#### INTRODUCTION

#### EXPRESSWAY SYSTEMS

#### Metropolitan Dade County

In the latter part of 1956, Wilbur Smith and Associates submitted a master highway and traffic plan for Metropolitan Dade County which was accepted as a general guide for the Dade County Expressway System. This report recommended the construction of the North-South Expressway, 36th Street Expressway, East-West Expressway and the Dixie Expressway, for a total of some 41.5 miles. The report also endorsed the proposed Palmetto Expressway, the construction of which was to begin in 1957.

As of today, approximately 43 miles of expressways and high type facilities have been completed. This includes the Palmetto Expressway, the Airport Expressway, I-195 (Julia Tuttle Causeway), the North-South Expressway (I-95) from S. W. 32nd Road north to S. W. 22 Road and from N. W. 29th Street north through the Golden Glades Interchange, LeJeune Road from N. W. 36th Street south to the 20th Street Interchange, and bridges and approaches on the MacArthur Causeway. These improvements represent a cost of approximately 120 million dollars for right-of-way and construction.

Construction and expressway planning is continuing along the lines of the master plan. From the Golden Glades Interchange north, I-95 follows State Road 9 and is complete to Stirling Road in Broward County. Taft Street north to State Road 84 will be complete by the end of the year, and plans for the extension on to State Road 82 (Davie Boulevard) in Fort Lauderdale should be completed by that time. Interchanges at Miami Gardens Drive, Hallandale Beach Boulevard and Pembroke Road are presently under construction. Plans are currently being prepared for an additional interchange at Ives Dairy Road.

I-95 from S. W. 32nd Road north to S. W. 22nd Road has recently been completed although not open to traffic due to inaccessibility. The section from N. W. 20th Street north to the 36th Street Interchange was let in September. Consultants are currently preparing construction plans on that portion from S. W. 20th Street through the Miami downtown area north to N. W. 20th Street along the Alternate Route as recommended by the Wilbur Smith Report of 1962. That section from S. W. 32nd Street north to Flagler will be financed out of the County Bond Funds, and the County will be reimbursed for the Federal participation of this cost from Interstate funds as they become available between 1968 and 1971.

From Flagler north to the N. W. 20th Street will be under construction by 1966 according to the 5-year plan for interstate construction. Therefore, all the North-South Expressway and Interstate I-95, from S. W. 32nd Street in Miami north to State Road 84 in Broward County, is scheduled to be completed or under contract in the year 1967.

Expressway Systems Metropolitan Dade County

Construction plans are currently being prepared by consultant engineers for the proposed East-West Expressway from the Palmetto Expressway east to the MacArthur Causeway. This segment is 8.5 miles in length and is estimated to cost approximately \$41,000,000 for construction and rights-of-way excluding the Midtown Interchange connection to the North-South Expressway.

High type facilities other than expressways which directly or indirectly complement the expressway system in Dade County and which are under contract as follows:

N.W. 7th Street - N.W. 57th Avenue (Red Road) to N.W. 42nd Avenue (LeJuene Road)

N.W. 17th Avenue - N.W. 36th Street (SR 25) to N.W. 54th St. (SR 25-A)

N.W. 22nd Avenue - Bridge and Approaches at Miami River

N.W. 22nd Avenue - 135th St. to SR 826 (Palmetto Expressway)

S.W. 37th Avenue - SR 5 north to NW 7th St.

N. Kendall Drive - SR 826 (Palmetto Expressway) to SR 27 (Krome Ave.)

In addition construction has been completed on the 4-laning of State Road 90 (Tamiami Trail) as a divided highway from SR 826 (Palmetto Expressway) to SR 27 (Krome Avenue) and the 4-laning of LeJeune Road from the Miami Canal north to N.W. 59th Street.

The Sunshine State Parkway, which formerly ran from the Golden Glades Interchange to Fort Pierce, has been extended and open to traffic as of January, 1964, to I-95 in the vicinity of Wildwood. The total length has thus been increased to 265 miles.

#### NORTH-SOUTH EXPRESSWAY

## Section 87270 - I-95

The North-South Expressway extends from State Road 5 (US 1, Old Dixie) and S.W. 32nd Road north to the Golden Glades Interchange, a distance of approximately 13 miles. This is probably the most important part of the Dade County Expressway System in that it is also a part of Interstate I-95 which spans the east coast of the nation from Houlton, Maine on the Canadian border to its southern terminus at S.W. 32nd Road in the City of Miami.

# Projects Completed or Under Construction

Initial Construction on the North-South Expressway began in July, 1959, on the section of the expressway between N.W. 48th and N.W. 71st Streets. Six additional contracts followed in succession and resulted in completion of the expressway by November, 1962, from N.W. 29th Street to N.W. 151st Street, including the interchange with the Airport Expressway. A contract for the section north of 151st Street through and including the Golden Glades Interchange was awarded in January, 1963. Construction in the interchange included a companion project of the Turnpike Authority for providing access to and from the Sunshine State Parkway. The entire roadway complex from 29th Street through the Golden Glades Interchange is now complete and open to traffic. A project for construction of the southern terminus of the expressway between 8.W. 32nd Road at State Road 5 (US 1) and S.W. 22nd Road was started in September, 1963, and completed in August of 1964. Bids on a contract for the expressway section between N.W. 22nd Street and N.W. 32nd Street to make the tie-in to the proposed midtown interchange with the proposed East-West Expressway have been received. It is anticipated that construction will commence in the latter part of October, 1964.

