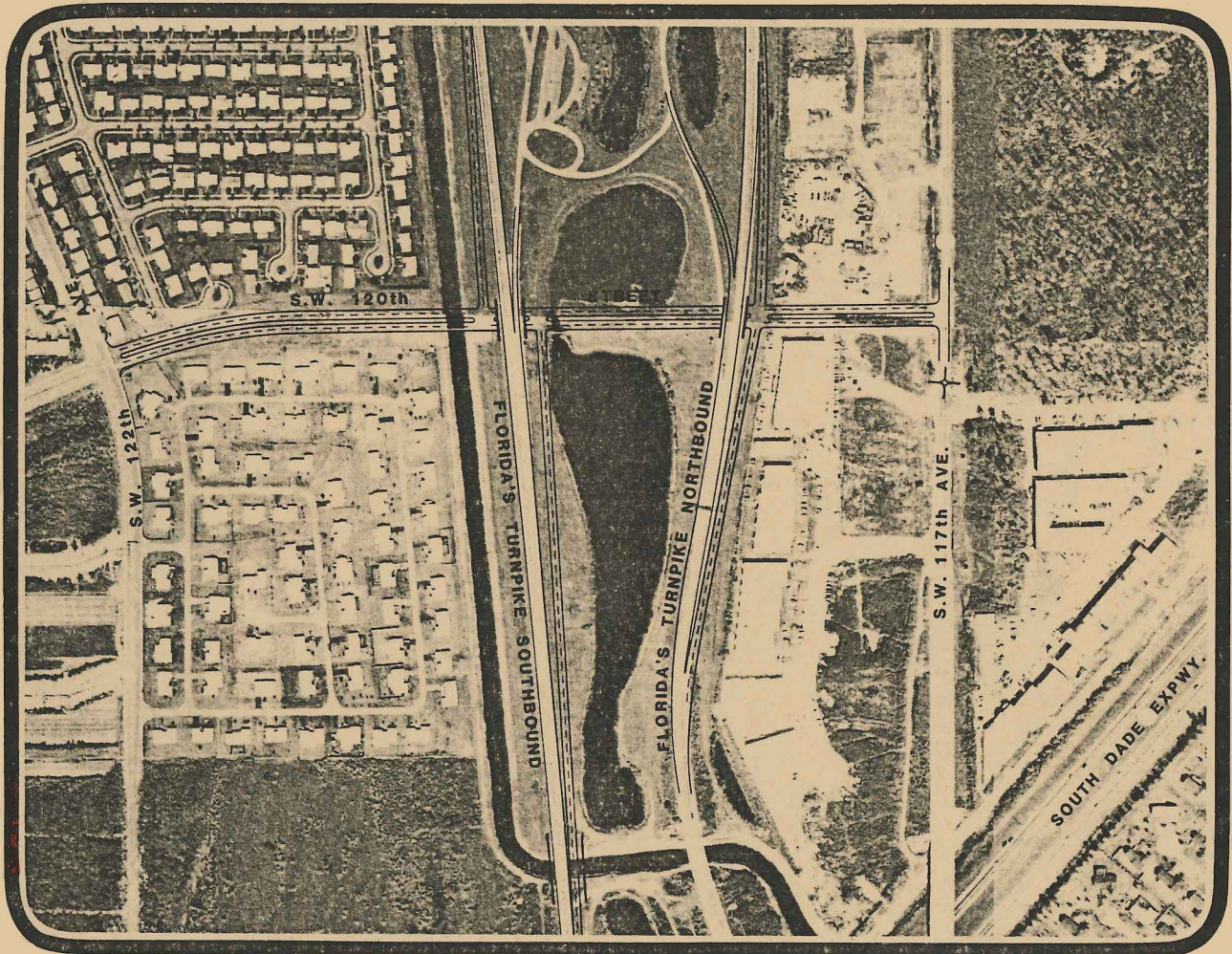


• PRELIMINARY ENGINEERING REPORT •

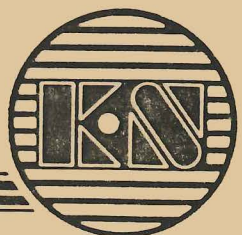


**S.W. 120th STREET INTERCHANGE  
WITH THE HOMESTEAD EXTENSION  
OF FLORIDA'S TURNPIKE**

• JUNE, 1985 •

KEITH and SCHNARS, P.A. Engineers • Planners • Surveyors

1115 NORTHEAST 4th AVENUE - FT. LAUDERDALE, FLA. 33304 - (305) 763 3843



PRELIMINARY ENGINEERING



## PRELIMINARY ENGINEERING

The Kendall area of Dade County continues to experience phenomenal growth in the residential movement into this area of Dade County. The location of the Tamiami General Aviation Airport in the proposed commercial and industrial developments within the general area of this airport has demonstrated the need of additional interchanges to Florida's Turnpike. These needs are based on not only the future growth of the area, but the fact that the existing residential areas within the Kendall corridor are impacted by traffic having to drive in the residential areas in order to get to and from the existing interchange of Kendall Boulevard and the Florida Turnpike Extension.

There has also been some discussion about the future extension of the Don Shula Expressway southwesterly with a connection with the 136th Street corridor to connect with 137th or extending the Don Shula Expressway to the interchange of 152nd Street.

These continuing discussions have lead us in behalf of those interested groups with South Dade to take the information previously developed by another study and to look into the proposed transportation system that would alleviate the problem for the Kendall residential areas and at the same time provide an alternative to the non-residential areas that are proposed within this section of Dade County.

This further review and discussion with the various DOT and county officials has lead us to the following recommendation that is now being used as a basis for some traffic projections and cost benefit ratio studies that are being completed by the FDOT and will be available within the next several weeks. These studies are discussed later in the text of this report.

### Alternative Design

After reviewing much of the data and the need for a full interchange for full movements in all directions, we have developed a diamond interchange that will provide Florida's Turnpike to be elevated over the Southwest 120th Street extension. This concept is shown on the attached exhibit, Exhibit #1, which shows a full diamond interchange providing movements in all directions that would be constructed in the initial stages. The two-lane on and off ramps would be constructed first and utilized by the turnpike as its main line during the time that the new bridges, that would serve as the main line for the Florida Turnpike extension, would be constructed. When those bridges are completed, traffic would then be diverted from the on and off ramps which have been serving as detour roads back to the main line and the full interchange could be opened to traffic.

In the future when the Don Shula Expressway is extended southwesterly, the modification to the interchange shown as Alternate 1 would be required that is shown on the Exhibit entitled Alternate 2. That alternative would be to construct the on ramps for southbound traffic in a manner shown in Alternate 2 so as not to affect or create problems for traffic headed south on the Homestead Extension and wanting to proceed in a southwest direction on the proposed Don Shula Expressway extension.

The cost estimates for this interchange which is Alternate 1 are shown in Exhibit #3 and #4 and have been supplied to the DOT to be used as a basis for their study.



