

# DOWNTOWN KENDALL TRANSPORTATION STUDY

FINAL SUBMITTAL

Work Order No. GPC 10

MPO Technical Studies Program Support

PREPARED FOR:



MIAMI-DADE COUNTY  
PLANNING AND ZONING  
DEPARTMENT

PREPARED BY:



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MARCH 2002





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## **1.0 INTRODUCTION**

### **1.1 Project Background**

The concept to redevelop the Downtown Kendall area was generated by Chamber South in 1997. The Florida Department of Community Affairs, Miami-Dade County, and the South Florida Water Management District, provided financial assistance to develop a master development plan.

A charrette was held in June 1997 and three months later a Master Plan was presented to the Miami-Dade Board of County Commissioners. The Board approved the Plan but instructed the County to make necessary changes to the Code in accordance with the Plan's recommendations. Chamber South organized a steering committee composed of residents, business owners, government agencies, and neighboring communities. This steering committee along with the Department of Planning & Zoning, created a new development code to comply with the Downtown Kendall Master Plan. The Board of County Commissioners adopted an ordinance designating downtown Kendall as an Urban Center Zoning District in December of 1999.

As part of the development of the Downtown Kendall Urban Center District Master Plan, the pedestrian was identified as the number one priority, while transit systems were to be expanded and the single occupant motor vehicle was to be de-emphasized. Kendall Drive was identified to become the community's "Main Street" as a grand boulevard. The Main Street concept included taller buildings being built up to the street edge, wider sidewalks shaded with colonnades or arcades, on-street parallel parking, four lanes of traffic, an on-street transit system, and landscaped median. A Street Frontage Plan was developed establishing a hierarchy of street types (A through E) for the entire district. The segment of North Kendall Drive between US-1 And the Palmetto Expressway was designated as a Type "A" street which is the most important.

In April of 2000 the Comprehensive Development Master Plan was amended and included an amendment to the Transportation Circulation Subelement. The Plan, expanded to the Year 2015, included number of lanes and functional classifications in order to modify the designation of Kendall Drive between US-1 and the Palmetto Expressway. The redesignation included the elimination of two of the six existing through lanes to accommodate parallel on-street parking and median improvements. It also included changing the functional classification from State Principal Arterial to County Minor Arterial. This amendment was intended to help implement the recommendations contained in the Downtown Kendall Master Plan.

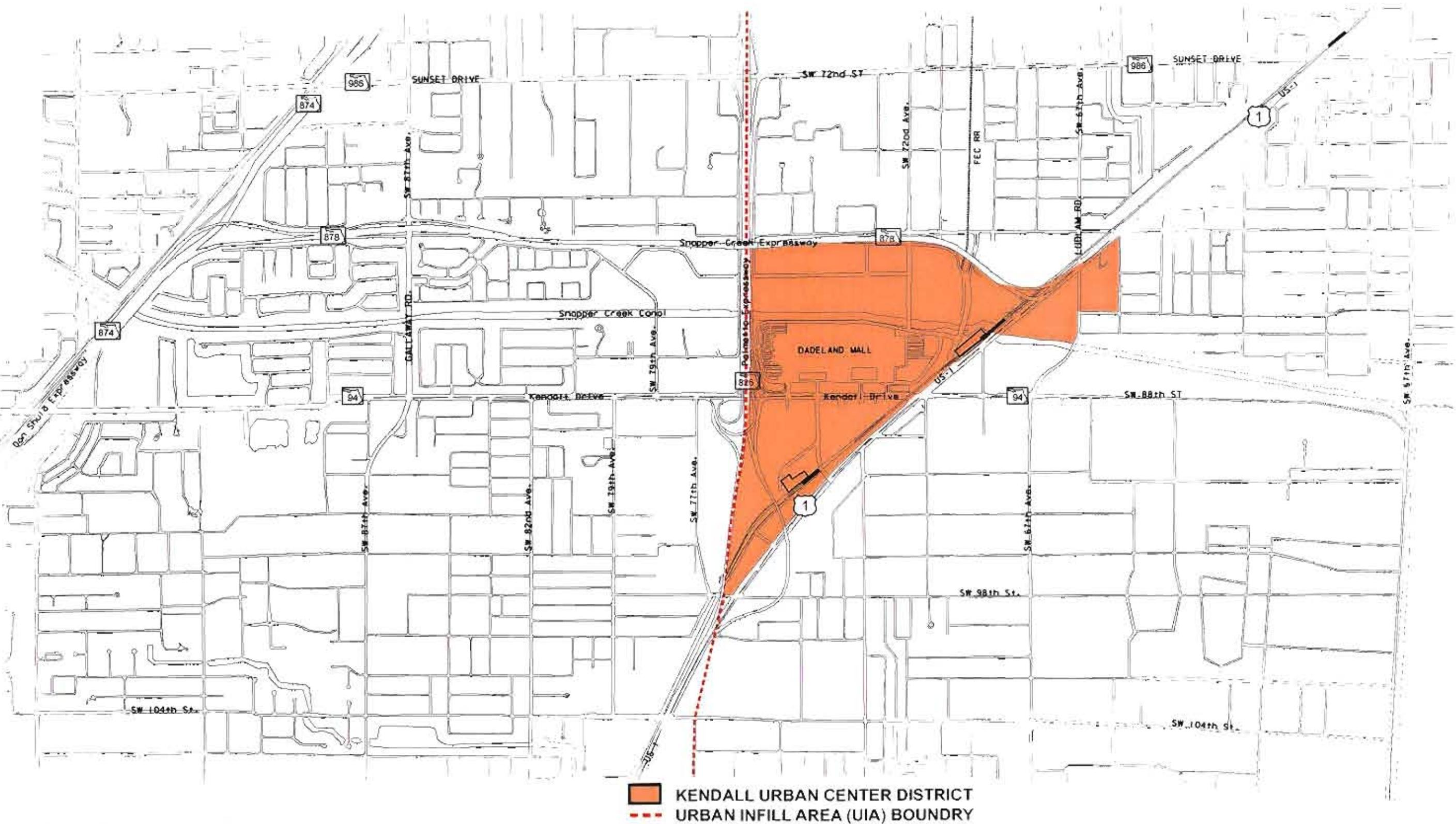
### **1.2 Purpose of Study**

The purpose of this study is to provide the Miami-Dade County Department of Planning and Zoning with documented information on the transportation related impacts associated with reducing the number of through lanes from six to four and adding on-street parallel parking along Kendall Drive between the Palmetto Expressway (SR-826) and US-1. The

study includes travel demand modeling for the Downtown Kendall Urban Center District (DKUC) and arterial operational analysis along Kendall Drive. Additionally, mitigation projects were developed and evaluated to address the anticipated DKUC District development along with the Kendall Drive lane reduction impacts.

### **1.3 Study Area Description**

The study area encompasses the Downtown Kendall Urban Center District, which includes the area of Dadeland Mall and the two contiguous areas north and south of the mall. *Exhibit 1* illustrates a project location map. The entire study area is located within unincorporated Miami Dade County and is bordered on the west by the Urban Infill Area Boundary along the Palmetto Expressway/SR-826.



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# PROJECT LOCATION MAP

## DOWNTOWN KENDALL TRANSPORTATION STUDY

**EXHIBIT 1**



## **2.0 EXISTING CONDITIONS**

### **2.1 Existing Transportation Infrastructure**

#### **2.1.1 Existing Highway Network**

The Downtown Kendall Urban Center (DKUC) District is located in a highly urbanized area with a relatively extensive highway network. The network includes two freeways, Palmetto and Snapper Creek Expressways, two major arterials, Kendall Drive and US-1, and several minor arterial and collector roadways. The two freeways mainly provide uninterrupted flow and high-speed regional travel; but they also, serve to limit local street network interconnections. *Exhibit 2* illustrates the highway network in the vicinity of the DKUC District. Traffic signals are present at most major with a high density of signals being present along Kendall Drive within the District. The network of traffic signals is also illustrated in *Exhibit 2*.

#### **2.1.2 Existing Kendall Drive Typical Section**

The existing roadway typical section for Kendall Drive within the District is illustrated in *Exhibit 3*. The segment within the district is typically six lanes with a seventh auxiliary lane being present for westbound access into the mall. However, it should be noted that a short segment of Kendall Drive just west of US-1 only has a five-lane section (3 lanes eastbound and 2 lanes westbound), which is the controlling link.

#### **2.1.3 Existing Kendall Drive Intersections**

The various intersections along Kendall Drive from SW 87<sup>th</sup> Avenue to SW 67<sup>th</sup> Avenue were drafted in schematic form to serve as the basis for the operational analysis. There are currently nine signalized intersections and ten non-signalized intersections between SW 87<sup>th</sup> Avenue and SW 67<sup>th</sup> Avenue. *Exhibit 4* illustrates the signalized intersections while *Exhibit 5* illustrates the unsignalized intersections.

