, with additional land allocated for expansion to 6,000 sq.ft. should the need arise for expanded administrative or service space. The construction of the sewage treatment facility would be undertaken during the initial year of Phase 1, integrating the existing Phase 1, Year 1 SFBs into the system (which will utilize septic tanks

until it is completed). Phase 1 construction of roads and common facilities should also accommodate the sewage pipes and facilities needed in Phase 2.

4.75 Additional development phases in the future could be warranted given sufficient demand. The preliminary master plan incorporates access points for possible expansion to the adjacent 22-acre site north of the existing site. The 22-acre site could potentially offer an additional 330,000-390,000 square feet of under-roof space, depending upon the need for additional common facilities in the 50.5-acre zone.

4.76 In the financial analysis presented in Chapter 5, the rate of capital investment is based on the above construction schedule and the capital cost estimates given below.

E. CAPITAL COST ESTIMATES

4.77 Data obtained from a local architecture/engineering firm, public officials, local businessmen, U.S.-based engineers, and other sources indicate that unit construction and development costs for the site in San Andres are competitive with unit costs in other regional countries throughout Central America and the Caribbean. As noted in the following capital cost estimates, unit costs are generally delineated into several categories, including land development, common structures and service facilities, and standard factory buildings.

1. Methodology

4.78 The capital cost estimates, as with the preliminary master plan, include the development of 28.5 acres, 15 SFBs ranging in size from 13,000 to 32,500 square feet (including the existing Pleatex, Ltd. expanded to 13,000 sq.ft.), and the construction of various common structures and services facilities. Land development costs include the total cost of raw land, though the developer of the San Andres site has partially secured the land and incurred cash outlay.

4.79 Prices presented in the estimates are constant Belizean dollars, and do not reflect estimated rates of inflation or exchange rate adjustment over time, with the exception of Table 4-9. In Tables 4-5, 4-6, and 4-7, an eight percent architectural/engineering fee and ten percent physical contingency allowance are added to the total costs.

4.80 The total cost for construction of SFBs is presented per square foot of under-roof space, while both land development and common facilities costs are presented per square foot of land area. Finally, total project development costs are presented per square

foot of under-roof SFB space and for each phase of zone development over the four-year construction period.

2. Capital Cost Summary

4.81 As shown in Table 4-4, the total development cost of the 28.5-acre zone in San Andres is estimated to be BZ$11,064,268 (US$5,532,134) or BZ$36.22 (US$18.11) per square foot of under-roof manufacturing space.[4] The cost of land development as shown in Table 4-5 is estimated to be approximately BZ$2 million, or BZ$1.63 per square foot of total land area. In addition, the cost of common facilities such as administration/Customs facility, gatehouse, and covered area for workers is approximately BZ$145,000. The SFBs, representing over 80 percent of total project development costs, have been estimated to cost BZ$8.9 million, or BZ$29.11 per square foot of under-roof space.

4.82 Yearly capital requirements for project development as depicted in Table 4-8 range from approximately BZ$4.9 million in Year 2 to BZ$1.9 million in Years 3 and 4 of Phase 2. Assuming annual rates of inflation of four percent in Years 2 and 3, and three percent in Year 4, affecting all prices, the fixed asset cash requirement in current terms would total BZ$11,630,402 (US$5,815,201) for total project development.[5]

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[4] Total development costs include the cost of raw land and the existing SFB expanded to 13,000 sq.ft.

[5] It is standard practice to assume a zero rate of inflation in Year 1 of the project development phase.

TABLE 4-4
CAPITAL COST SUMMARY
(In Belize Dollars, Constant Prices)
BZ$2.00=US$1.00

Land Aquisition and Development	$2,027,877
16,250 Sq.Ft. SFBs (10)	$4,729,677
32,500 Sq.Ft. SFBs (4)	$3,783,742
13,000 Sq.Ft. SFB (1)	$378,374
Common Structures and Service Facilities	$144,598
TOTAL PROJECT DEVELOPMENT COSTS	$11,064,268
TOTAL COST PER SQ.FT. OF UNDER-ROOF SPACE	$36.22

TABLE 4-5
LAND DEVELOPMENT COST ESTIMATES
(In Belize Dollars, Constant Prices)
BZ$2.00=US$1.00

	QUANTITY/	UNIT	UNIT COST	TOTAL COST
Raw Land	28.50	Acres	$4,356.00	$124,146
Site Clearing	28.50	Acres	$300.00	$8,550
Removal of Topsoil to Roads/Driveways	26,225	S.Y.	$0.25	$6,556
Roadway Sub-Base (5" Marl)	16,650	S.Y.	$5.50	$91,575
Roadway Base (6" Compacted Limestone)	16,650	S.Y.	$18.50	$308,025
Roadway Prime Coat	16,650	S.Y.	$2.10	$34,965
Roadway Surface and Finish (2 Coats)	16,650	S.Y.	$10.72	$178,488
Sidewalk (4 ft. wide)	1,300	S.Y.	$1.12	$1,456
Drainage Ditch (1.5 ft. deep, 3 ft. wide)	10,000	L.Ft.	$0.75	$7,500
Perimeter Fencing (8 ft.)	5,400	L.Ft.	$24.00	$129,600
Entrance/Exit Gates (Vehicles and Pedestrians)	65	L.Ft.	$72.00	$4,680
Wells (150 ft.)	3	Units	$15,000	$45,000
Water Distribution	3,750	L.Ft.	$8.00	$30,000
Sewerage Collection	3,750	L.Ft.	$13.00	$48,750
Sewerage Treatment Facility	5	Units	$71,500	$357,500
Primary and Secondary Electrical System				$65,000
SFB Transformers (167 KVA)	32	Units	$6,500	$208,000
Road/Perimeter Lighting				$50,000
Landscaping	13,800	S.Y.	$0.52	$7,176
Architectural/Engineering Fees	8%			$136,557
Physical Contigency	10%			$184,352
TOTAL BZ$ COST FOR LAND DEVELOPMENT				$2,027,877
BZ$ COST PER SQ.FT. OF TOTAL SITE AREA				$1.63
US$ COST PER SQ.FT. OF TOTAL SITE AREA				$0.82

TABLE 4-6
STANDARD FACTORY BUILDING COST ESTIMATES
(In Belize Dollars, Constant Prices)
BZ$2.00=US$1.00

	QUANTITY/	UNIT	UNIT COST	TOTAL COST
Foundation Fill	15,000	Sq.Ft.	$0.89	$13,332
Foundation	15,000	Sq.Ft.	$1.24	$18,530
Pre-Fab SFB	15,000	Sq.Ft.	$10.00	$150,000
Freight	15,000	Sq.Ft.	$0.80	$12,000
Erection	15,000	Sq.Ft.	$2.57	$38,500
Sub-Columns and Block Walls				$12,943
Floor Slab and Finish	15,000	Sq.Ft.	$5.33	$80,016
Toilet Facilities				$20,300
Office (Including Tile Floor, Toilet)	1,250	Sq.Ft.	$42.00	$52,500
Architectural/Engineering Fees	8%			$31,850
Physical Contigency	10%			$42,997
TOTAL BZ$ COSTS FOR 16,250 SQ.FT. UNDER-ROOF SPACE				$472,968
BZ$ COST PER SQ.FT. OF UNDER-ROOF SPACE				$29.11
US$ COST PER SQ.FT. OF UNDER-ROOF SPACE				$14.55

TABLE 4-7
COMMON STRUCTURES AND SERVICE FACILITIES COST ESTIMATES
(In Belize Dollars, Constant Prices)
BZ$2.00=US$1.00

	QUANTITY/	UNIT	UNIT COST	TOTAL COST
Administration/Customs Facility	3,000	Sq.Ft.	$36.75	$110,250
Gatehouse	150	Sq.Ft.	$9.70	$1,455
Covered Area for Workers	2,000	Sq.Ft.	$5.00	$10,010
Architectural/Engineering Fees	8%			$9,737
Physical Contingency	10%			$13,145
TOTAL BZ$ COST FOR COMMON FACILITIES				$144,598
BZ$ COST PER SQ.FT. OF TOTAL SITE AREA				$0.12
US$ COST PER SQ.FT. OF TOTAL SITE AREA				$0.06

TABLE 4-8
CAPITAL COST ESTIMATE FOR PHASED ZONE DEVELOPMENT
(In Belize Dollars, Constant Prices)
BZ$2.00=US$1.00

	QUANTITY/ UNIT	UNIT COST	TOTAL COST
PHASE 1			
YEAR 1			
Raw Land Aquisition	28.50 Acres	$4,356.00	$124,146
Land Development	310,365 Sq.Ft.	$1.63	$475,933
Standard Factory Buildings	61,750 Sq.Ft.	$29.11	$1,797,277
SUBTOTAL			$2,397,356
YEAR 2			
Land Development	931,095 Sq.Ft.	$1.63	$1,427,798
Standard Factory Buildings	113,750 Sq.Ft.	$29.11	$3,310,774
Common Structures and Service Facilities	28.50 Acres	$0.12	$144,598
SUBTOTAL			$4,883,170
PHASE 2			
YEAR 3			
Standard Factory Buildings	65,000 Sq.Ft.	$29.11	$1,891,871
SUBTOTAL			$1,891,871
YEAR 4			
Standard Factory Buildings	65,000 Sq.Ft.	$29.11	$1,891,871
SUBTOTAL			$1,891,871
TOTAL PROJECT DEVELOPMENT COSTS			$11,064,268

TABLE 4-9
CAPITAL COST REQUIREMENT -- CURRENT PRICES
BZ$2.00=US$1.00

	CONSTANT CAPITAL FINANCING	INFLATOR	CURRENT CAPITAL FINANCING
YEAR 1	$2,397,356	1	$2,397,356
YEAR 2	$4,883,170	1.04	$5,078,497
YEAR 3	$1,891,871	1.082	$2,047,004
YEAR 4	$1,891,871	1.114	$2,107,544
TOTAL COST	$11,064,268		$11,630,402

V. FINANCIAL AND ECONOMIC ANALYSIS

5.01 This chapter presents the financial and economic analysis of the project, and identifies potential sources of debt and equity funding for zone infrastructure development and working capital requirements.

5.02 The financial and economic analysis presented below provides a detailed assessment of the financial character and viability of the proposed San Andres free zone project. The financial feasibility analysis utilizes the best available information obtained at the time of the study. While certain assumptions used in the analysis may change, the methodology employed here will be relevant regardless of the final configuration of the zone project.

A. FINANCIAL ANALYSIS

5.03 For the purposes of the financial (and economic) analysis, the project is assumed to be amortized over 20 years, corresponding to a conservative depreciation period for the major asset values of the project, i.e. the buildings, even though the useful life of the project is assuredly much longer. In Chapter 4, the project has been defined in physical terms sufficiently detailed to facilitate credible financial analysis, and that framework is the starting point for this section.

1. Base Case Assumptions

5.04 Table 5-1 presents the conservative base case assumptions for the financial analyses of the San Andres project. The capital costs developed in Chapter 4 are tabulated in Table 5-1 in conjunction with other basic descriptive data on the zone project needed for the financial analysis. This table contains most of the variables which will affect zone performance.

5.05 The inflation assumptions are based on the current inflation rate of four percent, which is reduced to three percent after year three in keeping with average predicted long-term rates for Belizean dollar inflation.[1] The inflation factor is applied to all costs after Year 1.[2]

5.06 Development costs in current terms given in Table 5-1 are derived directly from the capital cost estimates in constant terms

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[1] Most officials estimate that the average annual inflation rate in Belize ranges between three and five percent.

[2] Year one is assumed to be 1989 in this analysis.

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shown in the previous chapter (Table 4-8). The purchase and development of land and construction of all facilities is phased over a four-year period as shown. Construction and development costs are adjusted for inflation during the development period. A ten percent physical contingency factor is included in the capital cost estimates presented in Chapter 4, and therefore is not shown explicitly as a line item in the financial analysis.

5.07 The cumulative investment in terms of actual expenditures (current prices) as projected for the proposed zone reaches a total of over BZ$11.6 million. The depreciable portion of the investment consists only of the buildings and structures, and the annual depreciation charge is calculated on a straight-line, 20-year basis.[3]

5.08 Rentable space availability is also taken directly from the phased development plan, and assumes that an average of 50 percent of the construction completed annually is available for rental during that year. Occupancy is assumed to be 90 percent during the development period, increasing to 100 percent by Year 6.

5.09 The rental rate for year one is assumed to be BZ$7.00 (US$3.50) per square foot per year. Although this rate is marginally higher than currently prevails for competing facilities in Belize, it is reasonable given that the zone will be offering substantially more in the quality of facilities and accompanying services.[4] The assumed rental rate is also reasonable on an international comparative scale; competing regional zones now charge from US$3.00 to US$4.75 for comparable facilities and services. This rate, however, is approximately the rate needed to make the zone a viable investment, as will be demonstrated later in the analysis. For purposes of simplified analysis, the rental rate is adjusted annually for inflation; rate adjustment clauses in actual zone leases may not be on an annual basis.

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[3] Normally, land and land improvements are not depreciated or amortized as an annual expense item. Different rates of depreciation may apply to buildings and structures from the Belizean tax code than assumed in the analysis; these figures are illustrative. In most of the financial analysis (determining the IRR, for example), depreciation is added back into the income stream anyway.

[4] The facilities rental rate at the Ladyville Industrial Estate, for example, is currently BZ$6.00/sq.ft./year, or US$3.00/sq.ft./year.

2. Financial Results

5.10 Table 5-2 is the base case projected income statement for the project. The lease revenues are taken directly from the assumptions in Table 5-1 and combined with operating costs to yield an annual net income figure. Revenues rise sharply during the first five years of the project as new space is constructed and leased. Operating costs, however, are incurred from start-up, resulting in a negative net income during the first five years of the project. The table demonstrates that once the zone is fully operational, the principal operating costs are interest on long-term debt and depreciation, reflecting the large fixed asset development costs associated with the project. All operating costs except interest and depreciation are adjusted annually for inflation. (Also see Figure 5-1.)

5.11 The total salaries figure in Table 5-2 is based on the noted assumptions. Although the zone staff presented in this analysis allows for a lean and efficient management structure, the assumed costs should in reality be adequate to cover the staffing requirements of the zone.[5]

5.12 The costs associated with maintenance and promotional operations are separate line items, allowing for additional staff or contracted services, especially in the case of maintenance. Maintenance costs are assumed to represent one percent of total physical assets through Year 10, and two percent thereafter. The payroll burden assumed is 30 percent. Overhead expenses, including insurance, legal/accounting fees, utilities, and supplies, are estimated based on a factor of 75 percent of the wage bill. No permanent position is shown for a promotional director; this function would normally be handled by the zone manager, with the possibility for commissions or additional contract services as required in later stages of project development. The additional services would be financed out of the line-item promotional budget, which is assumed to be BZ$100,000 per year for the first five years. The current amount equivalent of the promotional line item is reduced by 50 percent following Year 5 on the assumption that less promotional effort is required once the zone is fully leased.

5.13 The other staff positions assumed include the Engineering Manager, whose time is assumed to be reduced to one half after the zone development is completed in year five. An executive secretary is also included. The salary of a full-time Customs Officer is shown as being part of the zone payroll, as the cost of such

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[5] The assumptions used in this analysis regarding zone staffing requirements are discussed in Chapter 8.

services will be borne by the zone. The security staff is assumed to be two persons per shift, with 24-hour coverage.[6]

5.14 Some of the salaries assumed in Table 5-2 could in actuality be lower. Additional staff could be added provided their costs were associated with additional revenue-producing services such as freight-forwarding, day-care, cafeteria management, etc. These costs are not shown explicitly, since it is assumed that such services would be added on a cost recovery basis; only those core functions necessary to the basic property development and management function are shown here.

5.15 Profits taxes are shown at 45 percent of net income before tax, only after Year 5 or the net loss carryforwards are exhausted. This period or rate may be extended depending on the ultimate configuration of the free zone law.

5.16 The financing structure of the project is presented in Table 5-3. The analysis assumes that the developer will contribute 40 percent of project costs in equity, part of which is the value of the raw land. The contribution of land is assumed in Year 1, with the additional equity contributions equally divided over the four year development period. The long-term debt of the project is assumed be drawn down to finance the balance of costs needed for land development and construction not covered by equity contributions for each year. Long-term debt is assumed to be at 12 years with four years grace and eight years amortization, and a fixed interest rate of 12 percent. These financing assumptions are comparable to favorable terms which could be expected from bank intermediaries utilizing funds from typical regional concessional sources. Concessional funds secured from such institutions as the World Bank, the European Investment Bank, or USAID may offer more attractive terms and conditions, principally in a longer term. The long-term loan is fully drawn down by the end of Year 4, and principal amortization begins in Year 5.

5.17 Working capital requirements for the project are derived as the necessary injections of additional cash needed to maintain a marginal net surplus in the cash position, as derived in Table 5-3. Forty percent of the working capital financing is also provided by equity contributions from the developer. The remaining 60 percent would be a short to medium-term bridge loan at 12 percent interest and a term of five years (no grace period). The total balance of working capital is fully amortized in Year 7.

5.18 The debt service coverage ratios presented show a negative ratio for Year 1, and a ratio of less than one in Year 2 due to:

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[6] The shifts assumed for security personnel take into account weekend shifts, but are presented in the analysis as weekday shifts.

working capital requirements; and, the lag in income which is generated only as the project becomes fully operational. This situation recovers, and the ratio stabilizes at 1.3 to 1.5 during the amortization period. The debt/equity ratio is calculated as the ratio of long-term and working capital debt outstanding at the end of the period to net capital. In terms of invested capital, the debt/equity ratio is less than or equal to the 60:40 ratio due to the Year 1 contribution of raw land and assumptions regarding relative composition of equity and debt during the first four years of project development as discussed in paragraph 5.16 above.

5.19 The projected cash streams of the project are shown in Table 5-4. This table is presented as a sources and uses of funds statement, combining all the inflows and outflows to the project. Cash provided by zone operations is calculated by adding depreciation to net income. The other sources of funds are debt and equity contributions for physical assets and working capital for the initial project development years. Uses of funds are: the development and construction of the zone in the early years; and the amortization of both long-term debt and working capital loans in the later years of the project.

5.20 Pro-forma balance sheets over the life of the project are shown in Table 5-5. Current assets are comprised of the cumulative cash surplus line (from Table 5-4), with the fixed assets and accumulated depreciation derived from the development plan (Table 5-1). Liabilities are the outstanding balance of the working capital (short-term) and project (long-term) financing. Capital is derived from equity invested plus retained earnings. No assumptions are made regarding the payout of dividends or investment of current assets. These amounts are carried on the balance sheet long beyond the period when they would be paid out, reinvested, or otherwise used in a more productive fashion. No assumptions are made, similarly, regarding any income which may be produced by current assets, as such income is essentially external to the project.

5.21 The rate of return analysis is shown in Table 5-6. This table uses standard methods for calculating the internal rate of return (IRR), or the discount rate that, when applied to the cost and benefit streams, yields a zero net present value. The returns to the project for the IRR calculation are defined as net income with depreciation, interest, and taxes added back. The negative amount for year zero is the total amount of the investment, discounted back to that year to provide a base for measuring the returns. The calculation for return on equity (ROE) is analogous; the amount of the equity investment is discounted back to year zero and the returns stream consists of net income with only depreciation added back. Fifty percent of the value of the investment is added to the payment stream in the final year as a measure of residual value of the project for the rate of return calculations. (See also Figure 5-4.)

5.22 The rates of return for the project, as configured in Table 5-6, are positive compared to the cost of capital: the IRR of 13.6 (20-year amortization) is higher than the interest rate of 12 percent assumed in the financing of the project. This IRR, however, holds only for the 20-year period, reflecting the long project life required to generate a substantial positive return. The return on equity for the project is higher at 18.0 percent, suggesting that a larger portion of the return accrues to the equity investment as opposed to the debt financing. The ROE for the 20-year period is less than the ROE for the first ten years due primarily to the impact of profits taxes on the years 10 to 20. The simple measure of payback period, or the year in which the cumulative cash surplus exceeds the original equity investment, is 14 years. Figure 5-2 illustrates graphically the cash stream compared to the original investment.

5.23 An IRR in the range of 10 to 15 percent in current terms corresponds to an IRR of 7 to 12 percent in constant terms, assuming an average inflation rate of three percent per annum. Obviously, returns of that magnitude may be lower than those expected from alternative investments, e.g. hotel or resort developments.

5.24 The total financial picture of the project is summarized in Table 5-7. This table is simply a summary of the information presented in previous tables. Overall, it indicates the reasonable financial performance which the zone can achieve if developed as configured. Several other characteristics of the zone's financial situation are also evident. The project is reasonably leveraged when the debt service coverage ratios are assessed. Many commercial bankers in Belize would accept coverage ratios as are assumed in this analysis.

5.25 Overall, the base analysis incorporates very conservative assumptions that yields only modest project performance. In actuality, the project returns may exceed those depicted, due to the following factors:

- the assumed residual value of the project is quite low. The financial analysis assumes a residual value of the buildings after 20 years of only 50 percent of the original investment. Generally, the value may well be five times greater than the original value depending upon economic growth, scarcity factors, etc. If a higher value for buildings over the 20-year period is factored into the base-case analysis, the IRR would be one to two percentage points higher.

- the financial analysis assesses only the initial phase of free zone development. In reality, the free zone continues to expand beyond the first phase of

development. The base analysis disregards this phenomenon of increased revenue and efficiency resulting from economies-of-scale. Again, based upon a reasonable expansion potential, the IRR would be several percentage points higher.

- the cash surplus accumulated in the base-case financial analysis is assumed to be held idly for analytical purposes. However, the substantial cumulative surpluses which would be generated would be used either for payout as dividends, further investment in facilities expansion, or investment in liquid assets. To the extent that additional returns are generated by these assets which accrue to the company/project, the financial performance will exceed that shown here, where only direct returns from the project are included in the revenue stream.

5.26 In summation, based upon the experience of successful projects throughout the world, an IRR in the range of 15 to 18 percent is not uncommon, and could be attainable in Belize taking into account all of the factors discussed above.

B. SENSITIVITY ANALYSIS

5.27 The degree of risks involved in this type of project should not be underestimated. Without a consistent revenue stream, the margin of safety can be quickly eroded. To demonstrate the effect of possible alternative project scenarios, several additional cases are developed in this section to determine the project's financial sensitivity to various factors. The results of the alternative scenarios in terms of their effect on the rates of return are summarized in Table 5-8 below. These scenarios, it should be noted, are described in their approximate affect: some scenarios presented do not comprehensively account for the complementary variables that would systematically change in response. However, the comparison of rates of return provides the easiest barometer for evaluating the effect of changed assumptions.

5.28 The first alternate scenario (Scenario 1) shows the effect of more intensive SFB facilities development with other assumptions remaining the same. The scenario is derived by increasing the amount of under-roof factory space available for lease by an additional 15,000 sq.ft. in each of the last two years of project construction (Years 3 and 4 in the financial analyses). If the proposed zone can accommodate 335,500 sq.ft. of under-roof space (by either expanding several 15,000 sq.ft. SFBs or reducing the size of common and services plots), the increased returns (a 20

TABLE 5-1

DEVELOPMENT ASSUMPTIONS

(Amounts in Thousands of Belize Dollars at Current Prices, Unless Otherwise Noted)

YEAR	1	2	3	4	5	6	7	8	9	10
ANNUAL INFLATION RATE	.0%	4.0%	4.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
CUMULATIVE INFLATION FACTOR	1.00	1.04	1.08	1.11	1.15	1.18	1.22	1.25	1.29	1.33
EFFECTIVE ANNUAL INFLATION RATE	3.1%									
DEVELOPMENT COSTS, OF WHICH:										
LAND VALUE /1	124									
LAND DEVELOPMENT COSTS /2	476	1,485								
CONSTRUCTION COST /3	1,798	3,444	2,047	2,108						
COMMON FACILITIES		150								
TOTAL ANNUAL DEVELOPMENT COST	2,398	5,079	2,047	2,108						
DEPRECIATION:										
CUMULATIVE TOTAL INVESTMENT	2,398	7,477	9,523	11,631	11,631	11,631	11,631	11,631	11,631	11,631
DEPRECIABLE ASSETS /4	1,798	5,392	7,438	9,546	9,546	9,546	9,546	9,546	9,546	9,546
ANNUAL DEPRECIATION /5	90	270	372	477	477	477	477	477	477	477
ACCUMULATED DEPRECIATION	90	359	731	1,209	1,686	2,163	2,641	3,118	3,595	4,073
SPACE AVAILABLE & REVENUE PROJECTION:										
ANNUAL NEW CONSTRUCTION (FT2)	61,750	113,750	65,000	65,000						
ADMINISTRATION BUILDING (FT2)		3,000								
CUMULATIVE SPACE AVAILABLE /6	30,875	118,625	208,000	273,000	305,500	305,500	305,500	305,500	305,500	305,500
AVERAGE OCCUPANCY RATE	90.0%	90.0%	90.0%	90.0%	95.0%	100.0%	100.0%	100.0%	100.0%	100.0%
RENTAL RATE (BZ/FT2/YEAR) /7	7.00	7.28	7.57	7.80	8.03	8.27	8.52	8.78	9.04	9.31
ANNUAL REVENUE	195	777	1,417	1,916	2,331	2,527	2,603	2,681	2,762	2,845

NOTES:

1/ 28 Acres total area @ BZ$ 4,356 per acre, or BZ$ .10 per ft2.
2/ Land development @ B 1.63 per ft2, divided into two phases, in years 1 and 2.
3/ Unit construction costs: BZ$ 29.11 per ft2 for SFBs.
4/ Total cost of buildings and structures: land and improvements not treated as depreciable.
5/ Depreciation over 20 years by the straight line method.
6/ Includes 50% of current year's construction as available.
7/ Annual rental rate, adjusted for inflation.

TABLE 5-1 (CONTINUED)

DEVELOPMENT ASSUMPTIONS

(Amounts in Thousands of Belize Dollars at Current Prices, Unless Otherwise Noted)

YEAR	11	12	13	14	15	16	17	18	19	20
ANNUAL INFLATION RATE	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
CUMULATIVE INFLATION FACTOR	1.37	1.41	1.45	1.50	1.54	1.59	1.64	1.69	1.74	1.79
EFFECTIVE ANNUAL INFLATION RATE										
DEVELOPMENT COSTS, OF WHICH:										
LAND VALUE /1										
LAND DEVELOPMENT COSTS /2										
CONSTRUCTION COST /3										
COMMON FACILITIES										
TOTAL ANNUAL DEVELOPMENT COST										
DEPRECIATION:										
CUMULATIVE TOTAL INVESTMENT	11,631	11,631	11,631	11,631	11,631	11,631	11,631	11,631	11,631	11,631
DEPRECIABLE ASSETS /4	9,546	9,546	9,546	9,546	9,546	9,546	9,546	9,546	9,546	9,546
ANNUAL DEPRECIATION /5	477	477	477	477	477	477	477	477	477	477
ACCUMULATED DEPRECIATION	4,550	5,027	5,504	5,982	6,459	6,936	7,414	7,891	8,368	8,846
SPACE AVAILABLE & REVENUE PROJECTION:										
ANNUAL NEW CONSTRUCTION (FT2)										
ADMINISTRATION BUILDING (FT2)										
CUMULATIVE SPACE AVAILABLE /6	305,500	305,500	305,500	305,500	305,500	305,500	305,500	305,500	305,500	305,500
AVERAGE OCCUPANCY RATE	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
RENTAL RATE (BZ/FT2/YEAR) /7	9.59	9.88	10.18	10.48	10.79	11.12	11.45	11.80	12.15	12.51
ANNUAL REVENUE	2,930	3,018	3,108	3,202	3,298	3,397	3,499	3,604	3,712	3,823

TABLE 5-2

INCOME STATEMENT

(Amounts in Thousands of Belize Dollars at Current Prices, Unless Otherwise Noted)

YEAR	1	2	3	4	5	6	7	8	9	10
REVENUES:										
LEASE REVENUES /1	195	777	1,417	1,916	2,331	2,527	2,603	2,681	2,762	2,845
TOTAL REVENUES	195	777	1,417	1,916	2,331	2,527	2,603	2,681	2,762	2,845
COSTS:										
SALARIES /2	201	209	218	224	231	235	242	249	257	264
PAYROLL BURDEN /3	60	63	65	67	69	70	73	75	77	79
OVERHEAD /4	151	157	163	168	173	176	181	187	192	198
PROMOTION	100	104	108	111	115	59	61	63	65	67
MAINTENANCE /6	24	78	103	130	133	137	142	146	150	155
DEPRECIATION	90	270	372	477	477	477	477	477	477	477
INTEREST	31	166	634	737	847	770	693	608	512	405
TOTAL OPERATING COSTS	657	1,047	1,663	1,915	2,046	1,926	1,869	1,804	1,730	1,645
INCOME BEFORE TAX	(462)	(269)	(246)	1	286	602	735	877	1,032	1,199
PROFITS TAX @ 45.0%										
NET INCOME AFTER TAX	(462)	(269)	(246)	1	286	602	735	877	1,032	1,199

NOTES:

1/ Lease Income is the rental revenue from leasing buildings.

2/ Assumes Staffing as shown below at the following annual rates:

Years 1-5:

General Manager	60,000
Executive Secretary	18,200
Engineering Manager	33,000
Security	80,000
(2 /shift, 24 hours/day @	10,000)
Customs Officer	10,000

Years 6-20 add:

Administrative Assistant	14,000

Engineering Manager reduced to 1/2 time.

3/ Payroll Burden Assumed: 30.0%

4/ Overhead includes insurance, legal/accounting fees, utilities and supplies.
Overhead Factor @ 75.0% of wage bill.

5/ Maintenance is estimated at 1% of total physical assets through year 10, and 2% thereafter.

TABLE 5-2 (CONTINUED)

INCOME STATEMENT

(Amounts in Thousands of Belize Dollars at Current Prices, Unless Otherwise Noted)

YEAR	11	12	13	14	15	16	17	18	19	20
REVENUES:										
LEASE REVENUES /1	2,930	3,018	3,108	3,202	3,298	3,397	3,499	3,604	3,712	3,823
TOTAL REVENUES	2,930	3,018	3,108	3,202	3,298	3,397	3,499	3,604	3,712	3,823
COSTS:										
SALARIES /2	272	280	289	297	306	316	325	335	345	355
PAYROLL BURDEN /3	82	84	87	89	92	95	98	100	103	107
OVERHEAD /4	204	210	217	223	230	237	244	251	259	266
PROMOTION	69	71	73	75	77	79	82	84	87	89
MAINTENANCE /6	319	328	338	348	359	369	381	392	404	416
DEPRECIATION	477	477	477	477	477	477	477	477	477	477
INTEREST	285	151								
TOTAL OPERATING COSTS	1,708	1,602	1,480	1,510	1,541	1,573	1,606	1,640	1,675	1,711
INCOME BEFORE TAX	1,222	1,416	1,628	1,691	1,756	1,824	1,893	1,964	2,037	2,112
PROFITS TAX @ 45.0%	550	637	733	761	790	821	852	884	917	951
NET INCOME AFTER TAX	672	779	896	930	966	1,003	1,041	1,080	1,120	1,162

TABLE 5-3

F I N A N C I N G S T R U C T U R E

(Amounts in Thousands of Belize Dollars at Current Prices, Unless Otherwise Noted)

YEAR	1	2	3	4	5	6	7	8	9	10
LONG-TERM LOAN:										
PRINCIPAL (B.O.Y.)		1,141	5,088	6,003	6,979	6,411	5,776	5,064	4,267	3,374
DRAWDOWN	1,141	3,947	914	976						
INTEREST		137	611	720	837	769	693	608	512	405
AMORTIZATION					567	635	712	797	893	1,000
PRINCIPAL (E.O.Y.)	1,141	5,088	6,003	6,979	6,411	5,776	5,064	4,267	3,374	2,374
EQUITY INVESTMENT	1,256	1,132	1,132	1,132						
WORKING CAPITAL:										
PRINCIPAL (B.O.Y.)		215	195	140	77	7				
DRAWDOWN	255	30								
INTEREST	31	29	23	17	9	1				
AMORTIZATION /1	40	50	56	62	70	7				
PRINCIPAL (E.O.Y.)	215	195	140	77	7					
EQUITY INVESTMENT /2	170	20								
TOTAL WORKING CAPITAL REQUIREMENT /3	425	50								
DEBT SERVICE COVERAGE /4	-4.83	.77	1.10	1.52	1.08	1.31	1.36	1.40	1.44	1.48
ACTUAL DEBT/EQUITY RATIO /5	1.41	2.86	2.25	1.83	1.55	1.22	.92	.67	.46	.28

ASSUMPTIONS:

LONG-TERM FINANCING

TOTAL INVESTMENT	BZ$	11,631	100.0%
OF WHICH: EQUITY	BZ$	4,652	40.0%
DEBT	BZ$	6,979	60.0%
ANNUAL INTEREST RATE		12.0%	
TERM: INCLUDING GRACE		12 yrs	
GRACE PERIOD		4 yrs	
PAYMENT AFTER GRACE		1,405	

WORKING CAPITAL FINANCING

TOTAL AMOUNT /5	BZ$	475	100.0%
OF WHICH: EQUITY	BZ$	190	40.0%
DEBT	BZ$	285	60.0%
ANNUAL INTEREST RATE		12.0%	
TERM: INCLUDING GRACE		5 yrs	
GRACE PERIOD		0 yrs	

TABLE 5-3 (CONTINUED)

FINANCING STRUCTURE

(Amounts in Thousands of Belize Dollars at Current Prices, Unless Otherwise Noted)

YEAR	11	12	13	14	15	16	17	18	19	20
LONG-TERM LOAN:										
PRINCIPAL (B.O.Y.)	2,374	1,254								
DRAWDOWN										
INTEREST	285	151								
AMORTIZATION	1,120	1,254								
PRINCIPAL (E.O.Y.)	1,254									
EQUITY INVESTMENT										
WORKING CAPITAL:										
PRINCIPAL (B.O.Y.)										
DRAWDOWN										
INTEREST										
AMORTIZATION /1										
PRINCIPAL (E.O.Y.)										
EQUITY INVESTMENT /2										
TOTAL WORKING CAPITAL REQUIREMENT /3										
DEBT SERVICE COVERAGE /4	1.41									
ACTUAL DEBT/EQUITY RATIO /5	.14									

NOTES:

1/ Equal annual payments are assumed comprising interest and amortization.
2/ Equity is assumed to be the cost of land in year 1 plus equal annual investments of the balance of the 25% of the total development costs plus 25% of the working capital requirement.
3/ Total investment in Working Capital is estimated to maintain a marginal positive cash surplus.
4/ Ratio of Net Income plus Interest and Depreciation to Interest and Amortization.
5/ Ratio of Total Liabilities to Total Capital.