EXHIBIT #1



**PROPOSED 120TH STREET  
INTERCHANGE**

**Keith and Schnars, P.A.**

ENGINEERS - PLANNERS - SURVEYORS



1115 N.E. 4th Avenue Ft. Lauderdale, Florida 33304-1996 Tel: 305-763 3843

EXHIBIT #2





**PROPOSED 120TH STREET  
INTERCHANGE**

**Keith and Schnars, P.A.**   
ENGINEERS - PLANNERS - SURVEYORS

1115 N.E. 4th Avenue Ft. Lauderdale, Florida 33304-1996 Tel: 305-763-3843

EXHIBIT #3

SOUTHWEST 120 ST & FLORIDA'S TURNPIKE

3 SIGNALS

SW 120 St & 122 Avenue  
SW 120 St & Florida's Turnpike  
SW 120 St & 117 Avenue

BRIDGES

220 x 67' Turnpike NB over SW 120 St	14,740 SF
190' x 82.5' Turnpike SB over SW 120 St	15,675 SF
100' x 94.25' SW 120 St over Canal	9,425 SF
130' x 67' Turnpike SB over Canal	<u>8,710 SF</u>

TOTAL: 48,550 SF

PAVEMENT

SW 120 St 2700' of 4-lane divided roadway (29.5' median)	
	16,800 SY
Three 2-lane ramp 3450' x 24'	9,200 SY
One Single lane ramp 2700' x 15'	4,500 SY
4300 LF of 36' rdwy SB	17,200 SY
3150 LF of 36' rdwy NB	<u>12,600 SY</u>

TOTAL PAVEMENT: 60,300 SY

MISC. BARRIER WALL

Shoulder gutter and drainage inlets as req'd.	1,500 LF
Embankment Est.	300,000 CY



EXHIBIT #4

SOUTHWEST 120 ST & TURNPIKE

SIGNALS

SW 120 Street & 122nd Avenue	\$ 35,000
SW 120 Street & Turnpike	55,000
SW 120 Street & 11th Avenue	35,000
	<u>\$125,000</u>

BRIDGES

Turnpike NB over SW 120 Street	\$1,100,000
Turnpike SB over SW 120 Street	650,000
SW 120 Street over canal	425,000
Turnpike over canal	500,000
	<u>\$2,675,000</u>

PAVEMENT

SW 120 Street 2700' at 4 lanes	\$1,000,000
Four 2-lane ramps for maintenance of traffic @1000' x 24'	100,000
On-ramp EB to SB 2200' x 15'	40,000
Barrier wall \$50/lf	100,000
SW 120 St. & ramps	<u>\$1,240,000</u>

TURNPIKE PAVEMENT

4 x 1320' x 24' x 10/SY	\$ 140,000
Shoulder pavement, gutter, etc.	75,000
Embankment Est \$3 to \$5/CU	500,000
	<u>\$ 715,000</u>
Pavement total	\$1,955,000
GRAND TOTAL	\$4,755,000

TRAFFIC GENERATION STUDY



## TRAFFIC GENERATION STUDY

Keith and Schnars has performed a traffic change study that was submitted to the FDOT along with the conceptual design and is a basis for some of the work currently taking place as a Department analysis cost benefit ratio of this proposed interchange.

TRIP GENERATION STUDY  
KENDALL CENTER OF COMMERCE AND INDUSTRY

KEITH AND SCHNARS, P. A.  
Engineers-Planners-Surveyors  
1115 Northeast 4th Avenue  
Fort Lauderdale, Florida  
December, 1984

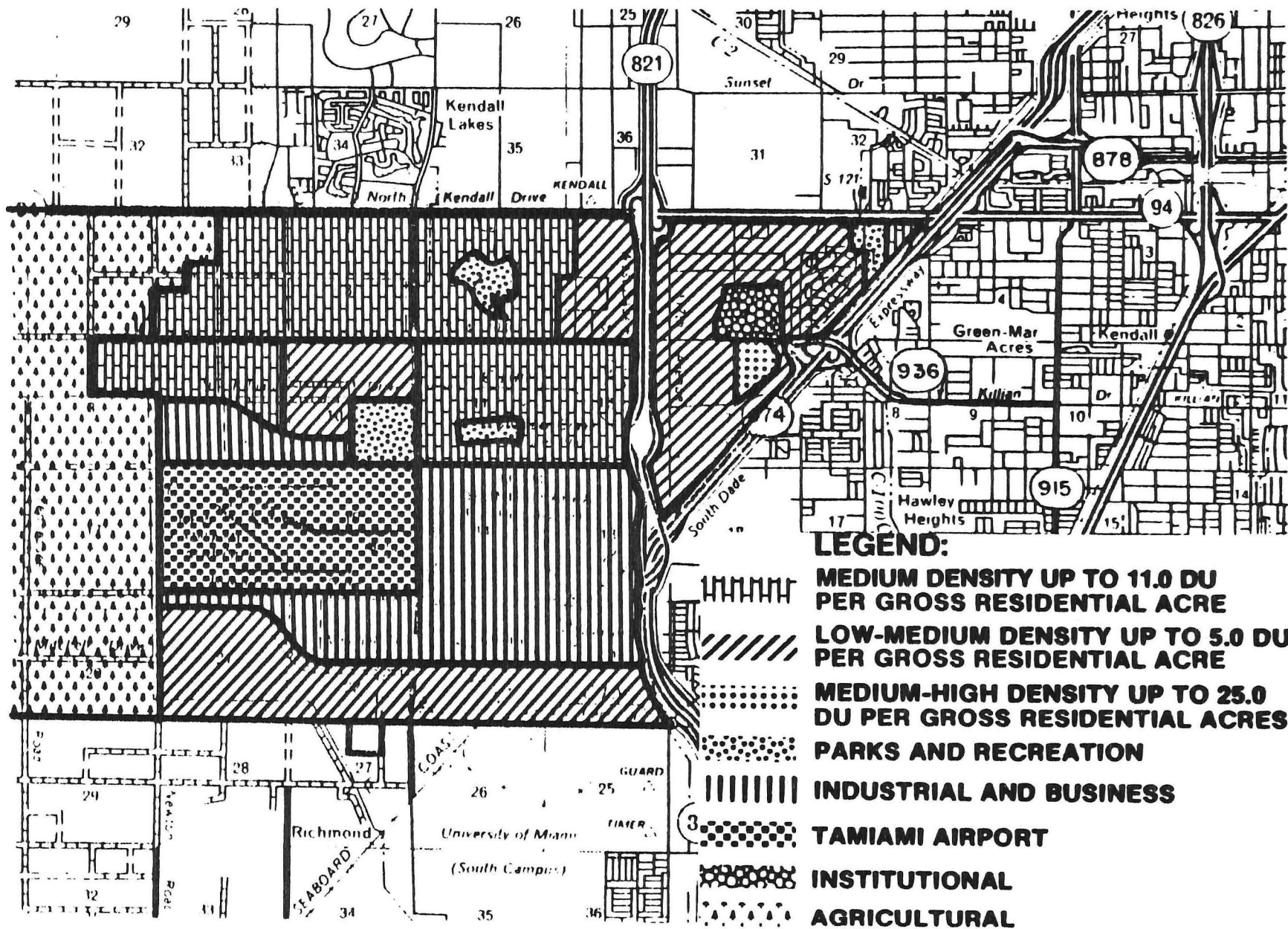
Based on the February, 1984 report entitled SW 120TH STREET/ HEFT INTERCHANGE: MEETING A NEED OF THE COMMUNITY, estimates were made of the trip generation characteristics of an area of slightly more than 26 square miles (16,779 acres), known as the Kendall Center of Commerce and Industry.

The future land use, taken from the above-mentioned report, is shown in the attached figure. Using these general land uses and standard trip generation rates, average daily traffic (ADT) values were projected. The percentage of trips from this area that will use the proposed Turnpike (HEFT) interchange was then estimated. The results of this are shown in the attached table.









As the table shows, significant volumes of daily traffic will use the interchange at Southwest 120th Street. Furthermore, an analysis of the land use map indicates that the traffic generated from the industrial, business areas will be diverted from the residential areas to use the interchange.



# FUTURE LAND USE



-9T-

- LEGEND:**
-  **MEDIUM DENSITY UP TO 11.0 DU PER GROSS RESIDENTIAL ACRE**
  -  **LOW-MEDIUM DENSITY UP TO 5.0 DU PER GROSS RESIDENTIAL ACRE**
  -  **MEDIUM-HIGH DENSITY UP TO 25.0 DU PER GROSS RESIDENTIAL ACRES**
  -  **PARKS AND RECREATION**
  -  **INDUSTRIAL AND BUSINESS**
  -  **TAMIAMI AIRPORT**
  -  **INSTITUTIONAL**
  -  **AGRICULTURAL**

KENDALL CENTER OF COMMERCE AND INDUSTRY  
SOUTHWEST 120TH STREET INTERCHANGE  
TRIP GENERATION

LAND USE	ACRES	TRIPS PER ACRE	ADT TRIPS	% USING INTER- CHANGE	TRIPS ON INTER- CHANGE
AGRICULTURE	5280	10	52800	3	1584
INDUSTRIAL, BUSINESS	3190	100	319000	25	79750
RESIDENTIAL LOW MEDIUM	3680	50	184000	15	27600
MEDIUM	2240	75	168000	15	25200
MEDIUM HIGH	160	150	24000	2	480
AIRPORT	1218	1	1218	30	365
PARKS	502	5	2510	5	126
INSTITUTIONAL	174	15	2610	0	0
RIGHT-OF-WAY	335	0	0	0	0
 TOTAL	 16779		 754138		 135105

ADDENDUM

## Historic, Current and Future Traffic Patterns

1977 AVERAGE DAILY TRAFFIC (ADT)

This exhibit was developed from Dade County Public Works Department data. It shows two-way daily traffic volumes in hundreds of vehicles for major roadway segments in the vicinity of the study area. Note in particular the following ADT's.

