Environmental Copy

FINDING OF NO SIGNIFICANT IMPACT

STATE ROAD 674
Interstate Connector
Hillsborough Co. Florida

U.S. Department of Transportation

Federal Highway Administration &

Florida Department of Transportation

Prepared by

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Federal Highway Administration
Region Four

FEDERAL HIGHWAY ADMINISTRATION
FINDING OF NO SIGNIFICANT IMPACT
FOR
SIX LANING OF STATE ROAD 674 FROM THE VICINITY OF U.S. 41 TO U.S. 301 IN HILLSBOROUGH COUNTY, FLORIDA

U.S. Department of Transportation
Federal Highway Administration
and
Florida Department of Transportation

State Project Number - 10120-1511
Federal Project Number - F-178-1(2)
Budget Item Number - 113259

Submitted pursuant to 42 U.S.C. 4332 (2)(C) and 23 U.S.C. 128.

6/12/01
Date

For Division Administrator
Federal Highway Administration

The FHWA has determined that this project will not have any significant impact on the human environment. This finding of no significant impact is based on the attached environmental assessment which has been independently evaluated by the FHWA and determined to adequately and accurately discuss the environmental issues and impacts of the proposed project. It provides sufficient evidence and analysis for determining that an environmental impact statement is not required.

The location of the proposed action is a section of State Road 674 in Hillsborough County, Florida. Based on community and public agency input, and detailed analyses of several alternatives, a recommended alternative has been selected. This selection was based on numerous considerations including social, economic and environmental impacts; traffic service; and project user's costs. From an evaluation of each of these considerations it is recommended that State Road 674 be widened along the existing alignment from U.S. 41 to U.S. 301 with grade separation at the Seaboard Coast Line Railroad. From the vicinity of U.S. 41 to 15th Street the recommended alternative will be a six-lane divided urban roadway within approximately 118 feet of right-of-way. From 15th Street to Sun City Center the facility will be a six lane divided rural roadway within approximately 206 feet of right-of-way. Through Sun City Center, the recommended facility will be a six lane divided rural roadway, paralleled by an existing northern frontage road (Rickenbacker Drive) and will be constructed within approximately 270 feet of right-of-way. This determination is based on the study findings that this alternative will result in a cost effective facility with minimal community impacts, minimum vehicle miles of travel, and cost effective construction staging. In addition, the grade separation will reduce travel time, fuel consumption, vehicular emissions and safety hazards.

State Road 674 is a major east-west arterial roadway serving Ruskin, Sun City Center, and Wimauma, Florida and will provide an important interstate connector to I-75 for Southeast Hillsborough County. The proposed roadway will provide an acceptable level of service for current and future traffic demands due to normal growth and diversions to I-75.

There are no Section 4(f) properties as defined by the Department of Transportation Act to be affected by this project. There are no properties as defined by Section 106 of the National Historic Preservation Act to be affected by this project.

The environmental impact of the proposed action will be minimal. In the case of noise, analysis indicates that between U.S. 41 and the S.C.L. railroad the exterior design noise level is expected to be exceeded by 1 dBA at four residential sites under the two-way alternative. In addition, the Ruskin Elementary School and five residential properties along this roadway segment will experience a moderate exterior impact due to a projected noise increase of 6 to 10 dBA over present conditions. However, interior noise levels at sensitive receptors will not exceed design criteria.

Between the S.C.L. railroad and Del Webb Boulevard exterior design noise levels are projected to be exceeded at two residences by 2 dBA. In this area a moderate impact is expected due to a projected 5 dBA increase over present conditions. Between Del Webb Boulevard and U.S. 301 there are no expected violations of design criteria, although exterior noise levels are predicted to increase from 5 to 12 dBA.

In the case of air quality, comparison of the maximum predicted carbon monoxide concentrations to the ambient air quality standards indicates that no violations of the 1-hour or 8-hour standard will occur. A pollutant burden analysis has

indicated that the recommended alternative will exhibit an improvement over the pollutant burdens which would be experienced under the no-build condition. In addition, no violation of the ambient air quality standard for lead is predicted.

The proposed project is not expected to have a significant impact on the study areas' water resources. It is not anticipated that stormwater runoff from the project will have any deleterious effect on the receiving systems due to the distance to them and to the open swale drainage system proposed in the undeveloped areas. No groundwater quality impacts are expected.

Because the proposed action will not displace any significant habitat or have adverse impacts on waterways, it will have minimal impact upon fish and wildlife species. Since no rare, threatened or endangered species of wildlife were observed in the study area, and because no vital habitats will be disrupted, the effect of the proposed project on species of special concern is considered negligible.

Wetland Finding - In accordance with Executive Order 11990, "Protection of Wetlands," wetlands were given special consideration during the development and evaluation of alternatives and the following findings were made. There are no practicable alternatives to the proposed action which would avoid impacting wetlands. The proposed action would unavoidably remove approximately 4 acres of wetlands vegetation. All practicable measures will be taken to minimize harm to wetland areas.

Pursuant to Executive Order 11988, "Floodplain Management," the proposed action was determined to be within the 100 year floodplain from the vicinity of U.S. 41 to the S.C.L. railroad, at the waterway crossings of Marsh Branch, Wolf Branch, Cypress Creek, and at the cypress wetland located east of the I-75 interchange. There is no practicable alternative to construction within the floodplain, and alternate alignments would not avoid or lessen floodplain encroachment.

A Community Involvement Program, consistent with Florida's Action Plan was conducted during the course of the study. In addition, a Public Hearing was held on January 29, 1981.

The approved environmental assessment addresses all of the viable alternatives that were studied during project development. The environmental effects of all alternatives under consideration were evaluated when preparing the assessment. Although the document was made available to the public before the public hearing, the finding of no significant impact was made after consideration of all comments received as a result of public availability and the hearing.

In light of these considerations and in consultation with the Federal Highway Administration, the Florida Department of Transportation has found that the proposed action constitutes a Federal Action which will not significantly affect the quality of the human or natural environment. This finding has been substantiated by indepth analysis of the anticipated social, economic and environmental

impacts of the proposed transportation improvement. The following individuals may be contacted for additional information:

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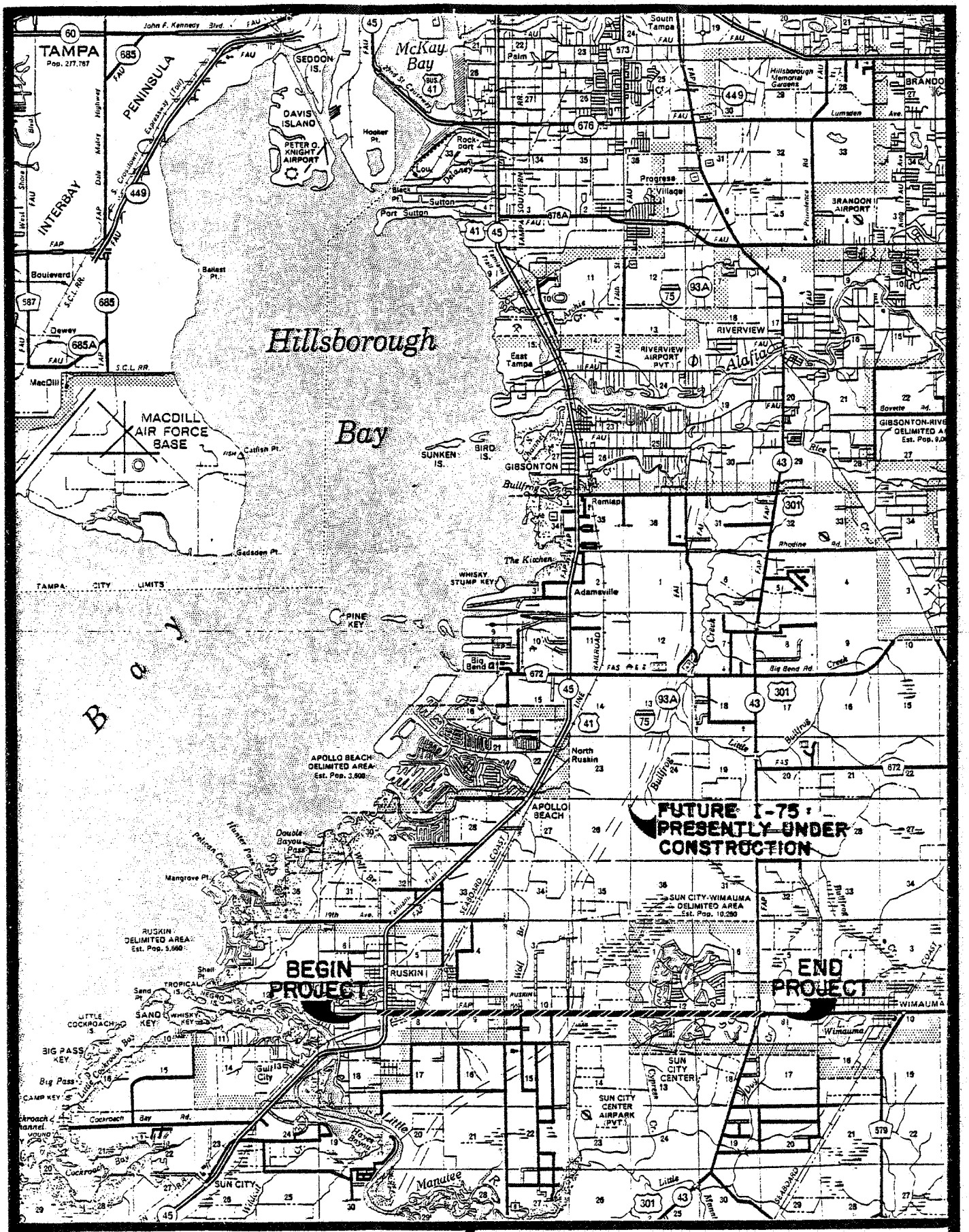
ENVIRONMENTAL

ASSESSMENT



STATE ROAD NO. 674
ENVIRONMENTAL ASSESSMENT

FIGURE I
LOCATION MAP

PREFACE

The purpose of this environmental document is to examine the most feasible and prudent route alignments and conceptual roadway designs for the proposed multi-laning of State Road 674 from the vicinity of U.S. 41 to the vicinity of U.S. 301 in Hillsborough County, Florida. This proposed improvement involves approximately 6 miles of roadway construction.

The objective of this study is the development of an upgraded roadway that will provide an efficient, economical, and safe transportation facility that will result in minimal adverse impacts on both the human and natural environment.

The reviewer should note that the conceptual roadway design features presented in this study are only developed sufficiently to convey a representative idea of the type of future improvement that is needed for the proposed roadway improvement.

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2. FOR FURTHER INFORMATION PLEASE CONTACT

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3. DESCRIPTION OF PROPOSED ACTION

The proposed action involves the upgrading of approximately 6 miles of State Road 674 from two-lanes to six-lanes, from the vicinity of U.S. 41 to the vicinity of U.S. 301 in south Hillsborough County. Approximately 46 to 48 acres of right-of-way will be required for implementing the project. The 1979 estimated construction cost is $15,700,000 to $16,100,000 depending on the alternate chosen.

4. SUMMARY OF ENVIRONMENTAL IMPACT

The overall impact of the proposed action will be beneficial in that it will replace an existing two-lane rural roadway with a safe six-lane roadway that will serve existing and projected land uses through the year 2005. Construction of the proposed facility will not require the use of any lands defined in Section 4(f) of the 1966 U.S. Department of Transportation Act. No critical habitats for rare or endangered species, as designated under the provisions of the Endangered Species Act of 1978 will be impacted. No sites listed or eligible for the National Register of Historic Places will be impacted.

Noise levels are expected to increase in the project corridor with or without the proposed project, because of increased traffic due to urbanization. Noise levels have been projected to be within Federal Highway Administration design levels except for two locations along the two-way system which will exceed criteria by 1 to 2 dBA.

Air quality is projected to be within State and Federal guidelines.

The proposed action is estimated to displace approximately 20 residences and from 9 to 11 businesses depending on the project alignment. Suitable relocation housing is available for the residences displaced and additional commercial frontage is available in the area of the affected businesses.

5. MAJOR ALTERNATIVES CONSIDERED

Alternatives to the proposed action include alternative corridors, do-nothing, postponing the action, upgrading the existing roadway and providing alternate modes of transportation. Feasible alternative corridors do not exist because the Interstate 75 interchange design is final, including the segment of State Road 674 through the interchange. Doing nothing, postponing the action or upgrading the existing roadway would result in forced traffic flow and unacceptable emergency service. Alternative modes of transportation were determined to have a minor impact on reducing existing and projected traffic and would not replace the need for the proposed action.

Project alternatives include two different alignments that would mitigate or avoid varying degrees of impact on the natural and man-made environment. All alternates will remain under consideration until after the public hearing, at which time a recommended alternate will be chosen.

6. ACTIONS REQUIRED BY OTHER AGENCIES

Permits will be required from the Florida Department of Environmental Regulations including water quality certification, complex air source permit, dredge and fill permit, and stormwater license. The U.S. Coast Guard will not require a permit for the proposed action. The Southwest Florida Water Management District may require a structure permit. A Corps of Engineers permit may be required for all wetland involvements.

SECTION I - PURPOSE OF AND NEED FOR THE PROPOSED ACTION

The Florida Department of Transportation proposes to upgrade approximately six (6) miles of State Road 674 in southeast Hillsborough County as shown in Figure 1. The proposed action would be to construct a six-lane roadway to replace the existing two-lane facility.

PURPOSE OF THE ACTION

An interstate bypass around the cities of Tampa and St. Petersburg, Florida, is under construction in the project area and should be open to traffic by 1985. Based on previous studies, the proposed interstate construction (Interstate 75) will include a major interchange at State Road 674 and will widen State Road 674 to six lanes in the interchange area. The purpose of the proposed action is to extend the six lanes eastward and westward to the nearest State maintained roadways to provide an east-west interstate connector.

NEED FOR THE PROPOSED ACTION

Traffic volumes due to normal growth plus traffic volumes diverted to the interstate will require State Road 674 to be four lanes between U.S. 41 and Interstate 75 prior to 1990. By the year 2005, projected traffic for this section will require a six-lane roadway as shown in Figure 2.

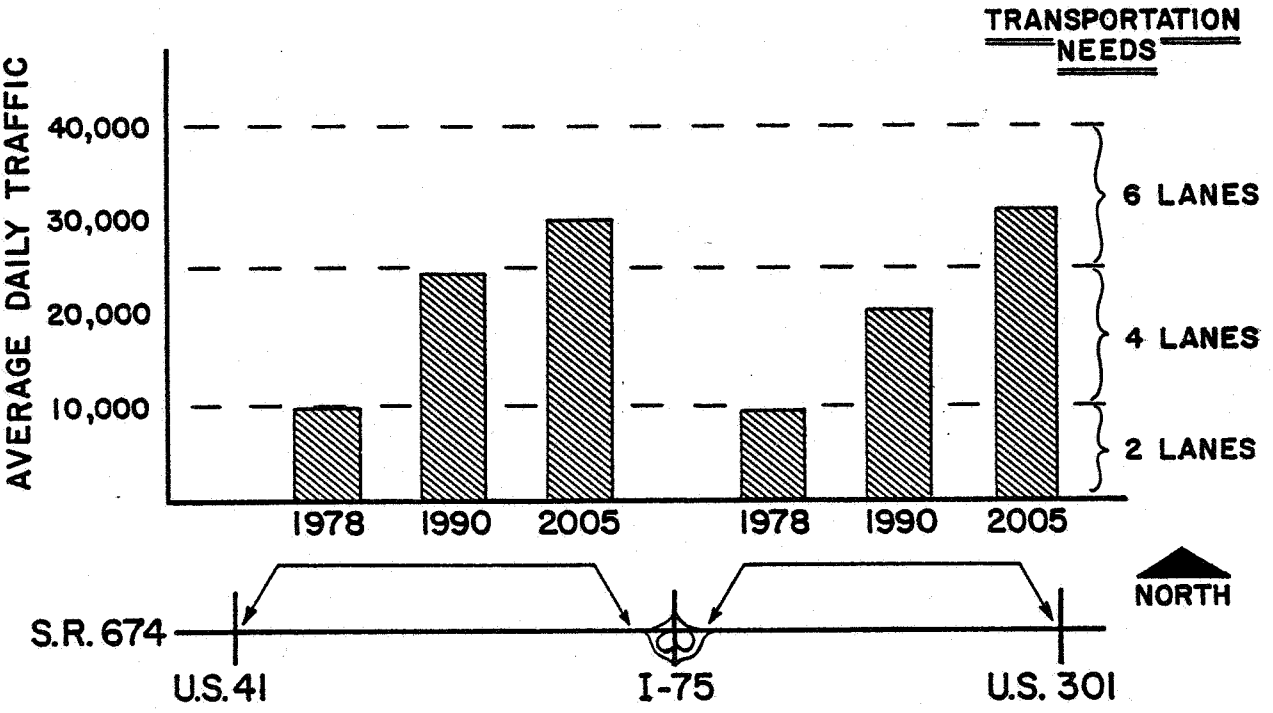
Between the Interstate-75 construction area and U.S. 301, normal projected growth will require the four-laning of State Road 674 by 1990. Diverted traffic to the interstate can also be served by the needed four-lane roadway, but, by the year 2005, projected traffic for this section will require a six-lane facility.

Because of current interchange construction at State Road 674 and Interstate 75, alternate corridors to the north and south of State Road 674 are not feasible.

Alternative modes of transportation were also considered, but accounted for less than two (2) percent of the person trips in the study area through the year 2005.[1] The existing, or even an upgraded State Road 674, would not serve the large transportation demand projected for the roadway and would result in forced traffic flow, unwarranted fuel consumption, and higher levels of air pollution.

CURRENT PROJECT STATUS

Presently, in the project area, construction drawings have been completed for Interstate 75, right-of-way has been acquired and construction has begun. State Road 674 construction drawings are scheduled to be prepared during fiscal year 1980-81, right-of-way acquisition is scheduled for 1981 and 1982, and construction of the roadway is scheduled for fiscal year 1983-84. The project might be staged, with only four lanes being constructed initially and the additional improvement to six lanes to occur when warranted.



NOTE: APPROXIMATELY 98% OF PERSON TRIPS ON S.R. 674 ARE PROJECTED TO BE BY AUTOMOBILE THROUGH THE YEAR 2005.

The above traffic projections indicate a substantial increase in traffic from the existing traffic to the Year 2005 traffic. This increased traffic is consistent with the traffic trend established in Florida over the last ten years. While certain areas in the country have shown decreases in the Annual Vehicle Miles of Travel, the contrary has occurred in Florida. The VMT for Florida has increased steadily in the last ten years. A review of the Annual Certification of VMT for Florida reveals an increase in traffic for every year except the 1973-74 period when traffic remained constant. Based on this historical record even in other "gas shortage" years and the expanding population in Florida (2nd fastest growing state in the country) it appears reasonable that traffic projections in Florida should continue to show substantial increases in traffic. This problem is compounded even more in Florida because Florida has five of the top twenty-five fastest growing urbanized areas in the country.

STATE ROAD NO. 674 ENVIRONMENTAL ASSESSMENT	FIGURE 2 PROJECT TRAFFIC & TRANSPORTATION NEEDS

SECTION II - ALTERNATIVES EVALUATED

The following sections present the various build and no-build alternatives considered. The methodology used in analyzing the alternatives is subsequently presented along with a comparative analysis of the feasible alternatives.

NO-PROJECT ALTERNATIVES

The following sections introduce the no-project alternatives, which include the no improvement alternate, postponing the action, upgrading the existing facility, transit as an alternative mode and upgrading facilities in other corridors.

No Improvement Alternate

A substantially large transportation demand along S.R. 674 in the study area can be currently observed and is projected to significantly increase over the next two decades. Traffic demands in the project corridor are estimated to be approximately 23,000 vehicles per day by 1990 and about 31,000 by the year 2005. If this traffic cannot be diverted to parallel facilities, the traffic service on the existing streets in the project corridor would rapidly reach forced flow conditions. Average overall travel speeds during the peak traffic hours would be equal to or less than 15 miles per hour. Congestion would increase travel times for motorists, resulting in increased fuel consumption, higher levels of air and noise pollutants, and greater delays for emergency vehicles.

Conversely, if the project is not constructed, there would be no displacement of families or businesses, no wetland impacts would occur, construction impacts would not occur, right-of-way would not have to be acquired, funds would not have to be expended, and the view of the road would remain constant. However, these seemingly beneficial attributes of not implementing the proposed action would be only at the expense of increased adverse impacts resulting from compensating road improvements in other communities.

Postponing the Action

Postponing the upgrading of the S.R. 674 interstate connector would, depending on the length of postponement, have impacts similar to the no-improvement

alternative. In addition, development could encroach on the project corridor, increasing problems for future right-of-way acquisition and public acceptance. Possibilities of staging construction opportunities in the future would also be reduced.

Postponing the action may also jeopardize the future economic feasibility of the project. Based on current escalation of construction costs, project costs would increase, exponentially with respect to time of delay. Simply stated, current rises in construction costs would double the cost of the project within the first 10 years that the project is postponed.

Upgrading the Existing Facility

The existing two-lane, 20 foot wide roadway could be widened to a high type design with full 12 foot travel lanes, shoulder improvements and with geometric improvements at intersections. Capacity would be increased at the intersections and volumes of about 18,000 vehicles per day could be handled on the roadway, but with average overall travel speeds of 15 miles per hour or less.

The advantages of upgrading the existing road include increasing traffic capacity, increasing the roadside recovery areas to conform to design standards, and no significant visual changes. However, the traffic demand in the project corridor is projected to be almost 31,000 vehicles per day by 2005. This indicates that the upgraded system would not handle long range growth for the area. Moreover, with a greater number of vehicles on an improved two-lane roadway, there would be a generally higher level of air and noise pollution than for the do-nothing alternate, with emergency response times during the peak hours being about the same or longer.

Transit as an Alternative Mode

Long range regional transit potentials were identified for the Tampa Bay Area Rapid Transit District (TBART) in March, 1977. A report, prepared as part of the re-evaluation plan for the Tampa Urban Area Transportation Study, studied various transportation alternatives including high-speed rail, light rail vehicles, and improved bus service for the entire Tampa Bay Region.[1] The report concluded that only improved bus service could be feasibly implemented by the year 2000 and would require approximately $203,110.00 annual public subsidies at the local level. Projected bus ridership in the study area was estimated to represent less than two (2) percent of the total daily person trips both in 1985 and in the year 2000. This indicates that transit usage would not be sufficient to serve as an alternative to widening and upgrading S.R. 674.

Alternate Corridors

Corridors for Interstate Connectors were evaluated in the Design Engineering Report of I-75 from north of I-275 to north of State Road 672.[2] At that time the S.R. 674 corridor was chosen and the I-75 Interchange at S.R. 674 is currently under construction based on that design report recommendation. Alternate roadway alignments within the S.R. 674 corridor will be evaluated, but no other roadway corridor will be considered.

PROJECT ALTERNATIVES

The proposed action will generally follow the existing alignment of S.R. 674 from the vicinity of U.S. 41 to U.S. 301. An alternate alignment in the Ruskin area would utilize 5th Avenue, S.E. as a one-way pair alternate. These alternates are discussed in the following sections and evaluated based on selected factors. Figure 3 identifies the basic study area under consideration.

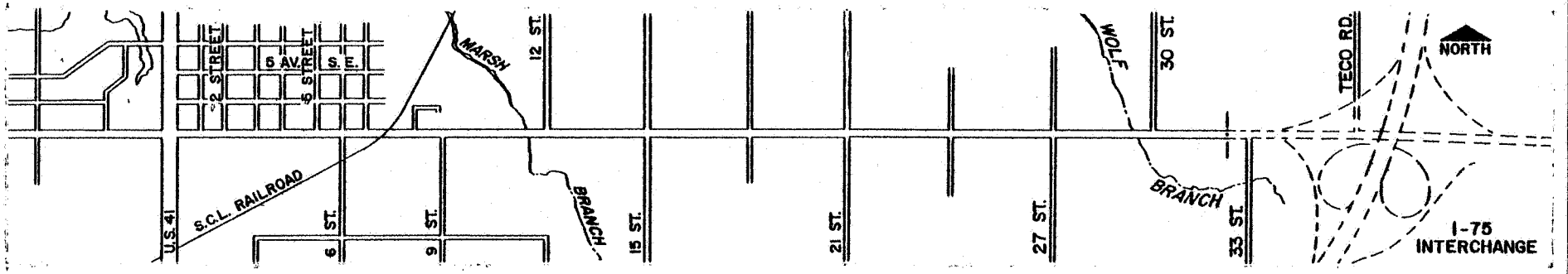
Project Designs

Several basic roadway designs are being considered for selected sections of S.R. 674 as shown in Figure 4.

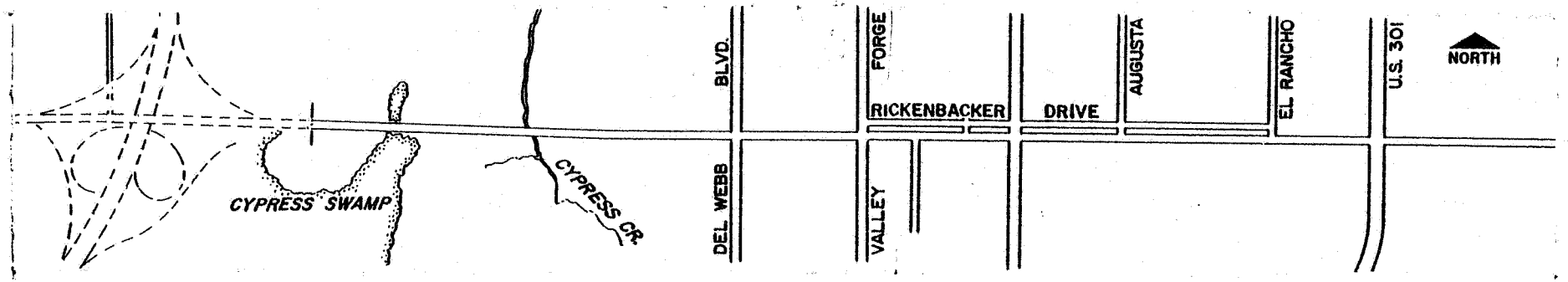
One-Way Pair - This alternate design would be limited to the Ruskin Area from the vicinity of U.S. 41 to 15th Street. It would consist of three travel lanes within approximately 60 feet of right-of-way utilizing 5th Avenue, S.E., in Ruskin as the northern, westbound leg. One additional travel lane and curbs and gutters would be provided along with sidewalks. The southern eastbound leg would place three (3) lanes along the existing S.R. 674 alignment.

Six-Lane Urban Roadway - This alternate design consists of six travel lanes for two-way traffic within approximately 118 feet of right-of-way. Curbs and gutters would be provided along with a raised grassed median, left turn lanes and sidewalks. This design alternate would be limited to the Ruskin area from the vicinity of U.S. 41 to 15th Street.

Six-Lane Rural Roadway - A rural six-lane roadway can be constructed in approximately 206 feet of right-of-way. Instead of curbs and gutters, shallow drainage swales are provided for storm water control. Large shoulders are provided adjacent to the roadway for safety and large grassed medians with left-turn lanes are provided. A six-lane rural roadway will extend from the one-way pair or the six-lane urban roadway at 15th Street, to Sun City Center.



