

1970

Ballamar, Vero Beach, Florida

Gerald Dake Associates

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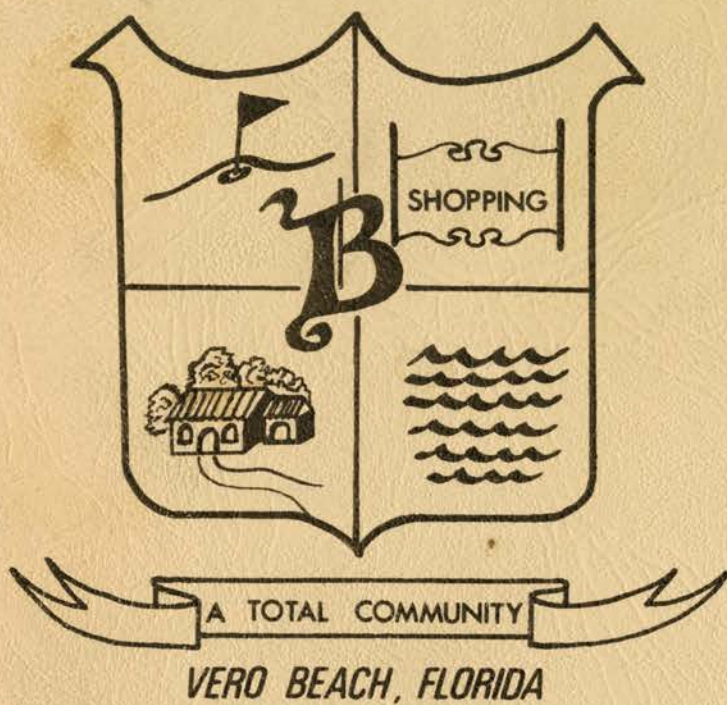


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BELLAMAR

A UNIQUE CONCEPT IN OPEN SPACE PLANNING

GERALD DAKE ASSOCIATES
LAND DEVELOPMENT CONSULTANTS



BELLAMAR

VERO BEACH, FLORIDA

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PREFACE

This report was prepared as a preliminary analysis of present and future development factors relative to the Bellamar Ocean-front Project. The material presented herein and subsequent analysis thereof provides the base for determining the development potential of the tract. This report is the first of a series of studies intended to provide a planned approach to land development. Other reports to follow are: Economic Feasibility; Long Range Development Plan.

METHODOLOGY

The material was gathered through local interviews and analysis of numerous existing technical reports, studies and plans. The major agencies contacted include:

- (1) Florida Department of Transportation.
- (2) East Central Florida Regional Planning Council.
- (3) Indian River Area Planning Department .
- (4) Indian River Chamber of Commerce.
- (5) Bureau of Economic Research, University of Florida.
- (6) Florida Industrial Commission.
- (7) Florida Hotel and Restaurant Commission.

The scope of the study was controlled to provide an overall view of selected influences. The source of data was primarily existing material provided by the East Central Florida Regional Planning Council and governmental agencies.

SUMMARY

The Hibiscus City, a community by the sea - Vero Beach. At the moment it all spells potential; potentials by 1985 in the order of 5,800,000 possible tourists, \$111,139,000 in commercial activities, 2,126 additional hotel-motel type units needed. Indian River County will experience a growth, during the next 15 years, which could put it in the top 14 counties of Florida.

The real Vero Beach potential lies in tourism and its associated growth of retail sales and commercial development. The retail sales figure in Vero Beach has grown from \$25,539,000 in 1958 to \$40,382,000 in 1967 and is expected to exceed \$95,000,000 by 1980. An approximate 136% increase in retail sales could proportionally triple the local commercial investments and require nearly 340 acres of new commercial development.

With the new I-95 terminal in Vero Beach, the area will be completely accessible to tourist, commercial, industry, economic and population growths from the Cocoa-Melbourne urban area to the north and the Gold Coast megalopolis to the south. State Road 60 is in the state budget to be widened and its capacity increased which will improve access to Vero Beach from Orlando, Tampa and the Suncoast Florida Area. The Orlando and JFK memorial airports are planning expansions to meet increasing needs of commercial air travel.

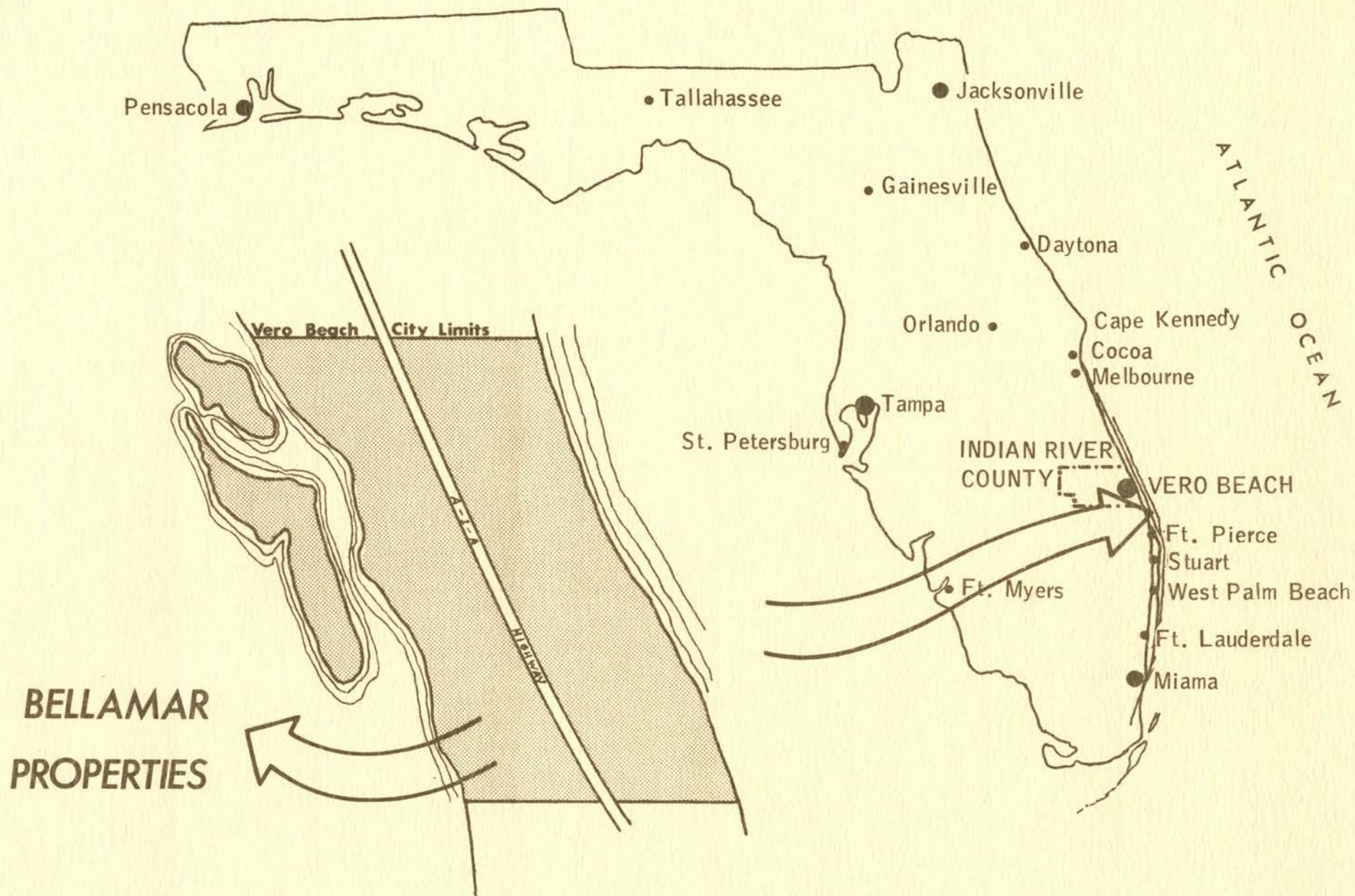
In the triangle of tourism (Orlando-Disney World, Daytona Beach, Cape Kennedy, Melbourne and Vero Beach), there are seashore parks, space oriented tours, technical tours and beach relaxation. This triangle is a self-sufficient section of the state offering many consumer and investor services and establishments. The triangle is a self-sufficient section of the state offering many consumer and investor services and establishments. The triangle generates approximately 88% of

the East Central Florida Region's tourism and 71% of the total retail and commercial money spent in this triangle. The counties within the triangle account for 25,431 hotel and motel units, or nearly 12% of the state total.

The building permits and construction grants in Vero Beach, which stood at \$4,000,000 in the mid 1960's, shot to \$8,360,000 in 1969 and could surpass \$8,700,000 in 1970.

Population figures for Indian River County and Vero Beach are promising and they are, in themselves, the base for most planning estimates. By 1980, the East Central Florida Region's population could reach 1,640,000 people with 35,000 of them in Vero Beach and an increase in population density from 62 persons per square mile to 128 persons per square mile in Indian River County. Dwelling units are estimated to increase approximately 656,000 by 1980 in the region and 14,000 in Vero Beach in comparison to a current level of 14,400 in Indian River County and 7,400 in Vero Beach. This growth will result in an enormous growth in commercial dollar investment, construction trades and related consumer services and interests.

With such a potential growth in Vero Beach, one could expect to find a related atmosphere of bulldozers, concrete mixers, and mass confusion. Vero Beach, however, has and will, hopefully, continue to maintain its present charm and restful aura of tranquility. The City services a select tourist clientele and, with the percentage of seasonal residents standing as one of the highest in the state, feels the need to maintain the prevailing charm.



