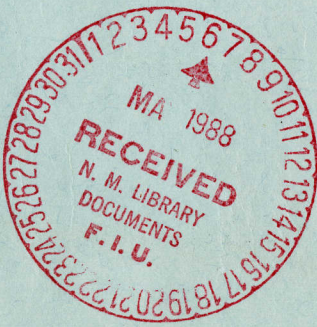


URL DOC D1010.002/2/E28 1978

east everglades resources planning project



DO NOT CIRCULATE



Residential Land Use

URL DOC

SEP 09 1997

FIU-NM Library
DOCUMENTS



metropolitan dade county planning department

... moves into
... ..

... ..

(Element I-E, Task 3)
November 1978

Purpose

The objective of this working paper is to describe the characteristics of existing residential development in the East Everglades Project Study Area. This represents Task 3 of Work Element I-E in the Plan-of-Study.

EAST EVERGLADES RESOURCES PLANNING PROJECT

Summary

RESIDENTIAL LAND USE

Residential features in the East Everglades Project Study Area occupy 0.25 percent of the total study area. County zoning allows residential use on five-acre parcels, many smaller parcels are "grandfathered" in under the 1974 zoning changes. Houses (and mobile homes) typically occupy 2.5 to 5 acre parcels and residential lots are often interspersed with large vacant or agricultural tracts. Many residential parcels include ancillary uses such as grove crops and animal raising. Permit requirements for residential building are extensive due primarily to the wetland characteristics in the East Everglades. Residential land use is concentrated in the Howard and Richmond Drive areas, however, small residential pockets exist in the other areas.

Dade County Planning Department

November 1978

Total current estimated permanent population for the study area is 418 persons. Most residents live in either the U.S. or Cuba and work outside the area. Many residents moved to the area to get away from city life. Average household size ranges from 0.5 to 4.0 persons. Housing types in the area encompass a wide spectrum. They range from large, CBS structures with manicured lawns to rundown trailers surrounded by domestic animals. A number of houses and trailers serve as "weekend retreats" for Miami residents. Many residential lots are surrounded by metal fencing. Drinking water is generated from onsite wells usually with a "soakaway" unit attached. Sewage disposal is accomplished by septic tank pits.

Only four roads near residential areas are paved in the East Everglades. The remaining roads are constructed of crushed limestone fill and are not County maintained. For holes are numerous in the (fill) roads, particularly during the wet season, making travel slow and dangerous for vehicles.

The East Everglades Resources Planning Project is being conducted with financial and technical assistance from the U.S. Environmental Protection Agency under the provisions of Section 208 of the Federal Water Pollution Control Act (P.L. 92-500).

Telephone service, police, fire, and emergency services are presently under construction in the East Everglades. High response times on calls from the area. Twenty-four houses are

Residential Land Use in the East Everglades

(Element I-E, Task 3)

November 1978

Purpose

The objective of this working paper is to "describe the characteristics of existing residential development" in the East Everglades Project Study Area. This represents Task 3 of Work Element IE in the Plan-of-Study.

Summary

Residential features in the East Everglades are decidedly rural and occupy 0.25 percent of the total study area. County zoning allows one residential unit per five acres however, many smaller parcels are "grandfathered" in under the 1974 zoning changes. Houses (and mobile homes) typically occupy 2.5 to 5 acre parcels and residential lots are often interspaced with large vacant or agricultural tracts. Many residential parcels include ancillary uses such as grove crops and animal raising. Permit requirements for residential building are extensive due primarily to the wetland characteristics in the East Everglades. Residential land use is concentrated in the Howard and Richmond Drive areas, however, small residential pockets also occur near Chekika State Recreation Area and along Tamiami Trail. Total current estimated permanent population for the study area is 418 persons. Most residents hail from either the U.S. or Cuba and work outside the East Everglades. Many residents moved to the area to get away from city life. Average household size ranges from 3.5 to 4.0 persons. Housing types in the area encompass a wide spectrum. They range from large, CBS structures with manicured lawns to rundown trailers surrounded by domestic animals. A number of houses and trailers serve as "weekend retreats" for Miami residents. Many residential lots are surrounded by metal fencing. Drinking water is generated from onsite wells usually with a "softening" unit attached. Sewage disposal is accomplished by septic tank units.

Only four roads near residential areas are paved in the East Everglades. The remaining roads are constructed of crushed limestone fill and are not County maintained. Pot holes are numerous in the (fill) roads, particularly during the wet season, making travel slow and damaging to vehicles.

Services are generally poor, however, most houses have electric and telephone service. Police, fire, and emergency medical units exhibit high response times on calls from the area. Twenty-four houses are presently under construction in the East Everglades.

I. Residential Characteristics:

1. The Setting

The East Everglades study area, outlined in Map 1, is approximately 242 square miles in size. Residential land uses occupy 0.25 percent of the total land area and are concentrated primarily in the Howard (SW 136 Street) and Richmond (SW 168 Street) Drive areas between Levee 31 and Grossman Hammock Road (SW 237 Avenue). The current residential areas are some 20 miles from downtown Miami; beyond the fringe of Miami urban development. Many area residents use Perrine as their postal mailing address.

2. Residential Survey Technique

Field interviews and surveys were used by County Planning personnel to ascertain residential characteristics in the East Everglades study area. A survey questionnaire was developed to guide personal interviews and also allow residents to respond by mail. A sample residential questionnaire is presented in the Appendix. Thirty-five personal interviews with residents were conducted and eight additional questionnaires were received through the mail. This total of 43 completed survey forms represents 40 percent of the total estimated population in the East Everglades study area. The survey questionnaire, plus field observations, aerial photographs, and miscellaneous discussions serve as the data base for the residential characteristics presented in this working paper.

3. County Master Plan (CDMP)

The Comprehensive Development Master Plan for Metropolitan Dade County indicates two land use categories for the East Everglades. There are: 1) Agricultural and Open Land, and 2) Environmental Sensitivity. Map 2 shows the master plan category boundaries. The Agricultural and Open Land designation encompasses the Howard and Richmond Drive residential areas and allows a maximum density of one unit per five acres. Allowable uses in this category include amenity and recreation, conservation, agricultural, and extraction activities. The Environmental Sensitivity category covers the major portion of the East Everglades. This use category restricts land uses to those compatible with the area which would not adversely affect the surrounding ecological system.

4. County Zoning

Present zoning in the East Everglades primarily includes two categories, agricultural use (AU) and general use (GU), both of which allow maximum density of not more than one unit per five acres. Map 3 shows the zoning category boundaries. All residential areas, except for a half section above Richmond Drive, are zoned GU.