U.S. 41 TO I-75

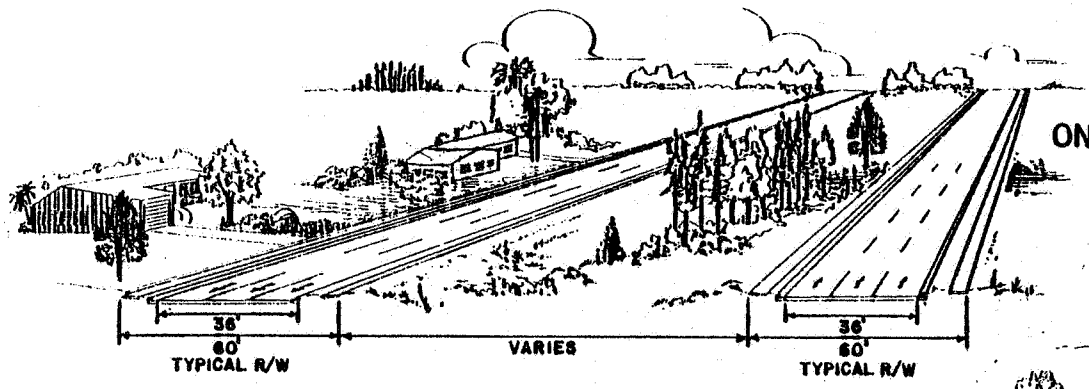


I-75 TO U.S. 301

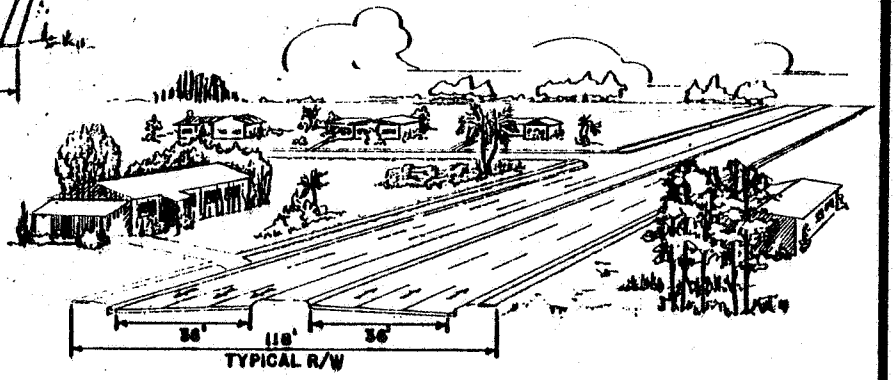
NOTE:
AREAS SHOWN IN DASHED LINES ARE UNDER CONSTRUCTION.

STATE ROAD NO. 674
ENVIRONMENTAL ASSESSMENT

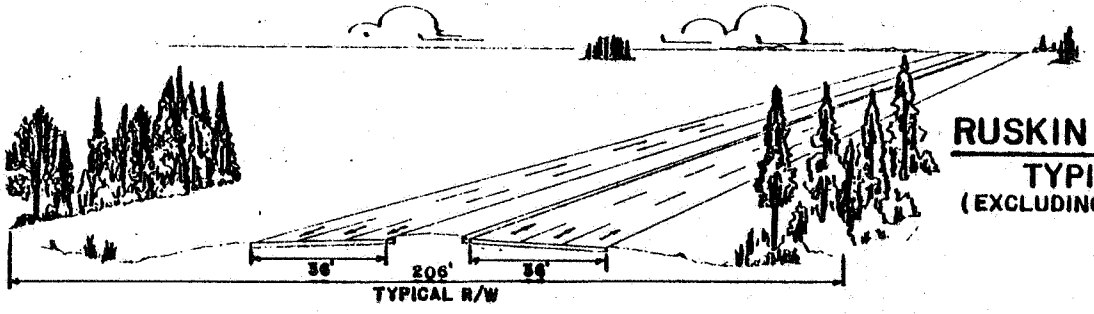
FIGURE 3
STUDY AREA



RUSKIN AREA
ONE WAY PAIR ALTERNATE
US 41 TO 15 STREET



RUSKIN AREA
URBAN SECTION ALTERNATE
U.S. 41 TO 15 STREET



RUSKIN TO SUN CITY CENTER
TYPICAL RURAL SECTION
(EXCLUDING I-75 INTERCHANGE AREA)

SUN CITY CENTER
TYPICAL RURAL SECTION
VALLEY FORGE BLVD. TO U.S. 301

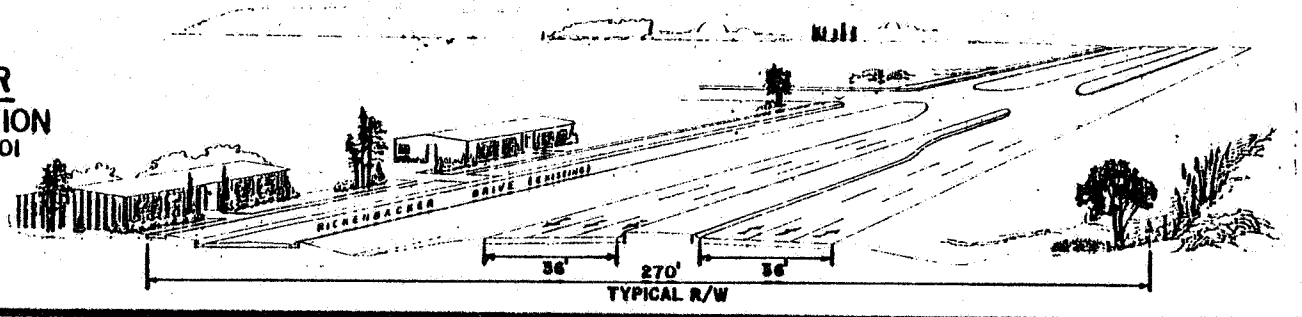


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FIGURE 4
TYPICAL ROADWAY DESIGN ALTERNATES

Six-Lane Rural Roadway with Frontage Roads - In the Sun City Center area there is an existing frontage road, Rickenbacker Drive, located to the north of the existing S.R. 674. In this area, the frontage road would remain to serve local traffic and would complement the proposed six-lane facility. However, the total right-of-way for a six-lane rural roadway in this area would increase to approximately 270 feet, most of which is available.

Railroad Crossing - To avoid delays and hazards to the motorists, it is recommended that S.R. 674 be elevated over the Seaboard Coast Line Railroad located east of Ruskin. The bridge typical section alternates and an artists concept of the crossing for a six-lane urban roadway are shown in Figure 5. If the one-way pair alternate is selected for construction, there will be a railroad grade separation at 5th Avenue S.E. as well as at S.R. 674.

Project Alignments

The proposed action should use the existing right-of-way and make use of the existing two lane roadway to the maximum extent possible. Therefore, the impacts of acquiring the additional required right-of-way from the north or south was considered along with taking the additional right-of-way from both sides of the existing right-of-way. Figure 6 identifies the most feasible alternatives for the proposed project and the following section identifies the basis for their selection.

Ruskin Area - The one-way pair alternate can be constructed predominately within existing rights-of-way except for the railroad overpass. However, approximately 38 feet of additional right-of-way will be required for the six-lane two-way alternate. If the entire right-of-way is obtained from the north, approximately four city blocks of homes and businesses would be directly impacted and the overall cost of right-of-way would be greater than the remaining alternatives.

If the required right-of-way is taken equally from both sides of the road, the homes and businesses on the north side would still be impacted, the existing road would be difficult or impossible to use for maintenance of traffic, and impacts would occur to parking and bus activities at the Ruskin Elementary School.

If the required right-of-way is taken from the south side, a minimal number of property owners would be impacted with most of the right-of-way acquired from the Ruskin Elementary School and vacant parcels. The overall cost would be less than the other two alternatives, but parking and bus activities at the school would be impaired. Discussions with the School Board and the Hillsborough County Engineering Department indicate that the lost parking can be offset by expanding the parking lot, and the bus drop-off in front of the school can be relocated to the rear to increase the service area and to improve safety to the public.

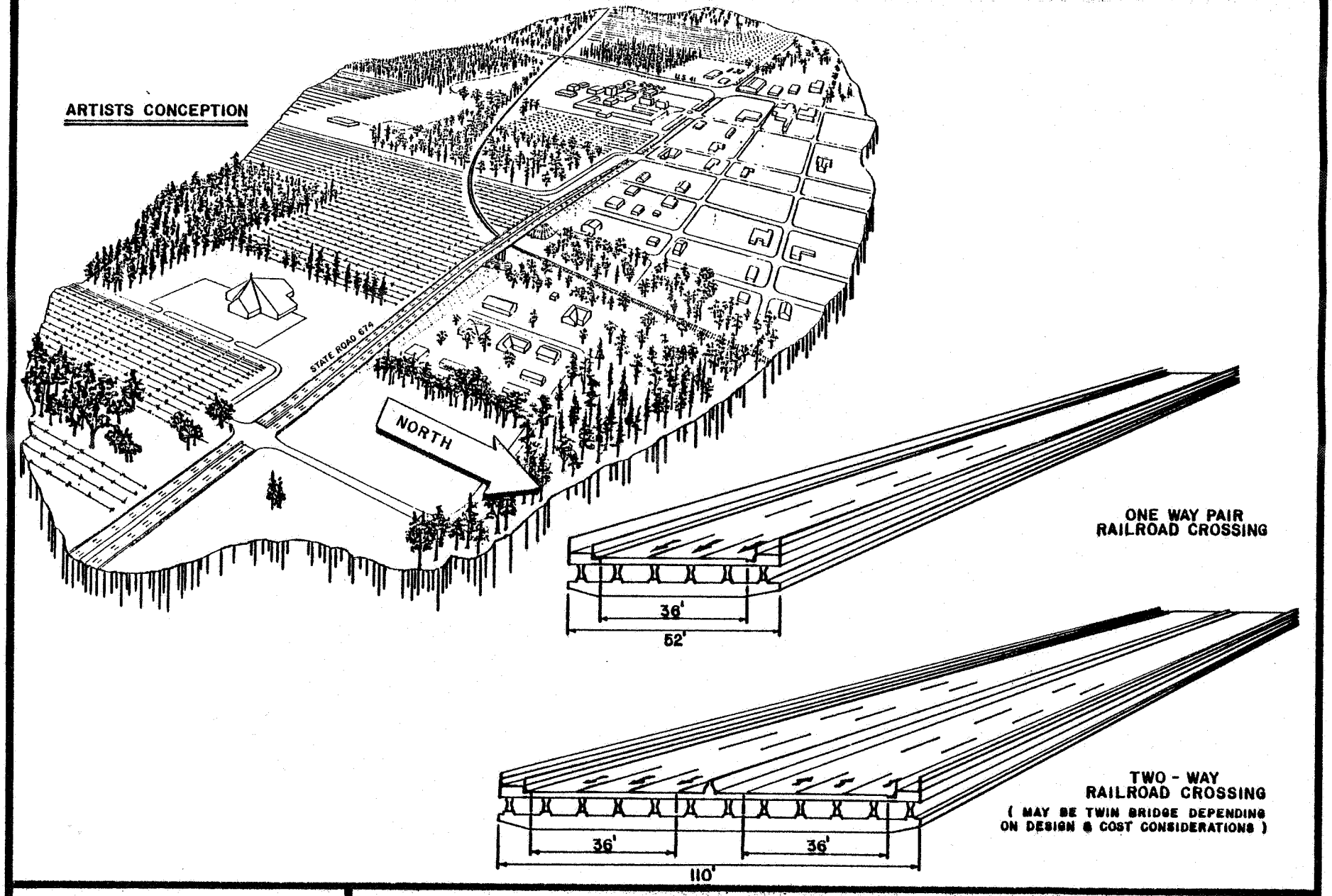

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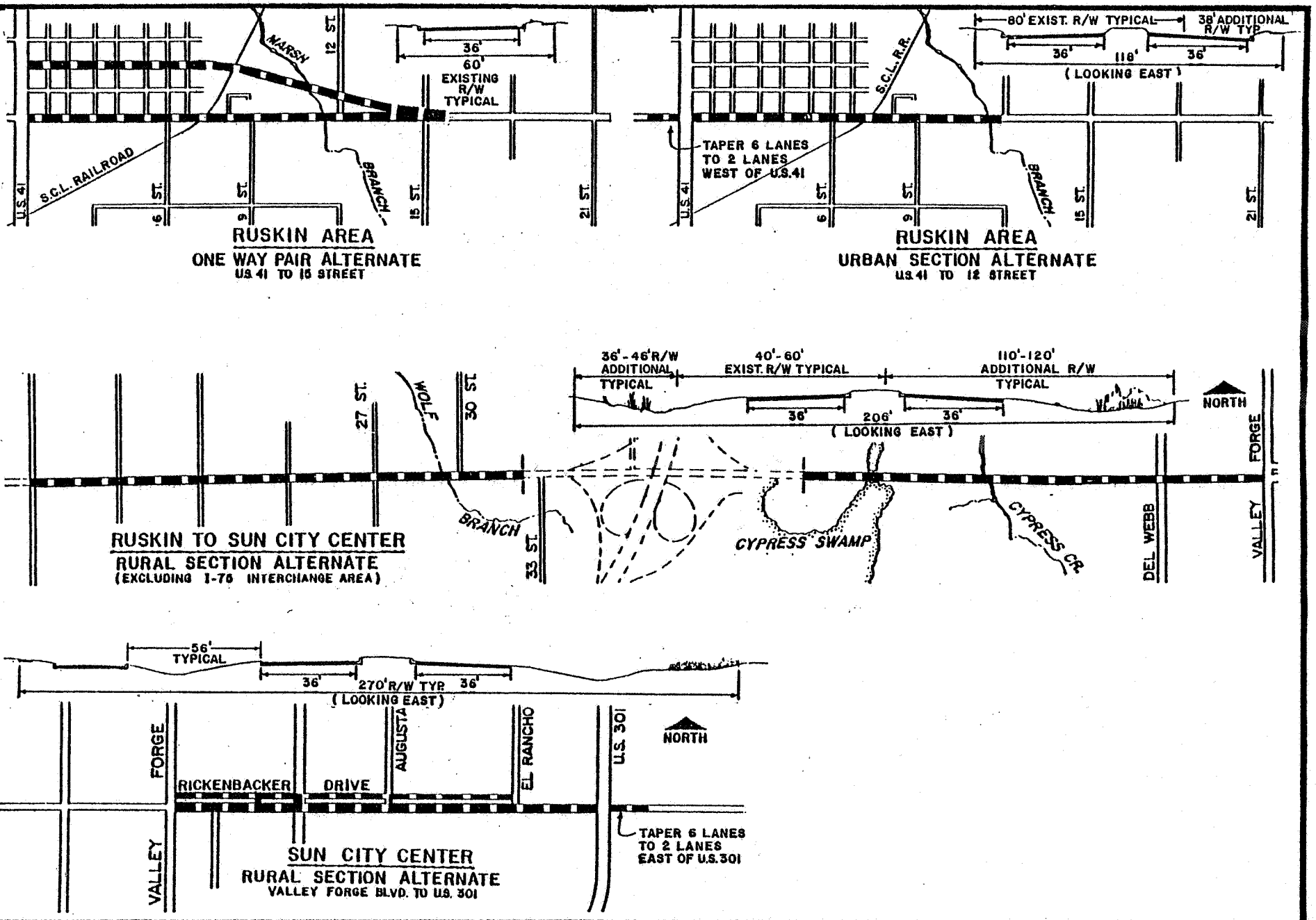
FIGURE 5
TYPICAL RAILROAD GRADE SEPARATION



STATE ROAD NO. 674 ENVIRONMENTAL ASSESSMENT	FIGURE 6 FEASIBLE ALTERNATIVES

The most feasible alternatives in the Ruskin Area are to construct a one-way pair, predominately in existing right-of-way, or to construct a two-way roadway with right-of-way acquisition predominately from the south side. Some right-of-way will be required to the west of U.S. 41 to provide a transition from six lanes to two lanes.

Ruskin to Sun City Center - A portion of the alignment between Ruskin and Sun City Center will be dictated by the I-75 interchange located south of the existing roadway. West of the interchange, a central alignment would displace the most structures and would require the greatest cost for right-of-way and construction. A northern alignment would be offset from the interchange and from the southern alignment in the Ruskin area. The northern alignment's number of displacements would be about the same as the southern alignment. A southern alignment would connect directly to the interchange and the most feasible alignment within Ruskin. The right-of-way cost for the southern alignment is estimated to be less than the other alternates. East of the interchange, the roadway alignment is dictated by the proposed alignment within Sun City Center.

The most feasible alignment between Ruskin and Sun City Center, therefore, is a southern alignment that predominately takes right-of-way from the south side of the road. However, making use of the existing two lanes of S.R. 674, will require taking some right-of-way from the north side of the road to provide an improved roadside recovery area and drainage improvements.

Sun City Center Area - Right-of-way on the south side of S.R. 674 has been reserved by the developers of Sun City Center. Therefore, within this area the proposed construction and any additional right-of-way will predominately occur on the south. However, east of U.S. 301 the six-lane roadway right-of-way must transition to two-lanes or 100 feet of right-of-way. This transition will require some additional right-of-way east of U.S. 301.

COMPARATIVE EVALUATION OF ALTERNATIVES

Comparative evaluations were performed for a number of traffic service, engineering and community impact factors for each of the feasible design and alignment alternates. Using the results of not building the proposed roadway as a basis for comparison, the effects of each alternate upon each of the factors were analyzed to determine their relative advantages and disadvantages. Table 1 summarizes the major evaluation factors.

Design Characteristics

The existing facility is a two-lane rural roadway with lane widths less than 12 feet, narrow shoulders, few left-turn lanes and narrow recovery areas adjacent to deep drainage ditches in some areas. The proposed project would be a six-lane roadway constructed to modern design and safety standards.

TABLE 1 - COMPARATIVE EVALUATION OF ALTERNATIVES

	DO NOTHING ALTERNATIVE	RUSKIN AREA U.S. 41 TO 15TH STREET		15TH STREET TO U.S. 301
		6-LANE URBAN ROADWAY	ONE-WAY PAIR	6-LANE RURAL ROADWAY
Design Characteristics	2-Lane Rural Roadway	Urban Roadway Curb & Gutters & Sidewalks		Rural Roadway Grass Swales, One 8' Sidewalk
Length	6.6 Miles	6.6 Miles		
Traffic Service (Year 2005)	Future Forced Flow 0-15 MPH Travel Speed	Operating Speed 30 MPH U.S. 41 Intersection Operating at capacity 0-15 MPH	Operating Speed 30 MPH*	Operating Speed 45 Miles Per Hour Slight Delays at Intersections
Staging	Not Required	Easily Staged from 4 Lanes to 6 Lanes	Difficult to Stage	Easily Staged from 4 Lanes to 6 Lanes
Emergency Service	Impaired Due To Congestion and Lack of Shoulders	Improved Response Times and Ability of Emergency Vehicles to Maneuver		
Maintenance of Traffic During Construction	Not Required	Use Existing S.R. 674	Use Existing S.R. 674	Use Existing S.R. 674
Right-of-Way (acres)	0	15.6	14.1	32.4
Displacements Homes Businesses	0 0 0	15 12 3	13 12 1	16 8 8
Costs ($) Total Construction Right-of-Way	 0 0 0	 5,600,000 4,200,000 1,400,000	 6,000,000 4,900,000 1,100,000	 10,100,000 8,900,000 1,200,000
Safety	Accident Rate is 59% Above Statewide Average	Facility Would be Constructed to Latest State and Federal Safety Standards		

* Reduced Speed 15-20 MPH at U.S. 41 Intersection.

Length

There is no appreciable difference in length between the existing roadway and any proposed alternate.

Traffic Service

Without the proposed improvement, the existing two-lane roadway is expected to operate at peak hour forced flow conditions of 0-15 miles per hour at U.S. 41 by 1985. By the year 2005, the entire project length is expected to be operating at forced flow conditions during the peak traffic hours.

Each of the alternate project designs and alignments would provide stable traffic flow and acceptable or tolerable intersection delays over most of the project route through the year 2005. At the U.S. 41 intersection, the six-lane alternate could experience unstable flow conditions because of expected heavy left-turn movements. This condition would be reduced by constructing two intersections under the one-way pair system. Each one-way intersection would operate at an expected stable flow condition with acceptable intersection delays.

Maintenance of Traffic During Construction

The existing two lanes of S.R. 674 in most areas would remain open to traffic while a portion of the new roadway was constructed. In areas where the existing roadway could not maintain traffic, detour routes or temporary service roads would be provided.

Staging

The six-lane, two-way alternate can initially be built as a four-lane roadway, leaving a 46 foot grassed median. The second stage of construction would consist of the addition of two lanes to the median, leaving a final 22 foot raised median. However, the one-way pair alternate in Ruskin would consist of three travel lanes with curb and gutters on each side. This alternate cannot be economically or effectively staged constructed from two to three lanes.

Right-of-Way Requirements

The no-build alternative would not require right-of-way except for isolated intersection improvements in future years. Comparatively, approximately 46 to 48 acres of new rights-of-way would be required to implement the proposed action.

Ruskin Area - From the vicinity of U.S. 41 to 15th Street, a six-lane urban roadway would require approximately 16 acres of additional right-of-way. Similarly the one-way pair alternate would require about 14 acres of new right-of-way in the area around and east of the railroad.

Ruskin to U.S. 301 - Approximately 32 acres of right-of-way would be required from the area of 15th Street to U.S. 301.

Displacements

No structures would be removed if the two-lane roadway was not multi-laned. Conversely, approximately 31 residential and commercial structures would be removed if the six-lane facility is constructed. Between the vicinity of U.S. 41 and 15th Street the one-way pair would displace an estimated 13 structures, mostly residential, compared to 15 structures if a six-lane two-way roadway was constructed.

Between 15th Street and U.S. 301, if a six-lane rural roadway is constructed, an estimated 16 structures would be removed.

Costs

No major construction costs would be incurred if the proposed project is not constructed. The proposed project would cost an estimated $15,700,000 to $16,100,000 (1979 costs) depending on design.

In Ruskin, the one-way pair is estimated to cost $6,000,000 and the six-lane, two-way alternate is estimated to cost approximately $5,600,000.

A six-lane rural roadway between the vicinity of 15th Street and U.S. 301 would cost an estimated $10,100,000.

Safety

Traffic accident data as recorded between 1973 and 1977 on S.R. 674 were compared to accident statistics on similar roadways throughout the state.

There were 37 accidents recorded in the year 1977, of which 26 occurred in the area located between U.S. 41 and the proposed I-75 interchange. The contributing factors were careless driving, failure to yield right-of-way and improper left turns. The accident modes are predominately left-turn and rear-end collisions. Statistical accident data for the five year period is summarized in Table 2.

The ratio of the accident rate for the existing facility to the statewide average for similar type facilities, was 1.59, or, the actual roadway accident experience is about 59% above the statewide average for the same type of roadway. If no improvements are made to the existing facility, projected traffic increases will result in greater driver hesitation, slower speeds, and a continued high accident rate is anticipated.

Table 2. Accident Data as Recorded Between 1973 and 1977

Accidents	194
Fatalities	4
Injuries	143
Property Damages	103
Economic Loss	$1,408,900

$$\frac{\text{Actual Accidents}}{\text{*Expected Accidents}} = \frac{194}{122} = 1.59$$

*Based on State Average Accident Rate for similar type facility.

Emergency Service

Upgrading S.R. 674 to a multi-lane facility would make movement of emergency vehicles across this part of the county easier. The existing facility does not provide sufficient recovery area or adequate shoulder widths in numerous areas for motorists to pull off of the road to allow emergency vehicles to pass.

Bikeways

A bikeway will be provided along the western urbanized area (Ruskin) of the project from U.S. 41 to 12th Street, which will consist of an eight-foot sidewalk on the north side of S.R. 674 adjacent to the right-of-way. Currently, in the eastern urbanized area (Sun City Center) of the project a bikeway exists to the south of S.R. 674 and a frontage road is located to the north. No additional bikeway will be provided in the Sun City Center area.

SECTION III - AFFECTED ENVIRONMENT

The following sections describe the existing conditions which prevail in the study area and provide the basis for the comparative evaluation of alternatives as they affect existing conditions.

SOCIAL AND ECONOMIC CHARACTERISTICS

Population and Growth Characteristics

The in-migration of retirees to the area south of Big Bend Road (S.R. 672) and west of U.S. Highway 301 (S.R. 43) has significantly affected the socio-economic characteristics of the area since 1960. Two large developments, Apollo Beach and Sun City Center, have been recently built in the vicinity of the study area. Sun City Center, located along S.R. 674, is a large scale retirement development which is expected to double in size over the next decade and will have an estimated population of 30,000 persons by the year 2000.

According to projections made by the University of Florida, South Hillsborough County* had 22,572 people in 1975, and as shown in Table 3 will have 70,000 by the year 2000, the result of a compound growth rate of 7.9% since 1975.

Income

Increases in median family income were also significant in the study area. In 1960, the median income was recorded as $2,905, the county's lowest level. By 1970, this increased 86% to $5,408 and currently is reported as $7,307, approximately the county-wide level.[3] Insofar as employment statistics exhibited extremely small absolute and relative gains, this increase must be attributed to immigration, especially retirees.

Table 3.

Population and Growth Characteristics

Year	Population	Percent Change
1975	22,572	---
1980	33,093	32%
1985	42,714	23%
1990	52,482	19%
1995	61,270	14%
2000	70,000	14%

*South Hillsborough County is bounded by S.R. 672 on the north, the county line on the east and south, and Tampa Bay on the west.

Economic Growth

Four major factors influencing future economic growth have been identified by the South Hillsborough County Chamber of Commerce. These factors include a possible energy crunch, the coming of the I-75 bypass, regional wastewater treatment facilities and plans to sewer Ruskin by 1983 and the entire area by 1990, and future bus transportation. The present economy is based on tourism, commerce, construction and general services. There is little industry in the area and agriculture is expected to continue to grow at a rate of 10% per year while being squeezed out of Ruskin to the east and southeast by development. This trend is expected to be offset by greater crop diversification.

Tourism is anticipated to continue growing and more tourist accommodations will be necessary. There are indications of a bright economic future with the opening of I-75.[4] The completion of the interstate will open the area to various commercial enterprises. At the present, a major shopping center is in the planning stages between Ruskin and Apollo Beach. S.R. 674, from I-75, to Ruskin, is expected to experience much development and the interstate in combination with existing railroads could bring industry to the area.

Urban Patterns

The South Hillsborough County area has experienced very rapid growth in the last decade, and this trend is expected to continue. This growth has been primarily in the form of large scale residential development and accompanying recreational and commercial facilities, and has had as its impetus the favorable climate and the close proximity to the Tampa and Sarasota-Bradenton urban areas. The effects of these growth patterns can be readily ascertained by reviewing the existing and future land use and zoning trends in the area.

Existing and Future Land Use

In the vicinity of U.S. 41 and S.R. 674 the predominant land use is service oriented commercial establishments. The Ruskin Elementary School occupies a 12.4 acre site in the southeast quadrant of the intersection. Single-family homes are the major land use along S.R. 674 from U.S. 41 to the Seaboard Coast Line (SCL) railroad tracks (Figure 7).

From the SCL railroad tracks to the future I-75 interchange location (TECO Road) agriculture predominates, with scattered commercial establishments fronting on S.R. 674. Numerous large parcels of undeveloped land also characterize this rural area.

The large, planned retirement community, Sun City Center, occupies most of the land from the future I-75 interchange to U.S. 301. A wide range of land uses exist along S.R. 674 in this area including single-family homes, multi-family homes, a shopping center, a motel, medical facilities and professional offices. Public uses in the area include a Post Office and Fire Station.