SECTION I : GEOGRAPHICAL LOCATION

The 250 acre Bellamar Site is located along the seashore in Indian River County, Florida, immediately adjacent to and south of the Vero Beach City limits. The site contains double waterfront exposure with approximately 4,300 feet of Atlantic Ocean beach and 4,500 feet of Indian River frontage. The site also contains two large islands in the River, one of which is shaped like the State of Florida. The ocean side forms an unusual natural cove giving the beach a unique visual asset.

The tract of land is accessible via the scenic ocean drive, A1A which penetrates the entire site from north to south. The site is bordered on the north by a predominance of single family homes on scattered lots comprising the exclusive Rio Mar Section of Vero Beach. The abutting oceanfront area on the north contains scattered small family owned motels and on the south there are isolated weekend cottages. The land immediately to the south is predominantly vacant with no significant development.

Vero Beach is located at the front door of the vast Gold Coast Urban Area extending from Vero Beach to Key West. This section is one of the fastest growing areas in the nation and is destined to be one of the most populated.

TABLE 1. POPULATION GROWTH BY COUNTY FOR EAST CENTRAL FLORIDA REGION, 1900-1970

	<u>1900</u>	<u>1930</u>	<u>1940</u>	<u>1950</u>	<u>1960</u>	<u>1963</u>	<u>1965</u>	<u>1970</u>
Brevard	5,158	13,283	16,142	23,653	111,435	150,800	192,200	224,663
Indian River	N.A.	6,724	8,957	11,872	25,309	31,100	31,800	34,370
Lake	7,467	23,161	27,255	36,340	57,383	62,400	62,600	67,117
Orange	11,374	49,737	70,074	114,950	263,540	297,000	302,200	344,694
Osceola	3,444	10,699	10,119	11,406	19,029	21,000	21,300	24,962
Seminole	N.A.	18,735	22,304	26,883	54,947	67,200	69,800	82,656
Volusia	10,003	42,757	53,710	74,229	125,319	141,900	157,900	166,267
Region	37,446	165,096	208,561	299,333	656,962	771,400	837,800	944,729
Florida	528,542	1,468,211	1,897,414	2,771,305	4,951,560	5,639,900	5,805,000	6,673,098
Region as % of State	7.1%	11.2%	11.0%	10.8%	13.3%	13.7%	14.4%	14.2%

Note: In 1900 Brevard County included Indian River and St. Lucie counties, and Orange County included Seminole County.

Source: U.S. Census of Population 1900-1960; University of Florida Bureau of Economic and Business Research estimates, 1963, 1965.

SECTION II : POPULATION GROWTH FACTORS

East Central Florida had a population of 37,446 at the turn of the century and by 1930, 165,096 people were living in the Region.

The growth in the 20's and 30's and 40's brought large numbers of people to the area. The relative gain in population was greater in this period than that of the space growth, which was to follow in the 50's and 60's.

Later in the century, the colossal space growth affected the area. Populations soared faster to greater heights than ever before in history.

The growth of Brevard County, north of Indian River County was unprecedented with an increase from 23,000 in 1950 to more than 238,000 in 1968. The space growth induced a 263% population increase in Indian River County and the Vero Beach population swelled 3,000 persons during this same period. It now stands at an estimated 11,500 resident population, 18,500 winter-time residents, and a possible peak summer time population of 45,000 including summer residents, seasonal and overnight tourists.*

The population density of East Central Florida in people per square mile has quintupled in the past 35 years to 238 people per square mile. The State of Florida average is only 107 persons per square mile and the U.S. average is 65 persons per square mile. Indian River County increased from 13 persons per square mile in 1920 to 62 persons per square mile in 1965. By 1980, the Regional population will exceed 1,640,000 people which indicates 260 persons per square mile in the region and 128 per square mile in Indian River County, twice the present density.

*Estimate by Vero Beach Chamber of Commerce.

The Vero Beach population is expected to swell to a 35,000 resident population by 1985 and reach approximately two times that during the tourist months. A predicted 100% increase in population will strike Vero Beach quite drastically unless higher density residential and tourist accommodations are made in the immediate future.

Recent trends indicated an annual growth of about 1,000 persons in Indian River County and about 300 people per year in Vero Beach. Existing factors lead the state planners to anticipate an increase in these projections with the advent of the new highway systems, Disney World and the increasing tourist trade.

The effects of a population increase this large will be adverse to the City's looks, efficiency and overall operation.

POPULATION GROWTH TRENDS AND PROJECTIONS

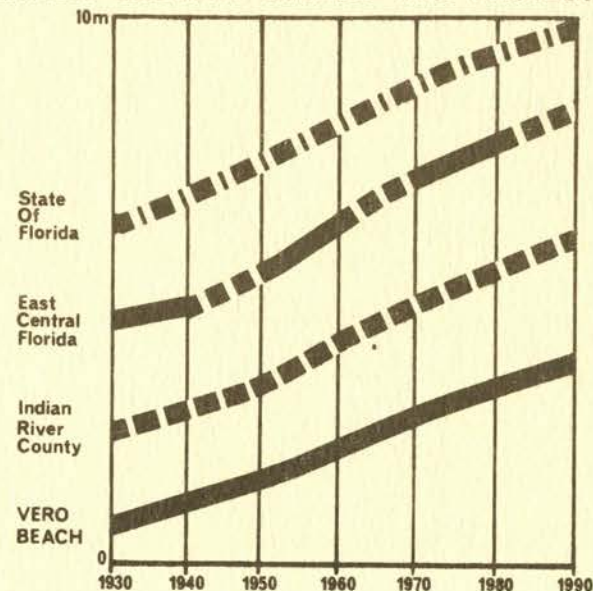


TABLE II
RETAIL SALES ACTIVITIES

1963 - 1968

VERO BEACH, FLORIDA

	<u>1963</u>	<u>1968</u>
Number of Establishments	255	274
Total Sales	34,960,000	40,382,000
Lumber, Building Materials, Hardware, etc.	N.A.	N.A.
General Merchandise	N.A.	N.A.
Food Stores	6,121,000	11,363,000
Automotive dealers	10,004,000	N.A.
Gasoline Stations	3,119,000	3,849,000
Apparel Accessory Stores	N.A.	N.A.
Furniture, home furnishings	1,379,000	N.A.
Eating, drinking places	2,933,000	3,508,000
Drug Stores, proprietary stores	N.A.	N.A.
Other retail stores	2,811,000	4,242,000
Non-Store Retailers	N.A.	N.A.

Source: U.S. Bureau of Census: 1968 Census of Business
Gerald Dake Associates

TABLE III
SELECTED SERVICES

1963 - 1968

VERO BEACH, FLORIDA

	<u>1963</u>		<u>1968</u>	
	<u>No. of estb's.</u>	<u>Total Receipts</u>	<u>No. of estb's.</u>	<u>Total Receipts</u>
Total Establishments	148	4,456,000	193	5,509,000
Hotel, Motel, Tourist Courts	45		54	
Personal Services	50		57	
Auto Repair, Services	9		36	
Miscellaneous Services	21		56	
Motion Pictures	1		2	
Other amusement & recreation	9		10	

Source: U.S. Census of Business, 1963 - 1968
Gerald Dake Associates

SECTION III : ECONOMIC GROWTH FACTORS

COMMERCIAL DEVELOPMENT FACTORS

By 1980, the East Central Florida Region will produce an estimated \$3 billion in resident and transient commercial activities of which nearly 54% will be generated in the Orlando-Daytona area. The projected volume increase of nearly \$2 billion over 1968 is primarily a result of expected increased tourist activities.

Retail sales activities in Vero Beach have recorded a substantial increase during the 1963-1968 period, showing a gain from \$34,900,000 to \$40,300,000. Analysis of this gain shows that the largest increase was for food and staples with only small gains shown in eating and drinking places and gasoline stations - normal tourist indicators.

TABLE IV
RETAIL SALES PER CAPITA
1963 - 1968

	1963	1968
Mount Dora	\$1,849	\$2,400
Orlando	3,250	3,200
East Central Florida Region	1,413	1,525
Vero Beach	2,790	2,950
Melborne	3,270	4,130

Source: Estimates by Gerald Dake Associates

The major trends in selected services in Vero Beach since 1963 has been in substantial increases in business services with an increase of 35 new establishments. Figures also indicate an increase in hotel and motel establishments.

Reviewing the figures presented by both the 1963 and 1968 data indicate there are substantial reasons to assume that large dollar volumes of retail sales, especially clothing and general merchandising, are being spent outside of the City. In 1963, the estimated retail sales per capita in the Region was \$1,413. By 1968, this had increased to approximately \$1,525, while in Vero Beach alone, sales per capita are considerably higher at \$2,950. Applying the Regional sales per capita to Indian River County (including Vero Beach) a retail sales volume of approximately \$53,000,000 is indicated.

Comparison of the statistics involving consumer buying power and dollars spent in Table V with the high per capita income of the Vero Beach area indicates a large amount of retail trade leaves the Vero Beach area undoubtedly for Orlando, Melbourne, Daytona Beach, Jacksonville or West Palm Beach. Sales Management, 1969, states that Vero Beach has one of the three highest household incomes in the state at \$11,147 as the City average. However, the buying index and total retail sales fall far behind what one would expect as the chart below shows.

With the dollar per household as high as it is for Vero Beach and the total retail sales at only \$46,470,000, the imbalance between Vero Beach and a large shopping complex such as Orlando, with only \$8,339 per household but \$365,283,000 in retail sales, is quite obvious. West Palm Beach has only a \$7,858 per household income but a total retail sales figure of \$246,149,000.