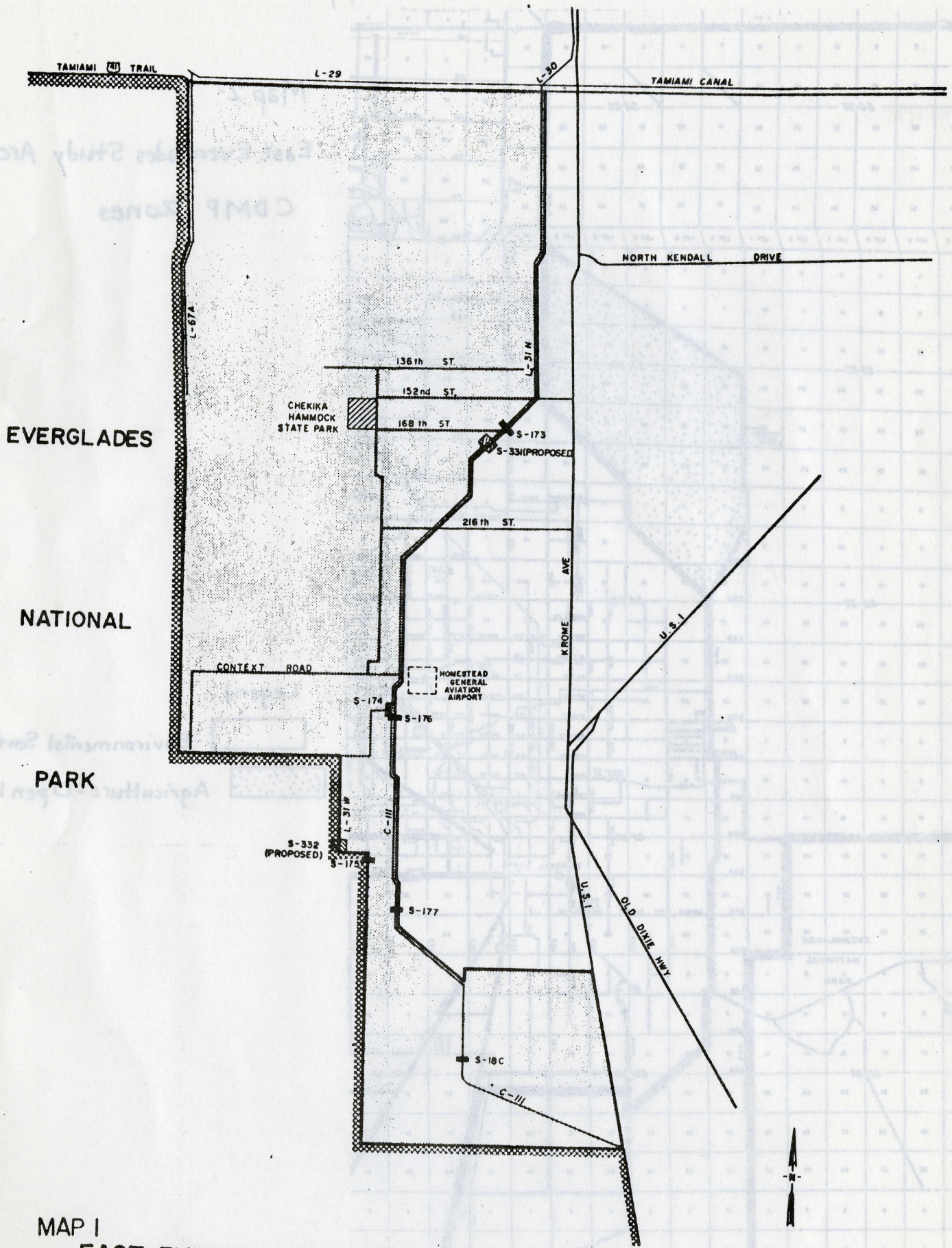
In March, 1974, Dade County imposed a building moratorium in the East Everglades area in order to allow time to properly study zoning alternatives for the area. Previous zoning allowed general and agricultural uses with one residential unit per acre maximum density. As a result of the moratorium study, the zoning categories were altered to allow maximum densities of one unit per 5 acres in AU and GU areas. Any residential parcels purchased before March 19, 1974, are "grandfathered in," meaning that building on such parcels is regulated by the previous zoning density (one unit per acre).

5. Permitting

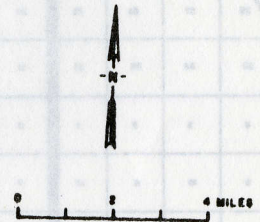
Residential development in Dade County is subject to numerous permitting requirements at the local as well as the state and federal levels of government. This includes building permits, certificates of occupancy, septic tank and well approvals, and tree removal permits. The East Everglades area, being a natural wetlands system inundated over half the year, imposes additional permitting requirements on residential builders, such as fill permits necessary to meet flood elevations for houses, mobile home pads, and septic tank drainfields. This section discusses each permit requirement applicable to persons building a structure in East Everglades area.

Building permits are required, approving the pre-construction plat and plans, for all structures constructed in Dade County. The County Code also mandates a certificate of occupancy, certifying on-site inspection of structural integrity, plumbing, septic tanks, and other components, before a residential structure can be inhabited.

Land filling, necessary in the East Everglades to build structure foundations and septic tank drainfields up to County flood criteria elevations, is regulated at the County, State, and Federal levels of government. The Dade County Code (Chapter 9, Article III) requires a "Class 4" permit for any action which disrupts the natural sheet flow of surface water, with the declared intent to protect the sensitive wetland ecosystems



MAP I
EAST EVERGLADES STUDY AREA



— PROJECT BOUNDARY
 ▨ ENP BOUNDARY

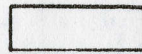
Map 2-

East Everglades Study Area

CDMP Zones



Legend:

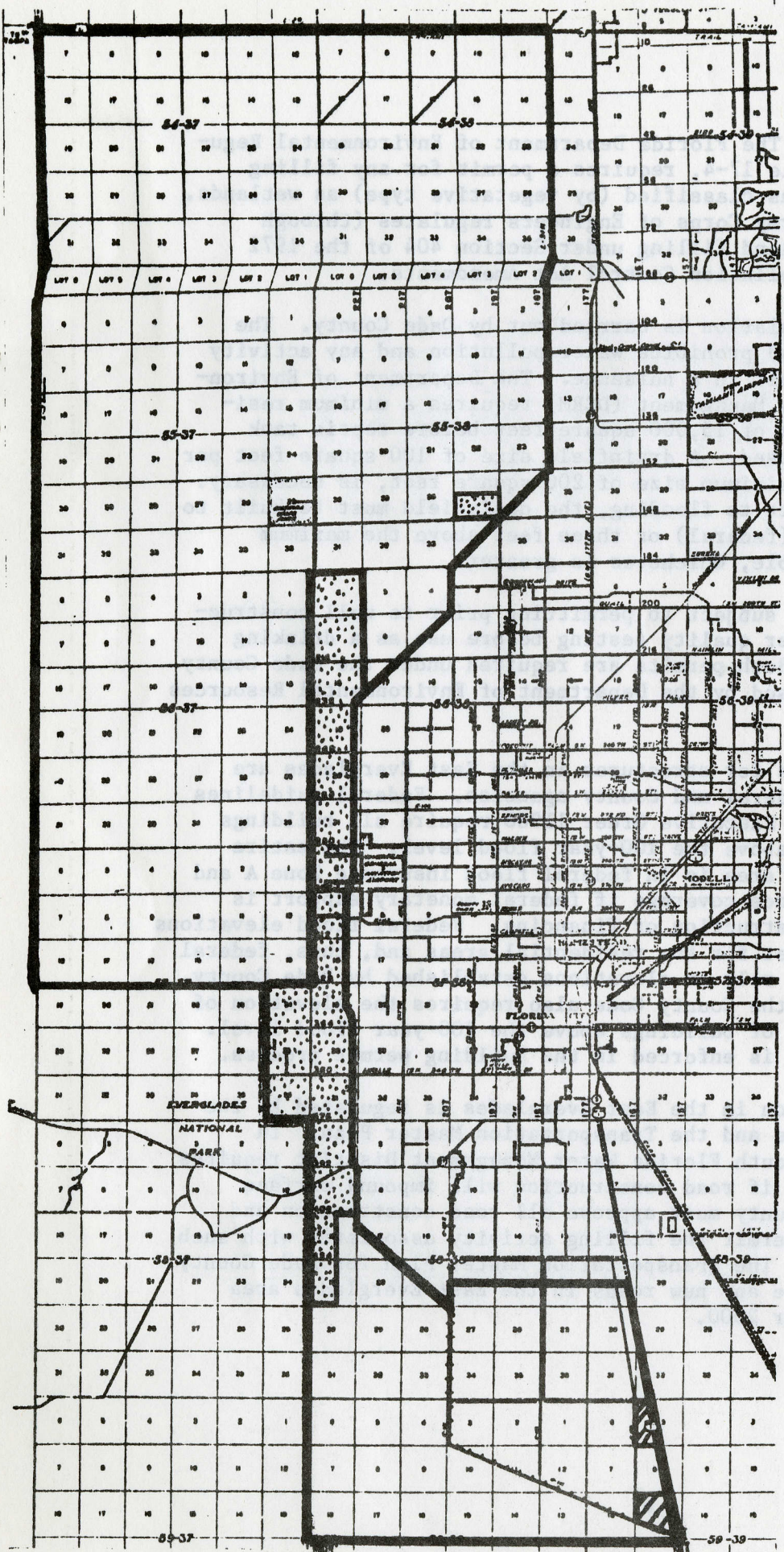


Environmental Sensitivity



Agriculture - Open Land

Map 3
 East Everglades Study Area
 Zoning Categories



- Legend:
- General Use
 - Agriculture Use
 - Industrial Use Controlled

of the County. The Florida Department of Environmental Regulation under Rule 17-4, requires a permit for any filling activity in areas classified (by vegetative type) as wetlands. Likewise, the Army Corps of Engineers regulates (through permitting) wetland filling under Section 404 of the 1972 Federal Water Pollution Control Act Amendments.

Septic tank regulation is carried out by Dade County. The Code (Chapter 24) prohibits water pollution and any activity which would result in a nuisance. The Department of Environmental Resources Management (DERM) requires a minimum residential lot area of 15,000 square feet before septic tank systems can be used. A drainfield size of 100 square feet per bedroom with a minimum size of 200 square feet, is necessary. In areas, subject to flooding, the drainfield must be built to flood criteria (federal) or three feet above the maximum annual water table, whichever is greater.

Water wells are subject to permitting prior to well construction and to water quality testing before use as a drinking water source. Both permits are required under the Dade County Code and processed by the Department of Environmental Resources Management.

Flood elevations for structures in the East Everglades are regulated by Federal and County agencies. Federal guidelines developed under Executive Order 11988 require all buildings to be elevated above the 100-year flood level. The entire East Everglades area is in federal flood insurance Zone A and requires insurance coverage if federal monetary support is involved in construction or financing. Federal flood elevations have not been set for the residential areas and, thus, federal (FHA) officials rely on elevations established by Dade County. Chapter 11C of the County Code also requires the elevation of the first floor of buildings above the 100-year flood level. This regulation is enforced in the building permit process.

Road construction in the East Everglades is regulated by the Dade County Code and the Transportation Master Plan. In addition, the South Florida Water Management District requires permit approval if road construction will impound surface water. Dade County must approve all road construction and the DERM must permit the filling activity associated with such road building. The Transportation Master Plan for Dade County does not propose any new roads in the East Everglades area through the year 2000.

Tree removal or destruction, sometimes necessary in residential construction, is prohibited, subject to specified exceptions, without permit (Chapter 26B, Dade County Code) from the Department of Environmental Resources Management.

Permit Enforcement

Discussions with area residents indicate that permit enforcement, particularly building permits, has been negligible in the past. Many houses and roads in the East Everglades were constructed without County permit. There is evidence to indicate that while this practice is continuing, recent County enforcement actions have reduced the amount.

6. Residential Patterns

In order to structure the remaining data into clear and concise form, it is useful to divide the overall residential pattern in the East Everglades into four subareas. Map 4 delineates the four residential subareas and Table 1 indicates the basic housing mix, consisting of permanent and "weekend" residences, for each.