TABLE 5-4

CASH FLOW STATEMENT

(Amounts in Thousands of Belize Dollars at Current Prices, Unless Otherwise Noted

YEAR	1	2	3	4	5	6	7	8	9	10
SOURCES OF FUNDS:										
NET INCOME	(462)	(269)	(246)	1	286	602	735	877	1,032	1,199
DEPRECIATION	90	270	372	477	477	477	477	477	477	477
TOTAL FUNDS FROM OPERATIONS	(373)		126	478	763	1,079	1,212	1,354	1,509	1,677
FINANCING FOR PHYSICAL ASSETS:										
EQUITY	1,256	1,132	1,132	1,132						
LONG-TERM LOAN	1,141	3,947	914	976						
FINANCING FOR WORKING CAPITAL:										
EQUITY	170	20								
WORKING CAPITAL LOAN	255	30								
TOTAL SOURCES	2,450	5,129	2,173	2,586	763	1,079	1,212	1,354	1,509	1,677
USES OF FUNDS:										
LAND ACQUISITION & DEVELOPMENT	600	1,485								
CONSTRUCTION	1,798	3,594	2,047	2,108						
LONG-TERM LOAN AMORTIZATION					567	635	712	797	893	1,000
WORKING CAPITAL LOAN AMORTIZATION	40	50	56	62	70	7				
TOTAL USES	2,438	5,129	2,102	2,170	637	643	712	797	893	1,000
ANNUAL SURPLUS/DEFICIT	12		70	416	126	436	500	557	616	677
CUMULATIVE SURPLUS/DEFICIT	12	13	83	499	625	1,062	1,562	2,119	2,735	3,412

TABLE 5-4 (CONTINUED)

CASH FLOW STATEMENT

(Amounts in Thousands of Belize Dollars at Current Prices, Unless Otherwise Noted)

YEAR	11	12	13	14	15	16	17	18	19	20
SOURCES OF FUNDS:										
NET INCOME	672	779	896	930	966	1,003	1,041	1,080	1,120	1,162
DEPRECIATION	477	477	477	477	477	477	477	477	477	477
TOTAL FUNDS FROM OPERATIONS	1,150	1,256	1,373	1,408	1,443	1,480	1,518	1,557	1,598	1,639
FINANCING FOR PHYSICAL ASSETS:										
EQUITY										
LONG-TERM LOAN										
FINANCING FOR WORKING CAPITAL:										
EQUITY										
WORKING CAPITAL LOAN										
TOTAL SOURCES	1,150	1,256	1,373	1,408	1,443	1,480	1,518	1,557	1,598	1,639
USES OF FUNDS:										
LAND ACQUISITION & DEVELOPMENT										
CONSTRUCTION										
LONG-TERM LOAN AMORTIZATION	1,120	1,254								
WORKING CAPITAL LOAN AMORTIZATION										
TOTAL USES	1,120	1,254								
ANNUAL SURPLUS/DEFICIT	30	2	1,373	1,408	1,443	1,480	1,518	1,557	1,598	1,639
CUMULATIVE SURPLUS/DEFICIT	3,442	3,444	4,817	6,224	7,668	9,148	10,666	12,223	13,821	15,460

TABLE 5-5

BALANCE SHEET

(Amounts in Thousands of Belize Dollars at Current Prices, Unless Otherwise Noted)

YEAR	1	2	3	4	5	6	7	8	9	10
ASSETS:										
CURRENT ASSETS	12	13	83	499	625	1,062	1,562	2,119	2,735	3,412
FIXED ASSETS:										
LAND AND IMPROVEMENTS	600	2,085	2,085	2,085	2,085	2,085	2,085	2,085	2,085	2,085
BUILDINGS	1,798	5,392	7,438	9,546	9,546	9,546	9,546	9,546	9,546	9,546
LESS ACCUMULATED DEPRECIATION	(90)	(359)	(731)	(1,209)	(1,686)	(2,163)	(2,641)	(3,118)	(3,595)	(4,073)
TOTAL FIXED ASSETS	2,308	7,117	8,792	10,422	9,945	9,468	8,991	8,513	8,036	7,559
TOTAL ASSETS	2,320	7,130	8,875	10,922	10,570	10,529	10,552	10,632	10,771	10,971
LIABILITIES:										
CURRENT LIABILITIES										
WORKING CAPITAL DEBT	215	195	140	77	7					
LONG-TERM DEBT	1,141	5,088	6,003	6,979	6,411	5,776	5,064	4,267	3,374	2,374
TOTAL LIABILITIES	1,356	5,284	6,142	7,056	6,419	5,776	5,064	4,267	3,374	2,374
CAPITAL:										
EQUITY	1,426	2,578	3,710	4,842	4,842	4,842	4,842	4,842	4,842	4,842
RETAINED EARNINGS	(462)	(732)	(978)	(977)	(691)	(89)	646	1,523	2,554	3,754
TOTAL CAPITAL	964	1,846	2,733	3,866	4,152	4,754	5,488	6,365	7,397	8,596
TOTAL LIABILITIES AND CAPITAL	2,320	7,130	8,875	10,922	10,570	10,529	10,552	10,632	10,771	10,971

TABLE 5-5 (CONTINUED)

B A L A N C E S H E E T

(Amounts in Thousands of Belize Dollars at Current Prices, Unless Otherwise Noted

YEAR	11	12	13	14	15	16	17	18	19	20
ASSETS:										
CURRENT ASSETS	3,442	3,444	4,817	6,224	7,668	9,148	10,666	12,223	13,821	15,460
FIXED ASSETS:										
LAND AND IMPROVEMENTS	2,085	2,085	2,085	2,085	2,085	2,085	2,085	2,085	2,085	2,085
BUILDINGS	9,546	9,546	9,546	9,546	9,546	9,546	9,546	9,546	9,546	9,546
LESS ACCUMULATED DEPRECIATION	(4,550)	(5,027)	(5,504)	(5,982)	(6,459)	(6,936)	(7,414)	(7,891)	(8,368)	(8,846)
TOTAL FIXED ASSETS	7,081	6,604	6,127	5,649	5,172	4,695	4,217	3,740	3,263	2,786
TOTAL ASSETS	10,523	10,048	10,943	11,874	12,840	13,843	14,883	15,963	17,084	18,245
LIABILITIES:										
CURRENT LIABILITIES										
WORKING CAPITAL DEBT										
LONG-TERM DEBT	1,254									
TOTAL LIABILITIES	1,254									
CAPITAL:										
EQUITY	4,842	4,842	4,842	4,842	4,842	4,842	4,842	4,842	4,842	4,842
RETAINED EARNINGS	4,426	5,205	6,101	7,031	7,997	9,000	10,041	11,121	12,241	13,403
TOTAL CAPITAL	9,269	10,048	10,943	11,874	12,840	13,843	14,883	15,963	17,084	18,245
TOTAL LIABILITIES AND CAPITAL	10,523	10,048	10,943	11,874	12,840	13,843	14,883	15,963	17,084	18,245

TABLE 5-6

RATE OF RETURN ANALYSIS

(Amounts in Thousands of Belize Dollars at Current Prices, Unless Otherwise Noted)

YEAR		1	2	3	4	5	6	7	8	9	10
ON TOTAL INVESTMENT:											
IRR STREAM	(9,405)	(342)	167	760	1,216	1,610	1,849	1,905	1,962	2,021	2,082
INTERNAL RATE OF RETURN:	10 YRS	11.2%		NET PRESENT VALUE:		10 YRS		(446)			
	20 YRS	13.6%				20 YRS		1,333			
ON EQUITY:											
ROE STREAM /2	(3,717)	(373)		126	478	763	1,079	1,212	1,354	1,509	1,677
RETURN ON EQUITY:	10 YRS	17.7%		NET PRESENT VALUE:		10 YRS		1,897			
	20 YRS	18.0%				20 YRS		2,786			

PAYBACK PERIOD 14 YEARS /3

NOTES:
1/ The first column contains the total investment discounted to its present value in the first year, while each column contains the Net Income for that year with Depreciation, Interest and Tax added back. A residual project value equal to 50% of the current value is included in the final year (either yr 10 or 20).
2/ The first column contains the equity investment discounted to its present value while each column contains the Net Income for that year with depreciation added back. A residual project value equal to 50% of the current value is included in the final year (either yr 10 or 20).
3/ Number of years until cumulative cash surplus equals or exceeds total equity investment.

FINANCIAL SUMMARY

(Amounts in Thousands of Belize Dollars at Current Prices, Unless Otherwise Noted)

YEAR	1	2	3	4	5	6	7	8	9	10
REVENUES	195	777	1,417	1,916	2,331	2,527	2,603	2,681	2,762	2,845
NET INCOME	(462)	(269)	(246)	1	286	602	735	877	1,032	1,199
ASSETS	2,320	7,130	8,875	10,922	10,570	10,529	10,552	10,632	10,771	10,971
LIABILITIES	1,356	5,284	6,142	7,056	6,419	5,776	5,064	4,267	3,374	2,374
NET WORTH	964	1,846	2,733	3,866	4,152	4,754	5,488	6,365	7,397	8,596
ANNUAL CASH FLOW	12		70	416	126	436	500	557	616	677

YEAR	11	12	13	14	15	16	17	18	19	20
REVENUES	2,930	3,018	3,108	3,202	3,298	3,397	3,499	3,604	3,712	3,823
NET INCOME	672	779	896	930	966	1,003	1,041	1,080	1,120	1,162
ASSETS	10,523	10,048	10,943	11,874	12,840	13,843	14,883	15,963	17,084	18,245
LIABILITIES	1,254									
NET WORTH	9,269	10,048	10,943	11,874	12,840	13,843	14,883	15,963	17,084	18,245
ANNUAL CASH FLOW	30	2	1,373	1,408	1,443	1,480	1,518	1,557	1,598	1,639

RETURN ON EQUITY (10 YEARS)	16.9%	RETURN ON EQUITY (20 YEARS)	18.0%
INTERNAL RATE OF RETURN (10 YEARS)	11.2%	INTERNAL RATE OF RETURN (20 YEARS)	13.6%

	(BZ$ '000)		(US$ '000)
TOTAL PROJECT FINANCING	11,631	=	5,816
EQUITY	4,652	=	2,326
DEBT	6,979	=	3,489
WORKING CAPITAL REQUIREMENTS	475	=	238
EQUITY	190	=	95
DEBT	285	=	143

FIGURE 5-1
REVENUES, OPERATING COSTS, AND NET INCOME ANALYSIS
(BZ$ Millions, Current Prices)

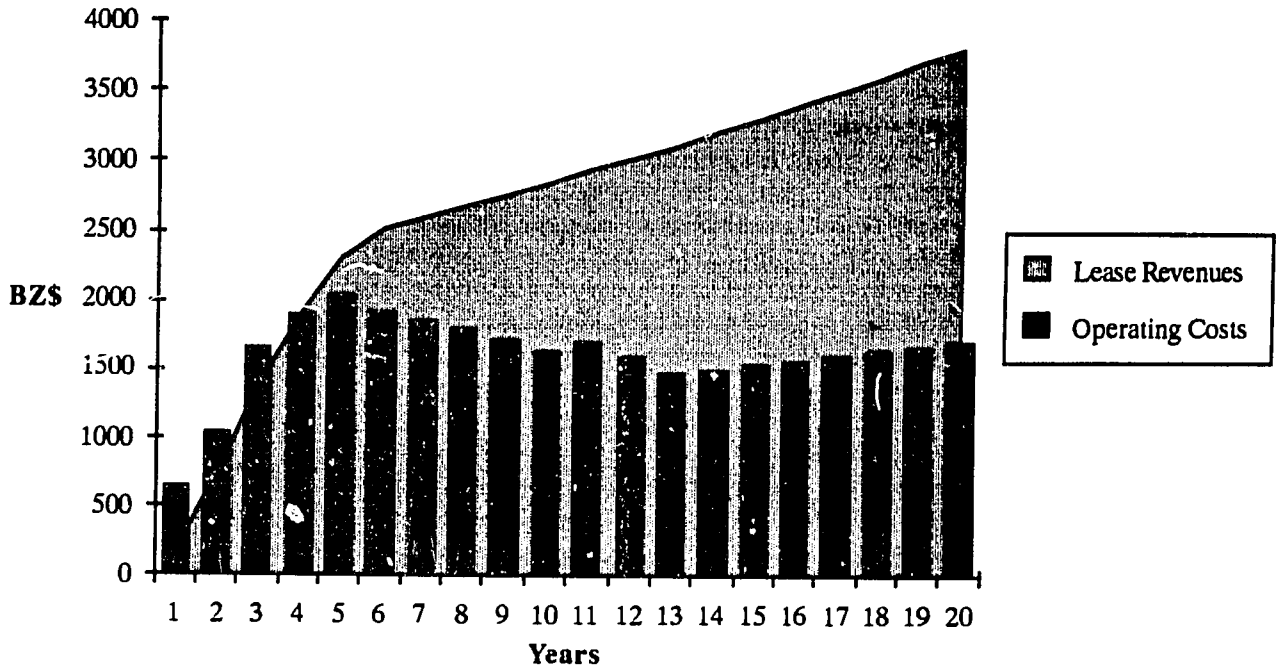
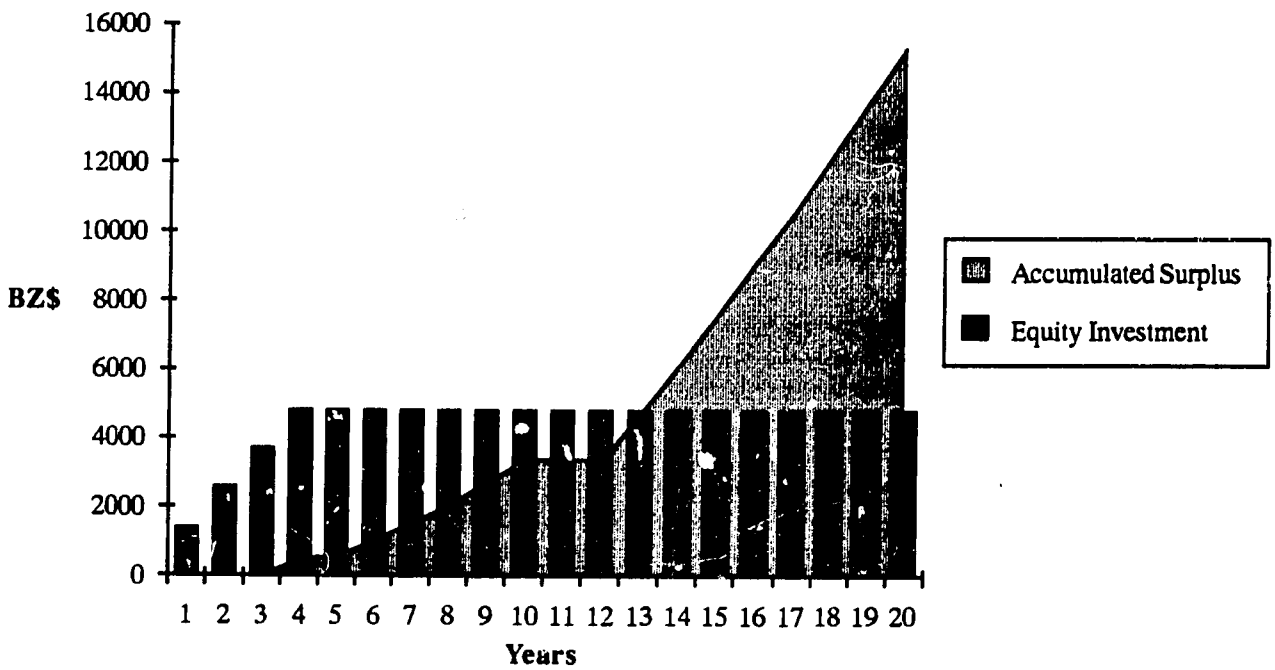


FIGURE 5-2
PAYBACK TIMELINE
(BZ$ Millions, Current Prices)



year IRR and ROE of 14.2 and 18.6, respectively) will add an additional margin of safety to the project. The added SFB development is achievable given the desire to adopt higher land-use ratios for several plots and the zone as a whole, and the increased activity and operational burden can easily be sustained by the base-case projected management and staffing structure of the zone.

5.29 Due to the uncertain source of financing for the project, Scenario 2, depicted in Table 5-8, explores a possible case in which the long-term financing for physical assets development approaches more attractive concessional terms which may be available from such sources as the European Investment Bank. The interest rate for long-term funds is maintained at 12 percent, reflecting probable lending rates after the funds are channeled through a local or regional financial intermediary, but the total term of the loan is increased to 20 years, comprising five years grace and 15 years amortization. The debt/equity ratio for the entire project is reduced to 75:25, reflecting the lower equity participation likely to be demanded by international sources of concessional debt financing. As shown in the table, the ROE is improved at 19.2 percent over the 20-year period, with the payback period decreasing from 14 years in the base-case to 9 years. The IRR for this scenario is unchanged.

TABLE 5-8

SENSITIVITY ANALYSIS SUMMARY
(Figures Expressed in Percentages)

	IRR		ROE	
	YEAR 10	YEAR 20	YEAR 10	YEAR 20
BASE CASE	11.2	13.6	17.7	18.0
SCENARIO 1 (Expanded SFB Development)	11.8	14.2	18.4	18.6
SCENARIO 2 (Conce. nal Financing)	11.2	13.6	20.1	19.2
SCENARIO 3 (Reduced Rental Rate	8.5	10.7	13.3	14.1
SCENARIO 4 (Reduced Operating Costs)	11.7	14.0	18.1	18.4
SCENARIO 5 (Reduced SFB Development)	9.7	12.2	15.1	15.7

5.30 The third scenario illustrates a possible decrease in revenues achieved from SFB rental, with all other development assumptions and costs remaining the same. To simulate a reduction in lease revenues in the analysis, the base rental rate is reduced to BZ$6.00 per sq.ft. per year, which would be equivalent to a 14 percent reduction in revenues. A reduction of revenues could be caused either by lower occupancy rates or lower rental rate charges. The proportional 14 percent reduction is assumed to prevail throughout the project life. This scenario reduces the returns to an unacceptable level, resulting in an IRR of 10.9 percent and an ROE of 14.1 percent over 20 years. This scenario provides an important lesson, for it illustrates that the project relies critically on the ability of the zone management to generate revenues at the levels projected in the base case.

5.31 Correspondingly, if operating costs can be reduced with other assumptions remaining the same, the project returns will increase, as is depicted in Scenario 4. To illustrate a reduction in operating costs analytically, the total annual payroll burden is reduced by BZ$20,000, subsequently reducing overhead costs. Such a reduction in the payroll could be achieved, for example, through the elimination of one security guard during two shifts. While the guards may be necessary, the elimination of the positions is merely to demonstrate the impact of reduced operating costs by zone management, which may be achievable utilizing a more efficient staffing structure. The resulting IRR and the ROE increase to 14.0 and 18.4, respectively, over 20 years, which is substantial given the relatively small reduction in operating costs achieved through the elimination of only BZ$20,000 per year in salaries.

5.32 Another principal risk to the project occurs when demand for SFB space does not materialize to fill all the development envisioned. This scenario is constructed in the analysis by reducing the amount of zone development to only 68,750 sq.ft. of under-roof factory space in Year 2, and 50,450 sq.ft. in each of years three and four. Land development costs are correspondingly reduced by 20 percent in Year 2, and initial annual operating costs (in salaries) are reduced by BZ$20,000 with no additional staff added in Year 6 as in the base-case. These combined factors render the project marginal (with a 20-year IRR of 12.2 and an ROE of 15.7), but illustrate that the financial viability of the development could still be sustainable even under this somewhat drastic scenario.

5.33 These five scenarios illustrate that the proposed free zone project as configured in this analysis possesses a degree of resiliency in financial performance: the returns on both total investment and equity will be sufficient to insulate to some degree the project should some of the assumptions adopted in the base-case not occur as planned. In the case of only partial development, or inadequate revenues, the results would force a restructuring of the project. Returns could be restored to levels adequate to maintain

project solvency only by a reduction of other costs to a bare minimum. Overall, the project, based on the assumptions utilized in the base-case, is financially viable and has the potential to offer a significant return to investors.

C. ECONOMIC ANALYSIS

5.34 The previous discussion evaluated the financial performance of the project and concluded that the expected level of costs, prices, and demand for facilities should render the project financially rewarding, both to lenders and equity investors.

5.35 However, the demonstration of an acceptable level of private profit does not in itself justify project development from a national perspective. A demonstration of the allocation of scarce economic resources -- i.e., land, labor, foreign exchange and capital -- is needed to determine whether the free zone project is worthwhile from the standpoint of the nation as a whole -- i.e., that the social return from the project is acceptable.

5.36 Traditional economic cost/benefit analyses make two broad assumptions:

- the true opportunity costs facing a developing nation in its choice among alternative strategies for allocating scarce resources are not necessarily reflected in the domestic price ratios of goods and services. Therefore, domestic prices should be adjusted to reflect the "true" costs of project development; and

- national opportunity costs are better reflected in the terms on which goods can be exchanged through international trade, because these are clearer and more consistent indicators of the true value of economic alternatives available to the nation. This implies making adjustments to the financial costs of project outputs to reflect social benefits more accurately.

5.37 The methods generally utilized quantify or estimate the differences by use of proxies for actual variables in the analysis. Typically, a number of broad categories of adjustments are made to the financial analysis as developed in the previous section:

- wage rates are "shadow priced" to reflect the true resource cost of labor in a developing nation with high rates of unemployment and imperfect labor markets;

- land acquisition and development costs are adjusted to reflect the added value originating from project development, as well as the opportunity cost of benefits from alternative uses foregone;

- external investment required by the government to support the project is included in total investment costs;

- the value of all foreign currency costs and benefits are adjusted to reflect the true value of foreign exchange to an economy with a critical shortage of hard currency; and,

- a discount rate or cost of capital is used which adequately reflects the opportunity cost of investment.

5.38 Previous applications of these economic versus financial return analysis techniques have been employed for projects which had easily identifiable and quantifiable inputs and outputs. The same degree of precision in the case of free zone projects, however, is extremely difficult because of their unique configuration, and does not capture some of the most important economic benefits. For example:

- the free zone in itself has no direct economic outputs except a limited amount of employment generation and a small profit to the local construction company developing the zone. The much larger economic impact results from, and depends on, the industry users that are attracted to and invest in the free zone;

- strictly speaking, the actual economic contribution of establishing export industries in the free zone is the true value of benefits that would not accrue if the free zone was not developed (i.e., incremental benefits);

- the establishment of a free zone project can have significant effects on the climate for investment overall in the export sector;

- many free zone companies import almost 100 percent of raw materials and export 100 percent of their output. In addition, free zones users are free from taxes and duties as a result of special incentives. As such, the direct economic benefits are derived primarily from labor wages, rent and payments for services, as well as technology transfer and increases in skill levels;

- all imported and exported goods are priced at world market rates ("border prices") because of the duty- and quota-free nature of free zones; and

- all payments by foreign companies are made in foreign exchange or linked to foreign exchange. The value of this foreign exchange stream is equivalent to the

difference between the official and real value of the local currency-denominated gross payments.

5.39 The result of these factors is that much of the detailed, extensive adjustments to wages, costs and prices required in traditional projects is not appropriate for free zone projects. In fact, the danger of the use of unduly refined analytical techniques in this case is that it lends a misleading aura of precision to an analysis which perforce is carried out in much broader terms. A modified approach utilized in this report is explained below.

1. Methodology

5.40 The methodology utilized to calculate the Economic Rate of Return (ERR) in this report is based upon a method developed by the World Bank and utilized successfully in the evaluation of free zone projects internationally. The project's financial rate of return is adjusted to reflect the major direct economic benefit of development -- employment generation. As zone users typically import most material inputs and export most outputs, and will not pay taxes or duties, the economic benefits of their activities can be approximated by the incremental employment generated. It is not necessary to adjust the prices of exports and imports because they are available at world market prices. The adjusted wage bill, in effect, becomes the surrogate for the full spectrum of net economic benefits.

5.41 The principal external cost not included in the financial analysis is the cost of additional infrastructure which is being borne by the government. Accordingly, this cost of external infrastructure must be included to accurately state the resources allocated to the investment.

5.42 The Economic Rate of Return calculation is based upon the following assumptions. First, if demand projections are accurate and promotional efforts successful, total employment in new firms at the end of Year 5 will be 2,445 jobs.[7] This figure is likely to be a minimum. Actual employment will be substantially higher if multiple shifts are utilized or less space per worker is allotted in each operation. The analysis assumes that 50 percent of the jobs are incremental -- that is, 50 percent of the jobs would have been created without the establishment of the free zone, and would have been established under development concessions or

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[7] This estimate assumes 125 sq.ft. of under-roof space per worker. As noted elsewhere in the report, approximately 100-125 sq.ft. per worker serves as a general estimate for free zone projects throughout the region, and zone employment in the proposed San Andres zone may reach above 3,000.

other arrangements. This also is a conservative assumption; based upon an annual wage of BZ$4,000 per employee, the total annual manufacturing wage bill in the zone reaches BZ$9.78 million. The social opportunity cost of labor is assumed to be 50 percent of the market wages, assuming that the marginal net increase in labor productivity of transferring labor from agriculture sector to manufacturing sector is equivalent to 50 percent of annual manufacturing wage bill. The net annual employment benefit for the zone is therefore approximately BZ$2.45 million in constant terms.[8] In the economic analysis, the net annual employment benefit is phased in according to the space absorption and adjusted for inflation.

5.43 An additional adjustment to the financial analysis is the inclusion of the full costs of the infrastructure investment being provided by the government. In this case, however, there are very few costs being directly borne by the government in support of this project: the electricity line from Mexico is being provided regardless of zone development, adequate roads currently exist to meet zone access needs, and in general the existing infrastructure can support free zone activities. For estimation purposes, additional public sector costs which are not reflected in the project costs are assumed to be BZ$2 million (invested in Year 1), which should sufficiently offset the marginal external costs of the project.

5.44 With the base case financial analysis adjusted for these two factors, the internal rate of return of the project is recalculated and used as an estimator for the economic rate of return. On this basis, the resulting economic rate of return is 21.9 percent over 10 years and 23.5 percent over 20 years, substantially above the financial return. This result is very strong, and indicates the economic feasibility of the project in addition to the financial returns to investors. Changing the capital cost and occupancy assumptions as executed for the sensitivity analyses affects the ERR within the range of a few percentage points, in the same manner as occurs in the financial analysis, but would not substantially decrease the economic returns to marginal levels.

D. FINANCING FREE ZONE PROJECT DEVELOPMENT

1. Financial Characteristics of Industrial Free Zones

5.45 From a financial perspective, an industrial free zone is essentially a real estate project configured for specific types of industrial and services activities. Financing requirements are

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[8] It should be emphasized that this statistic does not include indirect employment, which can be generated at a factor of between one and 2.5 for every zone employee.

for both fixed asset development, and for working capital expenses associated with project development. Fixed asset development funding is typically required for the following:

- site acquisition and land preparation;

- development of internal infrastructure, including the construction of standard factory buildings, common facilities (e.g., cafeterias, medical services), utilities infrastructure (e.g., sewage treatment plants, telecommunications facilities), internal road network, etc.; and

- development of external infrastructure (e.g., external access roads, utilities infrastructure, etc.), separately or in conjunction with the responsible public sector utility company involved.

5.46 Funding is also required to cover associated working capital costs such as personnel, office and relevant overhead expenses during the free zone construction period. Once operational, working capital infusions may be needed until revenues are sufficient to cover direct operating expenses of administration, marketing, travel, maintenance, insurance, depreciation, debt service, and various contracted services.

5.47 As long-term industrial real estate development projects, with long (3-6 years) development periods, large capital costs (US$5-US$20 million or more), and long payback periods, free zones have specific and unique requirements for financing. Zone projects typically require long-term finance (i.e., with a repayment period of more than 12 years, and 2 to 5 years grace period on amortization of the principal) to ensure that gross revenues are sufficient to cover all operating costs, including debt service. Interest rates, whether in dollars or local currency terms, should be equal to or better than market rates. As with most term lending, collateral requirements for free zone projects are minimal, with lending decisions made on the basis of anticipated project performance.

5.48 Most free zone projects are financed through a conservative combination of debt and equity capital. The usual debt/equity ratio of well structured projects is 60/40 to 70/30; higher ratios of 75/25 or 80/20 have been used. Much depends on the cost of financing, pricing competition, management competence and marketing skills among other factors.

5.49 Although free zones are generally developed in phases to ensure that the supply of facilities are kept in pace with demand, financing secured for zone development should carry some commitment of funding availability for future expansion. Because of the inherent limitations of demand forecasting, free zone development

must have the flexibility to respond rapidly to unexpected surges or declines in investor interest in a timely manner. Similarly, the timing and nature of capital infusions is of issue. As all the resources are not needed immediately, the terms of the loan should allow for different "drawdowns" over time. Sometimes, the free zone will also have need for short-term "bridge financing" to accommodate working capital requirements until adequate revenues have built up.

5.50 Access to foreign exchange resources is also necessary. The direct and indirect foreign exchange components of free zone projects can range from 20 to 40 percent; in some cases, they can be as high as 60 percent. Priority access to foreign exchange to finance needed imports is therefore critical.

5.51 Several financial aspects of industrial free zones facilitate their financing from different private and public sources:

- because rents for free zone facilities can be denominated and collected in a hard currency, private zone developers can borrow internationally without substantial foreign exchange risk. This is especially important if debt financing is sought through development and commercial banks which increasingly require that the final borrower assume the foreign exchange risk.

- because about 40-60 percent of the direct and indirect costs of free zone facilities development are local currency costs, there is significant scope for local financial institutions and investors to participate in project financing.

- different components of zone infrastructure have different depreciation periods. Buildings are generally depreciated over 20 to 25 years; equipment over 3 to 10 years. The amount of cash generated by depreciation, in aggregate, directly affects the terms and conditions of loan finance acceptable to project planners and, later, the ability to meet debt service schedules.

5.52 This diversity in infrastructure development implies that a wide variety of financing methods can be theoretically utilized for zone development. Individual factory shells can be funded alternately by selling shares in each building to individual investors, and through medium-term credit lines available from a number of multi- and bi-lateral lending institutions. Alternatively, pre-fabricated structures can be financed through the export credits available from the Export Credit Agencies of industrialized countries. In some countries a Development Bank (as opposed to commercial banks) can often play an important role in putting together a feasible infrastructure financing plan.

2. Potential Multilateral and Bilateral Sources of Financing

a. The World Bank

5.53 The World Bank has substantial experience in the financing of industrial estates, industrial free zones, and related facilities, usually owned by the public sector. In recent years, however, the World Bank has provided financing usually for the expansion of existing free zones, with a demonstrated performance track record, rather than entirely new projects. It is also indirectly supporting private free zone development.

5.54 An example of a recent World Bank free zone project is an expected US$30 million dollar loan to the Dominican Republic. The World Bank began work on this loan, however, only after 15 years of successful free zone development in the Dominican Republic. Under this project, the loan will be rediscounted and "on-lent" by a first tier public intermediate financial institution to private free zone developers through second tier private financial intermediaries (commercial banks) with the foreign exchange risk assumed by the final borrowers, the private free zone developers.

5.55 The World Bank loan is designed to cover the foreign exchange costs of each zone, estimated at 60 percent of total costs. While the primary loan has a maturity of 17 years, including four years grace, the terms of the sub-loans require repayment of building loans in seven years, including three years grace, and 10 years, including four years grace, for land infrastructure development. Interest rates are tied to international market rates (LIBOR) plus a spread of several percentage points.

5.56 This type of rediscount program has several advantages. It can provide a range of lending options with different maturities to finance the different components of a free zone. Moreover, by channelling funds through a financial institution and charging market rates, it reduces potential official interference and encourages developers to set fees at competitive market rates, which strengthens the long-term viability of the free zones. A specific free zone World Bank project loan usually also includes some funds for promotional and administrative activities.

5.57 Implications for the San Andres Free Zone. The potential for debt funding from the World Bank for Belize is quite limited, given the nature of the Belize free zone initiative. Generally speaking, the World Bank will not provide financing for a specific free zone project, and certainly not for an individual private project. Bank funding is potentially available, however, for a nation-wide private free zone development program as in the case of the Dominican Republic. Government guarantees of repayment are required, however.

5.58 Informal discussions regarding the proposed Belize free zone project with World Bank representatives indicated interest in the concept. The representatives were surprised that the issue had not been raised by GOB in their recent discussions with the Bank. Overall, given the private sector nature of the project, the International Finance Corporation (IFC) was regarded as a more appropriate funding vehicle.

b. International Finance Corporation/Caribbean Project Development Facility

5.63 The IFC is an arm of the World Bank that supports private enterprises in developing countries. The IFC operates like a merchant bank. Its primary purpose is to put projects together by evaluating their financial viability, providing technical advice and matching promoters with investors. In addition, the IFC usually will make a minority capital contribution to demonstrate its confidence in the specific project. This contribution usually includes both loans and a small equity position. Loan guarantees are also available to some projects. Generally, the IFC prefers to be a minority investor in projects, and usually limits its participation to 25 percent of total investment needs. Although waived in some cases, the minimum loan size is US$5 million.

5.64 Until a few months ago, the IFC had no experience with the financing of free zone projects, a factor which inhibited its potential participation in this project. Just recently, the organization concluded an agreement to provide funding to an already operating private free zone in the Dominican Republic. In most cases, funding from the IFC in the Caribbean Basin region is accessed through the services of the Caribbean Project Development Facility (CPDF, of which the IFC is the Executing Agency), which provides services in packaging financing for various types of projects. The CPDF itself acts as a broker, and does not provide financing directly. The organization puts together the financing for a particular project for a 2 to 3 percent fee based on total financing provided. In addition to IFC resources, the CPDF has access to funding from a wide variety of agencies including USAID, the Inter-American Development Bank, the Canadian International Development Agency, the Caribbean Development Bank, and the British Overseas Development Administration, among others.

5.65 The terms and conditions of IFC financing are considerably more exacting than the preferential financing available from public-sector oriented development institutions. Typical loan conditions include a 10-year term with two years grace on principal repayment, and interest rates at about the prime lending rate or 12 to 13 percent currently. While there are no nationality restrictions on project ownership, a minimum of 40 percent equity is expected in the project financing plan. The profitability of projects also has to be quite high. Assuming a cost of capital of

about 12 percent, project IRRs should be in the range of 18 to 20 percent, providing a 5 to 7 percent spread.[9]

5.66 Implications for the San Andres Free Zone. Discussions with the IFC/CPDF indicated strong interest in the Belize Free Zone project. The IFC/CPDF is strongly targeting free zones as a priority for their regional funding activity. Discussions with the CPDF indicated strong interest in the project, and its prospects for successful development. Concern was voiced about the location of the project (in terms of access to electricity and shipment of goods) as well as labor availability. While the project's base IRR was considered relatively low, strong interest in further investigation of the project was indicated. IFC participation in project funding would be especially helpful to obtain foreign private equity investment, or debt co-financing from other sources. The project would gain credibility with IFC's stamp of approval, based on its professional evaluation. For that reason the IFC/CPDF option should be actively pursued.

c. European Investment Bank

5.59 The European Investment Bank (EIB) is a development banking institution that is capitalized by members of the European Economic Community (EC). Outside its operations in the EC, the Bank is active in the twelve Mediterranean and 66 African, Caribbean and Pacific (ACP) countries that are signatories of the Lome Convention. The EIB has had experience in industrial infrastructure development generally, and industrial estates in particular.

5.60 The terms and conditions of EIB debt finance are well suited to free zone infrastructure development. The Bank's lending policy is quite favorable, and does not generally limit funding activity by sector or by country. According to the EIB, debt financing for long-term infrastructure development projects generally is available at market rates of interest, or contains an interest subsidy of three percent below market. Term lending is available for 15 to 20 years at about a 5 to 8 percent annual interest rate, and a grace period on payment of the principal. Minimum project size requirements are flexible.

5.61 Implications for the San Andres Free Zone. Discussions with the EIB indicated considerable interest in the project. While the Bank has provided rediscounted funding for various activities in Belize through the Development Finance Corporation (DFC), further

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[9] The IFC/CPDF does not have minimum size requirements but does not provide funding for refinancing or working capital requirements.

onlending activity with the DFC appears doubtful.[10] Still, the EIB is seeking projects of this type for development in Belize. Although the potential for EIB financing for the project is favorable, a number of issues have to be addressed:

- the private sector ownership of the free zone currently precludes direct EIB debt financing. Under existing guidelines, EIB lending to projects in ACP countries is provided solely to public sector entities backed by government guarantees. [11]

- money allocated for Belize is currently expended, and a new budgetary allocation can be expected only during Lome IV which is scheduled in 1990-91.

- EIB requires an official request from the GOB to proceed with the funding review process.

5.62 Assuming that adequate funding is available for the financing of private projects in Belize, the free zone project is viewed quite favorably by EIB, and representatives would like a copy of the feasibility study once completed.

d. United States Agency for International Development

5.67 USAID has supported the development of free zones throughout the world, but especially in the Caribbean Basin and Central America. USAID's support of free zones has taken several forms. In the past, public sector zones were funded through outright grants and/or subsidized lending to public agencies. Of late, USAID has financed only private free zones, either through grants and non-subsidized loans to intermediate financial institutions to be on-lent to private developers, or direct project lending.

5.68 USAID funding for zone development is exceptionally flexible, eligible for financing the construction of both SFBs and all elements of zone infrastructure. Funding has also been available for permanent working capital requirements including comprehensive promotional programs.

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[10] According to the DFC, EIB activities in Belize are funded through its second global line of credit covering tourism, agriculture and industry. A total of ECU2.5 million has been made available to the DFC for a 15-year term, at 5 percent per annum.

[11] According to the EIB, current negotiations for the Lome IV Convention (of which Belize is a signatory) is likely to allow the EIB to engage in the financing of private sector projects in much the same way as the IFC.

5.69 A recent program in El Salvador established a revolving fund at the Central Bank (on-lent by private banks) providing local currency-denominated financing of zone infrastructure, facilities and permanent working capital at preferential rates. Up to 50 percent of the funding is also available in hard currency to finance import requirements. In addition to project funds, USAID can also provide smaller amounts of money for technical assistance, feasibility studies and export promotion activities. These secondary activities can often be funded from central core funds which do not cut into country-specific financing. Finally, USAID can also provide flexibility through the use of local currency funds generated through the local sale of donated agricultural commodities under the PL-480 program.

5.70 Implications for the San Andres Free Zone. Based upon discussions with USAID/Belize, the prospects for project financing from USAID are extremely limited, and should not be pursued. As shown by USAID's Country Development Strategy Statement for Belize, 1991-1995, the strong focus of USAID activity in Belize during this period will be in the agricultural and tourism sectors. Support for a free zone infrastructure development project therefore would require a shift in USAID's country strategy. For these reasons, it would be unlikely that USAID would fund an individual free zone development project, though there is a very small possibility that it could participate in a multi-donor project.

e. Overseas Private Investment Corporation

5.71 OPIC is a United States government agency which insures U.S. foreign investment against a range of risks, including seizure of property and transfer risks, as well as direct debt financing and/or loan guarantees. OPIC financing can be accessed by any corporation which is at least 25 percent owned by a U.S. individual or corporation. Eligibility is determined by the technical, financial and marketing soundness of the project as well as the applicant's track record in the same or a closely related business. OPIC funding is available in the form of direct debt financing, guaranteed loans and equity investment.

5.72 Direct debt financing activities comprise most of OPIC's overseas financing activities. Direct debt financing of private projects is available without host government guarantees. The terms and conditions for long-term industrial infrastructure development projects (such as free zones) are competitive. Interest rates on loans are generally at commercial rates, usually slightly above the U.S. prime rate. Typical terms provide for a final maturity of 10 to 12 years and a 2 to 3 year grace period. Although minimum loan size requirements are flexible, direct loan sizes are not usually lower than US$300,000 - US$400,000.

5.73 OPIC has only recently become involved in financing free zone development, by providing loan guarantees for the construction of individual factory shells in an already well-established project in the Dominican Republic. To date, this is the only zone project funded by the agency, though further activity in the Dominican Republic is likely.

5.74 Access to OPIC funds has been problematic because of the difficulties experienced by private zone developers in qualifying for funding:

- OPIC will finance the construction of individual factory shells on a case-by-case basis, in order to maximize control over zone activities. Funding decisions are made only after careful screening of the prospective SFB tenant.

- OPIC will generally not consider financing zones oriented to "sensitive" industries. The nature of processing operations in the free zone and their potential impact on the U.S. balance of payments is of critical importance. In particular, OPIC is wary of investment in zones housing apparel and textile manufacturers, because of the potentially "adverse" impact on U.S. manufacturers.[12]

- OPIC financing is generally not available to finance zone infrastructure (as distinct from factory shells) and working capital requirements.

5.75 Implications for the San Andres Free Zone. Contact with OPIC finance officers indicated considerable interest in the project, as Belize is considered to be one of their target countries. Given the difficulties and delay experienced in accessing OPIC financing, however, this should be only a secondary option for project funding. By tightly controlling the building of factory space, and requiring advance approval of each prospective tenant, the flexibility of the zone operation is sharply curtailed, a factor that would greatly impede responsive zone development.

f. Caribbean Development Bank

5.76 The Caribbean Development Bank (CDB) has extensive experience in the development of free zones and industrial estates in the Caribbean Basin region. Since 1972, the Bank has financed a large

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[12] OPIC will also not support so-called "runaway plants"; these are plants located outside the United States that substitute for existing U.S. facilities to produce for the same U.S. or export markets.

number of industrial estate and factory shell projects in the various countries of the Eastern Caribbean Region, Jamaica, Belize and elsewhere. Industrial estate (or free zone) loans are made by the CDB to governments of the borrowing countries who provide sovereign guarantees, and in turn on-lend the funds to an executing entity, typically a public sector development organization. The loans to the governments are designated and disbursed in hard currencies, and repayment obligations carry the foreign exchange risk which is passed on to the final sub-loan beneficiary. Terms and conditions for CDB debt financing (to the public sector executing agencies) are quite standard, with a 20-year term, 3 to 4 percent interest rate, and five-year grace period.