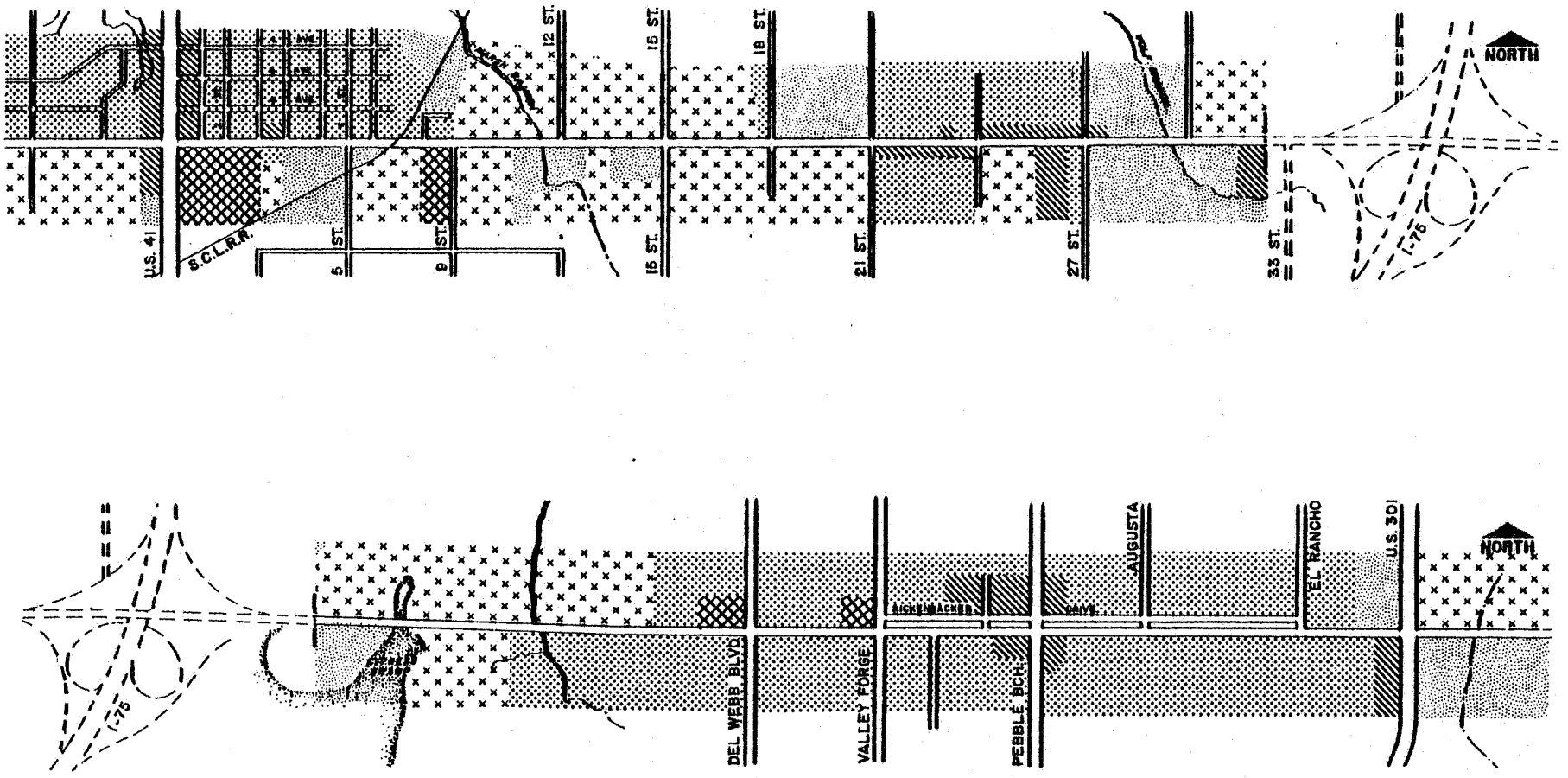


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FIGURE 7 EXISTING LAND USE

Future growth in the project area is controlled by the "Horizon 2000 Plan", adopted December, 1977 as the accepted comprehensive plan for Hillsborough County.[8] Future land use plans show the study area as being in the urban transition and suburban zones. The continued growth of Sun City Center and the development of other planned communities in the area as well as the construction of I-75 is anticipated to result in a transition from rural development to urban/suburban development along S.R. 674.

PUBLIC FACILITIES AND SERVICES

Utilities

Plans are in the final stages of approval for providing regional waste water treatment facilities in the study area to serve anticipated growth. Both municipal water mains and sanitary sewer force mains are planned along the existing S.R. 674 right-of-way, with a regional treatment facility centrally located along the six miles of the project study area.[9]

Existing utilities within the FDOT right-of-way along S.R. 674 include:

- A 12-inch water line runs along the north side of S.R. 674 from U.S. 41 to 33rd Street, and a similar line runs along the south side from Ruskin Elementary to 7th Street.
- Telephone lines run along the south side of S.R. 674 from U.S. 41 to U.S. 301.
- A television cable parallels the road to the south from 24th Street to Pebble Beach Boulevard.
- Tampa Electric Company has a major 69,000 volt transmission and a 13,000 volt distribution pole line approximately 6 feet from the existing north right-of-way line of S.R. 674. This pole line runs from TECO Road to U.S. 301. TECO also has a major 13,000 volt distribution feeder approximately 6 feet from the existing north right-of-way line of S.R. 674 running from TECO Road to U.S. 41. Just west of TECO Road, Tampa Electric Company also has a 385 foot wide right-of-way crossing. Two 23,000 volt structures on this right-of-way are located about 40 feet north of the existing north right-of-way line of S.R. 674. Tampa Electric Company also has underground communication cables running from TECO Road to U.S. 301 on the north side about three feet south of the existing pole line.

Medical/Emergency/Disaster Facilities and Services

Emergency and ambulance services are furnished by rescue squads throughout the study area. Within the study area, two medical centers presently exist. The Sunhill Medical Center is located in Sun City Center and the Hillsborough County Health Clinic is located in Ruskin.

Fire/rescue services for the study area are provided by the Ruskin and Wimauma Fire Departments. Within the study area, a fire station is located approximately 400 feet south of S.R. 674 on Pebble Beach Boulevard. Planned facilities include a new fire station in Wimauma.

Emergency/disaster services are provided by the Hillsborough County Sheriff's office which patrols the unincorporated areas of the County. Two volunteer officers of the Sheriff's office provide walking patrol of the Sun City Center area, in addition to mobil patrol units.

Religious Facilities

Four churches are located within the study area; two in Ruskin and two in Sun City Center. In Ruskin, the Church of God is located approximately 130 feet north of S.R. 674 on 1st Street and St. John's Episcopal Church is located approximately 200 feet south of the existing roadway on 9th Street. In Sun City Center, Trinity Baptist Church is located 300 feet north of S.R. 674 on Del Webb Boulevard and the Prince of Peace Catholic Church is located 120 feet north of the roadway on Valley Forge Boulevard. On the site adjacent to the Catholic Church at Valley Forge Boulevard and S.R. 674 a Lutheran Church is to be constructed in the near future.

Educational Facilities and Services

Public schools in close proximity to the project study area include the Ruskin Elementary School, Eisenhower Junior High School, and East Bay High School. Although only one of the educational facilities is located within the study area proper (Ruskin Elementary School), busing services are provided along S.R. 674. From U.S. 41 east to 33rd Street, busing services provide a total of twelve round trips per school day. There are also three special education buses that travel along S.R. 674, but do not pick up students. At present, no additional school facilities are planned for the area in the five year projection of school requirements.

The Ruskin Elementary School is located in the southeast quadrant of the intersection of S.R. 674 and U.S. Highway 41. It's 1979 enrollment was approximately 1,100 students.

Two major school crossings exist at the intersections of U.S. Highway 41 and S.R. 674; and at S.R. 674 and 2nd Street. These crossing zones are patrolled daily by adult crossing guards. Approximately 75 students cross the intersection of S.R. 674 and U.S. Highway 41 from the west and northwest.

Approximately 100 students travel adjacent to S.R. 674 east and west, but cross S.R. 674 only at 2nd Street for school access from the north. The intersections of S.R. 674 with 1st, 2nd, 4th, 5th, 6th, and 7th Streets are patrolled by school safety patrols. The crossing of S.R. 674 at those intersections is not permitted. All students east of 12th Street are transported to and from Ruskin Elementary School.[10]

Civic Organizations, Facilities and Services

Major civic organizations and facilities are located in the study area. There are over 87 different clubs, organizations, and activity groups in the area encompassing a variety of interests. Major facilities include the town hall of Sun City Center, the Kings Inn Hotel (which provides a club lounge and several meeting rooms), and the Kings Point Recreational Complex.

CULTURAL RESOURCES

Historic and Archaeologic Resources

Although not within the study area proper, a historical marker is located approximately 600 feet north of the intersection of S.R. 674 and U.S. 41 at the home of the Miller House Ruskin Women's Club. The structure, located on the westside of U.S. Highway 41 near the historic marker, formerly served as the Ruskin College president's home. It was placed on the National Register of Historic Places in 1974.

After a field survey by a qualified archaeologist attached to the Florida Department of Transportation, and in consultation with the State Historic Preservation Officer was conducted, it was determined that no historic or archaeologic sites of national, state or local significance would be impacted along the project length. However, if such sites are unearthed during construction, the project engineer will be required to notify the State Historic Preservation Officer. His office would make a determination as to the significance of the find and its deposition. This determination is documented by an August 29, 1980 letter from the Deputy State Historic Preservation Officer (see Appendix).

Parks and Recreation Areas

There are no 4(f) properties, as defined by the Department of Transportation Act of 1966, to be directly or indirectly affected by this project.

Approximately one quarter of a mile to the south of the existing S.R. 674 facility, along Sixth Street, community recreational facilities are readily accessible at the Beaudette Park and Ruskin Community Center, which includes an area of approximately 16 acres with a baseball diamond.

The Ruskin Elementary School playground is located in the southeast corner of the intersection of U.S. 41 and S.R. 674. Childrens' playground equipment, as well as tennis courts, are located on the site.

NATURAL RESOURCES

Climate

The climate of South Hillsborough County is heavily influenced by the Gulf of Mexico and is characterized by warm weather, a high frequency of thunderstorms, and usually light, but persistent winds. Long term average precipitation is about 52 inches per year.[5] About 60 percent of the total rainfall occurs during the months from June to September. Prevailing winds are easterly and during the hot summer months are light with moderate gusts preceeding thunderstorms.

The probability of a tropical cyclone occuring along the 50 miles of coastline centered at Ruskin is 9 percent in any one year, or once every eleven years. Hurricanes tend to occur in the months of June through November, with the highest likelihood of occurrence being in the month of September. Based on recurrence intervals for various wind speeds of tropical cyclones, a hurricane can be expected to significantly affect the coastal area once every fifteen years.[7]

Soils

Three major soils associations, dominated by fine sand with occassional fine sandy loams, occur in the study area.[5] The Leon Plummer Association, comprised of poorly drained sands with organic pan, is widespread and is the dominant soil association. The Leon Plummer Association has only moderate limitations for roadway construction; high water table being the predominant limiting factor. In the downtown Ruskin area, the predominant soil association is the Ruskin-Sunniland-Bradenton Association. This association is comprised of somewhat poorly drained sands over a calcerous substrate. Soil limitations for roadway construction are moderate with a high water table. East of U.S. 301, a small area exists where the Rutledge-Fresh Water Swamp-Plummer Association dominates. Although this soil association has severe limitations for roadway construction due to high water table and flood hazard, the proposed action will not directly impact soils of this association.

Vegetation

The vegetative characteristics of South Hillsborough County have been considerably altered in recent times. Once covered by thick forest, predominantly pine, the majority of the area has been cleared for timber, agriculture and urban development. Most of the land in the study area is now utilized for agriculture, primarily vegetable crops.

Much of the Little Manatee River watershed is pine flatlands. There are also mixed hardwood forests, freshwater wetlands and numerous marshes. No unusual, rare, endangered or threatened vegetative species are known to occur along the proposed project site.

Wetlands

Wetland areas were investigated during April and June, 1979. Potential areas of concern were delineated on the basis of aerial photography and ground truthing.

Four wetland sites were identified along S.R. 674, Marsh Branch, Wolf Creek, Cypress Swamp and Cypress Creek, none of which is a navigable waterway (Figure 8).

Marsh Branch (Site #1) - This stream crosses S.R. 674 approximately 250 feet west of 12th Street S.E. in the Ruskin area. It is a Class III non-tidal stream which, during wet seasons, flows northwesterly to the Ruskin Inlet of the Little Manatee River. The S.R. 674 crossing includes three (3) 60-inch corrugated metal pipes. The waterway width is approximately 3 feet and depth is about 8 inches.

Wolf Branch (Site #2) - The Wolf Branch Stream traverses S.R. 674 approximately 300 feet west of 30th Street S.E. It is a Class III non-tidal stream which, during periods of heavy rainfall, flows northward and eventually empties into Tampa Bay. The S.R. 674 crossing is a twin box culvert. The waterway width is approximately 8 feet and depth is about 5 inches.

Cypress Swamp (Site #3) - The Cypress Swamp is characterized by seasonally flooded land and contains standing water in scattered pools year round. State Road 674 traverses the Cypress Swamp approximately 1300 feet west of Sun City Center.

Cypress Creek (Site #4) - This stream crosses S.R. 674 at the western boundary of Sun City Center. It is a Class III non-tidal stream which drains the extensive wetlands to the north and west of Sun City Center and flows southward to the Little Manatee River.

Wetlands Vegetation

Upon delineation of wetland areas, sites were selected, surveyed, and classified as to the predominant flora and faunal types. Wetland communities within the project boundary include the forests associated with Marsh Branch and upper reaches of Wolf Branch and Cypress Creek. In general, each wetland type can be characterized by slightly different environmental conditions and the degree of disturbance. Hydroperiod and the depth of flooding have direct influence on the type of vegetation present. The three primary wetland vegetation types along S.R. 674 include lowland hardwood associations, cypress swamp and a shrub and herbaceous zone.

Marsh Branch - The hardwood forests of Marsh Branch are generally dominated by trees of wide moisture tolerance including diamond-leaf oak, live oak and sweetgum. Wetland species dominate only in the portion of the site nearest the stream so that the forest is characterized as a bottomland forest. Very little in-stream vegetation was observed.

Wolf Branch - The forest association of Wolf Branch is also classified as hardwood bottomland forest. The site appears to have been cleared of vegetation in the past. Secondary growth of hardwood forest has occurred with species such as red maple, sweet gum, and Carolina ash now dominant. In-stream vegetation consists mostly of pickerelweed, algal mats and smartweed.

Cypress Swamp - The seasonally flooded lands of the Cypress Swamp include cypress and a few hardwoods being the dominant trees. On the south side of S.R. 674, pond cypress is the dominant species with red maple, Carolina willow, swamp

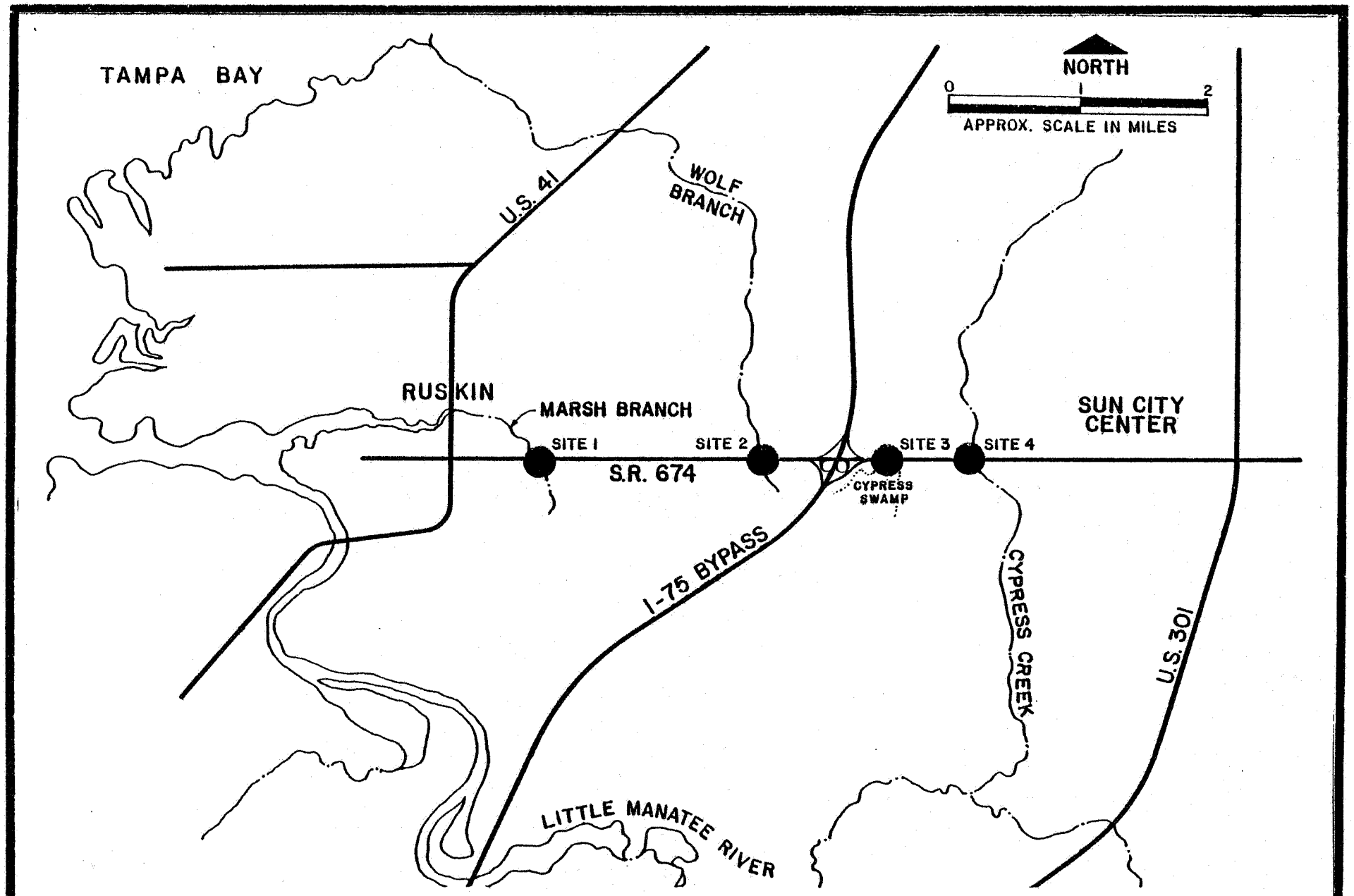

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FIGURE 8
WETLAND SITES

tupelo and red bay on the periphery. To the north side, species are primarily wax myrtle and Carolina willow with the understory consisting of pennywort, arrowhead, pickerelweed and ferns.

Cypress Creek - Cypress Creek has been channelized and cleared to the north and south of S.R. 674. Shoreline vegetation consists of Carolina willow and grass sedges. In-stream vegetation is composed mainly of blue-green algal mats, Florida elodea and smartweed, however, the extent of this vegetation is limited.

Other species associated with these wetland communities and their surrounding transitional/upland area included a number of both wetland and upland types. However, because of the disturbance from ditching and clearing for the existing S.R. 674 right-of-way, there is much confusion of both types of vegetation. Associated with this disturbance has been the invasion by pioneer species along the right-of-way at all wetland sites, including Carolina willow, wax myrtle, maiden cane, pennywort, bahia grass, sedge, and galingale.

Floodplain

The project area between the vicinity of U.S. 41 and the SCL Railroad is within the 100 year floodplain.[12] This area, which includes the major part of Ruskin, is urbanized and contains numerous roadways and man-made structures. State Road 674 is located in this floodplain area within an 80 foot right-of-way and serves the urban land uses with frequent side street and driveway connections. State Road 674 also traverses the 100 year floodplain at Marsh Branch, at Wolf Branch, at the cypress swamp east of I-75 and at Cypress Creek.

Biologic Communities

The major biological communities in the vicinity of the proposed project consist of the following: pine flatwoods, ruderal, cypress swamp and hardwood bottomland and associated waterways (Figure 9). These diverse systems have the potential to support a varied and abundant wildlife, however, due to extensive disturbance and alterations of habitats, most areas are rather devoid of animal life. The streams crossing S.R. 674 have good water quality and support the characteristic fauna of such habitats, although Cypress Creek receives a significant amount of agricultural and urban runoff and is beginning to show stressed conditions as indicated by the appearance of algal mats.

Pine flatwoods in this region occur on low-lying areas with flat topography and relatively high water tables. The soils in pine flatwood are highly acidic and contain a dense, organic hardpan. This hardpan occurs two to six feet below the surface and is a result of seasonal fluctuation of the water table. Because many plants cannot penetrate this impermeable hardpan, they cannot reach the water below and growth is retarded.

Pine flatwoods in close proximity to the project area are dominated by longleaf pine and slash pine species. Other tree and shrub species occurring include scrub-live oak, water oak, wax-myrtle, gallberry and fetterbush. Ground cover vegetation includes saw palmetto, dwarf and other blueberry species, greenbriar, elephant's-foot, wiregrass and various other herbs and grasses.

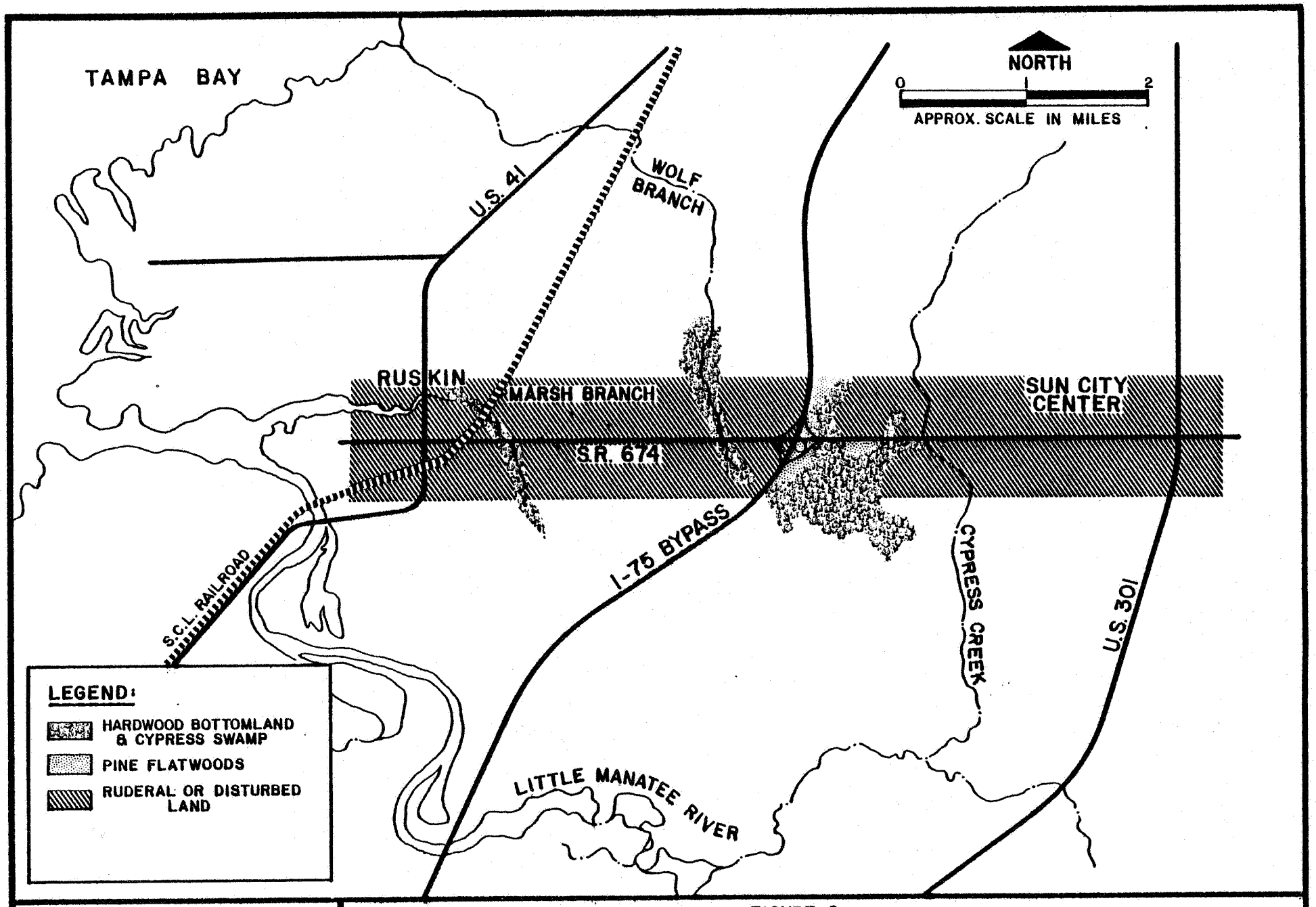

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FIGURE 9
VEGETATION ASSOCIATIONS

Flatwoods along the corridor have been subject to selective clear cutting and as such many of the flatwood communities have a rather sparse canopy. In addition, fire has been restricted from most areas and hardwoods species have begun to invade in the understory. In one section, a severe burn has occurred which killed most mature trees. Other areas which were formerly flatwoods have been cleared for pasture and other uses.

The fauna utilizing these areas include cotton rats, cotton mice, rabbits, quail, raccoon, dove, snakes, frogs, lizards and song birds. Due to the extensive disturbance and rather large human population of this area, it is doubtful that larger animals such as deer and bobcat which frequent flatwoods, are present in significant numbers in the project area.

Two types of hydric forests occur on lands adjoining S.R. 674. These include cypress swamp and hardwood bottomland and its associated transitional zone. Areas which support these communities are characterized by regular inundation by water and highly organic hardpans. However, these characteristics have been altered to some extent by stream channelization along Marsh Branch. These forests are found in depressed areas along Marsh Creek, Wolf Branch and between I-75 interchange and Cypress Creek.

The major portion of the corridor is composed of ruderal type vegetation. This is a result of prior land clearing of native vegetation, predominately in pine flatwoods. This community is dominated by a number of pioneer species such as wax myrtle, bahia grass, goldenrod, and ornamental species. Generally, the fauna of such area is composed of urban and ubiquitous types. However, most of this habitat type is under continual manipulation by man and offers little in the way of denning or feeding sites for many animals. Food plants available for wildlife consist mainly of grasses and sedges. Bare substrate occurs in some areas, while most sections are dominated by native or introduced grass species. Australian Pine is the most common tree species of this habitat.

Rare and Endangered Species

For the purpose of this study, rare and endangered species have been identified from both federal and state listings. The U.S. Fish and Wildlife Service published in 1978 a complete listing of endangered or threatened wildlife species. State listings include those of the Florida Game and Freshwater Fish Commission published in 1979.

The project area was field reviewed by a qualified biologist for the purpose of evaluating possible impacts upon endangered and threatened species. No individuals, nests, burrows, or other signs of any such species were actually sighted, nor is the project located in an area designated as critical habitat by the Department of the Interior.

Habitat types noted in the biological assessment have the potential of supporting several endangered and threatened species. The open areas, such as improved pastures, are suitable for the southeastern kestrel (Falco sparverius paulus). The three streams provide habitat for the American alligator (Alligator mississippiensis), and the ecotone where pine flatwoods meet swampland provide marginal habitat for Sherman's fox squirrel (Scuirus niger shermani). The pine

flatwoods are marginally suitable for the southern bald eagle (Haliaeetus leucocephalus leucocephalus) and the red-cockaded woodpecker (Picoides borealis); however, maps of known nests and colonies do not indicate any. The cypress swamps offer marginal habitat for the osprey (Pandion haliaetus). All of the relatively undisturbed parts of the project area are suitable for the eastern indigo snake (Drymarchon corais couperi).

Only the eagle, woodpecker, and alligator are on the Federal lists. The remainder are from the Florida lists.

Considering the great tolerance of the alligator for human activity, the apparent absence of the woodpecker and the eagle, and the fact that the project is on existing alignment, it appears that there will be no significant impact upon any endangered or threatened species.

PHYSICAL ENVIRONMENT

Air Quality

Vehicular traffic is the primary emission source affecting air quality of this area, since no major point sources exist in the immediate vicinity of the project. The internal combustion engine has been identified as a major source of some air pollutant emissions. In 1970, internal combustion engines were responsible for approximately 73 percent of the carbon monoxide (CO), 56 percent of the hydrocarbons (HC), and 50 percent of the nitrogen oxides (NO_x as NO_2) in the United States. These same sources only contribute minor amounts of other pollutant emissions. In 1970, nationwide internal combustion sources accounted for only 2.5 percent of the total particulates and 3.4 percent of the sulfur oxides (SO_x).[15]

The primary objective of this section is to outline the existing air quality in the vicinity of the proposed project in relation to national, state, and local Ambient Air Quality Standards (AAQS).