Kendall Drive west of the HEFT 3400 vpd

Killian Parkway east of the HEFT 3000 vpd

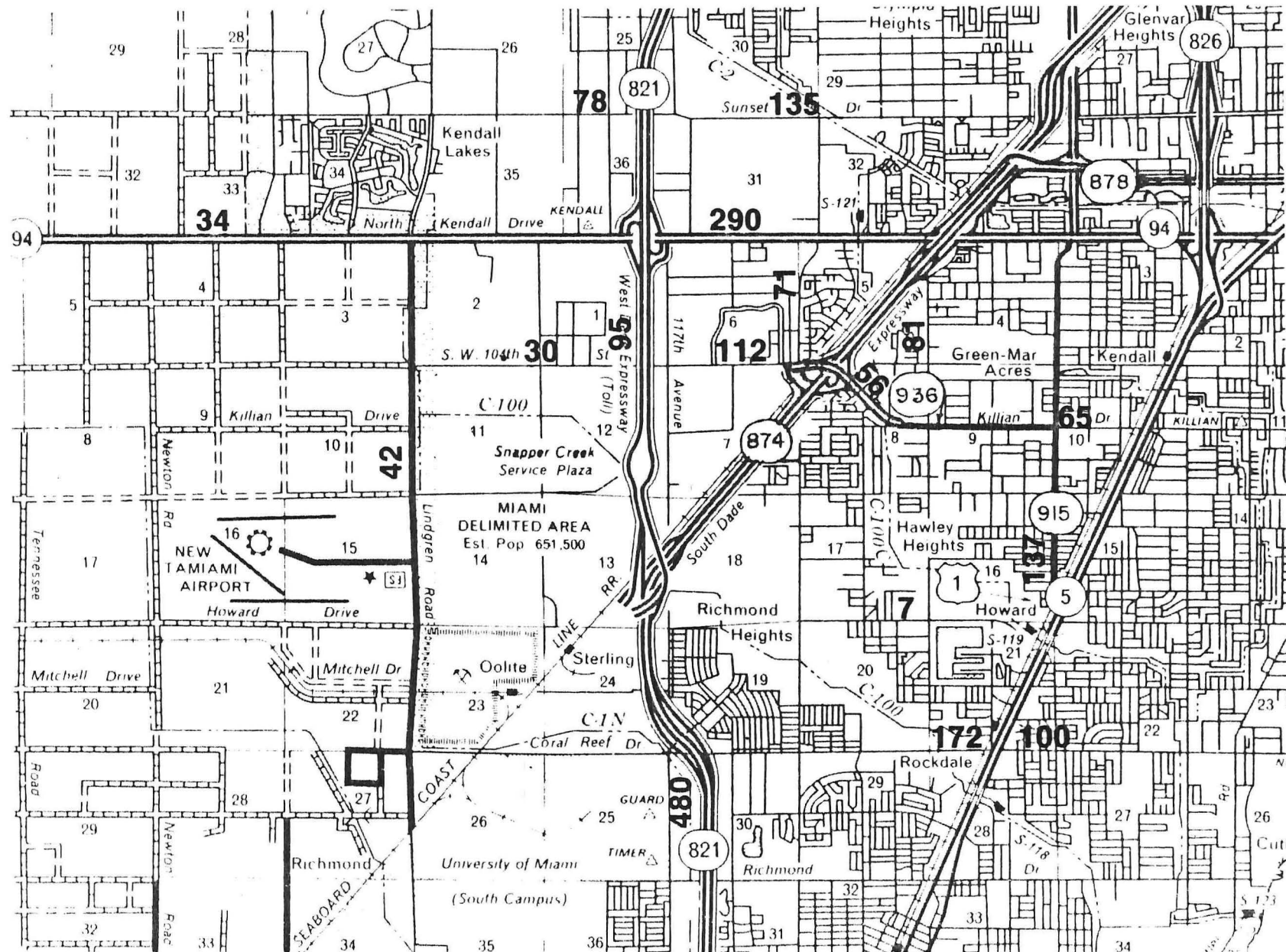
Killian Parkway west of the Don Shula Expressway 11200 vpd

and

SW 137th Avenue south of 104th Street 4200 vpd

# 1977 AVERAGE DAILY TRAFFIC

## TWO-WAY DAILY VOLUME IN HUNDREDS





### 1982 AVERAGE DAILY TRAFFIC (ADT)

Like the exhibit for 1977, this exhibit was developed from Dade County Public Works Department data. Comparing these figures with the 1977 figures reveals the rapid growth in traffic in the vicinity of the study area. Looking specifically at the five traffic volumes which were mentioned in the discussion of 1977 traffic we see the following:

Traffic on Kendall Drive west of the HEFT grew some 100% from 3400 vpd in 1977 to 6800 vpd in 1982.

Traffic on Killian Parkway east of the HEFT grew 476% from 3000 vpd in 1977 to 17300 vpd in 1982.

Traffic on Killian Parkway west of the Don Shula Expressway grew 279% from 11200 vpd in 1977 to 42400 vpd.