5.77 The experience of the CDB in its infrastructure development lending activities has generally been poor. Industrial estate projects (such as the Ladyville Industrial Estate in Belize) financed through CDB activities have experienced delays in accessing funding due to onerous paperwork requirements, and have performed poorly due to uneconomic pricing strategies. Delays in funding disbursal have also been encountered due to stringent requirements regarding demonstration of demand for industrial space. The CDB generally requires firm letters of intent from potential estate tenants as a basis for formulating demand projections. Potential investors are of course reluctant to provide commitments to the industrial estate in the absence of any credible time-table for the development of industrial facilities. Further delays have been experienced in building construction due to unduly complex contracting, tendering and approval procedures, and construction requirements.

5.78 Implications for the San Andres Free Zone. The primary obstacle encountered with the CDB is that it funds only public sector projects. Although the CDB has thus far operated in Belize solely through the public sector DFC, establishing a rediscount program through the Central Bank using CDB funding is a possibility. Contact with the CDB indicates little interest in pursuing this approach, given their recent provision of a fourth Industrial Estate loan to the Ladyville Industrial Estate for the development of 48,000 sq.ft. of under-roof space.

g. Commonwealth Development Corporation

5.79 The Commonwealth Development Corporation (CDC) is an autonomous, self-sustaining public sector British development bank that provides medium- and long-term finance for development projects predominantly in Commonwealth countries.

5.80 Terms and conditions of CDC direct lending and equity investment activities are generally more flexible than other development financing institutions, and oriented more toward project needs. The major difference in the lending practices of the

CDC is its preference to lend directly to the final beneficiary and eschew the use of a local financial intermediary. The CDC also provides significant technical assistance and management services to the project sponsor.

5.81 Implications for the San Andres Free Zone. CDC has actively financed project development in the tourism and export-oriented agricultural projects in Belize in the past, including the expansion of the Fort George Hotel. Contacts with the CDC representative indicated strong interest in the free zone project, and a willingness to consider project funding in conjunction with other development groups. A significant inhibiting factor, however, is the lack of CDC regional experience in free zone development.

h. Export Credit Agencies

5.82 All of the major industrial countries have public agencies which provide special financing for their exports. These credits are often provided at less than market rates. In addition, these agencies will often lend to countries to which private institutions will not lend because of debt servicing problems. These credits can only be used to purchase goods from the country that is supplying the credit. The supplier applies for the finance, and uses it as an incentive to get the order. These credits, if available, could be quite effectively used to finance prefabricated buildings and equipment components of the free zone. Export Credit Agencies (ECAs) have country limits, but it is unlikely that Belize is approaching the point of being constrained by these limits; or that a free zone would exceed them.

5.83 Although ECAs will often continue to provide credit when private institutions have closed down a country window, ECAs will eventually cease operations in a country if its debt-servicing prospects continue to deteriorate. Each ECA has a different policy, and therefore, it is quite common that several countries will have stopped providing new credits while others continue. For Belize, the ECAs of the United States, and several European country ECAs are actively providing new credits, but are probably limiting their maturities, which could constrain their usefulness for free zone development.

5.84 The direct application of ECA financing for free zone development was part of an arrangement that the Jamaica Industrial Development Corporation made with the Canadian Export Development Corporation (CEDC), the Canadian ECA in 1987. Using CEDC credits, the JIDC purchased some US$14 million worth of pre-fabricated industrial buildings for installation in various Jamaican free zones.

5.85 Implications for the San Andres Free Zone. ECAs are a potential source of medium-term finance that could be accessed to develop components of the free zone. Such funding can be accessed under quite favorable terms and conditions given the stable financial position of Belize, but will generally require a government guarantee. This alternative is therefore only a secondary option for the free zone.

3. Potential Private Foreign Sources of Debt and Equity Finance

5.86 Industrial free zones have increasingly become attractive investment and lending opportunities for private capital, reinforcing the trend toward private ownership and management of free zones. Free zones are interesting because of their ability to generate hard currencies in a deregulated, supportive policy environment. These features have made a wide range of financing options possible, including limited-recourse project lending, debt equity swaps and foreign direct investment.

5.87 With revenues earned in foreign exchange, the transfer risk on such an investment or loan is minimized. Transfer risk is the risk that an entity will not be able to transfer its earnings out of a country due to foreign exchange restrictions brought on by balance-of-payment difficulties or political reasons. If an investor or banker is assured of access to the foreign exchange earnings of an export project, their risks are primarily limited to the commercial viability of the project itself and not subject to the general availability of foreign exchange.

a. Commercial Banks

5.88 Since the onset of the Third World debt crisis in the early 1980s, most major foreign banks have endeavored to reduce their exposure in developing countries and are willing to provide new credits only on a very short-term basis, usually as trade credits, or as limited recourse export project lending. With the latter, the repayment of the loan is tied directly to the export revenues earned by the specific project. In many cases, special dispensation is required from monetary authorities to earmark foreign exchange revenues earned by the project towards debt repayment. In some cases, payment is made in product, putting the commodity price risk on to the lender as well.

5.89 The objective of limited recourse lending is to tie the risk of lending directly to the viability of the specific project and not the economy at large. Unlike most of the lending of the seventies and the early eighties, this lending usually receives no government guarantee. This forces the bank to work to ensure that the project succeeds, unlike the risk-free practices of the early

seventies and eighties, in which funds were lent simply because of government guarantees regardless of the final use of the funds or inherent feasibility of the beneficiary project.

5.90 This type of lending is now quite common for mineral and petroleum projects throughout the developing world. Indonesia used it to finance a billion dollar natural gas complex, while Chile has used it to finance new copper and iron mines. In most cases, these projects are undertaken by subsidiaries or consortia of large multi-national enterprises. It is still rare for foreign banks to provide this type of financing to local firms, unless they have established an international reputation.

5.91 Implications for the San Andres Free Zone. The possibility of private foreign commercial bank debt financing of the San Andres project is quite limited. While an individual bank could easily completely finance a free zone through limited recourse lending, it is unlikely that one bank would accept this risk. Rather, banks would generally insist that they cover only a part of the financing, and also try to ensure that their claims are superior to others. Banks will also try to structure their loans to foreign investors so that only a portion is tied to the zone project, with the rest assumed by the foreign investor or firm. Obviously, the investor will resist this commitment as it increases his potential liability, but such contingent liability may be the only way to access the necessary financing. Finally, banks will try to keep the maturities of their lending as short as possible. For Belize, even with limited recourse export project lending, it is unlikely that banks will accept maturities over ten years, if that. Accordingly, for the next several years, even if private banks are willing to provide some financing, long-term financing will probably have to be provided by investors through equity or by some official institution.

b. Foreign Direct Investment

5.92 Foreign equity investment accounts for the majority of foreign capital participation in free zone development. Increasingly, major U.S. and Japanese engineering and construction conglomerates are undertaking very large scale integrated projects with a strong free zone component. Taiwanese, Hong Kong and Korean developers (often with strong government participation) are seeking to establish new free zones in the Caribbean Basin and other regions. Smaller North American industrial park and free zone developers are also looking to expand operations to other locations. Examples of wholly foreign equity-financed free zone projects include the following:

- the US$240 million integrated free zone, port, and industrial complex being developed by Bechtel Civil in Adana Yumurtalik, Turkey; and

- the Santo Domingo Oriental Free Zone in the Dominican Republic, financed completely by a Taiwanese company.

5.93 These foreign developers are being actively assisted by a number of international financial intermediaries utilizing innovative financial techniques to decrease the cost of free zone investment. The ability of the San Andres project to attract foreign equity investment will depend critically on a number of factors that will have to be considered in developing any financing strategy:

- Degree of control over project development and ownership. It is unlikely that a foreign developer would be willing to undertake development of the free zone unless he had a controlling interest in the enterprise.

- Availability of debt financing at reasonable terms. In order to ensure project feasibility in what will be perceived as a risky investment environment, the private free zone developer will require long-term debt funding on terms and conditions that do not endanger profitability. This may require that the GOB or some acceptable entity (such as OPIC) provide a guarantee on borrowed funds.

- Existence of adequate incentives. To be competitive with other locations, and attract private investment in zone development, the GOB will have to offer a number of incentives. Among the most important are: duty-free and tax-free import of all raw materials and equipment; duty-free import of pre-built SFBs; lack of restrictions on project ownership and the transfer/sale of equity; ability to denominate and collect all SFB rental payments in a hard currency (or hard currency equivalent); complete control over and unrestricted repatriation of profits and dividends derived from both "active" operations and capital gains; and a lack of restrictions on the sale of free zone real estate.

- Mechanisms to reduce project risk. Attracting a foreign developer to undertake project development in an unfamiliar local environment is a "hard sell" under the best of conditions. In the Belizean environment, the GOB and/or local developer may wish to explore the possibility of reducing the exposure of foreign developers especially during the initial, critical, 3 to 5 year period. This could be accomplished in a number of ways, such as the assumption of initial land acquisition and development costs by the local group, with the construction of buildings undertaken by the foreign investor in response to demand. Even more

generous provisions allowing the foreign investor to "buy out" the project after the initial period have been used in other countries, but these are of use only in cases where the perceived risk is otherwise overwhelming.

5.94 Of course, involvement by a foreign industrial park development group does not have to be limited to equity participation. In general, there are two basic alternatives: (i) a private sector operator is hired to manage the zone in an "arm's length" management contract (full ownership of the park, and all revenues generated remain with the local developer); and (ii) the local developer develops the site, makes all site improvements and leases the developed site to a foreign development company who then builds necessary factory space and manages the industrial park. In such cases the local firm retains ownership of the park and benefits from the reduced building construction costs.

5.95 Implications for the San Andres Free Zone. The potential for San Andres to attract foreign equity investment depends on the degree to which the project is configured to offset some of the factors raised in this discussion. It is unlikely that a developer would be interested in solely managing San Andres given the extremely small size of the project, and lack of downstream development possibilities. Simple management fees are not sufficient incentive for a private developer group to incur the transaction costs involved in establishing itself in a new market.

5.96 Similarly, it is unlikely that private developers will be willing to undertake SFB construction and other improvements just to lease the zone site to zone users, without participating in project equity. Much depends on the rental rates achievable. Without the "downstream" financial benefits of project ownership, zone profitability will be limited to the ability of the developer to collect high enough rental rates. It is unlikely that revenues will be buoyant to the degree necessary to attract the interest of a private developer, to allow him to recoup his investment without participating in project equity. Therefore, direct foreign equity participation is the only viable possibility.

5.97 The San Andres project design includes many of the critical factors affecting the interest of foreign free zone development companies, under the terms of the developer incentives package set forth in the draft free zone legislation. What is lacking at this stage is a competitive package of debt finance, and mechanisms to reduce or share project development risks.

4. Potential Domestic Sources of Finance

a. Locally-Based Commercial Banks

5.98 As detailed in Chapter 3 of the Phase I report, the potential for provision of medium- and long-term lending from the Belizean commercial banking sector is quite limited due principally to the following factors:

- Lack of long-term deposits. The commercial banking sector is disproportionately dependent upon short-term deposits to finance their lending activities. This limits their ability to accept loans with average maturities in excess of 5 to 10 years.

- Onerous collateral requirements. Because of the shallowness of local financial and secondary collateral markets, commercial banks require extensive collateral coverage for all but their best customers.

- High real interest rates. The conservative real interest policy of the GOB mandates minimum interest rates for demand deposits in commercial banks. These high rates for short-term deposits impede the development of longer term project lending.

- Lack of sufficient liquidity in the commercial banking sector. The "tight" money policies of the GOB coupled with sharply increased economic activity have greatly increased demand for credit, and have led to rising short-term interest rates.

5.99 Implications for San Andres Free Zone Development. The potential for locally based commercial banks to provide long-term funding for zone infrastructure development using their own resources is quite limited. The hesitation of the banks to provide appropriate financing is exacerbated by their inexperience in project based, "cashflow lending" generally, and with free zone projects in particular.

5.100 The interest of commercial banks in participating indirectly in zone financing by on-lending externally provided debt funding, on the other hand, is considerable. Most of the commercial banks contacted were interested in acting as intermediate financial institution (IFI) in rediscounting external credit lines from USAID, EIB, CDC or other sources. The key to their interest would lie in the degree to which the credit risk was shifted from them to some third party official body such as the Central Bank. This could be accomplished in an number of ways. The Central Bank, OPIC, IFC or a similar entity could provide comprehensive subloan guarantees that effectively remove the credit risks from the IFIs. Another requirement would be the utilization of some mechanism to

offset the risk involved in liquidating the zone in case of bankruptcy.

b. Smaller Local Equity Participants

5.101 Despite the rather large capital outlay required for free zone development, there is substantial scope for equity capital participation by smaller local investors. A number of local investors can be expected to provide significant equity funding for the development of zone infrastructure and facilities. Most well-structured projects have a minimum of 30 to 40 percent equity capital funding.

5.102 In addition to the existing potential majority local equity holder in the San Andres project, the potential to attract smaller investors is significant. In the industrial estates of Barbados, for example, individuals capitalize the construction of individual standard factory buildings in return for some portion of the lease revenues. Once a core group of tenants has formed, it will be easier to place equity shares in individual SFBs among a wide number of smaller parties in Belize. This is an option that can be considered as the project develops.

VI. FREE ZONE LEGAL FRAMEWORK

6.01 The Government of Belize has taken steps to develop an institutional and regulatory environment in support of a lead private sector role in national economic development initiatives. The establishment of a national free zone program is one element of this broader policy goal. As presented in Annex A, TSG has prepared a draft free zone act that is competitive with free zone incentives worldwide, for consideration by the Government of Belize.

6.02 The Phase I report examined the key governmental and private sector institutions related to export development and foreign investment promotion.[1] This chapter extends the earlier analysis. It begins by discussing the relationship of the proposed free zone program to the existing framework regulating export industries and foreign investment. It then turns to a discussion of the specific provisions of the draft Free Zone Act that has been prepared for the Government's consideration as a part of this study. Citations of the relevant sections of the Act are included in the discussion.

6.03 Although not included in the Scope of Work of this study, an implementing regulation has also been drafted by TSG and is discussed both in this chapter and in Chapter 7, where the administrative and operational implications of the legislative regime are examined.[2]

A. RELATIONSHIP OF THE PROPOSED FREE ZONE REGIME TO THE EXISTING REGULATORY FRAMEWORK

6.04 The principal elements of the legal framework presently regulating foreign investment and export activity in Belize are presented in the Belize Investment Code.[3] As was discussed in the Phase I report, the provisions of these laws compare favorably in

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[1] For information see "Institutional and Regulatory Framework" in Belize Free Zone Feasibility Study: Market and Labor Demand Analysis, The Services Group, February 20, 1989.

[2] Throughout this report, citations referring to the Free Zone Law are denoted with "FZA." Those which refer to the Implementing Regulation are denoted with "IR." The complete text of the draft Implementing Regulation and Free Zone Act are presented in Annex A.

[3] The Belize Investment Code summarizes the provisions of key legislation including the Central Bank Act, Development Concessions Act, Fiscal Incentives Act (Industrial Enterprises Act), and the Alien Landholding Act.

many respects with those offered to investors in free zone and export promotion programs elsewhere in the region and the world. In practice, however, the application of the policies and incentives they establish has often been problematic.

6.05 In Belize, potential investors must become familiar with numerous pieces of legislation, which acts as a deterrent to new investment. There is no single, designated office that a potential investor can contact for information -- for example, three separate government bodies have the authority to grant duty exemptions. While, in practice, the majority of the concessions granted are routed through the MED, the Ministry has no authority to act independently. The inter-Ministerial review period for applications for the MED's development concessions is lengthy and complicated, the criteria for approval of requests are vaguely defined, and there is no clear-cut mechanism for determining the length of the concessionary period granted. Moreover, the Ministry suffers from a lack of resources and is under-staffed to handle the processing and monitoring responsibilities with which it is charged. Faced with these procedural vagaries, firms applying for investment incentives regularly turn to local attorneys, BEIPU, or other sources of technical expertise for assistance in meeting requirements.

6.06 Recognizing shortcomings such as these, the Government of Belize is currently redrafting the Investment Code to clarify and simplify investment procedures. With regard to this feasibility study, the principles and policies embodied in the free zone legislation are complementary to those set forth in the revised Investment Code in their treatment of export industries.

6.07 The harmonization of the Belize Investment Code with the provisions of the proposed free zone legislation is important for two primary reasons. First, there should be no potential for confusion or contradiction for firms with Belizean free zone status resulting from inconsistencies or overlaps between the two incentive regimes. Moreover, experience has demonstrated that the developing countries which have exhibited the most dynamic growth in non-traditional export activity are those where the incentives provided for investment in the export sector as a whole approximate those granted to free zone users.

6.08 While the Government may be reluctant to make free zone investment incentives available to export firms across the board, it should be borne in mind that the overall liberalization of export policy can multiply the benefits that accrue to the host country in terms of foreign investment, job creation, foreign exchange earnings, and overall economic growth. Moreover, the fundamental operational principles of free zone benefits packages (e.g., simple investment criteria with automatic approval for qualifying firms, minimization of regulatory procedures, and expeditious clearance of production inputs and final exports by

Customs) can be accorded to all exporters, even if they are located outside a free zone, at no "cost" to the Government of Belize.

6.09 The key elements of the proposed free zone law are summarized in Section B below. In drafting the law and the implementing regulation, attention has been directed toward both reflecting existing GOB policy with regard to investment in the export sector, and designing a free zone program that will be competitive with other countries in the region and the world. It should be borne in mind that this is a draft law, a working document designed to help focus discussions within the GOB. However, while the specific incentives may be altered or the operational guidelines modified, the principles that the law embodies, with regard to the establishment of a sound legal structure in support of both zone development and the operations of zone industries, are essential to the program's success.

B. ELIGIBILITY CRITERIA FOR FREE ZONE ENTERPRISES

6.10 A free zone regime consists of a set of regulatory measures designed to encourage export industry, principally import-dependent export manufacturing. These measures are intended to remove existing disincentives to export manufacturing in order to allow industry to be competitive in global markets and capitalize on the country's inherent comparative advantages. Providing access to this regime means granting favored status to export industries and, as is suggested below, to the developers of the free zone projects as well. By and large, to qualify for zone incentives businesses must simply demonstrate that they are engaged in production wholly for export. The specific eligibility criteria that have been suggested for the Belizean zone program are presented below.

6.11 **Free zone status should be offered only to those manufacturers and service providers that are producing for the export market [FZL, Section 8 (c)].** The main qualifying criterion for a company wishing to receive free zone status (referred to in the law as a "Certificate of Compliance") is that the company's production be destined entirely for export. The free zone program is designed to attract firms that will use Belize as an export production platform; zone incentives are not extended to firms which export only a small portion of their output. Policy measures now in place, such as MED's development concessions, already include provisions to assist partially exporting firms. Moreover, local businesses with an interest in exporting will always have the option of forming a separate affiliate to produce for export under the free zone regime.

6.12 As discussed in paragraph 6.40 below, a provision has been made, however, to allow designated free zone firms, established and operating under the program, to apply for permission to sell a portion of their total production to the domestic market [FZL,

Section 9(c)], subject to the normal tariffs and duties [**FZL, Section 10 (i)**]. Such an approach has proven attractive to zone manufacturers in other countries, allowing them to rationalize their production by selling locally a portion of inventory backlogs or products that for various reasons are not competitive in the world market. Domestic sales are purely a sideline to their export production.

6.13 As a practical matter, the law also provides for the leasing of property within the zone to firms which have not received free zone status [**FZL, Section 8 (f)**] if the GOB determines that the business will provide services to the zone users that will complement or enhance zone operations (i.e. vocational training, clerical services, delivery services, commercial banking, etc.). Such firms are not eligible for zone incentives. The provision of auxiliary or "business support" services in free zones is becoming a common practice in the region, as a means to attract industries with more sophisticated service requirements and can improve the overall competitiveness of the project.

6.14 **Foreign and domestic investors should be treated alike under the free zone regime, with each offered the same incentives and subject to the same controls [FZL, Section 3 (c)]**. This provision is in keeping with the principles of the Belize Investment Code which provides for the equal treatment of foreign and domestic capital. The design and implementation of the free zone regime presents an opportunity to apply the principle of equal treatment and openness to foreign capital without restrictions. Conversely, the incentive and regulatory framework constructed to attract foreign firms to the free zone program should not exclude Belizean businesses. Belizean firms have evidenced significant interest in the program and can contribute greatly to the country's economic development goals by initiating export activities.

6.15 **Zone development groups should have access to the same incentives that are offered to zone industries [FZL, Section 3 (f)]**. In addition to the exporting firms, it is also desirable to ensure that private or public enterprises which develop and manage free zones will benefit from the incentives provided in the free zone regime. This treatment will help to ensure that the free zone facilities and services established are globally competitive in both cost and quality, and will attract private capital to the development and ownership of free zones. Such provisions have recently been incorporated in a number of free zone regulations where private sector responsibility for zone development is encouraged. As evidenced by this study, the benefits to be gained from private sector participation in free zone development are recognized by the Government of Belize. Extending eligibility for zone incentives to developers of zone projects will make the regime as attractive as possible and stimulate the long-term financial commitment required by the private sector.

6.16 **Free zone status should be made available to all exporting firms, regardless of their location [FZL, Section 8 (e)].** There are numerous advantages to allowing broad access to the free zone program, and not needlessly restricting eligibility. Some countries, for example, limit free zone status to firms located within defined geographic areas. Even in these cases, however, exceptions are often made, allowing firms to locate elsewhere through special application procedures and demonstration of particular needs.

6.17 It is for this reason that the concept of "special free zones," that is, single-user export facilities accorded free zone status, has become widespread and is included in the draft law.[4] This designation can be granted to exporting firms already operating in Belize, as well as to potential investors with locational requirements that cannot readily be accommodated in a community of industries, so as not to place them at a disadvantage vis-a-vis free zone users. Otherwise, a geographic limitation of free zone status will penalize existing Belizean exporters. It would also discourage the establishment of local resource-based processing operations in the agricultural sector, where plants are often established adjacent to the source of the raw materials. Therefore, the eligibility criteria specified in the law encompasses both firms locating within a defined enclave or industrial park and those in individual factories.

6.18 Summarizing the above discussion, three types of entities will be eligible for free zone status under the draft law:

- export firms locating within defined industrial park areas operating as free zones;
- export firms located outside of such enclaves; and,
- firms developing and/or operating free zone facilities.

It is useful to distinguish between these categories, as the regulatory practices will vary somewhat, principally with respect to the Customs treatment accorded firms located within and without geographically defined free zone enclaves. Likewise, zone development groups are essentially industrial facilities development and management organizations, whether public or private, and will therefore utilize and benefit from zone incentives in a different manner than their production-oriented counterparts. Specific application and approval procedures for free zone status for each type of entity are detailed in the draft law and implementing regulation.

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[4] The special free zone concept is employed by many different countries and goes by a variety of names, "sub-zone" in the United States, "recinto fiscal" in most Spanish-speaking countries, and "licensed manufacturing" in the countries of the Far East.

C. INCENTIVES FOR FREE ZONE ENTERPRISES

6.19 As shown in Table 6-1, the basic incentive package and operating environment offered by free zones worldwide share many common elements. Individual countries, however, differ in how their zone programs are implemented and in the degree to which they are integrated with the economy as a whole. The incentive package proposed below has been tailored to reflect the attributes of the Belizean context. As mentioned earlier, many of these incentives already exist in various forms in Belize. For example, provision has been made for profits tax relief and exemption from duty on production inputs and imported equipment in the MED Development Concessions; access to foreign exchange is now guaranteed for imports, etc. However, many of these incentives are either insufficiently attractive, offer only partial exemption, or are not routinely accessible. Most importantly, they are not grouped together as a set of benefits which can be granted as a defined package, but require separate application and qualification procedures, often to different agencies of the Government.

6.20 One of the principal goals of the free zone program, as designed, is to combine all the important incentives and regulatory measures governing export industry into one package. In this manner, the investor must make only a single application to a single institution.

1. Duty Relief

6.21 **All imports required by free zone firms for facilities installation and export production, and exports outside of Belize by free zone firms, should be exempt from import and export duties in perpetuity [FZL, Section 10].** The concept of perpetual exoneration of tariffs on imports of production inputs -- raw materials, and intermediate goods -- is the cornerstone of any free zone; transaction taxes on all imported goods used in the production of exports within a free zone are not levied. The principal difference between the free zone regime and duty drawback, temporary admission, and other duty relief mechanisms is that in a free zone there is no need for posting bonds, paying in advance for later reconciliation against taxes owed, special applications for each shipment, etc. Any partial exemption will not achieve the desired results of making export production competitive and creating a regime which is both easy to administer and automatic.[5]

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[5] The mechanics of the Customs treatment required to implement this regime are discussed in Chapter 7.

TABLE 6-1
COMPARISON OF FREE ZONE INVESTMENT INCENTIVES IN SELECTED DEVELOPING COUNTRIES

	Costa Rica (EPZ)	El Salvador (EPZ)	Guatemala (EPZ)	Honduras (EPZ)	Mexico (Maquiladora)
Corporate Income Tax Abatement	100% exemption for 6 years; 50% exemption for 4 years following	100% exemption for 10 years	100% exemption for 12 years	100% exemption in perpetuity	37% tax on coporate income
Capital/Profits Repatriation	No restrictions	Not explicit	No restrictions	No restrictions	No restrictions
Duty Treatment for All Imports and Exports	100% exemption	100% exemption	100% exemption	100% exemption	100% exemption
No. of Days To Receive Approval	90	45-90	Not Available	35-40	N/A
Tax on Dividends	100% exemption	100% exemption	100% exemption	100% exemption	No exemption
Restrictions on Foreign Ownership	None	None	None	None	None
Sales To Local Market	49% of total output	Case by case basis	Limited access	Unlimited access	20-40% of total output
Management of Foreign Currency	Unrestricted	Controlled	Unrestricted	Unrestricted	Controlled

TABLE 6-1 (Continued)
COMPARISON OF FREE ZONE INCENTIVES IN SELECTED DEVELOPING COUNTRIES

	Dominican Republic (EPZ)	Barbados (Industrial Estates)	Jamaica (EPZ)	India (EPZ)	Mauritius (EPZ)
Corporate Income Tax Abatement	100% exemption for 8-20 years	100% exemption in perpetuity	100% exemption in perpetuity	100% exemption for 5 years during first 8 years of operation	15% tax rate during life of company
Capital/Profits Repatriation	No restrictions	No restrictions	No restrictions	Guaranteed after tax payments	No restrictions
Duty Treatment for All Imports and Exports	100% exemption	100% exemption	100% exemption	100% exemption	100% exemption
No. of Days To Receive Approval	60	30-60	30-60	45	20-40
Tax on Dividends	100% exemption	100% exemption non-residents only	100% exemption	25% tax	100% exemption for 10 years
Restrictions on Foreign Ownership	None	None	None	None	None
Sales To Local Market	20% of total output	None allowed	None allowed	25% of total output	None allowed
Management of Foreign Currency	Unrestricted	Unrestricted	Unrestricted	Controlled	Unrestricted

TABLE 6-1 (Continued)
COMPARISON OF FREE ZONE INVESTMENT INCENTIVES IN SELECTED DEVELOPING COUNTRIES

	Taiwan (EPZ)	Singapore (Science Park)	Hong Kong	Malaysia (EPZ)	Philippines (EPZ)
Corporate Income Tax Abatement	Optional 100% exemption for 5 years; otherwise 20% tax on corporate income	33% tax on corporate income	18% tax on corporate income	95% exemption for 5 years	35% tax on corporate income
Capital/Profits Repatriation	No restrictions	No restrictions	No restrictions	No restrictions	Subject to the availability of foreign currency
Duty Treatment for All Imports and Exports	100% exemption	100% exemption for most items	100% exemption	100% exemption for most goods	100% exemption
No. of Days To Receive Approval	10-30	30	1	Not available	10-30
Tax on Dividends	20% tax	100% exemption	100% exemption	10% tax	35% tax
Restrictions on Foreign Ownership	None	None	None	None	No foreign ownership of land
Sales To Local Market	2% of total output	N/A	Unrestricted	20% of total output	2% of total output
Management of Foreign Currency	Unrestricted	Unrestricted	Unrestricted	Not Available	Priority in exchange of foreign currency

6.22 Likewise, as proposed in the law, capital goods and equipment, spare parts, and other imports integral to the initial investment, operation, and maintenance of an export production facility (or the zone itself, in the case of a zone developer) are exempt from import duties in perpetuity. This represents a departure from the current practice in Belize, where for some items, such as spare parts, the imports are not accorded duty-free treatment. Although they are given duty-free treatment in other free zone regimes, motor vehicles and fuel are not granted this treatment in the free zone law because their use is difficult to regulate and monitor [**FZL, Section 10 (b)**]. Should the Government so desire, duty-free status could be accorded these items; development concessions granted in the past have encompassed business-related vehicles. Likewise, in several zone-sponsoring countries, zone users are permitted to import a specified number of vehicles for the use of their managerial staff or permitted to import commercial vehicles (worker buses, trucks, mini-vans, etc.) but not vehicles for personal use. The regulation of fuel consumption, conversely, is more difficult to achieve and may pose recordkeeping requirements too burdensome to implement.

6.23 Zone exports are also accorded duty-free treatment under the law, which represents no departure from current practice accorded firms producing under development concessions [**FZL, Section 10 (f)**]. The exception, of course, as stated above, is zone sales to the domestic market. Exoneration from import and export duties is extended in perpetuity to free zone enterprises. This is a fundamental element of the incentive package and (as can be seen in Table 6-1) is standard throughout the free zone community worldwide. Firms considering alternative zone locations generally assume that duty relief will be granted and any program which provides only partial exemption, or in which the exemption is phased out over time, will not be competitive.

6.24 In addition, no quota restrictions, import prohibitions, or other restrictions on zone goods are imposed under the free zone regime, except for illegal activities, firearms, etc. As stated above, zone products which enter the domestic Belizean market would be subject to all generally prevailing restrictions. [**FZL, Section 10(c)**].

2. Tax Relief

6.25 **Free zone firms should be granted a 10-year holiday on all business taxes** [**FZL, Section 13**]. Free zones typically include partial or total relief from direct taxation on profits for varying periods as part of their incentive package. Some zone locations, not otherwise tax havens, offer freedom from profits tax to zone industries in perpetuity. Others impose low nominal tax rates on free zone firms, with or without an initial holiday. As set forth in the draft law, the Belizean free zone regime would include a

ten-year holiday on income and capital gains taxes, or any new business taxes adopted by the Government of Belize during the holiday period. Free zone businesses would not be exempt from payroll related taxes (social security, workers compensation, etc.).

6.26 In addition, the law includes a provision for the carry-forward [FZL, Section 13 (c)] of any net loss incurred over the tax holiday period to be deducted against profits earned in the years following the holiday. This provision may prove attractive to zone developers that may not show a profit on their investment within the first ten years of operation, thereby encouraging additional private long-term investment which might not otherwise take place.

6.27 **Free zone firms should be exempt from dividends tax, property tax, transfer taxes, and sales-related taxes in perpetuity [FZL, Section 13].** A perpetual tax holiday on dividends is a standard provision in the free zone incentives packages of programs throughout the region -- the Dominican Republic, Costa Rica, El Salvador, and Guatemala, among others -- and is in keeping with GOB policy and prevailing legislation. Freedom from property taxes, sales taxes, and miscellaneous local taxes is also practiced in many successful free zone regimes.

6.28 Table 6-1 includes information on the tax policies of other free zone programs. In the table, it can be seen that the countries which have successfully imposed profits taxes are generally established offshore production centers. Although the tax holiday specified in the law is of longer duration than that generally accorded to non-agricultural enterprise under the Belize Investment Code, ten years is the regional average and is strongly recommended as the duration. New entrants such as Belize need to be competitive in order to attract investors.

6.29 In considering the issue of the zone tax regime it must be borne in mind that from the Government's perspective free zones are not generally intended to be direct revenue-generators: their value is realized in the form of increased employment and foreign exchange earnings, which indirectly bring substantial financial benefits to the economy. Realistically, therefore, since multinationals can easily limit their tax liabilities in any given location, a generous tax policy is not really a "giveaway" of government revenue to any significant extent. For domestic businesses, the prospect of income tax relief is an inducement to become involved in export activities, thereby multiplying the economic benefits accruing from their industrial operations.

3. Labor Regulations

6.30 **The principles of the Belize Labor Act should be adhered to, with access to a defined number of expatriate work permits and**

streamlined personnel procedures made available to each firm [FZL, Section 14]. Labor regulations in free zones generally do not differ from those prevailing in the country at large. The few countries which restrict union activity or maintain lower minimum wages in the free zones, such as the Philippines, have been criticized for effectively creating two classes of laborers and have created a stigma surrounding the free zones from the start. Although employed in a free zone milieu, there is no acceptable rationale for differential treatment of zone workers. Labor is an important domestic factor utilized by free zone companies, and should be accessed on the same terms applying to non-zone firms.

6.31 The Belize Labor Act contains provisions to ensure that workers' rights are respected and that standards governing the terms of employment are observed. Current practices in the implementation of the Labor Act provide for hiring expatriate managerial and technical staff, although the intention is to limit expatriate employment to those jobs where capable personnel are not available locally and to encourage the gradual assumption of these positions by Belizean nationals. Although expatriate management and technicians normally have no problem in securing work permits upon application to the Ministry of Labor, the procedural requirements can be lengthy, and approval is not a certainty.

6.32 In this context, guaranteed eligibility for expatriate work permits for managerial and technical personnel has been included as part of the free zone incentive package. In addition, the law states that up to 20 percent of the remaining (i.e. non-managerial or technical) employees of each free zone firm can be expatriates **[FZL, Section 14 (f)]**. Alternatively, the number could be defined in absolute terms, i.e. a specific number of foreign employees for each firm. In either case, the permit should be automatically available upon qualification as a free zone firm. Additional expatriate permits could be made available through the standard application process with the Ministry of Labor.

6.33 As proposed in the law, expatriate employees of free zone businesses would be exempt from personal income tax in Belize, provided they were liable for payment of such taxes in their home country. Individuals not liable for such tax in their home country would be subject to the tax laws of Belize, but would be allowed a 50 percent exclusion of such income for the purpose of calculating income tax liability **[FZL, Section 14(h)]**. It is expected that all other basic provisions of the Labor Act, such as the minimum wage, social insurance contributions, standard leave and vacation policy, etc., would apply to all free zone designated companies.

6.34 The free zone labor regime will allow free zone firms to bring in the qualified professional personnel needed to make their plants operational. In addition, it will provide for controlled access to foreign labor for the "line" or production workers, if

required. These workers would be required to be legally in the country under a temporary worker arrangement as established by the Government of Belize.

4. Regulation of Foreign Exchange

6.35 **Free zone firms should be provided unrestricted access to foreign exchange [FZL, Section 12 (d)].** Ready access to foreign exchange is one of the most important features of the free zone structure. It is essential that freedom from foreign exchange restrictions be codified in the free zone incentives. All firms operating under the free zone regime will be generating foreign exchange earnings; restrictions on their transactions will not act to conserve foreign exchange. They will, however, seriously hamper export business operations which are highly dependent on timely remittances.

6.36 Toward this end, the law provides that free zone firms shall be allowed to maintain foreign currency accounts in banks in Belize. This is a provision that is not presently offered to firms operating under development concessions and will represent a policy departure for the Central Bank. If this is not deemed to be feasible by the Government of Belize, alternative wording could be used in the law to ensure the availability of foreign exchange, e.g. "Free zone firms shall be guaranteed immediate access to foreign currencies for their import needs by the Central Bank of Belize," with the implementing regulations specifying that zone businesses will receive the finds requested within three business days after the presentation of commercial invoices. Of the two alternatives, the first is recommended to provide a competitive framework for zone investment.

5. Price Controls and Licensing Requirements

6.37 **Free zone firms should be free from government restrictions imposed on general business activity, providing that they comply with the terms of the Certificate of Compliance [FZL, Section 12(a-c)].** In order for the free zone program to operate effectively, the Certificate of Compliance (and expatriate work permits) should be the only documentation that is required to do business as a free zone firm. No licensing requirements are imposed under the law on the production or equipment inputs of free zone businesses, or on the export of their products. Likewise, price controls, rent controls, and other mechanisms which inhibit the free operation of zone activity do not apply. These provisions are crucial to the effective management and operation of the zone enterprise.

6. Repatriation of Capital and Dividends

6.38 **Initial capital invested by foreign free zone firms and dividends generated should be freely transferable [FZL, Section 12 (e)].** Free repatriation of capital and dividends by foreign firms and individuals is currently guaranteed under the Belize Investment Code. Consequently, changes in government policy are not required to extend this benefit to foreign investment in zone businesses. The mechanisms for facilitating free repatriation will need to be specified in the provisions of the foreign exchange regime, as established by the Central Bank, to ensure that such transactions are handled expeditiously. It should be noted that Belizean investors in free zone businesses would be subject to all normal restrictions on capital export.

7. Sales to the Domestic Market.

6.39 **Zone firms should be permitted to sell a minimal amount of their output to the domestic market [FZL, Section 9 (c)].** For many of the products likely to be manufactured by zone firms, there will be little or no domestic market. Nevertheless, there is still a rationale for permitting sales to the domestic market in certain cases and only as a byproduct of normal export operations, as noted earlier in this chapter. The control measures applied to goods imported for use in free zone operations require that they all be accounted for; any finished goods which are defective or may not otherwise meet export market standards (odd lots, irregulars, etc.) will need to be either exported or destroyed under Customs supervision. In cases where these goods can be sold domestically, the country will benefit if such items are allowed to be imported from the zone, after full payment of duties and other taxes. In addition, the firms will earn a small revenue from their sale, rather than incurring the expense of re-exporting or destroying them.

6.40 Normally, free zone firms operate under substantially more favorable conditions than local firms producing for the domestic market, and direct competition between the two would be inequitable. To the extent that domestic producers continue to operate in an environment less favorable than that codified in the free zone regime, the importation of zone-produced competing goods should be evaluated carefully by the MED. Where there is no unfavorable impact, the importation may be considered. Steps should be taken to ensure that the firm is principally producing for export, i.e. domestic sales would constitute only a small percentage of annual output. It is recommended that the GOB allow free zone firms to sell to the local market on a case-by-case basis. This provision will act as an additional incentive for foreign firms to operate in Belize, while also bringing some benefits to the Belizean economy in terms of the availability of goods.