Hillsborough County is part of the West Central Florida Air Quality Control Region (Identification Number 052). This area is under the jurisidiction of the United States Environmental Protection Agency (U.S. EPA), Region IV, Atlanta, Georgia.

In addition to Federal regulations, air quality for this area is subject to restrictions imposed by the State of Florida Department of Environmental Regulation (FDER). The AAQS of FDER are the same as the National AAQS except for SO_2, which is more stringent. FDER's office with jurisdiction in Hillsborough County is the Southwest District Office located in Tampa, Florida. At the present time, a local agency exists in Hillsborough County with jurisdiction over air pollution matters. This agency is the Hillsborough County Environmental Protection Commission (HCEPC) also located in Tampa, Florida. HCEPC's AAQS are the same as the FDER standards.

Compliance with the AAQS can be verified through EPA attainment designations. Since the 1977 amendments to the Clean Air Act, as amended 42 U.S.C. 7609 et. seq., local and state air pollution control agencies must define borders of nonattainment areas for any air pollutant with a corresponding AAQS. A "nonattain-

ment" area is an area that for any air pollutant, as shown by monitoring data, or calculated by air quality monitoring, exceeds any national AAQS for such pollutant. These area designations are listed in the March 3, 1978 Federal Register, 43 F.R. 8962, and subsequent promulgations.

The S.R. 674 project area has been studied and found to be classified as "Better Than National Standards" for total suspended particulates. In addition, the project area is classified as "Better Than National Standards or Cannot Be Classified" for SO_2, photochemical oxidants, NO_2 and CO. (Note that since this designation was given, the AAQS for photochemical oxidants has been modified to regulate ozone. The effects of this change on the project area attainment status are not yet known.)

Due to the low quantities of SO_2 and particulate matter emitted from internal combustion engines (as documented previously), these pollutants will not be considered in this analysis.

A review of countywide annual arithmetic mean nitrogen dioxide concentrations in the "Environmental Quality 1977" report published by HCEPC indicates that in the southern portion of Hillsborough County the NO_2 levels are less than 40 percent of the AAQS (and in no case exceeded the AAQS). This indicates that the project site is most likely to be in compliance with the AAQS for NO_2.

Review agencies are not presently requesting NO_2 analysis for this type of project, and since modeling capabilities are limited due to the complex chemical reactions involved, NO_2 will not be considered further in this analysis. An additional automobile air pollutant to be analyzed will be lead which is addressed later in this report.

Throughout this analysis, hydrocarbons will be discussed from a pollutant-burden approach. This method allows for a comparison of existing year HC emission levels (in tons per year) to future HC levels. Carbon monoxide will be discussed in a similar manner, as well as from the ambient air concentration approach (in milligrams per cubic meter). CO and HC will be analyzed on a site-specific basis.

To establish background and existing ambient air quality for CO, a microscale analysis of the project area was conducted. The microscale region of a roadway is defined as the area within 1,500 feet of the roadway in the downwind direction. Beyond this microscale region, the roadway does not significantly affect ambient carbon monoxide concentrations (California Department of Transportation, 1976).

To obtain existing ambient air CO levels, modeling based on current (1978) traffic counts was performed. The results are tabulated in the Air Pollution Impact section of this report. The highest 1-hour CO concentration estimated under current conditions was 12.8 mg/m^3 (11.2 ppm). The highest 8-hour CO concentration estimated was 5.4 mg/m^3 (4.7 ppm). These levels are below the AAQS's. The highest 1-hour and 8-hour estimated CO concentrations represent only 32 percent and 47 percent of the AAQS's.

Background CO concentrations utilized in this study were estimated based on ambient CO monitoring conducted in areas similar to this project location (i.e., I-95 Interchange with St. Joe Road, Flagler County, Florida; Granada Bridge,

S.R. 40, Ormond Beach, Florida; HCEPC monitoring stations and additional data compiled by the department). The most appropriate background level for the 1-hour CO concentration was 1.7 mg/m^3, and the 8-hour CO concentration was 1.1 mg/m^3.

Noise

Ambient noise level monitoring and traffic counts were conducted at eight sites along S.R. 674 between U.S. 41 and U.S. 301 on May 2 and 3, 1979. Measurements were made with a General Radio Company Type 1933 Precision Sound Level Meter and Analyzer. The specifications for this instrument meet ANSI 51.4-1971 standards for Type 1 (precision) Sound-Level Meters. Throughout this report, the L_{10} (h) noise level is defined as that sound level, measured on an A-weighted decibel scale (dBA), which is exceeded 10 percent of the time during a 1-hour period.

Eight sites along the project corridor were monitored for ambient noise levels. Traffic data and distance relationships of the receptors to the roadway were obtained during the monitoring periods. A comparison of ambient readings and computer modeling noise level estimates indicated that observed and estimated levels were within 3dBA. This comparison or calibration indicates that the computer model described later in this report is capable of predicting reasonable noise level estimates based on existing and projected traffic volumes and design conditions.

Water Quality

Surface water bodies in the immediate project vicinity include three streams: Cypress Creek, Wolf Branch and Marsh Branch. There are no outstanding Florida Waters associated with these streams and all are classified as Class III waters.

Cypress Creek and Marsh Branch drain into the Little Manatee River and Wolf Branch drains into Tampa Bay. There are no major industrial waste water treatment plants or sewage waste water treament plants upstream from S.R. 674 on any of these waterways. Pollutants would come mainly from agricultural enrichment or from runoff associated with roadways of the area. The major source of water for streams in the immediate area of S.R. 674 is from stormwater runoff. However, upstream marshes and associated wetlands drain into these systems.

The quality of stormwater runoff depends on a number of variables including rainfall frequency, rainfall rate, soils, vegetation, slope, travel distance, and total watershed area. In addition, pollutant loads vary with the amount and type of impervious coverage relative to the amount and type of pervious area. Pollutants found in stormwater runoff include nitrogen, phosphorous, sediment, sulfate, lead, pesticides, biological matter, bacteria, and petroleum products. The most likely pollutant source affecting stormwater quality will be vehicular traffic and resultant pollutants which principally include petroleum products and sediments.

The main aquifers of this area are the Floridan aquifer (artesian) and the shallow water table aquifers. Any recharge in this area would be through the slow recharge of the Floridan aquifer by leakage of the water table aquifer through the confining layer. Groundwater flow through the Floridan Aquifer is to the southwest, down-gradient from a potentiometric high area in Pasco County. The development site is located in an area where the potentiometric surface is less than five feet, which is representive of coastal areas in the region.

SECTION IV - ENVIRONMENTAL CONSEQUENCES

SOCIAL AND ECONOMIC IMPACTS

Displacments and Relocation Assistance

In accordance with Volume 7, Chapter 5, Paragraph 1, of the Federal-Aid Highway Program Manual, the District Right-of-Way Administrator has compiled a report entitled, "Conceptual Stage Relocation Plan", for the purpose of the determining the number of individuals, families, businesses and non-profit organizations to be relocated. Included in the report is a determination of the probable availability of decent, safe and sanitary replacement housing. Available resources for relocation include houses for sale or rent, commerical property and vacant lots.

A field survey by representatives of the FDOT District Relocation Offices shows that the number and type of displacees will depend upon the design alternate selected.

The results of this survey provide a detailed analysis of the type and number of relocatees on each proposed alternate of S.R. 674. Further information will follow by neighborhoods to give a more detailed description of the entire project.

There are four neighborhoods which are addressed in this Conceptual Stage Relocation Plan. Charts defining the characteristics of each neighborhood can be found in Appendix B. A resource listing can also be found in Appendix B.

a. S.R. 674 existing from U.S. 41 easterly to 15th Street S.E.

The subject project begins at the intersection with U.S. 41 in Ruskin. The local name for S.R. 674 west of the proposed Interstate 75 is College Avenue Southeast. The neighborhood has several retail business establishments located at the intersection of U.S. 41 and S.R. 674. These businesses are locally owned, but do have a seasonal clientele from all over the United States during the winter months. At the southeast quadrant of this intersection is a public school. The remainder of the neighborhood east of U.S. 41 to the Seaboard Coastline tracks consists of a residential area of single family dwellings. From the railroad tracks easterly to 15th Street Southeast, S.R. 674 proceeds through rural terrain. This area contains mostly frame houses that are over ten years old. Most of the nonvacant residential dwellings appeared to be in decent, safe and sanitary condition.

There are nine families and two businesses in this neighborhood. Also, there are three vacant single family residences and one vacant building. Seven of the nine families responded to our survey; they all live in single family homes except one family that lives in a mobile home. One of these residences is an Episcopal Parsonage. There is one family in need of special advisory services.

Their daughter has a disease of the spine and is a special therapy patient; however, she does not require any walking aids, such as a wheelchair. There will be adequate community facilities in southern Hillsborough County as well as in nearby Tampa. The two businesses are a fast-food restaurant and a real estate broker, both of whom have a specialized clientele or cultural orientation.

There will be sufficient residential and business resources for owners and tenants in the general area of the project. Relocatee influx into neighborhoods where replacement housing is available will have a minimal effect as the ratio of available housing to displacees is about three-to-one at the present time.

b. S.R. 674 one-way pair with 5th Avenue S.E. from U.S. 41 easterly to 15th Avenue S.E.

This proposed alternate involves the segment of S.R. 674 between U.S. 41 and 15th Street Southeast. The proposal would use 5th Avenue Southeast as a one-way street westbound and the existing S.R. 674 alignment (College Avenue Southeast) as a one-way street eastbound. Fifth Avenue Southeast is a totally residential street with five single family residences to be displaced. There will be no businesses displaced on this alternate. There are five residences on S.R. 674 (College Avenue Southeast) that will be affected if either the existing or one-way pair alternates are used. There will be no residential displacements west of 4th Street Southeast which includes the intersection with U.S. 41, if this alternate is selected.

There are ten residences, all of which are single family dwellings. Most of these dwellings are of frame construction and appear to be in decent, safe and sanitary condition. There are two vacant single family dwellings and one vacant building on this alternate; they will also be affected if the existing alternate is selected. Most families are owner occupants. There is one family on this alternate in need of special advisory services. This is the same family that is on the existing alternate with the 13 year old girl who has a spinal disease. There is one family of minority status. There will be adequate community facilities in the southern Hillsborough County as well as nearby Tampa.

There will be sufficient residential and business resources for owners and tenants in the general area of the project. Relocatee influx into neighborhoods where replacement housing is sought will have a minimal effect as the ratio of available housing to displacees is about three-to-one at the present time.

c. S.R. 674 from 15th Street S.E. easterly to the proposed Interstate 75 Interchange.

This neighborhood is on the existing alignment. S.R. 674 proceeds through a rural area in this neighborhood with both residences and businesses. The residences are mostly older frame homes and the businesses are relatively new, serving local clientele. Most of the residential dwellings appear to be in decent, safe and sanitary condition.

There are six families in this neighborhood, four responded to the survey. In addition, there are two vacant single family houses in this neighborhood. There are no minorities in this neighborhood. There is one family in need of special advisory services. A member of this family has an intestinal disease, emphysema, and sugar diabetes. In addition, this individual needs a wheelchair because he is unable to walk. All families in this neighborhood own their dwellings. There are six businesses in this neighborhood. In addition, there is one vacant building. Most of these businesses are service type businesses that serve no specific cultural orientation or specialized clientele. There will be adequate community facilities in the general area of the project.

There will be sufficient residential and business resources in the general area of the project. Relocatee influx into neighborhoods where replacement housing is sought will have a minimal effect as the ratio of available housing to displacees is about three-to-one at the present time.

d. S.R. 674 from the proposed Interstate 75 Interchange easterly through Sun City Center to U.S. 301.

This segment of the proposed project proceeds through a mixture of rural land and the urbanized area of Sun City Center. Most of the necessary right-of-way for this segment of the project has been previously acquired. The only relocation situation is a new building under construction at the southeastern quadrant of the intersection of S.R. 674 with Pebble Beach Boulevard in Sun City Center. The building is owned by Bess Janes Realty. This is a service business that serves no specific cultural orientation or specialized clientele. There are no residential relocatees for this neighborhood.

There will be sufficient business resources in the general area of the project for the one relocatee.

Last Resort Housing. When comparable replacement housing is not available, the Department will provide housing by using one of several methods, as well as some new and innovative approaches. The first method would be to relocate and if necessary rehabilitate or refurnish the existing dwelling the tenant is in.

The second method would be, if necessary, to construct a new comparable dwelling.

A final method would be the transfer from the General Services Administration to the Department of any real property surplus to relocate displacees.

All relocation procedures will adhere to the guidelines set forth under Last Resort Housing provisions in the Florida Department of Transportation R/W Manual 4.6.

In order to minimize the unavoidable effects of right-of-way acquisition and displacement of people, the Florida Department of Transportation will carry out a right-of-way and relocation program in accordance with Florida Statutes, Chapter 337.09(4), and the Uniform Relocation Assistance and Real Property Acquisition Act of 1970 (Public Law 91-646).

The Department of Transportation provides advance notification of pending right-of-way acquisition. Before acquiring right-of-way, all properties are appraised on the basis of comparable sales and land use values in the area. Owners of property to be acquired will be offered and paid fair market value for their property rights.

No person lawfully occupying real property will be required to move without at least 90 days written notice of the intended vacation date, and no occupant of a residential property will be required to move until decent, safe and sanitary replacement housing is "made available". "Made available" means that the affected person has either by himself obtained and has the right of possession of replacement housing, or that the Department of Transportation has offered the relocatee decent, safe and sanitary housing which is within his financial means and available for immediate occupancy.

At least one relocation agent is assigned to each highway project to carry out the relocation assistance and payments program. A relocation agent will contact each person to be relocated to determine individual needs and desires, and to provide information, answer questions, and give help in finding replacement property. Relocation services and payments are provided without regard to race, color, religion, sex or national origin.

All tenants and owner/occupant displacees will receive an explanation regarding options available to them, such as (1) varying methods of claiming reimbursement for moving expenses, (2) rental of replacement housing, either private or publicly subsidized, (3) purchase of replacement housing, and (4) moving owner-occupied housing to another location.

Financial assistance is available to the eligible relocatee to: (1) compensate the relocatee for the costs of moving from homes, businesses and farm operations acquired for a highway project, (2) make up the difference, if any, between the amount paid for the acquired dwelling and the costs of an available dwelling on the private market, (3) provide reimbursement of expenses such as legal fees and other closing costs incurred in buying a replacement dwelling or in selling the acquired property to the Department of Transportation, or (4) make payment for any increased interest cost resulting from having to get another mortgage at a higher rate. Replacement housing payments, increased interest payments, and closing costs are limited to $15,000 combined total.

A displaced tenant may be eligible to receive a payment, not to exceed $4,000 to rent a replacement dwelling or room, or to use as down payment, including closing costs on the purchase of a replacement dwelling. Brochures which describe in detail the right-of-way acquisition program and the relocation assistance and payments program are distributed at all public hearings and are made available upon request to any interested persons.

Community Cohesion

Potential impacts to community cohesion in the Ruskin and Sun City Center communities are minimal, and would vary in the Ruskin area depending on the alignment chosen. All alternates in the Sun City Center area would basically follow the existing S.R. 674 alignment which bisects the community. The proposed ac-

tion, while providing improved access to the community, could impede north/south pedestrian traffic in this elderly community. Therefore, it is recommended that pedestrian signals be installed at present and future signalized intersections in the Sun City Center area.

In the Ruskin area, implementation of the one-way pair alternate, with 5th Avenue, S.E., being utilized as the northern leg, would significantly increase traffic volumes and the associated impacts through a stable residential community. However, since the proposed facility will not have limited access and would include sidewalks, it should not serve as a barrier separating established neighborhoods.

Along most of its length the proposed action follows the existing roadway alignment, which is sparsely populated and should have no adverse community cohesion impacts.

Public Services and Facilities

The upgrading of S.R. 674 would provide a facility capable of maintaining acceptable traffic service for present and future traffic volumes. Accessibility to public facilities for area residents should be improved, and emergency service response times minimized.

The engineering design of the proposed project will not restrict access to public facilities. However, if the six-lane urban roadway is selected for the Ruskin area, the school drop-off at the Ruskin Elementary School along S.R. 674 would have to be relocated. The six-lane alternative would require approximately 38 feet of right-of-way in front of the Ruskin Elementary School currently being used for parking and a bus drop-off. Additional access and a bus drop-off location are available at the school site. Approximately 100 students cross S.R. 674 at 2nd Street. If a six-lane roadway is constructed along S.R. 674, approximately 26,000 vehicles per day would be placed in front of the school. The one-way pair alternate would reduce the traffic volume by 50 percent and would be constructed within existing right-of-way in the school area.

The pedestrian crossing needs for students attending Ruskin Elementary School have been discussed with the Hillsborough County School Board. It is recommended that the school crossing guard continue to be stationed at 2nd Street to assist children crossing S.R. 674. For non-school hours it is recommended that pedestrian signals be installed adjacent to the school at the intersection of S.R. 674 and U.S. 41.

Utilities

The project area is served by numerous utilities which are generally located within, or cross the existing S.R. 674 right-of-way. Where utility conflicts exist with the proposed roadway, normal utility relocation will be required.

The cost of utility relocation within public rights-of-way is normally the burden of the utility owner.

Economic Impact

The economic impact of the proposed action must be considered in light of its planned construction concurrent with that of I-75. In isolation of this fact, the economic impact on the region would be minimal; the primary economic impact being the provision of a stronger link between the two major economic activity centers in the area, Ruskin and Sun City Center. However, the greatly increased accessibility afforded the study area by I-75 primarily, and an upgraded S.R. 674 secondarily, in combination with the growth pressures in southern Hillsborough County could;

- o Reinforce the growing tourist industry in the area,
- o Accelerate the transition of the area from rural to urban/suburban,
- o Increase commercial development along S.R. 674, and
- o Increase the potential for industrial development in the area.

CULTURAL RESOURCE IMPACTS

Historic and Archaeologic Resources

Located on the west side of U.S. 41 approximately 600 feet north of S.R. 674 is the Miller House Ruskin Women's Club. While this structure is listed on the National Register of Historic Places no adverse impacts to the site will occur. This determination and the conclusion that the proposed action will have no effect on any archaeological or historical sites or properties listed or eligible for listing on the National Register or otherwise of national, state, or local significance is documented by an August 29, 1980 letter from the Deputy State Historic Preservation Officer (see Appendix). If such sites are unearthed during construction, the project engineer will notify the State Historic Preservation Officer. His office would make a determination as to the significance of the find and its deposition.

Parks and Recreation Areas

There are no 4(f) properties as defined by the Department of Transportation Act of 1966, to be directly or indirectly affected by this proposed project.

NATURAL ENVIRONMENT IMPACTS

Vegetative

Construction of the proposed action, since it will utilize primarily existing roadway alignments, will have minimal vegetative impacts, which would vary only

slightly between alternatives. Except for wetland areas, which are evaluated in the following section, there are no significant stands of vegetation along S.R. 674 to the north or south. The construction, for the one-way pair alternate, of a new three-lane facility from the area of the existing S.R. 674 northwesterly to 5th Avenue S.E. would involve no significant vegetation removal.

"Natural lands" in the vicinity of the project area have been altered in the following ways: (1) pine flatwoods have been cleared and drained to provide pastureland and/or sites for residential or commercial development; (2) pine flatwoods have been lumbered; and (3) wooded swamps and hardwood bottomland forests have been reduced in acreage and ecological value by drainage. Due to these extentive modifications, the loss of the acreages associated with the proposed project, is not considered to be of major local or regional importance.

Short-term construction impacts on vegetation may include the effects of increased erosion and fugitive dust. However, the amount of erosion/siltation should be minimial due to the relatively flat topography and small amounts of land area that will be cleared for rights-of-way. The construction area will also be prepared for revegetation and reseeded using methods approved by the Florida Department of Transportation and the Federal Highway Administration. Therefore, erosion and fugitive dust problems are expected to be of short duration and minor significance. The disposal of brush after land-clearing and waste materials during construction may require minor amounts of burning; however, such burns will be of short duration and will be performed in accordance with state and county ordinances. Portions of Cypress Creek will be cleaned and regraded within the right-of-way. Since the vigor and diversity of vegetation in and bordering the creek is low, no significant adverse impacts should accompany this action.

Wetlands

In accordance with Executive Order 11990, Protection of Wetlands,[11] impacts on wetland areas have been carefully considered in planning for the proposed roadway. Water related sensitive areas will likely experience construction impacts due to existing facilities being altered for the proposed action. The major impact to wetland vegetation will occur where existing forested lands are cleared to widen S.R. 674 (Figure 10).

Marsh Branch - Removal of wetlands will be minimal and will vary between alternatives. If the existing S.R. 674 alignment is used for multi-laning, approximately 0.4 acres (3,000 cubic yards) of wetlands will be filled. If the one-way pair is implemented, two crossings of Marsh Branch would be required, filling a total of approximately 0.3 acres of wetlands. However, the quality of this forested wetland has been reduced due to extensive disturbance of urban development and stream channelization.

Wolf Branch - The widening of S.R. 674 in the vicinity of Wolf Branch would result in the filling of approximately 0.9 acres (7,000 cubic yards) of wetlands.

Cypress Swamp - In the Cypress Swamp wetland, approximately 2.5 acres (21,000 cubic yards) of wetlands would be filled.

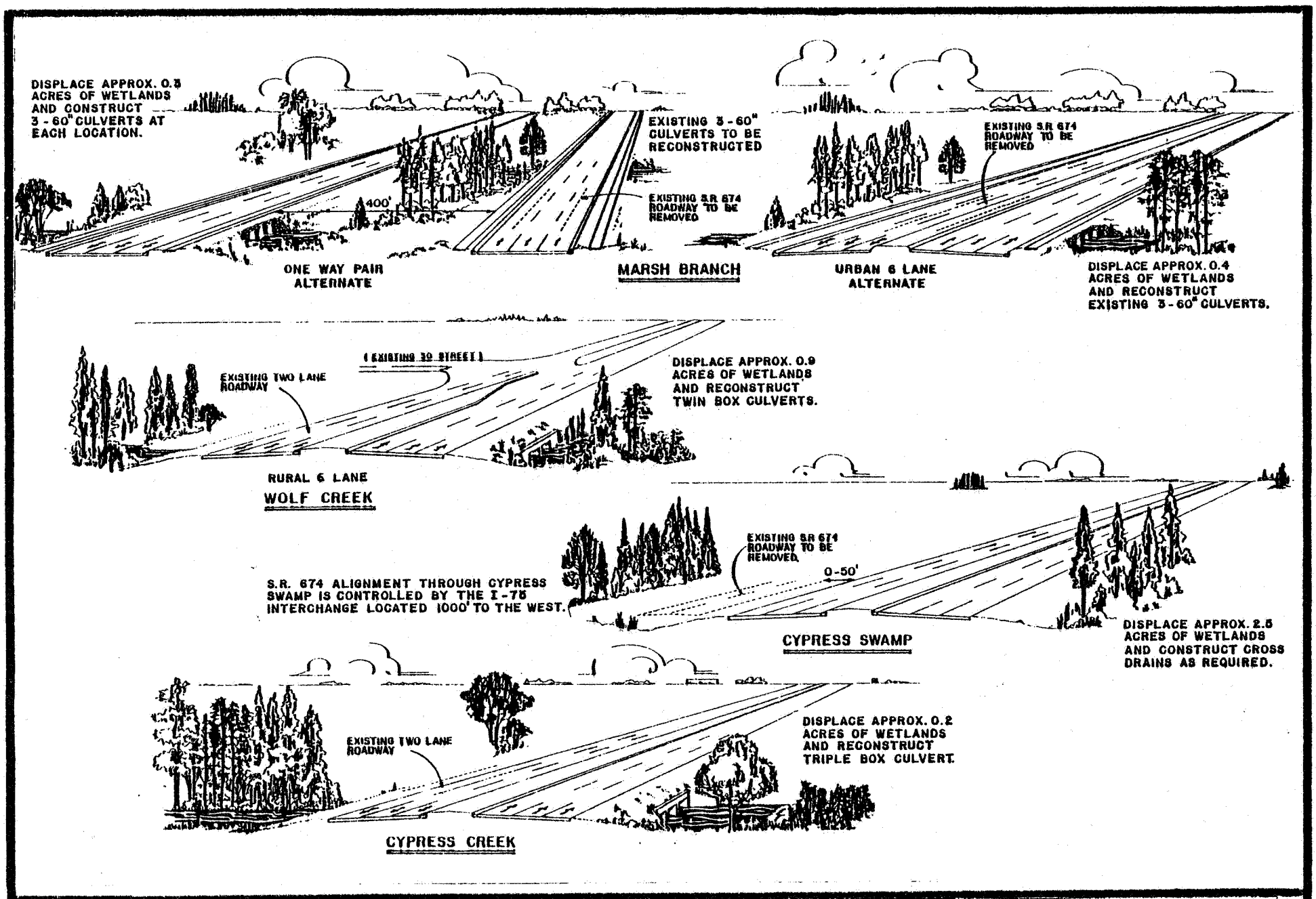

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FIGURE 10
WETLAND IMPACTS

Cypress Creek - In the vicinity of Cypress Creek, approximately 0.2 acres (2,000 cubic yards) of wetlands would be filled. Due to the altered state of cypress creek, the clearing of woody species adjacent to the right-of-way will have minimal impacts.

TABLE 4 - WETLAND IMPACTS

Alternative	Wetland Site	Wetland Removal Acres	Estimated Fill Cubic Yards
Existing Alignment	Marsh Branch	.4	3,000
	Wolf Branch	.9	7,000
	Cypress Swamp	2.5	21,000
	Cypress Creek	.2	2,000
	Total	4.0	33,000
One-way Pair	Marsh Branch (north)	.1	1,000
	Marsh Branch (south)	.2	2,000
	Total	.3	3,000

Anticipated construction will involve reconstructing the existing culverts to extend a minimum of 30 feet north and south of the proposed outside edge of the proposed rural roadway and to the right-of-way line for the proposed urban roadway section. At the cypress swamp, east of I-75, construction is anticipated to involve excavation and filling for the roadway with required cross drains.

Other associated impacts from construction at wetland sites include sedimentation of streams and leaching. Applicable regulations require that the contractor take sufficient precautions to prevent runoff of fuels, oils and other polluting materials into water supplies and surface waters of the state. Erosion control measures implemented during construction phase will minimize erosion and sediment loads. Upon completion of the project, appropriate vegetation will be cultivated along the right-of-way to ensure stable berms and banks.

Floodplain

Based on National Flood Insurance Program[17] maps, the proposed action will traverse the 100 year floodplain from the vicinity of U.S. 41 to the Seaboard Coastline Railroad, at the waterway crossings of Marsh Branch, Wolf Branch and Cypress Creek, and at the cypress wetland located east of the proposed I-75 interchange. Alternate alignments would not avoid or lessen floodplain encroachment and alternate corridors are not considered feasible as previously discussed in this document. The present two-lane roadway is elevated above the floodplain except for the intersection of U.S. 41 and the limited roadway segment west of U.S. 41. The proposed action would be constructed with elevations similar to the existing roadway except for the railroad grade separation.

The highway encroachment in the floodplain is considered insignificant because:

1) The roadway east of U.S. 41 will be above the floodplain and will have less than a 1 percent potential for interruption or termination of a transportation facility which is needed for emergency vehicles and an evacuation route.

2) The roadway widening and railroad overpass would displace approximately 10 acre-feet of an almost infinite floodplain. This encroachment is not considered a significant risk because of the low probability of flooding attributable to the highway.

3) The encroachment is not considered a significant adverse impact on natural and beneficial floodplain values.

The following comments discuss the floodplain encroachment in accordance with Federal-Aid Highway Program Manual Vol. 6, Chap. 7, Sec.3, Subsec. 2.