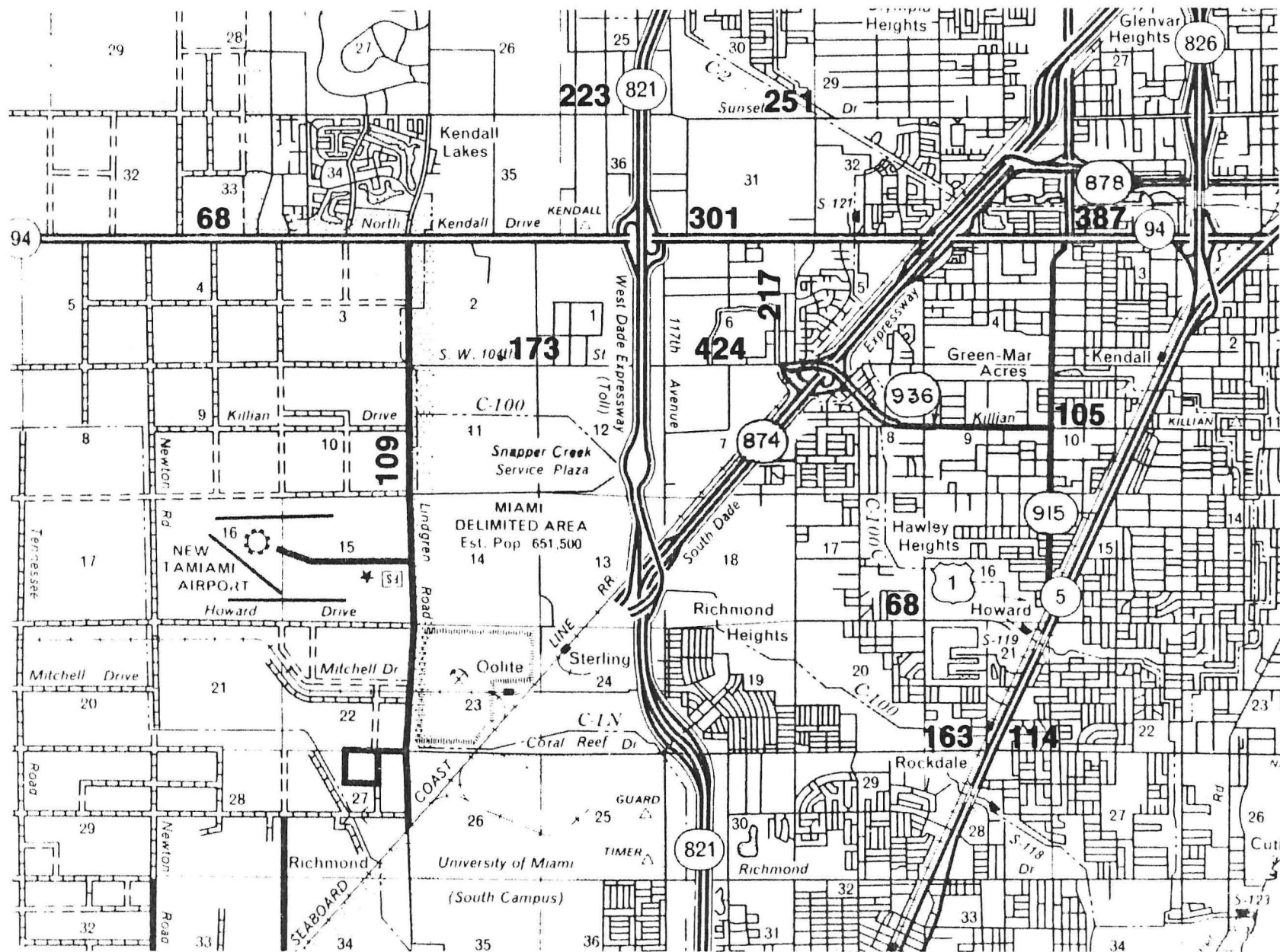
and

Traffic on SW 137th Avenue south of 104th Street grew 160% from 4200 vpd in 1977 to 10900 in 1982.

These significant increases in traffic from 1977 to 1982 reflect the rapid growth of development in the area during this 5 year period.

# 1982 AVERAGE DAILY TRAFFIC

## TWO-WAY DAILY VOLUME IN HUNDREDS



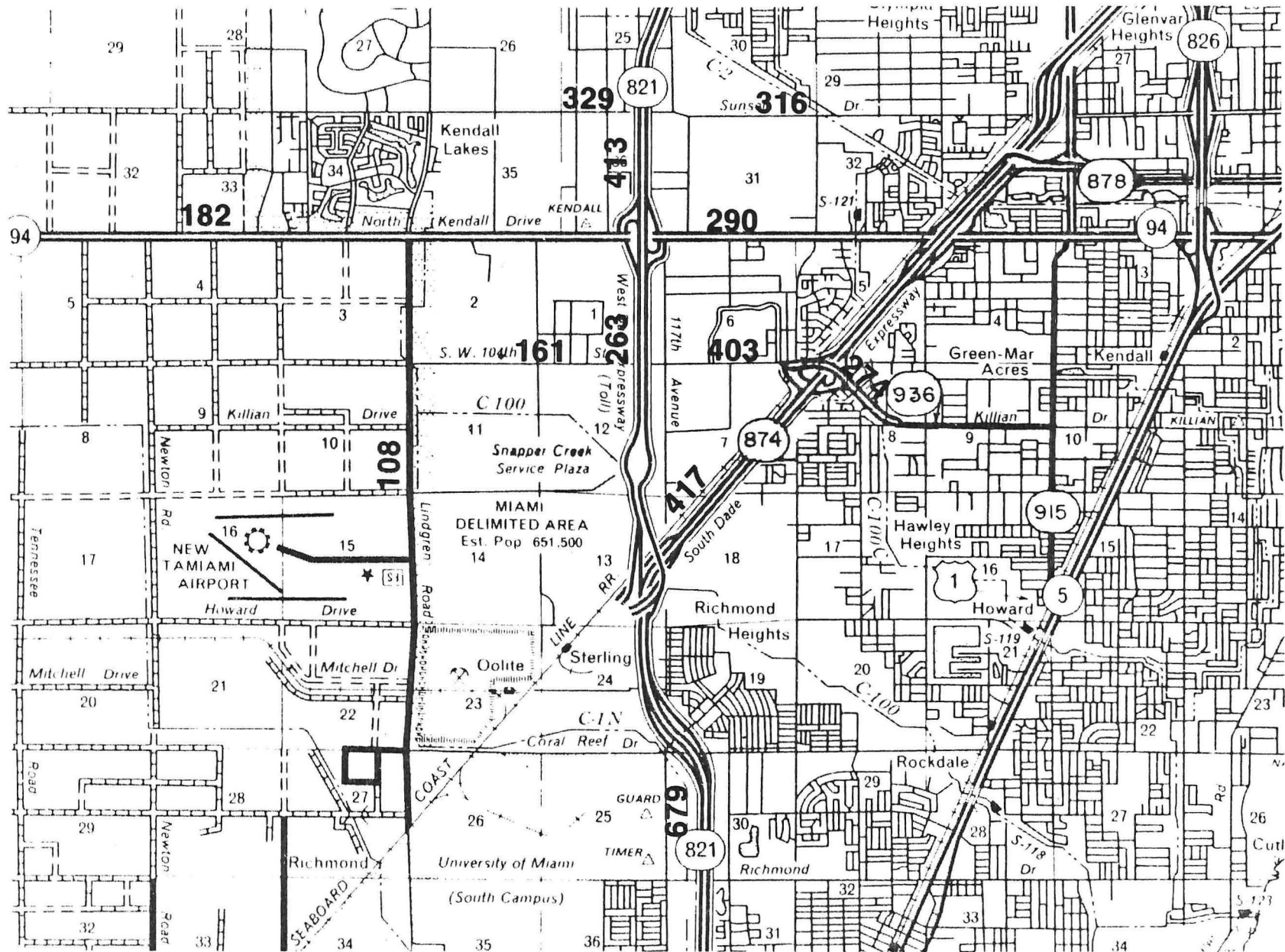
### 1983 AVERAGE DAILY TRAFFIC (ADT)

This exhibit supplements the previous exhibit by providing additional traffic information on various major roadways in the area. In particular it indicates the tremendous growth in traffic on the HEFT from 1977 thru 1983. Information presented on this exhibit was obtained from the Dade County Public Works Department and the Traffic and Revenue Consultant for the Turnpike. Note in particular the following:

Traffic on Kendall Drive west of the HEFT grew some 535% from 3400 vpd in 1977 to 18200 vpd in 1983

Traffic on the HEFT between Kendall Drive and the Don Shula Expressway grew some 247% from 9500 vpd in 1977 to 29500 vpd in 1983.

# 1983 AVERAGE DAILY TRAFFIC TWO-WAY DAILY VOLUME IN HUNDREDS



## 2005 AVERAGE DAILY TRAFFIC

The information presented on this exhibit indicates the projected growth of average daily traffic on major roadways in the vicinity of the study area. This data represents the most current analysis prepared by the Dade County Metropolitan Planning Organization (MPO). The traffic shown on this exhibit is based upon the assumption that the Don Shula Expressway will be extended southeast from the HEFT to SW 152nd Street and that there will be an interchange on the HEFT at SW 120th Street. In the near future the MPO intends to analyze projected year 2005 traffic based on additional interchanges on the HEFT, including an interchange at SW 120th Street.

Again, it is important to note the tremendous increase in projected traffic from 1982 to the year 2005. Looking at the four roadway sequents previously discussed, it can be seen that for the period 1982 to 2005 it is anticipated that:

Traffic on Kendall Drive west of the HEFT will increase 370%.