6.41 The law, as drafted, does not specify what portion of the total production could be sold on the domestic market by zone firms that have obtained MED's approval. If desired, a percentage can be determined and included in the law. As shown in Table 6-1, the allowable percentage of domestic sales by zone industries varies greatly from country to country. In Costa Rica, for example, up to 49 percent of total production by free zone firms can be sold on the domestic market, subject to normal duties and licensing requirements. In the Dominican Republic there is a 20 percent ceiling, Honduran zone users have unlimited access, and in Jamaica and Barbados no local sales are permitted.

8. Relationship of Domestic Businesses to Free Zone Firms

6.42 **All sales by domestic Belizean businesses to free zone businesses should be treated as exports [FZL, Section 11].** If the primary goal of the Government in establishing a free zone program is to stimulate domestic economic growth, one of the most important steps that can be taken in that direction is to facilitate and support the creation of linkages between the free zone community and the local economy. This is a difficult task to accomplish, given that traditionally zone users rely on the import of raw materials and intermediate products which are then processed and re-exported. However, to the extent that local sourcing by zone users is developed, it can multiply the economic contribution of the zone. By treating local inputs to zone activity as exports, they are thereby made eligible for all incentives accorded to exporters under Belizean law, whether they are finished products (office supplies, packaging materials, furniture, etc.), raw materials (produce, forestry products, etc.) or intermediate goods. In this way, the establishment of local supply relationships by free zone firms is encouraged, furthering the integration of domestic production in the global market.

9. Alternative Provision of Basic Services

6.43 **Free zone developers should be allowed to provide or contract the private provision of basic services within their facilities [FZL, Section 7(d)].** Belize is sorely in need of improved basic services and infrastructure. The high cost of power, for example, is widely recognized as being a powerful deterrent to the growth of the industrial sector. Likewise, in many parts of the country, the publicly provided waste treatment systems are inadequate. It seems practical, therefore, to encourage the alterative provision of these services, in a controlled environment such as a free zone facility, should there be interest in such an arrangement on the part of private service providers.

6.44 Not only will the users of the free zone benefit from such an arrangement through less expensive and higher quality services, but it can relieve the Government of the financial burden of providing these services. Recently drafted free zone laws in Uruguay, the Dominican Republic, and other developing economies have included provisions such as this one, recognizing the benefits to be gained on all sides.

6.45 In the area of telecommunications, for example, private satellite earth stations, or "teleports," have been established in free zones in Jamaica and the Dominican Republic which offer users high-quality voice and data transmission lines at prices far below those prevailing outside the zone. In India and Mexico, teleports have been established as part of "Build-Transfer" agreements, through which private investors finance and install the facilities. Upon completion, the facility is turned over to government authorities. In this manner, the public sector retains control over the provision of the service, while the investors benefit from the cost-savings provided through lease of the low-cost telecommunications lines. Such agreements have also been forged for port construction, power generation, and other infrastructure development projects.

6.46 This is a potentially controversial provision of the law and the Government will want to carefully weigh its implications. It is not essential to the successful development of a Belizean free zone program. However, it is also evident that if Belize truly wishes to compete with the already well established free zones in the region, every avenue toward improving the investment conditions in the country merits thoughtful consideration.

10. Application Procedures for Free Zone Businesses

6.47 **Procedures for designation as a free zone business should be straightforward, and the review and processing of the application should be expedited by the GOB [FZL, Sections 5 and 8].** The law and implementing regulation also set forth general procedural aspects of the free zone regime. While these will be discussed in detail in the following chapter, it is important to note here that the key to the implementation of the program and its incentives lies in the automatic and straightforward nature of the application and approval process. In this light, the law specifies that firms applying for Certificates of Compliance will receive notification of approval or denial within thirty days of submission of the completed application form. For applications for zone designation, a 60-day period is specified. The legislation also contains a default mechanism whereby non-action by the GOB within the specified time period will result in automatic approval in each case.

6.48 Legally mandated deadlines for government decisionmaking have worked well in other countries as a way to facilitate processing and have not jeopardized the thoroughness of the review. In the processing of applications for a Certificate of Compliance, the investigations required to determine if a business is legitimate and qualifies as an export industry are not extensive. For potential free zone developers, greater scrutiny is needed, but two months is a sufficient review period unless fundamental problems are discovered in the proposed zone project.

6.49 In addition, the fee charged for application should be nominal, instituted only to cover the processing of the documentation rather than to be a source of revenue to the government. The implementing regulation recommends a US$500 maximum charge for both free zone users and developers, an amount sufficient to establish that the project is serious, but not so large as to dampen investor interest. The objective of the free zone regime is to stimulate new investment and export expansion. For Belize, which has little track record in export manufacturing, it is in the country's best interest for the Government to remove, rather than introduce, obstacles to investment as constituted by a substantial application fee.

6.50 The codification of the regulatory regime is of little use unless streamlined procedural measures are developed to implement the free zone legislation effectively and efficiently. In addition to reviewing the organizational implications of the provisions outlined above, the following Chapter addresses the concrete steps that should be taken by the Government to ensure that the program is supported institutionally and that the benefits of the free zone program are fully realized.

* * *

6.51 The basic principles of the free zone regime proposed for Belize are summarized in Table 6-2 below, and are compared to the export incentives program presently in place. As outlined, these incentives make up an attractive and workable regulatory framework, competitive with successful free zone programs worldwide, while protecting and promoting the national interest. While in some cases the provisions of the law go further than the existing development concessions system, the free zone regime is consistent with the Government's current economic policies supporting export development and diversification, and an increased role for the private sector in the economy.

TABLE 6-2

COMPARISON OF EXISTING EXPORT INCENTIVES SCHEME AND PROPOSED FREE ZONE REGIME

	Development Concessions /1	*Free Zone Incentives*
Eligibility Requirements For Incentive Regime	Case by Case Foreign & Domestic Origin	100% Export Firms Zone Developers Foreign & Domestic Origin
Application Review Period	60-90 Days	30 Days for Zone Users 60 Days for Zone Developers
Income Tax Treatment	2 to 10-Year Tax Holiday (Up to 15 Years for Agriculture Projects)	10-Year Tax Holiday
Capital/Profits Repatriation	Guaranteed	Guaranteed
Management Of Foreign Currency	Semi-Controlled	Independent Foreign Currency Accounts Permitted
Duty Treatment For Imports	Case by Case Exemption On Production Imports and Most Capital Equipment	Automatic 100% Exemption In Perpetuity On All Imports (Excluding Vehicles & Fuel)
Duty Treatment For Exports	Case by Case Exemption	Automatic 100% Exemption In Perpetuity On All Exports
Customs Service	Point of Entry Or In-Bond Transit	Expedited On Site
Alternative Provision Of Infrastructure/Amenities	No	Yes
Preferential Access To Expatriate Work Permits	Case by Case	Guaranteed
Sales to Local Markets	Case by Case	Case by Case

/1 Incentives presented reflect MED Development Concessions program and general provisions of the Belize Investment Code.

VII. ADMINISTRATION OF THE FREE ZONE PROGRAM

7.01 The key elements of the proposed free zone regime for Belize, as described in the preceding chapter, together make up a framework for zone development and operation that will be attractive to foreign and domestic businesses and competitive with free zone programs elsewhere in the region and the world. However, the administration of the free zone program, its operational design and practical implementation, is equally important to its success. This is an area where zone-sponsoring governments often fall short of their stated objectives.

7.02 The purpose of this chapter is to present and discuss the key operational aspects of the proposed free zone regime. These procedures are outlined in the Free Zone Law, and expanded upon in the Implementing Regulation (Annex A). In reviewing these documents, the Government of Belize may differ with the suggested procedures, designation of responsibilities, or specific provisions. Such elements of the legislation can, for the most part, be modified without altering their intent. Those cases where any substantive changes by the GOB in the procedures recommended would be strongly discouraged are noted below, and the reasons for this substantiated.

A. CURRENT INSTITUTIONAL RESPONSIBILITIES

7.03 At present, there are several different Ministries and GOB offices involved in the regulation of foreign investment, the administration of development concessions, and the associated control and monitoring of export activities. Likewise, the successful establishment and implementation of a free zone program in Belize will require their cooperation and, to the extent possible, the integration of their activities.

Ministry of Economic Development receives and processes applications for development concessions, monitors the performance of firms under the concessions, and advises the Government on policy issues related to economic planning and development.

Ministry of Finance reviews applications for concessions received by the MED, and houses the Belize Customs Service which is charged with the monitoring and control of import and export activity.

Central Bank maintains a registry of foreign investors, authorizes all foreign exchange transactions and is responsible for the overall regulation of the banking industry in Belize.

Ministry of Natural Resources issues licenses for land purchase to foreign firms and individuals, as required under the Aliens Landholding Act, and represents the Government with regard to environmental concerns related to land development.

Ministry of Labor regulates labor practices in Belize under the Labor Act, including employee wage and benefits policies and the authorization of expatriate work permits.

The various responsibilities discharged by these institutions should be centralized to the greatest extent possible, so as to minimize the time required to process applications for both free zone and zone user designation, as well as to improve the operational efficiency of the free zones and their resident businesses by expediting their interaction with the Government of Belize in their day-to-day operations.

7.04 The effective implementation of the free zone program will require a full commitment on the part of each of the Government agencies and offices involved. For example, the efficient clearance of zone merchandise by the Customs Service, ready access to foreign currency requirements through the Central Bank, expeditious transshipment of zone goods through the facilities of the Port Authority, are all integral to the smooth functioning of the free zone regime. The concept of streamlined government procedures is crucial to the establishment of a competitive program and must be codified at the earliest stage of its implementation. The attractive investment incentives and economic factor endowments of a host country can be effectively offset by needlessly complicated or lengthy processing requirements. The framework for implementation and the key activities involved are discussed below.

B. PROPOSED CHANGES TO THE INSTITUTIONAL FRAMEWORK

7.05 Based upon the experiences of the most successful free zone programs worldwide, the optimal mechanism to employ in program implementation is the "one-stop-shop," in which a single agency or office is granted the authority to expedite and authorize all investment and operational matters related to zone users and developers. Based on interviews with representatives of the Government of Belize, the establishment of such an office is not feasible at this time. On the other hand, the procedural requirements of the administration of investment concessions in Belize have proven to be problematic and it is not recommended that a similar system be utilized in the free zone regime.

7.06 The workings of the application review and approval process, like the contents of the free zone legislation will be the determined by the Government. It is not the intention, nor is it within the scope, of this study to specify the details of

administrative procedures. However, based upon the investigations and analyses conducted, several conclusions can be drawn with regard to the implementation of a free zone regime in the Belizean context:

- no one office will be granted autonomous authority to regulate zone user and developer activity;

- the Government has limited resources available to dedicate toward the implementation and administration of the free zone regime;

- the MED appears to be the most appropriate Government agency to administer the program; and,

- the regulatory process by which development concessions are now extended and monitored should not be used as a model for the free zone program.

7.07 Recognizing these factors, the regulatory framework established for the Belize free zone regime should retain the individual authority exercised by various government offices under the present system, while simultaneously expediting the designation procedures for zone businesses through the MED. In this light, the following regulatory framework is proposed, and is reflected in the general structure set forth in the Free Zone Law.

7.08 The MED should establish an office which will serve as the primary Government contact for potential and operating zone businesses. For discussion purposes this office is referred to as the Free Zone Office of the MED (FZO/MED) in the following text. As the Government office administering the program, the FZO/MED will be called upon to facilitate the interaction of zone users and development groups with other government offices within the overall regulatory framework. Although it will act as a liaison for zone businesses with these GOB agencies, it will not be delegated the authority to legally authorize zone development applications, requests for Certificates of Compliance, issuance of work permits, and the like, without the approval of relevant ministries, as outlined below.

7.09 A second institutional change is proposed and is established in the draft law. The implementation of the free zone regime will entail the creation of a new advisory group to supervise and guide the program's development. The law establishes a Free Zone Committee (FZC), a public/private working group, chaired by a MED representative, responsible for overseeing the development of the free zone program, and with the authority to designate new zone projects. The FZC will serve an oversight function with regard to the activities of the FZO/MED which in turn will be a technical resource to the Committee in its evaluation of zone developer applications.

7.10 The following discussion first summarizes the objectives and functions of the new entities, and then turns to the role of other GOB institutions in the administration of the free zone regime. Where applicable, relevant sections of the Law and Implementing Regulation are cited.

1. The Free Zone Committee

a. Objective

7.11 As proposed in the Law, the MED, in consultation with other interested institutions and individuals, will organize the Free Zone Committee.[**FZL, Section 4**] The institutional purpose of the FZC is to establish priorities in the development of free zones on the basis of national economic and social criteria, and to provide general guidance and support to the development of a free zone program in Belize. Its primary functional responsibility is to rule on applications submitted by organizations and individuals for free zone designations.

b. Composition of the Free Zone Committee

7.12 The Free Zone Committee's authority to approve applications by private and public free zone developers and to provide oversight to the workings of the FZO/MED requires that the interests of all government agencies concerned be represented. In addition, in order to ensure that the program addresses the needs of the business community, private sector representation in similar bodies has been productive in other countries and is highly recommended in Belize. It is therefore proposed that the Free Zone Committee be comprised as follows:

- one representative of the Ministry of Economic Development to serve as Chairman;
- one representative of the Ministry of Finance/Customs;
- one representative of the Central Bank;
- one representative of the Ministry of Lands; and,
- three representatives from the private sector (e.g., BEIPU, Belize Chamber of Commerce and Industry [BCCI], or other private individuals within Belize).

7.13 Several points should be made about the Committee's structure as proposed. First, the Government may wish to substitute agencies or offices other than those listed above, or to expand the Committee to include additional members, and clearly, the GOB representation on the FZC should reflect such Government priorities. However, it is strongly recommended that the GOB representatives be senior officials with the authority to speak for their agency, that the MED chair the Committee, and that the

Ministry of Finance be represented.[1] The Government offices proposed as members of the FZC are those which will play the key regulatory roles in the functioning of Belizean free zones. It is hoped that in the meetings of the Committee, consensus on procedural questions could be achieved which will facilitate zone operations. Significant private sector representation is also encouraged, with FZC members perhaps selected by the Board of Directors of BEIPU, the Belize Chamber of Commerce and Industry (BCCI), or similar organizations.

c. Functions of the Free Zone Committee

7.14 The seven-member Free Zone Committee will be charged with the authority to approve free zone applications and to oversee the activities of the FZO/MED, monitoring its operational performance, and reviewing and appraising its policies and procedures. The FZC should hold quarterly meetings during which the workings of the free zone regime will be discussed and the FZO/MED will report on its activities and any other developments related to the program. In addition, when an application for free zone designation is submitted to the FZC, the Chairman should be authorized to call a meeting at any time to initiate the application review process. (Designation procedures are discussed under Section C-2 below.)

7.15 It is assumed that the FZC will have no staff of its own and, as discussed below, will therefore rely on the FZO/MED for the technical review of applications for free zone designation. The Implementing Regulation specifies the content of the application and a time period of 60 days for its review [**IR, Sections 2 and 3**]. Further procedural aspects must be defined by the Committee.

2. The Free Zone Office of the MED

a. Objective

7.16 The general objective of the FZO/MED is to ensure that free zone development be implemented effectively by achieving complementarity of effort among all concerned organizations. Accordingly, its overall responsibility is to administer the Free Zone Regime as embodied in the Free Zone Law and Implementing Regulation to achieve the following specific objectives:

- to integrate in a cohesive program the activities/projects of the GOB agencies involved in development;

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[1] The MED representative on the Free Zone Committee and the Director of the Free Zone Office of the MED should be two different individuals.

- to assure that resources are used in the most efficient manner and yield acceptable financial and economic returns;

- to ensure the viability of the zones and that their services and facilities conform to minimum prescribed standards; and

- to provide and maintain an environment conducive to private investment in zone development and zone industries.

From a practical standpoint, the FZO/MED should operate as a clearinghouse and facilitator for all matters related to free zones, as discussed below.

b. Regulatory Functions

7.17 Once established, the first objective of the Free Zone Office will be to expedite the approval of the Free Zone Act. When this has been accomplished, the FZO/MED's powers and functions will be legally enforceable and it will shift its focus to the area of administration and regulation.

7.18 The primary function of the FZO/MED will be that of a regulatory body. Contrary to common belief, the Office should not be responsible for developing and managing public free zone projects. A clear conflict of interest would result if the Office were to run it's "own" zones and approve and regulate other often competing zone projects.[2]

i. Applications for Certificate of Compliance

7.19 The regulatory function of the FZO/MED entails, most importantly, the review of applications for Certificates of Compliance and facilitation of their approval. The functions consolidated in this would include securing all national regulatory approvals needed by zone users, issuance of the Certificates, and monitoring the operations of the businesses once installed. The

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[2] This is the case in Costa Rica where the "Corporacion Zona Franca" [CZF] is the regulatory agency for all public and private zones and at the same time the agency responsible for the development and management of public zones. Having different priorities and policies in zone development, the CZF has on occasion discouraged otherwise viable private zone developments. The CZF is now being restructured to avoid this problem in the future.

FZO/MED would also review applications for free zone designation submitted to the FZC and make recommendations to the Committee with regard to their technical content.

7.20 As discussed above, the FZO/MED will not serve as a one-stop-shop in the sense of having the authority to rule on investor requests for designation as a free zone business or "special free zone." Instead, applicants will submit the documentation specified in the legislation [**IR, Section 4**] to the FZO/MED which will then review the application. If the FZO/MED finds the application to be complete and acceptable, the Director shall then forward the document to other GOB offices to secure their approval, including, the Ministry of Finance, Central Bank, Ministry of Lands, and Ministry of Labor. Each office will then have the opportunity to comment on the application in their respective areas of authority If no written comment to the contrary is received by the MED within ten days, it will be deemed to have been approved by these offices. As set forth in the legislation, within thirty days a decision must be reached to either approve or deny the application. (The contents and evaluation of applications for Certificates of COmpliance are discussed in Section C-1 below.)

7.21 There are several differences between the proposed procedure and the current practice with regard to MED's development concessions. The primary change is that one office, and in all likelihood, <u>one individual</u>, will personally facilitate the processing of the application. Under the development concessions, applications received by the MED are then re-submitted to several different ministries for an indeterminate review period often extending several months. For the free zone program, it is proposed that the FZO/MED will review and forward the application to each GOB office with its comments noted. Each office will then be given ten days to respond, if no written comments are received, the FZO/MED will assume that the application is approved "as is" and will issue a ruling on the proposed project. If problems or issues are voiced by an agency, the FZO/MED will work with the potential investor to resolve them. As set forth in the law, there is no requirement for publication of applications for Certificate of Compliance in public newspapers, although this could be done <u>simultaneously</u> if the GOB desires.

7.22 The procedure described above is outlined in the draft legislation, which states that applications will be submitted to the MED [**FZL, Section 8(a)**], the content of the application, [**IR, Section 4(b)**], the GOB offices authorized to review such applications [**FZL, Section 8(b)**, the ten-day review period accorded these offices [**FZL, Section 8(b)**], and the 30-day period allotted for a ruling by the MED [**IR, Section 5(a)**]. These provisions are strongly recommended as mechanisms to streamline the approval process, given the alternatives available.

ii. Applications for Zone Designation

7.23 With regard to applications by potential developers to establish free zones, the FZO/MED will play an advisory role to the FZC. Its function is to review the applications received in terms of their economic and financial viability and their potential socio-economic impact and report to the FZC its findings. At least initially, it is unlikely that there will be more than one or two requests for a free zone designation per year, and this duty will be secondary to that of facilitating and issuing zone user designations.

c. Other Functions

7.24 The primary responsibility of the FZO/MED will be in its role as facilitator of the regulatory aspects of the free zone program, as described above. Once the program (and individual businesses) is operational, the FZO/MED will continue to serve as the primary Government contact for firms availing themselves of the Belizean free zone program. In this respect, the FZO/MED will assist zone developers and users in their interactions with other government agencies to resolve any problems affecting zone operations. Finally, the Free Zone Office will play a promotional function, to the extent that it provides information to potential clients about Belize, and the free zone program in particular.

d. Organizational Structure

7.25 The Free Zone Office should be established as an office within the MED, staffed by a Director reporting directly to the Permanent Secretary or the Minister. This individual should be an experienced professional, preferably with a practical background in foreign investment and the export sector, and industrial real estate development.

7.26 Given the resource constraints of the MED, and the GOB as a whole, it is likely that initially this "office" will be one professional and a clerical assistant shared with other offices within the MED. Should the proposed free zone regime be implemented, however, the utilization of the MED's development concessions program by firms in the export sector is likely to diminish, to the extent that the free zone program is successful in attracting investment. In that event, the time and effort presently directed by the MED to that office could be re-channeled, at least in part, to the management of the free zone regime.

e. Future Organizational Growth

7.27 Over time, parallel with increases in workload, the Free Zone Office could assume a more formal structure drawing upon additional professional staff, each with clearly defined responsibilities:

- Approvals Officer for Certificates of Compliance and Zone Designations. The functions to be discharged would include facilitation of all regulatory approvals needed by zone users and developers.

- Technical Officer to respond to the technical assistance needs of zone developers and users and expedite government action for the resolution of procedural impediments to zone operations. This individual would coordinate and administer technical assistance to zone developers regarding sources of finance, locational analysis, physical planning, pre-investment studies, management and operations.

- Information Specialist to monitor the performance of zones and provide data in support of the marketing efforts of private sector promotional organizations. This unit would gather and analyze data regarding zone activities based upon the periodic reports submitted by the zone developers and their users. This information would be compiled and made available to local businesses to promote sourcing relationships between free zone firms and suppliers of local raw materials and support services. It would also be forwarded to BEIPU, the BCCI, etc., on a regular basis for distribution to potential investors and to be used for promotional purposes in relevant media.

7.28 As recommended earlier, the FZO/MED should not be involved in developing and managing public zones and will therefore not have a management/engineering unit. If the GOB wants to develop fully public free zones, it should do so under the aegis of other government agencies acting through an autonomous or a semi-autonomous zone development entity, as is discussed in Chapter 8.

7.29 Other administrative and procedural aspects of the proposed free zone program will center around three functional areas: the application process, Customs, and foreign exchange. These are the areas where the definition of the free zone program departs significantly from current practice with regard to development concessions and other mechanisms.

C. FREE ZONE APPLICATION PROCEDURES

1. Application for a Certificate of Compliance

7.30 The granting of substantial incentives and exemptions from existing government regulations and taxation always requires critical review by the responsible government agency or agencies. As discussed above, one of the principal objectives of a free zone regime is to simplify the investment process for export firms. To the greatest degree possible, the procedures for application and approval should be streamlined and clearly stated, i.e. with no unwritten or assumed criteria or requirements that are applied in an ad hoc manner. The application criteria and procedures for free zone user businesses will be frequently employed and should be relatively simple; those for authorization of free zone projects will be relatively infrequent and may require greater scrutiny. They are discussed separately below.

7.31 As 100-percent export operations, the character of the investments of firms applying for free zone status -- "Certificate of Compliance" -- will be relatively well defined, and require no more than a simple verification process: the purpose of the regime is to encourage investment in export industries, not to control and direct investment. It is unlikely that a proposed investment in the export sector would be denied, except on grounds that the investor would be violating Belizean law or was fraudulently representing himself.

7.32 The following elements of the investment approval process form the basis of the requirements for the free zone program, as set forth in the legislation [IR, **Sections 4 and 5**]:

- application to a single government office authorized to issue Certificates of Compliance under the free zone regime;
- simple application form;
- 30-day review period from submission of a completed application;
- explicit criteria for approval or denial; and,
- qualification for all incentives based on the one application.

7.33 The information requested includes basic data on the firm and the proposed project, and should be presented so as to be verifiable by the government in its evaluation of the investment project. There is normally no need for extensive elaboration of a market study or "feasibility study," particularly for foreign firms sourcing to the parent company or established markets. The following information should be sufficient to evaluate prospective projects [IR, **Section 4(b)**]:

- Name and domicile of all shareholders, including parent company;
- Equity distribution of shareholders;
- Financial references (commercial bank);
- Amount of proposed investment;
- Source of financing for fixed investment and working capital;
- Capital equipment to be imported;
- Description of production process and products;
- Principal markets for production;
- Principal imports and local sources of raw materials and intermediate goods;
- Number of jobs to be created and description of positions;
- Expatriate work permits required, with position description;
- Proposed location or facilities requirements; and,
- Any potential impacts of the project on the environment or on surrounding businesses.

7.34 The evaluation conducted by the FZO/MED will consist primarily of verification of the information presented. Projects would not be considered which were not intended 100 percent for export markets, or for which no or inadequate references were available for the principals involved. (Any sales to the local market would be upon special application to the FZO/MED, after establishment.) It is to be expected that firms will supply evidence of their capabilities to carry out the proposed investment, either through descriptive corporate materials, references, or demonstration of successful projects elsewhere. The evaluation by the FZO/MED then would consist of ensuring that the proposed investor was legitimate, that the products to be manufactured involved no problems of compliance with local laws or posed any other kind of threat.

7.35 In Belize, it is also very important that the application include information regarding the probable impact of the project on the environment. Government policy has placed an emphasis on preserving the wealth of natural resources and the superior quality of the environment that now characterizes Belize, and on careful investigation of the effect that any proposed development might have on the priority sectors of tourism and agriculture. While firms utilizing the free zones are most likely to be engaged in light manufacturing operations, any investments which would have a lasting, deleterious effect on the environment should be prohibited. In those instances where the GOB believes that determination of the potential impact of a given project on the environment is not possible based upon the information available, the law specifies that the GOB can request the applicant to finance and execute an Environmental Impact Assessment, in keeping with the relevant regulations as set forth in the laws of Belize [IR, Section 4(e)].

7.36 Approval of the user applications would be officially extended through the issuance of a Certificate of Compliance as a free zone business. This certificate would then serve as the basic document to present to Customs, the Central Bank, and any other Agency which may require evidence of free zone status. The certificate would be made in the name of the Belizean company which will be set up as an affiliate, or of the branch of the foreign firm. Normally, the procedures of incorporation or registration would be followed as they apply to any firm.

7.37 It is important to remember that in all respects the firm must comply with existing Belizean laws, and that the free zone status merely indicates that it is eligible for the incentives specified under the law. To the extent that concordance with other government agencies is required, for example in the issuance of expatriate work permits, this would be handled directly by the FZO/MED on behalf of the free zone firm. The Certificate of Compliance could be revoked at any time for violation of laws or regulations, including the provisions of the free zone law, or upon cessation or dissolution of the enterprise. The effective date of the certificate would begin the period of any tax holiday or other incentive which may be subject to an elapsed time period.

7.38 This approach to investment approval under the free zone regime represents a streamlined procedure designed to elicit the necessary information from prospective firms and maintain control over the qualification for the incentives by the government, without introducing the disincentive of unnecessarily complex and lengthy procedures. Once adopted, it could be modified at any time with the announcement of additional criteria required for qualification of new investments. It is likely, however, that the need to introduce any such criteria would only arise once the program was well established and began to introduce resource constraints or other problems.

2. Recommended Procedures for Free Zone Designation

a. Facilities for Multiple Users

7.39 In contrast to the procedures for approval of free zone enterprises or user industries where a relatively large number of applications can be expected to be handled on a more or less routine basis, the designation of free zone projects will involve the more deliberate planning and development of large, discrete projects. In this case, the preparation of a typical feasibility study will normally be required as part of the pre-investment planning. In many cases, the project will involve close coordination with the government, especially in the areas of acquisition of land and provision of infrastructure to the zone. However, this does not necessarily require that the designation of

the site as a free zone be contingent on all these other factors. The Free Zone Committee will need to evaluate the proposed project from the standpoint of its relation to an overall zone development strategy, any support requested from the government, and the general viability of the project. These considerations can normally be assessed from the following information, as specified in the legislation [IR, Section 2]:

- Physical master plan, showing overall layout;
- Proposed ownership and management structure;
- Construction schedule;
- Estimation of demand; market/sector orientation;
- Capital cost estimate and financial projections; and,
- Leasing/sale arrangements and proposed rates.

7.40 This information should be submitted to the FZC by each applicant for zone designation, in accordance with a framework established by the Committee [IR, Section 2(b)]. In addition, it is recommended that the applicant submit verifiable evidence of either ownership or a lease option of the land to be developed [IR, Section 2(e)]. In the case of leasing of the zone property, the applicant need not have entered into a formal contract, given that his interest in leasing the property is likely to be directly linked to receipt of the FZC's approval. The applicant should, however, be able to demonstrate that he has a legally valid option on the site, for a minimum of a thirty-year lease.

7.41 With regard to environmental considerations, as mentioned above, the free zone projects that are developed in Belize will likely be oriented toward light industry with standard facilities and services requirements and a minimal impact on the environment. However, it is important that basic analysis be conducted by the developer to determine the site's soil conditions, hydrology, vegetation, area land use and infrastructure availability, to assess whether there are any characteristics that would preclude its development as an industrial, office or mixed-use facility.

7.42 In general, factors such as these should be assessed as part of the engineering and technical studies conducted in pre-investment analysis, the findings of which will be presented in the application. During its review of an application, the FZC may decide that the effect of the project on the environment would be unfavorable or that additional investigation is required to determine its impact. In such case the applicant would be given the opportunity to conduct further analysis or rectify the shortcoming. [IR, Section 3(a)]. Ultimately, if no resolution were reached, the project would be rejected.

7.43 As discussed in the preceding chapter, the legislation also provides the opportunity for the alternative provision of basic services/infrastructure within a free zone complex [FZL, Section 7(c-d) and IR, Section 6(a-c)]. For those applications which

include such a proposal, the FZC will require adequate demonstration of the capabilities of the development group, and/or its co-venturers in the delivery of such services, to successfully fulfill the requirements of the project as designed, in a manner which is in keeping with national standards and regulations. Such arrangements should be encouraged by the Government, and viewed favorably by the FZC to the extent that they reduce the drain on government resources and improve investment conditions. If a development group has a demonstrated ability to generate its own power, for example, at a cost savings to the zone tenants, this would remove what is now a powerful disincentive to investing in Belize within the confines of that free zone project. The legislation states that, in addition to the Free Zone Committee, the public service provider would also need to approve any such arrangement. The mechanics of the approval are not set forth and would have to be established by the GOB.

b. Special Free Zones

7.44 Special Free Zones are not subject to the zone designation procedures described above. Instead, as single-user zone facilities, they must meet the requirements set forth for firms seeking to receive a Certificate of Compliance, as described in Section C-1 [**FZL, Section 5(e)**]. One important element of the law that should be emphasized here is that firms do not have to "justify" a request for a special free zone designation, but rather can operate at "locations of their choosing." While frequently the concept is employed when a firm's operation is linked to a specific site in terms of its raw material requirements, proximity to transportation, or other locational considerations, it can also apply to export firms that are already operational, for example, and simply wish to avail themselves of free zone benefits without giving up their existing facilities. All special free zones are, however, subject to special operational requirements that do not apply to free zone users, specifically with regard to their interaction with Customs authorities. These are addressed below.

D. FREE ZONE CUSTOMS PROCEDURES

1. Relationship of Customs to the Free Zone Concept

7.45 Traditionally, governments have a fundamental right to control or prevent the transfer (that is, the "entry" or "importation") of merchandise into their countries for three basic reasons:

- to protect local industries;
- to collect revenue; and,
- to obstruct the entry of undesirable merchandise.

7.46 Government authorities usually establish the geo-political borders of the nation as the boundary over which merchandise cannot cross without government permission; these boundaries establish an area which is known as the "customs territory" of the country. Any merchandise which enters this customs territory from outside (foreign) sources is subject to the control of the government and the assessment and collection of duty and import taxes, if any, are due according to national legislation. Although the customs territory of a country is often a physical area -- usually the country as a whole -- it is also an abstract concept that can be, and often is, defined according to each government's philosophy.

7.47 Free zones, as defined by many governments, are areas declared to be "outside national customs territory."[3] Consequently, foreign merchandise entered into these zones is not considered imported into the country's customs territory and, therefore, not subject to duties and import taxes. In this manner, governments have established free zones without surrendering their rights and powers to control merchandise crossing their borders.

7.48 With the elimination of the need to collect duty and import taxes on merchandise entered in zones outside the customs territory of a country, the government's responsibilities to monitor and control such merchandise becomes significantly different. For example, since duties and import taxes are not to be collected, there is less need for detailed statistics concerning the quantity, description and value of the merchandise -- the basic information which usually determines the amount of duty and import taxes. Accordingly, associated documentary requirements and procedures can be revised, and, in many cases, reduced to meet the specific needs of free zone operations.

7.49 Similarly, because free zone operations are generally instituted to produce merchandise for export rather than for domestic sale, local producers of similar merchandise are not subject to harmful competition and customs procedures for domestic protection become less essential. This does not mean that there is not a need for government control of merchandise entering and leaving a free zone. Customs supervision is necessary to assure that merchandise is truly entered into the zone and not improperly diverted into domestic commerce. Similarly, information will always be needed to identify merchandise transferred and withdrawn

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[3] This is the concept set forth in the Belize legislation **[FZL, Section 3(a)]**. A correlation to this idea is an unofficial belief, that for some purposes, a free zone is foreign territory and, therefore, not subject to some of the laws and regulations applicable to domestic operations.

from free zones.[4] However, the government's treatment of free zone merchandise and operations should reflect the inherent differences between free zone activity and general commerce in the regulatory procedures employed.

2. Preferred Customs Operating Procedures in Free Zones

7.50 Governments usually adopt stringent procedures to control merchandise entering the customs territory of the country. These controls involve physical restraints and examinations, extensive documentary requirements, government approvals, and similar measures to assure that merchandise to be imported is legally allowable and that revenue is properly determined and collected. These procedures, necessary as they are for the control of merchandise entering the customs territory, are in some ways inconsistent with a free zone operation. In the development of a customs program for a free zone, three features are essential:

- rapid physical transfer of merchandise;
- reduced documentary requirements; and,
- flexible physical controls during processing.

As described below, these elements are those most required by free zone operators and users and, when satisfactorily implemented, make a significant contribution to the success of free zone operations.

a. Rapid Physical Transfer of Merchandise

7.51 The traditional customs merchandise control -- physical restraints and examinations, extensive documentary requirements and wide-ranging intra-governmental review and decisionmaking -- contribute to extending the time required to ship merchandise to its final destination which is of critical concern to free zone operations. Zone users are often located far from their suppliers and buyers and are already faced with extensive shipping times, even without the delays induced by complicated customs procedures. In other instances, free zone businesses are producing merchandise subject to time sensitive shipping schedules which, if not met, can result in non-sellable merchandise with a corresponding serious financial loss to the manufacturer. Accordingly, the use of government procedures which add to the time required to ship merchandise to and from free zones is an aggravation and will

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[4] The usual reasons for free zone information includes: the development of statistical information to measure the economic impact of zone operations and to assess duty, taxes and penalties when merchandise is missing or is indeed transferred to the customs territory when allowed by law and regulations.

significantly hinder the development of a successful zone operation.

b. Reduced Documentary Requirements

7.52 Reducing documentary requirements -- requiring fewer documents with less information -- expedites the shipment of zone merchandise and increases the efficiency of zone-based businesses. The zone user requires less time to prepare the documentation, and can therefore quickly respond to government requirements in cases where there is little advance notice of merchandise shipments. Moreover, customs can clear the merchandise more rapidly because there are fewer documents to examine and, generally, fewer individuals involved in the process.[5] Given that free zone operations require less comprehensive controls than do regular importations, simplifying the documents involved is an obvious technique to expedite merchandise shipping schedules.

c. Flexible Physical Controls during Processing

7.53 Since free zone merchandise does not enter the national customs territory, stringent physical controls and direct customs supervision are not necessary while the merchandise is in the zone. As a result, the free zone user is able to freely move the merchandise from inventory to manufacturing, manufacture it into a new product, and otherwise manipulate or process it as required without direct government supervision and permission.[6] This facilitates the effective execution of what are often time-sensitive operations and relieves government personnel from tedious monitoring of merchandise operations, allowing them to devote their attention to revenue collection matters.

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[5] Governments have discovered that a hidden advantage to the feature is the ability to divert personnel to more revenue critical matters such as examination and documentary review of merchandise to be imported into the customs territory upon which duty and taxes are due.

[6] This differs significantly from operations involving "Customs warehouses" where imported merchandise can be temporarily stored without the payment of duty and taxes. In order to move or process the merchandise, documentation must be submitted and government permission be obtained for each individual action. In some cases, government personnel must witness the operation.

3. Customs Control Concepts

7.54 In order to reconcile the needs of government -- to control merchandise entering the customs territory -- with the apparent conflicting needs of free zone operators/users for flexibility and speed in merchandise movement, governments have re-evaluated their customs control procedures with regard to entry and exit of zone goods. If adequate control is exercised over these two matters, free zone operations can be carried out with a minimum of merchandise diversions into the domestic economy and resulting loss of revenue. Customs organizations commonly rely on three techniques to monitor and control free zone operations: (i) physical control; (ii) recordkeeping and reporting procedures; and, (iii) third party guarantees. Additionally, Customs organizations are using computerized recordkeeping systems to help manage the vast volume of information associated with free zone merchandise movements and, thereby control free zone merchandise.

a. Physical Controls

7.55 Customs control over free zone operations is traditionally based on direct physical controls - fenced, guarded geographic areas monitored by Customs or other authorized security personnel who control the flow of merchandise to and from the facility. This control is directed to assure that zone merchandise is indeed shipped to the zone and that it does not depart from the zone without proper authorization. With adequate physical controls, there is little need to monitor the physical movement of merchandise while it is in the zone.

b. Recordkeeping Controls

7.56 A physical control system is appropriate when a free zone is a specified geographic area occupied by a number of zone users. However, alternative control concepts become necessary when free zone operations are authorized at separate locations for single users (Special Free Zones). In such cases, Customs is faced with burdensome manpower requirements when there are a large number of such operations. In the absence of available manpower, alternative techniques include the use of "recordkeeping" requirements in which Customs gives the private zone user responsibility to act as an agent of Customs in the safeguarding of zone merchandise through physical controls (fences, guards controlled access), the maintenance of inventory records and the submission of periodic reports of zone operations. Backup controls are provide by periodic Customs examinations and inspections of zone inventory and records. In larger factories, a Customs agent can be permanently available; in such cases all associated costs are borne by the owner/operator of the Special Free Zone.

c. Third-Party Guarantees

7.57 The use of third party guarantees or "bonds" is another control feature used to assure that importers comply with government regulations and to protect the government against the loss of revenue when violations occur. In these cases, the government requires the importer (or free zone user) to purchase a guarantee or bond from a third party, usually a bank or insurance company. The guaranteeing third party agrees to reimburse the government for losses in revenue resulting from the failure of the importer to comply with law and regulations. Guarantees are particularly effective in Special Free Zones when the government allows free zone operators flexibility and freedom to manage their own activities with a minimum of direct government supervision.

d. Recordkeeping Computerization

7.58 Computers, with their ability to process a large volume of information in a short period of time, are rapidly becoming a highly efficient tool for many customs operations around the world. This is particularly true for operations that require retention of information over a period of time. For example, computers are highly effective tools to retain information and quickly determine the status of merchandise under temporary admission procedures, stored in bonded warehouses, and under international inland transportation which have not yet cleared final Customs processing.