1) There is an insignificant risk of flooding attributable to highway encroachment.

2) There will be insignificant impacts on natural and beneficial floodplain values.

3) The proposed action will widen and improve an existing roadway through the floodplain that presently supports development of the floodplain. It is anticipated that development in this floodplain will continue with or without the proposed action.

4) Roadway elevation and drainage characteristics of the proposed widening will be similar or improved over the existing roadway to minimize floodplain impacts associated with the action.

5) Insignificant natural and beneficial floodplain values will be impacted by the action and no measures will be taken to restore and preserve these values.

Biologic Communities

Impacts on existing faunal communities will be primarily determined by the type and extent of permanent changes in the habitat surrounding S.R. 674. It is anticipated that the major impact will occur where existing forested lands are cleared to construct the roadway. Such clearing will eliminate the existing faunal communities; however, because of the relatively small area required for the development of the right-of-way, most of this loss is considered to be of low magnitude. Secondary impacts will result where forested areas are cleared along the right-of-way and maintained in an early successional state. Road construction will not significantly alter the present ecological function and attributes of the edge community.

In general, the significance of this wildlife habitat loss is not great because of the small area to be affected and its disturbed nature. Most populations in the area are currently self-sustaining. The magnitude of the impact of these activities on the site is small since proposed changes will not alter the present function of natural communities.

Fish and Wildlife

Because the proposed action will not displace any significant habitat, or have adverse impacts on waterways, it will have minimal impact upon fish and wildlife species. No critical habitats for rare or endangered species, as designated under the provisions of the Endangered Species Act of 1973 will be impaired. Potential sedimentation or erosion effects upon fish or wildlife will be minimized by strict adherence to Section 104 of the FDOT Standard Specifications for Road and Bridge Construction.[13] Since no rare, threatened or endangered species of wildlife were observed in close proximity to the study area, and because no vital habitats will be disrupted, the effect of the proposed project on species of special concern is considered negligible.

Noise resulting from construction activities may temporarily disturb some wildlife species, thereby causing them to avoid the area. This disturbance may interrupt feeding and reproductive activities. The significance of this impact is considered low because of the limited degree of disturbance involved and the ability of the animals to adapt. These impacts are considered reversible.

Visual Impact

The future visual experience of driving S.R. 674 from U.S. 41 to U.S. 301 will involve encounters of both urban and rural landscape. However, it is anticipated that the central project area which is rural will gradually transition to an urban/suburban landscape. The proposed railroad overpass would provide a vista of the western project area.

The view of S.R. 674 from the roadside should remain relatively constant from most locations, although it would be more prominent. Since the roadway largely follows existing roadway alignments, the proposed action will not present a new man-made element in the area, except for the one-way pair alignment which would place a new three-lane facility from the existing S.R. 674 alignment to 5th Avenue S.E. in Ruskin. Construction of a railroad overpass along the existing S.R. 674 alignment would block the view of the road from several homes.

PHYSICAL ENVIRONMENTAL IMPACTS

Air Pollution

The environmental consequences of the project on air quality are addressed in this section. The analysis was performed in accordance with the Federal-Aid Highway Program Manual, Volume 7, Chapter 7, Section 9, "Air Quality Guidelines" (FHPM 7-7-9). To accomplish this objective, the microscale analysis of carbon monoxide (CO) levels is presented, followed by the pollutant burden analysis used to assess CO and hydrocarbons (HC), and finally, comments on lead are presented.

For purposes of the air quality review, S.R. 674 alternatives were designed as No-Build, Build-1 and Build-2. No-Build represents resultant CO concentration of the proposed facility were not modified. Build-1 represents construction of

the proposed facility following the current S.R. 674 alignment. This analysis assumed that the roadway would initially provide 4, 12-foot wide travel lanes and the construction of 2 additional travel lanes within the median to occur by 1995. Build-2 represents the construction of the 1-way pair facility which would separate the westbound lanes from the original alignment east of the railroad to U.S. 41 using the 5th Avenue S.E. in Ruskin. The Build-2 alternative assumes that 3, 12-foot lanes in each direction of travel will be provided initially between U.S. 41 and just east of the railroad. East of the railroad to U.S. 301 the roadway construction is assumed to be the same as described above for Build-1.

Microscale CO Analysis - The microscale analysis included determination of receptor locations to represent major roadway corridor segments of interest. These segments were chosen based on two criteria:

1) Locations where the highest project CO concentrations were likely to occur; and

2) Locations where the general public is likely to have access over time periods specified by the Ambient Air Quality Standards (AAQS).

This analysis was performed for 1978 (current conditions), 1985 (estimated year of project completion), 1995 (10 years later), and 2005 (20 years after project completion).

The S.R. 674 project corridor is located in an area of rapidly changing land use and expanding population. This growth will be affected to a great extent by construction of the Interstate 75 interchange with S.R. 674. The affects on air quality of this interchange were considered in a previous Environmental Impact Statement. Therefore, I-75/S.R. 674 intersection is not addressed in this review. However, due to the anticipated growth resultant from the interchange, guidance of FHPM 7-7-3 and the two receptor criteria outlined above it was determined that seven (7) receptor locations would be necessary for appropriate consideration of air quality.

Figure 11 illustrates the 7 receptor locations utilized in this analysis. Results of the MOCAL computer output provide the predicted maximum 1 and 8 hour carbon monoxide concentrations. These are summarized in Table 6.

Comparison of the maximum predicted carbon monoxide concentrations to the ambient air quality standards indicates that violations are not predicted for either the 1-hour or 8-hour standard.

The results indicate that receptor A-1 will receive the highest CO levels generated by traffic along the proposed project. These levels are predicted to occur in 1985 with a 1-hour CO concentration of 9.6 mg/m^3, or 24 percent of the AAQS, and an 8-hour CO concentration of 4.4 mg/m^3, or 44 percent of the AAQS.

Receptor A-1 is highly influenced by traffic conditions at the intersection of S.R. 674 and U.S. 41. Consequently, A-1 receives contributions from both roadways with traffic speeds estimated at 15 miles per hour. The Build-1 alternative at A-1 yields the highest CO estimates of the 3 alternatives due to its higher traffic volumes. Build-2 yields the lowest CO estimates at A-1 since it displaces westbound traffic to the north onto 5th Avenue southeast.

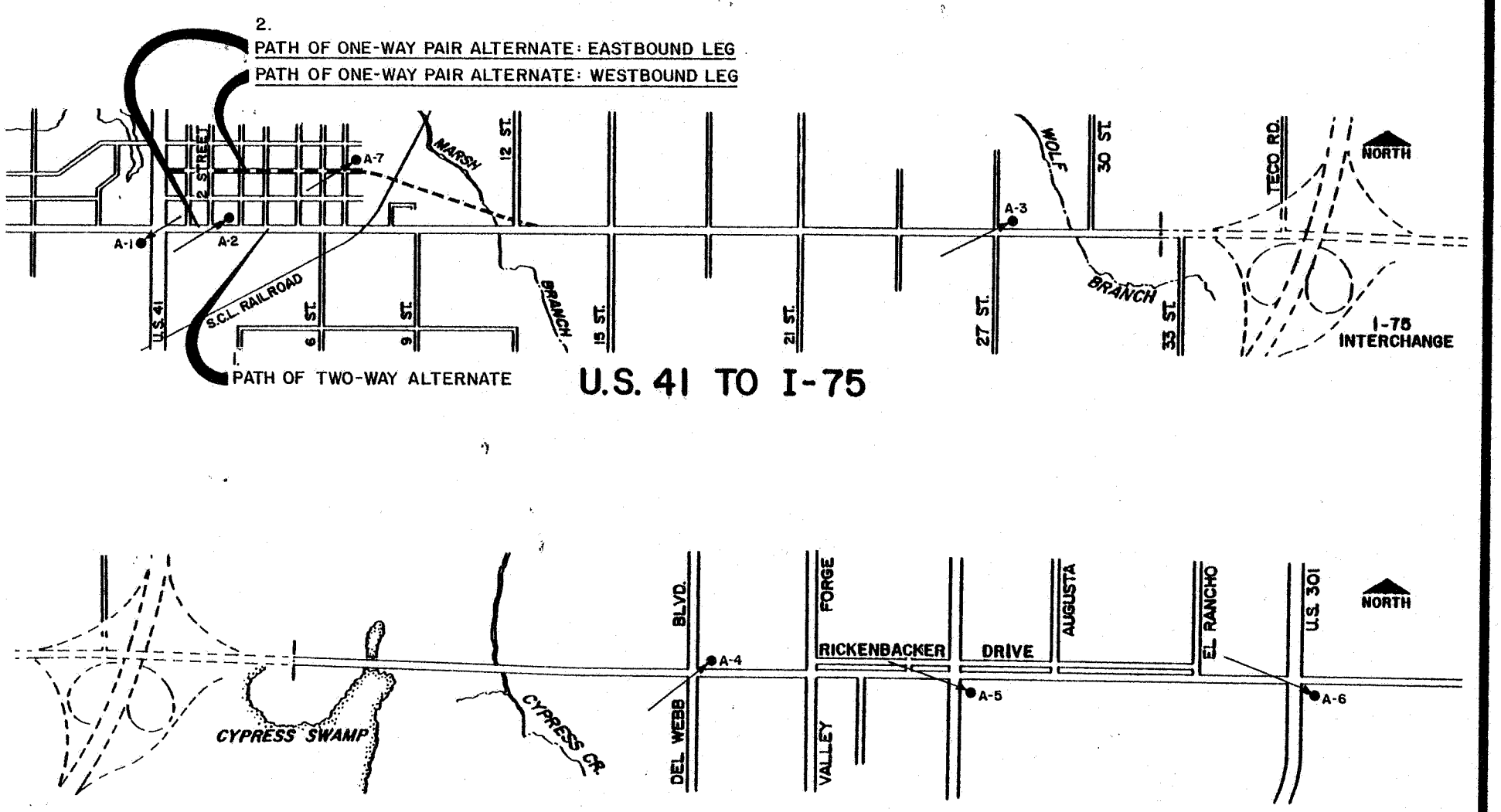

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FIGURE 11
AIR QUALITY MODELING RECEPTOR LOCATIONS & WIND DIRECTIONS

Table 5. Predicted Maximum 1-Hour and 8-Hour Carbon Monoxide Concentrations (mg/m^3) for S.R. 674 Between U.S. 41 and U.S. 301*

	Receptor Locations									
	A-1**			A-2			A-3		A-4	
Year	No-Build	Build-1***	Build-2***	No-Build	Build-1	Build-2	No-Build	Build	No-Build	Build
	Maximum 1-Hour CO Concentrations									
1978	12.8	--	--	3.6	--	--	4.1	--	4.3	--
1985	8.4	9.6	7.0	6.9	5.2	3.9	5.5	3.9	6.3	3.5
1995	6.1	8.0	5.9	4.8	3.8	3.5	4.0	3.5	4.4	3.3
2005	6.3	8.3	6.2	4.8	3.8	3.6	4.0	3.7	4.4	3.8
	Maximum 8-Hour CO Concentrations									
1978	5.4	--	--	1.9	--	--	2.0	--	2.1	--
1985	3.7	4.4	3.3	3.1	2.4	1.9	2.6	2.1	2.9	1.9
1995	2.8	3.7	2.9	2.2	2.2	1.8	1.9	1.9	2.1	1.8
2005	2.9	3.8	3.0	2.2	2.3	1.8	1.9	2.0	2.1	2.0

	A-5**		A-6		A-7		
Year	No-Build	Build	No-Build	Build	No-Build	Build-1***	Build-2***
	Maximum 1-Hour CO Concentrations						
1978	4.1	--	5.0	--	2.2	--	--
1985	4.3	4.2	4.9	3.7	2.0	2.0	3.9
1995	3.3	3.9	3.8	3.6	1.9	1.9	3.5
2005	3.4	4.5	4.0	4.1	1.9	1.9	3.6
	Maximum 8-Hour CO Concentrations						
1978	2.4	--	2.4	--	1.4	--	--
1985	2.1	2.2	2.3	2.0	1.4	1.4	1.9
1995	1.7	2.0	1.9	1.9	1.3	1.3	1.8
2005	1.7	2.3	2.0	2.4	1.3	1.3	1.8

* Predicted levels include 1-hour and 8-hour background CO concentrations of 1.7 mg/m^3 and 1.1 mg/m^3, respectively.

** Receptor sites utilized in the air quality modeling analysis were designated as A-1 through A-7; see locations in Figure 12.

*** Build-1 signifies use of the present roadway alignment for both directions of traffic; Build-2 signifies the one-way pair alternatives; and Build signifies either Build-1 or Build-2.

Note: State of Florida Ambient Air Quality Standards:
1-Hour: 40 mg/m^3, not to be exceeded more than once per year.
8-Hour: 10 mg/m^3, not to be exceeded more than once per year.

Receptor A-1 indicates the greatest difference between the Build-1 and Build-2 alternatives. This difference amounts to a 2.6 mg/m^3 advantage for Build-2 over Build-1 on the 1-hour averaging time and a 1.1 mg/m^3 advantage for Build-2 over Build-1 on the 8-hour averaging time.

An indication of the rapid drop in CO concentration as distance from the roadway increases is illustrated in Figure 12. Both receptors A-1 and A-7 illustrate that the build alternatives will increase CO concentrations in the immediate vicinity of the roadway as opposed to the No-Build alternative. This occurs at A-1 since the speeds are low near the intersection and the traffic volumes are higher for the build alternatives than for the No-Build alternatives. A-7 receives an increase in CO levels with the build alternatives since this roadway use would change from a collector facility to an arterial, hence, it will receive large volumes of traffic with the build alternatives. In both cases, however, the AAQS will not be exceeded.

Receptors A-2 through A-6, generally, indicate an improvement in air quality with construction of the build alternatives. The higher speeds possible with the build alternatives (30 to 50 miles per hour) are primarily responsible for the decrease in CO levels at these receptors.

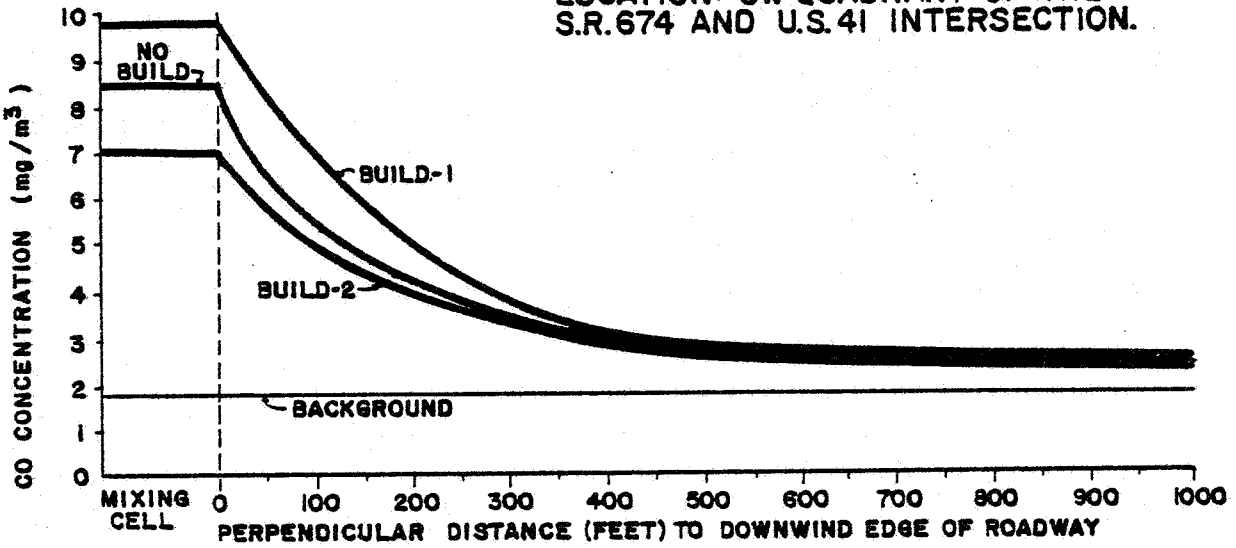
Pollutant-Burden Analysis - A pollutant-burden analysis was performed for the S.R. 674 corridor between U.S. 41 and U.S. 301, and is illustrated in Table 7. This analysis is a comparison of the project build and no-build conditions. The No-Build alternative indicates the lowest pollutant burden occurs in the current year. This maximizes in 1985 and decreases thereafter. This occurs since the roadway capacity is reached and vehicle emission controls are increasingly stringent in future years.

The build alternatives are combined since there is minimal difference in the pollutant burdens for Build-1 and Build-2. The 1985 pollutant burden is the highest and shows a decrease by 1995 due to the vehicle emission controls. By 2005 the increase in traffic volume exceeds the effects of decreasing vehicular emissions such that an increase in pollutant burden is indicated. However, the levels of the year 2005 do not exceed those of 1985.

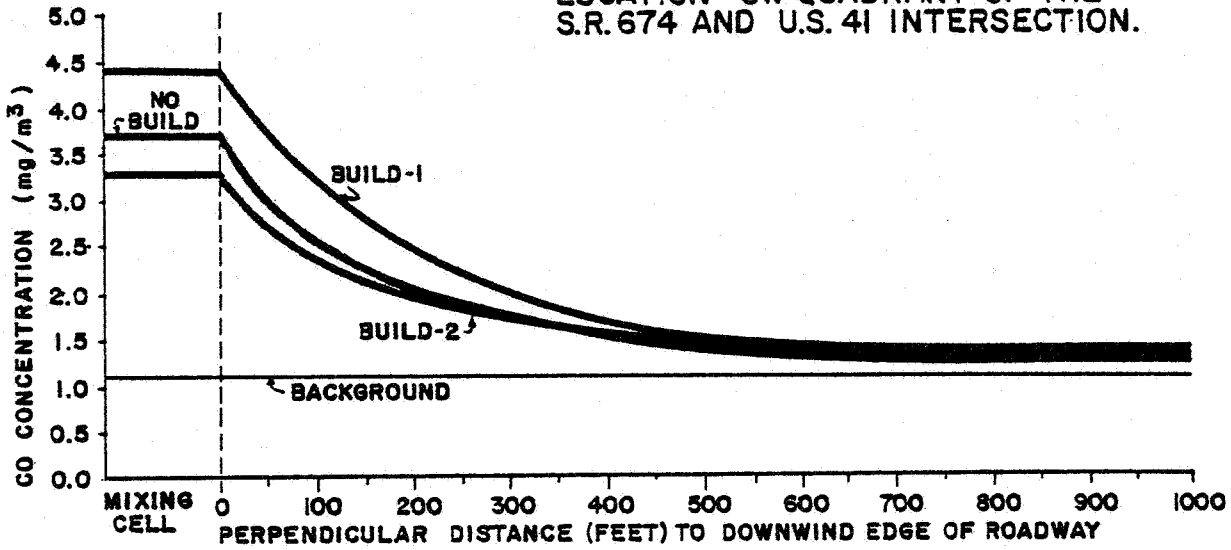
Generally, the build alternatives exhibit an improvement over the pollutant burdens which would be experienced under the No-Build project alternative. In 2005 the No-Build alternative indicates a slight advantage for the CO pollutant burden.

Lead Analysis - There is a National Ambient Air Quality Standard for airborne lead, but this project will not cause violation of the Standard. No Florida urbanized areas are listed by EPA as exceeding the present lead standard in 1975[16], and the average lead content of gasoline will be reduced by 91 percent between 1975 and the first year of operation of this project[16], with further reduction after the first year. Therefore, lead from this project will not have a significant effect on the environment.

PEAK 1-HOUR CO CONCENTRATIONS
STABILITY CLASS D, WIND SPEED 2 MPH
WIND ANGLE 22.5 DEGREES TO S.R. 674.
LOCATION: SW QUADRANT OF THE
S.R.674 AND U.S.41 INTERSECTION.



PEAK 8-HOUR CO CONCENTRATIONS
STABILITY CLASS D, WIND SPEED 2 MPH
WIND ANGLE 22.5 DEGREES TO S.R. 674.
LOCATION: SW QUADRANT OF THE
S.R.674 AND U.S.41 INTERSECTION.



BUILD-2 = ONE-WAY PAIR ALT.

BUILD-1 = TWO-WAY ALT.

STATE ROAD NO. 674 ENVIRONMENTAL ASSESSMENT	FIGURE 12 PEAK 1-HOUR AND 8-HOUR CO CONCENTRATIONS, 1985 AT RECEPTOR A-1

Table 6. Pollutant-Burden Analysis Summary (Tons/Year)
S.R. 674 Corridor - Between U.S. 41 and U.S. 301

Year	No Build	Build-1/Build-2
	HYDROCARBONS	
1978	108	--
1985	156	89
1995	110	71
2005	110	86
	CARBON MONOXIDE	
1978	857	--
1985	1576	953
1995	903	787
2005	903	921

Construction Air Emissions - During the construction period various operations will be conducted which will release or have the potential to release quantities of fugitive dust into the atmosphere. Specific operations which will be conducted include:

1) Mobilization;
2) Clearing and grubbing;
3) Utility relocation;
4) Drainage work;
5) Bridge work, pile driving;
6) Subgrade work;
7) Grading;
8) Base work;
9) Surface work; and
10) Clean-up.

These operations will require the use of heavy construction equipment and machinery including graders, scrapers, front-end loaders, trucks, pile drivers, air compressors, pumps, and heavy rollers. This heavy equipment usage will also contribute additional combustion-related pollutants to the atmosphere.

Noise

A noise assessment study has been conducted for the alternatives of this Type 1-B project. The purpose was to identify noise impacts and, where necessary, to investigate measures to minimize impacts associated with the construction improvement and operation of State Road 674. The procedures used are those estab-

lished in the Federal-Aid Highway Program Manual (Volume 7, Chapter 7, Section 3, "Procedures for Abatement of Highway Traffic Noise and Construction Noise.")

Noise Sensitive Sites - The impact on commercial properties near the S.R. 674/U.S. 41 intersection is represented by predictions at NR-1 in the northwest corner of the intersection (Figure 13). Noise levels at NR-2 represent the impact at the church in the northeast corner of the same intersection. NR-3 corresponds to a fenced area in the school playground southeast of the intersection. NR-4 corresponds directly to Ruskin Elementary. Homesites bordering S.R. 674 between U.S. 41 and the railroad are modeled by NR-5A, the geometric location of which corresponds to four buildings approximately 50 feet from the pavement or proposed pavement line. NR-5B represents homesites along the alignment of westbound lanes of the proposed one-way pair alternative. Separate consideration was given to buildings near the railroad by modeling site NR-6. This was necessary due to an embankment which will carry the proposed roadway over the railroad. The elevation of the roadway at this point will change the acoustic characteristics of the immediately surrounding area. The values predicted for NR-6 under the one-way pair alternative can be considered as representative of the maximum noise experienced by residents along either the westbound or eastbound traffic lanes.

NR-7 represents the structures most closely approaching S.R. 674 in the undeveloped section between S.C.L. railroad and Del Webb Boulevard.

Between Del Webb and Valley Forge Boulevards, NR-8 corresponds to the residential structures closest to the roadway. The Sun Hill Medical Center to the south of S.R. 674 is represented by NR-9. NR-10 corresponds to a church north of S.R. 674 west of Valley Forge Boulevard.

NR-11 represents a group of professional offices west of Pebble Beach Boulevard and north of S.R. 674. A motel in the northeast corner of the S.R. 674/Pebble Beach Boulevard intersection is represented by NR-12.

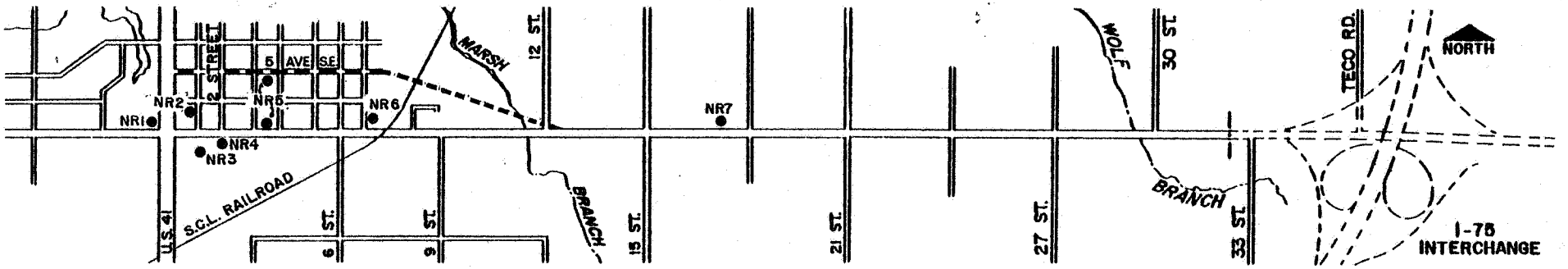
Between Pebble Beach Boulevard and U.S. 301, residential development extends to a line 90 feet to the north of the existing roadway and is modeled by NR-13. The maximum noise levels that will be experienced by residents near U.S. 301 was estimated by NR-15, at a point 100 feet from both roadways.

A motel in the southwest corner of the S.R. 674 and U.S. 301 intersection is represented by NR-14.

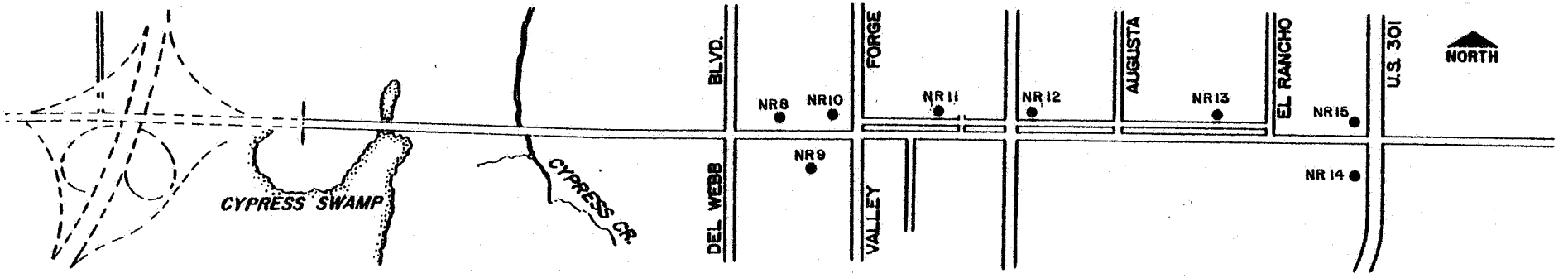
Prediction Methods - Future noise levels at the selected modeling sites were predicted by a computer program (PPLENV20) based on a model described in NCHRP Reports 117 (National Cooperative Highway Research Program, 1971) and 144 (National Cooperative Highway Research Program, 1973), with modifications approved by the FHWA for use in Florida (Florida Department of Transportation, 1977).

All noise levels are given in decibels as $L_{10}(h)$, defined as the A-weighted sound pressure level which is exceeded 10 percent of the time during a 1-hour period.

Worst-case traffic conditions were assumed by using the lesser of the peak-hour volume or volume at level of service C, thus maximizing the combination of speed and traffic volume. Design hourly truck volumes were used throughout.



U.S. 41 TO I-75



I-75 TO U.S. 301

NOTE:
AREAS SHOWN IN DASHED LINES ARE UNDER CONSTRUCTION.

STATE ROAD NO. 674 ENVIRONMENTAL ASSESSMENT	FIGURE 13 NOISE MODELING SITES

Results - Overall predicted $L_{10}(h)$ values can be seen in Table 8. Design year noise levels for mainline segments are found in Figure 14. Design year noise levels near intersections with U.S. 41 and U.S. 301 are found in Figure 15. FHWA Design Noise Level/Activity Relationships are found in Table 9.

Impacts were defined by differences between existing noise levels and levels predicted for future alternatives, or between two future alternatives.