Traffic on Killian Parkway east of the HEFT will increase 125%

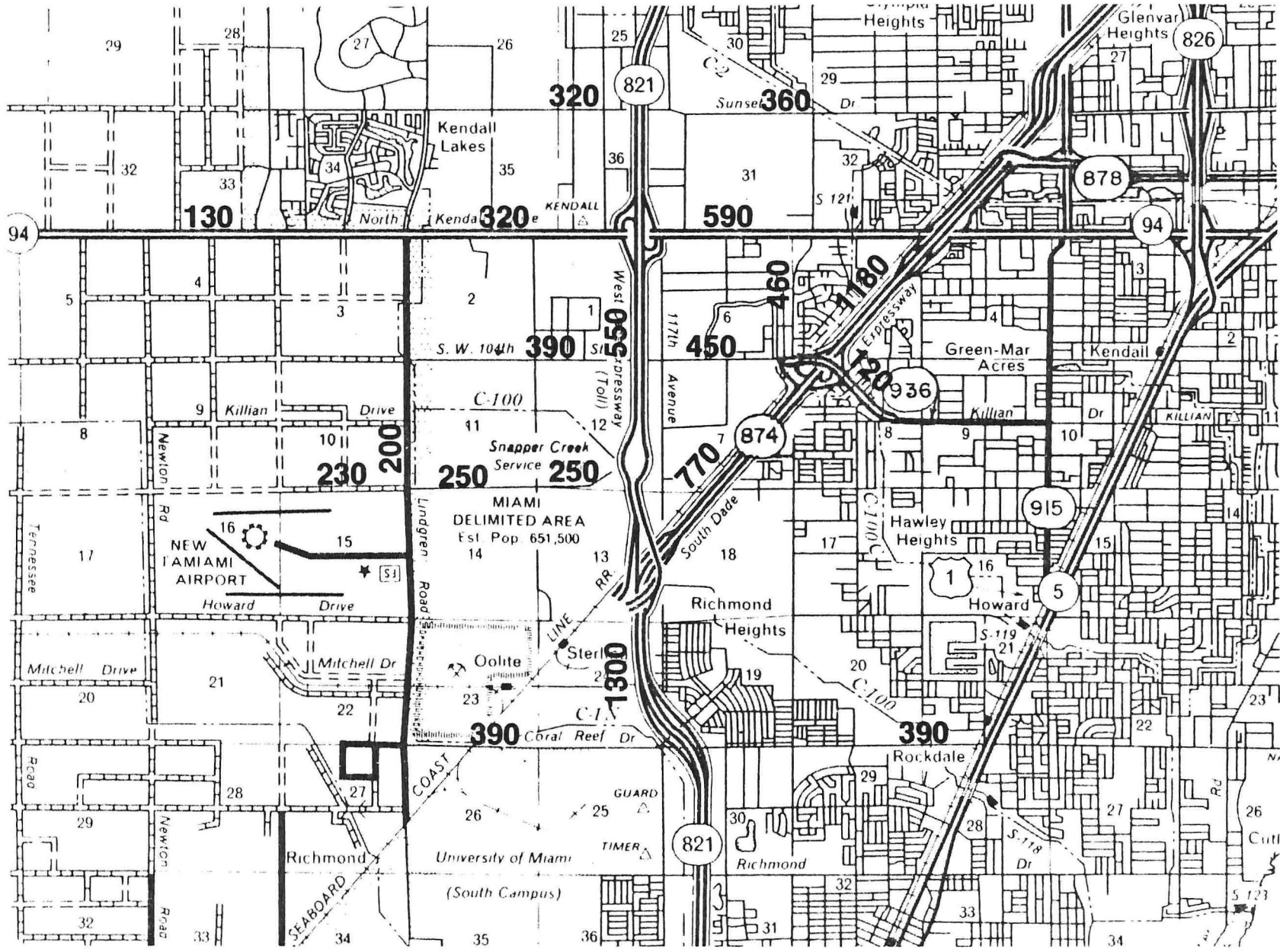
Traffic on Killian Parkway west of the Don Shula Expressway will increase 6%  
and

Traffic on SW 137th Avenue south of 104th Street will increase 83%

These numbers clearly reflect that the major growth in the area will be south of Kendall Drive and west of the HEFT.

# 2005 AVERAGE DAILY TRAFFIC WITHOUT INTERCHANGE

## TWO-WAY DAILY VOLUME IN HUNDREDS





Though analysis is not complete, it is safe to say, that, a new interchange between Kendall Drive and Coral Reef Drive would reduce year 2005 traffic in residential areas and additionally would reduce the traffic burden born by Kendall Drive and Coral Reef Drive.

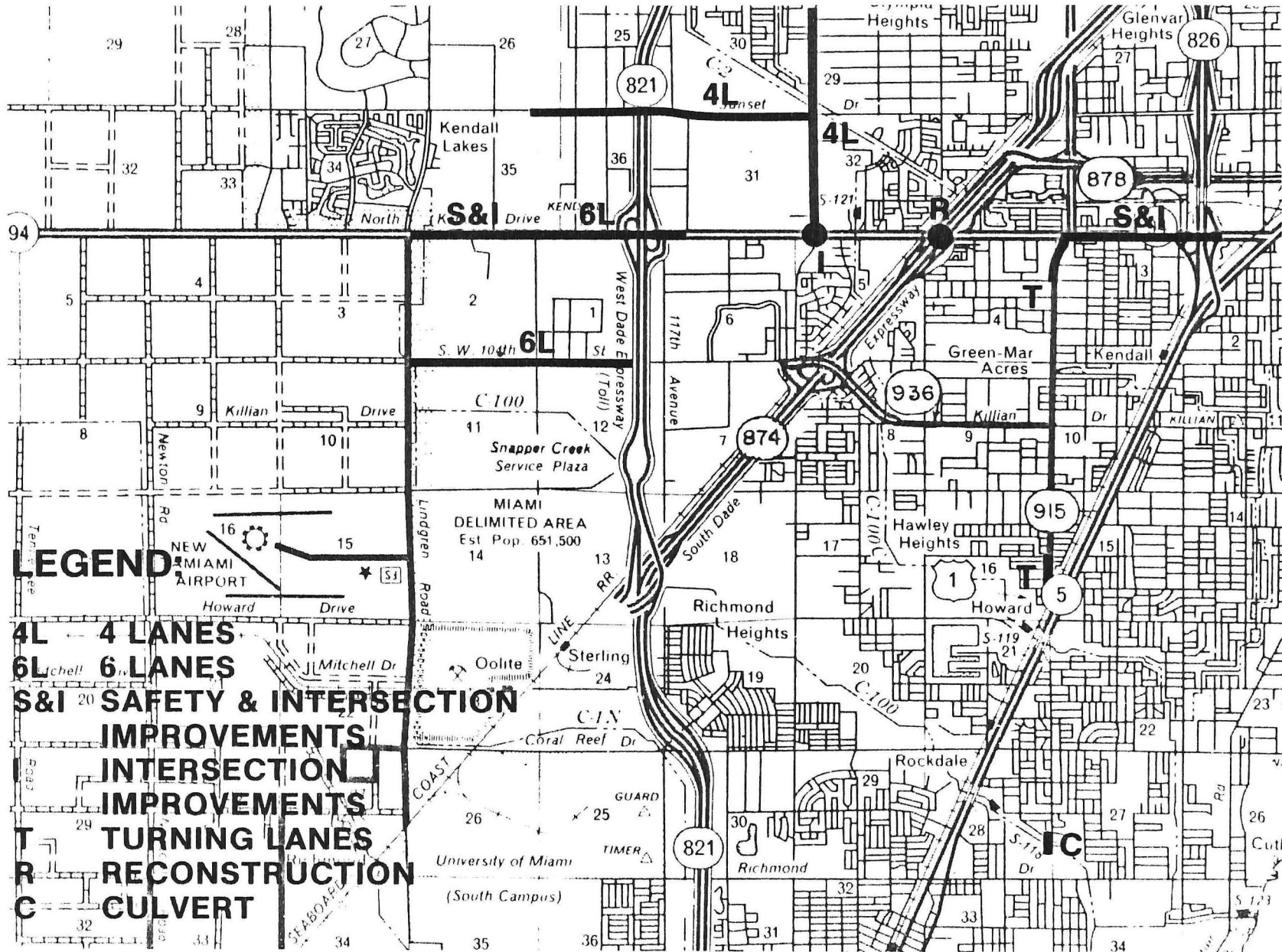


## Programmed and Planned Improvements

## PROGRAMMED IMPROVEMENTS

This exhibit depicts proposed projects which are contained in the current Transportation Improvement Program. It reflects proposed improvements to the roadways in the vicinity of the study area for the years 1983 thru 1988. From this exhibit it can be seen that the major improvements which will take place in the area are primarily along Kendall Drive and roadways to the north. The significant exception is the proposed 6 laning of SW 104th Street. This improvement is in obvious response to growth in the area south of Kendall Drive and west of the HEFT.