The portion of the expressway completed to date includes three split diamond interchanges 53-54 St., 79-81 St., and 135-Opa Locka Boulevard; four diamond interchanges, 69, 95, 103, and 125th Streets; two half diamonds at 119th Street and 151st Street; five grade separations, 66, 71-75, 111, 131-132, and 143; and naturally the two interchanges at Golden Glades and the Airport Expressway. The Expressway north of the 36th Street interchange to 135th Street was built as an 8-lane facility reducing to six lanes from 135th Street through Golden Glades. The section between the proposed midtown interchange to the 36th Street Interchange will provide for 10 traffic lanes. Traffic separators include a concrete median barrier wall 27" in height in the section between 22nd and 32nd Streets; a 20-ft. median from the Midtown Interchange to 135th Street; and a 32-ft. median north of 135th Street.

North-South Expressway Section 87270 - I-95

TRAFFIC
Since the expressway from Northwest 29th Street through Golden Glades has been opened to traffic, counts have indicated volumes considerably greater than anticipated. Following is a tabulation showing a comparison between present traffic and 1975 anticipated volumes:

Count Location	1964 ADT Month	ADT	Anticipated 1975 ADT*
At N.W. 32nd St.	June February September February September September September	49,193	156,800
I-95 at N.W. 50th St.		96,771	116,000
At N.W. 65th St.		92,184	118,800
At N.W. 77th St.		95,191	115,600
At N.W. 113th St.		80,062	115,200
At N.W. 130th St.		65,197	98,000
At N.W. 145th St.		54,690	82,600

<sup>\*</sup> Wilbur Smith, "A Major Highway Plan for Metropolitan Dade County," Dec., 1956.

The remainder of the North-South Expressway, not already built or under construction, including the Midtown Interchange with the proposed East-West Expressway and the Downtown Distributor which terminates in the DuPont Plaza area, is presently being designed by consulting engineers under contract with the Road Department. Plans and right-of-way maps are in varying stages of completion dependent on the complexity of the work and other economic

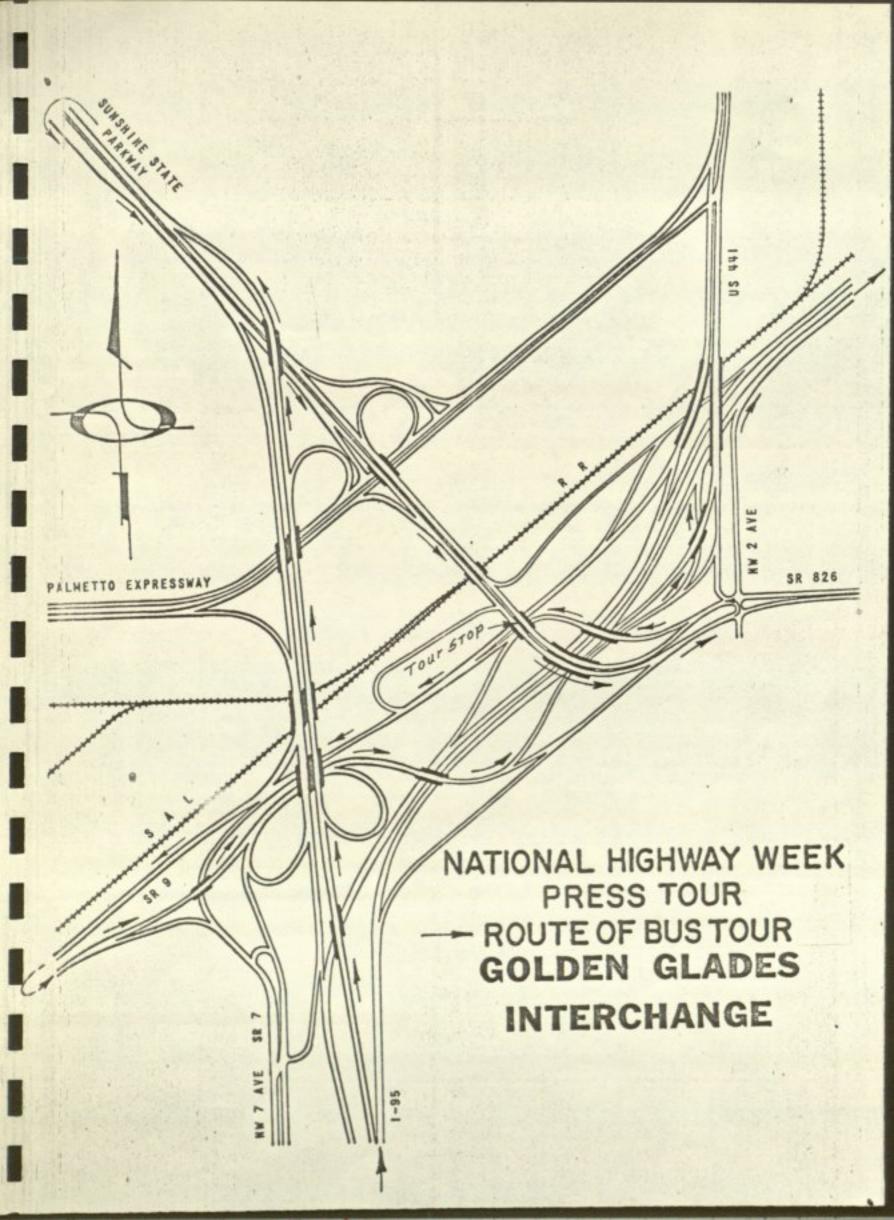
and engineering considerations. Following is a tabulation of the projects involved in the complete expressway system indicating the consultants preparing the plans and other pertinent information:

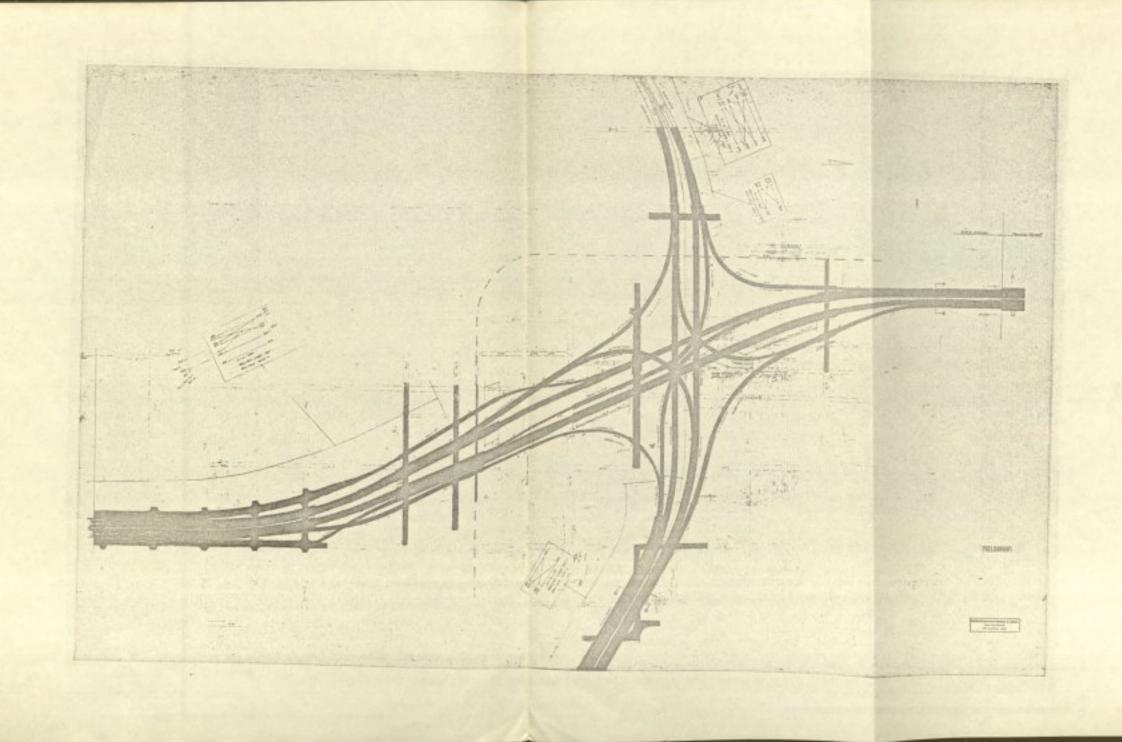
Project Limits	Length in Miles	Estimated Const. Cost	Estimated Cost of R/W	Consultants
SW 22nd Road to SW 8 St.	0.9	\$2,970,000	\$2,500,000	Connell
SW 8 to SW 4 Sts.	0.27	2,200,000	2,500,000	Greiner
SW 4 to SW 2 Sts. & River Bridge	0.11	2,500,000	1,000,000	Greiner
N. River Drive to Flagler & SW 2 St	0.19	3,600,000	3,000,000	Greiner
SW 2 to SE 2 Sts. & Downtown Distributor	0.5	1,200,000	3,500,000	J.A. Greiner
Flagler St. Bridge & Approaches	0.3	1,650,000	2,500,000	J.A. Greiner
W. Flagler St. to NW 4th St.	0.26	2,200,000	3,500,000	J.A. Greiner
NW 4 to N. of NW 11 Ct.	-	4,950,000	6,000,000	Beiswenger, Hoch, Arnold & Associates.
N of NW 11 Ct. to NW 22 (Includes Downtown Inter	St chagge)	8,800,000	11,000,000	Beiswenger, Hock, Arnold & Associates.