TABLE V
EFFECTIVE BUYING INCOME
AND
TOTAL RETAIL SALES FIGURES

	Effective Buying Income		% Hsld. By Cash A,B,C,D,E					Total Retail Sales	Buying Power Index
	Net \$ (000)	Per Hsld.	A	B	C	D	E		
Vero Beach	\$ 53,507	\$11,147	19.0	14.3	17.6	13.6	35.5	46,470	.0101
Orlando	317,706	8,339	24.9	18.7	24.6	10.7	21.1	365,283	.0707
Winter Park	114,219	11,775	21.8	15.8	18.8	9.2	34.4	66,196	.0185
Palm Beach	54,391	13,946	28.8	12.1	11.1	5.6	42.4	40,262	.0091
West Palm Bch.	188,587	7,858	27.7	17.8	23.5	11.0	20.0	246,149	.0445
Fort Pierce	86,654	8,175	24.6	18.3	24.1	11.8	21.1	73,742	.0174
Daytona Beach	141,868	7,587	31.6	17.7	21.4	9.9	19.4	143,324	.0297

A=\$0 - \$2,999
B=\$3,000 - \$4,999
C=\$5,000 - \$7,999
D=\$8,000 - \$9,999
E=\$10,000 or Over

Source: Sales Management

TABLE VI
ESTIMATED BUYING POWER
IN
VERO BEACH TRADING AREA

	1963	1970	1975	1980	1963-1980 percent change
Vero Beach	47,447	83,800	110,597	151,488	320
East Central Fla.	1,463,859	2,242,405	2,981,067	3,821,387	261
Melbourne	131,606	260,721	363,894	500,090	382
Cocoa	113,339	146,244	184,869	234,287	265

Source: East Central Florida Regional Planning Council

The Vero Beach/Indian River area has 1 central business district, 1 secondary business district, 6 highway commercial and strip districts and 4 planned shopping centers of which 1 is a community Planned Shopping Center and 3 are neighborhood Planned Shopping Centers. The present total gross space in Planned Shopping Centers is 116,395 square feet in Indian River County.

TABLE VII

PROJECTIONS OF COMMERCIAL EMPLOYMENT IN EAST CENTRAL FLORIDA
VS.
ACTUAL EMPLOYMENT IN 1954, 1958, 1963, 1970, 1975 and 1980

Year	Retail	Wholesale	Service	Total
1954	19,000	11,000	5,000	35,000
1958	29,000	12,000	10,000	51,000
1963	38,000	14,000	18,000	70,000
1970	50,000	18,000	30,000	98,000
1975	58,000	22,000	40,000	120,000
1980	65,000	24,000	51,000	140,000
Indian River County	95%	47%	105%	79%

Source: East Central Florida Regional Planning Council

TOURISM FACTORS

Due to the natural beauty and magnetism of a coastline, any coastal area or shoreline becomes a tourist attraction and naturally a location for tourist oriented facilities and services. The coastline of East Central Florida has seen extensive tourist development and rising development pressures of all kinds will inevitably eat up what is left of the natural unused shoreline area. Vero Beach, however, remains a little resort area away from the concrete jungles of Daytona and Miami and slightly aloof from the maddening pace of the social whirl and party crowds that the tourist season brings.

With the completion of I-95 in the Vero Beach area, the new access bridges to the beach and the proposed highway improvements, access to Vero Beach will be enhanced and a sizeable percentage increase of tourists will be experienced.

TOURIST FACILITIES

Hotel and Motel facilities in Vero Beach have failed to keep pace with the growth and tourist demands during the 1955-1968 period. Actual hotel and motel numbers have decreased during this period while total number of rooms have increased only slightly. Annual room growth rate for Indian River County is considerably lower than for the region or the state.

In 1968, a total of \$277 million was spent by tourists in the East Central Florida Region and 35% of these dollars were spent on lodging and food.

Examining the distribution of tourists in the region indicates that 75% of all northerners visiting the area are destined for the Vero Beach area while only 22% of the southerners indicated a Vero Beach destination.

TABLE VIII
HOTEL AND MOTEL ACCOMMODATIONS FOR INDIAN RIVER COUNTY,
EAST CENTRAL FLORIDA AND FLORIDA

		1955		1960		1965		1966		1967		1968		1969		Percentage Room Growth 1960-1969	Annual Room Growth Rate
		Number	Rooms	Number	Rooms	Number	Rooms	Number	Rooms	Number	Rooms	Number	Rooms	Number	Rooms		
Indian River	Hotels	12	454	9	372	1	29	1	27	1	27	2	45	2	45	- 88.0%	0.8%
	Motels	52	793	80	1,223	78	1,416	78	1,361	77	1,163	75	1,252	74	1,275	4.0	
	Total	64	1,247	89	1,595	79	1,445	79	1,388	78	1,190	77	1,297	76	1,320	7.1%	
Regional total	Hotels	169	8,537	137	7,106	115	6,151	109	6,135	100	5,766	98	5,739	97	5,668	- 20.2%	1.9%
	Motels	887	15,068	1,008	16,445	978	19,367	983	20,090	973	20,774	957	21,520	950	22,126	34.4	
	Total	1,056	23,605	1,145	23,551	1,093	25,518	1,092	26,225	1,073	26,542	1,055	27,259	1,047	27,794	18.1%	
Florida Total	Hotels	1,413	91,921	1,347	92,558	1,242	90,315	1,220	90,051	1,179	88,192	1,166	89,555	1,150	88,057	- 4.8%	1.1%
	Motels	5,035	78,933	5,653	92,665	5,638	105,438	5,668	110,142	5,643	113,341	5,581	115,764	5,530	117,561	26.8	
	Total	6,448	170,854	7,027	185,223	6,880	195,753	6,888	200,193	6,822	201,533	6,747	205,319	6,680	205,618	10.9%	