# PROGRAMMED IMPROVEMENTS



EXISTING LAND USE

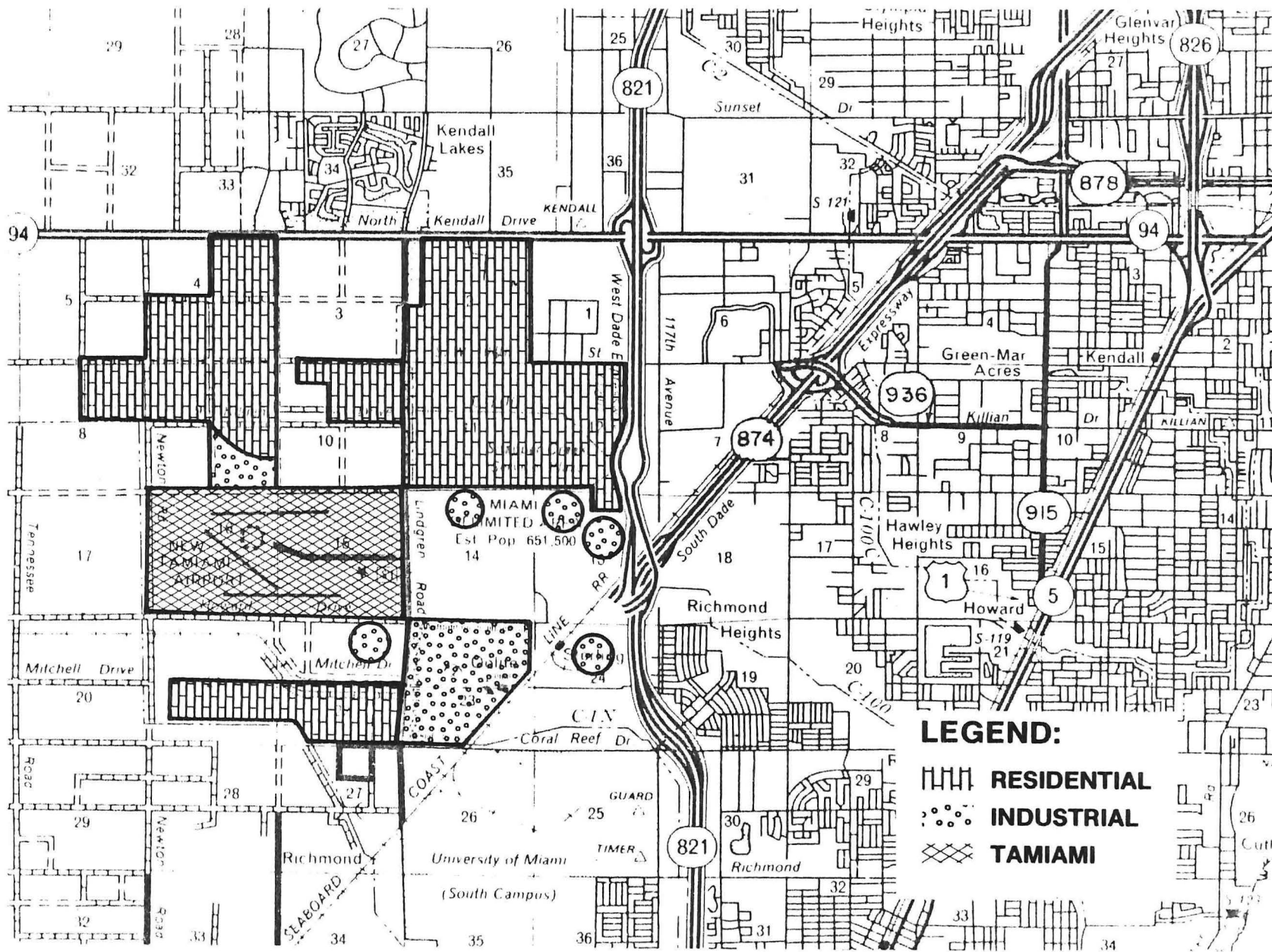
An inventory of existing land use, based on current zoning, was prepared for the area south of Kendall Drive, north of Coral Reef Drive, east of Krome Avenue and west of the Seaboard Coast Line Railroad. This area contains approximately 16,779 acres of land. The following table provides a breakdown of the existing land use.

EXISTING LAND USE

BASED ON EXISTING ZONING

AGRICULTURE	5280	ACRES
WATER	277	ACRES
BUSINESS	2370	ACRES
INSTITUTIONAL	174	ACRES
RESIDENTIAL	4829	ACRES
RIGHT-OF-WAY	315	ACRES
AIRPORT	1218	ACRES
PARKS	132	ACRES
VACANT	<u>2071</u>	<u>ACRES</u>
TOTAL	16,779	ACRES

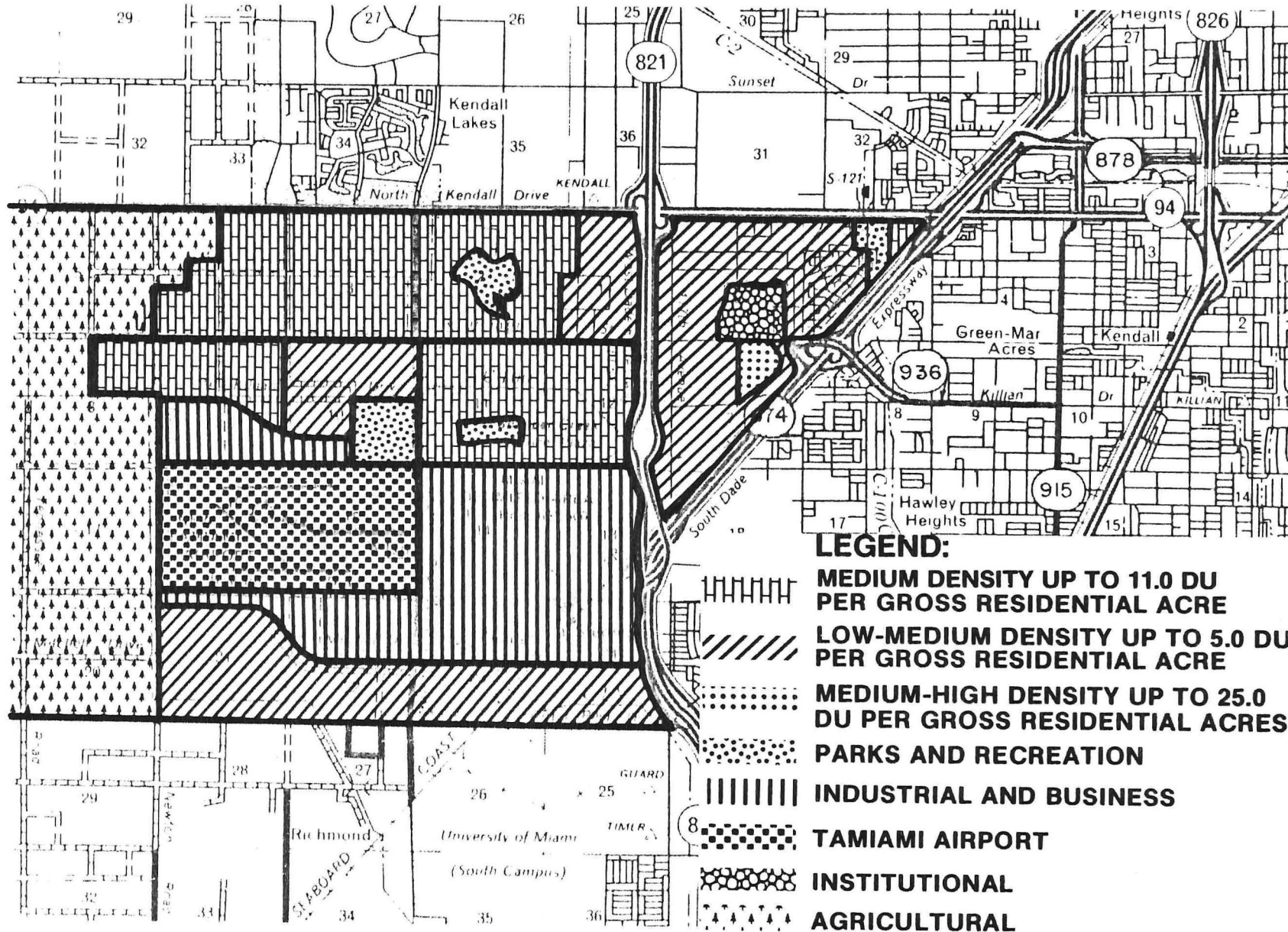
# CURRENT EXISTING AND PROPOSED DEVELOPMENT