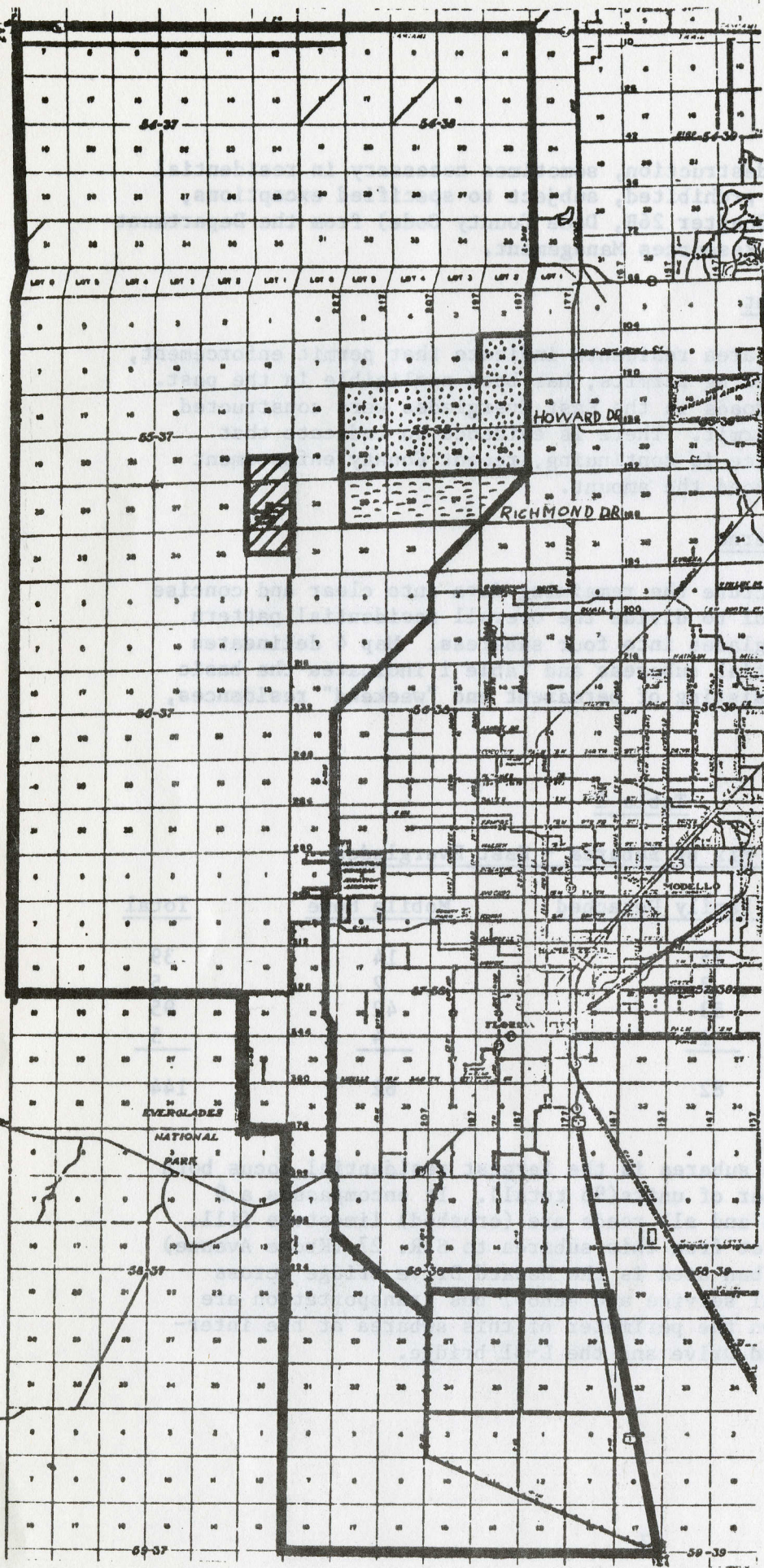
Table 1

Basic Housing Mix by Subarea - East Everglades

<u>Subarea</u>	<u>Single Family Detached</u>	<u>Mobile Home</u>	<u>Total</u>
Richmond Drive	25	14	39
Tamiami Trail	3	2	5
Howard Drive	53	42	95
Chekika	<u>1</u>	<u>4</u>	<u>5</u>
Totals	82	62	144

The Howard Drive subarea is the largest residential locus both in size and number of units(95 total). It encompasses a 9 square mile area and all roads are (crushed) limestone fill. The primary outlet from this subarea to S.R. 27 (Krome Avenue) and the Miami urban area is the Howard Drive bridge across Levee 31. Postal service and school bus transportation are available only on the perimeter of this subarea at the intersection of Howard Drive and the L-31 bridge.

Map 4
 East Everglades Study Area
 Residential Subareas



Legend:

- Tamiami Trail Subarea
- Howard Drive Subarea
- Richmond Drive Subarea
- Chekika Subarea

The Richmond Drive subarea is the second largest resident zone, being 3.5 square miles in size and having 39 residential units. Richmond Drive is the only paved road outlet to S.R. 27 in this subarea. The subarea receives the best postal and school bus service in the East Everglades, by virtue of the good condition of Richmond Drive.

The Tamiami Trail residential subarea is very sparsely populated and spatially separated from the other residential uses in the East Everglades. Located on the southside of U.S. 41, this subarea includes three single family structures and two mobile homes. Three of the five residential uses are associated with commercial airboat operations and souvenir shops located along Tamiami Trail. The subarea receives no postal or school bus service.

The Chekika residential subarea includes housing units at the Kendall Glideport (LMH), the Chekika State Recreation Area (3MH), and the Rocky Lake Farms development (LSF). The Grossman Hammock Road (SW 237 Avenue) is paved and provides the primary transportation in this small subarea. It does not receive postal service and school bus transportation is available on the perimeter of the subarea at the intersection of Grossman Hammock Road and Richmond Drive.

The analysis of residential patterns in the East Everglades reveals that 95 percent of the residential land use is located in the Howard and Richmond Drive subareas. The Tamiami and Chekika subareas are very small and were chosen as distinct housing subareas due to their spatial separation from the primary residential land use activity in the study area. In addition, neither of the two smaller subareas is experiencing residential development pressure at this time. Thus, the remainder of the working paper describes residential land use characteristics only for the Howard and Richmond Drive subareas. All subsequent references in the report to residential areas (or similar phrasing) delineate only these two primary subareas.

7. Population Estimate

To estimate the resident (or permanent) population in the East Everglades, aerial photographs, field checks, and the resident questionnaire results are used as the primary data base. The resident questionnaire survey accounts for 49 permanent residences and 179 persons. The survey also gives an indication of average household size according to housing type. Single family households average 4.0 persons and mobile homes average 3.5 persons. Applying these factors to the permanent single family and mobile home residents not included in the survey,

and adding in the survey information, gives an estimated population of permanent residents in the East Everglades of 418 persons. Table 2 presents the population estimates for the study area by residential subarea. Not surprisingly, the Howard Drive subarea comprises 65 percent of total permanent population.

Table 2
Estimated Permanent Resident Population - East Everglades

Subarea	Total Population	% Surveyed
Howard Drive	267	31
Richmond Drive	126	63
Tamiami Trail	14	14
Chekika	<u>11</u>	<u>100</u>
Total	418	43

It should be noted here that determination of permanent residential structures among the housing units not surveyed represents the largest factor of possible error in the population estimate presented in Table 2. All potential residential structures indicated on aerial photos could not be field checked and, in many cases, field verification did not reveal whether a residential structure was a permanent or weekend-type residence. Thus, based upon field conversations and observations, the project staff developed an estimate of the percentage of "weekend" structures in the study area. This factor (20%) was applied against the total residential structure inventory to eliminate weekend housing from the estimate of permanent resident housing.