7.59 Obviously, free zone operations are a logical choice for computer recordkeeping procedures. Computers can be used to record inventory entering or departing a free zone and to provide a record of inventory which is remaining in the zone. This same data also helps Customs plan and verify periodic examinations and inspections of inventory in the free zone. Finally, computerized records provide an organized, readily available source of statistics concerning free zone activities and merchandise operations. Recently, some countries have allowed free zone operators/users to maintain computerized recordkeeping systems that meet government requirements for information and control. Free zone operators and users develop computerized systems for their own internal business uses and the additional government requirements are usually of minor impact on their overall operations. In such cases, the system information is used by <u>both</u> the government and the operator/user for free zone management. The government benefits through the meaningful use of computer data without incurring the cost of equipment and development efforts, which in this case are borne by the zone operator/user.

7.60 A highly innovative practice now employed in some countries is to allow free zone operators/users to use their systems to maintain the <u>official government records</u> of free zone operations.

In such cases, the government does not maintain detailed inventory records of free zone merchandise and relies on the information available through the free zone computers and periodic summary reports submitted by the free zone operators/users. Of course, the government allows such flexibility only to those businesses who have consistently demonstrated their competency and trustworthiness.

4. Proposed Enhancements to Customs Procedures to Meet Free Zone Requirements

7.61 A Belize free zone customs regime can be developed by combining many existing procedures and practices into a single system that will provide operating personnel with familiar procedures, but which will contain modifications and enhancements to meet the unique requirements of zone operations. The following modifications are recommended for consideration:

- Develop a single free zone declaration form;
- Provide single, on-site inspection capability for free zone operators/users;
- Assign inventory safekeeping and recordkeeping responsibilities to free zone operators and users; and,
- Develop enforcement techniques.

As discussed below, these recommendations use familiar concepts and procedures as a foundation to develop methods that will be attractive to free zone users while providing the government with necessary protective controls.

a. Development of a Single Free Zone Declaration

7.62 In order to control zone operations and merchandise transfers, two documentary concepts are possible -- the use of existing forms with minor procedural modifications for free zone operations; or, the design of a single form specifically intended for free zone use.

7.63 The first method provides for the continued use of familiar documents and procedures, but as discussed previously can lead to the requirement for several different forms to be submitted at different stages of the free zone operation. The suggested use of one specifically designed form -- a free zone declaration -- is a more desirable method for Customs to control free zone merchandise while allowing zone operators and users to have the flexibility necessary for successful zone operations. Such a form can be divided into several sections:

a. Merchandise release and free zone entry -- (Zone entry). To authorize the release of merchandise from Customs custody at a port of arrival and, simultaneously, authorize transfer of the merchandise to the free zone. This will be the official record of merchandise inventory in the zone and will establish the liability and responsibility of the zone operator or user.

b. Merchandise transferred from the zone and exported - (Zone Export). To authorize the transfer of merchandise from the zone to a port of exportation. It will relate to the first portion of the declaration by reference and will correspond to the merchandise previously entered into the zone.

c. Merchandise used, lost or destroyed in zone operations - - (Zone Usage). To account for zone merchandise destroyed, consumed in zone operations, and other such losses, and to authorize the reduction in accountable quantities of zone merchandise.

d. Zone merchandise entered for consumption -- (Zone Import). To authorize the transfers of free zone merchandise into the customs territory if allowable by the free zone regime.

7.64 A single free zone declaration can provide all the information needed by Customs while helping expedite the movement of merchandise to meet the needs of zone operators and users.

b. Single, On-Site Inspection Requirements

7.65 To help alleviate the disadvantages of duplicate inspection procedures and opportunities for lost and damaged merchandise during this process, many Customs organizations have developed a successful procedure by which inspector and administrative officers are permanently available at free zone locations. These officers are responsible for processing documentation and conducting on-site inspections as merchandise is unloaded and entered into the zone, or loaded for transfer out of the zone. Because of these on-site inspections, merchandise destined for free zones or being exported from free zones does not have to be inspected by Customs personnel at origination or destination port facilities. This single inspection concept is critical to expediting the movement of zone merchandise and is generally considered mandatory to the operation of a successful free zone program.

7.66 This procedure offers several advantages to both the zone operator/user and to the Customs organization. Obviously, it provides the zone with Customs personnel readily available to

conduct Customs business in a timely manner. Additionally, Customs is relieved of the burden of inspecting merchandise at the port of arrival or the port of departure where freight congestion and a considerable inspection workload create difficult circumstances for both Customs and zone shippers.

c. Computerized Recordkeeping Procedures

7.67 The use of computerized operations -- either those maintained by the government, those maintained by zone operators/users, or both -- will provide a modern, efficient program to manage zone merchandise operations, particularly in cases where high volume and rapid merchandise turnover lead to voluminous recordkeeping burdens on both zone operators/users and government personnel. As previously discussed, significant government benefits can result by having zone operators/users use their own business computers to maintain information for government purposes where such capability exists.

d. Enforcement Techniques

7.68 The success of Customs operations depends on the use of enforcement procedures that punish offenders and encourage effective compliance with appropriate laws and regulations. Accordingly, a free zone operation must also have a process of fines and penalties for violations as well as procedures for identifying violators. Some standard techniques include:

- Documentation. Customs can monitor, through computer information if available, free zone merchandise movement by comparing zone transfer declarations with corresponding zone entry declaration to assure that inventory transfers and identities are properly reported and managed.

- Reporting. Zone operators/users can submit inventory status reports and reports of free zone operations to provide Customs officials with information to review and assure that operators/users are complying with pertinent laws and regulations.

- Customs reviews of zone operator/user records. Customs personnel can assure that zone documentation is accurate through periodic reviews and comparisons of zone declarations with internal documentation maintained by zone operator/users such as inventory and operating records.

- Customs inventory examinations. Customs personnel can also conduct periodic physical verifications and examinations of zone inventory on-hand to determine the accuracy of information reported by zone operators/users.

- Assessment of duty and taxes. When missing zone merchandise is discovered, the zone operator/user must be required to pay the appropriate amount of applicable duty and import taxes as if the merchandise has been imported into the country for consumption.

- Fines and penalties. Customs should also have the authority to apply a system of fines and penalties against violators for merchandise shortages and other infractions of regulations. The free zone regime should also provide for expulsion from the free zone programs, in cases of severe violations by operators/users.

- Third-party guarantees (bonds). Guarantees or bonds from a third party will protect the government against loss of Customs revenue in the event violators do not meet duty, tax or penalty assessments.

7.69 The concepts described above should be discussed within the Belize Customs Service, Ministry of Finance, and other relevant offices within the Government, and a customs system developed for the free zone regime. Such a program could be included in the redrafting of the Customs Code now underway, or issued independently as an implementing regulation.

E. REGULATION OF FOREIGN EXCHANGE

7.70 Justification for a policy of unrestricted accessibility to foreign exchange for the legitimate business needs of zone businesses rests on the fact that successful free zones continually generate net positive foreign exchange earnings. In other words, the outflow of foreign exchange for a typical zone enterprise -- whether a payment for imported raw materials and/or components, debt service on foreign-sourced loans, equity capital repatriation, or profits and dividends -- will always be a fraction of the foreign exchange inflow which is equivalent to the gross value of export sales. The surplus, roughly equal to the value-added in the zone operation (comprising labor, rent, services and local-source materials, parts and components) accrues in the national accounts under the control of the Central Bank.

7.71 Successful performance in the highly competitive world of international commerce -- especially in the sectors most likely to invest in a free zone in the region -- requires strict and timely compliance with all international financial obligations. This, in effect, means unrestricted access to foreign exchange and

streamlined procedures (minimum red-tape) in effecting transfers related to all legitimate business obligations. This fundamental need is across-the-board; it applies equally to free zone developers and user industries. Wherever foreign capital is invested in facilities producing for export, the timely availability of foreign exchange is crucial to success.

7.72 As outlined in the preceding chapter, the following elements related to foreign exchange control have been incorporated in the free zone legislation:

- allow all zone enterprises to directly hold foreign exchange accounts;

- allow zone enterprises full control over foreign exchange accruing in these accounts (after covering all local costs in local currency equivalent to the requisite amounts of foreign exchange);

- guarantee automatic access to foreign exchange at all times;

- allow unrestricted repatriation of profits and capital invested in fixed assets; and

- streamlined procedures and minimum bureaucratic red tape in implementing legitimate foreign exchange transactions.

The liberal approach advocated and embodied in the guidelines above, would apply to all investors, public or private, whether as developers of zone projects, or as user industries.

7.73 Regarding private foreign investors, there can be little argument with the principle of unrestricted repatriation of capital and profits from their own earned foreign exchange after liquidation of all local currency obligations. The situation, however, is somewhat more complicated with respect to local investors. Obviously, in such cases, if no foreign-sourced capital entered into the enterprise, there is no contingency obligation to repatriate either capital or profits. But if foreign credits or equity openly and legally entered into the capitalization of the project, to that extent the special liberal foreign exchange regime should apply. In addition, the enterprise, as an approved zone business, would have automatic access to retained foreign exchange (from its export revenue) needed to conduct its legitimate operations as with a 100 percent foreign capitalized zone firm. "Legitimate operations" include inter alia: purchase of foreign raw materials, parts, and components; payment for foreign licenses and patents (royalties) and/or technical assistance; and foreign costs associated with marketing and promotion (business travel, international advertising).

7.74 In addition to the general guidelines discussed above, it should be mentioned that, as set forth in the law, zone developers are entitled to specify rental payments in U.S. dollars or the local currency equivalent. This provision will protect the developer against real income shrinkage due to inflation.

7.75 In summation, it is recommended that a single special foreign exchange regime, consonant with the needs of zone operations, be designed and made applicable to all zone projects, whether owned by foreign or domestic interests, public or private. The broad principles of the recommended regime are set forth in the Free Zone Act (Annex A). Detailed procedures governing the various types of transactions should then be formulated in consultation with all relevant agencies (e.g. Central Bank, Ministry of Finance) and included in the Implementing Regulations to be published at intervals subsequent to the approval of the Free Zone Act.

VIII. ZONE OWNERSHIP AND MANAGEMENT

A. OWNERSHIP AND MANAGEMENT STRUCTURES

8.01 A wide range of alternative ownership and management frameworks has proven effective for free zones. The key factor in free zone operations, however, appears not to be whether the zone is owned and managed by the public or private sector, but whether zone management is sensitive to the needs and demands of zone users. Although the government is responsible for establishing and enforcing the incentive and regulatory regime, the private sector is well suited for the ownership and management of zones in keeping with industrial real estate development practice.

1. Ownership/Management Alternatives

8.02 Fully Private Zones. The experience of free zone-sponsoring countries in the Caribbean Basin indicates a preference among foreign investors for zones that are developed and managed on a completely private basis. The preference for private zones appears to arise from differences between the public and private sector in terms of their performance as zone managers. Foreign investors in the Dominican Republic and Costa Rica, for instance, regularly choose to base their operations in private zones despite rental prices that are two to four times higher than those found in their public sector counterparts. Similar disparities exist between the private and public sector industrial parks in Mexico's maquiladora program.

8.03 The willingness of foreign investors to pay higher lease rates is based on the perception that a private zone location yields a better long-term value and a higher degree of service. In contrast to publicly owned and operated zones, private zone developers have their own capital at risk and thus have a greater incentive to provide a quick, high-quality response to zone user needs. In addition, private zones typically offer a wider range of services. These may include any or all of the following:

- maintenance of buildings and grounds, including refuse collection, lighting, gardening, and landscaping;
- provision of emergency services including fire protection, medical, and security services;
- arrangements with on-site Customs for normal and after-hours clearance of incoming containers; and,
- shared facilities and services, including international post, telex, and fax service, banking, worker

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transportation, recreational facilities, day-care centers, cafeterias, training programs, and job banks.

8.04 Private zones are also increasingly offering alternatives to a straight rental of SFB space. In Costa Rica, most free zone occupants prefer to buy space because of their confidence in the country as well as a financial package that encourages purchasing over renting. Other programs, such as those of Barbados and Mexico, offer zone tenants an option to purchase.[1] In Mexico and Haiti, shelter plans have been very successful in attracting clients who seek ease in setting up their offshore operations, minimal political and financial risk, inexpensive labor rates, and preferential market access. Under a shelter plan, a labor force, physical plant, and administrative support services are generally offered for an all-in price per hour of labor used.

8.05 It should be noted that some private zones are run on a non-profit basis. In the Dominican Republic, several private, non-profit companies have been established to generate local employment opportunities; this group of zones includes the successful Santiago and Bani Free Zones.

8.06 Public/Private Partnerships. A more active public sector role is found in the free zone programs of Hong Kong and the People's Republic of China. In these nations, various public/private partnerships are being utilized to encourage private sector participation and development expertise. The principal forms of partnership include:

- the contracting out of management in a government-owned zone. Normally, a property management company takes as compensation a fixed percentage of the gross monthly income. This gives management the incentive to keep the property fully occupied at the highest rate obtainable.[2]

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[1] In determining the price of leases with options to purchase, refer to Section B-3, regrading the pricing policy for free zone facilities and services.

[2] In addition, the contract should spell out the duties and obligations of the management over a specific time period. This time period should be at least one year, but short enough to allow the developer to end the contract, should the management team prove unsatisfactory. The management group should not be permitted to handle the developer's funds for improvements and repairs over a certain amount, and instead should invoice the developer. Prior written approval is generally required from the developer for improvements and repairs above an established ceiling. Finally, a periodic report on the status of the property and its tenants should be submitted to the developer.

joint equity ventures between the public and private sector. In 1959, for example, a North American private investor group teamed with a number of Bahamian institutions to develop Freeport -- a for-profit joint venture that includes an industrial park, resort, and residential facilities. The commitments by public sector organizations to such a venture need not be financial; the imputed value of government-owned real estate can be translated into equity.

long-term lease of government-owned land and facilities to the private sector. In the Special Economic Zones of the People's Republic of China, leases are granted for 50 to 70 years; a similar policy, although shorter term, is followed in Hong Kong where construction has primarily been done by private developers who have purchased leases at auction from the government.

"build-operate-transfer" (BOT) agreements under which a private investor develops and manages a zone for a predetermined time period. Within this time frame, the developer is able to recover all capital and operating costs from the rents collected. At the end of this period, the ownership of the zone is transferred to the public sector. This type of arrangement was first utilized in 1969 by Gulf and Western in the La Romana Free Zone in the Dominican Republic, and more recently in Yumurtalik, Turkey, where the Bechtel Corporation has negotiated a protocol for a proposed US$220 million free zone/port project.

"build-transfer-operate" (BTO) agreements under which the private investor and developer relinquishes title and ownership of the zone upon completion of construction, while retaining access to the zone facilities at preferential prices. Developers and investors in teleport facilities have utilized this option in return for preferential rates on international dedicated lines over specified periods.

8.07 Fully Public Sector Zones. Effective, publicly owned and operated zones are also in existence. Successful zones that have been financed, developed, and managed by the public sector can be found in Malaysia, Taiwan, Jamaica, and Mauritius. Placement of management and administrative responsibilities for public sector zones within the government varies widely. The following are examples of types of government institutions that have proven successful in the management of free zones:

- Ministries. Many free zone management bodies report to a Ministry of Industry, Foreign Trade, or Economic Development, as in Taiwan, Mauritius, and El Salvador.

In Costa Rica, the Corporacion de la Zona Franca (CZF), which administers the zone program, has developed and managed one zone; the CZF reports to the Ministry of Foreign Trade.[3]

- Port Authorities. The Kingston Free Zone in Jamaica reports to the Port Authority of Jamaica.

- Parastatals. Free zones in Thailand are operated by the Industrial Estate Authority of Thailand (IEAT). In the Dominican Republic, local communities have founded parastatals to develop free zones in an effort to attract investment and employment opportunities to the region. The Dominican Sugar Corporation also has historically played a role in the development of zone projects.

- Local Authorities. In Malaysia, the government has pursued a highly decentralized approach to zone development and operations. The country's first ten zones were financed, built, and initially operated by the federal government, but were subsequently turned over to regional and local authorities.

8.08 Notwithstanding the ability of some public sector organizations to manage free zones effectively, a shift has occurred over the past decade from public sector models to private sector approaches to zone financing, development, and operations. The trend has been particularly evident in the Dominican Republic, Costa Rica, Mexico, and Mauritius. In addition, private free zones are also planned in Honduras, Guatemala, and Jamaica. Even Malaysia, recognizing strains upon scarce public resources, has permitted private industrial park developers to build facilities, and is reportedly considering privatization of government-owned estates.

8.09 One of the most common public sector zone problems is that they frequently charge below-market rents. Although rent subsidies initially appear inviting to zone users, they normally deprive zone management of needed resources to maintain buildings and infrastructure at later stages in zone operations. The result is that public sector zones typically fall into disrepair after a few years, lose their established tenant base, and produce a situation in which it is difficult to attract new zone users.

8.10 While this problem can be solved by charging market rents, public sector zones have been plagued with other difficulties as well. Government-run zones frequently pay too much for construction and infrastructure costs, as in El Salvador, Costa

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[3] For a more detailed analysis of the Costa Rican free zone program, refer to Annex B.

Rica, and the Philippines; moreover, government salaries often are not commensurate with similar positions in the private sector, and zones subsequently have difficulty attracting dynamic promoters and efficient managers necessary for a successful zone program.

2. Establishing Links and Partnerships with Foreign Developers

8.11 The role of foreign investment in developing free zones has been vital in a number of countries. As discussed above, foreign investment has been utilized in the development of zones in the Bahamas, Dominican Republic, and China. Gulf + Western, Bechtel, Trammel Crow, The Koll Co., and other foreign investors have shown a willingness not only to formulate the project proposal, but to finance and construct the zones as well. The private sector can substantially lessen, or even displace, expenditures made by the government.

Essentially, foreign developers of free zones can be segmented into the following categories:

- Real Estate Developers/Construction Groups. While foreign real estate and construction companies have been less active than similar local firms, they have played a key role in several countries. For instance, Grupo Zeta, an Italian-Costa Rican joint construction enterprise, developed and manages the highly successful Cartago Free Zone in Costa Rica and is now building two more Costa Rican zones as well as investigating other free zone investments in Central America, including a proposed zone in Guatemala. U.S. developers have recently become more prominent in zone development, primarily in Mexico, due to geographic proximity and market familiarity. Koll Co. (based in southern California) developed the 40-acre Koll Otay Mesa Industrial Park in Tijuana and has plans to construct two million square feet of under-roof space nearby (in conjunction with a Mexican firm) on the 90-acre La Frontera Business Center. Similarly, Trammel Crow has recently built an industrial estate in Tijuana.

- Telecommunications Companies. Telecommunications companies are becoming increasingly aware of the large potential market in offshore information processing. CODETEL, a Dominican subsidiary of GTE, is partial owner of the Las Americas and San Cristobal (Itabo) Free Zones in the Dominican Republic. In addition, CODETEL's "Infoport," a teleport facility, is connected to the San Isidro Free Zone via fiber-optic cable and plans exist to link the facility with other major zones at a later

date.[4] In Jamaica, AT&T and Cable & Wireless are partners with the Jamaican government in the Montego Bay Free Zone; the government owns the zone and the two firms own the "Digiport" (also a teleport). Other telecommunications companies such as NTT and Pan American Satellite have demonstrated substantial interest in joint partnerships in free zones with teleport facilities.

- Foreign Governments. Besides the grants and loans that zone developers and/or host country governments have received from foreign governments and donor organizations to develop free zones, direct investment from foreign governments has also occurred. Taiwan and South Korea, impelled by rising population densities, foreign policy objectives, and the need for improved market access, have been considering the establishment of a zone in Central America for the past few years. Such a project would be differentiated from other zones in the region in that it would be primarily staffed with Asian employees. As such, the host country government would need to grant special immigration status to the management personnel. It has recently been reported that the Taiwanese Government is investing US$40 million in the Colon Free Zone to expand its manufacturing facilities.

- Foreign Firms In-Country. Foreign companies with long, profitable histories in a country are perhaps the most likely of foreign investors to develop -- whether jointly or alone -- a new zone. Gulf + Western held large sugar properties for decades previous to developing La Romana in the Dominican Republic; similarly, United Brands had extensive banana holdings before establishing a palm oil bio-engineering "special free zone" in Costa Rica. In addition, CODETEL has long operated the Dominican Republic's national telephone system while the founder of The Koll Co. owns a hotel in Cabo San Lucas, Mexico.

8.12 Whatever the ownership structure of a zone project, its success will rest in part on the attention and expertise that is brought to bear in its initial design, and in part on the capabilities and responsiveness of the management team, once it is operational. Each of the alternative structures reviewed previously has proven feasible in different settings when the

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[4] Teleports are facilities offering firms in a localized area direct access to a satellite earth station, rather than forcing signals through the telephone system. Teleports can potentially achieve 60 to 80 percent cost savings over domestic telecommunications services by bypassing existing networks, and offer far higher quality service than otherwise available in a country.

essential elements of effective management were adhered to in their implementation. The key positions in a zone management team and the functions they discharge are discussed below.

B. FREE ZONE MANAGEMENT AND STAFFING

8.13 This section presents an organizational structure and corresponding functional responsibilities that has proven effective in free zone and industrial estate management. The proposed approach represents a flexible, cost-effective, and practical method for developing an effective management organization. It is purposely intended to maintain a small and efficient staffing structure, and rely wherever possible on contracting services rather than creating large, in-house staffs.[5]

8.14 Especially during the start-up and early operating phase of the project, organizational complexity should be avoided. To this end, the initial organizational structure and staffing plan suggested is minimal, concentrating all essential management and operating functions in a "chief executive officer" -- the General Manager -- who is assisted by an executive secretary and an engineer. In addition to this professional core group, an on-site Customs officer and security staff are recommended.[6]

8.15 **General Manager.** The ongoing responsibilities of the General Manager include the following:

- Staffing and personnel supervision; recommending staff compensation/performance incentives;
- Long-term development planning;
- Annual budget preparation, financial strategy formulation, and monitoring of results;
- Liaison with related governmental agencies;
- Essential marketing and promotional activities;
- Tenant screening and relations;
- Support for zone firms to MED/GOB on investment applications;

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[5] The management structure outlined below is reflected in the staffing assumptions used in the project's financial analysis in Chapter 5.

[6] Although not widely enforced at present, under Belize law the salary of Customs officers that are permanently stationed at a private location are the responsibility of the private firm. The draft free zone law, therefore, specifies that the cost of establishing and operating an on-site Customs office will be assumed by the zone developer under the free zone regime [**FZL, Section 10(j)**].

- Establishing working linkages between the zone and local training institutions to develop an adequate supply of skilled personnel for zone tenants;
- In cooperation with other relevant agencies, continuing efforts to improve external infrastructure such as transport facilities (for both goods and personnel), power, water, telecommunications and so forth;
- Coordination and arrangements for zone services;
- Making disbursements, including taxes, insurance, payroll, service contracts, and payments for Government services;
- Staffing and supervision of the zone security force; and,
- Preparing final lease/purchase agreements/covenants, including:
  - architectural controls (setbacks, building specifications, landscaping, etc.)
  - responsibilities for repair and maintenance waste/effluent disposal
  - signage
  - storage of materials
  - rental rate escalation
  - alienation of premises
  - termination of lease.

8.16 The careful selection of the General Manager is essential to the ultimate success of the project. This individual should ideally have prior experience in business management, knowledge of accounting and finance, familiarity with the social and physical infrastructure needs of industrial operations, and a proven capacity to successfully operate a profit-oriented business initiative. In smaller zone projects, the owner/developer may serve as the project's general manager, thus reducing payroll costs. It should be borne in mind, however, that in such case the aforementioned skills are just as essential in the owner as they are in any individual hired specifically to staff the position.

8.17 The General Manager will be responsible for overseeing the operations of other professional staff, consisting of an Executive Secretary and an Engineer. It is expected that the General Manager will perform many of the duties of a promotion or marketing representative, as well as financial planner, providing he has adequate support from qualified professionals. In the event that a promotion officer is seen to be a full-time position, this arrangement could be handled on a retainer basis with outside individuals or firms. Security personnel would be hired as needed to maintain 24-hour patrol of the zone facilities, and provide entry/exit control -- estimated at two guards per shift. This important service can also be provided by a security firm on contract.

8.18 **Executive Secretary.** The Executive Secretary will provide the internal financial and general management support services

necessary for the functioning of the zone, including maintenance of payables and receivables, personnel records, and management information systems. The ongoing responsibilities will include:

- setting up the accounting system for the zone and maintaining accurate financial records;
- providing assistance to the zone management in verifying the accuracy of tenant application information;
- maintaining up-to-date rent rolls, billing tenants and collecting rents;
- providing periodic occupancy reports to zone management;
- furnishing actual vs. budgeted operating statements to the zone management;
- providing assistance to the management in supervising zone staff; and,
- assisting management in executing zone disbursements.

8.19 Preferably, the Executive Secretary will be trained in financial accounting with some experience in similar positions either in private business or public administration, or both. In addition, one administrative assistant would also be hired as support staff when the zone nears full occupancy (assumed to be in Year 6 in the financial analysis).

8.20 **Engineer.** The General Manager would also be responsible for selecting a qualified engineer to take on the role of supervising the physical development and maintenance of the zone, particularly during initial zone construction. The Engineer is an important position in zone management, and is charged with the supervision, but not the execution of day-to-day maintenance, which can be effectively contracted out, instead of building an in-house staff. Such a cost-saving arrangement has proven to be financially sound in the long-term, and is not uncommon in well-managed free zones.

8.21 The responsibilities of the Engineer will include property development and management, including preparing physical plans, overseeing the zone development program, and managing facilities maintenance. Working with the General Manager, the Department will refine cost estimates for development projects, prepare civil works documents for tender, and recommend contractors for ongoing and proposed project execution. Additional functions are outlined below:

- maintaining technical reference files including architectural/engineering drawings, specifications, manufacturers' catalogues and instructions on maintenance and operations;
- establishing basic operating procedures and drafting service contracts in procuring building and grounds maintenance services, electrical and HVAC systems, security systems, and waste disposal;

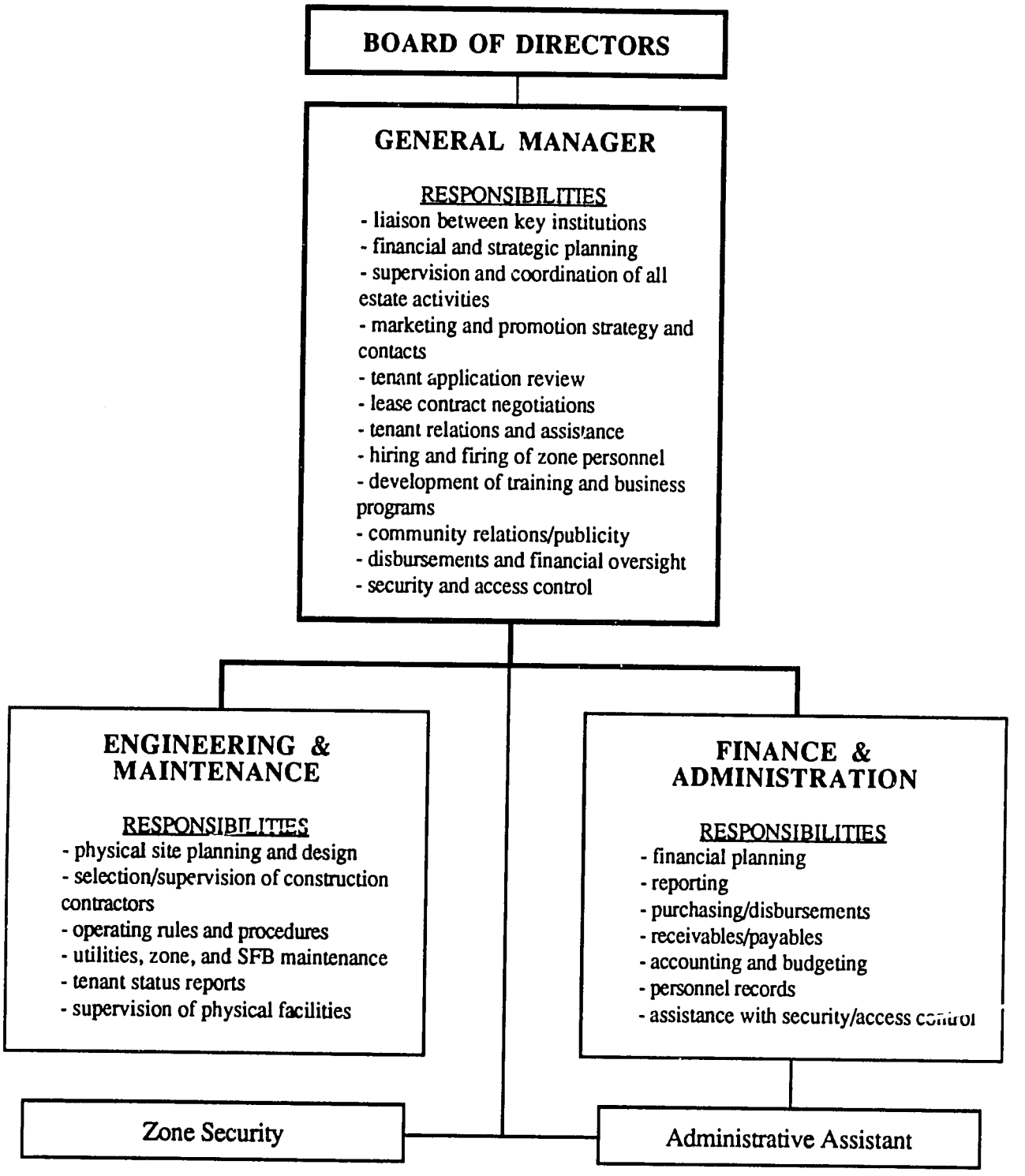
- developing preventive maintenance schedules and maintaining an adequate supply of spare parts for estate buildings and equipment;
- supervising the initial phases of estate property development: placement of signage and building directories, installation of communications equipment, parking and freight and cargo facilities, letting of service contracts for waste disposal, janitorial services and infrastructure expansion;
- establishing guidelines for tenant modifications/ improvements of estate buildings and monitoring all construction activity; and
- periodic inspection of all estate infrastructure for repair and maintenance needs.

8.22 After the San Andres project is fully developed, the zone will probably not require full-time engineering assistance for the operation and maintenance of zone facilities and service infrastructure. The engineer can be retained on a half-time basis with a commensurate adjustment in salary received, thereby reducing operating costs (the financial analysis assumes a half-time Engineer starting in Year 6).

8.23 **Board of Directors.** As with any corporation, the composition of the free zone's Board of Directors should clearly include existing equity participants. In addition, it is strongly recommended that the developer of the free zone invite Belizean and foreign internationally recognized individuals to serve in an advisory capacity, in order to provide valuable insight to assist in zone development. The developer may also invite BEIPU, the BCCI, and other private and public institutions to participate in an advisory capacity. This will greatly further coordination between all bodies. If leading academic, economic and other international institutions and individuals affiliate themselves with the project, the credibility and promotional appeal of the zone will be greatly enhanced.

8.24 The resulting organization is shown on the following page. This simple management organization can be enhanced over time if the zone grows rapidly, or, as suggested above, if more professional staff are added in a promotional capacity. It is likely that, as the zone is fully developed, additional support staff, to include an additional secretary and/or administrative assistant, will be necessary.

FIGURE 8-1
SUGGESTED ORGANIZATIONAL STRUCTURE FOR ZONE MANAGEMENT



Note: Organizational structure depicted here corresponds to recommended staffing for the proposed San Andres zone in Year 6, when an Administrative Assistant is added to the staff.

C. KEY ELEMENTS OF ZONE OPERATIONS

1. Selecting Zone Tenants

8.25 Successful tenant relations are the foundation of a well-managed free zone project. The development of a good working relationship with users begins with the initial contact. When the potential clients arrive, the General Manager or Promotional Officer should ensure that they are well-attended and that both Belize and the project are presented in their best light. This may entail meeting the client at the airport, assisting in securing local accommodations, accompanying the client to visits with Government officials, etc. The initial contact will set the stage for future interactions and can have a powerful impact on whether the potential investor becomes a zone tenant.[7]

8.26 If a company is interested in establishing operations in the zone, the General Manager must work to define what the nature of the investment will be. Much will depend on such factors as: the resources of the firm; whether it is interested in a long-term investment (and thus potentially purchase of land and/or buildings) or strictly in a rental proposition; how the client's facilities requirements correspond to the buildings available; and the client's service and amenities needs. When engaging in negotiations with a potential zone user, the General Manager should determine in advance what he is prepared to offer, within the negotiating framework established by or with the developer/owner. Ideally, this framework will be flexible enough to be adapted to unique opportunities that may arise.

8.27 For example, in many (usually publicly owned) zone projects, the general policy for the letting of zone space is to offer traditional SFBs for rental only to prospective clients. However, if a substantial multinational firm with a proven track record in similar investments expresses an interest in buying space and constructing customized facilities at the firm's own expense, it is likely to be in the zone's best interest to have a policy flexible enough to accommodate these needs. The concept of the "anchor tenant" is a long-standing mechanism employed in multi-user development projects. It draws upon the promotional value of securing a "brand name" investment, such as a Fortune 500 company, early in a project's development. By associating the project with such a firm, other potential users will view the investment as an indication of the project's attractiveness and quality. In such cases, concessional rates may be offered to secure the anchor

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[7] For a discussion of the key elements of zone promotion and marketing which encompasses client interaction see Chapter 8, "Zone Marketing and Promotional Strategy," in the Phase I report.

investment, or in some cases, shared equity in the project. (The financial aspects of pricing of zone facilities are discussed in Section C-2 below which examines zone pricing policy.)

8.28 In deciding which companies to admit as zone tenants, the first step is actually taken in the early planning stages of the project, prior to initiation of the land development and construction program. Based upon the results of the market studies undertaken in the pre-investment analysis, the configuration of the zone is defined, along with the design considerations of the facilities and services. If, for example, the decision is made to target sophisticated, high value-added, technical operations, the zone should offer premium-quality industrial buildings, with air-conditioning, generous design standards, provisions for offices, and worker amenities. The cost of installing such facilities will necessitate a higher rental rate for the space, and therefore, delimit the universe of users potentially attracted to the zone. On the other hand, if the zone layout and design is more traditional (such as by making SFBs the standard type of industrial space offered, using higher land use ratios, and providing a more limited scope of services on site), it is unlikely that higher-end users will be attracted to it.

8.29 Within limits, the best alternative is generally to keep the options as open as possible in development planning. Alternative uses of land and buildings within the zone should be accommodated unless they will have a deleterious effect on the overall attractiveness of the project. As a rule, polluting industries, very noisy industrial operations, heavy energy consumers, and the like, are likely to be eliminated from consideration by the application review process of the MED/GOB. Moreover, if the option of establishing "Special Free Zones" is retained in the law, firms with truly unique facilities and locational requirements, and the resources to install them, will generally avail themselves of that opportunity to access the free zone regime.

8.30 For the most part, then, the zone management team will select which firms are compatible with the facilities offered, are legitimate, and are likely to be dependable tenants of the project. The easiest way to extract the needed information with regard to a company's background -- credit worthiness, financial resources, market and supply linkages, etc., -- is to develop a standard form which is distribute to all potential clients. It should contain basic questions to garner information of the firm's history, bank references, volume of sales, and financial performance. The production process(es) and products intended for the zone should be specified. In addition, the form should include a section in which the firm can detail its industrial/office and service needs. Any special or unusual service consumption requirements should be noted.

8.31 In reviewing applications, the zone management team should seek out those users which are engaged in activities that will complement those of the tenants already installed. Zone success relies on satisfied tenants and long-standing users can be put off by the imposition of a industrial neighbor which interferes in some way with the conduct of their operations. Ideally, an "industry mix" should be established so that a zone project is not too heavily dependent on the market vagaries of any one industry. Initially, this may be difficult to achieve; many successful free zones have been dominated initially by investment from firms in the textile sector. Over time, however, as the project develops, zone management should encourage industrial diversification, thus providing the zone a more balanced and stable market base.

8.32 For firms with unique requirements -- generally, those firms that are outside the light manufacturing category which is likely to predominate in multi-user free zones in Belize -- zone management should assess the application in terms of the realistic benefits that will accompany the investment and that will accrue to the project. It makes little sense, for example, for the zone developer to undertake customized construction and then lease the facility on a conventional five-year term, if the building will be worthless to any company accept the initial user. Should the company encounter financial difficulties and be forced to shut down operations, the developer would be left with a "white elephant." Instead, a contract should be drafted by which the user assumes the cost of customization, or agrees to remodel the facilities for general use, should he cease operations. Ideally, the negotiation process will allow both the developer and the client to secure the commitment they need to satisfactorily close the deal to their mutual benefit.

2. Pricing Strategy for Zone Facilities and Services

a. Objectives of Base Rental Strategy

8.33 As briefly noted in the financial analysis, the viability of a project centers on the ability of the zone to generate a consistent revenue stream. Public sector-owned zones throughout the region have been characterized by low, subsidized rents well below prevailing market rents at private zones; public entities reason that the long-term economic benefits from zone development outweigh the financial losses accrued from the project. Private sector zones are not in a position to subsidize rents and are motivated to generate a reasonable return on capital invested. In this vein, the proposed zone in San Andres should consider the following:

- facilities rental should not be so high as to deter investors from establishing operations, particularly if the rent is not offset by added benefits and services.[8]

- facilities rental must be competitive with competing local and regional zones; and,

- facilities rental must be sufficient to cover not only operating costs and debt service requirements, but also generate a reasonable financial return to zone investor(s).