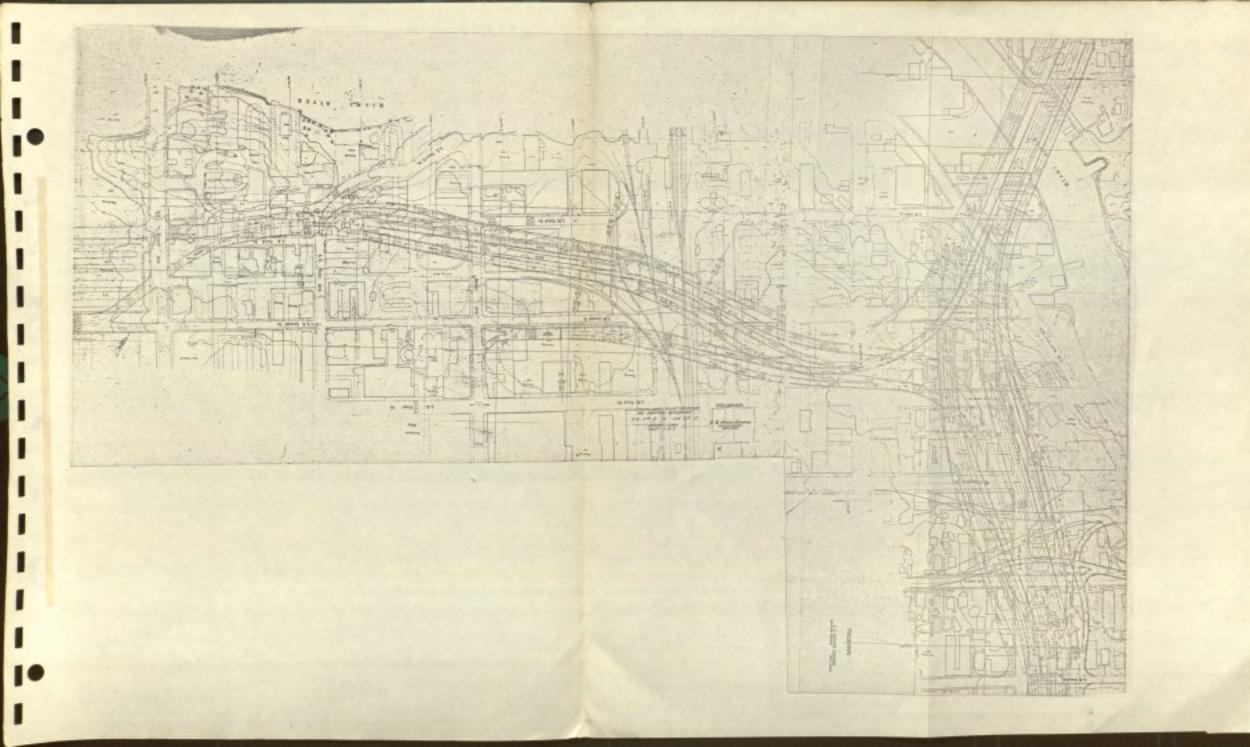
North-South Expressway Section 87270 - I-95

Specific information regarding construction on the North-South Expressway completed or under contract is as follows:

Length in Miles	Construction	R/W Cost	Contractor
0.798	\$1,339,000	\$2,000,000	Powell Bros. & Heavy Const. &
0.539	945,941*	1,250,000	Ballenger Paving
0.397	3,857,000	5,000,000	A.F. Foster Bridge Corp.
0.574 ge)	4,574,000	5,000,000	F.C. Industries & G.E. Bunnell, Inc.
1.273	2,412,000	4,500,000	R.H. Wright
0.297	1,450,000	1,500,000	L & A Const. Co.
1.124	2,300,000	1,000,000	A.M. Campbell Co.
1.521	1,973,900	3,294,000	A.J. Capeletti
1.018	1,896,300	1,831,800	R.H. Wright
1.141	1,279,800	2,300,500	T.C. Stockton, Inc.
1.650	3,805,000	749,450	A.J. Capeletti
	1,961,000	749,450	A.J. Capeletti
3	90,300		Heavy Const.
5t.	201,674		Nat'l Adv. Co.
St.	217,740		
	Miles  0.798  0.539  0.397  3e)  0.574  3e)  1.273  0.297  1.124  1.521  1.018  1.141  1.650	0.798 \$1,339,000 0.539 945,941* 0.397 3,857,000 ge) 0.574 4,574,000 0.297 1,450,000 1.124 2,300,000 1.521 1,973,900 1.018 1,896,300 1.141 1,279,800 1.650 3,805,000 1.961,000 90,300 3t. 201,674	Miles         Cost         R/W Cost           0.798         \$1,339,000         \$2,000,000           0.539         945,941*         1,250,000           0.397         3,857,000         5,000,000           389)         0.574         4,574,000         5,000,000           389)         1.273         2,412,000         4,500,000           0.297         1,450,000         1,500,000           1.129         2,300,000         1,000,000           1.521         1,973,900         3,294,000           1.018         1,896,300         1,831,800           1.018         1,896,300         1,831,800           1.141         1,279,800         2,300,500           1.650         3,805,000         749,450           30,300         30,300           3t.         201,67%