Source: Florida Hotel and Restaurant Commission

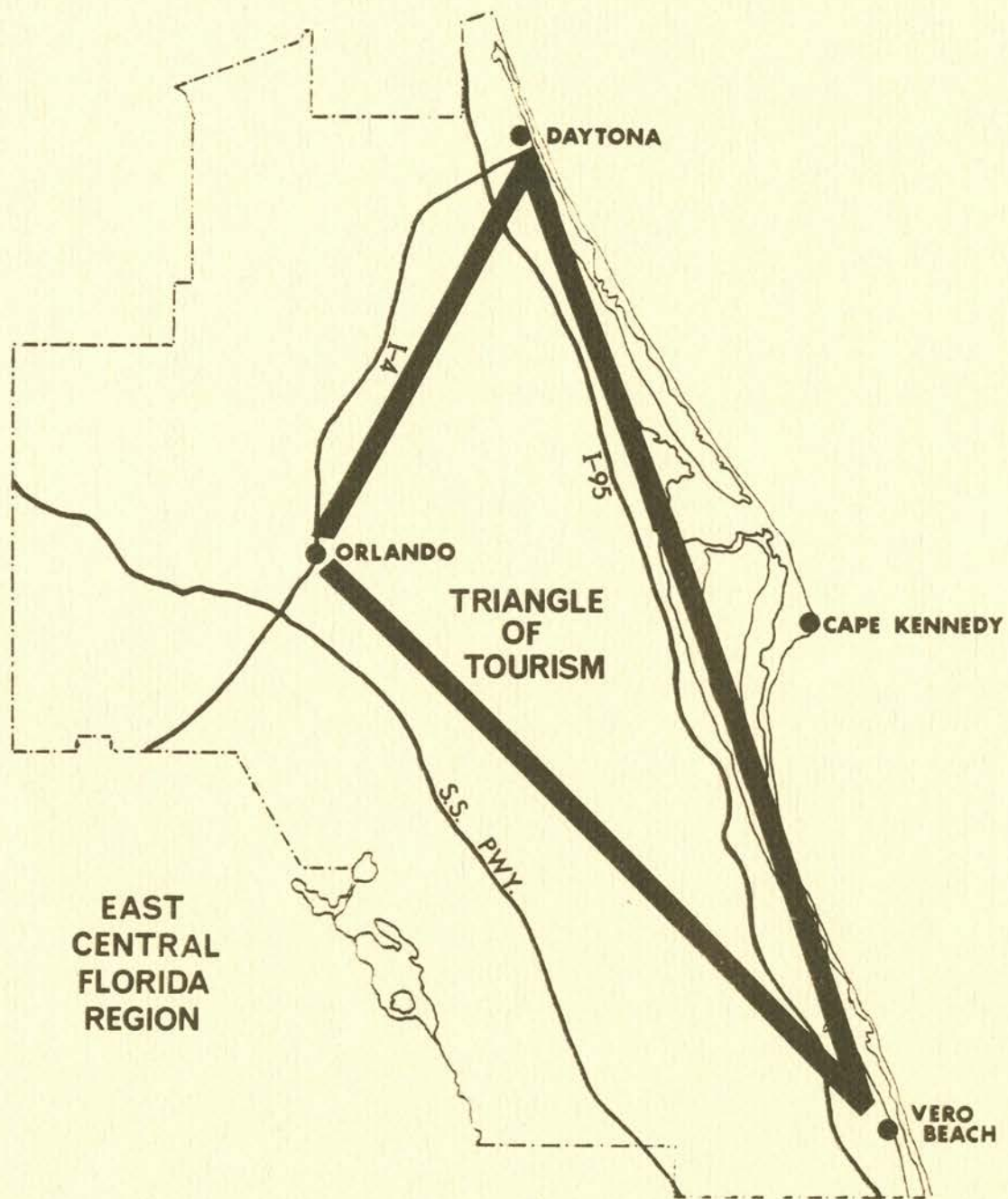


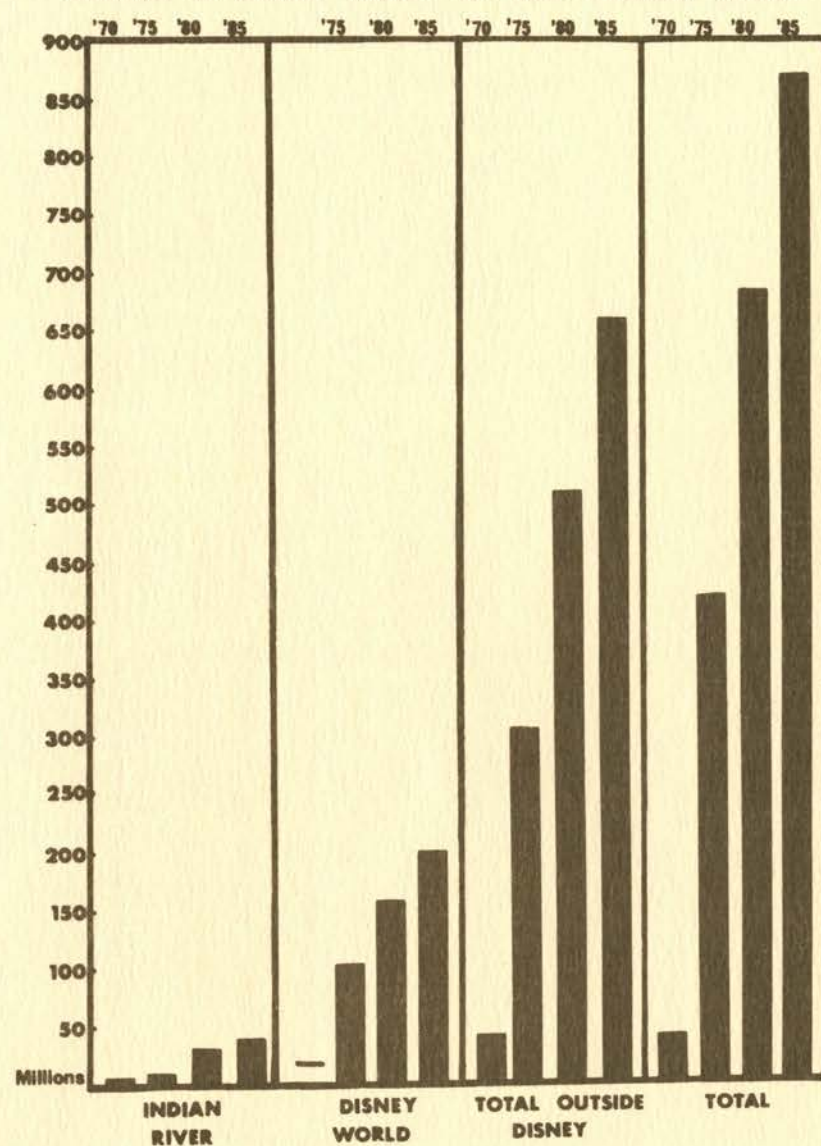
TABLE IX
HOTEL AND MOTEL ROOMS BY SELECTED CITIES
IN EAST CENTRAL FLORIDA

(January 1, 1969)

<u>Area</u>	<u>Establishments</u>	<u>Rooms</u>
Cocoa Beach	66	2,302
Melbourne	31	967
Titusville	19	498
Eau Gallie	20	341
Cocoa	16	319
Brevard County total	175	4,701
Vero Beach	61	1,140
Other areas	15	180
Indian River County total	76	1,320
Leesburg	37	600
Other areas	33	438
Lake County total	89	1,390
Orlando	66	3,960
Winter Park	20	826
Orange County total	107	5,300
Kissimmee	8	200
Other areas	10	198
Osceola County total	25	538
Sanford	10	210
Seminole County total	31	434
Daytona Beach	280	7,897
Ormond Beach	50	2,500
Other areas	11	124
Volusia County total	546	14,111
Regional total	1,049	27,794

Sources: Florida Hotel and Restaurant Commission

GROWTH IN TOURIST IMPACT ON EAST CENTRAL FLORIDA



PROJECTIONS

Projections for the Vero Beach trading area indicate a substantial increase in commercial activities during the ensuing decade. Projections indicate a 1980 sales volume of all commercial activities at \$111,139,000, an increase in excess of \$70,000,000 over the current \$40,300,000. These dollar increase in sales will require nearly 340 additional acres of commercial construction in the form of shopping centers, stores, offices and tourist facilities.

Estimates of consumer buying power indicate that the Vero Beach trade area will experience a substantial gain by 1980.

Projections of tourist impact on the East Central Florida Region for 1985 indicate an increase of \$874,000,000 over the 1968 level.

The direct effects of Disney World will not be felt to the extent in Vero Beach as in comparison to Orange and Osceola Counties. However, from the following figures, we may surmise from both the natural increase in tourists and the tourists en route to other destinations in the region, that a 1-5 percent increase will be attributable to Disney World.

The indirect effects of Disney World upon Vero Beach include increased tourist traffic due to the completion of the major highway near Vero Beach, which in turn will generate increased economic activities to support this traffic.

Disney World is expected to attract 4,800,000 additional tourists by 1973, who will spend an estimated additional \$213,000,000. By 1980, an additional tourist expenditure of \$440,000,000 is expected and 60 percent of this will be spent within the region and not on the actual Disney properties.

TABLE X
TOTAL EXPENDITURES BY TOURISTS WITHIN EAST CENTRAL FLORIDA
1968

<u>Expenditure</u>	<u>Percentage of Total Florida^{1/} Expenditures</u>	<u>Estimated Expenditures (millions) Total</u>	<u>Percentage of Total Regional Expenditures</u>
Lodging	15.7%	\$ 48.0	17.4%
Food and beverage; restaurants	18.4	60.0	21.6
Food and beverage; stores	12.0	33.0	12.0
Amusements	15.8	30.0	10.7
Automobile	8.9	31.0	11.2
Clothing	11.6	26.0	9.4
Gifts, souvenirs	8.2	21.0	7.6
Miscellaneous	9.4	28.0	10.1
Total	100.0%	277.0	100.0%

^{1/} Estimated by Florida Development Commission for all tourists to Florida

Source: Economics Research Associates

TABLE XI
PERCENTAGE DISTRIBUTION OF TOURISTS TO EAST CENTRAL FLORIDA
1968

<u>Origin of Tourists</u>	<u>County</u>							<u>Regional Total</u>	<u>Rest of State</u>
	<u>Brevard</u>	<u>Indian River</u>	<u>Lake</u>	<u>Orange</u>	<u>Osceola</u>	<u>Seminole</u>	<u>Volusia</u>		
North	55.0%	75.0%	75.0%	54.0%	73.0%	73.0%	43.0%	49.7%	60.9%
South	37.0%	22.0%	23.0%	41.0%	19.0%	23.0%	50.2%	45.1%	31.9%
Western and Foreign	8.0%	3.0%	2.0%	5.0%	8.0%	4.0%	6.8%	5.2%	7.2%

Sources: Florida Development Commission and Economics Research Associates.

According to the latest Florida Development Commission reports and statistics, the region will experience approximately the following trends:

By 1975, East Central Florida will receive \$700,000,000 in tourist expenditures versus the \$277,000,000 in 1968. By percentage trends, Vero Beach income from tourists will grow 253 percent to a 1975 total of \$53,100,000. However, by 1985, the region shows trends and potentials of \$1,150,000,000 per year in tourists dollars. Vero Beach could receive \$95,500,000 that year.

In Vero Beach alone, 2,126 additional rooms are needed by 1985.

Projections show that the tourist potential for Vero Beach in 1985 is 5,800,000. In terms of present capacities, this means the Vero Beach area should expand their tourist services and facilities considerably.

In East Central Florida, 1980 figures call attention to the need for 26,990 additional hotels and motel rooms, excluding the 7,500 additional rooms to be built by Walt Disney.

TABLE XII
ESTIMATES OF CONSUMER BUYING-POWER
IN THE VERO BEACH TRADING AREA
FOR 1963, 1970, 1975 and 1980

<u>Year</u>	<u>Number of Resident Families</u>	<u>Resident Buying Power (\$,000)</u>	<u>Number of Transient Days (,000)</u>
1963	9,791	\$ 47,447	744
1970	14,213	83,800	1,093
1975	17,227	110,597	1,266
1980	20,619	151,488	1,437

Sources: Buying power is the product of trading-area families times their median incomes. Resident populations and incomes are derived from estimates of Hammer and Company, adjusted to trading-area boundaries.

It is estimated that the Walt Disney World project will have a direct effect on Vero Beach in the form of nearly \$18,400,000 by 1985 and require an excess of 850 new hotel-motel rooms.

TABLE XIII
GROWTH IN TOURIST IMPACT ON EAST CENTRAL FLORIDA BY COUNTY^{1/}
1985
(millions)

Tourist Expenditures		<u>Total</u>	<u>Disney World</u>	<u>Total Outside Disney</u>	<u>Indian River</u>
	1970	\$ 41.5	--	\$ 41.5	\$ 2.42
	1975	423.2	\$113.9	309.3	16.7
	1980	688.4	167.9	520.5	30.6
	1985	874.0	202.1	671.9	39.2

^{1/} Values represent increase over 1968 levels.