8. Resident Characteristics

The residential questionnaire survey reveals many social and economic characteristics of the residents in the study area. The people approached for interviews during survey field trips were generally very helpful. However, the majority of those interviewed were openly critical of Dade County due to the lack of County services, particularly road maintenance.

Generally, discussions with residents during the survey showed a strong sense of community in the area. Several residents, upon learning that the Howard Drive bridge might be removed due to recent improvements in Levee 31, indicated that they

could raise half the money needed for a new bridge, if Dade County would contribute the other half. During several interviews, residents made distinctions between the "Howard Drive group" and the "Richmond Drive group" indicating an intra-community delineation between persons living near Howard Drive and those near Richmond Drive.

Most residents interviewed were born in the United States, while some 30 percent are from Cuba. The large majority of persons in the survey work outside the study in non-agricultural occupations. Several are employed by airline companies at Miami International Airport; two persons are employed as firemen and several others work in southwest Dade County as grocery store clerks. Some persons in the survey are working on farms, generally as workers or managers. Very little subsistence farming occurs in the East Everglades.

The survey clearly shows a strong "middle class" orientation in the study area. "Suburban" employment patterns are alluded to above. The family environment is evident in many households. The average household size from survey results showed 3.5 persons per mobile home and 4.0 persons per single family house. Most survey forms indicate at least one person under 18 years of age in the household. Seasonal housing for migrant workers is evident in one particular survey. This residence (MH) serves as a temporary home for 13 relatives who work in Dade County agricultural fields in the winter growing season.

In discussing reasons for moving to the East Everglades, persons overwhelmingly indicate the need to get away from city living. Several persons mention crime problems at former residences in Miami as primary factors. Secondary (move) reasons include inexpensive land and opportunities to raise crops during leisure time.

9. Housing

Table 1 shows a basic housing mix of 82 single family houses and 62 mobile homes (and trailers) in the East Everglades. Value and condition of houses cover a wide spectrum. Most homes are CBS construction with 3 bedrooms, 2 baths and are built on fill. Many residential parcels are encompassed by fencing, typically the metal chain-link type. A significant amount of new CBS homes and structures under construction are apparent in the study area. Wood frame housing is also found in the East Everglades. These are typically older, smaller homes in poor condition.

Mobile homes and trailers are also used extensively. Several mobile homes are located on the same lot in some instances. This housing type is generally employed as a temporary living measure in situations where the resident is building a single family house on the same lot.

10. Drinking Water

No water companies offer service in the East Everglades. Water for agricultural use is obtained exclusively from onsite wells. Drinking water is also pumped for underground sources, however many residents add filters to drinking water wells to improve water quality by reducing hardness. Several residents get drinking water from friends or places of employment in the Miami area or purchase "bottle" water.

11. Waste Disposal

Wastewater treatment lines do not extend into the study area and none are planned (by Dade County) through the year 2000. Sewage waste disposal is accomplished primarily by septic tank systems. Residents do not have recurring flushing problems with household toilets and only one instance of noxious sewage was noted during field trips.

Garbage and trash are disposed of by various means. Several residents indicate that they use a private garbage collector who operates in the area. However, one resident reports that one collector has been seen picking up garbage and dumping it along roads a short distance from the pickup point. Residents also dispose of garbage by burning and in dumpsters at places of work or at favorite shopping areas. Several garbage dump sites on vacant lots are evident in the residential area.

12. Ancillary Uses

Supporting uses on residential parcels are prevalent throughout the study area. In the Howard Drive area, many residents either tend grove crops and/or raise animals such as chickens, hogs, and ducks. In the Richmond Drive area, nursery and grove uses are present on some residential lots, however, ancillary uses are generally less prevalent. In both areas, residents typically keep personal vegetable gardens.

Several commercial businesses are also found in the East Everglades. In most instances, the owners reside on the same parcel as the business is located on. In the Tamiami Trail area, commercial airboat operations and souvenir shops are

present with residential uses. Businesses found near Howard Drive include an orchid nursery, Heinel's nursery, a kennel, and an eating place for farm workers. The Rob-Joy Nursery operates in the Richmond Drive area. Near Chekika State Recreation Area, the Kendall Gliderport offers soaring and skydiving services.

13. Roads

The transportation system in the East Everglades is very limited. Many roads were constructed without County permits in the 1965-70 period by land developers.

The residential areas have only three paved roads. These are: 1) U.S. 41, providing paved access to the Tamiami Trail subarea, 2) Grossman Hammock Road, which borders the Chekika subarea, and 3) Richmond Drive, in the Richmond Drive subarea. The Howard Drive residential subarea does not contain any paved roads. The remaining residential subareas are accessible only by unpaved (fill) roads, ranging from improved and graded rock roads to "buggy" trails.

The filled roads exhibit many pot holes, particularly during the wet season, making travel slow and damaging to vehicles. The County does not maintain any fill roads in the East Everglades and residents sometimes pool resources to refill and grade roads in their respective areas.

The Dade County Transportation Master Plan does not contain any new roads for the East Everglades study area through the year 2000.

14. Services

County services in the East Everglades study area are practically non-existent. As mentioned previously, roads are not maintained by Dade County and there is no garbage pickup. The area has no street lighting. Police and fire department response times to the residential areas are very slow. Several residents mention that recent requests for aid from the County Sheriff's Department had elicited no response in some instances.

Bus service to schools from the East Everglades occur in two areas. In the Howard Drive area, school buses pick up 44 elementary, 23 junior, and 6 senior high students daily at the intersection of S.W. 187 Avenue and Howard Drive. In the Richmond Drive subarea, buses pick up 26 elementary, and 28 junior and senior high students daily along S.W. 168 Street between S.W. 197 Avenue and Grossman Hammock Road.

Electric service is furnished by Florida Power and Light Company. In the Howard Drive subarea, there are presently 86 total electrical hookups; 51 are residential connections and 35 are commercial. Commercial accounts include agricultural uses such as utility buildings (sheds, etc.) and water well pumps. Electrical service in the Richmond Drive area is estimated at 110 total accounts including service west of S.W. 237 Avenue to Chekika State Recreation Area.

Telephone service is extended to all residential areas of the East Everglades closely following electrical service patterns. All residences surveyed had phone service.