#### EAST-WEST EXPRESSWAY

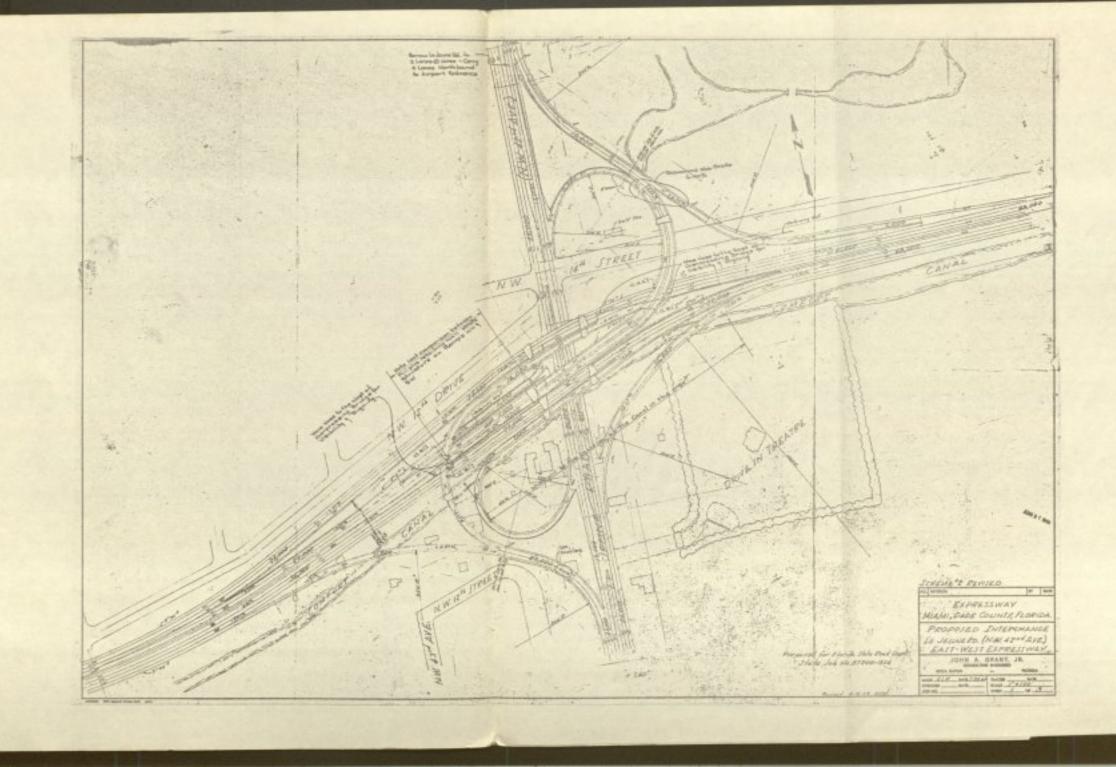
The State Road Department has contracted with three consulting engineering firms for preliminary engineering on the proposed East-West Expressway to result in completed right-of-way maps suitable for right-of-way acquisition and construction drawings complete in detail and suitable for contracting purposes. The alignment of the proposed expressway is in general conformance with that proposed in "A Major Highway Plan for Metropolitan Dade County, Florida," (Wilbur Smith and Associates, 1956) and "Alternates for Expressways, Downtown Miami," (Wilbur Smith and Associates, 1962) from the MacArthur Causeway to LeJeune Road (N.W. 57th Avenue). West of LeJeune Road the alignment deviates from that proposed by Wilbur Smith to more nearly conform to future development plans of Metropolitan Dade County. The exect alignment of the facility will be based on both engineering and economic considerations which will result in the least cost roadway consistent with sound engineering practices. Preliminary plans call for a high level fixed span bridge over the Miami River between N.W. 17th Avenue and N.W. 12th Avenue which will provide a clearance of 55 feet above high tide and will accommodate better than 98 per cent of boat traffic presently using this section of the Miami River. Interchanges are planned for Palmetto Express-way in the vicinity of N.W. 12th Street at Milam Dairy Road; Red Road (N.W. 67th Avenue), LeJeune Road (N.W. 57th Avenue), N.W. 27th Avenue, N.W. 17th Avenue, and at N.W. 12th Avenue. Plans also provide for an interchange of the East-West Expressway with the North-South Expressway (I-95) in the vicinity of N.W. 14th Street and N.W. 6th Avenue. This interchange is discussed under the N-S section of this report.