Source: Economics Research Associates.

This projected growth in tourist will result in an estimated need for 2,126 new hotel-motel units for Vero Beach by 1985.

TABLE XIV
NEW HOTEL AND MOTEL ROOMS SUPPORTED BY
GROWTH IN TOURISM TO EAST CENTRAL FLORIDA

Year	Total	At Disney World	Total Excluding Disney World	<u>County</u>						
				<u>Brevard</u>	<u>Indian River</u>	<u>Lake</u>	<u>Orange</u>	<u>Osceola</u>	<u>Seminole</u>	<u>Volusia</u>
1970	2,580	--	2,580	298	150	108	380	42	36	1,566
1975	21,110	4,700	16,410	1,796	927	822	3,903	795	226	7,941
1980	34,490	7,500	26,990	3,222	1,665	1,367	5,272	977	407	14,080
1985	43,390	8,750	34,640	4,129	2,126	1,714	6,492	1,145	519	18,515

Source: Economics Research Associates.

TABLE XVI

SUMMARY OF DISTRIBUTION
OF WALT DISNEY WORLD IMPACT
ON EAST CENTRAL FLORIDA
1985

County	Rooms	Tourist Expenditures (millions)	Visitor Days (millions)
Brevard	1,596	\$ 34.5	1.85
Indian River	851	18.4	0.99
Lake	796	19.4	1.05
Orange	3,262	104.2	5.63
Osceola	788	26.1	1.41
Seminole	213	4.6	0.25
Volusia	<u>5,214</u>	<u>112.7</u>	<u>6.09</u>
Total excluding Disney World	12,720	\$319.9	17.27
At Disney World	<u>8,750</u>	<u>202.1</u>	<u>10.08</u>
Total in region	21,470	\$522.0	27.35

Source: Economics Research Associates

TABLE XV

PERCENTAGE DISTRIBUTION OF TOURIST FACILITIES
EAST CENTRAL FLORIDA REGION

1970-1985

	Period		
	<u>1970</u>	<u>1975</u>	<u>1980- 1985</u>
Brevard	14.1%	11.6%	12.5%
Indian River	5.8	5.4	5.9
Lake	5.2	5.6	5.6
Orange	18.4	29.0	25.2
Osceola	1.9	6.1	5.0
Seminole	1.9	1.5	1.7
Volusia	<u>52.6</u>	<u>40.8</u>	<u>44.1</u>
Total	100.0%	100.0%	100.0%

TABLE XVII

INDUSTRIAL EMPLOYMENT TRENDS IN EAST CENTRAL FLORIDA, 1940 - 1965

	<u>1940</u>	<u>1950</u>	<u>CHANGE 1940-50</u>	<u>1960</u>	<u>CHANGE 1950-60</u>	<u>1965</u>	<u>CHANGE 1960-65</u>
Manufacturing	4,800	7,350	53%	29,750	305%	37,600	26%
Construction	3,800	7,000	84	16,850	141	24,050	43
Transportation, Communication and Utilities	3,600	5,050	40	8,250	63	10,350	26
Engineering and Research Services*	50	100	100	8,550	8450	14,050	64
Industrial Employment	12,250	19,500	59	63,400	225	86,050	36
Total Civilian Employment	74,400	105,650	42%	215,350	104%	291,500	35%

* Includes research, development and testing laboratories (private), and engineering and architectural services

SOURCE: Florida Industrial Commission

INDUSTRIAL DEVELOPMENT FACTORS

In 1940, the economy of the East Central Florida Region could best be described as small-scale, unspecialized and showing little promise of achieving any large-scale development. Industrial employment accounted for only 17% of total employment.

TABLE XVIII

PROJECTED MANUFACTURING EMPLOYMENT

INDIAN RIVER COUNTY

1963 and 1980

Precision Manufacturing

Ordnance	0	0
Electrical Machinery	0	130
Transportation Equipment	500	1,050
Non-electrical Machinery	30	80
Instruments	20	220
Sub-total	(550)	(1,480)

Other Manufacturing

Food and Kindred Products	300	700
Fabricated Metals	0	120
Printing and Publishing	20	80
Stone, Clay and Glass	10	100
Chemicals	0	30
Apparel	0	30
Rubber and Plastics	0	50
Furniture	0	20
Paper	0	20
Lumber	0	0
Primary Metals	0	0
All Others	20	120
Sub-total	(350)	(1,270)

Total Manufacturing Employment	900	2,750
--------------------------------	-----	-------

Source: The Regional Economy; Hammer and Company Associates;
Atlanta; May 1965.

By 1950, the Region's industrial economy had achieved, in the burgeoning of its citrus concentrate industry, a specialization of natural import and industrial employment had increase to 19% of its employment. Between 1950 and 1960, industrial employment jumped 225% to a level of 63,400 people as a result of the Cape Kennedy Space activities and the Martin Marietta Plant in Orlando. By 1960, industrial employment stood at 29% of the total employment of the Region.

In Indian River County, 75% of the manufacturing employment is in the transportation equipment industry, all in one firm, the Piper Aircraft Company.

While Indian River County's manufacturing economy is dominated by one firm in one industry, it is the most heavily industrialized county for its size in the Region.

Projections indicate that employment in manufacturing in Indian River County will exccellerate during the ensuing decade to a high of nearly 2,700 persons or three times that of 1963. The largest increases will be in citrus processing and Piper Aircraft.

AGRICULTURAL DEVELOPMENT FACTORS

East Central Florida Regional Planning Council estimates that approximately 23% of all the monies in Florida are invested in agriculture or agriculture business. By 1980, they estimate \$700,000,000 to \$800,000,000 additional revenue for the state economy from agribusiness. The citrus industry in East Central Florida accounts for 40% of the State's production. Sixty percent of Indian River County's economy revolves about agricultural activities. At present, there are 51,000 acres used in Indian River County as citrus producing land, whereas, in 1956 there were only 16,000 acres.

TABLE XIX

ESTIMATED COUNTY PRODUCTION FOR 1 CROP YEAR

Indian River County	All Oranges (1,000 Boxes)	All Grapefruit (1,000 Boxes)	All Citrus (1,000 Boxes)
1963-1964	2,185	4,600	6,828
1964-1965	1,668	3,609	5,304
1965-1966	2,159	4,231	6,429
1966-1967	2,121	4,308	6,504

Source: Citrus Summary, 1967

Agriculture occupies approximately 21.1 percent of the land in East Central Florida with another 3.1 percent invested in Forestry lands. Of all the developed available land, agriculture occupies approximately 88.4 percent.

Indian River County is the fastest growing citrus county in the state showing a gain in citrus acreage from 6,828 in 1963 to 51,000 in 1970.

The Indian River valley contains nearly all the citrus acreage in Indian River, Brevard and one-fourth of Volusia County. The Indian River Valley also accounts for one-fourth of all the region's citrus produce. The East Central Florida Regional Planning Council says this is "...a remarkable percentage in view of the fact that low productivity per tree raises the cost of production in the Indian River Valley. The high quality of Indian River fruit justifies this increased production cost".

The second largest agricultural business is specialty crops which include nursery crops, foliage, flowers and turf crops. The Region supplies 50 percent of the State's production of specialty crops and netted the \$23,000,000 for the East Central Florida's economy in 1963.

TABLE XX
COUNTY ACREAGE BY TYPES
FOR FALL 1966-1967 CROP YEAR

Counties	All 1/ Oranges	All 1/ Grapefruit	All Citrus
Brevard	16,203	3,308	20,038
Indian River	21,645	17,499	40,565
Martin	17,164	848	18,330
St. Lucie	40,883	19,367	63,453
Lake	116,419	12,309	138,732
Orange	57,764	2,762	65,289
Osceola	16,802	869	18,899
Hardee	47,046	677	48,956
Highlands	30,948	4,146	36,742
Polk	115,804	26,306	148,452
Hillsborough	52,804	2,968	58,075
Pasco	37,155	1,451	40,235
Florida Total	301,573	103,224	842,784

Source: Citrus Summary, 1967

The remainder of land is utilized in truck crops, animal products and forestry. Improved animal production with locally produced foods could foster a series of new food processing and food distribution industries of national importance.

The lands devoted to forestry are being utilized in a scientific way to produce more trees with less land, which has caused the industry to flourish and makes future production more promising.

The possibility of a large meat packing plant in the southern part of the region is probable if there is a marked increase in improved pasture acreage and grain importation.

EMPLOYMENT FACTORS

The climate of Florida is a natural attraction which offers such advantages as sunshine, outdoor living and exercise, little heating requirements and a healthy atmosphere. For these reasons, people are moving to Florida and seeking employment. Thus, the State itself acts as a natural employment bank.

TABLE XXI
CHANGE IN CITRUS ACREAGE IN EAST CENTRAL FLORIDA

	Percentage Change in Acres 1954-1959	Percentage Change in Acres 1959-1964
Brevard	+ 7	+28
Indian River	-20	+75
Lake	+27	+19
Orange	+26	-35
Osceola	+70	+63
Seminole	+28	+30
Volusia	+ 9	- 6
Region	+18	+14
Florida	+17	+38

Source: East Central Florida Regional Planning Council

Of all the counties in East Central Florida region, Indian River County is the most well rounded. It represents more of the basic industrial groups than any other county in the region. Thirty-four percent of Indian River County's employment stems from manufacturing and agriculture versus 19 percent in Brevard and 16 percent in Volusia.