## FUTURE LAND USE

This exhibit indicates the proposed land use for the study area. Information presented in this exhibit was developed from the Comprehensive Development Master Plan for Dade County. SW 120th Street serves as an obvious boundary between residential development to the north and future industrial/business activity to the south. Under current conditions, traffic traveling between the industrial/business area and the HEFT has to travel north or south through residential areas to either Kendall Drive or Coral Reef Drive.

# FUTURE LAND USE



## LEGEND:


**MEDIUM DENSITY UP TO 11.0 DU PER GROSS RESIDENTIAL ACRE**


**LOW-MEDIUM DENSITY UP TO 5.0 DU PER GROSS RESIDENTIAL ACRE**


**MEDIUM-HIGH DENSITY UP TO 25.0 DU PER GROSS RESIDENTIAL ACRES**


**PARKS AND RECREATION**


**INDUSTRIAL AND BUSINESS**


**TAMIAMI AIRPORT**


**INSTITUTIONAL**


**AGRICULTURAL**



**Area Access**

## AREA ACCESS

### EXISTING ACCESS

Access into and out off the study area, west of the HEFT, is very limited. Currently only Kendall Drive, SW 104th Street, and Coral Reef Drive provide access to and from the east. Access to the adjacent expressway system is limited to the following interchanges:

Kendall Drive/HEFT

Coral Reef/HEFT

SW 104th St/Don Schula Expressway.

Access to the HEFT is critically deficient, in fact looking at the interchange spacing on the HEFT south at SR 836, the over four mile separation between the interchanges at Kendall Drive and Coral Reef Drive is a greater distance then for any other two adjacent interchanges.

Because of this interchange spacing the Kendall Drive Interchange is required to servie an area of 21 square miles west of the HEFT and the Coral Reef Drive Interchange serves an area of 18 square miles west of the HEFT. If a new interchange were constructed midway between these two existing interchanges the new interchange would serve a 12 square mile area and the areas requiring service by the Kendall Drive and Coral Reef Drive interchanges would be reduced to 15 and 12 square miles respectively.

Preliminary analysis indicates that if a centrally located fully directional interchange were constructed by 1986 the volume of traffic on Kendall Drive would be reduced by approximately 13% or some 6500 vpd.

## ALTERNATIVES

To satisfy the need for an additional interchange on the HEFT, five alternates shown on the following exhibit were identified and investigated. A description and analysis of each alternate follows:

### Alternate 1

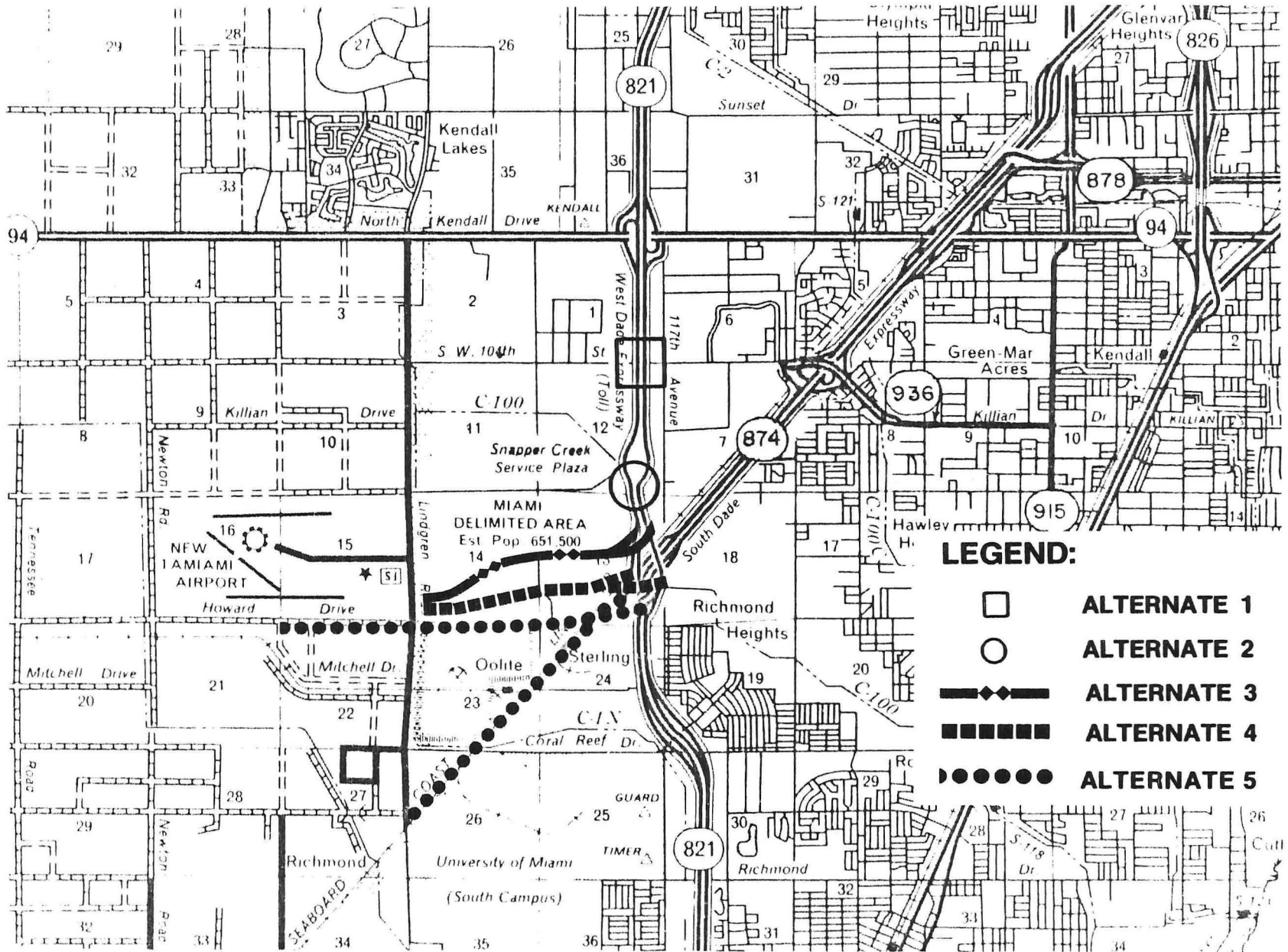
This alternate would require construction of a diamond interchange at SW 104th Street and the HEFT. This interchange would provide movement to and from both directions on the HEFT. Presently SW 104th Street crosses over the HEFT at this location. No new major structures would be required, however, the existing bridges over the HEFT would have to be widened to provide for left turn storage lanes. In addition embankments would have to be constructed to bring the proposed ramps to the level of SW 104th Street.

Significant right-of-way would be required in all four quadrants of the interchange. This would result in considerable impacts to the existing park and school in the southwest quadrant and also affect plans for future residential development in the other three quadrants.