Mail service in the Howard Drive subarea is provided only to the intersection at S.W. 187 Avenue. At that point, there are 93 active mail boxes. The primary reason for the lack of postal delivery along Howard Drive is the rough condition of the road. Mail service in the Richmond Drive area is provided to 31 active boxes out to S.W. 218 Avenue. Postal delivery is not extended out to the Tamiami Trail residential area. Several residents indicate the use of "P.O. Boxes" at the Perrine Post Office.

15. Land Values

Current land values in the East Everglades vary considerably according to location; particularly with proximity to roads and the eastern study area boundary near Howard and Richmond Drives.

Land in sections along Howard Drive near the Levee 31 bridge (Sections 14, 15, 22, & 23) is currently selling for \$5,500 to \$7,000 per acre. Moving to the west along Howard Drive, per acre selling prices drop to \$5,000 in Section 21 and \$4,000 in Section 17.

In the Richmond Drive area, residential land values range from \$6,000 per acre to \$10,200 according to recent sales figures. Asking prices of \$8,800 to \$9,000 per acre are common in this area.

Outside current residential areas, prices decline rapidly. West of S.W. 237 Avenue, a real estate sign proclaims 5 acre "ranchettes" for \$14,000 (\$2,800 per acre). However, recent asking prices of \$400-\$500 per acre further west, for inaccessible land have not initiated sales activity.

Tax values in residential areas vary between \$1,000 to \$4,000 per acre. Generally, land around Howard and Richmond Drive areas, near Levee 31 are valued for tax purposes in the \$3,000 to \$4,000 per acre range. Moving west, the tax values decline to \$1,000 to \$2,000 per acre. In non-residential areas west of SW 237 Avenue (Grossman Hammock Road), representative per acre tax values average \$900.

16. Construction Activity

Twenty-three houses are presently under construction in the study area. Two sites are being worked by construction crews and the remainder appear to be long-range (1 to 2 year) "weekend" projects by individual owners. In a few cases, it is not easy to tell whether the construction site is being actively worked.

The construction activity is balanced between the Howard and Richmond Drive areas. Sections 15 (4 units) and 21 (3 units) are the primary construction areas near Howard Drive. Sections 27 (4 units) and 28 (4 units) are the focal points of Richmond Drive subarea building activity.

Special note should be made here of one house under construction on SW 192 Avenue just south of Howard Drive. It appears to be a "model" home for use in showing a standard floor plan to potential buyers. This is the only "model" house in the study area.

17. Impacts

Residential development in a wetland area such as the East Everglades requires the elevation of land for structure foundations, driveways, and septic tank drainfields above flood criteria levels. This is typically accomplished by hauling in fill material from nearby sources and depositing (and compacting) it on the particular portion of the residential parcel until the needed elevation is reached. County flood criteria requires the elevation of structures in the Howard and Richmond Drive areas to (generally) 8.8 feet above mean sea level. This translates into one to two feet of compacted land fill for a particular area for a house foundation. Ancillary uses on residential lots such as grove crops and animal sheds also entail the use of fill to raise land elevation above flood water levels. Land filling alters surface water flows and recharge characteristics of a site. This can cause surface water problems both on-site and on adjacent parcels.

Tax values in residential areas vary between \$1,000 to \$4,000 per acre. Generally, land around Howard and Richmond Drive areas, near Levee 31 are valued for tax purposes in the \$3,000 to \$4,000 per acre range. Moving west, the tax values decline to \$1,000 to \$2,000 per acre. In non-residential areas west of SW 237 Avenue (Grossman Hammock Road), representative per acre tax values average \$900.

16. Construction Activity

Twenty-three houses are presently under construction in the study area. Two sites are being worked by construction crews and the remainder appear to be long-range (1 to 2 year) "weekend" projects by individual owners. In a few cases, it is not easy to tell whether the construction site is being actively worked.

The construction activity is balanced between the Howard and Richmond Drive areas. Sections 15 (4 units) and 21 (3 units) are the primary construction areas near Howard Drive. Sections 27 (4 units) and 28 (4 units) are the focal points of Richmond Drive subarea building activity.

Special note should be made here of one house under construction on SW 192 Avenue just south of Howard Drive. It appears to be a "model" home for use in showing a standard floor plan to potential buyers. This is the only "model" house in the study area.

17. Impacts

Residential development in a wetland area such as the East Everglades requires the elevation of land for structure foundations, driveways, and septic tank drainfields above flood criteria levels. This is typically accomplished by hauling in fill material from nearby sources and depositing (and compacting) it on the particular portion of the residential parcel until the needed elevation is reached. County flood criteria requires the elevation of structures in the Howard and Richmond Drive areas to (generally) 8.8 feet above mean sea level. This translates into one to two feet of compacted land fill for a particular area for a house foundation. Ancillary uses on residential lots such as grove crops and animal sheds also entail the use of fill to raise land elevation above flood water levels. Land filling alters surface water flows and recharge characteristics of a site. This can cause surface water problems both on-site and on adjacent parcels.

Certain alterations to residential lots such as septic tank drainfields, well drilling and grove crops require digging activities. This entails the breaking up or "rock plowing" of the limestone rock layer underlying the land surface in the residential areas. Rock plowing changes site drainage characteristics and can affect nearby ground water quality.

Approximately 15 square miles in the East Everglades area (total 242 square miles) already exhibit some impact from residential development.

18. Building Costs

Residential building in the East Everglades entails certain additional costs not associated with areas closer to the Miami area. These costs stem from the wetland environment of the study area and the poor condition of roads. Higher building costs involve the additional land filling required for adequate flood protection and building supply transportation problems due to road condition.

As previously mentioned, the Federal Flood Insurance Administration and Dade County require the elevation of structures to established flood criteria levels. In the Howard Drive area, land elevations average 7.5 feet above MSL and flood standards require heights of 8.8 feet above MSL for building purposes. Thus, the average filling activity for residential structures must raise the building site 1.3 feet near Howard Drive.

Assuming a typical residential fill area of 19,000 square feet for house foundation, drainfield, and water well, 914 cubic yards of fill is needed to prepare the lot for construction. Currently, fill material costs \$2.75 per cubic yard including transportation (10 mile haul maximum), and compacting. This brings the total fill cost for a typical residential lot in the Howard Drive area to \$2,500. This cost can be higher if fill companies require an extra charge for either hauling beyond the 10-mile maximum or the poor road conditions. Several residents indicate being charged up to 50% higher for fill due to road conditions in the study area.

Comparing the flood elevations enforced in the East Everglades to areas east of L-31 such as North Kendall Drive near Krome Avenue, fill cost differentials are apparent. Fill requirements in the North Kendall Drive area average only 0.5 feet. This is 0.8 feet less than the fill elevation needed in the Howard Drive area. Thus, fill costs are generally 160 percent higher in the East Everglades residential areas than in areas east of L-31 such as North Kendall Drive. This percentage does not include the additional transportation charges, mentioned above, sometimes applicable to East Everglades filling activities.