PERSONAL INCOME FACTORS

Personal Income in Indian River County in 1968 totaled \$94,929,000 and ranked 24th among all counties in the state. For the state as a whole in 1968, a total income of \$17,842,000,000 was reported.

Projections to 1978 for personal income growth indicates that Indian River County could experience an increase of 128%, representing the ninth highest increase of all counties in the state.

BANK DEPOSITS

A major indicator of economic activities is the record of local bank deposits relative to per capita ratios. Records for 1969 indicate that the three banks of Vero Beach had a total recorded deposit in 1969 of \$66,513,000 or approximately \$1,900 per capita.

Examination of comparative bank deposit figures indicate that Vero Beach banks have nearly 2 times more deposits per capita than Orlando and Melbourne; important economic indicator of local affluence.

TABLE XXII
EMPLOYMENT - 1968
INDIAN RIVER COUNTY

<u>Industry</u>	<u>Employment</u>
Agriculture	378
Construction	641
Manufacturing	2,676
Transportation and Utilities	175
Wholesale	844
Retail	1,737
Finance, Insurance and Real Estate	364
Services	1,166
Miscellaneous	<u>52</u>
TOTAL	8,033

TABLE XXIV
COMPARATIVE BANK DEPOSITS

	<u>Total Deposits</u>	<u>Per Capita Deposits</u>
Vero Beach	\$66,513,000	\$4,740
Melbourne	87,439,000	1,980
Orlando	496,838	2,005

Source: Florida Bankers Association and
Gerald Dake Associates

TABLE XXIII
PERSONAL INCOME
1968 - 1978

	<u>Personal Income 1968</u>	<u>Personal Income 1978</u>	<u>% Change</u>
Indian River County	\$ 94,259,000	\$ 214,918,000	128.0%
State of Florida	17,842,000,000	36,740,000,000	105.9
Southeast Gold Coast	6,748,000,000	13,683,000,000	102.8
Central Florida	2,867,000,000	7,140,000,000	149.0

Source: Trend Publication, Inc.

TABLE XXV
PROPOSED IMPROVEMENTS
TO EXISTING ROADWAYS

<u>Roadway</u>	<u>Daily Existing Traffic Volume</u>	<u>Estimated Capacity</u>	<u>Projected Traffic Volume</u>	<u>Improvement Costs</u>	<u>Comments</u>
SR-60	7,800	5,600	18,000	\$ 4,217,000	4 lane, curb and gutter from I-95 to A1A.
A1A	600	3,100	6,500	\$324,000,000	The existing 18 feet wide section is to be widened to 24 feet.
I-95			26,700	39,600,000	4 Lane, divided, Interstate route.

Source: East Central Florida Regional Planning Council.

SECTION IV : PHYSICAL DEVELOPMENT FACTORS

In considering the planned development of any tract of land, regional development factors must be examined to determine the magnitude of trends and potential changes. The regional analysis of Vero Beach is especially critical in as much as the Vero Beach area is directly affected by three separate regions: Orlando, Cocoa-Melbourne and Gold Coast.

HIGHWAY TRANSPORTATION FACILITIES

As the Vero Beach area continues on its upward growth trend, the Federal, State and local traffic and transportation ways play an important role in development. Accessibility is foremost in long-range planning and land utilization.

Vero Beach will have excellent access from the north, south, and west upon completion of the proposed roadways and scheduled improvements to existing roadways. The I-95 gap between State Road 514 at Palm Bay below Melbourne and St. Lucie County should be completed by 1975 at a cost of \$42,971,000 (90% Federal aid, 10% State). Estimates indicate that approximately 50 to 60% of the traffic now using US1 will divert to use I-95. The anticipated traffic by 1980 reveals that 26,700 automobiles are expected to use I-95 daily, through the aforementioned area. I-95 will interchange with State Road 512 north of Vero Beach to A1A and the Wabasso Bridge, thus providing access to the beaches area. Tourists desiring to use the Beach Motel and hotel facilities will be free to by-pass downtown Vero Beach and have good beach access.

State Road 60, which interchanges with the Sunshine State Parkway, is to be widened and improved across the State into a four-lane facility, traversing 20th Street to 20th Avenue in Vero Beach, where it will become part of the now Royal Palm Boulevard. The SR60 Section in Vero Beach is due to be completed in 1972 and 1973. This will expose Vero Beach from the west coast with excellent access from the Tampa area and Orlando via the Sunshine State Parkway. State Road 60 will become a four lane, curb and gutter road from I-95 to A1A, through downtown Vero Beach and across the Intracoastal Waterway. The cost of the 9.5 mile improvement through Vero Beach is estimated at \$4,217,000.

A1A is to be widened due to the expected influx of heavier traffic from the new bridges which are proposed to be constructed in the future. The sections of A1A north and south of Vero Beach are 18 feet wide and are scheduled to be widened to 24 feet at a cost of \$324,000. It is projected as a two lane road and projections indicate that it could reach a capacity in excess of 6,100 cars per day as opposed to the present rate of 600 with present capacity of 3,100. The improved A1A drive along the beach will also be more conducive to handling the larger volume of traffic expected to be rerouted from U.S.1, I-95 and SR 512 over the existing and proposed bridges.

U.S.1 from Vero Beach through the Melbourne area is to be redesigned to handle the increased traffic due in 1980. Figures indicate, for portions of U.S.1, that 19,900 cars per day are due on a road designed for 13,500. The U.S.1 section in Vero Beach is presently overloaded by 2,000 cars per day.

There are numerous local, county and state roads proposed for improvement in the future which will enhance the appearance, accessibility and efficiency of the Vero Beach area. One facility needing mention is the proposed SR 630 which will be a Vero Beach circumferential. Plans indicate it will be a four lane, open access type road to route the traffic of

tourists and resident populations around the Downtown Vero Beach area directly to the beach bridges.

The proposed mainland highways will stimulate increased demand for beach access, so four new bridges crossing the river to the beaches are proposed. The Merrill P. Barber expansion bridge, located at the end of Royal Palm Boulevard on the mainland and the Wabasso Bridge north toward Sebastain are the only two existing bridges serving the beaches area. The Merrill P. Barber span at last count supported 13,524 cars per day in the winter, 11,578 in the spring and 10,733 in the summer. The 1968 average was 10,705 as opposed to a 1969 average of 11,945. The 1970 winter season count is expected to reach 15,000. Recent proposals indicate that the facility will be widened to 4 lanes in the near future to reduce the overload until other bridges can be constructed.

The following sites have been chosen for the four new bridges:

1. The Sebastain Inlet bridge to handle cross-county traffic from I-95 and U.S.1 to the beach area and A1A--also making the John's Island area more accessible.
2. A bridge at Gifford will follow a little further to the South. This will be mainly an intra-county vehicular transfer to transport autos to the beach area. There are no plans for an access from I-95 near Gifford so the transfer would take place via access at either Sebastian or SR60 west of Vero Beach.
3. The proposed 17th Street bridge will act as an inter-urban transfer facility for cars on I-95, SR60 and U.S.1 to the beaches. This facility is expected to carry the highest volume of all bridges.
4. A bridge further south is proposed at Oslo.

The I-95 interchanges for the Vero Beach area are scheduled for Sebastian and SR 60. This will have a prominent effect upon accessibility of tourists to the Vero Beach area. Upon completion of all scheduled projects, the Vero Beach mainland will have good regional access and the beaches area will be provided with excellent access from the mainland. However, circulation on the beach peninsular will be handicapped due

Circulation System

N. GIFFORD RD.

I-95

CITY OF
VERO BEACH

S.R. 60

16th ST.

U.S. 1

S.R. 5

U.S. 1

23rd ST.

S.R. 60

S.R. 5

17th ST.

A-1A

BELLAMAR

TABLE XXVI

1965 - 1980

EXISTING AND PROJECTED CAPACITIES OF

US1, A1A, SR60

	Location	Lanes	MPH	Existing Traffic Volume	Existing Estimated Capacity	Projected Traffic Volume	Comments
US1	0-3.5	4	50	11.3	18.1	14.1	6 mi. South of Vero Beach North to Route 7 intersection.
	3.5-7.8	4	35	15.5	13.5	19.9	
	7.8-22.3	4	50	11.8	18.1	14.7	
	22.3-38.4	4	60	11.6	18.8	13.8	
A1A	0-7.1	2	45	2.9	3.2	6.7	8 miles south of Vero Beach North to SR516 intersection
	7.1-22.2	2	55	.9	5.8	2.1	
	24-41.5	2	45	.6	3.1	6.5	
SR-60	24-26.2	2	45	2.2	3.5	5.1	Intersection of I-95 East to Beach Area through Vero Beach
	26.2-27.2	2	45	2.6	3.5	6.0	
	27.2-28.2	2	45	5.8	3.5	13.3	
	28.2-30.7	4	25	7.0	5.0	16.1	
	30.7-32.8	2	25	7.8	5.6	18.0	
	32.8-33.5	2	25	5.8	6.0	13.3	

Source: East Central Florida Planning Council

to the single north-south through artery. Plans for four lan-
ing of A1A are not proposed but should be initiated before
traffic becomes congested.

The most important of all transportation improvements to the
Bellamar Project in the Vero Beach Area will be the 17th
Street bridge connecting the beach to the mainland. When
completed, this bridge will link the project directly with the
mainland, U.S. 1 and I-95. Without this access, the
Bellamar site will be handicapped with only secondary access
and be limited in development possibilities.