8.34 From a financial perspective, full cost recovery followed by generation of a reasonable return is the primary objective of private free zone development. If profitable results cannot be generated in eight to ten years after initial project construction is completed, then the project should generally not be undertaken. As noted earlier in the financial analysis, profitability is a function of both rental income and operating costs.

8.35 The determination of base rental rates, inclusive of SFB lease and the standard package of zone services and amenities, follows directly from the objective of full cost recovery. The experience of free zone projects worldwide has shown that given a reasonable debt/equity ratio, and a normal range of debt service charges, and operating costs, financial profitability is achieved if each square foot of rentable under-roof factory space can generate in gross revenue at least 15 percent per annum of the total cost required to construct that square foot. Rental rates generating gross revenues less than the 15 percent threshold are generally unable to produce a positive financial return. On this basis, the proposed zone at San Andres will need to charge a rental rate of at least BZ$7.00/sq.ft./year.

8.36 Table 8-1 below shows comparative base rental rates for selected free zone facilities throughout Central America and the Caribbean. As can be seen, private zones consistently charge higher rents than public zones, with the exception of Jamaica. However, formulating comparisons on rental rates alone can be misleading, as the type and depth of services and specialized facilities offered in each zone and reflected in the base rental rate differs, particularly in the Dominican Republic. However, for the types of proposed facilities and services at the San Andres project, BZ$7.00 proves competitive for a private project. Furthermore, if zone tenants evidenced demand for expanded services, the rental could be higher with little detriment to the zone regional and local competitive position.

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[8] Rent as a portion of total production costs is generally less than five percent for typical zone operations. Prospective zone tenants are nonetheless sensitive to rental rates.

TABLE 8-1
COMPARATIVE SFB RENTAL RATES FOR SELECTED FREE ZONES IN THE CARIBBEAN BASIN REGION, 1989
(US$/Square Foot/Year)

PRIVATE FREE ZONES		
COSTA RICA	Alajuela	$2.40
	Cartago	$3.00
DOMINICAN REPUBLIC	Bani	$3.00
	Chemtec	$2.65
	La Romana	$1.25
	La Romana II	$2.65
	San Cristobal	$4.00
	San Isidro	$5.00
	Santiago	$1.32
	Villa Altagracia	$1.80
	Villa Mella	$4.00
GUATEMALA	Grupo Zeta	$2.23
PUBLIC FREE ZONES		
COSTA RICA	Moin	$1.00
DOMINICAN REPUBLIC	La Vega	$2.16
	San Pedro de Macoris	$1.81
EL SALVADOR	San Bartolo	$2.23
GUATEMALA	ZOLIC	$1.34
HONDURAS	Puerto Cortes	$3.00
JAMAICA	Kingston	$4.37
	Montego Bay	$3.12
PANAMA	Colon	$2.67
MIXED FREE ZONES		
DOMINICAN REPUBLIC	Puerto Plata	$3.00

b. Option to Purchase Facilities

8.37 The initial demand for free zone space, as evidenced in the Phase I market survey, may well emanate from local manufacturers. In many zones worldwide, local manufacturers have evidenced a higher propensity to purchase facilities than foreign firms, and several zones in the Central American and Caribbean region, as noted earlier, do offer purchase options.

8.38 The developers and investors of the proposed zone in San Andres may wish to consider offering purchase options on SFBs. In offering leases with options to purchase, the developer should ideally charge 10 to 15 percent more than the normal rental rate. Furthermore, firms are generally required to wait three to five years before exercising the purchase option.

8.39 When a firm exercises its option, the value of the buildings should be calculated on the basis of either: market value, as determined by independent appraisal, cost of replacement, or income potential. In any case, the value should be discounted according to an agreed amount. The discount value (option price) can be determined by two methods: market price minus depreciation; or final purchase price minus rent paid. In many cases in the region, an administration fee, assessed on a per unit basis, is charged to cover services and amenities provided by the zone which would normally be covered in the base rental rate.

c. Self-Liquidating Services

8.40 The provision of non-essential services not included in the base rental rate should be charged on an individual cost recovery basis. The services would either be funded through additional incremental fees or subcontractors and franchisers.[9] The subcontractors or franchisers would normally be charged rent or fees for any facilities or space required for provision of services on site. However, in some cases the zone may wish to provide such facilities free of charge, e.g., an emergency clinic or health care facility. Overall, it is important that additional services not burden the base revenue stream of zone operations, but be covered individually by economic fees and appropriate charges.

[9] The subcontractors or franchisers would generally be charged rent for any space or facilities provided on site. In some cases, the zone may wish to subsidize important services through the free provision of facilities or space (e.g., a health clinic).

3. Relationship to Government Institutions

8.41 The Government has an important and continuing relationship with a free zone project throughout its development and operation. It is the Government which sets forth the regulatory environment providing for the establishment of the project as a free zone and the Government which facilitates and implements the benefits accorded to zone developers and users. In this light, the establishment of a positive working relationship early on is important to the project's success.

a. Zone Designation and Construction

8.42 For new projects, the relationship of a zone developer with the Government will generally begin even before the first ground is broken. Some private developers in Belize may be willing to initiate the physical development of the project prior to receiving a zone designation, given the dearth of general use industrial space that is now available in the country. However, as a rule, zone development groups will generally wait until a designation is received. The first step is to undertake the pre-investment analysis (including preliminary engineering) required to ensure that the project is a sound investment. In these studies, it is important for the development group to be familiar not only with existing GOB regulations regarding free zone projects, but also with general land development and industrial operations, as they could affect zone development. Specifications regarding easements and setbacks, land use regulations, infrastructure standards, and the like, should all be reflected in the project's design.

8.43 Normally, the findings of the pre-investment studies will be forwarded to the Free Zone Committee as part of the application for zone designation. If the Committee encounters any problems in its review of the application, the developer will be given the opportunity to resolve the problem, or to configure the project to meet the GOB requirements. During the application process, it is important that the developer stay abreast of the status of the application and be ready and willing to provide any additional information that might be required.

8.44 After the designation is received, construction of the zone will begin. At this time, the developer should meet with the Free Zone Office of the MED to obtain any guidelines that have been drawn up regarding government requirements for free zone projects, if such materials were not made available upon receipt of the Certificate of Designation. Throughout the construction period, the developer should err on the side of caution and check with the FZO/MED if any questions arise with regard to government standards or requirements.

8.45 For development groups which propose to install their own basic infrastructure or offer services that are generally provided by Government or parastatal bodies, clearance will be required of these, plans, and periodic inspections are likely to be conducted of the facilities installed. In all such cases, the developer is bound to respect the rights of the relevant authorities and to take whatever measures are necessary to ensure that the project is acceptable in every way. Should the developer believe that the standards or requirements are unrealistic, or feel that the agency or office is being obstructive in some way, such matters should be brought up with the FZO/MED which will serve in advisory capacity in government relations.

8.46 In other national free zone programs, the Government has established opening inspection procedures that must take place prior to the official authorization of the initiation of zone activity, and similar measures may be incorporated in the Belize free zone regime. In any event, as presently proposed, the free zone regime incorporates the concept of single, on-site Customs clearance for zone merchandise, and therefore the zone developer will need to keep Customs up to date regarding the construction schedule, progress in securing tenants, and any changes in plans for startup of operations. A development group which has received a zone designation will be legally entitled to the full-term staffing of a Customs officer at the project. The requirements for Customs service at the zone are discussed in detail in the preceding chapter and will be incorporated in future GOB legislation.

8.47 Zone developers, in dealing with the Government, are entitled to all benefits accorded free zone businesses under the zone incentives regime, throughout the establishment, construction and operation of the project. It is therefore important that each zone developer be familiar with the practices and procedures involved in the implementation of the incentives package accorded under the zone regime, both for their own benefit, and to assist their tenants in their operations.

8.48 Early in the project's development, effective zone management will take advantage of opportunities to establish productive relationships with private organizations such as promotional agencies, vocational/technical schools and colleges, trade associations, and the like. As free zone projects in the region have become increasingly sophisticated, those zones which can offer opportunities for specially designed services such as training for workers, assistance in marketing and distribution to local exporters, and special arrangements for worker transport, will find that they have an edge over the competition. Such arrangements should be established before the project begins operation, so that initial users will be able to avail themselves of the services immediately upon taking occupancy.

b. Zone Operations

8.49 Upon activation of the zone and the initiation of operations, the zone developer has several different and ongoing responsibilities vis-a-vis the Government that are established in the free zone law and implementing regulation. The key responsibilities of the zone developer are addressed separately below.

8.50 **Establish and enforce operating rules and procedures.** The zone developer is legally obligated to establish operating rules and procedures for the users of the project that will ensure that zone activity is conducted in a lawful manner. These rules should cover such areas as authorized activities, control and supervision of entry and exit of persons and goods by individual enterprises, regulations regarding waste disposal and facilities maintenance, etc. They should be drafted by the General Manager prior to the opening of the zone and a senior management representative of each user firm should sign a statement agreeing to comply with the rules and regulations prior to initiating operations. While each firm is legally bound to adhere to the requirements set forth in their Certificate of Compliance or be subject to fine or revocation of their permission, the free zone developer is also liable to the extent that he knowingly, or through negligence permits unauthorized activity to take place. In that light, it is in the best interest of the project for zone management to take their responsibility in supervising zone activity seriously, and to take whatever enforcement measures are required to ensure that the project is fully in compliance with the prevailing regulations.

8.51 **Cooperate with and assist public service providers.** In those cases where the zone developer is relying on government-supplied infrastructure and services, it is important that these utilities providers be kept abreast of the needs of the zone, problems in service delivery, expected increases in demand, and changes in the nature of the activities on-site. This should fall to the Zone Engineer, as part of his regular professional responsibilities. In those instances where the zone is itself providing a portion of these services, the public sector body normally charged with this service should be notified of any significant changes that are planned to the program originally proposed. This will ensure that there is no duplication of effort between the private and public groups and that all construction and operation of infrastructure and facilities is in keeping with prevailing regulations.

8.52 **Cooperate with Customs in the monitoring of zone merchandise.** The zone developer is legally obligated to provide office space for and pay the salary of an on-site Customs official. The working relationship between the zone developer and Customs will be facilitated to the extent that zone management understands

and supports the role of Customs in zone operation. This means that the security staff of the zone should be well-briefed on Customs procedures and requirements to assist in their control activities. It also means that any attempts to circumvent Customs requirements by zone users should be reported to Customs by the management. Effective on-site Customs is dependent on cooperation and trust between the Customs agent and the zone staff. If the relationship becomes adversarial, the transfer of goods will be delayed, clients will become dissatisfied, and the overall performance of the project will suffer.

8.53 **Comply with Government reporting requirements.** The legislation requires that the zone submit monthly reports to the FZO/MED detailing zone activities during that period. This is important for a number of reasons. Customs will, of course, be maintaining records of the inflow and outflow of zone merchandise, including its volume, value, destination, and other information, which will be submitted to the GOB. The zone management team, however, will have access to information that can assist the Government in assessing the progress of the zone program, in identifying obstacles to its growth, and in multiplying the benefits that accrue to the national economy. Information regarding output, employment, capital investment, opportunities for local sourcing, available and occupied space, etc., is important to zone management in its strategic planning efforts as well. The Government can make this data available to new firms expressing interest in the Belizean free zone program, and to private promotional organizations such as BEIPU for use in their marketing efforts.

8.54 **Assist users in their interaction with Government offices.** This is one of the most important, yet most frequently overlooked, services that can be provided by a zone management team. Foreign firms that establish operations in the zone will particularly have use for the assistance of local professionals with a thorough knowledge of the Government's procedural requirements. To the extent that the management can serve as a liaison with the Government for one its users, the operations manager of that firm will be able to devote the time that he needs to ensuring that the business is running smoothly, and the management team will earn a great deal of good will. The frustrations felt by individual users in their efforts to comply with complicated local rules and regulations while meeting production deadlines will detract from their overall impression of the zone, even if the problems that they encounter lie entirely outside of management's control. To the extent that zone management can anticipate their needs and assist them in their interactions with the Government, the project will benefit.

IX. CONCLUSIONS AND RECOMMENDATIONS

9.01 The investigations and analysis that have been conducted as a part of the second phase of this feasibility study have focused on two areas -- the technical analysis (including physical assessment, preliminary design, and financial analysis) of the proposed San Andres industrial complex, and the design of a regulatory and institutional framework that will support the development of a competitive free zone program in Belize. The study builds upon the work program undertaken in the Phase I study to form the analytic basis for the Government of Belize to reach a decision regarding the establishment of a free zone program in Belize, an initiative which can have a profound impact on the future development of non-traditional export activity in the country.

9.02 In drawing conclusions from this report, it should be emphasized that the viability of the San Andres project should have no direct bearing on the Government's determination as to whether the institution of a free zone program in Belize is a sound economic policy mechanism. As detailed in the preceding chapters, based on conservative assumptions, the project appears to be both economically and financially viable. Moreover, considerable demand has already been evidenced for facilities at San Andres and substantial progress been made in its physical development, all in the complete absence of even draft free zone legislation. Based upon the experience of the project team members in the region and worldwide, such single-minded determination to seize the opportunity on a project of this type is crucial in influencing its performance, and bodes well for its successful development, whether in the form of an industrial estate, or as the first free zone in Belize.

A. THE SAN ANDRES PROJECT

9.03 As has been discussed in this and the preceding report, the relative emphasis placed on the factors influencing the selection of the site to be investigated in this study differed markedly from the methodology employed by the project team in other locations. Due to a combination of factors, including -- an historic interest in free zone development among the Belizean population at the border area; the past experience of the Corozal District as a major transshipment and commercial warehousing center for trade with Mexico; the unemployment and under-employment that characterized the region with the decline in the fortunes of the local sugar industry -- the forces impelling the selection of a free zone location within Corozal comprise a unique blend of socio-economic and political considerations. As set forth in the study's scope of work prepared by the Government and USAID, the task for the project team was inductive rather than deductive -- to assess

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whether a pre-determined site, initially at Santa Elena, was viable for zone development, rather than to arrive at a determination regarding the optimal location within Belize in which to initiate the country's free zone program.

9.04 This approach represents a departure from that which is generally used by TSG in conducting a zone feasibility analysis within a country that has yet to establish a zone program. However, as mentioned above, the investigations and analyses demonstrate the potential for development of a moderately profitable industrial free zone at San Andres. The size of the project, as configured, is at the low end of the general minimum standard for projects of this type in order to achieve economies of scale. For example, the relative cost of installing the requisite sewage treatment facility, and its impact on the resulting land use ratios would be much less in a larger project. Likewise, in terms of zone operations, the minimal staffing proposed for the project could be maintained even if the project were much larger. In this project, the financial impact of the payroll burden assumed is much greater than it would be on a project of 40 or 50 acres.

9.05 As discussed in detail in Chapter 5, the marginal profitability of the project (again, based on conservative assumptions) will make it more difficult for the developer to obtain debt financing. The probable terms and conditions of commercial lending would render the project unprofitable for the developer(s). On the other hand, there is no readily apparent source of concessional funds for the sizeable long-term debt required for zone facilities development. The USAID program for Belize, as set forth in the most recent CDSS, does not encompass either technical or financial assistance in support of industrial infrastructure development, except to the extent that it may be related to agricultural-based activity. As a result, the developer of the San Andres project will need to pursue other avenues for project debt financing. It will be in the interest of the GOB and USAID to assist in this effort, offering their support in approaching concessional lending institutions -- multilateral and bilateral. Based upon his considerable experience in export manufacturing and his position as a recognized leader in the Belizean business community, Elton Jones stands a good chance of securing equity partners for the equity portion of the total project investment capital.

9.06 If Belize is to realize its potential to strengthen and diversify its economy, the establishment of a working free zone project in the country can be a powerful indicator to the local and international business community that the Government is serious in its support of private investment. The value to the Government of having a project up and running under the new free zone regime virtually immediately following the enactment of the law is considerable, and highly unusual. Most countries are forced to

endure lengthy lag times between the passage of the program and the initiation of any development activity at all, as development groups and government institutions alike wait to "test the waters" before embarking on a long-term commitment of this type. It would be a missed opportunity if the developer were forced to reduce his development goals for the San Andres project for lack of the needed support from the government, USAID, and other public and private sector institutions that can make a valuable contribution to its realization.

B. ZONE LEGAL AND REGULATORY FRAMEWORK

9.07 Considerable time and attention has been directed by the project team toward the development of a legal and regulatory framework in support of free zone development in Belize that will be both competitive in the regional and international zone community and acceptable and workable for the Government. The provisions of the draft free zone law should be carefully considered by the Government in light of the goals that have been established for national economic development in general, and support for the export sector in Belize in particular.

9.08 While not within the scope of work, in addition to preparing the draft law the project team has also made significant progress in addressing the practical implementation of the free zone regime, as designed. The operational principles set forth in the law are further developed in the implementing regulation. Both documents must be carefully examined by the Government of Belize in terms of their desirability and the prospects for their successful implementation.

9.09 The report has also outlined the institutional and regulatory obstacles that may constrain the program's performance. In the weeks ahead, the Government should undertake a straightforward assessment of the institutional authority structure and operational mechanisms that are already in place and their potential impact on the actualization of the legal provisions of the zone legislation.

9.10 The legal structure outlined -- vesting of regulatory authority, designation criteria for zone developers and users, key fiscal and regulatory benefits accorded, application procedures, operational requirements for zone businesses, etc. -- represents a compromise between the "state-of-the art" in the design and content of free zone regimes worldwide, the realities of economic factors, and Government policies and practices which characterize the Belizean investment climate.

9.11 As noted in the Phase I report, Belize is favorably endowed in terms of key attributes such as geographic location, natural resources, market access, and close ties in language and culture with the United States and Europe. On the other hand, Belize is

starting far later than regional leaders, such as the Dominican Republic, Costa Rica, Mexico, and Jamaica, in its efforts to promote foreign investment in the export sector. To date, notwithstanding the considerable progress that has been made by BEIPU, the BCCI, and the Government of Belize in promoting the country as an investment location, there has been relatively little progress in the non-traditional export sector when compared to competing centers of offshore activity. The country is at a disadvantage vis-a-vis its labor costs, limited labor supply, inadequate infrastructure and basic services, among others, and these problems are compounded by the vagaries of prevailing investment procedures as administered by the Government.

9.12 If Belize is to capitalize on its comparative advantages through the institution of a national free zone program, the Government will need to be committed to forging an intra-institutional consensus to support the design and effective implementation of the zone legislation. As mentioned above, this does not imply that the draft law and regulation must be adopted and enacted "as is." Rather, the government should be willing to break new ground in its efforts to structure a regulatory framework that will catalyze and support new investment in the free zone sector.

9.13 One final technical point should be mentioned. As drafted, the law and implementing regulation address the fundamental aspects of zone-related legal and regulatory issues. They do not, however, attempt to cover ground that is of a broader socio-political impact, nor is it appropriate for such targeted legislation to do so. In that light, the labor issue, as it relates to trans-border migration that is now occurring, with residents of other Central American countries entering Belize in increasing numbers, is not encompassed in the zone legislation.

9.14 It is the opinion of the project team that the most pragmatic approach would be to legitimize the entry of an established quota of workers to supplement the Belize labor force. This could take the form of the enactment of bilateral treaties between Belize and neighboring governments establishing a "guest worker" program, an approach that has proven successfully in other locations. The existing situation -- porous borders and essentially unimpeded illegal immigration -- would be improved and the entry of workers controlled. However, there is no reason for action on the zone legislation to be linked to this issue. It is a fundamental policy question that should be dealt with independently by concerned governmental bodies. The law specifically states that the Belize Labor Act shall apply in all cases, apart from the preferential treatment accorded zone firms in the granting of expatriate work permits which are nevertheless subject to standard procedural requirements as established by the Ministry of Labor. If the government disagrees with this policy, it should draft new wording that is in concert with its thinking. But again, there is no

utility in combining the immigration issue with the precepts embodied in the free zone law.

9.15 There is considerable potential for free zone development in Belize, and the San Andres project is a highly positive indicator of the dynamism of the Belize private sector and the leading role it can play in the establishment of an active zone program. The issues raised in this report will require discussion and action on the part of the Government within an institutional context that is short on financial and human resources. If accorded the responsibility outlined in the draft legislation, the Ministry of Economic Development will become the operational center within the Government for the implementation of the free zone program. Both Ministry officials and representatives of other Government offices and agencies should be firmly committed to making this arrangement, or an alternative arrangement if preferred, as efficient and effective as possible. If the program is to be successful, a Government commitment must be made and a cooperative effort undertaken to establish and support the development of a national free zone program.

ANNEX A

DRAFT FREE ZONE ACT AND IMPLEMENTING REGULATION

FREE ZONE ACT

Section 1.	Short Title
Section 2.	Objectives of Legislation
Section 3.	Definitions
Section 4.	Free Zone Committee
Section 5.	Designation of Free Zones
Section 6.	Free Zone Developers
Section 7.	Powers and Responsibilities of Free Zone Developers
Section 8.	Establishment of Free Zone Businesses
Section 9.	Activities of Free Zone Businesses
Section 10.	Free Zone Imports and Exports
Section 11.	Domestic Sales to Free Zones
Section 12.	Free Zone Regulatory Regime
Section 13.	Free Zone Tax Regime
Section 14.	Free Zone Labor Regime
Section 15.	Enforcement and Liabilities
Section 16.	Implementing Regulations

FREE ZONE ACT

Section 1: Short Title. This Act may be cited as the Free Zone Act.

Section 2: Objectives of Legislation. The objectives of this Act are to promote economic growth and development, stimulate new economic investment, create new jobs, and revive economically depressed areas, within the nation of Belize.

Section 3: Definitions. In this Act -

(a) "Free Zone" shall mean a geographic area in Belize designated as provided in Section 5, outside national customs territory and duly restricted by controlled access, wherein the benefits created by this Act for Free Zones shall apply to a complex of industries.

(b) A Free Zone may include a single business and its facilities, referred to as a "Special Free Zone."

(c) "Private Party" means any individual, partnership, corporation, or other entity, domestic or foreign, which is not a government agency or owned in any part by a government agency.

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(d) "Public Party" means any agency of the government of Belize.

(e) "Free Zone Developer" shall mean a corporation established to administer a Free Zone in accordance with Section 6, and which has been found suitable to serve as such Free Zone Developer in accordance with Section 5.

(f) "Free Zone business" shall mean a private party which has been granted a Certificate of Compliance under Section 8, and which conducts a trade or business, including but not limited to manufacturing, commercial, office, warehousing, professional or other activity, primarily within the Free Zones established under this Act. The Free Zone Developer for a Free Zone shall be considered a Free Zone business.

(g) "Domestic Belizean business" shall mean any non-foreign individual, partnership, corporation or other entity conducting a trade or business within Belize, which is not a Free Zone business.

(h) "Infrastructure" shall mean a physical structure which facilitates economic or other activity, or protects property, such as roads, bridges, or storm sewers.

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(i) "Public Service" shall mean any service which has been provided in Belize by a government agency.

(j) "Free Zone Import" shall mean any input or service to be delivered to a Free Zone business within a Free Zone, whether from outside or inside the Belizean Customs territory.

(k) "Free Zone Export" shall mean any export sold by a Free Zone business and originating in a Free Zone, regardless of whether such export shall pass through Belize and depart the country outside a Free Zone for shipping or transportation purposes.

(l) "MED" shall mean Ministry of Economic Development.

(m) "FZC" shall mean the Free Zone Committee as provided in Section 4.

Section 4: Free Zone Committee. A Free Zone Committee is hereby established. The FZC shall be composed of one designated representative from each of the following: the MED, who shall serve as Chairman, the Ministry of Finance, the Ministry of Lands and Natural Resources, the Central Bank and three private sector representatives. The FZC shall designate Free Zones in accordance with Section 5.

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Section 5: Designation of Free Zones.

(a) FZC shall establish by regulation a procedure by which public or private parties may apply for Free Zone designation.

(b) FZC shall decide whether to designate Free Zones as requested by application based on the need for economic development in the proposed zone area, the likelihood of success of such designation in stimulating economic development, and other considerations in the public interest.

(c) FZC shall designate a Free Zone only after the establishment of a legally constituted Free Zone Developer for the zone as specified in Section 6, which FZC finds suitable to serve as such Free Zone Developer.

(d) Each Free Zone designation shall remain in force in perpetuity. No other licenses or permits shall be required. FZC is delegated authority only to designate zones and not to revoke any such designation.

(e) Special free zones shall adhere to the provisions established herein for Free Zone Businesses, and are not subject to designation procedures described in a-d above.

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Section 6: Free Zone Developers. Each Free Zone shall be administered by the Free Zone Developer established for that zone.

(a) Each Free Zone Developer shall be a separately incorporated entity.

(b) A Free Zone Developer may be established by one or more private or public parties.

(c) Each Free Zone Developer must either own or have leased all the land within a proposed zone area.

(d) A Free Zone Developer may sell his interest and rights in the zone to another private or public party after receiving approval for such sale from FZC.

Section 7: Powers and Responsibilities of Free Zone Developers. The Free Zone Developer for each Free Zone shall have the power and responsibility,

(a) to operate Free Zone businesses on real property it owns or has leased within the zone, after receiving the appropriate Certificate of Compliance for each business from MED;

(b) to lease or sublease real property it owns or has leased within the zone;

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(c) to make improvements, construct facilities, and develop infrastructure to enhance the zone's economic development;

(d) to provide public or other services or contract for such services within the zone;

(e) to charge fees for any services or facilities it provides within the zone, directly to those who use such services or facilities;

(f) to adopt rules and regulations for businesses within the zone, which shall promote the safe, efficient, and successful operation of the zone, consistent with this Act and implementing regulations, and the laws and Constitution of Belize;

(g) to promote and advertise the zone to prospective investors and business owners and operators;

(h) to report on zone activities, performance, and developments to MED on a regular basis, as specified by MED;

(i) to conduct other activities authorized by this Act, and all other legal activities of a private corporation.

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Section 8: Establishment of Free Zone Businesses.

(a) Any private or public party, or group of parties, may establish a Free Zone business on property it owns or has leased within the zone, provided that it has applied for and obtained a Certificate of Compliance from MED.

(b) MED shall have the sole authority to receive applications for a Certificate of Compliance and to issue such Certificates, after obtaining the approval of relevant Government authorities. Upon receipt of an application, MED shall review and circulate the application to the Ministry of Finance, the Ministry of Lands, the Ministry of Labor, and the Central Bank for their review and approval. Each of these offices will be given a ten-day period to comment on the application. If no written comment to the contrary is received by MED within 10 days of its forwarding of the application to any of the above offices, it will be treated as having received their approval. Approved businesses will receive a Certificate of Compliance allowing them to do business within a Free Zone or as a Special Free Zone. MED shall establish all necessary procedures by which applications for Certificates of Compliance may be made.

(c) MED shall grant a Certificate of Compliance upon application after receiving the approval of the authorities cited in Section 8 (b) if the proposed business enterprise,

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(1) will produce goods and/or services solely for export or sale to buyers who are not residents of Belize except as provided in Section 9 (c);

(2) will not have a deleterious effect on the environment;

(3) will be conducted in compliance with all applicable legal and regulatory requirements under the laws of Belize, and all rules and regulations of the zone established by the Operating Authority, and the owner or owners of the enterprise have agreed to maintain such compliance.

(d) Any private or public party with a Certificate of Compliance may lease property within a Free Zone from the Free Zone Developer on the terms and conditions agreed to by the Free Zone Developer and the lessee. The Free Zone Developer shall not be required to lease Free Zone property to any particular party, including parties which have been issued a Certificate of Compliance.

(e) Firms which cannot or do not wish to locate within a free zone complex but which meet all the requirements established for receipt of a Certificate of Compliance may operate as Special Free Zones on a single plant basis at locations of their choosing and will be eligible for all the benefits for Free Zone businesses as detailed herein.

(f) A Free Zone Developer may lease property within a Free Zone to a non-exporting firm, but only after receiving approval from MED for such lease. MED shall grant such approval only if the services provided by the firms are complementary to and enhance zone business activities. The lessee may conduct a domestic Belizean business on the leased property under the established laws of Belize without any of the benefits or advantages created under this Act for Free Zone businesses.

(g) Rent shall be paid to a Free Zone Developer in U.S. dollars or the equivalent in the currency of Belize at the official exchange rate prevailing at the time of payment.

Section 9: Activities of Free Zone Businesses.

(a) The Certificate of Compliance for a Free Zone business shall state what lines of business the Free Zone business may conduct within the Zone, and the Free Zone business shall be limited to those business lines.

(b) A Free Zone business shall conduct its business activities in accordance with the terms and conditions of Section 8. Activities of a Free Zone business shall be conducted within Belize Free Zones or foreign countries; activities in Belize outside of a Free Zone limited to transportation, distribution, or business meetings.

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(c) A Free Zone business shall not sell, lease or transfer any article, item, good, or service in Belize outside a Free Zone, or to any resident of Belize or any domestic Belize business enterprise. MED may provide waivers to this restriction upon application at its discretion. A Free Zone business shall be free to sell, lease or transfer any article, item, good, or service in a Free Zone or outside Belize to other Free Zone businesses, to foreign businesses, or to foreign individuals.

Section 10: Free Zone Imports and Exports.

(a) No import license shall be required for any imports of a Free Zone business into a Free Zone.

(b) All imports of a Free Zone business into a Free Zone, including capital equipment, office furniture, spare parts, raw materials, intermediate goods, supplies, consumer goods, shall be exempt from all customs duties, entry taxes, tonnage taxes, tariffs, consumption taxes, excise taxes, trade turnover taxes, foreign exchange taxes, or other taxes. Motor vehicles and fuel entering the free zone are not included in this exemption.

(c) No quotas or import prohibitions concerning any article, item, material or good shall apply to imports of a Free Zone business into a Free Zone, except that firearms,

military equipment or material, and illegal drugs under the laws of Belize, shall not be imported into a Free Zone.

(d) The Customs Office shall defer inspection of any imports to a Free Zone until such imports reach the zone. Such imports must be transferred from the port of entry in sealed containers. At the zone, Customs shall inspect the imports to determine whether they contain any prohibited articles, items or materials and are in keeping with accompanying documentation.

(e) No export license shall be required for any exports of a Free Zone business out of a Free Zone.

(f) All exports of a Free Zone business out of a Free Zone shall be exempt from all customs duties, tonnage taxes, consumption taxes, excise taxes, trade turnover taxes, foreign exchange taxes, or other taxes.

(g) No regulatory restriction shall apply to any exports of a Free Zone business out of a Free Zone, except that firearms, military equipment or material, and illegal drugs under the laws of Belize, shall not be exported from a Free Zone.

(h) The Customs Office shall inspect exports of a Free Zone business at the Free Zone to determine whether the exports contain any illegal articles, items or materials and are in keeping with accompanying documentation.

(i) An import license shall be required for any imports into Belize from a Free Zone, to be issued under the same rules and procedures as all other import licenses. The standard customs duties, consumption taxes, foreign exchange taxes, trade turnover taxes, excise taxes, quotas or import prohibitions under the laws of Belize shall apply to such imports. Customs shall inspect such imports upon entry into Belize from the Free Zone.

(j) The Customs Office shall maintain an on-site office at each Free Zone to carry out its responsibilities under this Act, the cost of which shall be borne by each zone developer. Special Free Zones shall be responsible for maintaining adequate surveillance of their operations and securing Customs supervision for the entry and exit of goods from their facilities.

Section 11: Domestic Sales to Free Zones.

(a) No license shall be required for the sale of any article, item, material, good or service by a domestic Belizean business to a Free Zone business.

(b) The domestic seller shall receive within 30 days of application a rebate from the government of Belize for any customs duty, value added tax, consumption tax, sales tax, trade turnover tax, foreign tax,or excise tax paid with respect to any such article, item, material or good sold under subsection (a), and the Free Zone purchaser shall be free of any such duty or tax.

(c) The Free Zone purchaser shall pay for any such article, item, material or good sold under subsection (a) in the currency of Belize.

(d) No price controls shall apply to the sale of any such article, item, material or good sold under subsection (a).

(e) Any such article, item, material or good sold under subsection (a) shall not be counted as fulfilling any import quota.

(f) The sale of any article, item, material or good under subsection (a) shall be treated as an export of the article, item, material or good under the laws of Belize, qualifying the seller for all incentives for domestic Belize enterprises which apply to exports.

Section 12: Free Zone Regulatory Regime.

(a) No license or permit shall be necessary to conduct a Free Zone business, except the Certificate of Compliance under Section 8 and the residency and work permits under Section 14. The Trade Licensing Ordinance (Chapter 53) shall not apply to Free Zone businesses.

(b) No price controls shall apply to the products or services sold by a Free Zone business. The Supplies Control Ordinance (Chapter 221) shall not apply to Free Zone business.

(c) No rent controls shall apply to any rental property inside a Free Zone. The Rent Restrictions Ordinance (Chapter 158) shall not apply to Free Zone business enterprises or lessors and lessees of real property within Free Zones.

(d) No regulations, restrictions or prohibitions regarding the sale or purchase of foreign currencies shall apply to a Free Zone business. The Exchange Control Regulations Ordinance (Chapter 43) shall not apply to Free Zone businesses. Free Zone businesses shall be free to maintain bank deposits in foreign currency in domestic or foreign banks located in Belize.

(e) Free Zone businesses, their foreign owners, and their foreign national employees shall be free to remove funds earned or invested in the zone, or otherwise brought into the zone from any country other than Belize, to any country including Belize.

(f) Free Zone business enterprises shall not be restricted to purchasing any good or service from any particular company or entity or any group of companies or entities. An exclusive franchise to sell any particular good or service shall not be effective within Free Zones.

Section 13: Free Zone Tax Regime.

(a) During the first 10 years of its operation, each Free Zone business shall be exempt from income tax or capital gains tax or any new corporate tax adopted by the government of Belize after passage of this Act. Any dividends paid by a Free Zone business shall be exempt from tax in perpetuity.

(b) Free Zone businesses shall be subject to all payroll taxes and social taxes, as set forth in the Labor Act.

(c) If a Free Zone business incurs a total net loss over the 10 years of the tax holiday specified in subsection (a), that loss may be carried forward and deducted against profits in the years following the tax holiday period.

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(d) Any proceeds from the sale of stock or other partial or complete ownership interest in a Free Zone business shall be exempt from any capital gains tax.

(e) All real property within a Free Zone shall be exempt from any property or lands tax. The Land Tax Act shall not apply to Free Zone property. Any sale of real property within a Free Zone shall be exempt from any transfer tax.

(f) All goods or services sold by a Free Zone business enterprise outside the Belize Customs territory shall be exempt from any value-added tax, consumption tax, sales tax, excise tax, or trade turnover tax.

(g) All purchases or sales of foreign currency by a Free Zone business shall be exempt from any currency export tax or foreign exchange tax.

Section 14: Free Zone Labor Regime

(a) All provisions of the Belize Labor Act shall apply to the Free Zone Developer and to Free Zone businesses.

(b) All Free Zone Developers and Free Zone businesses shall pay their Belizean workers in the currency of Belize.

(c) A work permit shall be required for any foreign national to work on a regular basis for a Free Zone business. A residency permit shall be required for any such foreign national to live in Belize on a regular basis.

(d) Applications for work permits shall be submitted to MED, which, after securing the approval of the Ministry of Labor, is authorized to grant such work and residency permits to all foreign nationals who propose to work for a Free Zone business. MED may request from the applicant all information deemed necessary to determine whether such permits shall be granted.

(e) MED shall grant such permits to an applicant who will serve the Free Zone Business enterprise in a senior management or technical position, with the permits to remain in effect until the applicant leaves such position.

(f) MED shall otherwise grant such permits for up to 20 percent of the workers of a Free Zone business, as designated by the business.

(g) There shall be no initial or annual charge or fees for any work or residency permits for Free Zone personnel, whether issued under subsection (c) or (d).

(h) During the time work or residency permits issued under either subsection (c) or subsection (d) are in effect, the employee shall be exempt from income tax payable to the government of Belize, as long as the employee is liable for income tax on the income earned from the Free Zone business to the employee's home country. If the employee is not liable for such tax to the employee's home country, then the employee shall pay income tax on such income to the government of Belize under the laws of Belize, but shall be allowed a 50% exclusion of such income for the purpose of calculating such income tax liability.

Section 15: Enforcement and Liabilities.

(a) The MED shall have the power and responsibility to assess fines for violations of any requirement under this Act by a Free Zone business, in accordance with regulations issued by the Government.

(b) If a Free Zone business shows a continuing pattern of violations indicating that it will not reliably comply with applicable requirements, then MED after proper notice and hearing in accordance with regulations issued by MED, may revoke the Certificate of Compliance. The enterprise shall then no longer be eligible for any benefits under this Act.

(c) If MED determines that a foreign national working for a Free Zone business does not satisfy the requirements of the foreign national's residency and work permits, then MED after proper notice and hearing may revoke such permits, thereby prohibiting the foreign national from continuing to work in the zone or elsewhere in Belize.

(d) A Free Zone business or a foreign national working for such business may appeal any fine or revocation of Certificate of Compliance or residency and work permits under subsections (a)-(c) to the courts of primary jurisdiction of Belize or to arbitration under the rules of the International Arbitration Association. Any challenged Certificate or permits shall remain in effect until such appeal is concluded. All parties and regulatory authorities shall abide by the final decision of such appeal. The losing party or parties shall pay all costs of arbitration.

(e) Each Free Zone business shall be liable for any damage to persons or property which may result from any violation of applicable regulatory requirements by the Free Zone business.

(f) MED shall have the power to assess fines for any violation of the requirements of this Act by a Free Zone Developer, in accordance with regulations issued by MED.

(g) A Free Zone Developer may appeal any fine by MED to the courts of primary jurisdiction of Belize or to arbitration under the same provisions provided in subsection (d) above.

(h) MED, FZC, and other Belize regulatory authorities shall have complete authority to inspect any Free Zone operations or facilities for possible violations of applicable requirements.

(i) Each Free Zone business shall have the right to sue its Free Zone Developer in the courts of Belize or to submit the matter to arbitration under the same provisions as provided in subsection (d) above, to enforce its rights under this Act.

(j) Each Free Zone Developer shall have the right to sue MED in the courts of Belize or to submit the matter to arbitration under the same provisions as provided in subsection (d) above, to enforce its rights under this Act.