In addition to higher fill costs, poor road condition also contributes to building supply problems. Residents building houses indicate numerous problems with delivery of construction materials because of damage to supply vehicles on the roads. This problem increases the cost of supplies and causes construction delays.

19. Living Costs

Residential living in the East Everglades carries with it certain risks and costs, due primarily to the low level of services available to the residents. The study area is beyond the immediate response range of many urban services such as police, fire, and emergency medical, thus inducing risk factors upon the residents. This translates into increased costs when certain types of home and personal insurance are obtained. The road conditions accelerate vehicle wear, particularly on suspension systems. Because Dade County does not maintain the study area roads, the residents (on a particular road) must sometimes "pool" their resources to fill and grade the roads to keep them useable. Outdoor lighting, not supplied by the County along roads, must be purchased, placed, and maintained by the residents if they desire lighting along streets.

Standing water on and near residential parcels can present potential health hazards, especially to children. These standing pools of water (common in the East Everglades) can concentrate harmful substances from rainfall, drainage, and septic tank systems. If children play in such contaminated pools extensively, health problems can arise, possibly increasing family medical costs. During the survey, children were observed playing in standing water (pools) in front yards.

II. Residential Land Ownerships:

Land in the residential area of the East Everglades was heavily subdivided by development companies and sold in small parcels (1.25 to 2.50 acre) to individuals in the 1965-72 period. In the Howard Drive area, Mr. Louis Rotford, now owner of Suburban Acres, Inc., constructed many of the existing roads in 1965-67 and subdivided much of the area. Near Richmond Drive, the Context Corporation purchased whole sections of land from Arvida Corporation in 1965 and subdivided (and sold) the tracts in 1.25 and 2.50 parcels. The typical real estate transaction in the study area was conducted under a "contract for deed" arrangement where the deed is transferred to the new owner only after an installment contract is paid off. Installment contracts usually cover a 8-10 year term.

Currently, land ownerships in and around the residential areas vary between large tracts still held by large companies and small parcels (1.25, 2.5 acre) owned by individuals. A significant amount of small parcel owners are persons residing outside Florida (in northern states) or in foreign countries (typically South America). Many small parcels (less than 5 acres) are "grandfathered in" under 1974 County zoning changes, which lowered permissible residential density to 1 unit per 5 acres. Some of the large tracts were subdivided and platted prior to 1974 and contain developable 1.25 and 2.5 acre parcels available for sale.

Map 5 shows the major land holdings by private companies in and around the primary residential areas. Context Corporation owns and is marketing property in Sections 27 and 28 (T55, R38) near Richmond Drive. The primary Context holding is (492 acres) in Section 27 under the marketing name of Richmond Ranch Estates where parcels are being sold in 1.25 and 2.5 acre parcels. The Cavalier Group, Inc. owns 160 acres in Section 29 (T55, R38), 640 acres in Section 30, and 480 acres in Section 19. Much of this land is presently sold under deed contracts. The Central Bank Trust Company holds 63 acres in Section 15 (T55, R38), 177 acres in Section 16, 521 acres in Section 17, and 105 acres in Section 21. The Trust Company holds title to land for individuals and is not actively marketing the tracts. The Dynamic Development Corporation, a subsidiary of Florida Leisure Time Inc., owns 263 acres in Section 16 (T55, R38) and 312 acres in Section 20. Many parcels are under deed contracts and the company is actively marketing its holdings.

III. Residential Marketing Activity:

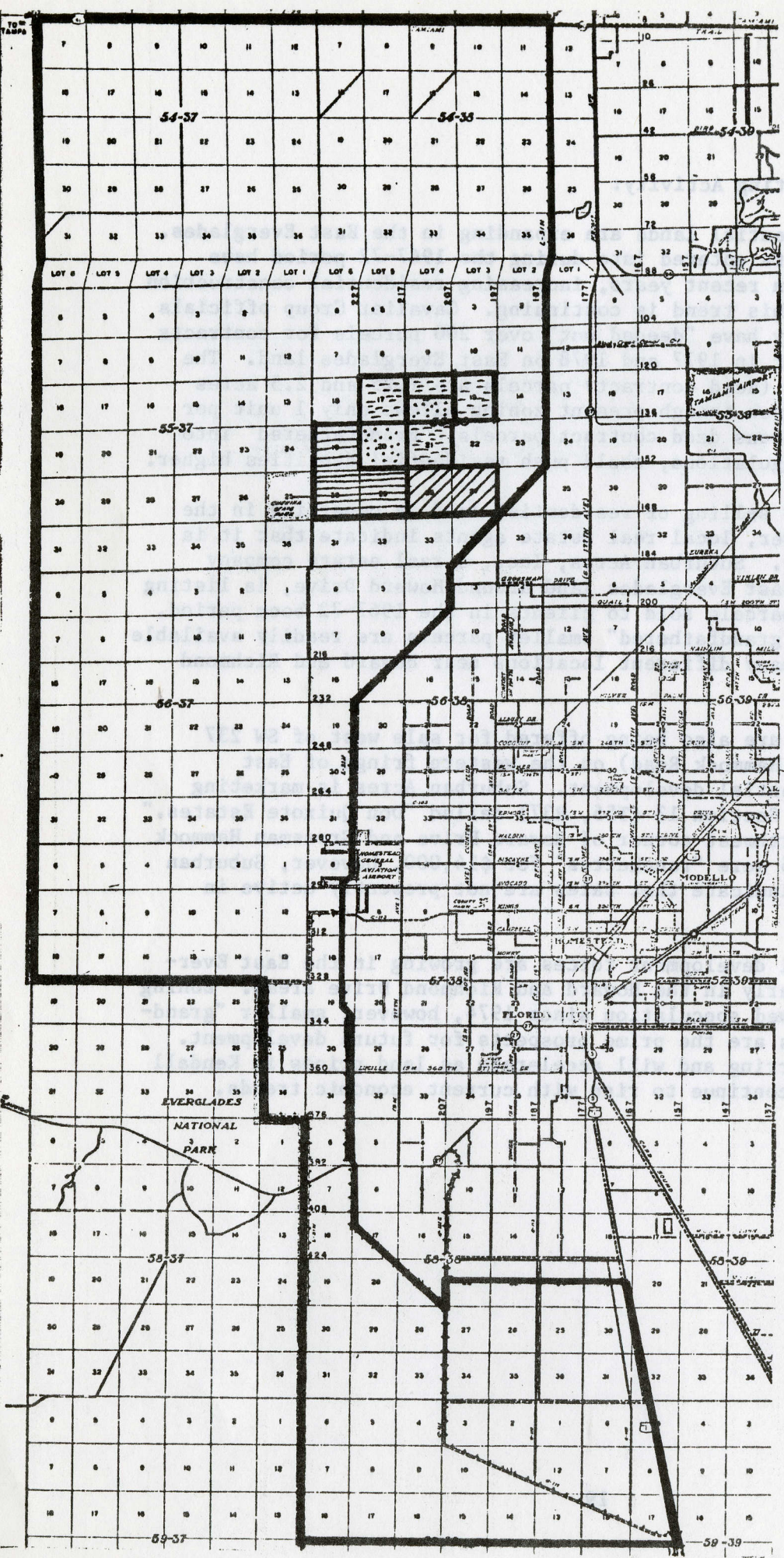
Developable residential lands are expanding in the East Everglades. Many deed contracts entered into during the 1967-72 period have been culminated in recent years, increasing residential construction opportunities. This trend is continuing. Cavalier Group officials indicate that they have "deeded out" over 200 parcels for contracts that were paid off in 1977 and 1978 on East Everglades land. The majority of these (deed contract) parcels are 1.25 and 2.5 acres in size. Thus, even though present zoning allows only 1 unit per 5 acres, the numerous deed contract parcels, "grandfathered" into current zoning regulations, could push residential densities higher.