#### **2.1.4 Existing Transit Network**

The DKUC District is serviced by a relatively extensive transit system that includes Metro-Rail (elevated rail line and two stations within the DKUC District), the South Dade Busway and several conventional bus routes that utilize the existing highway network. *Exhibit 6* illustrates the transit network in the vicinity of the DKUC District. Miami Dade Transit (MDT) is currently considering the implementation of a local dedicated Downtown Kendall Circulator. Three dedicated circulator services (Loops 1/North, 2/Mall and 3/South) have been considered and are illustrated in *Exhibit 6*. The mall loop, loop 2, is anticipated to produce the highest daily ridership with approximately 10,700 passengers, followed by the south loop, loop 3, with approximately 5,000 passengers, and the north loop, loop 1, with approximately 1,100 passengers. Loop 2 has been recommended for implementation within the next two years.

## **2.1.5 Existing Traffic Conditions**

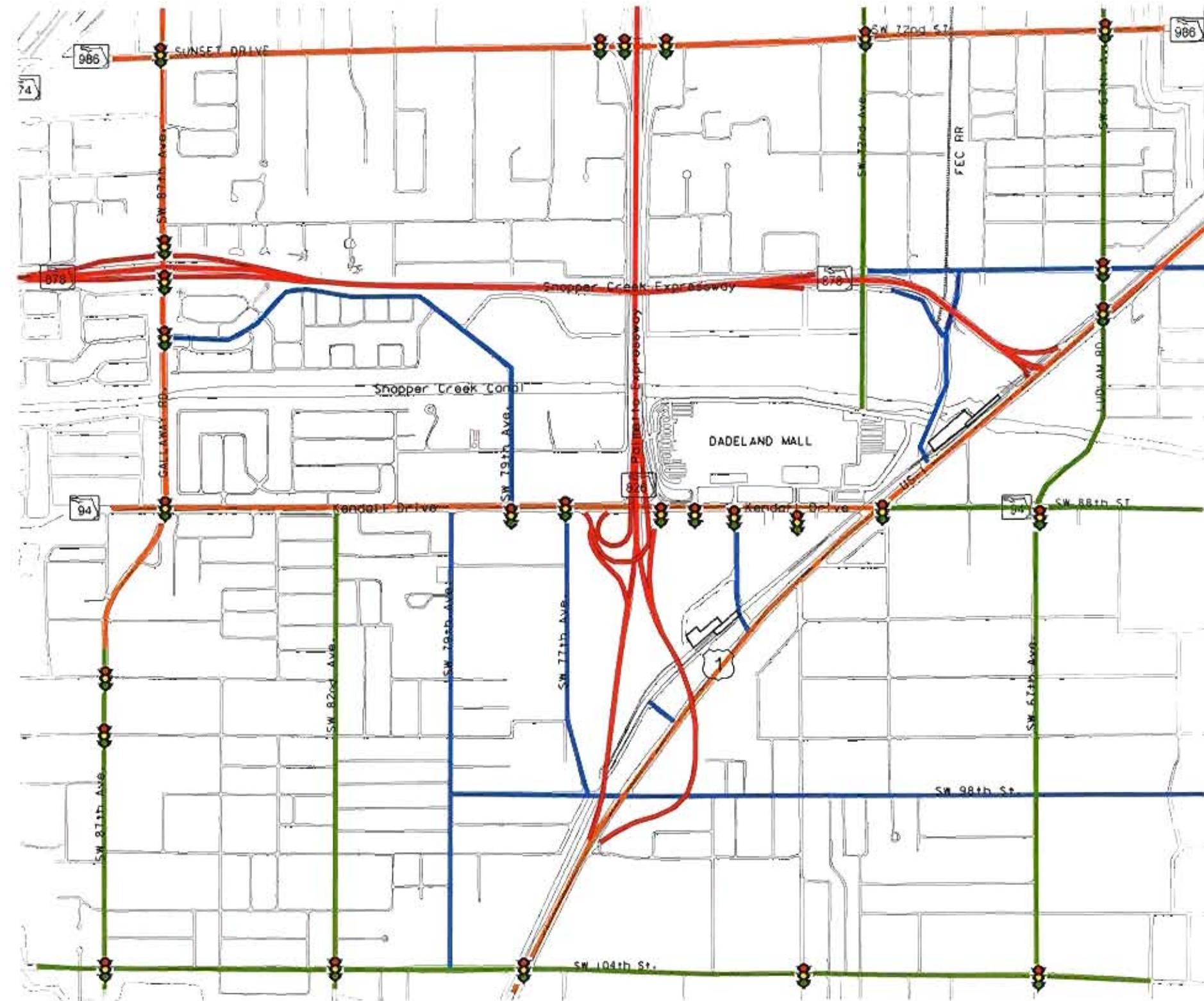
Various types of vehicular counts were obtained for the study area consisting of 7-day, 3-day and 1-day vehicle classification counts, 6-hour auto occupancy counts and 6-hour turning volume counts. The counts were taken during the summer season from July 15 to July 21. *Exhibit 7* illustrates the locations and types of field counts obtained for this study.

From these field counts, various types of relevant traffic factors were extracted and are summarized in *Exhibit 8*. As shown, the two-way daily traffic measured along the District portion of Kendall Drive is 38,144 between the Palmetto Expressway and 7500 Block Driveway and 28,341 between First Union Driveway and US-1. *Appendix 1* includes the survey results of the turning movement counts while *Appendix 2* summarizes the 24-hour machine counts.

## **2.1.6 Pedestrian and Bicycle Crash Analysis**

Historical crash information for pedestrians and bicyclists was obtained from the MPO for the study area. Bicycle crash information was only available for the year 2000. There were three reported crashes within the study area in the Year 2000. Those crashes occurred along Kendall Drive, SW 82<sup>nd</sup> Avenue and US 1. *Appendix 2-2* depicts the crash locations. It is worth noting that all three crashes occurred between the hours of 5:00 P.M. and 10:00 P.M.

Pedestrian crash information was collected for the five-year period from 1996 to 2000. *Appendix 2-2* depicts the locations of these crashes between. According to the crash data, there are four segments with a noticeable concentration of crashes. The first one is along Kendall Drive just west of 7500 Block where there are no protected pedestrian crossings or pedestrian signals. The second location is along US 1 between Kendall Drive and the Snapper Creek Expressway. The third segment is along South Dadeland Boulevard between South Datran Drive and Dadeland Boulevard. The fourth segment is along SW 72<sup>nd</sup> Avenue.