With the Kenall Drive Interchange only one mile to the north, construction of this interchange at SW 104th Street would probably result in reduced operational efficiency on the HEFT.

From the standpoint of internal circulation this interchange would not be centrally located in the area and would still require business and industrial traffic to travel through residential areas.

# ALTERNATE ALIGNMENTS



## LEGEND:

- ALTERNATE 1
- ALTERNATE 2
- ◆ ALTERNATE 3
- ALTERNATE 4
- ALTERNATE 5

## Alternate 2

This alternate calls for construction of a trumpet interchange at SW 120th Street and the HEFT. This interchange would provide movement to and from both directions on the HEFT.

It would connect to the existing four lane SW 120th Street alignment at SW 122nd Avenue. The interchange depicted would permit future extension of 120th Street to the east. Construction of three major structures along with significant embankment would be required for the interchange.

Since Dade County has already obtained the right-of-way between the HEFT and SW 122nd Avenue, no right-of-way will need to be acquired.

Equally spaced at a distance of two miles south at the Kendall Drive Interchange and two miles north at the Coral Reef Interchange this alternative is in a central location to serve the area. Since SW 120th Street is proposed to be the southern boundary of residential development to the north with industrial/business activity planned to the south, this proposed alternative eliminates the need for industrial/business traffic to travel through residential neighborhoods.

### Alternate 3

This alternate connects to the HEFT north of the present HEFT/Don Schula Expressway Interchange. It proceeds to the west along what would be SW 132nd Street and eventually swings back to the SW 136th Street alignment just east of SW 137th Avenue. Because of the potential additional complexity of a full directional interchange it is anticipated that this alternate would only provide for movements to and from the north on the HEFT. Construction of this interchange would require one major structure and embankments.

Considerable right-of-way would be required south of the SW 132nd Street portion of the alignment.

While this alternate would provide good access for industrial/business traffic in the area it would not materially assist in relieving congestion in the residential neighborhood to the north.

From an operational standpoint this alternate might lower operational levels on the HEFT by introducing additional weaving between traffic on the ramps and traffic travelling to and from the Snapper Creek Service Area traffic.

#### Alternate 4

This alternate utilizes points of connection provided in the existing HEFT/Don Schula Expressway Interchange and proceeds to the west along the existing FP&L right-of-way. In the vicinity of SW 127th Avenue it swings to the south and proceeds along the alignment of SW 136th Street.

This alternate is a fully directional interchange providing movements in both directions on the HEFT. It requires construction of five major structures and embankments.

Considerable right-of-way would be required both at the interchange proper and along the alignment between the HEFT and SW 137th Avenue.

Like Alternate 3 this alternate would provide good access for industrial/business traffic but it would not materially assist residential traffic.

From an operational standpoint this alternate might lower operational levels on the HEFT by introducing multiple merge and diverge movements in the vicinity of the existing HEFT/Don Schula Expressway Interchange.



## Alternate 5

This alternate is an extension of the Don Schula Expressway to the southwest with connectives to the HEFT. From the HEFT to SW 127th Avenue this facility would have a limited access from SW 136th Street to Coral Reef Drive it would be a four lane arterial. Because of the complexity associated with a fully directional interchange, this alternate proposes to accommodate movements to and from the north on the HEFT and Don Schula Expressway.

This alternate would require construction of four major structures and embankments. It would include lengthening the span of the existing southbound HEFT bridge over the Seaboard Coast Line Railroad (SCL).

Considerable right-of-way would be required to accommodate both this interchange and the alignment between the HEFT and Coral Reef Drive.

While this alternate would provide good access to the triangular shaped area bounded by the SCL, HEFT and Coral Reef Drive; several grade crossings would be required to provide to provide reasonable access to areas northwest of the railroad. In addition to properly serve this area SW 136th Street should be extended eastward from SW 137th Avenue to approximately SW 122nd Avenue.

Construction of this alternate would result in little if any benefit to the residential areas to the north of SW 120th Street.

## Analysis

A matrix evaluation procedure was used to analyze the merits and deficiencies of each of the alternatives. Items addressed in the matrix evaluation were:

Construction Costs

Right-of-way costs

Traffic capacity

Service to residential areas

Impacts on industrial/business development

Impacts on HEFT operations

Financial Feasibility

Each alternative was ranked according to the following guidelines:

Construction costs - The alternate with the lowest potential cost of construction was rated 1 while the alternate with the highest potential construction cost was rated 5.

Right-of-way costs - The alternate with the lowest potential cost for acquisition of right-of-way was rated 1 while the alternate with the highest potential right-of-way costs was rated 5.

Service to residential areas - The alternate which provided the best access to residential areas while at the same time having the least negative impacts in terms of loss of residential land, increased noise and air pollution, and least visual or aesthetic impacts was rated 1. Included in the consideration of the questions of access was an analysis of each alternate's potential for reducing congestion on Kendall Drive and also its potential for eliminating industrial/business traffic from residential streets.

Conversely, the alternate which would provide the least improvement to residential access was rated 5. Alternate 1 which would potentially provide very good access to the residential area north of SW 120th Street was rated 4 because of its significant negative impacts on the residential community.

Impacts on industrial/business development - The alternate which provided the best centralized access to the industrial/business area between SW 120th Street and SW 136th Street was rated 1. In addition to looking at how centralized was the alignment, the ability to move both north and south on the HEFT was accessed, thus, while alternate 3 is closer to the industrial/business area than alternate 4, unlike alternate 4, alternate 3 does not provide a fully directional interchange.

H.E.F.T. operations - The alternate with the least negative impacts on vehicle operations on the H.E.F.T. was rated 1, conversely, the alternate which could potentially result in the most negative impacts in terms of merge/diverge and/or weaving movements on the H.E.F.T. was rated 5.

Financial feasibility - The alternate which potentially might generate the highest ratio of revenue to expenses was rated 1 while the alternate which would likely have the lowest revenue to expense ratio was rated 5.

Based on a best possible total score of 7 and a worst possible score of 35 the lowest total score was used to select the best alternate.

## Summary of Analysis

### Alternate 1

Although this alternate rated well in terms of costs and financial feasibility it rated poorly overall because of its low capacity and its severe negative impacts on the residential area.

### Alternate 2

This alternate rated well in all areas. It is particularly strong in that it provides a balance of good access to both the residential area and the industrial/business area while not creating major negative impacts to either area. Because it is relatively low in cost while having a high probability of handling traffic it also rated first in terms of financial feasibility.

### Alternate 3

Although centrally located, this alternate scored poorly because of higher costs. In addition, because it only serves traffic traveling to and from the north on the HEFT, it rated poorly in terms of traffic capacity and financial feasibility. Its fairly good rating on service to residential areas resulted from the fact that it is the alternate which is closest to the residential area while not having direct environmental impact on that area. However, this alternate does not provide significant access benefits to the residential area.

#### Alternate 4

This alternate rated poorly on costs. Although it would provide a fully directional interchange, because of its location it would not provide improved access to the residential area. Construction of this alternate would complicate the future extension of the Don Shula Expressway.

#### Alternate 5

This alternate rated poorly in most items. Because of its location it would not materially improve access to most of the study area. It is part of the year 2000 transportation plan to provide improved access to areas southwest of the study area by extending the Don Shula Expressway.

#### Matrix Evaluation

As can be seen from the following matrix evaluation alternate 2, the SW 120th Street/HEFT Interchange, was identified as the best alternative.

EVALUATION MATRIX

<u>ITEM</u>	ALTERNATE				
	1	2	3	4	5
Construction Cost	1	2	3	4	5
Right-of-Way Cost	2	1	5	3	4
Traffic Capacity	5	2	4	3	1
Service to Residential Areas	4	1	2	3	5
Industrial/Business Impacts	4	2	3	1	5
H.E.F.T. Operations	5	3	4	2	1
<u>Financial Feasibility</u>	<u>2</u>	<u>1</u>	<u>4</u>	<u>3</u>	<u>5</u>
TOTAL SCORE	28	16	26	21	29