Acoustic impacts were categorized as follows:

slight - less than 4 dBA;
moderate - 4-10 dBA;
significant - greater than 10 dBA or exceeds FHWA design noise levels.

Present (1978) vs. "No-Build" Alternative (2005) - The predicted existing noise levels range from 58 dBA at NR-5B to 72 dBA near U.S. 41 (NR-1), while interior noise levels range from 37 dBA at NR-10 to 28 dBA at NR-9. The higher noise levels occurred at commercial sites fronting on the roadway. Noise levels for present conditions are not predicted to exceed FHWA design criteria for the particular land use categories within the project corridor. The design year no-build exterior predictions show a maximum increase of 2 dBA over the present conditions with no sites expected to exceed criteria. Interior noise levels at selected noise sensitive receptors were found to be well within criteria. The no-build alternative would result in slight impacts when compared with existing conditions.

Present (1978) vs. "Build" Alternative (2005) - Between U.S. 41 and S.C.L. railroad the exterior design noise level is expected to be exceeded at four residential sites (NR-5A) under the two-way alternative. In addition, the school and five residential properties along this roadway segment will experience a moderate exterior impact due to a projected increase of 6 to 10 dBA over present conditions. However, interior noise levels at sensitive receptors will not exceed design criteria.

Construction of the one-way pair will, in general, result in exterior noise levels 1 to 2 dBA less than predicted levels for the two-way alternative. No structures are expected to exceed design exterior or interior noise levels with this alternative although an additional 21 residences along 5 Avenue S.E. will experience a projected increase of 10 to 12 dBA over present levels. Construction of the one-way pair would reduce the interior noise impact at the school by 7 dBA compared to the two-way alternative.

Construction of the railroad overpass will necessitate removal of the structures currently near that segment of roadway. The design year noise levels are seen to decrease for receptor NR-6 due to the resulting greater distance to the receptor and the noise pass-over due to elevation of the roadway.

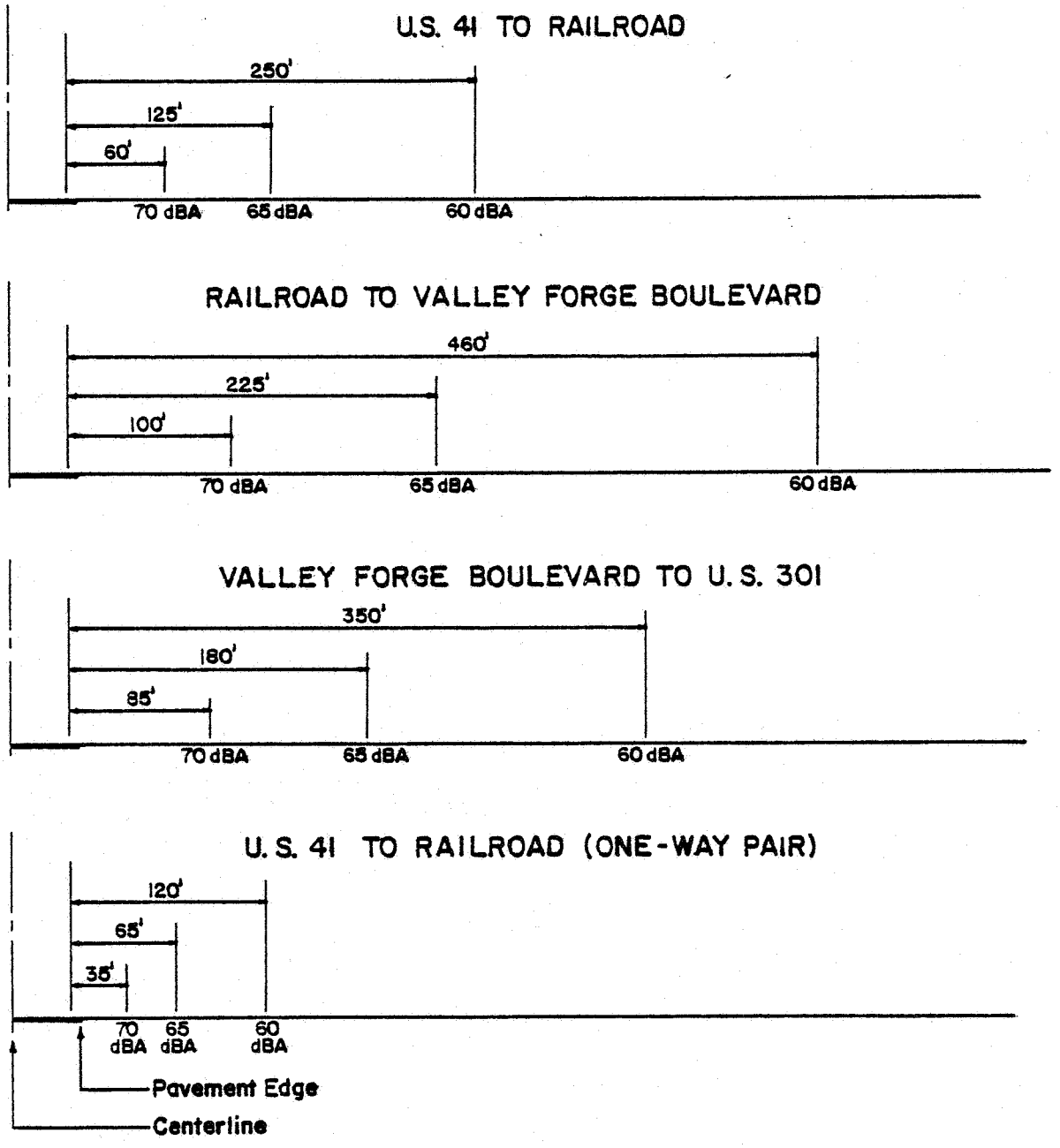
Between the railroad and Del Webb Boulevard exterior design noise levels are projected to be exceeded at two residential structures. Along this roadway segment a moderate impact is expected due to a 5 dBA increase over present conditions.

Between Del Webb Boulevard and U.S. 301 there are no expected violations of design criteria. The increase in noise exterior levels, however, is predicted to

Table 7. Noise Receptor Locations and Predicted L_{10} (dBA) Noise Levels

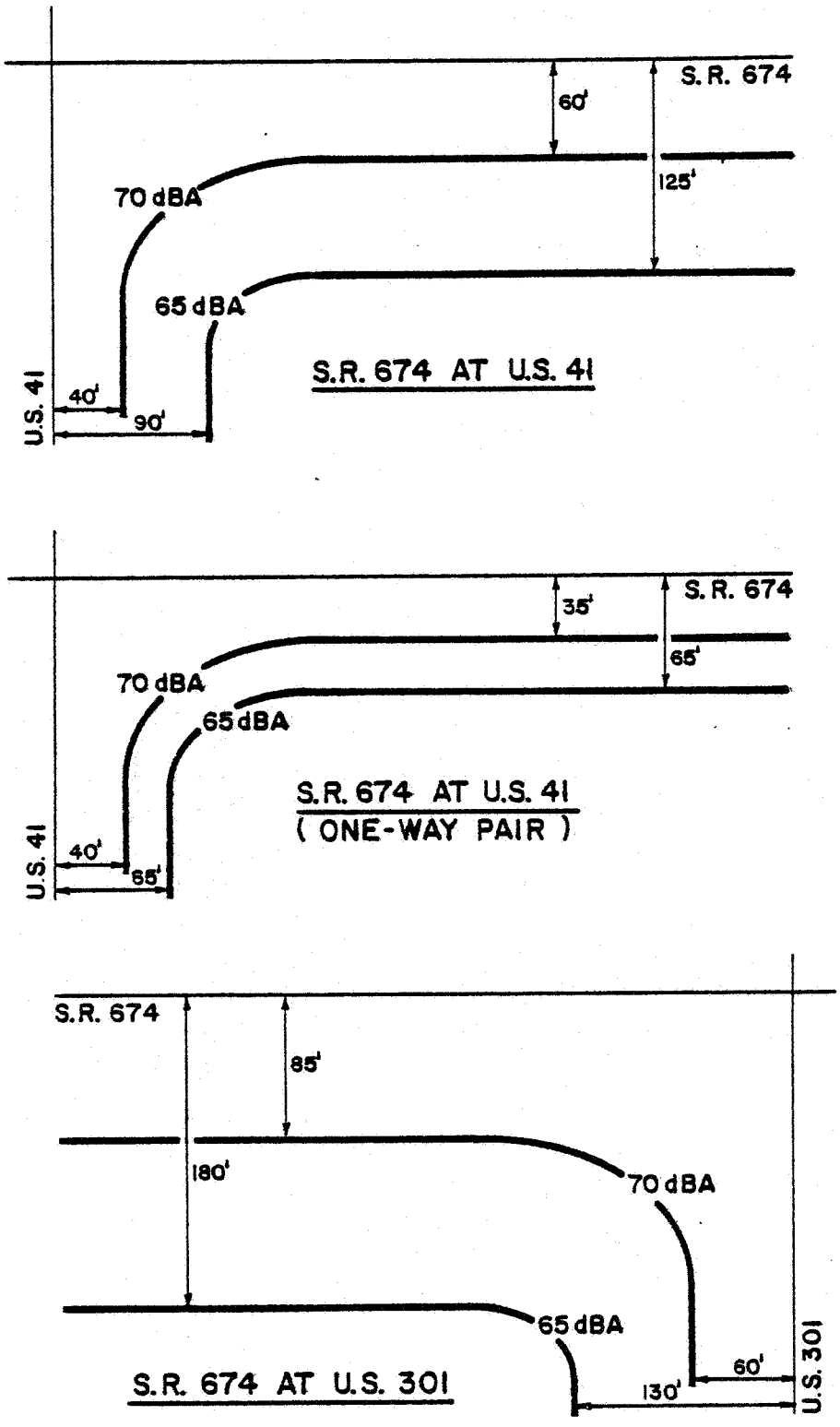
Site #	Description	Present Conditions* Dn**	Present Conditions* L_{10}	2005 No-Build Dn	2005 No-Build L_{10}	2005 Two-Way Corridor Dn	2005 Two-Way Corridor L_{10}	2005 One-Way Pair Dn	2005 One-Way Pair L_{10}	FHWA Design Noise Levels Exterior (Interior)
NR-1[a]	General Store	30[d]	72	30[d]	73	30[d]	73	30[d]	72	75
NR-2[a]	Church	225	(35)	225	(36)	205	(27)	220	(36)	(55)
NR-3[a]	Playground	95	61	95	63	45	67	95	65	70
NR-4	School	110	(35)	110	(37)	65	(45)	115	(38)	(55)
NR-5A[b]	Residences	45	64	45	66	35	71	45	70	70
NR-5B[b]	Residence	600	58[c]	600	58[c]	600	58[c]	30	70	70
NR-6	Residence	55	66	55	68	85	62	95	60	70
NR-7	Residences	65	67	65	67	65	72	NA	NA	70
NR-8	Residences	85	63	85	63	105	70	NA	NA	70
NR-9	Hospital	445	(28)	445	(29)	355	(40)	NA	NA	(55)
NR-10[a]	Church	125	(37)	125	(38)	135	(42)	NA	NA	(55)
NR-11	Office	105	62	105	63	115	68	NA	NA	(55)
NR-12[a]	Motel	135	(37)	135	(39)	165	(42)	NA	NA	(55)
NR-13	Residence	95	64	95	64	105	70	NA	NA	70
NR-14[a]	Motel	180	(37)	180	(39)	135	(45)	NA	NA	(55)
NR-15[a]	Residence	95	63	95	65	105	70	NA	NA	70

* Based on 1978 estimated traffic.
** Distance in feet to center of near lane of S.R. 674.
NA Not Applicable.
a Receives noise contribution from intersecting roadway.
b A is representative of structures near the present alignment.
B is representative of structures along 5th Avenue SE, the proposed alignment of the one-way pair (westbound lanes).
c Includes contribution from projected traffic on 5th Avenue SE.
d Minimum source to receptor distance accepted as input to the model.
() Interior L_{10}(dBA) Noise Levels.



NOTES:
1. This Figure applies to the build alternatives.
2. Distances measured from center of near lane.
3. Attenuation from buildings and vegetation not accounted for.

STATE ROAD NO. 674 ENVIRONMENTAL ASSESSMENT	FIGURE 14 YEAR 2005 TRAFFIC GENERATED $L_{10}(h)$ NOISE LEVELS AWAY FROM INTERSECTIONS



STATE ROAD NO. 674 ENVIRONMENTAL ASSESSMENT	FIGURE 15 YEAR 2005 TRAFFIC GENERATED $L_{10}(h)$ NOISE LEVELS NEAR U.S. 41 AND U.S. 301

Table 8. Design Noise Level/Activity Relationships*

Activity Category	Design Noise Levels - dBA $L_{10}(h)$	Description of Activity Category
A**	60 (Exterior)	Tracts of land in which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose. Such areas could include amphitheaters, particular parks or portions or parks, open spaces, or historic districts which are dedicated or recognized by appropriate local officials for activities requiring special qualities of serenity and quiet.
B**	70 (Exterior)	Picnic areas, recreation areas, playgrounds, active sports areas, and parks which are not included in Category A and residences, motels, hotels, public meeting rooms, schools, churches, libraries, and hospitals.
C	75 (Exterior)	Developed lands, properties, or activities not included in Categories A and B above.
D	--	For requirements on undeveloped lands.
E	55 (Interior)	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums.

* Reproduction of Figure 3-1 (inpart), Federal Highway Administration, Federal-Air Highway Program Manual, Vol. 7, Ch. 7, Sec. 3.

** Parks in Categories A and B include all such lands (public or private) which are actually used as parks as well as those public lands officially set aside or designated by a governmental agency as parks on the date of public knowledge of the proposed highway project.

range from 5 to 12 dBA. The greatest increase occurs at the hospital (NR-9), however, structural attenuation will reduce traffic generated interior noise levels below 55 dBA. The church exterior (NR-10) and approximately 55 residential properties (NR-8, 13, 15) would be moderately impacted by increasing noise levels.

"No-Build" Alternative (2005) vs. Build Alternative (2005) - As discussed above the noise level at sites near the railroad crossing would be reduced under the build conditions. In all other cases the build condition noise levels are greater than the no-build except for NR-2 which would receive an interior level of 36 dBA for either alternate. The greatest increases will occur as follows: along 5th Avenue SE if the one-way pair is constructed, at residences nearest the proposed pavement along the entire corridor, and at the hospital site since the proposed pavement will be much closer than the existing pavement. As previously noted, only slight impacts are expected for the no-build condition. Under the two-way alternative build condition, six residential structures are predicted to exceed exterior design noise criteria and, in general, increasing noise levels will create a moderate impact when compared to the no-build condition. Construction of the one-way pair alternative would result in two less residential structures exceeding design noise criteria, although implementation of this alternative will expose a significantly greater number of residential structures to moderately higher noise levels.

Abatement - FHPM 7-7-3 directs that alternative noise abatement measures for reducing or eliminating noise impacts be examined and evaluated. Abatement measures to be considered are traffic management, alterations of alignment, land use control, and vegetative and structural barriers. Sites identified as being impacted by the facility are considered in the following sections.

Traffic Management - The elimination or restriction of heavy truck traffic would reduce overall L_{10} noise levels 1-3 dBA. With this restriction the FHWA design noise levels would not be exceeded at any of the receptor sites. Some sites would still experience a 5-9 dBA increase in noise level, notedly the school and residences near U.S. 41, particularly under the one-way pair alternative. Restriction of truck traffic on S.R. 674 would be an impractical alternative, however, since the facility serves as a principal connector linking U.S. 41 and U.S. 301. A planned interchange with I-75 and the lack of nearby parallel facilities also add to the impracticality of this restriction.

A similar reduction of noise levels (2-3 dBA) could be achieved in areas away from intersections by lowering operating speeds along these segments. This would be particularly effective between the railroad and Del Webb Boulevard and in the free flowing sections between Del Webb Boulevard and U.S. 301. Future traffic flow considerations and operating conditions may make this method impractical, although it may be noted that as the area develops more urban character posted speeds may be less than those presently assumed for the facility.

Alignment - To achieve a 3-4 dBA reduction in noise level from a line source such as a roadway, the distance between the source and receptor must be doubled. For a change in alignment to be effectively used as a means for noise abatement, there must be sufficient open space. This open space is available between the railroad and Del Webb Boulevard, however potential noise sensitive receptors occur on both sides of the proposed alignment. Consequently, a realignment to

the north or south of the proposed alignment would not reduce the noise impacts as presented in this document.

Land Use and Zoning - Sufficient open space exists for consideration of land use restrictions between the railroad and Del Webb Boulevard on the south side of S.R. 674 between the school and the railroad. Predicted design year traffic generated noise levels are presented in Figure 15. These may be used as a guide

for establishing noise buffer zones or set back lines through zoning and new construction restrictions. Such controls could be initiated by local planning agencies.

Roadside Plantings - To achieve a significant reduction in noise levels through use of vegetative barriers requires at least 100 feet of dense foliage. While sufficient space exists in some areas for such plantings they would not be any more efficient than a new construction setback line in reducing future noise levels and would not provide abatement in critical areas due to lack of space.

Structural Barriers - Significant reduction in noise level can be achieved by structural barriers. To be effective, a barrier must be as continuous as possible - breaks in the barrier for driveways, crossroads and other points of access severely limit the noise attenuation. For this reason a barrier would not be effective between U.S. 41 and the railroad, or to shield individual properties between the railroad and Del Webb Boulevard.

Between Del Webb Boulevard and U.S. 301 residential structures bordering S.R. 674 are accessed by frontage roads making continuous barrier structures possible, however, no structures are projected to receive noise levels in excess of design noise criteria along this segment of highway. The most effective placement of a barrier wall would be along the north side of S.R. 674 between Del Webb Boulevard and Valley Forge Boulevard, and between Pebble Beach Boulevard and U.S. 301 along the north side of S.R. 674. Estimated costs and attenuation are given in Table 10.

The construction of noise abatement barriers between Del Webb Boulevard and U.S. 301 would not prove to be cost-effective since no structures are predicted to exceed exterior design noise criteria and only a slight to moderate noise impact is anticipated for the facility along this segment of roadway. Thus, the additional cost to achieve minimal benefits seems unwarranted.

Table 9. Barrier Costs and Attenuation, S.R. 674

Location	Approximate Length (ft)	Estimated Cost	Height (ft)	Maximum L_{10} Attenuation (dBA)
Del Webb Boulevard to Valley Forge	1,000	$ 50,000 to $100,000	8	6.0
Pebble Beach to U.S. 301	6,000	$300,000 to $600,000	8	6.0

Construction - Noise generated by construction of the project may impact on the same areas as those affected by operational traffic noise. Residential neighborhoods at either end of the project (Sun City Center and S.E. Ruskin) will be most affected. Between the residential areas at either end of the project, land use is mostly agricultural. A few houses approach the roadway near enough to receive impact from construction noise. The impact in this area is expected to be less than that at the project ends due to the sparse population.

It is recommended that the construction noise be attenuated to the extent practical by incorporating the following measures into the special provisions of the construction contract:

1. The contractor will limit construction activities requiring the use of heavy or noisy equipment to the time period between the hours of 7:00 a.m. to 6:00 p.m., unless written permission is obtained from the engineer.

2. The contractor shall not work on Sundays or legal holidays unless written permission is obtained from the engineer.

3. The contractor shall be informed of the noise sensitive sites indicated in this report, as well as the contractor's responsibility for complying with Federal, State and local noise regulations and ordinances.

4. The contractor shall have, on the job site, adequate materials for the construction of noise deflectors or screens. These materials are to be used as directed by the engineer for practical noise attenuation.

5. The contractor shall establish haul-routes which will direct vehicles away from developed areas when feasible and insure noise emanating from hauling operations is kept to a minimum. The engineer will be advised in writing of all proposed haul routes.

6. The contractor shall operate only factory recommended exhaust mufflers on internal combustion engines.

7. The contractor shall institute adequate equipment maintenance procedures to insure the elimination of unnecessary noise caused by loose body parts on all construction equipment.

8. Specific attention shall be directed to residences along the project.

9. In the event the above restrictions are not adequate to keep construction noise to an acceptable level (as determined by the engineer), he may direct the use of other controls and abatement measures.

Water Pollution

The proposed project is not expected to have a significant impact on the study areas' water resources. The major concern for the project areas is for the potentially adverse effects of increased stormwater runoff are due to the automotive related pollutants normally associated with highway drainage. These pol-

lutants are petroleum products, trace elements, nutrients, organic carbon, inorganic particulates, debris, and litter. It is not anticipated that stormwater runoff from the project will have any deleterious effect on the receiving systems due to the distance to them and to the open swale drainage system proposed in the undeveloped areas.

The proposed project is also not expected to have a significant impact on groundwater quality or recharge due to the relatively small increase in new pavement. Groundwater in the project area occurs in three aquifer systems: the shallow water table, the secondary artesian, and the Floridian aquifers. The shallow water table is recharged locally over a broad area and yields limited amounts of potable water. The remaining two aquifers are recharged outside of the project study area due to a locally high potentiometric gradient. Both of these underlying aquifers are non-potable by present standards due to high levels of chlorides, hardness, and total dissolved solids.

The impacts of this project on the surface water quality of the site environs will essentially be limited to the adverse effects of erosion during construction and stormwater runoff during operation. The adverse effects of construction, however, are considered temporary and minimal. The project is not expected to have a significant impact on groundwaters, recharge, or public water supplies.

Drainage

Storm drainage along the proposed improvement will make maximum use of swales and overland flow for effective management. Actual drainage concepts will be developed during the design and environmental permitting stage in cooperation with environmental review and permit agencies. No adverse drainage impacts are anticipated.

SECTION V - RELATIONSHIP TO LOCAL PLANS AND POLICIES

Land Use Plans

The Horizon 2000 Plan proposed land uses indicate "urban development" and "urban transition development" in the proposed project area from Ruskin to I-75 and "suburban development" from I-75 to U.S. 301. The proposed project will serve these future land uses and will not act as a catalyst for unplanned growth.

Each of the alternate alignments for the proposed action are considered to be in compliance with the future land use plan for the area, as the upgrading of S.R. 674 would provide a facility capable of maintaining acceptable levels of traffic service for the future traffic volume anticipated to occur. However, the area of 5th Avenue S.E. is in a developed residential area. If it is used as the alignment for the westbound three lanes of S.R. 674, the residential nature of the community would be greatly changed with possible commercialization displacing the many single family homes that would remain.

Transportation Plans

The Design Engineering Report of I-75 from north of I-275 to north of State Road 672 prepared by the State of Florida Department of Transportation, Tallahassee, recommended that State Road 674 between U.S. 41 and U.S. 301 be upgraded concurrently with the interstate project.[1]

The Board of Commissioners, Hillsborough County, have made a commitment to upgrade S.R. 674 concurrently or prior to I-75 construction. This commitment was adopted by resolution on May 9, 1973, where the Board concurred with the Florida Department of Transportation's plans for realignment and reconstruction of S.R. 674 from U.S. 41 to U.S. 301.

SECTION VI - UNAVOIDABLE ADVERSE ENVIRONMENTAL EFFECTS AND MEASURES TAKEN TO MITIGATE THESE IMPACTS

Within the proposed right-of-way, some land presently in natural cover will be modified by the construction of the roadway, resulting in the clearing of vegetation. The proposed action would also remove less than 5 acres of wetlands including approximately 2.5 acres in the Cypress Swamp between Wolf Branch and Cypress Creek, 1.5 acres at Marsh Branch and Wolf Branch along S.R. 674 and approximately .5 acres along Marsh Branch if the one-way pair system is constructed in the Ruskin area. Impacts on wetlands will be minimized by adherence to Section 104 of the FDOT Standard Specifications for Road and Bridge Construction.

Approximately 10 acre-feet of the 100 year floodplain will be filled by the proposed widening and grade separation. The highway encroachment is considered insignificant and unavoidable.

Approximately 20 residences and 9 to 11 businesses will be displaced by the upgrading of S.R. 674. To minimize the unavoidable effects of the displacement of families and businesses, a relocation program will be carried out by the Florida Department of Transportation in accordance with Florida Statute, Chapter 337.09 (4), and the Uniform Relocation Assistance and Real Property Acquisition Act of 1970 (Public Law 92-646).

As previously indicated, temporary unavoidable air quality impacts will result from the project construction. The impacts generally will be confined to the local vicinity, however, under conditions of high winds it is possible that a greater area may be influenced. To reduce these effects, construction will adhere to Section 102-5.1, Florida Department of Transportation Standard Specifications for Road and Bridge Construction (1977). Traffic access will be maintained for all businesses, residences, and major through streets in the area.

Open burning of waste materials will be handled in accordance with Chapter 17-5 (Florida Administrative Code) of the Department of Environmental Regulation on open burning to further reduce the impact of construction.

SECTION VII - RELATIONSHIP BETWEEN SHORT-TERM USES OF MAN'S ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY

The long-term benefits realized from the upgrading of this transportation facility greatly outweigh the minimal environmental effects that would occur from the implementation of the proposed action. As a dynamic growth area of Hillsborough County, the S.R. 674 corridor will continue to develop with commercial uses and residential communities with or without the proposed roadway. The environmental nature of the area in the future will, therefore, be influenced more by human factors than by natural systems. The existing roadway will not adequately serve planned developments in the area, or the additional traffic resulting from I-75 construction, and therefore the quality of life would be adversely affected if the proposed action is not implemented. Consequently, the long-term maintenance and enhancement of the environment, which will be largely man-made in the future, will be positively affected by the proposed action which will result in only minimal losses of natural environmental systems.

SECTION VIII - IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

An estimated $15,700,000 to $16,100,000 (1979 costs) would be irretrievably committed to constructing the proposed roadway improvements. Physical irretrievable resources committed would include construction materials and fossil fuels used for construction. Land would be taken from other uses, but it is not considered irretrievable. A physical resource that may be irretrievable if the proposed action is implemented includes 4 to 5 acres of wetlands.

SECTION IX - COMMENTS AND COORDINATION

Community Involvement

The State Road 674 improvement project was determined to have a "non-significant" socio-economic impact on the surrounding community. This determination was based on the definition of "impact level" as written in the Florida Department of Transportation Action Plan.[14] Procedures used to inform the public of this project and to involve the public in development of this project were commensurate with that impact level determination, according to guidelines expounded in the Action Plan.

Early in the process of developing alternatives for the improvement of S.R. 674, a public informational workshop was scheduled concerning the project. The meeting was held on a week day from 11 a.m. to 8 p.m. in an auditorium at Sun City Center adjacent to S.R. 674, for the convenience of local persons.

Publicity for the meeting was accomplished with mailed notices sent to local elected and appointed officials and to all property owners in and around S.R. 674. The notices emphasized that the proposed design alternates would be on display, and emphasized the importance of public input during the engineering and environmental study process. A news release was prepared and forwarded to area and local newspapers.

Approximately 200 persons attended this public informational workshop to view the proposed design alternates and other graphics depicting elements of the study process, as well as discuss the project. Representives of the Florida Department of Transportation explained the proposed design alternates, the study process, and the engineering and environmental data gathered to date. As the workshop was held at Sun City Center, many of the attendees were from the community.

Consequently, a second public workshop was held approximately three weeks later in a public meeting hall in Ruskin, Florida. Public notices were again published in local and area newspapers. Approximately 45 persons viewed the presentation of proposed design alternates and study data.

The following governmental and public agencies have been contacted either through the public involvement process or the A-95 review process. Pertinent correspondence from these agencies has been included in the appendix to this report.

Federal

U.S. Environmental Protection Agency
U.S. Department of Interior
U.S. Department of Commerce - NOAA
U.S. Army Corps of Engineers
U.S. Coast Guard
U.S. Fish and Wildlife Service

State

State Planning and Development Clearinghouse
Department of State - Historic Preservation Office
Southwest Florida Water Management District
Department of Environmental Regulation
Game and Freshwater Fish Commission

Local

Tampa Bay Regional Planning Council
Tampa Port Authority

SECTION X - RECOMMENDATIONS

The study and planning process of the various project alternatives including the no improvement alternate, involved significant community and public agency input. Based on analysis and synthesis of these inputs, combined with the traffic, engineering, environmental, social and economic assessments developed during the conduct of the study, a recommended alternative has been selected. Summarized below is the public hearing for the project that served in the selection of the recommended alternative.