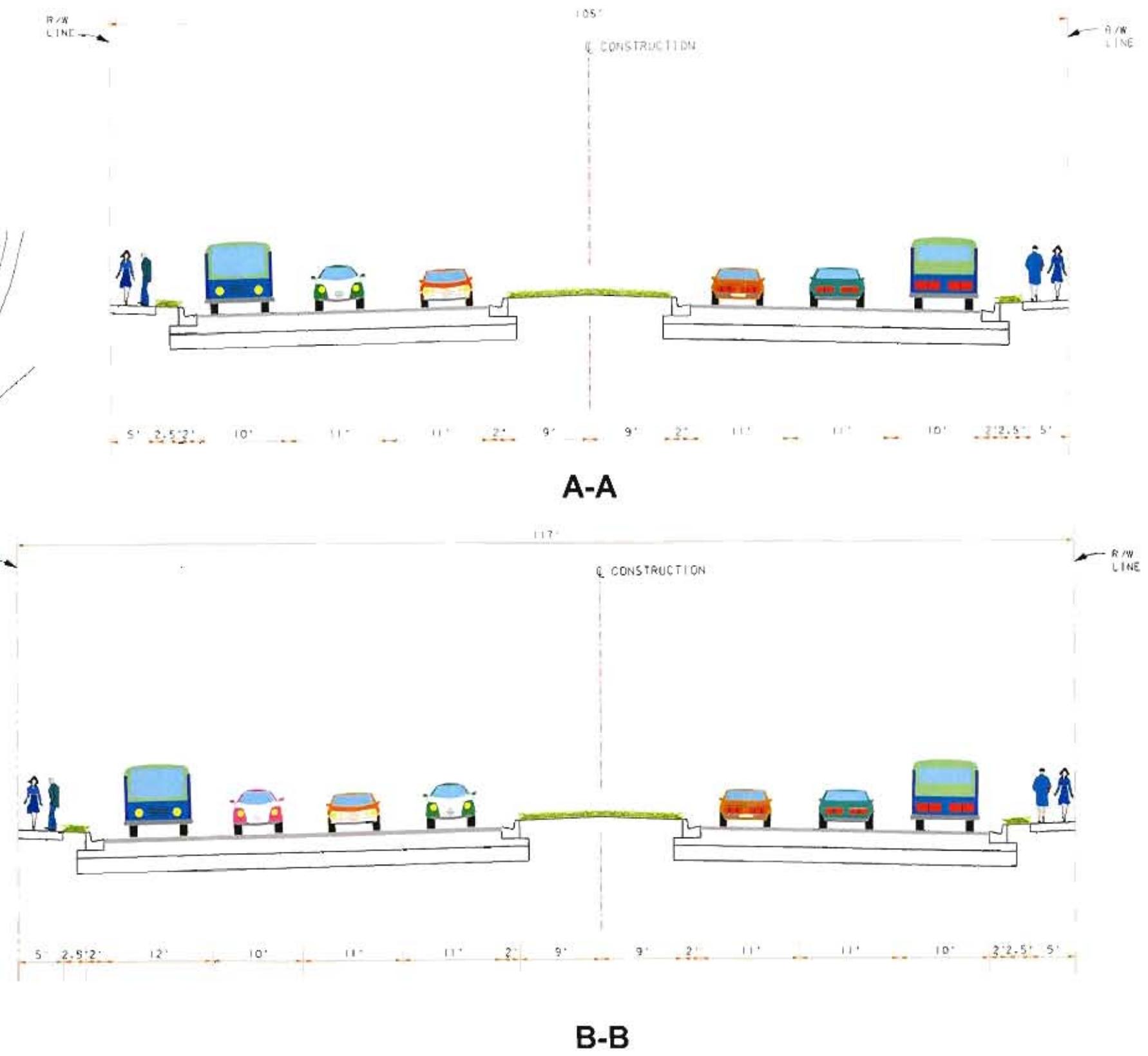
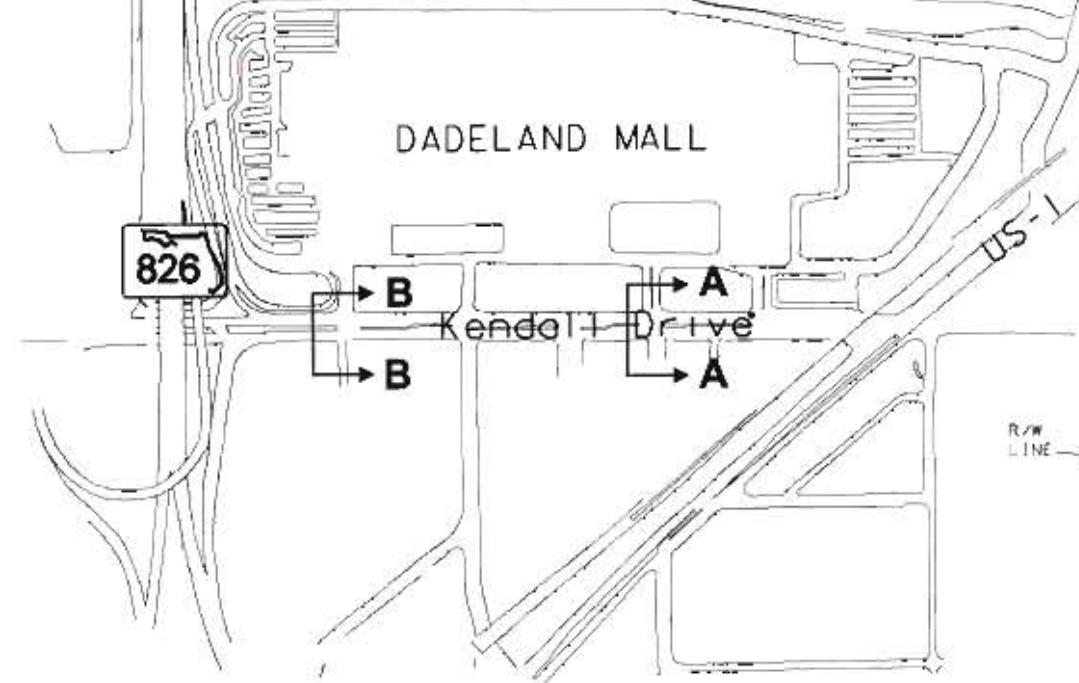


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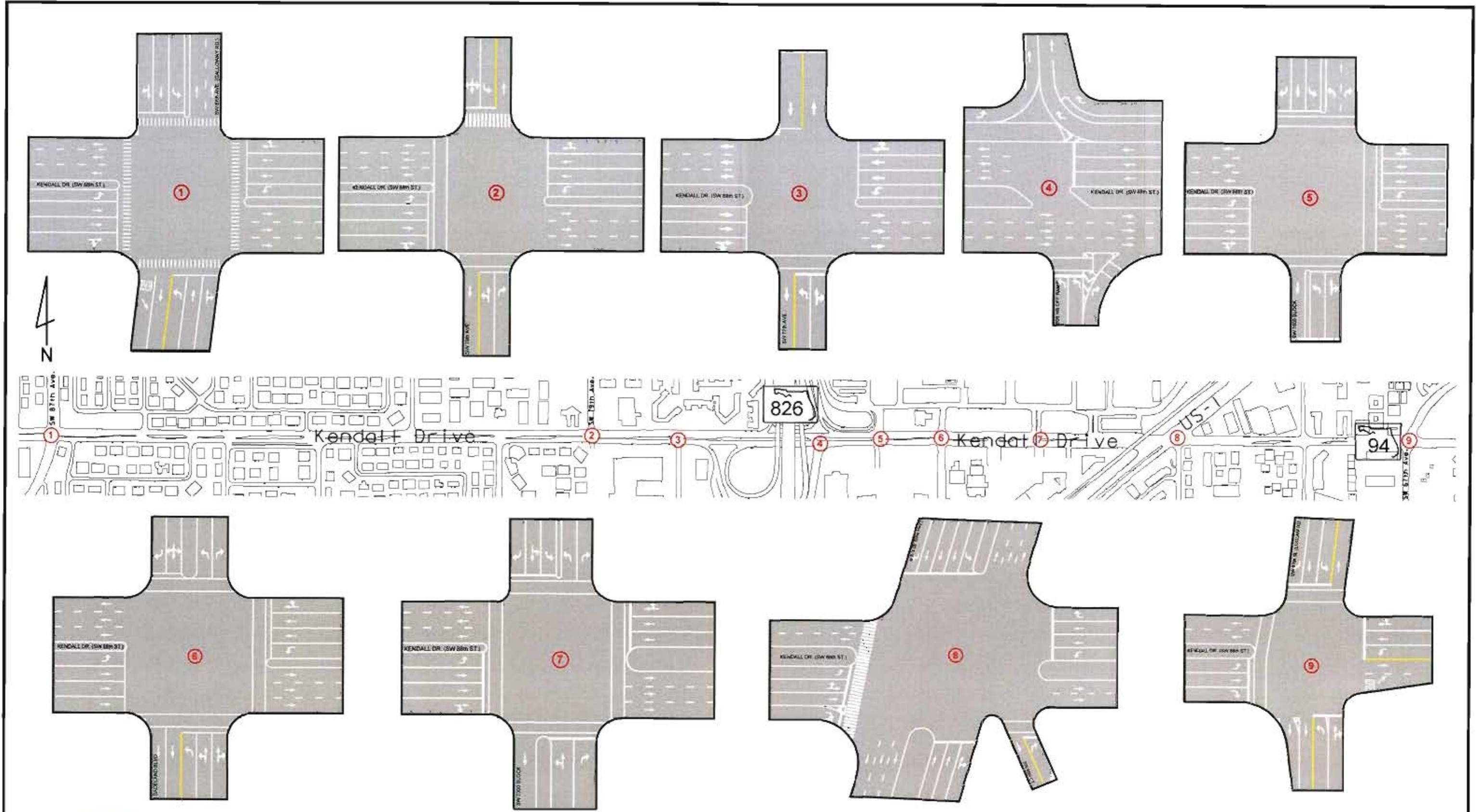
## EXISTING HIGHWAY NETWORK SYSTEM