WATERWAYS

The Vero Beach Area is laced with canals and waterways, the
most important being the intracoastal waterway. The demand
for waterfront property is extremely high and more and more
canals and waterways are being provided.

The intracoastal waterway is the major segment of coastal
transportation by water. There are several minor intracoastal
waterway ports along the east central Florida region coastline
with the major port at Port Canaveral.

Power boating enthusiasts and recreational boaters use the
intracoastal waterway extensively for sightseeing, water
sports and camping.

In relation to the economic or commercial development of the
Vero Beach area, the local waterways are an important asset.
They are utilized for leisure and recreation purposes and
could be considered one of the areas greatest assets. With
over 4,300 feet of waterway exposure, the Bellamar Project
is

AIRWAYS

The airports in Indian River County number only two. At
present, Vero Beach stands No. 2 in east central Florida
in private aircraft ownerships with 92 compared to Orlando
with 235. The following chart depicts the passenger per
population level of commercial air carriers in 1963 and in
1980 of the South Coast Air Trade Area: (Vero Beach)

TABLE XXVII		
POPULATION AND PASSENGER LEVELS		
SOUTH COAST AIR TRADE AREA		
	1963	1980
Population	30,710	67,900
Passengers	3,295	30,550
Source: East Central Florida Regional Planning Council		

AVIATION TRAFFIC GROWTH

The airlines are a major industrial and commercial concern wherever they are operating. In 1968, circulation operations increased a total of 235% in total air time. Eastern Airlines is a major carrier serving the Vero Beach Municipal Airport with one flight daily. Their major revenue is cargo with passengers as a secondary revenue generator. Air freight tonnage in the past five years has jumped 75 percent and the air mail increase is approximately 350 percent. The future of commercial aviation is bright in East Central Florida with plans to include three jetports, four other commercial air terminals and 14 additional general aviation type airports. The ticket sales have increased 105 percent in the past two years and are expected to soar even higher in the coming years. By 1980, the region will have a population of 1,640,000 people and airport studies indicate passenger origination will rise from one-half million to one and one-half million. A 70 percent increase in population and a 500 percent increase in passenger originations is indicated by these figures.

The brightest star in the airport picture is JFK Memorial in Brevard County, which by 1985, will become a major long haul and general aviation facility. The access is I-95 to Melbourne, U.S. 1 and the Banana Expressway, assuming all county road improvements are completed on time. The future of JFK is assured as being bright and will provide adequate air transportation to Vero Beach.

The South Coast Air Trade Area, served by the Vero Beach Municipal Airport, has a marginal scheduled air service requirement. Based on current trends in the aviation industry, there is a distinct possibility that scheduled air carrier service by a trunk airline will be discontinued at Vero Beach Municipal Airport in the forecast period. However, if local service operations should be inaugurated in Florida, or if third-level service should become acceptable, Vero Beach Municipal Airport could enjoy increased service of this type.

Nonetheless, it is anticipated that the significant aviation growth will be in the general aviation category and, as the City of Vero Beach is currently doing, the airport should be developed as a major general aviation airport with sufficient facilities to accommodate short-haul scheduled air carrier service.

SECTION V : SITE ANALYSIS

The Bellamar Site encompasses approximately 245 acres of land area including nearly 4,300 feet of ocean front exposure and more than 13,100 feet of Indian River waterfront. The mainland tract consists of approximately 216 acres equally split by Highway A1A, and the Indian River property contains two islands of 7.5 acres and 21.5 acres respectively, separated from the mainland by a shallow channel ranging from 100 to 500 feet wide.

GEOLOGICAL

The Bellamar Site in Vero Beach is typical of the coastal land along the Indian River coast of Florida. Geologically, it is a relatively young stretch of coastline, having emerged from the Atlantic Ocean as an off-shore sand spit, with subsequent development through wind-blown sand and stabilization by the various dune grasses and plants. As the coastal dunes built up, the hardwoods grew up behind them in their protective lee. These trees (the bays, oaks, magnolias, etc.) are here traversed by State Road A1A but are for the most part on the west side of the road. Along the Indian River shorelines (including the islands), the pioneer marsh grasses have been replaced by dense mangrove growth. (In time, if we made the unlikely assumption that there would be no interference by man, the Indian River would be reduced to a narrow stream flanked by either marsh grass flats or mangroves.)

The rather heavy grains of this stretch of sand are not conducive to the type of dune build-up which is found along the coast further north. Hence, the coastal hardwoods are not as tall, having less protection from the wind. While there are a few scattered trees (besides the Australian Pines) over 40 feet tall, most of the native growth ranges from 20 to 40 feet. As a general rule, it is recommended that as much of the growth as possible be retained in the landscape, as this is an essential part of the character of this beautiful property.

Soils will generally tend to be more and more organic as one proceeds from east to west across the property. Beginning with no organic content within the tidal zone, one crosses the stabilizing plants and grasses which have a very light organic content. The hardwood development is generally quite rich in organic matter due to its longer period of development. This zone will, therefore, require only "spot" enrichment to grow certain plants. The water table will generally be more than 60 inches below the surface, sloping upward toward the mangrove shore until it actually reaches the surface in some areas.

Without actual site testing, the bearing capacities of the various soils cannot be fully determined. However, as a general rule, the coastal sands will be quite adequate to support structures up to three floors on spread footings. High rise structures will, of course, require piling or caisson foundations in any case.

Drainage of this property runs from east to west making surface water run-off relatively simple. The dune zone will be porous and quite dry, and hence drainage will be no problem, except of course, where extensive pavement is installed. The forest zone has some low swales which hold surface water, but in general this zone is well drained. As development of the property proceeds and more and more of the surface is covered by either pavement or structures, it should be anticipated that a storm sewer system will be required to handle the additional run-off.

The topograph of the property is again typical of this type of coastal development. The dune ridge slopes up from the beach to as much as ten feet above sea level. Parallel to the coastline, the dunes drop off into the lower scrub and forest land only a few feet above sea level. This elevation carries all the way to the Indian River shore interrupted by occasional sand ridges indicating the earlier sand dunes which rose during the early stages of this coastal build-up. These ridges rise several feet above the adjacent average grade. Although the mangrove strips slope right into the water, there is a surprising entrance of marsh with the mangrove growing on sandy beach at the water's edge. The islands are crowned and the elevation would run between 3 and 5 feet with heavy vegetation.

Environmental factors for the most part are obvious; i.e., favorable climate with prevailing summer sea breezes, mild winters resulting from the proximity of the gulf stream, water exposure on two major fronts, all on the positive side; and hurricanes as a potential drawback. It should be noted that this area lies within what could be called a transition zone between the temperate climate of the United States and the sub-tropics of south Florida, i.e., hence the advertising feature line, "where the tropics begin". The Vero Beach area is the first area driving south on U.S.1 where Palm Trees can grow in abundance.

UTILITIES

The City of Vero Beach operates a public water system with a designed capacity in excess of 6,000 mgd. and a present flow of less than 2,000 mgd. indicating an adequate supply of water. The present distribution and storage system will require expansion and plans are being formulated to implement staging of these improvements. The Bellamar property is served by a 12 inch water main from a trunk line near the Beachland School along A1A. This line was designed to serve the Mooring's development south on A1A and has a limited capacity of approximately 400 additional connections. Therefore, improvements to the Bellamar Site will require enlarged trunk line capacity to the site and additional storage facilities.

There are five pollution control systems in the Vero Beach area, only one of which has implications to the Bellamar Site. The City sewerage treatment facility is a trickling filter type with a design capacity of 2,200 mgd. and a present treatment ranging from summer lows of 1,800 mgd. to 2,34 mgd. in the winter peaks. The City is currently studying plans to increase capacity and upgrade the treatment from a current 68% to the acceptable 90% level of the State pollution control standards by 1973. The present considerations for expansion include a county wide system or an expanded city system. The expanded city system will require a \$13,000,000 bond issue referendum in October to finance the improvements. Notwithstanding the type of system, the requirement for expanded capacity exists on the beaches and new collection facilities will have to be provided, but without a county-wide system, the Bellamar Site would not be able to connect unless it is annexed to the City. Because of the location of the present treatment plant immediately across the River from the Site, the cost of new collection systems would be kept to a minimum as a trunk line could be included in the proposed 17th Street Bridge project. The timing of any new improvements is critical to the programming of the Bellamar Project, and it is conceivable that the best

solution is an on site treatment plant for the initial construction with future phase out as new central facilities become available.

ZONING

The existing county zoning ordinance which effects the Bellamar project contains restrictions which limit construction to 35 feet in height and for single family residential use only. The requirements in the R-1 district include a 7,000 square foot lot with a 70 foot width and a 20 foot front setback.

It is anticipated that development plans on the site will include recommendations for multiple uses including high rise apartments, hotels, commercial uses and condominiums. The ordinance, as now written, must be amended to include height modifications and allow condominiums.

A new zoning regulation is currently being written by the county and will include provisions for a Planned Unit Development which allows multiple uses on a large scale project after official approval. If this provision is adopted with a minimum height restriction of 100 feet and gross density of 25 units per acre, anticipated development will not be seriously handicapped.

It is most important to the highest use of the Bellamar Site that adequate zoning provisions be included which will permit unique innovations of land use and allow a total community approach.