Financing of the section of the East-West Expressway from the Midtown Interchange east to the MacArthur Causeway will be 50/50 financing of Federal urban and Dade County Bond Funds as will the section from LeJeune Road to the Palmetto Expressway. The section between LeJeune Road and the Midtown Interchange will be financed entirely from Bond monies which will be repaid from toll revenues collected on the section not involving use of Federal funds. Preliminary plans call for a toll plaza west of the 17th Street Interchange in the vicinity of the 20th Avenue, for collection of tolls from both east-bound and west-bound vehicles.

Average daily traffic volumes anticipated for 1975 on the East-West Expressway range from 46,600 for the section between the Palmetto Expressway and N.W. 57th Avenue to 78,400 between N.W. 12th Avenue and the Midtown Interchange. Traffic between the Midtown Interchange and MacArthur Causeway is anticipated to be 86,000 vehicles per day.

Additional information regarding the East-West Expressway is as follows:

Roadway Section R/W Cost Palmetto to LeJeune 3,000,000 LeJeune to NW 27 Ave. 3,100,000 NW 27 Ave. to NW 12 Ave. 3,750,000	Const. Cost 5,270,000 3,008,000 6,555,444	Consultant E. Lionel Pavlo, Inc. J.A. Grant Jr., Inc. Beiswenger, Hoch, Arnol & Associates
NW 12 Ave. to MacArthur Causeway 10,100,000	5,850,000	J.A. Grant, Jr., Inc.



## AIRPORT EXPRESSWAY

# Section 87090 - S. R. 25

The Airport Expressway, which was recommended by Wilbur Smith and Associates in the 1956 "Master Highway and Traffic Plan for Metropolitan Dade County," extends from LeJeune Rd. east to the 36th Street Interchange, a distance of 3.5 miles. This provides a direct route from the Miami International Airport east and via the Julia Tuttle Causeway to Miami Beach. The Expressway was financed through a bond issue and is operated as a toll facility. Toll is collected at only one location which is west of the N.W. 12th Street Interchange.

Work began on the Airport Expressway November 1959 and was completed and in operation December 1961. This section was built as a 6-lane facility divided by a 20' parkway. Between the LeJeune Interchange and the 36th Street Interchange there are three (3) interchanges which are N.W. 12th Ave., N.W. 22nd Ave., and N.W. 27th Ave., and three (3) overpasses at N.W. 17, 32, and 37th Avenues.

In the "Traffic and Revenues" report, an average daily volume of 16,000 was predicted through the toll plaza for the year 1964. Actual volumes have greatly exceeded these predictions and we are operating with volumes in excess of those predicted for the year 1975. The high daily volume thus far has been 79,000 vehicles. Traffic volumes have averaged well over a million each month.

That portion of LeJeune Road between the LeJeune Interchange south to the 20th Street Interchange into the Miami International Airport was reconstructed as an 8-lane facility with a 6' barrier median as a separator. The 1975 traffic projections predicted a 24-hour volume of 90,000 for this section of LeJeune Road.

Further information regarding the Airport Expressway and that portion of LeJeune Road to the 20th Street Interchange is as follows:

Airport Expressway	Length in Miles	Construction Bid Price	R/W Cost	Contractor
N.W. 10 - 12th Ave.	0.141	249,000		A.F. Foster Bridge Corp.
N.W. 12 - 22nd Ave.	0.899	754,100	2,606,000	Capeletti Bros.
N.W. 22 - 30th Ave.	0.880	1,430,000	1,053,500	R. H. Wright
N.W. 30 - 37th Ave.	0.774	803,500	1,649,800	Capeletti Bros, Inc. & Joe Daniel, Inc.

Airport Expressway Section 87090 - SR 25

Airport Expressway	Length in Miles	Construction Bid Price	R/W Cost	Contractor
LeJeune Interchg.	0.774	3,143,100	1,743,400	Reed Const. Corp. & Edwin C. Asche
Toll House & Plaza		88,700	-	Apgar & Markham
Toll Equipment		169,500		Grant Money-Meters
Signing	-	62,000		SRD
	3.468	\$6,699,900	\$ 7,052,700	
LeJeune Rd.				
N.W. 21 - 36th Ave.	0.343	129,300	65,100	Capeletti Bros., Inc.

q.

#### PAIMETTO EXPRESSWAY

## Section 87260 - S.R. 826

The Palmetto Expressway is a limited access facility beginning at State Road 5 (US 1, Old Dixie) in Kendall and extending north and east to the Colden Glades Interchange, a distance of 24 miles. This expressway was conceived and built as a bypass around the greater Miami area with interchange connections at State roads and at the more important intersecting local roads.

Construction was begun May, 1957, and was completed July, 1961. The Express-way was built as a 4-lane facility divided by a 40' parkway. The section from State Road 5 (US 1) in Kendall north to State Road 25 (Okeechobee Road) was built as a complete limited access facility with 13 interchanges which are as follows: State Road 5 and Old Dixie, Kendall Drive, Sunset Drive, Miller Road, Bird Road, Coral Way, S.W. 8th Street (State Road 90 - Tamiami Trail), Flagler, N.W. 12th Street, N.W. 36th Street, N.W. 58th Street, N.W. 74th Street and State Road 25 (Okeechobee Road).