## EXHIBIT 2







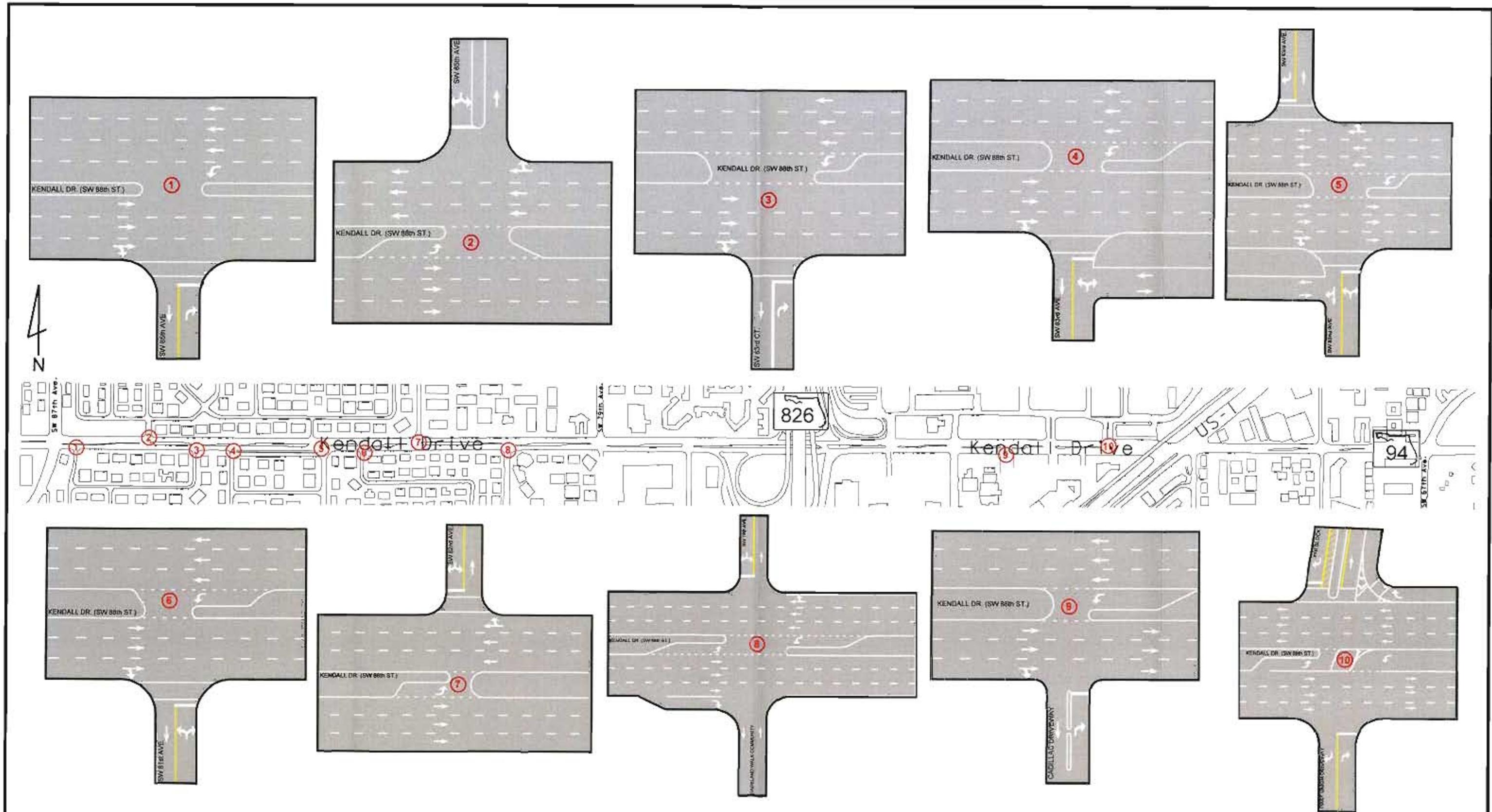


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SIGNALIZED INTERSECTIONS  
DOWNTOWN KENDALL TRANSPORTATION STUDY

EXHIBIT 4



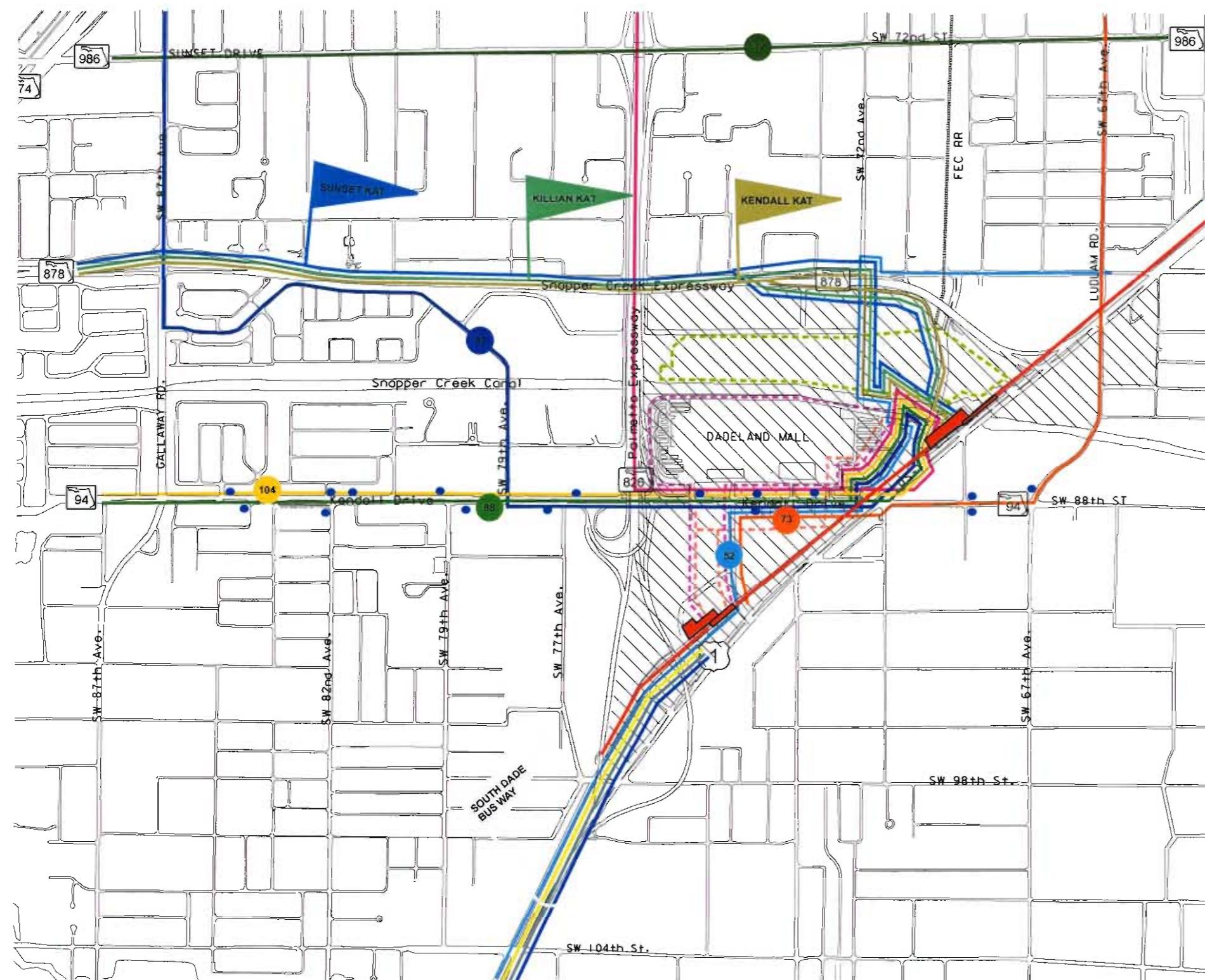


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## UN SIGNALIZED INTERSECTIONS DOWNTOWN KENDALL TRANSPORTATION STUDY