Public Hearing Summary

The public hearing for the proposed project was held in the Clubhouse Lobby of King's Point West Development at Sun City Center, Florida, which is adjacent to the project site. The hearing was held at 7:00 p.m., January 29, 1981, a week-day evening, for the convenience of the public. The Florida Department of Transportation and their representatives were present at 5:00 p.m. the same day to discuss the project with the public.

Over 400 persons were in attendance during the formal proceedings conducted by the FDOT District Project Development Engineer. Following introductory remarks, the Project Development Engineer introduced an audio-visual presentation, which summarized the project history, need for the project, the engineering and environmental studies, and the relocation assistance program. Following the presentation there was an intermission of the formal proceedings during which those in attendance could review the exhibits of the project studies and proposed alternatives. Staff of the Department of Transportation were available to discuss the project with the public during the intermission.

Twenty-two persons made statements for the record during the last part of the formal public hearing proceedings. Persons making comments for the record addressed the following issues: speed limits, noise and air pollution, the need for railroad overpasses, traffic signals, pedestrian traffic, opposition to the one-way pair alternative, landscaping, bicycle paths and emergency service.

After the public hearing a period of ten days was allowed for the receipt of written statements or other documents to be included as part of the official public hearing proceedings. During that time, FDOT received thirteen written comments.

The comments expressed in these written responses included, with some persons addressing more than one issue:

1) Petitions received containing a total of 104 signatures against the one-way pair system and for the two-way system.

2) For the two-way system. (Five letters)

3) Against the railroad overpass along S.R. 674. (Five letters)

4) Requesting traffic operations improvements. (Two letters)

5) Proposing a different alternative than discussed in the Environmental Assessment. (One letter)

6) Questioning provisions for bicycle paths. (One letter)

7) Requesting description of property impacts. (One letter)

The public transcript and summary are available under separate cover at the Florida Department of Transportation, Post Office Box 1249, Bartow, Florida 33830.

Written comments and comments from the public hearing are responded to as follows:

Comment: The proposed grade separation at S.R. 674 and the Seaboard Coast Line Railroad crossing resulted in the following concerns and comments.

- Is the overpass justified?
- The overpass may cause motorists to approach the Ruskin Elementary School and U.S. 41 intersection at excessive speeds.
- The overpass grades and location in respect to the school could cause accidents with pedestrians and could cause truck "jack-knifing."

Disposition: A benefit cost analysis in accordance with "A Manual on User Benefit Analysis of Highway and Bus-Transit Improvements," published by American Association of State Highway and Transportation Officials, 1977, indicates that a grade separation would provide sufficient savings to the motorist through reduction in delays over a 20 year study period to justify the cost of the overpass.

Railroad crossing hazards would be reduced by the grade separation.

- The following estimated annual savings would be realized with a grade separation due to reduction of idling and speed changes based on the Federal Highway Administration "Procedures for Estimating Highway User Costs, Fuel Consumption and Air Pollution," May 1980.

  - Fuel Savings - 7,000 gallons/year
  - Carbon Monoxide Reduction - 34,000 pounds/year
  - Hydrocarbon Reduction - 2,000 pounds/year
  - Nitrogen Oxide Reduction - 1,000 pounds/year

- Vehicles on a negative grade of 3 percent, operating on wet pavement with a travel speed of 55 miles per hour require approximately 400 feet to stop per "A Policy on Geometric Design of Rural Highways, 1965" published by the American Association of State Highway Officials. The distance from the railroad crossing to the school crossing is approximately 2,000 feet. The westbound stop bar at U.S. 41 is approximately 2,700 feet from the railroad crossing. Moreover, the posted speed limit in the school area will not exceed the present posted speed of 35

miles per hour during normal hours and 15 miles per hour when the school speed zone is in effect. Therefore, actual travel speeds will normally be considerably less than the 55 miles per hour analyzed as the "worst case" condition.

Comment: Residents in Sun City Center expressed concern for pedestrians, bicyclists and users of golf carts that will cross the proposed six lanes of S.R. 674.

Disposition: At grade crosswalks and traffic signal controls will be provided for warranted areas when S.R. 674 is widened. All pedestrian grade separation in the Sun City Center area is the expressed zoning requirement of the developer.

Comment: It was recommended that a municipal roadway be constructed from U.S. 301 to I-75 to avoid water table problems through use of underdrains and to reduce maintenance of rural drainage swales.

Disposition: Rural roadway construction will permit the roadbed to be placed a minimum of 3 feet above design high water to avoid roadway deterioration due to high water tables without the use of underdrains. It is recognized that the maintenance of rural roadways will be higher than municipal design. However, construction costs of the rural roadway will be about $800,000 per mile less than an urban roadway, plus the savings of about $100,000 per mile for not using underdrains will yield a total savings of about $4,500,000 for the five mile section of rural roadway that is proposed.

Comment: Several existing and proposed intersections with S.R. 674 in Sun City Center were requested to have acceleration/deceleration lanes and median openings.

Disposition: The existing and proposed roadways and driveways in Sun City Center will be reviewed during final design. At that time, proper consideration will be given to median openings, left turn lanes, and acceleration and deceleration lanes that will properly serve traffic.

Comment: The existing 50 mile per hour speed limit is excessive for the Sun City Center area.

Disposition: Based on recent speed studies in the Sun City Center area, the posted speed limit will be reduced to 40 miles per hour from west of U.S. 301 to west of Del Webb Boulevard. After the proposed project is constructed, additional speed studies will be conducted to establish safe and enforceable speed limits.

Comment: A no passing zone is recommended for the Sun City Center area.

Disposition: The proposed multilane divided roadway will not have passing restrictions. The existing two lane roadway has adequate passing sight distances to permit passing in the Sun City Area. It is felt that indiscreet use of no passing restrictions in areas suited for passing would tend to reduce the effectiveness of such regulations where no passing restrictions are warranted.

Comment: Traffic signals were recommended at several intersections in the Sun City Center area.

Disposition: Each major intersection along S.R. 674 from U.S. 301 to U.S. 41 will be analyzed to determine if conditions will warrant a traffic signal in accordance with the U.S. Department of Transportation Manual on Uniform Traffic Control Devices for streets and highways. Traffic signals will be installed on the future six lane facility where signal warrants are met.

Comment: A spokesman for the Ruskin Fire Department requested that access not be impaired during and after construction, and asked what provisions are being made to assure safe traveling for the tractor-trailer units that will use S.R. 674.

Disposition: A detailed traffic maintenance program will be developed to ensure continued traffic flow and emergency service along the proposed S.R. 674 construction area. After construction, each of the existing roadways will continue to connect to S.R. 674 to provide existing traffic patterns. Actual design of S.R. 674 will consider tractor-trailers, but enforcement of safe operation of these vehicles will not be the responsibility of the Department of Transportation.

Comment: It was recommended that a truck bypass be considered to divert trucks from S.R. 674.

Disposition: Trucks will be permitted to use each of the east-west interstate connectors and all major arterials that are state maintained. Although this will result in an estimated ten percent of the average daily traffic being trucks on S.R. 674, it will permit maximum dispersion of truck traffic in southeast Hillsborough County. Concentrating trucks on fewer roadways would only divert the problem to other existing and future communities.

Comment: A barrier on the southside of S.R. 674 between Pebble Beach Boulevard and Stonehaven Drive was requested to reduce noise levels for residences.

Disposition: Noise levels are projected to be less than 70 dBA for residences in the subject area due to the estimated 250 foot distance between the residences and the south edge of the proposed roadway. Visual buffers such as vegetation are being considered by residents of Sun City Center as a community project.

Comment: A bikeway was requested from Sun City Center to Ruskin.

Disposition: A four foot paved shoulder will be provided from U.S. 301 eastward to 15th Street. An eight foot Class I bikepath will be provided on the north side of S.R. 674 from 15th Street to U.S. 41.

Comment: A stop sign was requested at 21st Street and S.R 674.

Disposition: Traffic control of side streets to S.R. 674 is the responsibility of Hillsborough County, Florida. Mr. Jim Hatch of the County Department of Public Works has been given a copy of the public hearing statement and requested to take appropriate action.

Comment: Need for pedestrian grade separation at the Ruskin Elementary School was expressed.

Disposition: The use of grade separation would be less convenient than an at-grade crossing and would require barriers or supervision to assure a satisfactory level of use. School supervision would not be in continuous effect and Hillsborough County School Board representatives have determined that barriers, such as fencing the school area, are not desirable. Therefore, pedestrian grade separation is not recommended due to costs and future lack of use. School crossing signals will be considered during final design.

Comment: Sidewalks were asked to be considered from Sun City Center to I-75.

Disposition: An insignificant number of pedestrians are expected to walk from the Sun City Center area eastward to the area of I-75 to warrant sidewalks along the proposed rural roadway.

Comment: There is a high accident potential for northbound traffic on U.S. 41 that must stop at the S.R. 674 intersection located at the base of the U.S. 41 railroad overpass. Increases in traffic at the U.S. 41 and S.R. 674 intersection will increase accidents at this location.

Disposition: The proposed I-75 will serve as a major bypass route to U.S. 41 and will divert a significant number of trucks and passenger vehicles from U.S. 41. The 1978 average daily traffic on U.S. 41 south of S.R. 674 was observed to be about 18,000. In 1985, when I-75 is open, the volume at the south leg of U.S. 41 at S.R. 674 is expected to drop to an estimated 13,700 vehicles per day and steadily increase back to about 18,000 by the year 1995. This reduction in U.S. 41 traffic should reduce the total number of accidents that will occur at the intersection. Moreover, I-75 should serve as a major bypass for trucks and could significantly reduce the total number of trucks on U.S. 41 in the future. This again indicates a potential reduction in the total number of accidents at the subject intersection.

Comment: It was requested that Rickenbacker Drive frontage road in Sun City Center be extended from Ray Watson Drive to Bunker Hill.

Disposition: Rickenbacker Drive is not a state maintained roadway and any extension would be the responsibility of the developer or Hillsborough County.

Comment: A S.R. 674 bypass facility was recommended south of Ruskin to divert traffic from the Ruskin Elementary School area, reduce accident potential of northbound traffic at the U.S. 41 and S.R. 674 intersection, and avoid the cost of the proposed S.R. 674 overpass at the railroad. Under this proposal, the existing S.R. 674 section between U.S. 41 and the Seaboard Coast Line Railroad would remain a local two lane roadway without direct access to the proposed bypass.

Disposition: The following table indicates various data for three alternatives: a bypass roadway around Ruskin with SR. 674 closed to through traffic at the Railroad, a bypass roadway with S.R. 674 open to traffic and the six-lane S.R. 674 alternate without a bypass.

RUSKIN BYPASS

	6-Lanes on Existing Alignment	Ruskin Bypass	
		S.R. 674 Open	S.R. 674 Closed at Railroad
LENGTH OF CONSTRUCTION (U.S. 41 to 15th Street)	6,000'	12,000'	9,000'
CONSTRUCTION COSTS	$5,600,000	$15,600,000	$11,100,000
DISPLACEMENTS			
Businesses	3	5	2
Residences	12	22	5
AVERAGE ANNUAL DATA			
Vehicle Miles of Travel (U.S. 41 to 15th)	9,000,000	9,000,000	12,000,000
Fuel Consumption (gallons/year)	405,000	405,000	540,000
Pollutant Emissions			
Carbon Monoxide (lbs.)	405,000	405,000	540,000
Hydrocarbon (lbs.)	36,000	36,000	48,000
Nitrogen Oxides (lbs.)	45,000	45,000	60,000
Vehicle Miles of Travel (VMT)	9,000,000	9,000,000	12,000,000
Vehicle Hours of Travel (VHT)	300,000	300,000	400,000
User's Cost ($)	$ 960,000	$ 960,000	$ 1,300,000

Based on the preceeding data it appears that the suggested Ruskin Bypass would cost an estimated $5,500,000 more than the proposed six-laning of S.R. 674 from U.S. 41 to 15th Street. While fewer residences and businesses would be displaced, the bypass with S.R. 674 closed to through traffic at the railroad would require an additional average of 3,000,000 vehicle miles of travel per year over a 20 year study period. This additional travel would cost the motorist approximately $340,000 per year, require 3,000,000 annual gallons of additional fuel and would increase pollutant emissions by about 33 percent per year.

However, closing S.R. 674 in the area of the Seaboard Coast Line Railroad would be difficult to effect and could produce negative impacts to emergency service and local travel. If S.R. 674 is not closed and the bypass is constructed, it appears that traffic on S.R. 674 from U.S. 41 to the railroad would require the

four-laning of that facility in addition to the bypass. This would result in an additional $10,000,000 cost with almost a doubling of displacements. Therefore, it appears that constructing a Ruskin bypass could be considerably more expensive with greater social, economic and environmental impacts.

Recommended Alternatives

The recommended alternative was selected based on numerous considerations including social, economic and environmental impacts; traffic service; and project and user's costs. From analysis and evaluation of each of these considerations, it is recommended that State Road 674 be widened along the existing alignment from U.S. 41 to U.S. 301 with grade separation at the Seaboard Coast Line Railroad. This alternative is recommended for the following reasons:

- A six-lane S.R. 674 in the area immediately east of U.S. 41 will minimize adverse community impacts by widening an existing major arterial roadway.
- Less vehicle miles of travel will result from the six-lane alternative versus the one-way pair alternative.
- The recommended alternative can be easily staged from four to six lanes. The one-way pair alternate would be more difficult and costly to stage.
- Grade separation will reduce fuel consumption, vehicular emmissions and safety hazards by eliminating conflicts and vehicular delays.

REFERENCES

1. Tampa Bay Area Rapid Transit Authority and Tampa Bay Regional Planning Council, Long-Range Mass Transit Planning Program System Definition Study, Technical Report, Task D, January, 1977.

2. State of Florida Department of Transportation, Tallahassee, Florida. Design Engineering Report I-75, From North of I-275 to North of S.R. S-672, Manatee and Hillsborough Counties, Florida.

3. Hillsborough County Planning Commission.

4. Blanchard, Irving, Executive Director of South Hillsborough County Chamber of Commerce, "Hillsborough County, 1990", Presentation to Sun City Center, March 6, 1979.

5. Climate of Florida, Climatography of the United States No. 60-8, Climates of the United State, U.S. Department of Commerce, June, 1972.

6. Hydrobiological Assessment of the Alafia and Little Manatee River Basins, Prepared for the Southwest Florida Water Management District by Dames and Moores, June, 1975.

7. United States National Weather Service, Ruskin, Florida.

8. Board of County Commissioners, Hillsborough County, Horizon 2000 Plan adopted December, 1977.

9. Hillsborough County South 201 Facilities Plan, Prepared by Post, Buckley, Schuh & Jernigan, Inc., August 1978.

10. Correspondence from Hillsborough County Public Schools.

11. U.S. Department of Transportation, Federal Highway Administration, Executive Order 11990 - Protection of Wetlands, October 1, 1977.

12. U.S. Department of Housing and Urban Development, Federal Insurance Administration, Flood Hazard Boundary Map, June 17, 1977.

13. Florida Department of Transportation, Standard Specifications for Road and Bridge Construction, latest edition.

14. Florida Department of Transportation, Action Plan for Transportation Planning and Development, 1978.

15. Compilation of Air Pollutant Emission Factors, U.S. EPA, (Cavendar, J. P.) AP-42, Supplements 1-18, 1978.

16. Supplementary Guidelines for Lead Implementation Plans, U.S. EPA (EPA - 450/2-78-038), August 1978, Table 5-2.

17. Flood Hazard Boundary Map, U.S. Department of Housing and Urban Development, Federal Insurance Administration.

APPENDICES

A. Correspondence

B. Displacements and Relocation

Table B-1 - State Road 674 existing from U.S. 41 easterly to 15th Street Southeast.

Table B-2 - State Road 674 one-way pair with 5th Avenue Southeast from U.S. 41 easterly to 15th Street Southeast.

Table B-3 - State Road 674 from 15th Street Southeast easterly to the proposed Interstate 75 Interchange.

Table B-4 - State Road 674 from the proposed Interstate 75 Interchange easterly through Sun City Center to U.S. 301.

Table B-5 - Special Advisory Services.

Table B-6 - Resources.

Table B-7 - Data Resources.

Table B-8 - Industry Groupings by Neighborhood.

APPENDIX A - CORRESPONDENCE

STATE OF FLORIDA
Department of State
THE CAPITOL
TALLAHASSEE 32304

BRUCE A. SMATHERS
SECRETARY OF STATE

May 16, 1978

ROBERT WILLIAMS, DIRECTOR
DIVISION OF ARCHIVES, HISTORY, AND
RECORDS MANAGEMENT
(904) 488-1480

IN REPLY REFER TO:
Mr. Louis Tesar
Historic Sites Specialist
(904) 487-2322

Mr. J. C. Kraft, Chief
Bureau of Environment
Florida Department of Transportation
Burns Building
Tallahassee, Florida 32304

Re: State Project Number 10120-1511, State Road 674
from U. S. 41 to U. S. 301, Hillsborough County
FAP # F-178-1(2)

Dear Mr. Kraft:

We have reviewed the results of a field survey of the above referenced project, performed by Mr. William Browning, an archaeologist attached to the Florida Department of Transportation, and coordinated by our office. No sites listed, or eligible for listing, in the *National Register of Historic Places*, or otherwise of national, State, or local significance were encountered during the survey. Therefore, it is the determination of this office that this project will have no effect on any such resources, and that the project may proceed without further involvement from this office.

The opportunity to comment is appreciated.

Sincerely,

L. Ross Morrell
Deputy State Historic
Preservation Officer

LRM:Bjw

cc: Gerald P. Neubauer
P. E. Carpenter

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Environmental Assessment Branch
3500 Delwood Beach Road
Panama City, Florida 32407

September 20, 1979 FSE613:JRH

Mr. C.L. Irwin
Environmental Impact Review
Florida Department of Transportation
Haydon Burns Building, 605 Suwannee St.
Tallahassee, FL 32304

PROJECT

SEP 24 1979

DEVELOPMENT

Dear Mr. Irwin:

The National Marine Fisheries Service has reviewed the "Advance Notification" package dated September 5, 1979 for State Project No. 10120-1511, Federal Aid Project No. F-178-1(2), Hillsborough County, Florida.

Based on information available in the package, we do not anticipate significant adverse effects on natural resources for which we are responsible; however, it appears that these resources may be of concern to the U.S. Fish and Wildlife Service. Accordingly, we refer you to FWS for their analyses and recommendations.

Sincerely yours,

John R. Hall

/s/ John R. Hall
for William H. Stevenson

cc:
Area Mgr, FWS, JAX
LWRDP, FWS, Vero Bch
FDER
FGFFC
FSE61

...State Project #10120-1511, Hillsborough County

CLEARINGHOUSE REVIEW

The Florida Department of Transportation has requested comments on the upgrading of State Road 674 in southeastern Hillsborough County. New facilities would include roadway replacement and the inclusion of one or more railroad overpasses. Location: 29.

TRANSPORTATION

SEP 28 1979

PLANNING

Local Comments

TUATS (September 17, 1979): Approved on December 4, 1978.

Hillsborough County Environmental Protection Commission: No comment as of September 21, 1979.

Historic Preservation (September 12, 1979): Two sites in Section 9, through which the project will pass. This should be checked by the State to determine impact.

Council Comments and Recommendations

This project is regionally significant and consistent with TBRPC goals and objectives. The adopted Future of the Region states that it shall be the policy of the Council that the region's highway system be planned, developed and maintained to provide and preserve a stable traffic flow. There are no objections to this project.

Committee adopted September 24, 1979.

/s/ Louis E. Driggers

Commissioner Louis E. Driggers, Chairman
Clearinghouse Review Committee

Please note: Unless otherwise notified, action by Clearinghouse Review Committee is final. Append copy to application to indicate compliance with clearinghouse requirements. Comments constitute compliance with OMB Circular A-95 only.

tampa bay regional planning council
9455 Koger Boulevard St Petersburg, Fl. 33702 (813) 577-5151/Tampa 224-9380

United States Department of the Interior

NATIONAL PARK SERVICE
SOUTHEAST REGIONAL OFFICE

75 Spring Street, SW
Atlanta, Georgia 30303

PROJECT DEVELOPMENT
OCT 3 1979

IN REPLY REFER TO:
L7621-SER-PP

OCT 1 1979

Mr. J. C. Kraft, Chief
Bureau of Environment
Florida Department of Transportation
605 Suwannee Street, MS 37
Tallahassee, Florida 32304

Dear Mr. Kraft:

In response to your request for technical assistance on the proposed State Project Number 10120-1511, BI# 113259, Federal Aid Project Number F-178-1(2), Hillsborough County, Florida, we are pleased to provide the following comments.

The proposed action will not adversely affect any existing, proposed or known potential units of the National Park System.

This information is being provided on a technical assistance basis only and does not necessarily reflect the views of the Department of the Interior. The Department of the Interior will be pleased to review your environmental statement when it is completed and will integrate National Park Service comments with those of the other bureaus of this Department.

Sincerely yours,

/s/ Paul C. Swartz

Paul C. Swartz
Acting Associate Regional Director
Southeast Region

cc:
Ms. Wendy J. Giesy
District Environmental Administrator
Florida Department of Transportation
Post Office Box 1249
Bartow, Florida 33830

Secretary of State

STATE OF FLORIDA
THE CAPITOL
TALLAHASSEE 32304
(904) 488-3680

GEORGE FIRESTONE
SECRETARY OF STATE

October 2, 1979

In reply refer to:

Mr. John Scarry
Historic Sites Specialist
(904) 487-2333

Mr. Ron Fahs, Director
Intergovernmental Coordination
State Planning and Development Clearinghouse
530 Carlton Building
Tallahassee, Florida 32301

Re: SAI 80-0381
Florida Department of Transportation
State Project No. F-178-1(2)
State Road 674
Hillsborough County

Dear Mr. Fahs:

In accordance with the procedures contained in 36 C.F.R., Part 800 ("Procedures for the Protection of Historic and Cultural Properties"), we have reviewed the above referenced project for possible impact to archaeological and historical sites or properties listed, or eligible for listing, in the National Register of Historic Places. The authorities for these procedures are the National Historic Preservation Act of 1966 (Public Law 89-665) as amended by P.L. 91-243, P.L. 93-54, P.L. 94-422, and P.L. 94-458, and Presidential Executive Order 11593 ("Protection and Enhancement of the Cultural Environment").

A review of the Florida Master Site File indicates that no archaeological or historical sites are recorded for the project area. However, this area has never been subjected to a systematic, professional survey for such sites. For this reason, the lack of recorded sites is not considered significant. Since data from environmentally similar areas which have been surveyed indicate that the density of historic and archaeological sites, especially the latter, may be quite high in the project vincinity, it is the opinion of this office that there is a reasonable probability of project activities impacting one or more sites of National Register quality.

For this reason, it is our recommendation that, prior to any ground disturbing activities, all areas to be impacted by the present project be subjected to a professional archaeological and historical survey. The purpose of this survey will be to identify properties potentially eligible for listing in the National Register of Historic Places, and to determine what impact, if any, the present project will have on them. If it is determined that the project will adversely impact a site deemed eligible for listing in the National Register, it will be necessary to avoid or mitigate the adverse impact through a professionally capable agency.

If you have any questions abour our comments, or about federal historic preservation regulations, please feel free to contact us.

Your interest and cooperation in preserving Florida's historic resources are appreciated.

Sincerely,

L. Ross Morrell,
Deputy State Historic
Preservation Officer

LRM:Seh

STATE OF FLORIDA

Office of the Governor

THE CAPITOL

TALLAHASSEE 32301

BOB GRAHAM
GOVERNOR

October 15, 1979

PROJECT

OCT 16 1979

DEVELOPMENT

Mr. J. C. Kraft, Chief
Bureau of Environment
Department of Transportation
Burns Building
Tallahassee, Florida 32301

RE: State Project # 10120-1511 - BI # 113259 - Hillsborough County
SR 674

SAI: 80-0381

Dear Mr. Kraft:

The State Planning and Development Clearinghouse, in compliance with U. S. Office of Management and Budget Circular A-95, has provided a review of your notification of intent to apply for federal assistance in the amount of $7,500,000.

We are enclosing comments for your consideration from the Department of State. We also anticipate additional comments from the Department of Environmental Regulation and Game and Fresh Water Fish Commission. Those comments, if any, will be forwarded.

Please append a copy of this letter to your application. This will assure the federal agency of our compliance with U. S. Office of Management and Budget Circular A-95.

Thank you for your cooperation.

Sincerely,

Ron Fahs

Ron Fahs, Director
Intergovernmental Coordination

RF/Cnt
Enclosure
CC: Ms. Wendy Giesy
Department of Transportation
P.O. Box 1249
Bartow, Florida 33830

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET
ATLANTA, GEORGIA 30308

RECEIVED

OCT 18

October 16, 1979

4SA-EIS

Mr. J. C. Kraft
Bureau of Environment
Department of Transportation
605 Suwannee Street
Tallahassee, Florida 32304

Dear Mr. Kraft:

We have reviewed the advance information on Project 1012-1511 in Hillsborough County and offer these comments:

The project consists of improving State Road 674, presently a two-lane, primary State highway, by providing six travel lanes. Either the present facility would be upgraded by using the general alignment of SR 674 or a one-way pair design would be employed using SR 673 for the three eastbound lanes and 5th Avenue, SE, as three westbound lanes. Four acres of wetlands would be destroyed by using a six-lane highway along the present alignment of SR 674 while 4.1 acres would be destroyed by utilizing the one-way pair facility. It appears that there would be little difference in the ecological and water quality effects of the two alternatives.

A 404 permit should be secured for wetland fill and additional comments can be given by this office upon receipt of permit data.

If we can be of further assistance, feel free to call on us.

Sincerely yours,

Sheppard N. Moore

Sheppard N. Moore
Chief, EIS Review Section

Southwest Florida Water Management District

5060 U.S. HIGHWAY 41, SOUTH — BROOKSVILLE, FLORIDA 33512
PHONE (904) 796-7211

DERRILL McATEER, Chairman, Brooksville
ROBERT MARTINEZ, Vice Chairman, Tampa
Mrs. BROOKS JOHNS, Secretary, Lakeland
RONALD B. LAMBERT, Treasurer, Wauchula
NICK PENDER, Tampa
HELEN THOMPSON, St. Petersburg
B. T. LONGINO, Sarasota
CLIFF STEPHENS, Clearwater
WM. O. STUBBS, Dade City

DONALD R. FEASTER, Executive Director

PROJECT

NOV 13 1979

DEVELOPMENT

November 7, 1979

Ms. Wendy J. Giesy
District Environmental Administrator
Florida Department of Transportation
Post Office Box 1249
Bartow, FL 33830

Re: State Project No. 10120-1511, State Road 674 from State Road 41 to U.S. 301 in Hillsborough County

Dear Ms. Giesy:

The stream crossing of interest to the Southwest Florida Water Management District is Cypress Creek; however, the proposed work description indicates only that existing box culverts are to be extended, with no change in size or flow lines. Under these circumstances, the District will not request that an application for permit be submitted.

Very truly yours,

OLIVER R. DeWITT
Surface Permits Coordinator
Regulatory Division

ORD:eab

cc: L. M. Blain
J. E. Curren

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301

To June

BOB GRAHAM
GOVERNOR

JACOB D. VARN
SECRETARY

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

November 29, 1979

Mr. Ron Fahs, Deputy Director
Policy Coordination
State Planning and Development
Clearinghouse
Office of Research and Policy
Executive Office of the Governor
530 Carlton Building
Tallahassee, Florida 32301

Dear Mr. Fahs:

Re: Department of Transportation, Advance Notification of Intent to Apply for Federal Assistance for State Project No. 10120-1511, SR674, Hillsborough County, Florida, SAI No. 80-0381

The Department of Transportation proposes to widen approximately 6.5 miles of SR674 from two lanes to six lanes between Ruskin and Wimauma.