Active buying and selling of residential land is occurring in the study area, however, local real estate agents indicate that it is proceeding slowly. Suburban Acres, Inc., a real estate company specializing in East Everglades land around Howard Drive, is listing for resale many parcels sold to clients in the 1967-72 boom period. Both 5 acre and "grandfathered" smaller parcels are readily available for purchase in many different locations near Howard and Richmond Drives.

Residential lots are also being offered for sale west of SW 237 Avenue (Grossman Hammock Road) on the western fringe of East Everglades residential development. Suburban Acres is marketing a development in Section 13 (T55, R37) called "Don Quixote Estates." A sign at the northwest corner of Howard Drive and Grossman Hammock Road advertises 5 acre "ranchettes" for \$14,000, however, Suburban Acres officials indicate that sales are not presently active in the development.

Thus, residential development forces are growing in the East Everglades, particularly in the Howard and Richmond Drive areas. Zoning changes have slowed speculation since 1974, however, smaller "grandfathered" parcels are the prime prospects for future development. Building is occurring and will accelerate as land prices in Kendall and other areas continue to rise with current economic trends.

Map 5 East Everglades Study Area Major Land Ownerships in Residential Areas



- * Legend:
-  Context Development Corp.
 -  Cavalier Group Inc.
 -  Central Bank and Trust Co.
 -  Dynamic Development Corp.

*Note: Representation of ownership on this map does not indicate complete ownership within an area. Consult the text for the amount of land owned within a particular section of land by the indicated company.

OTHER CROPS (please list one per column)

LIMES

TOMATOES

NUMBER OF ACRES PLANTED					
YIELD PER ACRE					
FERTILIZER USED: TYPE					
AMOUNT					
PESTICIDE USED: TYPE					
AMOUNT					
DAMAGE TO CROPS: LIST CAUSE (cold, insects, heavy rain)					
PERCENT OF CROP DAMAGED					
NUMBER OF HARVESTS					
ESTIMATED PRODUCTION COSTS:					
LAND					
EQUIPMENT					
LABOR					
SUPPLIES					
ALL OTHER					
TOTAL					

- 8. From what source does the household obtain drinking water? onsite well ___
water company ___ bottle water ___ other (specify) _____
- 9. What means of sewage disposal does the household use? septic tank ___
dry toilet ___ pumpout tank ___ other (specify) _____
- 10. Does this house have any recurring problems? roof leaks ___
standing water near house ___ toilet flushing problems ___
other (specify) _____
- 11. Are there any other structures on this property? trailers ___ sheds ___
out buildings ___ other (specify) _____

C. AGRICULTURE

- 1. Please complete the following items for any land you owned or leased from August 1977 to August 1978 which is located west of the L-31 levee and canal. Answers should apply to the year from August 1977 to August 1978.
 - a. Number of acres: owned ___ leased ___ total ___
 - b. Is the land used for agriculture? yes ___ no ___
 - c. Note the number of acres for each use listed below:
 - horse pasture _____ row, field and grove crops _____
 - cattle pasture _____ fallow field _____
 - vacant pasture _____
- 2. For any crops grown from August 1977 to August 1978, please provide as much information as possible on the chart on the following page.

Thank you for your help in answering the above questions. Please mail this completed questionnaire to the Dade County Planning Department in the stamped, addressed envelope provided.

A. PERSONAL

- 1. (optional) If you are willing to be contacted at a later date for clarification or followup information, please list below your:

Name: _____

Mailing Address: _____

Street Address: _____

Telephone number: _____

- 2. Are you the householder? yes ___ no ___; if no, what relationship are you to the householder? _____
- 3. How long has the householder lived at this address? Years ___ Months ___
- 4. Does the householder live at this address year round? yes ___ no ___
- 5. What is the main reason the householder moved to this area?
inexpensive land ___ near work ___ to farm ___ "get away" ___
other (specify) _____
- 6. Where did the householder live before moving to this address? _____
- 7. Where was the householder born? (city, state & county) _____
- 8. What is the primary occupation of the householder? self-employed farmer ___
farm manager ___ farm laborer or foreman ___ other (specify) _____
- 9. Does the householder have a second job? yes ___ no ___
If yes, please specify _____
- 10. How many persons live at this address who are: over 18 years of age? ___
under 18 years of age? ___ How many persons living at this address are related to the householder? ___

B. RESIDENTIAL PROPERTY

- 1. What type of structure does the head of household live in? single family house ___
duplex ___ mobile home ___ other (please specify) _____
- 2. Is this home owned or rented? own ___ rent ___
- 3. If you own your residence, did you buy it from (a/an) individual ___ realtor ___
If realtor please specify name _____
- 4. What size is the residential lot around your home? acres _____
- 5. What type of construction material was used in this building? wood ___
concrete block-stucco ___ other (please specify) _____
- 6. How many rooms does this house have? number of bedrooms ___ number of bathrooms ___
other (excluding open porches, garages, carports) _____
- 7. Does this house have:
 - a. complete kitchen facilities (sink with piped water, range or cookstove, and a refrigerator)? yes ___ no ___
 - b. complete plumbing facilities (hot and cold piped water, flush toilet, bathtub or shower inside the structure)? yes ___ no ___
 - c. electricity from a power company? yes ___ no ___
 - d. telephone service? yes ___ no ___
 - e. garbage pickup? yes ___ no ___