**EXHIBIT 5**



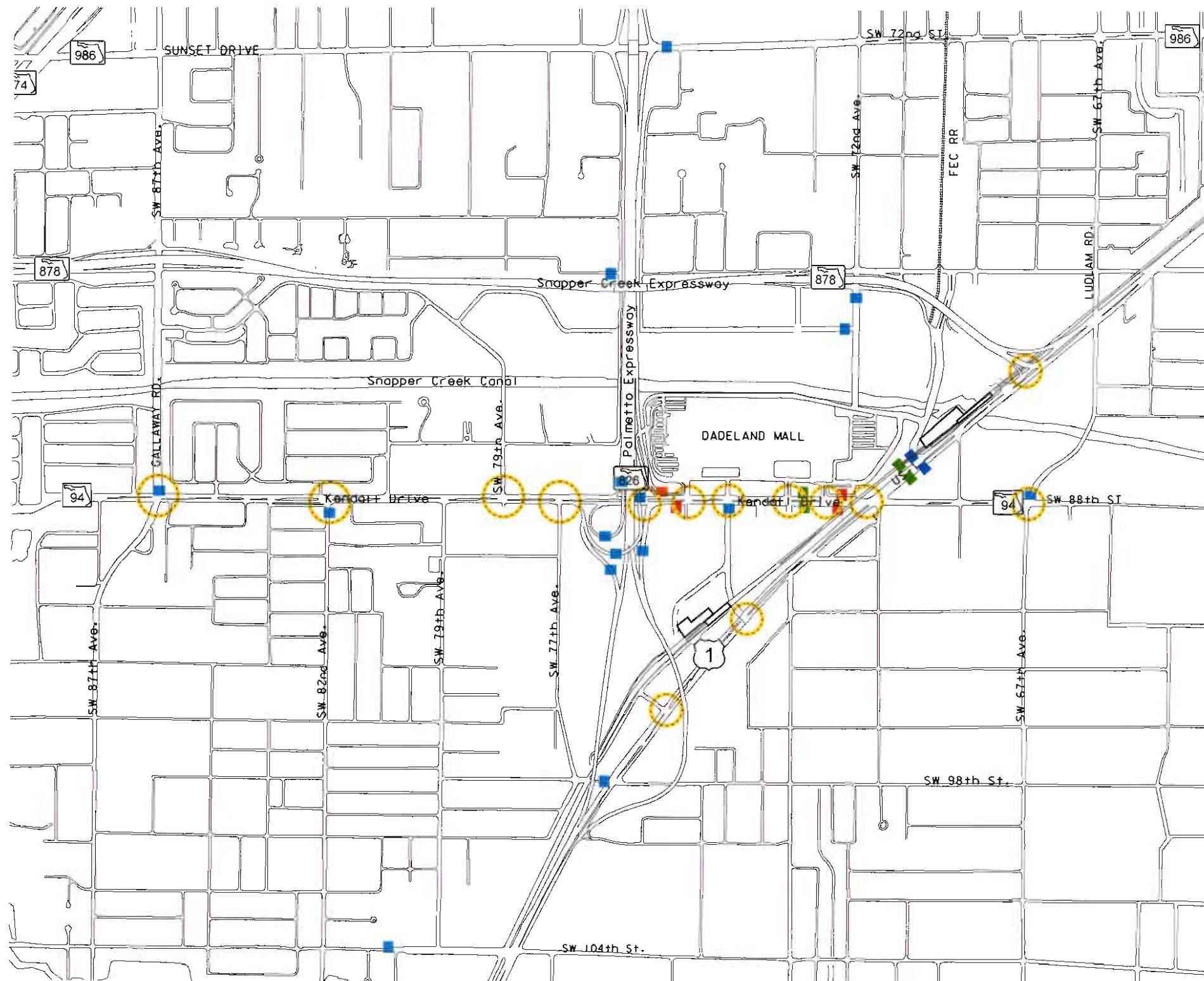


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**EXISTING TRANSIT SYSTEM**  
DOWNTOWN KENDALL TRANSPORTATION STUDY

**EXHIBIT 6**





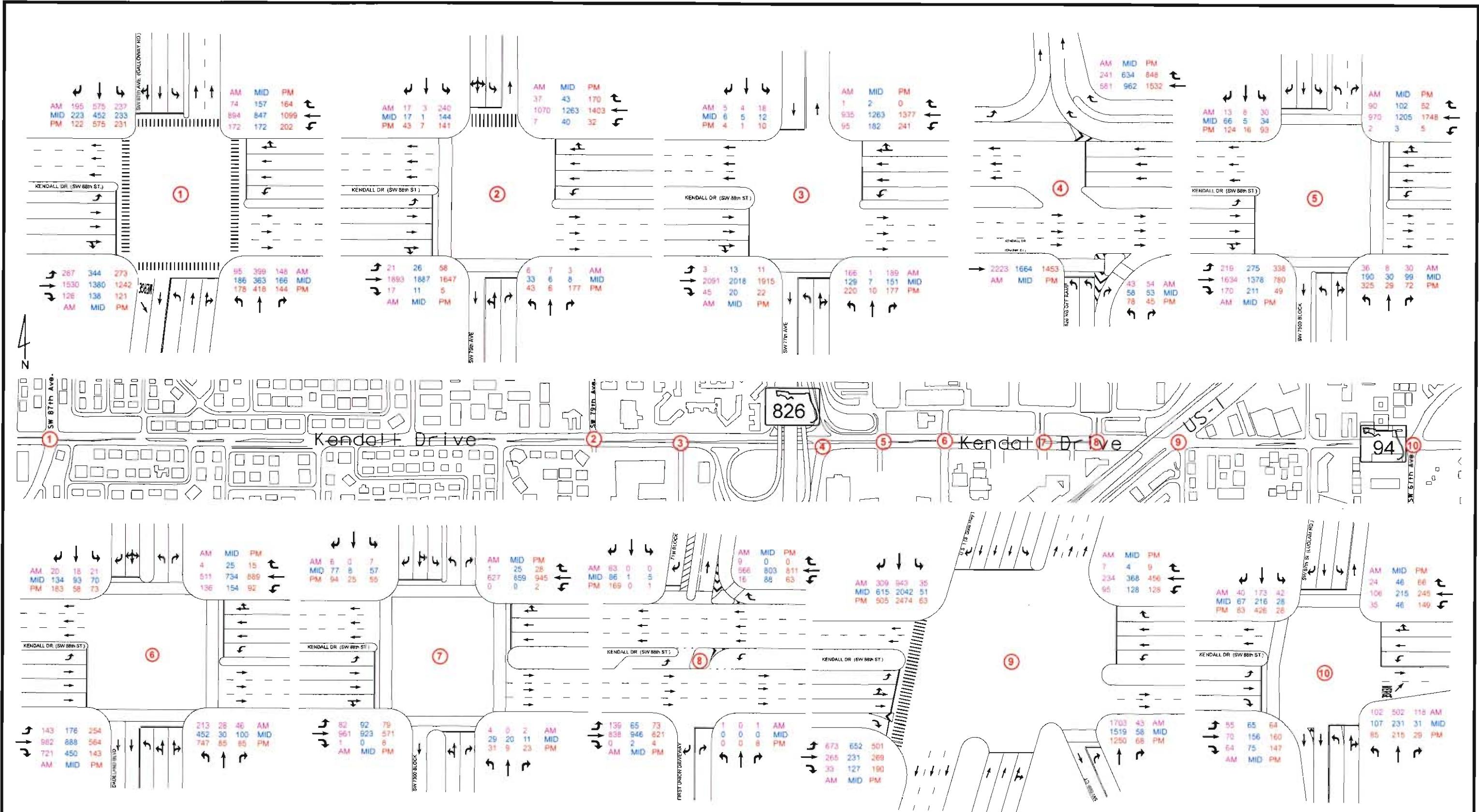
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# FIELD TRAFFIC COUNT SUMMARY

## DOWNTOWN KENDALL TRANSPORTATION STUDY

## EXHIBIT 7





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**EXISTING TRAFFIC CHARACTERISTICS SUMMARY**  
DOWNTOWN KENDALL TRANSPORTATION STUDY

**EXHIBIT 8**



## **3.0 OPERATIONAL ANALYSIS AND DEMAND FORECAST**

### **3.1 Travel Demand Forecast**

#### **3.1.1 Population and Employment**

The population and employment data sets were revised based on the proposed Kendall Downtown Master Plan Study (KDMP). The Miami-Dade Department of Planning and Zoning (DP&Z) developed the data based on a complete build-out scenario that could take 50 years to complete. The time frame for travel demand forecasting and operational analyses for this study is up to the year 2020. Therefore, the population and employment data sets were adjusted to this time period. It is assumed that a 50 percent build-out scenario would be reached by the Year 2020.

Seven traffic analysis zones (TAZ) are within the impacted study areas. *Exhibit 9* depicts the boundaries for those zones. *Table 3-1* lists the revised population and employment data sets that were provided by the DP&Z.

#### **3.1.2 Roadway Network**

The Florida Standard Urban Transportation Modeling System (FSUTMS) model network was revised to reflect the proposed roadway changes in the CDMP. The proposed roadways with “Type A” and “Type B” classifications were added or modified within the areas covered by TAZ 901, 902 and 903. “Type A” and “Type B” roads serve as local access and circulating functions for motorized vehicles. Proposed roadways for pedestrians and bicycles are not included in the FSUTMS model network. *Appendix VII* illustrates the revised model network. The centroid connectors were modified for TAZ 901, 902 and 903 to reflect land use changes, parking garage locations, and proposed roadway network changes.