That portion from State Road 25 north and east to the Golden Glades Interchange, which was originally conceived as a feeder road to the Turnpike, was built at grade with a system of frontal roads allowing only the more important roads to intersect with the main facility. This was necessary due to the restriction of funds. Since the Palmetto Expressway was completed, full diamond interchanges have been constructed at N.W. 17th, 27th, 37th, and 57th Avenues and 103rd Street. Grade separations have been added at 22nd and 32nd Avenues. Consultants are presently preparing plans for a full diamond interchange at N.W. 47th Avenue, a half diamond at N.W. 12th Avenue, and a grade separation at N.W. 42nd Avenue. It is anticipated that these three will be under contract by the end of the year and completed by June, 1965. Finished plans for a diamond interchange at N.W. 67th Avenue have been prepared and are being held pending availability of construction funds. The section from State Road 25 north and east to the Golden Glades Interchange was financed jointly by the Florida State Turnpike Authority and the State Road Department. The additional interchanges were constructed from Primary Road Budget funds.

Traffic counts along the Palmetto Expressway show volumes of 26,341 north of State Road 5 (US 1), 42,834 north of the Tamiami Trail, 26,610 north of State Road 25 (Okeechobee Road) and 28,732 west of the Golden Glades Interchange. Additional information regarding the construction of the Expressway is as follows:

Palmetto Expressway	Length in Miles	Construction Bid Price	R/W Cost	Contractor
S.R. 5 (US 1) to Miller Road	2.734	2,286,100	1,374,900	Troup Bros., Inc.
Miller Road to SW 14 St	. 3.009	3,107,500	2,587,600	Troup Bros., Inc.

Section 87260 - S.R. 826 Palmetto Expressway

Palmetto Expressway	Length in Miles	Construction Bid Price	R/W Cost	Contractor
s.w. 14 stN.W. 12 St.	1.505	2,183,200	1,364,500	Troup Bros., Inc.
N.W. 12 StN.W. 58 St.	2.956	2,882,300	695,200	R. H. Wright
N.W. 58 StS.R. 25	1.928	2,289,700	554,900	C.T. Stockton
(Okeechobee Rd.)				
Okeechobee Rd. Interchange	0.419	992,600	230,400	Cone Bros.
Okeechobee Rd. Inter-				
Change to Golden Glades Interchange	11.636	2,705,600	3,682,000	R. H. Wright
5 additional Interchange	s 2.5	2,559,200	Exist R/W	Various Cont's
2 additional Grade Separ	ations 1.0	818,700	Exist R/W	Various Cont's

#### MacARTHUR CAUSEWAY

## Section 87060 S.R. ALA

The MacArthur Causeway has been the main connection between the City of Miami and Miami Beach since the early days of their beginning. Prior to 1956, two timber bridges connected the causeway with Miami and Miami Beach. The bridge over the Intracoastal Waterway was commonly referred to as the "West Bridge", and the one over the east channel was known as the "East Bridge", both of which were bascule types.

Beginning in 1956, these bridges have been replaced by modern concrete bridges. The East Bridge is a fixed bridge 2155 feet in length and having a vertical clearance of 35 feet above mean high water and a horizontal clearance of 75 feet for navigation purposes. It consists of two 38-foot roadways with a 4-foot mountable median as a separator between east and westbound traffic.

A left-turn structure was included in the construction of the approaches to the East Bridge for the purpose of providing free movement for east-bound traffic wishing to turn north upon Alton Road. This bridge has a length of 715 feet and a roadway width of 16 feet, and carries approximately 6,500 vehicles per day. Prior to the construction of this left-turn facility, this point of conflict was considered one of the worse bottlenecks on Miami Beach.

The West Bridge is a bascule type with an overall length of 2,114 feet and having a vertical clearance of 35 feet above mean high water and a horizontal clearance of 90 feet for navigation. This bridge consists of two 40-foot roadways with a 6-foot barrier median as a separator.

Work began on these improvements June 1956 and was completed August 1961, and information regarding these improvements is as follows:

	Length in Miles	Construction Bid Price	R/W Cost	Contractor
East Bridge	0.408	2,042,700	150,800	Powell Bros.
West Bridge	0.765	3,160,800	220,400	Powell Bros.
Left Turn Str.	0.416	926,400	34,500	Powell Bros. & Heavy Const.
	1.589	\$ 6,129,900	\$ 405,700	

The total length of the MacArthur Causeway from Biscayne Boulevard to Alton Road is 3.4 miles and is a 6-lane divided facility carrying an annual average daily traffic count of 30,000 vehicles per day.