The Department of Environmental Regulation has reviewed the above referenced advance notification and submits the following comments:

1. The proposed construction will require permits from this Department pursuant to Chapters 253 and 403, Florida Statutes, and water quality certification under Public Law 92-500. Project plans should be coordinated with our Southwest District Office in Tampa. Early coordination may help to eliminate problems in the permitting process.

2. Since each additional roadway constructed represents another increment of air and water quality degradation in the State, roads should only be built if needed. It is unclear how average daily traffic figures can be projected for a system not yet constructed. These projections appear to be the only justification for widening a two-lane highway to six lanes. Do the figures account for probable future traffic reductions resulting from fuel shortages and costs?

...hs

...er 29, 1979

3. Executive Orders 11988 and 11990 require that federally funded projects minimize impacts to floodplains and wetlands. It does not seem consistent with this goal to fill such areas unnecessarily. The sufficiency of a three or four lane project should be ascertained before assuming the need for a six lane roadway.

4. Stormwater containment and treatment is not addressed in the notification letter. The proposed construction/ modification can be expected to increase stormwater runoff. Adverse impacts should be minimized by (a) avoiding direct discharge of channelized drainage into open water, (b) directing stormwater discharges into vegetated areas and (c) installing erosion control structures and energy dissipaters at points of discharge. Licenses may be required for the discharge of stormwater associated with the proposed construction, pursuant to Section 17-4.248, Florida Administrative Code.

5. Existing roads should be utilized for detour routes to avoid unnecessary filling in floodplains or wetlands. Erosion and siltation should be controlled during all construction activities. Disturbed soil surfaces should be revegetated promptly to prevent erosion.

The proposed construction does not appear to constitute a "major federal action" from an environmental viewpoint, however, we would like to see the issues discussed above addressed in an environmental assessment. We appreciate the opportunity to comment on this advance notification and would like to review the assessment when completed.

Cordially,

Lynn F. Griffin

Lynn F. Griffin
Environmental Specialist
Intergovernmental Programs
Review Section

LFG:jb

cc: David Puchaty

APPENDIX B - DISPLACEMENTS AND RELOCATION

Table B-1

NEIGHBORHOOD (State Road 674 existing from U.S. 41 easterly to 15th Street Southeast)

NOTE: (H.H.) = Age of families determined by head of household

Residential Analysis
Chart A

NEIGHBORHOOD	Number of Families in Neighborhood	Number Surveyed in Neighborhood	Number Received in Neighborhood	Below Sixty-two (H.H.)	Above Sixty-two (H.H.)	Number of Families Retired in Neighborhood	Transportation Used in Neighborhood		
							Public	Priv.	None
*NUMBER OF FAMILIES	9	9	7	5	2	2	0	9	0
PERCENT IN NEIGHBORHOOD	100	100	78	56	22	22	0	100	0
**PERCENT OF PROJECT	45	45	35	25	10	10	0	45	0

Residential Analysis
Chart B

NEIGHBORHOOD	INCOMES (By Thousands)					FAMILY SIZE			SPECIAL ADVISORY SERVICES (Disabled)	MINORITIES	OWNER	TENANT	AGE OF DWELLING (Years)			TYPE OF DWELLING		
	Below $5	$5-$10	$10-$15	$15-$20	Above $20	1-3	4-5	6+					1-10	11-19	20+	Single Family	Multi-Family	Mobile Home
NUMBER OF FAMILIES	3	0	2	1	1	5	1	1	1	0	4	3	0	3	4	6	0	1
PERCENT IN NEIGHBORHOOD	33	0	22	11	11	56	11	11	11	0	44	33	0	33	44	67	0	11
PERCENT OF PROJECT	15	0	10	5	5	25	5	5	5	0	20	15	0	15	20	30	0	5

Business Analysis
Chart C

NEIGHBORHOOD	Number of Businesses in Neighborhood	Number Surveyed in Neighborhood	Number Received in Neighborhood
***NUMBER OF BUSINESSES	2	2	2
PERCENT IN NEIGHBORHOOD	100	100	100
PERCENT OF PROJECT	22	22	22

*There are three vacant single family residences.
**There are five residences that will be displaced on both the existing and the one-way pair alternates.
***There is one vacant building.

Table B-2

NEIGHBORHOOD (State Road 674 one-way pair with 5th Avenue Southeast from U.S. 41 easterly to 15th Street Southeast)

NOTE: (H.H.) = Age of families determined by head of household

Residential Analysis
Chart A

NEIGHBORHOOD	Number of Families in Neighborhood	Number Surveyed in Neighborhood	Number Received in Neighborhood	Below Sixty-two (H.H.)	Above Sixty-two (H.H.)	Number of Families Retired in Neighborhood	Transportation Used in Neighborhood		
							Public	Priv.	None
NUMBER OF *FAMILIES	10	10	7	5	2	2	0	7	0
PERCENT IN NEIGHBORHOOD	100	100	70	50	20	20	0	70	0
PERCENT OF **PROJECT	50	50	35	25	10	10	0	35	0

Residential Analysis
Chart B

NEIGHBORHOOD	INCOMES (By Thousands)					FAMILY SIZE			SPECIAL ADVISORY SERVICES	MINORITIES	OWNER	TENANT	AGE OF DWELLING (Years)			TYPE OF DWELLING		
	Below $5	$5-$10	$10-$15	$15-$20	Above $20	1-3	4-5	6+	(Disabled)				1-10	11-19	20+	Single Family	Multi-Family	Mobile Home
NUMBER OF FAMILIES	1	3	2	1	0	4	2	1	1	1	5	2	0	2	3	7	0	0
PERCENT IN NEIGHBORHOOD	10	30	20	10	0	40	20	10	10	10	50	20	0	20	30	70	0	0
PERCENT OF PROJECT	5	15	10	5	0	20	10	5	5	5	25	10	0	10	15	35	0	0

Business Analysis
Chart C

There are no business displacees in this neighborhood.

NEIGHBORHOOD	Number of Businesses in Neighborhood	Number Surveyed in Neighborhood	Number Received in Neighborhood
NUMBER OF ***BUSINESSES			
PERCENT IN NEIGHBORHOOD			
PERCENT OF PROJECT			

*There are two vacant single family residences.
**There are five residences that will be displaced on both the existing and the one-way pair alternates.
***There is one vacant building in this neighborhood.

Table B-3

NEIGHBORHOOD (State Road 674 from 15th Street Southeast easterly to the proposed Interstate 75 Interchange)

NOTE: (H.H.) = Age of families determined by head of household

Residential Analysis
Chart A

NEIGHBORHOOD	Number of Families in Neighborhood	Number Surveyed in Neighborhood	Number Received in Neighborhood	Below Sixty-two (H.H.)	Above Sixty-two (H.H.)	Number of Families Retired in Neighborhood	Transportation Used in Neighborhood		
							Public	Priv.	None
* NUMBER OF FAMILIES	6	6	4	1	3	3	0	4	0
PERCENT IN NEIGHBORHOOD	100	100	67	17	50	50	0	67	0
PERCENT OF PROJECT	30	30	20	5	15	15	0	20	0

Residential Analysis
Chart B

NEIGHBORHOOD	INCOMES (By Thousands)					FAMILY SIZE			SPECIAL ADVISORY SERVICES (Disabled)	MINORITIES	OWNER	TENANT	AGE OF DWELLING (Years)			TYPE OF DWELLING		
	Below $5	$5-$10	$10-$15	$15-$20	Above $20	1-3	4-5	6+					1-10	11-19	20+	Single Family	Multi-Family	Mobile Home
NUMBER OF FAMILIES	3	0	0	0	1	4	0	0	1	0	4	0	0	1	3	4	0	0
PERCENT IN NEIGHBORHOOD	50	0	0	0	17	67	0	0	17	0	67	0	0	17	50	67	0	0
PERCENT OF PROJECT	15	0	0	0	5	20	0	0	5	0	20	0	0	5	15	20	0	0

Business Analysis
Chart C

NEIGHBORHOOD	Number of Businesses in Neighborhood	Number Surveyed in Neighborhood	Number Received In Neighborhood
** NUMBER OF BUSINESSES	6	6	6
PERCENT IN NEIGHBORHOOD	100	100	100
PERCENT OF PROJECT	67	67	67

*There are two vacant single family residences in this neighborhood.
**There is one vacant building.

Table B-4

NEIGHBORHOOD (State Road 674 from the proposed Interstate 75 Interchange easterly through Sun City Center to U.S. 301)

NOTE: (H.H.) = Age of families determined by head of household

Residential Analysis
Chart A

There are no residential displacees in this neighborhood.

NEIGHBORHOOD	Number of Families in Neighborhood	Number Surveyed in Neighborhood	Number Received in Neighborhood	Below Sixty-two (H.H.)	Above Sixty-two (H.H.)	Number of Families Retired in Neighborhood	Transportation Used in Neighborhood		
							Public	Priv.	None
NUMBER OF FAMILIES									
PERCENT IN NEIGHBORHOOD									
PERCENT OF PROJECT									

Residential Analysis
Chart B

There are no residential displacees in this neighborhood.

NEIGHBORHOOD	INCOMES (By Thousands)					FAMILY SIZE			SPECIAL ADVISORY SERVICES (Disabled)	MINORITIES	OWNER	TENANT	AGE OF DWELLING (Years)			TYPE OF DWELLING		
	Below $5	$5-$10	$10-$15	$15-$20	Above $20	1-3	4-5	6+					1-10	11-19	20+	Single Family	Multi-Family	Mobile Home
NUMBER OF FAMILIES																		
PERCENT IN NEIGHBORHOOD																		
PERCENT OF PROJECT																		

Business Analysis
Chart C

NEIGHBORHOOD	Number of Businesses in Neighborhood	Number Surveyed in Neighborhood	Number Received in Neighborhood
NUMBER OF BUSINESSES	1	1	1
PERCENT IN NEIGHBORHOOD	100	100	100
PERCENT OF PROJECT	11	11	11

Table B-5 *SPECIAL ADVISORY SERVICES*

Hillsborough Association
for Retarded Citizens
2714 West Kirby
Tampa, Florida 33614
Phone: 813-933-1582

Hillsborough County Migrant
Health Center, Inc.
State Road 574
Tampa, Florida 33505
Phone: 813-689-8135

Hillsborough County
Veteran's Affairs
305 North Morgan
Tampa, Florida 33602
Phone: 813-272-5700

Hillsborough County
Office on Aging
305 North Morgan
Tampa, Florida 33602
Phone: 813-272-6630

Ruskin Community
Service Center
101 Southeast 14th Avenue
Ruskin, Florida 33570
Phone: 813-645-2587

Hospital and Welfare Board -
Ruskin Nutrition Site
202 Southwest 10th Street
Ruskin, Florida 33570
Phone: 813-645-2092

Ruskin Area Employment Dept.
1014 14th Street Southeast
Ruskin, Florida 33570
Phone: 813-645-2544

Ruskin Migrant Day Care Center
No Address
Ruskin, Florida
Phone: 813-645-2811

Ruskin Migrant Health Center
105 Southeast 14th Avenue
Ruskin, Florida 33570
Phone: 813-645-3219

Social and Financial Services
101 Southeast 14th Avenue
Ruskin, Florida 33570
Phone: 813-645-2587

Red Cross
212 North Howard Avenue
Tampa, Florida 33606
Phone: 813-251-0921

Social Security Administration
700 Twiggs
Tampa, Florida 33602
Phone: 813-223-4911

Greater Tampa United Way, Inc.
234 West Hillsborough Avenue
Tampa, Florida 33604
Phone: 813-237-3901

Y-Family Centers (YMCA - YWCO)
625 East Twiggs
Tampa, Florida 33602
Phone: 813-224-9622

Meals on Wheels of Tampa
2708 Central Avenue
Tampa, Florida 33602
Phone: 813-227-3761
813-227-8141

Aging Program & Senior Citizens Program
5707 North 22nd Street
Tampa, Florida 33610
Phone: 813-237-3914
813-238-7977

Table B-6 *RESOURCES*

RESIDENCES TO PURCHASE
TWO BEDROOMS

1.	*402 BonAire Avenue, Temple Terrace*	*$ 65,000.00*
2.	*11208 Oak Drive, Brandon*	*49,500.00*
3.	*Symmes Road, Riverview*	*35,000.00*
4.	*2406 Wishing Well Circle, Tampa*	*31,500.00*
5.	*11114 Roberts Lane*	*31,000.00*
6.	*11107 Happy Acres Lane, Brandon*	*29,900.00*
7.	*8609 Parkway Circle*	*27,500.00*
8.	*Spotswood Drive*	*26,900.00*
9.	*Carousel Lane, Brandon*	*23,500.00*
10.	*303 East Jean Street, Tampa*	*22,500.00*
11.	*3019 East Idlewild, Tampa*	*21,000.00*
12.	*9210 North Brooks Street, Tampa*	*18,500.00*
13.	*3102 Orient Road, Tampa*	*18,000.00*
14.	*8811 Cobb Road, Tampa*	*17,900.00*
15.	*3618 East Hanna, Tampa*	*12,500.00*

THREE BEDROOMS

1.	*6127 East 110th Avenue, Temple Terrace*	*$ 49,900.00*
2.	*6205 Harney Road, Tampa*	*45,900.00*
3.	*110 Valley Circle, Brandon*	*44,900.00*
4.	*239 Faithway Drive, Brandon*	*44,700.00*
5.	*Murray Farms Road, Plant City*	*43,000.00*
6.	*7215 Lilly Pad Lane, Tampa*	*41,500.00*
7.	*7325 Sequoia Drive, Thonotosassa*	*41,500.00*
8.	*806 Heidi Road, Brandon*	*40,900.00*
9.	*606 Sanfield, Brandon*	*39,900.00*

Table B-6 (Continued) *RESOURCES*

RESIDENCES TO PURCHASE
THREE BEDROOMS (Cont.)

10.	1206 Sagamore Drive, Brandon	$ 39,900.00
11.	9807 North 52nd Street, Temple Terrace	39,000.00
12.	120 Sandra Avenue, Brandon	38,900.00
13.	Route 10 Box 2138, Dover	38,500.00
14.	2012 Eskimo, Tampa	37,900.00
15.	1315 Waikiki Way, Tampa	36,500.00
16.	3814 East Norfolk, Tampa	35,500.00
17.	2016 Balfour Circle, Tampa	35,000.00
18.	7333 Filbert, Thonotosassa	34,900.00
19.	3003 East Elm, Tampa	34,500.00
20.	2212 65th Street, Tampa	34,500.00
21.	Thompson Road, Lithia	33,900.00

FOUR BEDROOMS

1.	123 Lakehills Drive, Tampa	$ 74,900.00
2.	1011 East Idlewild, Tampa	72,000.00
3.	514 Anthony Drive, Brandon	69,900.00
4.	602 Beverly, Brandon	69,000.00
5.	709 Westwood Circle, Brandon	68,500.00
6.	3102 King John Place, Brandon	63,600.00
7.	3608 Woodhill Drive, Brandon	58,900.00
8.	601 Hillpoint Way, Brandon	58,500.00
9.	138 East 144th Avenue, Tampa	46,500.00
10.	721 Clipper Place, Brandon	44,900.00
11.	8908 Navajo Avenue, Thonotosassa	43,500.00

Table B-6 (Continued) *RESOURCES*

RESIDENCES TO PURCHASE
FOUR BEDROOMS (Cont.)

12.	*2214 Harper Street, Tampa*	*$ 38,000.00*
13.	*1023 East Broad, Tampa*	*34,000.00*
14.	*1502 Deauville, Tampa*	*34,000.00*
15.	*8524 Blue Ridge Drive, Tampa*	*29,500.00*

Table B-6 (Continued) *RESOURCES*

RENTALS

Two Bedrooms

1.	*3506 San Juan, Tampa*	*$ 200.00 Monthly*
2.	*606 North Habana, Tampa*	*220.00 Monthly*
3.	*316 East 120th Avenue, Tampa*	*225.00 Monthly*

Three Bedrooms

1.	*El Camino, Palm River, Riverview*	*$ 112.00 Monthly*
2.	*116 Garland Court, Tampa*	*275.00 Monthly*
3.	*4003 Marietta, Tampa*	*275.00 Monthly*
4.	*8319 Galewood Circle, Tampa*	*285.00 Monthly*
5.	*12407 Oakleaf, Tampa*	*300.00 Monthly*
6.	*7910 Woodvine Circle, Tampa*	*350.00 Monthly*
7.	*11712 Colby Road, Tampa*	*395.00 Monthly*

Four Bedrooms

1.	*7005 Halifax Court, Tampa*	*$ 400.00 Monthly*
2.	*8304 Boxwood Drive, Tampa*	*450.00 Monthly*
3.	*15311 Ramblebrook, Tampa*	*625.00 Monthly*

Table B-6 (Continued) *RESOURCES*

BUSINESS SITES

1.	*19117 U.S. Highway 41-Lutz, Tampa*	*$ 150,000*	*Building + 100' x 155' x 100' x 175' Lot*
2.	*13609 Florida Avenue, Tampa*	*147,500*	*Building + 95' x 624' Lot*
3.	*1812 Busch Boulevard, Tampa*	*120,000*	*125' x 220' Lot + Frame Building*
4.	*574 Dover, Dover*	*94,450*	*Building, 272.57' on SR 574*
5.	*South Tamiami Trail-U.S. 41/603, Ruskin*	*89,000*	*Two buildings + Lot*
6.	*2502 East 131st Avenue, Tampa*	*86,000*	*Building + Lot*
7.	*3622 East Hillsboro, Tampa*	*80,000*	*Building + Lot*
8.	*6013 40th Street, Tampa*	*70,000*	*Building + Lot*
9.	*Highway 574, Plant City*	*67,500*	*Building + Lot*
10.	*804 East Linebaugh, Tampa*	*65,000*	*Commercial building, 109' on Linebaugh*
11.	*7601 Nebraska Avenue, Tampa*	*60,000*	*Restaurant*
12.	*1741-43 East Hillsboro, Tampa*	*59,900*	*Two unit building*
13.	*1818 Busch Boulevard, Tampa*	*55,000*	*Lot*
14.	*1536 East 7th Avenue, Tampa*	*55,000*	*Building*
15.	*7501-03-05 Causeway Boulevard, Tampa*	*55,000*	*Three unit Commercial building + Lot*
16.	*Highway 574, Seffner*	*55,000*	*Restaurant*
17.	*3905 15th Street, Tampa*	*53,900*	*Unfinished building + Lot*
18.	*8413 North 40th Street, Tampa*	*47,700*	*Two buildings + Lot*
19.	*East Nundy Avenue, Ruskin*	*47,500*	*Building + Lot*
20.	*"Mr. Swiss" Highway 41-Lutz, Tampa*	*46,500*	*Restaurant*
21.	*9009-9009½ North Nebraska, Tampa*	*41,000*	*Building + Lot*
22.	*300-302-304-304½ East Columbus Drive, Tampa*	*38,500*	*Four unit Office/Apt. buildin*
23.	*State Road 574 East, Tampa*	*30,000*	*One Acre, 269' on SR 574*

Table B-6 (Continued)

BUSINESS SITES

24.	*102 South Parsons, Brandon*	*$ 27,500*	*Building*
25.	*U.S. Highway 301, Riverview*	*21,500*	*100' x 150' Lot*
26.	*Highway 41 South - 1000 Block, Tampa*	*17,000*	*100' x 200' Lot*
27.	*Causeway Boulevard, Tampa*	*16,000*	*100' x 300' Commercial Lot*
28.	*U.S. Highway 301, Riverview*	*15,500*	*100' on U.S. 301 x 250'*
29.	*6900 Block of East Broadway, Tampa*	*14,900*	*104' x 158.7' Lot*
30.	*Palm River Road & Maydell, Tampa*	*12,000*	*1/4 Acre Lot*

Table B-7 *DATA TENDENCIES*

NEIGHBORHOOD (State Road 674 existing from U.S. 41 easterly to 15th Street Southeast)

1. *There are nine families in this neighborhood (45% of the entire project) and all were surveyed.*
2. *78% of the families (or a total of seven families) in this neighborhood (35% for the entire project) responded to our surveys.*
3. *56% of the families (a total of five families) in this neighborhood (25% for the entire project) have heads of households below sixty-two years of age.*
4. *22% of the families (or a total of two families) in this neighborhood (10% for the entire project) have heads of households above sixty-two years of age.*
5. *22% of the families (or a total of two families) in this neighborhood (10% of the entire project) are retired.*
6. *There are no families in this neighborhood that use public transportation.*
7. *33% of the families (or a total of three families) in this neighborhood (15% of the entire project) have annual incomes below $5,000.00.*
8. *22% of the families (or a total of two families) in this neighborhood (10% of the entire project) have annual incomes between $10,000.00 and $15,000.00.*
9. *11% of the families (or a total of one family) in this neighborhood (5% of the entire project) have annual incomes between $15,000.00 and $20,000.00.*
10. *11% of the families (or a total of one family) in this neighborhood (5% of the entire project) have annual incomes in excess of $20,000.00*
11. *56% of the families (or a total of five families) in this neighborhood (25% of the entire project) have family sizes from one to three persons.*
12. *11% of the families (or a total of one family) in this neighborhood (5% of the entire project) have family sizes of four to five persons.*
13. *11% of the families (or a total of one family) in this neighborhood (5% of the entire project) have family sizes in excess of six persons.*
14. *11% of the families (or a total of one family) in this neighborhood (5% of the entire project) are in need of special advisory services.*
15. *There are no minority families in this neighborhood.*
16. *44% of the families (or a total of four families) in this neighborhood (20% of the entire project) are owner occupants.*
17. *33% of the families (or a total of three families) in this neighborhood (15% of the entire project) are tenant occupants.*
18. *33% of the families (or a total of three families) in this neighborhood (15% of the entire project) live in dwellings between eleven and nineteen years of age.*
19. *44% of the families (or a total of four families) in this neighborhood (20% of the entire project) live in dwellings over 20 years of age.*
20. *67% of the families (or a total of six families) in this neighborhood (30% of the entire project) live in single family dwellings.*
21. *11% of the families (or a total of one family) in this neighborhood (5% of the entire project) live in mobile home dwellings.*
22. *There are two businesses in this neighborhood (22% of the businesses in the entire project) and both were surveyed.*
23. *Both businesses in this neighborhood (22% of the businesses in the entire project) responded to the surveys.*

Table B-7 (Continued)

NEIGHBORHOOD (State Road 674 one-way pair with 5th Avenue Southeast from U.S. 41 easterly to 15th Street Southeast)

1. *There were ten families in this neighborhood (50% of the entire project) and all were surveyed.*
2. *70% of the families (or a total of seven families) in this neighborhood (35% of the entire project) responded to the surveys.*
3. *50% of the families (or a total of five families) in this neighborhood (25% of the entire project) have heads of households below the age of sixty-two.*
4. *20% of the families (or a total of two families) in this neighborhood (10% of the entire project) have heads of households above the age of sixty-two.*
5. *20% of the families (or a total of two families) in this neighborhood (10% of the entire project) are retired.*
6. *None of the families in this neighborhood use public transportation.*
7. *10% of the families (or a total of one family) in this neighborhood (5% of the entire project) have annual incomes below $5,000.00.*
8. *30% of the families (or a total of three families) in this neighborhood (15% of the entire project) have annual incomes between $5,000.00 and $10,000.00.*
9. *20% of the families (or a total of two families) in this neighborhood (10% of the entire project) have annual incomes between $10,000.00 and $15,000.00.*
10. *10% of the families (or a total of one family) in this neighborhood (5% of the entire project) have annual incomes between $15,000.00 and $20,000.00*
11. *40% of the families (or a total of four families) in this neighborhood (20% of the entire project) have family sizes between one and three persons.*
12. *20% of the families (or a total of two families) in this neighborhood (10% of the entire project) have family sizes of four to five persons.*
13. *10% of the families (or a total of one family) in this neighborhood (5% of the entire project) have family sizes in excess of six persons.*
14. *10% of the families (or a total of one family) in this neighborhood (5% of the entire project) are in need of special advisory services.*
15. *10% of the families (or a total of one family) in this neighborhood (5% of the entire project) are of minority status.*
16. *50% of the families (or a total of five families) in this neighborhood (25% of the entire project) are owner occupants.*
17. *20% of the families (or a total of two families) in this neighborhood (10% of the entire project) are tenant occupants.*
18. *20% of the families (or a total of two families) in this neighborhood (10% of the entire project) live in dwellings between eleven and nineteen years of age.*
19. *30% of the families (or a total of three families) in this neighborhood (15% of the entire project) live in dwellings over twenty years of age.*
20. *70% of the families (or a total of seven families) in this neighborhood (35% of the entire project) live in single family dwellings.*
21. *There are no business displacees in this neighborhood.*

NEIGHBORHOOD (State Road 674 from 15th Street Southeast easterly to the proposed Interstate 75 Interchange)

1. *There are six families in this neighborhood (30% of the entire project) and they were all surveyed.*

2. *67% of the families (or a total of four families) in this neighborhood (20% of the entire project) responded to our surveys.*
3. *17% of the families (or a total of one family) in this neighborhood (5% of the entire project) have heads of households below sixty-two years of age.*
4. *50% of the families (or a total of three families) in this neighborhood (15% of the entire project) have heads of households above sixty-two years of age.*
5. *50% of the families (or a total of three families) in this neighborhood (15% of the entire project) are retired.*
6. *None of the families in this neighborhood use public transportation.*
7. *50% of the families (or a total of three families) in this neighborhood (15% of the entire project) have annual incomes below $5,000.00*
8. *17% of the families (or a total of one family) in this neighborhood (5% of the entire project) have annual incomes over $20,000.00*
9. *67% of the families (or a total of four families) in this neighborhood (20% of the entire project) have family sizes between one and three persons.*
10. *17% of the families (or a total of one family) in this neighborhood (5% of the entire project) are in need of special advisory services.*
11. *There are no minority families in this neighborhood.*
12. *67% of the families (or a total of four families) in this neighborhood (20% of the entire project) are owner occupants.*
13. *17% of the families (or a total of one family) in this neighborhood (5% of the entire project) live in dwellings between eleven and nineteen years of age.*
14. *50% of the families (or a total of three families) in this neighborhood (15% of the entire project) live in dwellings over twenty years of age.*
15. *67% of the families (or a total of four families) in this neighborhood (20% of the entire project) live in single family dwellings.*
16. *There are six businesses in this neighborhood (67% of the entire project) and they were all surveyed.*
17. *All six businesses in this neighborhood (67% of the entire project) responded to the surveys.*

NEIGHBORHOOD (State Road 674 from the proposed Interstate 75 Interchange easterly through Sun City Center to U.S. 301)

1. *There are no residential displacees in this neighborhood.*
2. *There is one business in this neighborhood (11% of the entire project) and it was surveyed.*
3. *The one business in this neighborhood (11% of the entire project) responded to the survey.*

Table B-8

INDUSTRY GROUPINGS BY NEIGHBORHOOD

NEIGHBORHOOD	*SIC CODE*	*INDUSTRY*
State Road 674 existing from U.S. 41 easterly to 15th Street Southeast	*653*	*Bob Remke Real Estate*
	581	*Marian's Sub Shop*
State Road 674 from 15th Street Southeast easterly to the proposed Interstate 75 Interchange	*723*	*Pampered Poodle House*
	753	*Drymon's Paint & Body Shop*
	354	*The Welding Shop*
	753	*The Auto Doctor*
	507	*Avery Hardware and Plumbing Supply*
	551	*Fannin Used Cars*
State Road 674 from the proposed Interstate 75 Interchange easterly through Sun City Center to U.S. 301	*653*	*Bess Janes Realty*