Four FSUTMS simulations were performed for this study. These analyses were conducted to forecast future travel demand for different lane configurations and impacts of proposed bus service improvements. The four simulations were as follows:

- Simulation One: It is assumed that Kendall Drive would maintain the six lane configuration.
- Simulation Two: Reduces through lanes from six to four on Kendall Drive between 7500 Block Driveway and US-1.
- Simulation Three: Potential bus service improvements along Kendall Drive and the Snapper Creek Expressway. The headways for the Kendall KAT, Local Bus 104 and 88, are changed to 5 minutes for peak hours and 15 minutes for off peak hours. Even though other bus routes serve this study area, this study only analyzed the three bus routes operating along the Kendall corridor. *Exhibit 6* depicts those routes. Headways for other routes remain unchanged for the

FSUTMS simulations. In this scenario, Kendall Drive maintains six lanes.

- Simulation Four: This analysis reduces the through lanes from six to four along Kendall Drive between US-1 and SW 137<sup>th</sup> Avenue. A bus exclusive lane would be provided on Kendall Drive for each travel direction. The headways for the Kendall KAT, Local Bus 104, and 88, were also changed to 5 minutes for peak hours and 15 minutes for off peak hours.

**Table 3- 1: Additional Population and Employment**

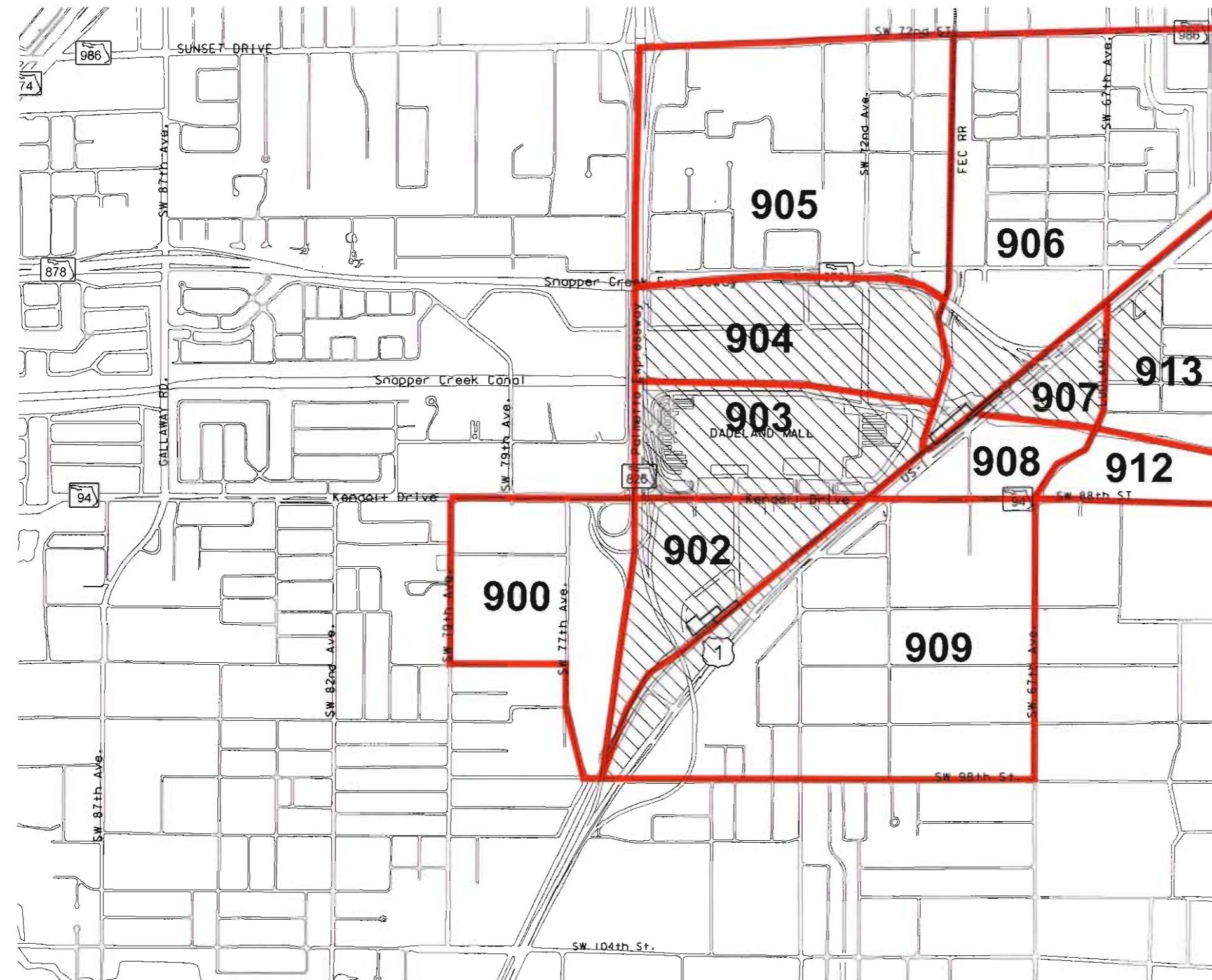
Land Use Type	1990 TAZ	Square Feet, Hotel Rooms, or Dwelling Units	Additional Employment
Retail	902	150,129.00	273
	903	279,417.00	509
	904	348,839.37	635
	906	19,618.00	36
	907	186,864.00	340
	909	70,460.00	128
	913	181,415.45	330
	Total	1,236,742.82	2,251
Note: 1.82 emp. per 1,000 sq.ft. of GFA			
Office	902	1,194,003.00	3,928
	903	1,240,458.00	4,081
	904	927,218.00	3,051
	906	0.00	0
	907	93,899.00	309
	909	481,079.59	1,583
	913	86,804.82	286
	Total	4,023,462.41	13,237
Note: 3.29 emp. per 1,000 sq.ft. of GFA			
Hotels	902	393	354
	903	0	0
	904	132	119
	906	0	0
	907	0	0
	909	0	0
	913	0	0
	Total	525	473
Note: 0.9 employees per room			
<b>Employment Total</b>			<b>15,961</b>

**Table 3-1: Additional Population and Employment (continued)**

<b>Land Use Type</b>	<b>1990 TAZ</b>	<b>Dwelling Units</b>	<b>Additional Population</b>
Dwelling Units	902	2045	4,090
	903	1396	2,792
	904	1358	2,322
	906	419	838
	907	285	570
	909	527	1,054
	913	105	202
Total		6,135.00	11,868
Note:	2.0 Persons per Unit for TAZ 902, 903, 906, 907 and 909		
	1.92 Persons per Unit for TAZ 913		
	1.71 Persons per Unit for TAZ 904		
<b>Population Total</b>			<b>11,868</b>

Source: Compiled by the Miami-Dade County Dept. of Planning and Zoning, Sept. 21, 2001. Employment and Population Factors obtained for the ITE Trip Generation Manual Fifth Edition, 1991

4  
N



LEGEND

- TAZ BOUNDARY (Red line)
- TAZ NUMBER (Large black numbers)
- STUDY AREA (Shaded area)



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TRAFFIC ANALYSIS ZONES  
DOWNTOWN KENDALL TRANSPORTATION STUDY

EXHIBIT 9



### **3.1.3 Model Results**

*Appendix VII* illustrates forecast volumes and volume/capacity ratios for the four aforementioned simulations. *Table 3-2* through *3-4* summarize the comparison results and findings on Kendall Drive as discussed below:

- On Kendall Drive, if the through lanes were changed from six to four, the forecasted volumes between SR 826/Palmetto Expressway and US1, would be reduced by approximately 20 percent. Therefore, traffic would spillover onto the Snapper Creek Expressway and Sunset Drive as alternative routes. Consequently, forecasted volumes would increase on these two roads (see *Table 3-5* for details)
- The volume comparisons between Simulation One and Three yielded minimal differences.
- Simulation Four results show an average of 34.2 percent of forecast volume reductions along Kendall Drive. When compared to Simulation 1, the average daily forecast volumes would reduce from 66,982 to 49,758 along Kendall Drive. However, on the Snapper Creek Expressway, daily forecast volumes would be increased by an average of 13,975.