# JULIA TUTTLE CAUSEWAY - I-195

# Section 87090 - State Road 25

The need of an additional causeway between the City of Miami and Miami Beach in the vicinity of N. E. 36th Street has been recognized for many years and was recommended as a result of the origin and destination survey conducted by the State Road Department in 1950-51. This recommendation was later endorsed by the Consulting Engineers, Wilbur Smith and Associates, and was included in their master highway and traffic plan for Metropolitan Dade County which was published in 1956 and which has been accepted as a general guide for the Dade County Expressway System. The Julia Tuttle Causeway was then approved as a part of the Interstate System as a spur route to Miami Beach and is known as I-195.

In November 1957, construction began on the Julia Tuttle Causeway from the west shore of Biscayne Bay east to Alton Road and tieing in with Arthur Godfrey Road in Miami Beach. This is a distance of 3.4 miles. The roadway section was constructed as a 6-lane facility divided by a 40-foot parkway. Two fixed-span bridges connect the causeway with Miami and Miami Beach. The west bridge over the Intracoastal is 2,150 feet in length and has a vertical clearance of 55 feet and horizontal clearance of 90 feet for navigational purposes. The east bridge is 1,138 feet in length and has a vertical clearance of 35 feet and a horizontal clearance of 75 feet. Both bridges consist of two 38-foot lanes with a 4-foot mountable median as a separator. An interchange was constructed at the terminal point with Alton Road and the main overpass structure has a length of 310 feet. The Julia Tuttle Causeway and its connectors on the west and to State Road 5 (Biscayne Boulevard) were completed December 1960.

In March 1960 construction began on the remaining section of I-195 connecting the Julia Tuttle Causeway to the 36th Street Interchange at N. W. 2nd Avenue. This was built as a 6-lane divided facility. The section also includes 5 structures for a length of 2,011 feet. "On" and "Off" ramps were constructed at Miami Avenue and at State Road 5 (Biscayne Boulevard). This work was completed May 1961 and information regarding the total construction of I-195 is as follows:

	Length in Miles	Construction Cost	R/W Cost	Contractor
N.W. 2nd Ave. to West Shore Biscayne	1.019	3,300,000	2,500,000	R. H. Wright
West Shore Biscayne to West End of East Br.	1.651	3,860,000)	500,000	Powell Bros.
East End of East Bridge to Alton Rd.	0.722	3,627,000)	2,000,000	Troup Bros.

Julia Tuttle Causeway

	Length in Miles	Construction Cost	R/W Cost	Contractor
Structures (West and East Bridges	0.623	3,912,000		Powell Bros.
Signing		42,600	-	Fla. Guard Rail Co.
	4.015	\$14,741,600	\$5,000,000	

The total length of I-195 from N.W. 2nd Avenue in Miami to Alton Road in Miami Beach is a distance of 4.015 miles. The estimated traffic volumes for 1975 along the causeway was 51,000. Recent counts indicate current volumes of 54,000.

## DREDGING OPERATIONS FOR MATERIAL STOCKPILING

Section 87090 - Julia Tuttle Causeway

In the planning stages for the construction of the North-South Expressway, the Airport Expressway and that part of I-195 from N. W. 2nd Avenue east to Biscayne Shore, the problem of securing embankment material in sufficient quantities and within a reasonable hauling distance was encountered. Soil tests conducted in the Bay area north of the Julia Tuttle Causeway indicated that the Bay bottom material was suitable and the contract was awarded to R. H. Wright, Inc. for the dredging and stockpiling of 3 million cubic yards. This was later increased to  $3\frac{1}{2}$  million cubic yards at a total cost of \$1,690,500 or 48.3 cents per cubic yard.

Dredging and stockpiling began July 1959 and was completed October 1960. The material was used on the remaining portion of I-195, on the North-South Expressway from N. W. 29th Street north to 95th Street and on the Airport Expressway from N. W. 37th Avenue east to the 36th Street Interchange. Therefore, this material served the embankment needs for 9 separate projects.

It was estimated that by using fill material from the Bay bottom rather than securing material from other available areas west of the Miami area, savings of approximately 50 cents per cubic yard was realized by the Department.

#### SUNSHINE STATE PARKWAY

### Florida State Turnpike Authority

The Sunshine State Parkway is one of the more recent Turnpikes in the nation and extends from the Golden Glades Interchange north to Interstate 75 west of Wildwood which is a distance of 265 miles.

The Turnpike is a 4-lane divided facility with 19 interchanges serving the areas along the way. Seven service areas were built to provide restaurant facilities and service stations. These are located in the vicinity of Pompano, West Palm Beach, Fort Pierce, Fort Drum, St. Cloud, Orlando, and Leesburg.

Construction began July 1955 and was completed to Fort Pierce in January, 1957, at a cost of 65 million dollars. In 1961 construction began on the extension to Wildwood and was completed by January 1964 at a cost of 78 million dollars. The average daily number of trips for the month of August was 24,928. The average trip length for August was 73.5 miles whereas the yearly average is 53.8 miles. On September 26, 1964, 652 trips through from the Golden Glades Terminus to Wildwood were recorded which represents 2.6 % of the average daily trip during the month of August.