(k) Each Free Zone Developer and Free Zone Business shall have the right to sovereign control of its property and

under no circumstances shall the Government of Belize usurp this right through nationalization or other form of expropriation.

Section 16: Implementing Regulations. The Government shall have the power to adopt all regulations required to implement this Act.

FREE ZONE IMPLEMENTING REGULATIONS

Section 1:	Definitions
Section 2:	Application for Free Zone Status
Section 3:	Designation of Free Zones
Section 4:	Application for Certificate of Compliance
Section 5:	Ruling on Certificate of Compliance Applications
Section 6:	Administration and Operation of Free Zones
Section 7:	Free Zone Trade with Domestic Enterprises
Section 8:	Free Zone Imports and Exports
Section 9:	Free Zone Work and Residency Permits
Section 10:	Funds Transferred to Free Zones
Section 11:	Enforcement and Penalties

FREE ZONE IMPLEMENTING REGULATIONS

Section 1: Definitions. The terms defined in Section 3 of the Free Zone Act shall be defined in the same way in this regulation.

Section 2: Application for Free Zone Status.

(a) Any private or public party may apply to the FZC for a Free Zone designation.

(b) The FZC shall provide application forms to each party seeking a Free Zone designation. In addition, the FZC will provide to each applicant all forms required by the Ministry of Labor for the issuance of the expatriate work permits and residency permits required for the initiation of the project.

(c) In the application the party shall

(1) state the geographic area proposed for the Free Zone and describe current activities, business operations, and land uses within that geographic area;

(2) submit a project profile including a physical master plan showing overall layout, proposed construction schedule, capital cost estimate, staff and management organizations, and financial projections, including leasing/sale arrangements, for the project;

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(3) provide estimates of market demand for the facilities and the expected business activities to be undertaken therein;

(4) provide projections for the first five years of zone operations including the amount of new capital investments expected in the zone, the number, types, and earnings of expected jobs within the zone for citizens of Belize, and the total amount of new expected output in terms of gross sales, value added and net foreign exchange earnings;

(5) state the identity of the proposed Free Zone Developer, and the owners of the Free Zone Developer, the assets and financial resources of such Free Zone Developer and owners, and the past business and professional activities of such Free Zone Developer and owners.

(6) evaluate the need for additional infrastructure within and external to the zone and plans for development of that infrastructure.

(7) estimate the need for additional public services within the zone and discuss plans for providing those public services;

(8) evaluate the environemental impact of the project based upon the activities of the intended users of the facilities provided.

(9) such other information as FZC shall request.

(d) This information shall be submitted on application forms provided by FZC together with an application fee, not to exceed US$500.

(e) The applicant shall include with the application documents showing that the real property within the Free Zone is all either owned or leased by the proposed Free Zone Developer, or that the Free Zone Develoepr has optioned the property on terms acceptable to FZC.

Section 3: Designation of Free Zones.

(a) FZC shall rule on applications for a Free Zone within 60 days of receiving the application. If FZC has not ruled within 60 days, then the application shall be considered granted. If the application is denied, FZC shall specify the reason for such denial, and if rectifiable, the applicant shall have thirty days to resubmit the application for reconsideration.

(b) In considering whether to grant Free Zone applications, FZC will look more favorably upon applications

(1) where the proposed zone is in an area with a greater need for economic development;

(2) where the proposed zone has a greater likelihood of success in stimulating economic development and will produce a greater volume of economic activity;

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(3) where the proposed zone will produce more jobs and higher paying jobs for citizens of Belize.

(c) If FZC decides to grant a zone designation, it shall issue a formal Certificate of Designation providing that the zone has been officially and legally designated and qualifies for all the provisions in the Free Zone Act.

Section 4: Application for Certificate of Compliance.

(a) Private or public parties seeking a Certificate of Compliance for a Free Zone business shall apply to MED.

(b) The MED shall provide application forms to each party seeking a Certificate of Compliance. In addition, the MED will provide to each applicant all forms required by the Ministry of Labor for the issuance of the expatriate work permits and residency permits required for initiation of their operations.

(c) The applicant shall state in the application

(1) name, address, and nationality of the company and any partners or shareholders with an interest of 5% (percent) or more;

(2) the nature of the business enterprise, the activities it will conduct, intended Belize location, products to be produced, and markets for the products;

(3) composition of the company's capital and its country of origin;

(4) sources of financing for fixed investment, working capital requirements, and financial references;

(5) estimated capital investment by the proposed business in the zone;

(6) capital equipment, raw materials, and intermediate goods to be imported;

(7) local sources of inputs to production;

(8) estimated number and types of jobs created by the proposed business in the zone, estimated earnings of those jobs, number and types of expatriate work permits required;

(9) the infrastructure and public services which the proposed business activity shall require;

(10) any potential interference from the proposed business activities with other activities conducted within the zone;

(11) potential effects of the proposed business activity on the environment, including an Environmental Impact Analysis when the production processes involved may have an unusually strong impact on local resources or a deleterious effect on the environment.

(12) agreement by owner or owners of the proposed business enterprise that it will be operated in compliance with all applicable legal and regulatory

requirements under the laws of Belize, and all rules and regulations of the zone established;

(13) such other information as the MED shall request.

(d) The information shall be submitted to MED on application forms provided by MED, together with an application fee not to exceed US$500.

(e) Applicants shall bear the cost of any Environmental Impact Analysis required under the laws of Belize for their proposed business activities.

Section 5: Ruling on Certificate of Compliance Applications.

(a) MED shall rule on an application for a Certificate of Compliance within 30 days. If MED has not ruled on that application within 30 days, the Certificate shall be automatically granted.

(b) A proposed business enterprise shall be considered suitable for the zone and consistent with other activities within the zone if the activities of the business enterprise

(1) will not require infrastructure or public services within the zone that cannot be provided, and

(2) will not place a significant burden or hardship on other activities within the zone.

Section 6: Administration and Operation of Free Zones.

(a) The Free Zone Developer may provide infrastructure within a Free Zone. The Developer shall coordinate with and obtain approval from the government agency which would otherwise provide such infrastructure in Belize. Government agencies shall encourage such provision of infrastructure and grant approvals unless the parties are incapable of providing the infrastructure they seek to provide, or doing so will cause significant burdens on nonconsenting parties.

(b) The Free Zone Developer may provide public services within a Free Zone. The Developer shall coordinate with and obtain approval from the government agency which would otherwise provide such services. Government agencies shall encourage such provision of public services and grant approvals unless the parties are incapable of providing the service they seek to provide, or doing so will cause significant burdens on nonconsenting parties.

(c) the parties providing infrastructure under subsection (a) or public services under subsection (b) may charge those who agree willingly to use such infrastructure or services.

(d) Each Free Zone Developer shall adopt and enforce rules and regulations for its zone to coordinate the activities of Free Zone businesses so that mutual interference may be

avoided, to maintain public health and safety, to provide for an appropriate waste disposal system, to require compliance with applicable laws and regulations of Belize, to mandate proper maintenance of the premises, and to set liability for damages to one Free Zone business by another.

(e) Each Free Zone Developer shall maintain the security of its zone, enforcing proper conduct within the zone, excluding entry to the zone by unauthorized personnel, and preventing improper entry or exit of goods, items or materials.

(f) A Free Zone Developer may contract out to another party any function or activity which it may perform, but the Developer shall remain responsible for adequate performance of the activity.

(g) Each Free Zone Developer shall supply MED with monthly reports describing the activities of the zone's business enterprises, their general performance including but not limited to output, employment, and capital investment, developments in infrastructure and services provided, amount of zone exports and imports, opportunities for domestic sales to Free Zone enterprises, any violations of legal and regulatory requirements which have occurred within the zone, zone space occupied and remaining unused zone capacity,

expected changes in any relevant zone matters, and other information which MED shall reasonably request on forms provided by MED. Each Free Zone Developer shall adopt rules and regulations requiring Free Zone businesses to submit in a timely manner the information necessary to complete these reports, except that no Free Zone business shall be required to provide confidential or proprietary information.

Section 7: Free Zone Trade with Domestic Enterprises.

(a) MED may provide waivers allowing Free Zone businesses to sell, lease or transfer articles, items, goods or services to citizens of Belize or domestic Belize business enterprises. MED may provide such waivers when doing so will aid the economic development of Belize, or relieve a shortage of goods or services, or otherwise seems in the interest of Belize. The parties seeking the waiver to trade shall apply for the waiver and provide information to justify such waiver or which MED may otherwise request. MED shall act upon such request for waiver within 30 days of receipt. In the event that no action is taken within the prescribed period, the request will be deemed approved.

(b) Any article, item, material, good or service sold to a Free Zone business enterprise by a domestic Belizean business shall consitute an export by that firm and shall be entitled to all privileges, tax abatements, and other rights

ascribed to such export transactions. MED shall provide tax rebate vouchers for the appropriate amounts within thirty days of application, which the party receiving the vouchers may redeem at the Treasury of Belize for cash.

Section 8: Free Zone Imports and Exports.

(a) Each Free Zone business shall maintain records documenting the entry, storage, use and exit of all Free Zone imports and exports.

(b) Customs officials shall have the authority to inspect the premises and records of any Free Zone Developer or Free Zone business to ensure compliance with applicable import and export regulations.

Section 9: Free Zone Work and Residency Permits. For purposes of subsection (e) of Section 14 of the Free Zone Act, (i) senior management personnel shall include any officer or member of the board of directors of a corporation, any partner in a partnership, any owner of a sole proprietorship, and any manager of 25% (percent) or more of the personnel of a Free Zone business; (ii) technical personnel shall include those employed in any professional, scientific, or engineering position.

Section 10: Funds Transferred to Free Zones. Any funds invested in a Free Zone by a corporate or individual resident of Belize

shall be registered with the Central Bank of Belize. Any profits, dividends, or earnings on such investment shall be paid to the Belize investor in the currency of Belize and in the country of Belize, where it shall be subject to the usual foreign exchange and capital controls. Any return of the investment funds shall similarly be paid to the Belize investor in the currency of Belize and in the country of Belize.

Section 11: Enforcement and Penalties.

(a) MED shall investigate any potential violation by a Free Zone business of any requirement under the Free Zone Act or these implementing regulations, or of any legally valid order of MED or the Free Zone Developer. If MED develops clear and convincing evidence of such violation, it shall assess an appropriate fine of an amount in its discretion up to $5,000 per day for each day during which the violation continued. All such fines shall be paid to the Treasury of Belize.

(b) If upon investigation MED develops clear and convincing evidence

(1) of a pattern of continuing violations described under subsection (a),

(2) indicating that the alleged violator will not reliably comply with applicable requirements,

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MED shall provide reasonable notice to the alleged violator of a hearing to show cause why the Certificate of Compliance for such business shall not be revoked. At the hearing, MED shall present its evidence against the alleged violator, who shall have the opportunity to cross-examine any witnesses or otherwise rebut the evidence. If after the hearing MED finds based upon clear and convincing evidence that a pattern of continuing violations has occurred and that the alleged violator will not reliably comply with applicable requirements in the future, it may revoke the Certificate of Compliance and the business will no longer be eligible for any of the benefits of the Free Zone Act.

(c) MED shall monitor whether foreign nationals holding work and residency permits continue to satisfy all requirements and conditions of such permits. If MED develops clear and convincing evidence that any of the requirements or conditions are not being met, it shall hold a hearing to show cause why such permits should not be revoked. The hearing shall be held under the same provisions as the hearing provided for in subsection (b). If after the hearing MED finds based upon clear and convincing evidence that any of the requirements or conditions of the permits are not satisfied, it shall revoke the permits, and the foreign national may then no longer continue to work in the zone.

(d) MED will investigate any potential violations by Free Zone Developers of any requirements under the Free Zone Act or these implementing regulations. If MED develops clear and convincing evidence of such violations, it shall assess an appropriate fine of an amount in its discretion up to $5,000 per day for each day during which the violations continued. All such fines shall be paid to the Treasury of Belize.

ANNEX B

REGIONAL FREE ZONE CASE STUDIES

I. BARBADOS

A. THE SETTING

1. Introduction

Barbados is the most easterly of the Caribbean Islands, located 270 miles northeast of Venezuela. The island has a total population of 254,000 and an area of 166 square miles, making it one of the most densely populated islands in the Caribbean. English is the primary language, with an exceptional 98 percent of the adult population literate.

2. Economic Overview

Barbados has one of the most dynamic economies in the region. Like other Caribbean nations, the small size of the domestic market has led to a reliance on tourism and export expansion as the primary generators of economic growth over the past twenty years. The economy performed impressively during the 1960s and 1970s, despite its limited natural resource endowments. Economic growth averaged five percent annually in real terms, living standards rose and low population growth permitted per capita income to advance to US$5,150 in 1986. During this period the economy underwent a process of structural transformation away from primary agricultural products toward export manufacturing and tourism, which increased their share in GDP to 11 percent and 12 percent respectively in 1986. Today, these two sectors combined contribute more to GDP than total agricultural production. This transformation was mainly attributed to the country's social and political stability, an aggressive international trade strategy, orientation toward external markets, and a judicious balance between the roles of the government and the private sector.

During the 1980s, the Barbadian economy suffered from the impact of the 1981-83 world recession, the collapse of export markets to Trinidad and Tobago, and increased trade restrictions in the CARICOM market. These factors caused a sharp contraction in tourism, manufacturing, and agriculture, leading to negative GDP growth in 1981 and 1982. The economy recovered very slowly thereafter. This was attributed to the difficulties encountered by the agricultural sector, which stagnated during this period. Production of sugar, the traditional export crop in Barbados, was severely constrained by bad weather conditions and rising production costs.

Between 1981-1985, electronic assembly emerged as the nation's principal manufacturing sector, leading the nation in export earnings. In 1986, however, a volatile U.S. market sharply lowered demand for electronic components manufactured in Barbados.

Responding to a 20 percent drop in demand, assembly operations have reduced employment and closed several plants. Electronic component production plummeted 75 percent, resulting in 40 percent fewer jobs between 1986-87. The impact of economic setbacks in this sector, however, was softened by the rise in the data services and food processing industries. The creation of new jobs in information services somewhat offset job losses in electronics, posting an impressive 44 percent increase during the first quarter of 1987.

B. BACKGROUND ON INDUSTRIAL ESTATES IN BARBADOS

Although there are no free zones per se in Barbados, the country has developed an extensive network of eleven industrial estates located throughout the island which have many of the same attributes as free zones. The country's dynamic ability to meet the demand of higher-end technologies has driven this successful program, distinguishing it as a leader of economic development in the Eastern Caribbean. Firms established within the industrial estates produce a wide variety of items, with electronic components, apparel, chemicals, and furniture comprising the four main industry sectors for export manufacturing. Other industries include processed foods, sporting goods, cosmetics, foam, mattresses, rubber, and detergent products.

Barbados welcomes foreign investment; scores of foreign firms have settled in the island and operate in virtually every sector of the economy. Given the country's high standard of living, the government increasingly seeks to attract investment in specialized and sophisticated industries such as data processing and telecommunications.

Barbados is widely regarded as an ideal location for offshore data processing. The island has well-developed infrastructure with reliable electricity, natural gas and water distribution systems as well as excellent telecommunications. The tremendous growth in the data processing industry is reflected by the burgeoning number of data entry service bureaus in the United States now subcontracting to domestic companies.

A total of 171 acres has been designated for industrial estates with 110 acres of developed land area. The Barbados Industrial Development Corporation (BIDC) administers all eleven of the industrial parks on the island, and owns 80 buildings, accounting for 1,508,000 sq. ft. of factory space. The remaining 28 buildings are privately owned.

Since independence in 1966, successive governments have sought to encourage export-led industrialization as the means to diversification of the traditional sugar-based economy. The Government of Barbados has applied this policy consistently, having little illusion about the efficacy of import-substitution for their

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small, local market. In line with the importance that the government has placed on maintaining an open, free-market economy which encourages foreign investment, a number of laws have been passed in the last 18 years that seek to attract and support investors.

Prior to Barbados' independence, the basis of this program was established with the Industrial Incentives Act of 1963 which enacted tax and import-duty concessions for the manufacturing sector. The policy was further clarified and extended in 1969 with the passage of the Industrial Development Act granting additional tax exemption and duty concessions for companies engaged in manufacturing for export. The major policy tools used to encourage export-led manufacturing were enhanced by the creation of the Barbados Industrial Development Corporation (BIDC) in 1965. The BIDC is a parastatal institution mandated to promote and manage the growth of the manufacturing sector. It acts as a "one-stop shop" for the processing of applications and complaints and also serves as a liaison between government agencies and the investor. As a result, the bureaucratic process has been significantly streamlined.

Barbados has no foreign investment code as such, but operates under the Caribbean Common Market Fiscal Incentives Act. The BIDC promotes investment in Barbados from its island headquarters and a New York office. Barbados recently enacted a new Companies Act in 1982 which contains provisions in line with the legal standards and principals common to industrialized nations. Some of its tenets include simplicity and ease of incorporation, the option of par value or no par value shares, freedom to change domicile and the relative ease by which the company can purchase its own shares. There are no restrictions on the transfer of original capital investment, dividends, or interest, provided that all income tax obligations are met. Repatriation of profits is limited to a level of the original investment plus eight percent of the last five years' returns. Although the repatriation of profits is regulated, the Offshore Banking Act allows manufacturers to set up holding companies that are taxed at a maximum rate of 1.5 percent. Thus it is possible to repatriate profits by utilizing the offshore banks and holding companies.

C. FACTORS INFLUENCING ZONE PERFORMANCE

1. Governmental/Regulatory Advantages and Constraints

The Government of Barbados initiated corporate and individual tax incentives in a bid to stimulate business and investment activity. Under the Fiscal Incentives Act of 1974, both national and foreign companies may qualify for tariff exemptions which provide duty relief for qualified firms,for periods ranging from three to ten years. The government, however, must grant specific approval for

each product produced in order to qualify for exemptions based upon the local value added in the production process.

Tax holidays are accorded on the following basis: A ten-year tax exemption is granted to companies manufacturing products with a local content of 50 percent or more; companies receive eight years of tax-exempt status for products with more than 25 percent, but less than 50 percent local value added; and companies receive six years of exemption status for products with over ten percent, but less than 25 percent local value added.

Capital intensive operations investing US$25 million or more qualify for tax-exempt status for the maximum period of ten years regardless of local content. Enclave industries, producing exclusively for export outside the CARICOM region, are also entitled to the maximum 10-year tax holiday irrespective of the local value-added. During a tax holiday, enclave companies may import free of duty all plant equipment, spare parts, and raw materials from outside the Caribbean Common Market if these items are not available at the price, quantity, and quality within CARICOM. Approved industries may import these items duty-free with a license.

2. Ownership and Management Structure

As previously mentioned, the Barbados Industrial Development Corporation serves as a one-stop information and assistance bureau for prospective investors. The BIDC provides a liaison service between all government agencies and foreign investors free of charge. While the BIDC owns and manages all eleven industrial estates in Barbados, companies may purchase private factory buildings. In such cases, the BIDC offers insurance coverage, and the tenant has responsibility for security of the building. It provides general services including roads, water supply, sewage, drainage, electricity, landscaping, and refuse collection.

The BIDC offers two types of factory accommodations -- the straight rental plan and the lease purchase plan. Companies choosing the rental plan enter a five-year renewable lease agreement under which the BIDC is responsible for all external maintenance and repair of internal fittings. Under this rental contract, any leasehold improvements are the responsibility of the tenant.

Firms which chose the lease-purchase agreement enter a contract with the BIDC allowing the firm to purchase the building within a five-year period. The annual rental is 16 percent of market value with an option to purchase at a price equal to the market value less four percent for each year the company has rented the facility.

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3. Basic Production Factors

There are several industrial estates which have vacant factory space available for lease. Although rental rates vary, depending on location, size and facilities, small firms pay between US$1.20 and US$2.00/sq.ft./year. Large companies pay between US$2.50 and US$3.20/sq.ft./year. The BIDC does not rent office space.

Although some estates cater to specific industries, most provide multi-purpose factory space suitable to a variety of industries. On the Newton estate, the island's largest facility, twenty-five companies operate in 14 factory buildings, occupying 450,000 sq.ft. within 17 acres of developed land. There is currently 31,000 sq.ft. of under roof space available for lease.

The Government of Barbados offers a unique industrial training grant program for investors. There are two types of subsidies offered: a training subsidy for new companies, in which the Government reimburses the employer up to US$70/week for a training period of up to two months; and a training subsidy for employees upgrading their skills, whereby the Government reimburses up to $100/week for each employee, not exceeding three months. Employees must take certified training courses in order for companies to qualify for training subsidies.

The wage rate in Barbados is relatively higher than other Caribbean nations. Fringe benefits add an average of 24 percent to base wages. On a weekly basis, average direct labor expenses in the garment industry are US$56.00, while in the electronics industry they vary anywhere from US$42.00 for a trainee assembly worker to US$145.00 for an electronics mechanical technician.

Barbados has one major port located in Bridgetown with minor ports in Oistins and Speightstown. Over twenty shipping companies operate in Barbados, providing regular service to other major international ports in the Caribbean, North America and Europe. Flying time from Barbados to Miami and New York is 3.5 hours and 4.5 hours respectively. Seventeen companies provide air cargo service. Air freight costs approximately US$0.50 per pound to ship from Barbados to Miami. With easy access to telephone, telex and facsimile equipment, in addition to numerous adequate roadways linking the major cities, the country is equipped with excellent infrastructure.

D. OUTLOOK

Despite a recent slowdown in the U.S. market for electronics, Barbados continues to excel in the components industry, manufacturing more solid-state electronics than any other country in the Caribbean Basin. However, the fluctuating performance of the U.S. economy will affect Barbados and make U.S. demand for

components unpredictable. The willingness of U.S. firms to purchase their own facilities in the country indicates the well-established position Barbados holds in offshore manufacturing in general, not just in the electronics sector.

The information services industry in Barbados has increased dramatically in the last five years, and there is considerable potential to attract other service-oriented firms. The highly literate and English-speaking workforce has stimulated growth to a large extent. Reliable power, satellite communications, experienced manufacturers and contractors, frequent air freight, and relatively inexpensive facsimile service encourage the increasing numbers of firms considering Barbados. The outlook for sustained growth is positive.

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II. COSTA RICA

A. THE SETTING

1. Introduction

With a thirty-year history of peaceful and stable government, Costa Rica has sustained political stability within a region characterized by frequent and often violent political changes. The country has a strong tradition of free speech and, unlike its Central American neighbors, maintains no organized army apart from the national militia. Elections held every four years have been peaceful, as have transitions of government.

2. Economic Overview

Costa Rica's economic performance has been constrained by a number of factors. An industrialization strategy based on import substitution and production for the Central American Common Market in the 1970s fostered the creation of an industrial base producing finished goods in a protected and limited market. In addition, heavy borrowing during the 1970s to finance this industrialization led to one of the highest per capita indebtedness ratios in the world. These shortcomings in the national economic development strategy were compounded by the second round of oil price shocks in 1979-1980 which brought on a financial crisis the country is still struggling to overcome.

Since that time, Costa Rica has rescheduled its debt payments annually and has sought assistance from the IMF and World Bank. With the support of these institutions, the country has undertaken a structural adjustment program aimed at opening up the economy and reorienting the industrial sector toward exports. The economy is now beginning to show signs of recovery and renewed strength, registering modest growth rates of 2 to 2.5 percent for 1986 and 1987. Exports of non-traditional goods to countries outside of Central America rose by 25 percent in 1987, with similar percentage increases expected in 1988 as well. Although these developments have improved the current account balance, the country still depends on foreign assistance inflows to cover its deficits. New foreign direct investment, concentrated in the export manufacturing sector, has picked up substantially, having reached over US$30 million in 1986.

With the decline of the Central American Common Market, Costa Rica has been forced to explore new markets for its products and has increased exports to industrialized nations under a variety of trade programs. Costa Rica enjoys preferential U.S. market access under the CBI, in addition to its privileged status under the U.S. Generalized System of Preferences. A member of the Lome

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Convention, Costa Rica also benefits from access to the countries of the European Economic Community.

B. OVERVIEW OF THE COSTA RICAN FREE ZONE PROGRAM

The free zone program of Costa Rica was established in 1981 with the passage of Law 6695. As conceived, the program was a policy tool to encourage economic growth in the less developed provinces outside the Central Valley Region of Puntarenas, Limon, and Guanacaste. The parastatal Corporacion de Zonas Francas (CZF) was accorded responsibility for developing free zones. CZF started with projects in Puntarenas (Santa Rosa Free Zone) and Limon (Moin Free Zone) provinces located on the coasts; however, the zones failed to achieve the government's economic objectives, most notably because the incentives offered were not sufficient to draw firms to these outlying areas.

The Costa Rican free zone program became actively pursued by investors in 1985, when private sector free zones were established. Prior to this, a minimal number of firms were located at Moin, and Santa Rosa was never completed. These private sector free zones have since been entirely responsible for the expansion of the free zone program. The Cartago Free Zone, a privately owned project, is one of the most successful zones in the Caribbean Basin region with 35 operational firms and nearly 3,300 employees. Currently, two additional private sector zones are being constructed with facilities, services, and promotional programs oriented to attract high technology and service industries to Costa Rica.

The designation as a free zone industry is granted by CZF. Among the requirements are a US$5000 deposit, the company's incorporation papers, three bank references, five commercial references and a three-year projection of the company's plans. Applications can be made through any CINDE office (the Costa Rican investment promotion agency) or directly to the CZF itself. Approvals have taken as little as 15 days, and seldom more than 30-60 days. Each application is considered on its own merits. There are no specific criteria to qualify as a free zone industry, although high pollutant industries are discouraged.

Firms operating in free zones in Costa Rica, including the free zone developers, are covered by an incentive regime competitive with those of other regional programs, i.e. exemption from import duties on capital goods and production inputs, exemption from export, sales, and excise taxes, exemption from taxes on repatriated profits, a 10-year exemption from income taxes, freedom to maintain foreign currency bank accounts, and allowances for sales to the domestic market of up to 49 percent of total production. While these benefits are fairly standard for the region, the final incentive, regarding sales by zone firms to the domestic market, is particularly generous. Host governments, for

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the most part, are reluctant to allow zone users to sell more than 10 or 15 percent of total output to the domestic market, preferring to protect local manufacturers, even though full duty is generally paid by zone users on the goods sold locally. In this light, the 49 percent domestic sales allowance represents a comparative advantage for Costa Rica in attracting foreign firms seeking to enter new markets or to dispose of off-quality merchandise not salable in international markets.

The Costa Rican free zone law was amended in 1984 to provide additional incentives to businesses, such as the maintenance of foreign currency bank accounts by free zone firms. While not undertaking a project of its own, CZF authorized a private industrial park in Cartago to operate as a free zone. In order to satisfy a legislative requirement that no new zones be authorized until those at Santa Rosa and Moin were operational, Grupo Zeta, the owners of Cartago Industrial Park, loaned funds to CZF to complete developments in Santa Rosa. Twenty firms committed over $15 million in the Cartago Zone in its first year of operation. It expanded at a rate of 4,000 sq.m. per month throughout this period, while the government zones at Santa Rosa and Moin languished. The combination of efficient private management and a superior location at Cartago proved very successful, and set a new standard for free zone performance in Costa Rica.

As interest in establishing other free zones increased because of the success of the Cartago Zone, CINDE pressed for more free zones to attract foreign investment. In January of 1987, the CZF announced a "concurso," a public solicitation for bids, to operate new free zones in the area surrounding the airport. The solicitation attracted seven proposals, of which four were approved for free zone status: Zona Franca Metropolitana, Zona Franca Alajuela (Saret), Zona Franca Aeropuerto (INTRAN), and the zone proposed by Grupo Zeta in Alajuela. These four projects, along with Cartago, now constitute the driving force in new free zone development in Costa Rica. While performing a regulatory and monitoring role for the new private free zones near San Jose, the CZF will continue its efforts to use the free zone regime to encourage establishment of export industries in the outlying areas.

Even though Costa Rica's free zone program is comparatively new, its record since the approval of the Cartago zone in 1985 has been impressive. Cartago dominated the field until late 1987, when the Zona Franca Alajuela became operational. In the Cartago Zone, for example, total investment in 1987 amounted to US$25 million. One hundred acres of land have been allocated for zone use, 75 acres of which are actually developed. Cartago employed approximately 3,000 laborers and export earnings totalled US$20 million the same year. The garment industry is the most active sector, representing approximately one-half of the free zone businesses. Other industries include electronics, jewelry, and pharmaceuticals.

The rapid growth of the Cartago zone is a solid indicator of the potential demand for free zone space in Costa Rica. The Zona Franca Alajuela opened its first building in late 1987, and has several others under contract. At year-end 1988, the Zona Franca Metropolitana, a 64.2-acre site, was under construction, yet still not operational. The other two approved zones, the Zona Franca Intran and a site in Alajuela owned by Grupo Zeta (the developers of Cartago) are not as far advanced in their development programs.

C. FACTORS INFLUENCING ZONE PERFORMANCE

1. Governmental/Regulatory Advantages and Constraints

In recent years, the Costa Rican government has encouraged the free zone sector, and export manufacturing as a whole, as part of its outward reorientation. Firms locating in Costa Rica have several alternative export program options available outside of the free zone program, including temporary admission and export certificate programs. However, risk-sensitive firms, as well as those without experience in international operations, find the free zone program particularly attractive due to: the conveniences of zone facilities and services; a close working relationship with governmental agencies that administer the free zone program; and daily assistance from park developers.

Through its economic, monetary, and regulatory policies, Costa Rica has attempted to create a macroeconomic environment conducive to private sector, export-led growth. The government has sought to maintain a competitive exchange rate and has actively encouraged foreign direct investment, especially in non-traditional agricultural production, manufacturing, and other labor-intensive operations. In 1987, the Central Bank inaugurated a debt/equity conversion program as a further stimulus to investment which met with an overwhelming response.

However, there are several constraining factors to free zone operation. The public sector zones in Santa Rosa and Moin suffer from bureaucratic mismanagement and locational constraints. Costa Rica offers a shorter tax holiday than some other countries, and the length of time it takes to set up a firm in Costa Rica could be shortened. In addition, telecommunications must be enhanced and upgraded if Costa Rica is to attract information services firms.

2. Ownership and Management Structure

All the new zones in Costa Rica are privately owned and managed. CZF retains ownership of the zones at Moin and Santa Rosa, as well as land for a zone in Golfito. However, recognizing the problems it has encountered in developing and managing these zones, CZF has explored arrangements with private groups to take over their

development. The success of Cartago and the high levels of interest by other private groups in free zone development will ensure a strong leadership role for the private sector in Costa Rica's free zone program. Indeed, one of the constraints on the program is the institutional weakness of CZF -- its role as a parastatal free zone development corporation is now under review and the corporation may convert to a purely regulatory role. The CZF currently claims a tax or fee on private free zones equal to 12.5 percent of rental revenue, which will amount to a substantial transfer of funds once the other private zones become established.

3. Basic Production Factors

Rental rates in Costa Rican free zones range from approximately US$3.00/sq.ft./year for the Cartago Zone to as low as US$1.00/sq.ft./year for Moin. Zones also offer buildings for sale at prices in the range of US$14.40/sq.ft. for an unfinished standard factory building. The CZF zone at Moin rents building space for US$12/sq.ft./year. As a rule, rental terms in Costa Rican zones include an escalation clause of seven percent per year in the base rental rate. A variety of usage options is normally available, including straight rentals, lease-purchase arrangements, cash purchases of buildings and land, and financed purchases.

Costa Rica's labor force is well-trained and well-educated. Free worker training is provided by the government either on- or off-site. An excellent social service, health, and education system has contributed to a literacy rate (98 percent) and life expectancy (73 years) among the highest in the developing world. Average wage rates of US$1.00/hour for skilled industrial workers, with an average fringe benefit factor of 25 percent, are also correspondingly higher than in most neighboring countries.

Electricity is relatively inexpensive, widely available and reliable. Costa Rica benefits from hydroelectric resources which enable it to keep industrial rates competitive. The telecommunications system for the country, which is extensive and reliable, features international direct dialing. Costa Rica has five major ports, utilizing primarily Puerto Limon on the Caribbean, Puerto Caldera on the Pacific. Most traffic is handled through Limon, which averages at least one sailing per day for Miami and other regional centers. A new road was recently completed linking the port to the capital city of San Jose, decreasing the travel time to less than two hours. Passenger and air cargo service to U.S. and regional cities is also extensive, through the international airport outside San Jose.

D. OUTLOOK

industries. The strong performance of certain segments of apparel has already led to quota restrictions in the U.S. on some items, principally lingerie. Costa Rica also appears well suited to attract additional higher-technology industries in pharmacueticals and electronics.

The principal factor constraining zone development is the absence of a variety of zones offering different types of services and facilities. While new private zones are currently being developed in the San Jose area to remedy the situation, a lack of long-term financing for industrial real estate ventures has hindered progress. Of the four new zones approved in early 1987, only one has begun construction. Furthermore, the role of the CFZ, the priority attached to its existing zones in Moin and Santa Rosa, and the emergence of new developers all remain important questions regarding the institutional and regulatory climate for free zone development.

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III. DOMINICAN REPUBLIC

A. THE SETTING

1. Introduction

The Dominican Republic is the second largest country in the Caribbean with an area of 18,711 square miles and a population of 6.2 million. The country occupies the eastern portion of the island of Hispaniola, which it shares with the Republic of Haiti. Originally colonized by the Spanish, the Dominican Republic has been a politically independent nation for over a century and a stable, representative democracy since the 1960s.

2. Economic Overview

As in many other countries of the region, the Dominican economy has traditionally been based on agriculture. However, Dominican production and processing of sugar, its primary export crop, has declined drastically principally due to falling prices in the global market and rising U.S. quota restrictions. In addition, heavily dependent on imported oil to meet its energy needs, the Dominican Republic was hit hard by the energy crisis of the late 1970s. The resulting foreign exchange problems led the Dominican Government to enter into an IMF-imposed austerity program for relief in the early 1980s. One of the key elements of the program was the devaluation of the Dominican peso and the freeing up of the foreign exchange rate in 1984.

These external economic shocks and fiscal reform measures catalyzed the development and expansion of non-traditional export production in the Dominican Republic. Over the past twenty years, the Dominican Republic has successfully diversified from its agrarian base to encompass a broad range of industrial and service activity. During this period, the contribution of the industrial sector to the Dominican GDP rose from 20 to 31 percent, fueled in large part by the growth of the nation's free zone program.

B. OVERVIEW OF THE DOMINICAN FREE ZONE PROGRAM

The free zones of the Dominican Republic are among the world's most successful. The program was launched in 1969 with the establishment of the La Romana Free Zone by the Gulf and Western Corporation. Privately owned and operated, La Romana was for many years the country's showcase of zone development -- an attractive, well-managed, private industrial facility generating profits and contributing to local economic growth.

Since the late 1960s, the national program has grown to encompass fourteen operational zones, with sixteen zones under construction or designated for development. In 1988, the value of zone exports to the United States alone was a record-breaking US$518.5 million, an increase of over 56 percent since 1987. Non-traditional exports from Dominican free zones now comprise one-third of the total exports to the United States. This remarkable growth has taken place in the absence of any single comprehensive free zone act. Instead, interested investors have had to become familiar with a number of regulatory regimes and laws regarding zone investment through the various government agencies involved in the licensing procedure. The Dominican Republic has yet to establish a "one-stop shop" which would streamline the application and licensing procedures for zone users. Consequently, all applications for free zone incentives are subject to an often lengthy governmental review.

Applications forms for designation as a free zone industry (Class "A" status under Law 299) must be submitted to the Industrial Technical Department of the Secretariat of State for Industry and Commerce. The application is then processed and forwarded to the Industrial Development Board together with its formal recommendations. The Board then issues a resolution approving or denying the application. Upon a favorable resolution of the Board, the matter is referred to the President of the Republic for his review and for the promulgation of a Presidential Decree granting the application free zone status. This process takes up to six months. Any firm desiring to produce for the export market must also obtain an export license detailing the specific items approved, which is not transferrable to another company or another product. Some companies have experienced considerable difficulty in securing government authorization when even slight alterations in their production process have necessitated application for a new export license.

Despite this somewhat complicated bureaucratic and regulatory structure, free zones have taken the lead in Dominican employment generation and export expansion. There are now 240 firms located in Dominican free zones, representing investment of over US$225 million. The majority of these firms produce apparel and textile products, while others manufacture shoes, leather and fur products, electronic components, cigars and jewelry. Total zone employment has risen from 20,000 workers in 1984 to nearly 90,000 at the end of 1988.

In addition to traditional free zone sectors, a growing number of firms now established in Dominican zones are engaged in the most sophisticated production and service activities presently being conducted offshore. "High-tech" electronics production and pharmaceutical testing operations have been launched as "twin plants" with Puerto Rican facilities. In 1987, Dominican Republic exports to the United States amounted to nearly US$53 million for

electronics assembly alone. Several of the newest Dominican zones are tailoring their buildings, on-site infrastructure, and user services to meet the needs of the growing offshore information services industry -- e.g., data entry, computer-aided design and computer-generated graphics, and telemarketing. Innovations such as these, coupled with competitive investment incentives and substantial cost savings in a favorable policy environment make the Dominican zones the prime competitor for high-end export processing activity in the Caribbean.

C. FACTORS INFLUENCING ZONE PERFORMANCE

1. Governmental/Regulatory Incentives and Constraints

As noted above, there is at present no Dominican law dedicated to the designation, development, and operation of the nation's free zones. Zones currently operate under the Dominican Industrial Incentives Law (Law 299), a law created largely to provide incentives for import substitution firms. Key elements of Law 299 offered to free zone firms include: duty-free treatment of all imported machinery, equipment, parts, raw materials, and other goods used for export production; complete exemption from all taxes for 8-20 years,; freedom from foreign currency holding and exchange restrictions; and unrestricted repatriation of profits. In addition, companies have the freedom to sell up to 20 percent of their production locally.

The Dominican Government has acknowledged and promoted the social and economic benefits generated by the free zones and has established a solid track record of support for both foreign and domestic business. There is no centralized free zone corporation or agency, however, with a strategic plan for the national zone program. Instead, zone development has taken place on an "ad hoc" basis in which the government responds to requests for zone designation. Recognizing that the continually expanding zone program will need a concise set of operating rules, Dominican business leaders have recently drafted a Free Zone Law which summarizes the existing regulations and streamlines these procedures.