**Table 3- 2: Comparison Results between Simulation One and Two**

<b>From</b>	<b>To</b>	<b>6 Lanes (A)</b>	<b>4 Lanes (B)</b>	<b>Dif. (B-A)</b>	<b>Dif. %</b>
SR 874	SW 87th Ave	75,350	75,972	622	-0.8%
SW 87th Ave	SW 85th Ave	68,782	66,934 (1,848)		2.8%
SW 85th Ave	SW 82nd Ave	74,139	71,787 (2,352)		3.3%
SW 82nd Ave	SW 79th Ave	74,545	72,167 (2,378)		3.3%
SW 79th Ave	SW 77th Ave	82,496	80,015 (2,481)		3.1%
SW 77th Ave	SR 826 On Ramp	87,048	84,202 (2,846)		3.4%
SR 826 On Ramp	SR 826 SB Off Ramp	75,034	71,584 (3,450)		4.8%
SR 826 SB Off Ramp	SR 826 SB/EB Off Ramp	63,524	58,077 (5,447)		9.4%
SR 826 SB/EB Off Ramp	SR 826 NB Off Ramp	76,509	69,607 (6,902)		9.9%
SR 826 NB Off Ramp	7500 Block	94,583	80,390 (14,193)		17.7%
7500 Block	Dadeland Blvd.	60,158	48,483 (11,675)		24.1%
Dadeland Blvd.	Cadiliac Dealer Driveway	51,200	42,335 (8,865)		20.9%
Cadiliac Dealer Driveway	7300 Block	42,804	34,525 (8,279)		24.0%
7300 Block	First Union	34,770	29,088 (5,682)		19.5%
First Union	US1	43,785	37,798 (5,987)		15.8%

**Table 3- 3: Comparison Results between Simulation One and Four**

From	To	6 Lanes (A)	4 Lanes + BRT (B)	Dif. (B- A)	Dif. %
SR 874	SW 87th Ave	75,350	57,534	(17,816)	31.0%
SW 87th Ave	SW 85th Ave	68,782	47,064	(21,718)	46.1%
SW 85th Ave	SW 82nd Ave	74,139	52,445	(21,694)	41.4%
SW 82nd Ave	SW 79th Ave	74,545	52,784	(21,761)	41.2%
SW 79th Ave	SW 77th Ave	82,496	60,547	(21,949)	36.3%
SW 77th Ave	SR 826 On Ramp	87,048	65,235	(21,813)	33.4%
SR 826 On Ramp	SR 826 SB Off Ramp	75,034	54,822	(20,212)	36.9%
SR 826 SB Off Ramp	SR 826 SB/EB Off Ramp	63,524	45,336	(18,188)	40.1%
SR 826 SB/EB Off Ramp	SR 826 NB Off Ramp	76,509	56,959	(19,550)	34.3%
SR 826 NB Off Ramp	7500 Block	94,583	72,530	(22,053)	30.4%
7500 Block	Dadeland Blvd.	60,158	44,839	(15,319)	34.2%
Dadeland Blvd.	Cadillac Dealer Driveway	51,200	36,435	(14,765)	40.5%
Cadillac Dealer Driveway	7300 Block	42,804	30,888	(11,916)	38.6%
7300 Block	First Union	34,770	29,864	(4,906)	16.4%
First Union	US1	43,785	39,085	(4,700)	12.0%

**Table 3- 4: Comparison Results between Simulation One and Three**

From	To	6 Lanes (A)	6 Lanes + Bus Imp. (B)	Dif. (B-A)	Dif. %
SR 874	SW 87th Ave	75,350	77,192	1,842	-2.4%
SW 87th Ave	SW 85th Ave	68,782	70,222	1,440	-2.1%
SW 85th Ave	SW 82nd Ave	74,139	75,611	1,472	-1.9%
SW 82nd Ave	SW 79th Ave	74,545	76,050	1,505	-2.0%
SW 79th Ave	SW 77th Ave	82,496	83,931	1,435	-1.7%
SW 77th Ave	SR 826 On Ramp	87,048	88,252	1,204	-1.4%
SR 826 On Ramp	SR 826 SB Off Ramp	75,034	76,461	1,427	-1.9%
SR 826 SB Off Ramp	SR 826 SB/EB Off Ramp	63,524	64,472	948	-1.5%
SR 826 SB/EB Off Ramp	SR 826 NB Off Ramp	76,509	76,786	277	-0.4%
SR 826 NB Off Ramp	7500 Block	94,583	93,290	(1,293)	1.4%
7500 Block	Dadeland Blvd.	60,158	60,814	656	-1.1%
Dadeland Blvd.	Cadillac Dealer Driveway	51,200	51,421	221	-0.4%
Cadillac Dealer Driveway	7300 Block	42,804	42,640	(164)	0.4%
7300 Block	First Union	34,770	32,917	(1,853)	5.6%
First Union	US1	43,785	42,926	(859)	2.0%

**Table 3- 5: Traffic Forecast Comparison on the Snapper Creek Expressway**

From	To	6 Lanes	4 Lanes	Dif.	Dif. %
<b>Snapper Creek Expressway</b>					
SR874	SW 87th Ave	86,646	92,121	5,475	5.9%
SW 87th Ave	SW 72nd Ave	86,148	95,004	8,856	9.3%
SW 72nd Ave	US1	46,950	52,011	5,061	9.7%
<b>Sunset Drive</b>					
SW 87th Ave	Centroid	46,792	46,975	183	0.4%
Centroid	SR 826	47,988	47,979	(9)	0.0%
SR 826	Centroid 1	51,729	52,927	1,198	2.3%
Centroid 1	SW 72nd Ave	50,854	52,063	1,209	2.3%
SW 72nd Ave	SW 67th Ave	50,158	49,600	(558)	-1.1%
SW 67th Ave	Centroid 3	50,492	51,798	1,306	2.5%
Centroid 3	US1	48,463	49,877	1,414	2.8%

### 3.2 Generalized Level of Services Analyses

Level of service analyses were performed fro Kendall Drive using the Florida Department of Transportation generalized tables. Two categories of analysis were performed for both six and four lanes scenarios along Kendall Drive. **Table 3-6** and

**Table 3-7** lists peak season weekday average daily traffic (PSWADT) and Average Annual Daily Traffic (AADT) results. The model output conversion factor (MOCF) is 0.99 according to the FDOT 2000 Traffic Information Report. The roadway characteristics of Kendall Drive are quite different along each side of the Palmetto Expressway. There are three traffic signals on Kendall Drive between SW 87<sup>th</sup> Avenue and the Palmetto Expressway with an approximate segment length of 5,635 feet (hereby referred to as the west segment). There are five traffic signals between the Palmetto Expressway and US-1 with an approximate segment length of 2,598 feet (hereby referred to as the east segment).

According to FDOT Generalized Table 5-4, the west segment is a Class II roadway. A Class II roadway has 2.00 to 4.50 signalized intersections per mile. The capacity for Level of Service E is 51,700 vehicles per hour for a six lane divided roadway and 34,300 vehicles per hour for a four lane divided roadway.

The east segment is a Class III roadway. A Class III road has more than 4.50 signalized intersections per mile and is not within a primary city's central business district. The capacity for Level of Service E is 50,500 vehicles per hour for a six lane divided roadway and 33,600 vehicles per hour for a four lane divided roadway.

**Table 3- 6: Traffic Volumes for Six Lanes Scenario**

<b>From</b>	<b>To</b>	<b>PSWADT</b>	<b>AADT</b>
SR 874	SW 87th Ave	75,350	74,597
SW 87th Ave	SW 85th Ave	68,782	68,094
SW 85th Ave	SW 82nd Ave	74,139	73,398
SW 82nd Ave	SW 79th Ave	74,545	73,800
SW 79th Ave	SW 77th Ave	82,496	81,671
SW 77th Ave	SR 826 On Ramp	87,048	86,178
SR 826 On Ramp	SR 826 SB Off Ramp	75,034	74,284
SR 826 SB Off Ramp	SR 826 SB/EB Off Ramp	63,524	62,889
SR 826 SB/EB Off Ramp	SR 826 NB Off Ramp	76,509	75,744
SR 826 NB Off Ramp	7500 Block	94,583	93,637
7500 Block	Dadeland Blvd.	60,158	59,556
Dadeland Blvd.	Cadillac Dealer Driveway	51,200	50,688
Cadillac Dealer Driveway	7300 Block	42,804	42,376
7300 Block	First Union	34,770	34,422
First Union	US1	43,785	43,347

**Table 3- 7: Traffic Volumes for Four Lanes Scenario**

<b>From</b>	<b>To</b>	<b>PSWADT</b>	<b>AADT</b>
SR 874	SW 87th Ave	75,972	75,212
SW 87th Ave	SW 85th Ave	66,934	66,265
SW 85th Ave	SW 82nd Ave	71,787	71,069
SW 82nd Ave	SW 79th Ave	72,167	71,445
SW 79th Ave	SW 77th Ave	80,015	79,215
SW 77th Ave	SR 826 On Ramp	84,202	83,360
SR 826 On Ramp	SR 826 SB Off Ramp	71,584	70,868
SR 826 SB Off Ramp	SR 826 SB/EB Off Ramp	58,077	57,496
SR 826 SB/EB Off Ramp	SR 826 NB Off Ramp	69,607	68,911
SR 826 NB Off Ramp	7500 Block	80,390	79,586
7500 Block	Dadeland Blvd.	48,483	47,998
Dadeland Blvd.	Cadillac Dealer Driveway	42,335	41,912
Cadillac Dealer Driveway	7300 Block	34,525	34,180
7300 Block	First Union	29,088	28,797
First Union	US1	37,798	37,420