ATLANTIC
OCEAN

APARTMENT/
CONDOMINIUMS

CLUB

YACHT
BASIN

CONVENTION
CENTER

TRANSVERSE AXIS

HOTEL

CLUB

INDIAN
RIVER

CENTRAL SPACE DEFINED
BY HIGH RISE

APARTMENT/
CONDOMINIUMS

APARTMENT/
CONDOMINIUMS

COURT

POUR

SECTION VI : CONCEPT DESIGN APPROACH

BASIC CONCEPTS

The Bellamar Project is conceived as a total community designed as a Planned Unit Development. The land use concepts include a variety of residential uses in the form of town-houses, clustered homes, condominiums and Garden Apartments; a substantial tourist oriented Hotel and Motel Complex with a central convention, meeting and exhibition facility; a shopping center to serve the needs of the development and adjacent beach areas; a golf course and open space network including a club and marina to provide recreation for the area; and a private school site. Circulation, both internal and external, will eliminate dangerous grade crossings as much as possible and include parallel access roads along A1A. To provide focal points and identity, high rise structures will be strategically dispersed throughout the site in a deliberate pattern. The image of the area will be characterized as a low density project compatible with the natural physical assets of the site.

An attempt will be made in the Bellamar design to integrate as much as possible the various functions included within and without its boundaries and, thus, to provide a more interesting and vital living matrix.

An essential design approach is one which addressed itself to the fact that the property is divided by State Road A1A. This well traveled highway precludes any close connections between the two sections of the property; and the various activities and developments on each side will, thus, be independent of each other, except for the main linkage in the center of the property. This primary transverse axis which is crossed by an overpass at A1A, is designed to provide a primary focal point at each of its terminals and to tie together

their activities or uses. The eastern end focuses on the hotel complex in general and the convention center in particular, while the western end is dominated by a high rise structure in the background on the island, with an apartment "bridge" structure in the foreground providing a limited view of the water through the open ground floor space.

The tourist and convention oriented facilities are located on the ocean in a compact complex centered on a common exhibition and meeting structure to facilitate convention activities. The hotel and motel units will deliberately be limited to the central, compact site, thereby, reducing adverse affects and enhancing the remaining oceanfront for residential uses.

CIRCULATION

In order to minimize intersections with A1A, the basic circulation system within the property will be a loop road system. The islands will be served by a tributary from the western loop. Access to all structures is from these loop roads and their tributaries.

PARKING

Parking will be underneath the various raised pedestrian decks wherever possible. Native trees will be retained within the parking areas, wherever possible, to reduce the effect of the paving expanse. It is very important to make these areas as pleasant as possible.

RESIDENTIAL AREAS

Without a substantial base of residential use to set the character and provide at least a partial market, much of the

remainder of the Bellamar Project would not be possible. Therefore, the major function of the Bellamar Project will be residential, mixing single family cluster housing with low and high rise apartments and condominiums. Land costs will make single family detached housing undesirable. It would be premature to try to predict at this time the proportions of condominium to rental units, but the plan illustrates the basic unit density distribution which generally phases from more dense near the project center to less dense at the north and south ends. This is, of course, an attempt to provide a more facile transition into the adjacent land uses, which, as previously noted, is basically single family residential in detached houses. The obvious reason for providing the density of the residential units shown is to help offset the cost of land taken out of residential use for the golf course, (which would probably not be self supporting). Thus, is provided a maximum of open space exposure on a minimum of land commensurate with good design.

Organization of the residential areas breaks down into two basic types: internally and externally oriented dwelling groups. The externally oriented group has an exposure on common open space, in this case, either a golf fairway or a body of water, (the ocean or the Indian River). Where neither of these exposures is possible, the units are internally oriented and face on a courtyard formed by the unit masses. The only internally oriented units are east of A1A at the south end of the project.

Aside from the obvious advantage of exposure, many of the externally oriented units are arranged around parking "courts", which will create a very pleasant visual experience.

The internally oriented units have been provided with open space corridors to the ocean, so that in effect these units actually have direct pedestrian access to the ocean.

The high rise units are able to "gather in" a view from their upper floors, but in order to give the lower floors the best

exposure, these structures are also located on water or open space. This, of course, is also desirable from the standpoint of outdoor recreation space for these residents.

The golf course, as noted above, would be a means to provide open space within the residential area as well as a recreation facility. As designed, it would be a short hole "executive" course linked closely to the hotel-motel complex.

PUBLIC OCEANFRONT PARK

A public park is indicated at the north end of the property extending about 800 feet along the oceanfront. It is felt that not only would this be useful to the residents of Bellamar but there is a need for such a facility for other residents of the Vero Beach area. This site will be reserved for purchase by the City and/or County.

SHOPPING

Immediately adjacent to the hotel and motel complex and easily accessible to all residential areas will be located a shopping facility which will be needed as a necessary adjunct to the growth of the area. This juxtaposition is not accidental. It is felt that the Bellamar residents will use such a facility; but, its ability to attract customers from further away, past other shopping facilities, will need enhancement. One determinant in this is, of course, is the quality of tenants. An oceanfront park (which as shown, actually extends across the front of the shopping center), would provide a valuable captive market. The center is envisioned as an open fresh air mall with a casual atmosphere, so that customers could circulate freely through a ground floor mall and enter the various air conditioned stores from it. The upper floor or floors would then span across the open gaps; or in some cases, there might be two story spaces. There is considerable flexibility possible with such a layout.

In addition to the main shopping building, there will be a one story convenience shopping facility and a multipurpose theatre.

The latter would most likely be a movie theatre, but a legitimate theatre should most certainly be investigated. This could lend much to the "character" of the project.

Parking for the above facilities is arranged to dovetail with that of the oceanfront park in order to minimize pavement. Thus, on Sundays when park use is high, shopping is for the most part closed. Similarly, during the week and at night, when shopping is likely to be heavier, park use will be light.

HOTELS AND MOTELS

By grouping the hotel and motel facilities into a rather tight composition around a convention center, the versatility of the whole group is enhanced. This arrangement could attract conventions from all across the continent by virtue of the number of rooms which could be aggregated around what is essentially one unit. The number of actual separate entities involved will of course depend on future developments. It's conceivable that what is shown as three separate motel units around the main interior courtyard could be just one larger operation. The motel complex has a broad raised esplanade to the convention center and through to the ocean so that here too there is a feeling of having direct access to the ocean even though the motels are not actually fronting on it.

CLUB FACILITIES

Two major club facilities are shown as well as a golf shop. The beach cabana club would, of course, be primarily oriented toward the ocean and beach activities, and the yacht club would probably have a somewhat broader "country club" span of activities, including the golf course. It is also quite possible that all of these facilities might be under just one club corporation, and there might also be expected some sort of membership arrangement with the hotel-motel operations.

As previously noted, one of the primary purposes of including a golf course in the project is to provide a substantial amount

of open space for the residents surrounding it. Also important, however, is the impact of a well landscaped open space as an entrance gate and frame for a development. The course itself becomes good advertisement for potential tenants and buyers, not to mention tourists and shoppers. An attempt has been made to "weave" the course through the residential areas as much as possible.

OTHER FACILITIES

A school site is included in the project to provide a convenience to the residents of the Rio Mar area and to the project. It is anticipated that this school will be a private facility with an accelerated academic program.

Other improvements on the site include tennis courts, putting greens, swimming pools (one of which will be a competition olympic size pool) and scattered playgrounds with selected equipment.

QUANTITATIVE LAND USE

The conceptual design illustrates approximately 112 acres of area used for residential purposes, 54 acres of commercial, 22 acres of public uses and 51 acres for golf course. The gross residential density for the entire tract of land is approximately 6.6 dwelling units per acre with a net density for the residential areas of 10 units an acre including golf course. The commercial shopping enter, theatre and allied shopping stores will provide an excess of 350,000 square feet of floor space. The hotel and motel facilities will provide approximately 1,000 tourist units.

In the tabulation of residential area land utilization, the areas are shown first exclusive of the golf course, and then parenthetically with a pro rata share of the golf course area based roughly on frontage. In addition to the overall average density, there is also an overall density excluding the cluster house acreage. This is because the psychological difference between the two residential types is significant. Cluster houses, as visualized in the Bellamar project, are the equivalent of the more traditional single family homes found elsewhere in Vero Beach. While they are built from groupings of stock plans, they will be built on order on separate lots with a certain amount of custom finishes and accessories. Thus, the price of the land for this group of homes will be of a considerably higher per unit cost.

TABLE XXVIII

AREA TABULATIONS

Areas by locale:	East of A1A	125 acres
	West of A1A	91
	Large Island	21.5
	Small Island	7.5
	Total	245 acres
Areas by Use:	Residential	112 acres
	Golf Course	51
	Club Facilities	6
	Motel/Hotel	32
	Commercial	22
	School	8
	Public Park	14
		245 acres

LAND UTILIZATION

Residential Areas


Unit Type	Approximate No. of Units	Land Area In Acres*	Average Density (In Units Per Acre)*
Cluster Houses	320	55(85)	5.8(3.8)
2-3 Story Apartment or condominium Units	700	45(53)	15.5(13.2)
High rise apartments or condominiums	600	12(25)	50.0(24)
Total	1,620	112(163)	

Overall average density:
Density Excluding Cluster houses: 14.5(10)
23.0(16.5)

Motel/Hotel Area

Motels	260	18	14.5
Hotels	650	14	45.5
	910	32	
	Overall Average Density		28.5

*Areas in parentheses include a proportionate share of golf course acreage.

An aerial photograph of a coastal development site. The image shows a long, narrow strip of land with various buildings, including large rectangular structures and smaller houses, interspersed with trees. The land is bordered by water on the left and a beach area on the right. The overall layout suggests a planned community or resort.

CONCEPTUAL DESIGN

BELLAMAR

A PLANNED UNIT
DEVELOPMENT

VERO BEACH
FLORIDA