2. Ownership and Management Structure

The free zones of the Dominican Republic cover the full spectrum of ownership and management alternatives. The present trend in the Dominican zone program, however, is clearly toward privately developed and managed facilities. Ten of the fourteen zones presently in operation are privately owned and operated.

The Dominican private sector has recognized and capitalized on the ability of the zones to make a profit. Beginning with La Romana,

private free zone developers have been able to charge competitive rents for facilities that are well planned and well maintained, and management that is businesslike and responsive. The private Itabo free zone is charging rates of US$4.00/sq.ft./year for factory space, comparable to those charged in North American industrial parks, and provides a broad range of services and amenities for users.

Another ownership option is demonstrated in the Santiago zone, run by a private, non-profit corporation as a local economic development initiative. Built on land donated by the government, the zone has continually generated a financial surplus which it channels into zone expansion. On the other hand, the public zone at San Pedro de Macoris is fully occupied with 70 firms employing 20,000 people; however, users are continually dissatisfied with the zone's maintenance and services, despite their low rent, and the zone has recorded net financial losses for the Dominican Government.

Nevertheless, the Dominican Government has launched new public zone projects at La Vega, Bonao, and Moca, several more are in the planning stages, and there is a potential for a surplus of zone space. For the first time, the Dominican Republic may be forced to consider the development of a comprehensive zone strategy which, taking into account the level of demand and the capacity of the developers, encourages both government and private projects to target focused markets.

3. Basic Production Factors

In most cases, Dominican zones do not allow firms to buy land within their facilities. However, acknowledging that the benefits of allowing well-known multinationals to establish operations in the zone far outweigh any disadvantages, "anchor tenants" are allowed to purchase land and construct building facilities for operations. Firms that wish to purchase land and construct their own building may elect to secure "Special Free Zone" status from the Dominican government. Special free zones are essentially one-user factories or facilities, physically separated from any free zone that operate under the benefits of Law 299. For firms processing agricultural goods or other local raw materials in their production operations, or companies with highly specialized site requirements, special free zone status may be desirable.

Rental rates for zone space vary greatly. San Pedro de Macoris charges US$0.81/sq.ft./year for industrial space, providing standard factory buildings (SFBs) and few tenant services or amenities. At the opposite end of the spectrum, the newer Dominican free zones are targeting their development to high-end offshore markets -- information-based service industry, pharmaceutical testing, electronics assembly, etc. Rental rates

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for industrial space in these zones are currently set at US$5.00/sq.ft./year, and for office space in the San Isidro project, US$7.00/sq.ft./year, placing it among the highest priced facilities in the Caribbean.

The Dominican labor force is generally considered to be well-trained and competitive in salaries with other countries in the region. The minimum wage was raised to RD$400/month (US$55.00)and average salaries for technical and managerial personnel range from US$150/month for an experienced mechanic to US$350/month for a mid-level manager. To ensure that a sufficient pool of trained labor will be available for their users, some zones have initiated training programs with local vocational schools, and others are compiling worker data bases which they furnish for a fee to interested firms. In order to attract firms engaged in high-tech or information services activities to these new projects, zone developers have recognized that a cadre of skilled workers and technicians is essential. There is little labor union activity in the Dominican zones, even though trade unions are not prohibited by law.

Communications infrastructure and facilities in the Dominican Republic are excellent, as are transportation linkages to both surrounding cities and international ports and airports. For companies exporting to the U.S. market, numerous preferential trade agreements are in place including the CBI, U.S. Tariff Schedule Items 806.3/807, U.S. GSP, and the "936" program with Puerto Rico which provides financial incentives to firms establishing production sharing operations with that island.

One of the primary obstacles to industrial growth in the Dominican Republic is inadequate and unreliable power transmission. Unscheduled blackouts and brownouts are frequent throughout the country. In a survey of free zone users, 65 percent of the respondents indicated that they experience more than nine power outages per week, and over 50 percent placed the average length of an outage at more than two hours. While many firms have installed back-up generators to supply auxiliary power, there is clearly a need for extensive improvement to the national system. Alternatively, there has been some interest in private power generation within the Dominican Republic, which also holds the potential to greatly improve the manufacturing climate.

D. OUTLOOK

In terms of employment, export performance, and sophistication of facilities, the free zones in the Dominican Republic are at the forefront of zone development in the Caribbean. The older zones have proven their attractiveness to firms in the United States engaged in traditional manufacturing, while newer zones have captured higher-technology and value-added industry and services.

Furthermore, firms from the Far East have evidenced increased interest in Dominican free zones, and a Taiwanese firm has begun development of a zone oriented toward Far Eastern clients.

At the same time, the recent trend toward privately owned and operated zones is setting the pace that regional competitors for high-end industrial production will have to match. Clearly, in orienting their development strategies to specialized users requiring expanded services and facilities, some zones assume the risk of pursuing a narrow market niche and foregoing relatively assured demand from traditional sectors. Nevertheless, promotional campaigns indicate that a substantial market exists in these activities and is expected to grow.

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IV. EL SALVADOR

A. THE SETTING

1. Introduction

El Salvador is located on the west coast of the Central American isthmus. With a population of 5.2 million and a land area of 8,000 square miles, it is one of the most densely populated countries in the Western Hemisphere. Throughout its recent history, the Salvadoran political system has been plagued by conflicts between the military and civilian leadership, which have taken a heavy toll on the nation. Although a civilian president was democratically elected in 1984 and again in 1989, the country is still characterized by political instability due to the continuing guerilla insurgency.

2. Economic Overview

Traditionally, El Salvador's economy has been reliant upon agriculture, and although the prospects for expanded cultivation are severely limited by the dearth of available land, it remains the most productive sector of the economy, accounting for approximately one-fifth of GDP and one-third of the nation's employment. Eighty percent of total Salvadoran exports originate in the agriculture sector. Coffee, the main export of the country, accounted for nearly 71 percent of total merchandise export earnings in 1986.

During the 1960s and 1970s, the Salvadoran economy grew at an average rate of five percent per year. However, the political turbulence encountered from 1979-80, combined with the introduction of controversial agrarian, banking, and trade reforms, led to a serious decline in business confidence, shrinking investment in agriculture, and sizeable capital flight. The manufacturing sector was also affected during this time due to the collapse of the Central American Common Market. Between 1979-82, GDP contracted by over 20 percent.

In the 1980s, an economic adjustment program was initiated to reduce El Salvador's dependence on foreign aid and promote export-led growth, particularly in non-traditional exports. However, the ongoing civil war, devastation caused by the 1986 earthquake, and collapse of world coffee prices have restricted the pursuit of the program's objectives. Economic growth since 1986 has been minimal, averaging one percent per year with a marginal increase in private sector investment. In early 1989, the urban unemployment rate was estimated at 17 percent, with an additional 43 percent of the economically active population underemployed. With the election in 1989 of Alfredo Cristiani as President and the coming to power

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of his conservative party (ARENA), the role of the private sector in development initiatives is likely to be emphasized.

B. OVERVIEW OF THE SALVADORAN FREE ZONE PROGRAM

The 1974 Export Promotion Law created the legal framework for a Salvadoran public sector free zone regime, and the San Bartolo Free Zone (SBFZ) was established in 1975. In addition to this Law, the zone implementation regulation ("reglamento") was promulgated to establish the functional aspects of the free zone program (i.e. general operating rules for the zone and its users). The SBFZ is a state-run national property located outside the capital, San Salvador. As the only free zone in El Salvador, the SBFZ experienced rapid growth in the first four years of operation. In 1979, a total of fourteen firms employed 4,078 workers in the production of apparel and textiles (seven firms), high-tech metal products (five firms), electronics assembly, and shoes. At the height of the SBFZ's productivity, however, the civil war escalated, affecting the national business climate and SBFZ operations. Between 1979-81, nine firms discontinued operations in the zone, leaving only five firms operating in 1982, employing 1,192 people.

Little export manufacturing activity remained in the SBFZ until 1986 when the political situation began to stabilize, renewing investor interest. In order to augment El Salvador's free zone program, the existing legislative decrees were superceded by the new 1986 Export Promotion Law and the 1988 zone reglamento. The 1986 law provided a policy framework for enhanced investment incentives to promote economic growth. For the first time, the law explicitly authorized private development of free zones in El Salvador, whereby the developer would qualify for all incentives offered to zone users. The new reglamento in 1988 set forth a revised and streamlined regulatory framework providing for the establishment and operation of private zones.

With the passage of the new law and reglamento there has been a rekindled interest in free zones in El Salvador. In May 1989, nine manufacturing firms were established in the SBFZ employing a workforce of nearly 4,000 persons. Of these nine firms, five are domestically owned. The zone now encompasses 462,000 sq.ft. of under-roof industrial space, with an additional 258,000 sq.ft. under construction. These nine firms occupy 340,000 sq.ft. (with the military occupying some of the remaining area) and in 1988 the zone recorded revenues of over US$2.4 million.

Although the SBFZ is publicly owned, more opportunities are being examined for private sector zone development. Recognizing the economic benefits of private free zone development, the U.S. Agency for International Development (USAID) has set up a US$20 million credit facility for preferential financing of new private free zone projects. USAID has also provided funds for technical assistance

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to zone developers, national promotional institutions, and relevant government agencies. In the first half of 1989, two preinvestment analyses for private zones were undertaken.

The primary regulatory responsibility for the free zone program in El Salvador rests with the Ministry of Economy. Another government body which also plays an important role is the Free Zone National Committee, comprised of representatives of the Ministry of Economy, Hacienda (Ministry of Finance), the Central Bank (BCR), the Ministry of Planning (MIPLAN), and private sector members. The National Free Zone Committee determines matters relating to both public and private sector free zones; e.g. promotion, prequalification, and other related matters. Independently, the Ministry of Finance has a role in many of the functions delegated by the Ministry of Economy, including approval for zone designation and monitoring zone exports. The BCR and Customs have regulatory responsibilities over foreign exchange transactions and the physical control of goods.

C. FACTORS INFLUENCING ZONE PERFORMANCE

1. Governmental/Regulatory Advantages and Constraints

The Salvadoran free zone program provides the following incentives to zone developers and firms operating within the zone: complete exemption on all import duties and other taxes on capital goods and equipment in perpetuity; complete exemption in perpetuity from import and export duties and other taxes on raw materials, intermediate goods, and other products used in production; a 10-year tax holiday from taxes on income, assets, and invested capital; unrestricted repatriation of capital; and limited access to local markets.

Although the basic regulatory environment for export industries in El Salvador remains supportive, the investment approval procedure has proven to be problematic. Numerous institutions are involved in the investment approval process, and there is significant duplication of efforts and documentation. The result is lengthy delays and burdensome paperwork requirements.

2. Ownership and Management Structure

The operation, management, and use of the SBFZ are currently the responsibility of the Ministry of Economy. As with the investment approval procedures, the management structure of the zone program is very complex. Partially as a result of this complicated organizational framework, the SBFZ's economic and financial performance has suffered.
On-site administration at the SBFZ is comprised of two professionals and a limited support staff; a sizeable cadre of

maintenance personnel is also available. The administration of the zone has been characterized by little or no monitoring of zone activities, responsiveness to zone tenants, accurate recordkeeping, and useful financial planning, among others. As currently configured, the SBFZ managerial framework is inadequate for efficient operation of the zone.

3. Basic Production Factors

Salvadoran workers have earned an excellent reputation for their high rates of productivity. In addition, general wage levels are low. Apparel operators, for example, earn an estimated US$0.65/hour, including fringe benefits. The national literacy rate is slightly above 67 percent, although there is a wide disparity in educational levels between urban and rural workers. Vocational training is provided through several centers such as FEPADE, which offers programs including automobile repair, construction, industrial sewing, electronics, welding, and data processing.

Rental rates in the SBFZ are among the lowest in the Central American/Caribbean region at US$2.23/sq.ft./year. However, one of El Salvador's major drawbacks is the lack of adequate infrastructure. The high cost of ocean/air freight can be quite discouraging to firms considering investing in the SBFZ or elsewhere. Shipment of a 40-foot container from El Salvador to Miami costs US$2,885, including ground transportation used for shipping the container to local ports. Air cargo rates are US$0.79/kilogram to send merchandise from El Salvador to Miami. In addition, guerilla attacks on internal transportation linkages and electrical systems pose major problems for firms operating in the free zone. The provision of telecommunications and water service to the zone has been unreliable and problematic as well.

D. OUTLOOK

El Salvador has a number of supportive programs vis-a-vis free zone development and export development in general. The country offers numerous investment incentives for foreign firms wishing to establish operations offshore and has sought to compete with other free zone programs in the Central American and Caribbean region. Nonetheless, domestic unrest and uncertainty regarding political stability have contributed significantly to a lack of investor confidence.

The Government of El Salvador has recognized its national limitations and has recently begun to stress the positive role the private sector can play in zone development. In turn, the domestic private sector has demonstrated its willingness to invest in private zone development and new export industries. With regard

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to the public zone program, several steps have been taken to increase the zone's financial performance. Public authorities have also considered alternative forms of SBFZ operation, such as autonomous management by private investors, and are in the process of constructing new facilities and expanding zone services.

Despite these developments, the most important consideration for foreign firms considering establishing operations in El Salvador remains the political climate. As long as the country is characterized by domestic unrest, foreign investment will be limited. Unfortunately, the political instability which has long affected Salvadoran economic growth may also prove the most difficult obstacle to overcome.

V. JAMAICA

A. THE SETTING

1. Introduction

Jamaica, with a population of 2.38 million persons, is the third largest of the Caribbean islands. Lying 90 miles south of Cuba, it is well placed in relation to its prime market and supplier, the United States. Formerly a British colony, Jamaica attained independence in 1962 but remains a member of the Commonwealth. Executive power resides in the Prime Minister and his Cabinet, who are responsible to the Parliament. Since independence, all transfers of power have occurred by democratic elections in Jamaica's stable, two-party system.

2. Economic Overview

Tourism and mining are Jamaica's largest foreign exchange earners. Although it is the world's third largest bauxite producer, a slack market in the early 1980s depressed production, causing exports and earnings to decline and subsequently dealing a serious blow to the national economy (in 1984, for example, this sector accounted for nearly two thirds of all income). After several years of declining growth rates, including a 4.5 percent drop in real GDP in 1985, the Jamaican economy is showing encouraging signs of recovery.

In recent years, Jamaica's economy has become increasingly diversified and open to foreign investors. With the election of Edward Seaga in 1980, domestic manufacturing initiatives became the central focus of Jamaican economic policy, with increased emphasis on the re-orientation of the private sector toward high volume production of non-traditional goods for the global market. The government placed substantial emphasis on new foreign investment, particularly from the United States under the Caribbean Basin Initiative.

Export industrial growth has been stimulated in the garment and agro-industry sectors by the availability of other preferential trade agreements as well. Jamaica enjoys preferential trade status with the European Community under the Lome Convention, which allows products manufactured and consigned in Jamaica to enter the Community free of duty. In addition, under Item 807 of the United States Tariff Schedule, the garment industry has experienced phenomenal growth. Jamaica is also a beneficiary of the U.S. Generalized System of Preferences and a member of CaribCan, which allows for a specific list of Caribbean products to enter the Canadian market duty free. The emphasis has been continued under Prime Minister Michael Manley, elected in 1988. Acknowledging the success of market-oriented economic policies in Jamaica, he has

indicated they will continue under his democratic socialist government.

B. OVERVIEW OF THE JAMAICAN FREE ZONE PROGRAM

The concept of a free zone in Jamaica emerged from initiatives taken by the National Port Authority as far back as 1973 as part of its development program for the Port of Kingston. The objective at that time was to establish a modern containerized transshipment port and to install facilities and services to complement the port, including a commercial free zone.

From these beginnings, two operational free zones have emerged in Jamaica. Both are owned by the government, through the Port Authority of Jamaica. The United States is the major market served by the zones. The Kingston Free Zone, the larger of the two, was established in 1976. The firms located in this zone are mainly garment, ethanol, and food processing industries. Since its inception, the Kingston Free Zone has become a bustling center of activity. The zone currently 37 acres with 150 additional acres available for expansion. Two firms, viewed as intrusive or unsuited to traditional free zone confines (i.e., a fish processing plant), operate as single plant facilities outside the Kingston Free Zone, yet are still considered to be under the zone regime, subject to the same regulations as firms operating within the compound. As the facility has evolved from simple commercial warehousing activities to higher value-added operations, the number of users and employees has risen. From employment levels in 1981 of 141 persons, the number of people working in the zone had risen to over 8,000 in 1986, with some 20 firms registered (including 13 involved in apparel and textiles, four in food processing and one in the production of ethanol), occupying approximately 800,000 sq. ft. of under-roof space. The value of investment in the zone totals US$41.8 million.

The second free zone is located at Montego Bay. Established in 1986, this zone covers 70 acres and has 472,000 square feet of under-roof factory space. There are currently five firms operating in the zone; three of the firms are involved in the informatics industry, while the other two are in the apparel sector. Total investment totals in this free zone amounts to over US$16.2 million. Because of the tourist industry that has been attracted to Montego Bay for many years, the zone has access to good infrastructure and a well-developed service sector. The Montego Bay Free Zone is oriented toward the informatics industry. With the opening of "Jamaica Digiport International" in September 1988, Montego Bay now provides low-cost telecommunications services to customers located in the zone. Telemarketing, airline and hotel reservations, and transactions processing activities are possible through the use of advanced telecommunications technology. Four of the firms are owned by U.S. companies.

The controlling legislation for the operation of the free zones is the Jamaica Export Free Zones Act of 1982. In terms of investor benefits, the free zones operate on a system of incentives which provides several advantages in perpetuity. For example, firms operating within the zones are granted a 100-percent tax holiday on all profits and are not subject to licensing. In addition, customs procedures have been reduced to a minimum. All free zone companies are allowed to import capital and consumer goods as well as raw materials free of duty. Articles imported for the construction, extension or repair of premises in the free zone, as well as articles for equipping are also imported duty-free. There are no restrictions applicable to the repatriation of foreign currency and free zone client firms are permitted to hold foreign currency accounts.

In order to register a firm in one of the two free zones, approval is required from the zone itself, the Jamaica National Investment Promotion Organization, the Port Authority of Jamaica and the Bank of Jamaica. The regulatory approval process takes three to six months.

C. FACTORS INFLUENCING ZONE PERFORMANCE

1. Governmental/Regulatory Advantages and Constraints

As already indicated, Jamaica's Government has actively pursued a private sector oriented economic development strategy, including aggressive promotion of foreign investment. In 1987, Jamaica's GDP grew by five percent, the most in 17 years. This is due in part to the realization by the government that the country could no longer rely on tourism and traditional exports. The country is very stable politically and has a history of peaceful exchange of power. Because of the incentives offered, an English-speaking workforce and proximity to the United States and Canada, Jamaica boasts an ideal setting for export-oriented industries, especially data entry operations. Local exporter firms also benefit from preferential access to the U.S., European Community, and Canadian markets through trade agreements.

One regulatory constraint found in Jamaica is the registration process for access to zone benefits. Because the government does not offer a "one-stop shop" for registration, a firm must go through several bureaucratic agencies to register as a free zone industry which takes a substantial amount of time. This may discourage smaller firms with limited resources or companies that want to set up business in a more expeditious manner.

2. Ownership and Management Structure

As designated by the 1982 Act, The Kingston Free Zone Company Limited was established to carry out the management responsibilities of the Port Authority. The Port Authority owns sixty percent of this Company, while the Government of Jamaica owns forty percent. A limited liability company, it falls under the aegis of the Ministry of Public Utilities and Transport. The Kingston Export Free Zone is now administered by the Kingston Free Zone Company Limited. While it owns the majority of the Kingston Free Zone, private investors wishing to establish business in the Montego Bay Free Zone have the option to purchase factory buildings. The average cost of incorporating in Jamaica is between US$5.00-US$85.00, depending on the number of authorized shares of the company.

3. Basic Production Factors

While the zones do not rent land to investors, factory space is available. At the Kingston Zone, the rental rate is US$4.25/sq.ft./year, which includes garbage disposal, sewerage, maintenance of factories, and security. The Montego Bay Free Zone rents factory space at $3.50/sq.ft./year, which includes the same amenities as Kingston. Both free zones do not allow investors to construct their own factories, but do consider offers to purchase factories. The zones are located near well-developed ports and airports. Costs for air transport are at standard commercial rates; shipping rates average $2,390 for shipment of a 40-foot container from Jamaica to Miami. Infrastructure in both projects is generally considered to be adequate and reliable.

Investors in Jamaican free zones have access to a large pool of skilled labor at rates which average one-third of those paid in North America. Because of the high unemployment rate (21 percent) and the availability and skill of workers, Jamaica does not suffer from lack of an adequate workforce. The University of the West Indies has an engineering facility and also offers degrees and diplomas in accounting, business management and related subjects. Human Employment and Resource Training (HEART), a trust created by the government, provides technical and vocational training for teenagers leaving secondary schools, providing a supply of skills mainly for the electronics and garment sectors. At both zones, a sewing machine operator in the garment sector earns US$29.00/week, with electronics production workers earning between US$22.00 to US$28.00/week. Some companies have implemented incentive schemes based on productivity, which can increase workers wages. Companies also offer overtime. Each zone has a 40-hour work week and offers fringe benefits to their employees. In addition, both the Montego Bay Free Zone and the Kingston Free Zone provide adequate infrastructure.

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The Kingston Free Zone has experienced protests recently regarding wages and working conditions. Workers, mostly women, have complained about sweatshop conditions, low wage rates, and arbitrary dismissals. Worker dissatisfaction has been fueled in part by the congestion at the overdeveloped Kingston facility. There are indications that these strident demands for improvements and resulting unfavorable international press could cost Jamaica investments to the benefit of its competitors. The government has established a commission of inquiry to look into the allegations.

E. OUTLOOK

The Jamaican free zone program has recorded impressive annual rates of growth in the number of EPZ firms, under-roof space, gross exports, and direct zone employment. The program has particularly succeeded in attracting a large number of apparel manufacturers, the majority based in the United States, as result of several factors including relatively low wage levels, preferential market access to both the United States and Europe, and an English-speaking workforce. On the other hand, overdevelopment and crowding in the Kingston Free Zone and union activity have led to tenant complaints and incidents of labor unrest in several cases. In addition, theft and tampering in secured national Customs areas have disrupted several shipments of goods from the zone.

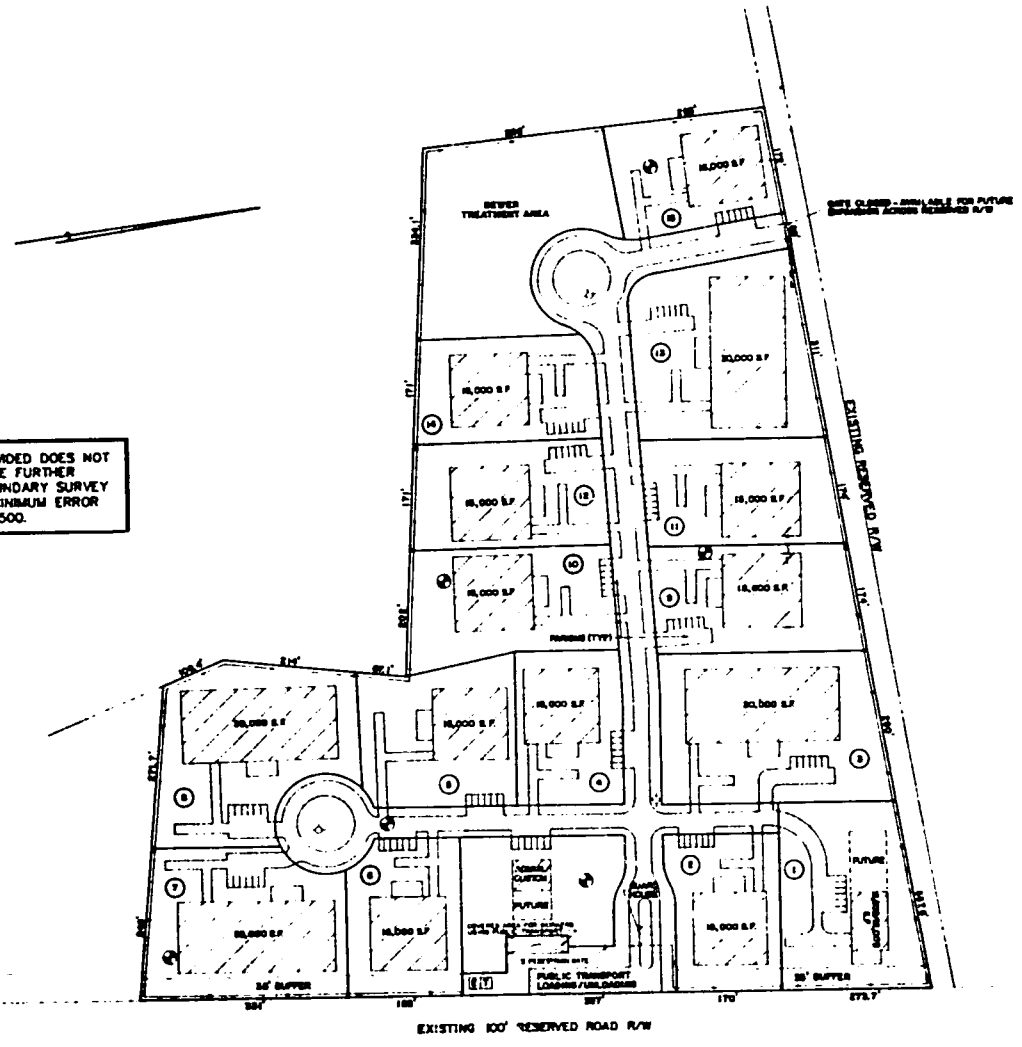
Overall, zone firms have enjoyed access to a large, skilled pool of workers at competitive regional rates accompanied by relatively adequate infrastructure. A new private free zone project has been undertaken in Spanish Town utilizing preferential funds from Puerto Rico, and several additional public projects have been reported, though they are still at a preliminary stage. With established experience in traditional sectors and new ventures in informatics industries, Jamaica is well positioned to capture continued high levels of investment from offshore manufacturers.

ANNEX C

PRELIMINARY MASTER PLAN AND RELATED DRAWINGS

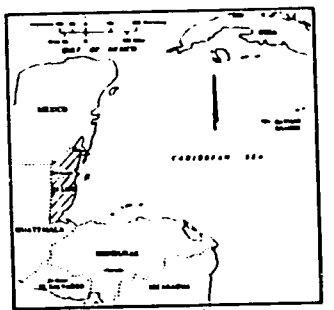
Best Available Document

NOTE: BOUNDARY SURVEY PROVIDED DOES NOT MATHEMATICALLY CLOSE. BEFORE FURTHER DEVELOPMENT PROCEEDS A BOUNDARY SURVEY MUST BE PERFORMED WITH A MINIMUM ERROR OF CLOSURE OF AT LEAST 1/7500.



PROPOSED MASTER PLAN
SCALE: 1" = 100'

LOCATION MAP
N.T.S.



VICINITY MAP
N.T.S.

LEGEND

- E ELECTRICAL BOX
- T TELECOMMUNICATIONS EQUIPMENT
- PROPOSED AUGER BORINGS LOCATIONS
- 1 SITES
- FIRE HYDRANT

PRELIMINARY MASTER PLAN
FOR
FREE ZONE PROJECT
LOCATED IN
COROZAL
BELIZE, CENTRAL AMERICA
SCALE: 1" = 100' DATE: 20 JUNE 1989

E.C.E.D., Inc. (EAST COAST ENGINEERING AND SURVEYING, INC.)
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818 WESLEY DRIVE SUITE 303 CHARLESTON, S.C.
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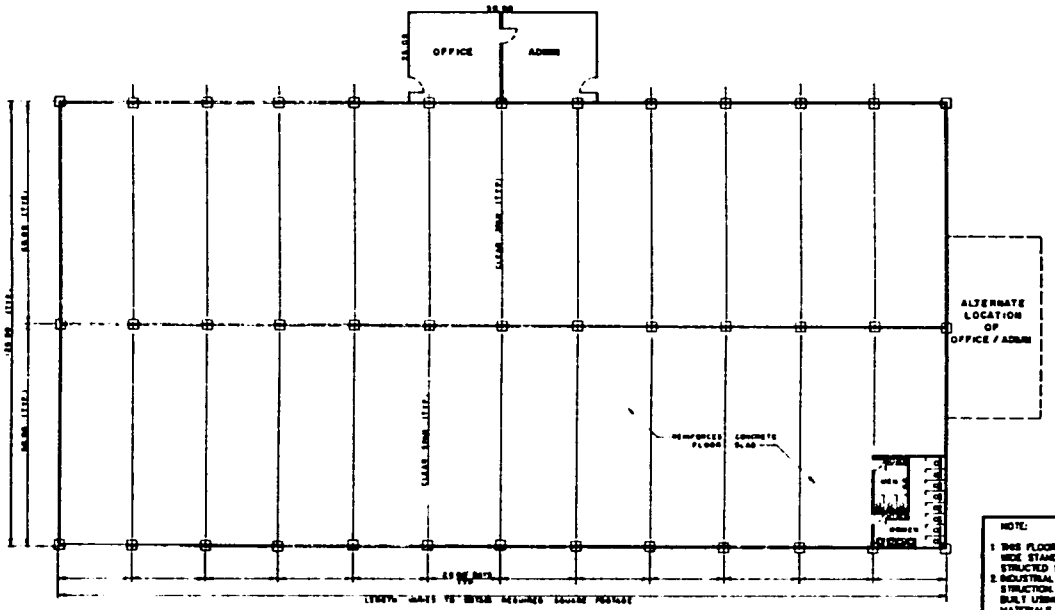
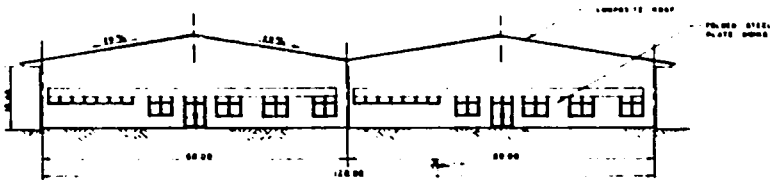
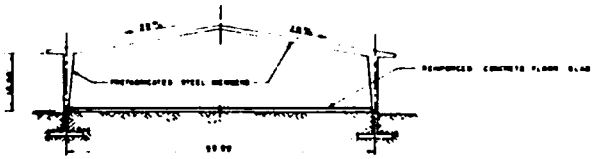


TYPICAL FLOOR PLAN
FOR
STANDARD FACTORY BUILDING
N.T.S.

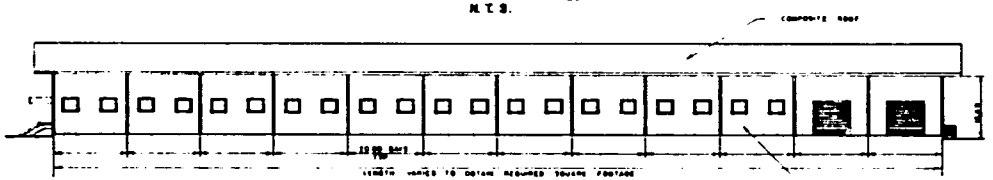
NOTE:
1. THIS FLOOR PLAN SHOWS TWO TYPICAL 60' WIDE STANDARD FACTORY BUILDINGS CONSTRUCTED SIDE BY SIDE.
2. INDUSTRIAL BUILDING IS PREFAB CONSTRUCTION. OFFICE/ADMINISTRATION TO BE BUILT USING LOCAL CONVENTIONAL MATERIALS.



TYPICAL END ELEVATION
FOR
STANDARD FACTORY BUILDING
N.T.S

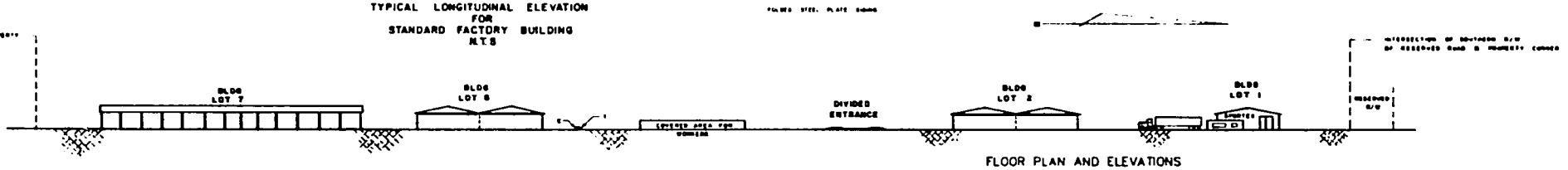


TYPICAL TRANSVERSE SECTION
FOR 60' WIDE UNIT
STANDARD FACTORY BUILDING
N.T.S



TYPICAL LONGITUDINAL ELEVATION
FOR
STANDARD FACTORY BUILDING
N.T.S

NOTE:
COMPOSITE ROOF CONSIST OF CONCRETE POURED ONTO FOLDED STEEL PLATES TO MAKE A THIN PANEL.



ELEVATION - EAST VIEW
(ALONG 100' RESERVED R/W)
SCALE: 1" = 60'

FLOOR PLAN AND ELEVATIONS
OF
A TYPICAL STANDARD FACTORY BUILDING (SFB)
USING
A PREFABRICATED BUILDING FOR THE FACTORY
AND
AN ATTACHED OFFICE/ADMIN. BUILDING
USING
LOCAL CONSTRUCTION MATERIALS AND LABOR
FOR
FREE ZONE PROJECT
LOCATED IN
COROZAL
BELIZE, CENTRAL AMERICA
SCALE: AS SHOWN DATE: 20 JUNE 1989

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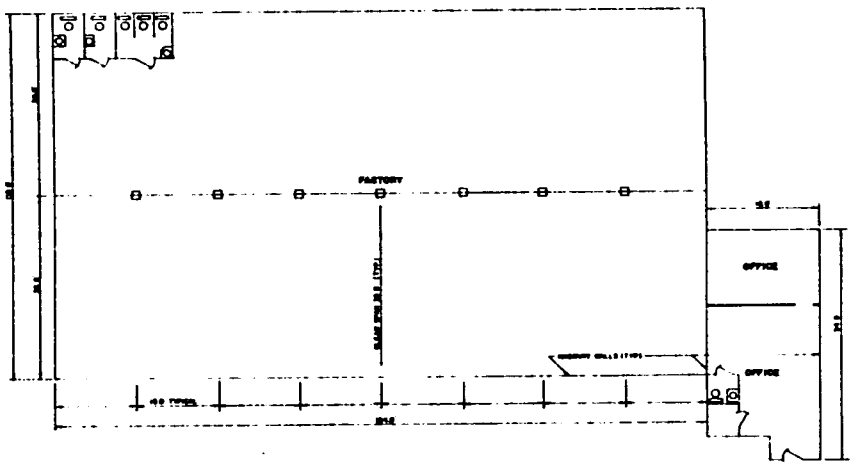
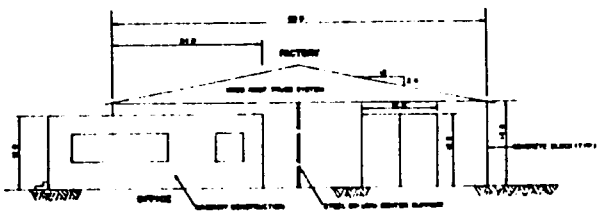
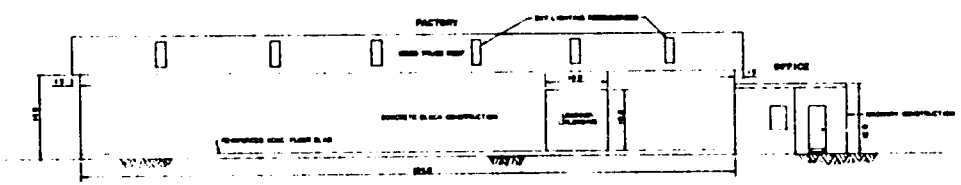


FLOOR PLAN
N.T.S.



END VIEW
N.T.S.



ELEVATION
N.T.S.

FLOOR PLAN AND ELEVATIONS
OF
AN EXISTING STRUCTURE ON THE SITE
TO BE USED AS A STANDARD FOR CONSTRUCTION OF
A TYPICAL STANDARD FACTORY BUILDING (SFB)
USING
LOCAL CONSTRUCTION MATERIALS AND LABOR
FOR
FREE ZONE PROJECT
LOCATED IN
COROZAL
BELIZE, CENTRAL AMERICA
SCALE: AS SHOWN DATE: 20 JUNE 1989

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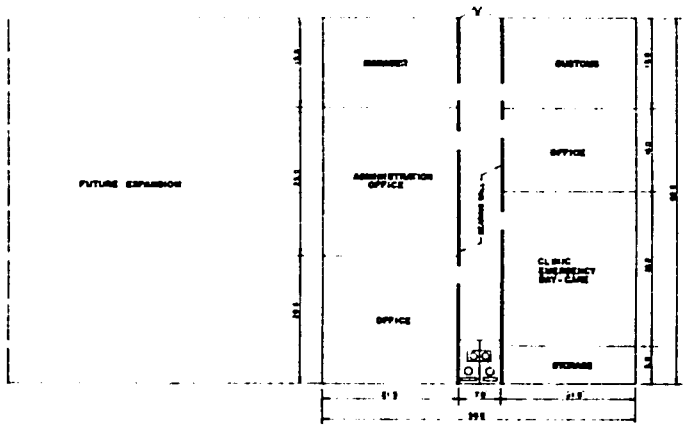
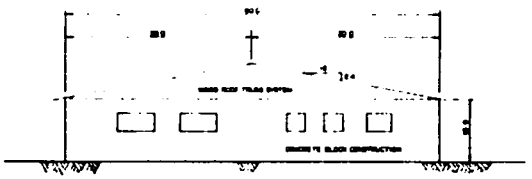
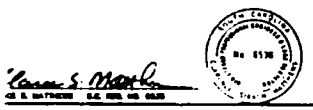


FLOOR PLAN OF ADMINISTRATION/CUSTOMS BUILDING
N.T.S.



END VIEW
N.T.S.

ELEVATION
N.T.S.

FLOOR PLAN AND ELEVATIONS
FOR
PROPOSED ADMINISTRATION/CUSTOMS BUILDING
USING
LOCAL CONSTRUCTION MATERIALS AND LABOR
FOR
FREE ZONE PROJECT
LOCATED IN
COROZAL
BELIZE, CENTRAL AMERICA
SCALE: AS SHOWN DATE: 20 JUNE 1989

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