The Summary results for the generalized level of service analyses are presented in **Table 3-8.**

**Table 3- 8: Summary Results for Generalized Level of Service Analyses**

Scenario	Segment	Traffic Counts and Measurements			
		Median	Average	V/C Ratio based Median Traffic	V/C Ratio based Average Traffic
Six Lane Scenario	West Segment	74,284	74,517	1.44	1.44
	East Segment	50,688	54,005	1.00	1.07
Four Lane Scenario	West Segment	71,069	71.538	1.37	1.37
	East Segment	41,921	44,982	1.25	1.34

### 3.3 Detailed Level of Service Analyses

#### 3.3.1 Development of Peak Hour Traffic Volume

To analyze the level of service for major intersections along Kendall Drive between SW 87<sup>th</sup> Avenue and SW 67<sup>th</sup> Avenue, peak hour traffic volumes for the Year 2020 were developed based on the FSUTMS forecast volumes. The key factors and assumptions are discussed as follows:

- The model output conversion factor (MOCF), K Factor and D-Factor were obtained based from the Florida Department of Transportation 2000 Traffic Information Report. The MOCF for Miami-Dade south area is 0.99. The K-Factor for an arterial road is 8.18 and the D-Factor is 53.08.
- Turning movement volumes were developed based upon turning patterns derived from a traffic movement survey conducted in July 2001. Some turning patterns were altered to reflect future road network changes.
- Traffic smoothing was used to develop a balanced traffic forecast volume along the study area.

It was identified that the model forecast volumes were unreasonably low on US 1 between Dadeland Boulevard and Kendall Drive. The 2000 AADT for this segment was 60,500. However, the forecast volumes for the Year 2020 would be 45,389. That is 33 percent less than current volumes. For the past five years, traffic volumes show growth on this segment. **Table 3-9** lists the AADT between 1996 and 2000. The 1996 AADT was 52,000. The growth rate between year 1996 and 2000 was 11 percent or 4.4 percent every year. Therefore, forecast volumes on this segment should be adjusted to reflect the underestimates and future growth due to potential development in downtown Kendall. This study assumed a 40 percent additional increase to the FSUTMS model 2020 forecasted volumes.

**Table 3- 9: US-1 AADT**

Year	AADT	Northbound	Southbound
2000	60,500	30,500	30,000
1999	54,000	26,000	28,000
1998	53,500	26,000	27,500
1997	50,500	24,500	26,000
1996	52,000	25,000	27,000

### **3.3.2 Synchro Analysis**

Synchro micro-simulations were performed to more precisely determine the future conditions along Kendall Drive for different lane arrangements. This analysis was also used to evaluate different configurations for the intersection of US 1 and Kendall Drive. All of the simulations were run under the optimization condition even though it is recognized that this will not be the actual condition. The purpose of this was to consider a snapshot view of the best possible case and to provide a non-subjective type analysis. The five simulations are described below:

- Simulation One: Kendall Drive would remain six lanes and the intersection of US-1 and Kendall Drive remains as a typical four-leg intersection. *Appendix 3* lists the results.
- Simulation Two: Kendall Drive would remain six lanes. The intersection of US-1 and Kendall Drive would be changed to a roundabout. *Appendix 4* displays the results.
- Simulation Three: Kendall Drive would be changed to four lanes between 7500 Block Driveway and US-1 and the intersection of US-1 and Kendall Drive would remain a typical four-leg intersection. *Appendix 5* includes the detailed results.
- Simulation Four: Kendall Drive would be changed to four lanes between 7500 Block Driveway and US-1 and the intersection of US-1 and Kendall Drive would be changed to a roundabout. *Appendix 6* shows the results.
- Simulation Five: All assumptions are the same as Simulation One. However, parallel parking would be added along Kendall Drive between 7500 Block Driveway and US-1. *Appendix 7* summarizes the results.

The results yielded from the Synchro simulations are discussed below:

- Simulation One shows that the following intersections would perform at Level of Services F: the intersections of Kendall Drive and SW 87<sup>th</sup> Avenue, 7500 Block Drive, US 1, SW 77<sup>th</sup> Avenue, and Dadeland Boulevard.

- Simulation Three shows that the following intersections would perform at Level of Services F: the intersections of Kendall Drive and SW 87<sup>th</sup> Avenue, 7500 Block Drive, US 1, SW 77<sup>th</sup> Avenue, and Dadeland Boulevard.
- **Table 3-10** shows the comparison results between Simulation One and Two for measures of effectiveness between a regular and a roundabout at the intersection of US-1 and Kendall Drive.

**Table 3- 10: Measures of Effectiveness Comparison**

Item	US1 & Kendall	Roundabout			Dif.
		US1 & Kendall North	US1 & Kendall South	Total	
Volume (vph)	9674	9367	7833		
Signal Delay/Veh. (s)	148	93	77		
Total Signal Delay (hr)	397	242	169	411	14
Stops/Vehicle	1.47	1.21	1.16		
Total Stops	14,190	11,300	9,101	20,401	6,211
Hourly VMT/hr TO/FROM Kendall	237			294	57

- The comparison results between Simulations Three and Four for measures of effectiveness between a regular and a roundabout at the intersection of US 1 and Kendall Drive. The results are summarized in **Table 3-11**.

**Table 3- 11: Measures of Effectiveness Comparison**

Item	US1 & Kendall	Roundabout			Dif.
		US1 & Kendall North	US1 & Kendall South	Total	
Volume (vph)	9058	8759	7561		
Signal Delay/Veh (s)	138	95	57		
Total Signal Delay (hr)	348	232	120	352	4
Stops/Veh	1.43	2.25	1.04		
Total Stops	12,912	10,926	7,830	18,756	5,844
Hourly VMT/hr TO/FROM Kendall	200			247	48

- **Table 3-12** summarizes intersection delays with and without parking along Kendall Drive (between 7300 Block Driveway and Dadeland Boulevard). The results show an average 12 percent increase in vehicle delays with parallel parking.

**Table 3- 12: Parking Impact Analyses**

<b>Intersection Signal Delay (Seconds per vehicle)</b>	<b>7300 Block</b>	<b>Cadillac Dealer Driveway</b>	<b>Dadeland Boulevard</b>
With Parking	27.0	13.3	107.5
W/O Parking	23.3	12.2	95.8
Changes (%)	15.5	8.2	12.2

## **4.0 TRANPORTATION IMPROVEMENT ALTERNATIVES**

### **4.1 Introduction**

The overall traffic demand along Kendall Drive is comprised of three basic trip types. The first type of trip includes automobiles with origins and destinations specifically within the study area. These auto-based trips include shopping trips to Dadeland Mall and other stores, working trips either generated or terminated within the area, and home-based school, recreation and other local trips. Kendall Drive is the major access roadway for these “local” auto trips. The second type of trip includes intermodal/transit-based auto (and bus) trips. There are currently two heavily utilized Metrorail stations in the study area and several Metrobus stops. The two Metrorail stations include Dadeland South and Dadeland North. Many commuters drive to (and from) the two Metrorail stations and then transfer to the heavy rail rapid transit line. Kendall Drive is the most direct and important access route to these two stations. The third type of trip includes automobiles that are involved in regional or bypass trips. These longer distance “through” trips utilize Kendall Drive to access other major roadways or destinations outside of the study area. It is anticipated that any reductions in the auto-based local trips (Type 1) resulting from the proposed mixed-use “walkable” development within the DKUCD will likely be offset by new longer distance through (Type 3) and transit type (Type 2) trips.

On Kendall Drive, future traffic growth primarily occurs as a result of redevelopment within the DKUCD and overall countywide population and employment growth. Countywide transport projects, proposed by the Miami-Dade Metropolitan Planning Organization (MPO) as part as the most recent Long Range Transportation Plan, were incorporated in the FSUTMS model used for this study. There are a relatively large number of mitigative alternatives available to potentially alleviate traffic congestion along Kendall Drive and to potentially off set any lane reductions along Kendall Drive. The potential mitigative improvement alternatives were segregated into auto oriented, pedestrian and bicycle oriented and transit oriented categories. The auto-oriented alternatives were further segregated to include improvements to Kendall Drive, parallel corridors, other access routes to the area, freeway access and the local street grid system.

### **4.2 Auto Oriented Alternatives**

#### **4.2.1 Kendall Drive Improvements**

The potential Kendall Drive improvements can be classified into two categories: capacity enhancement and demand management options. Under the capacity enhancements, the key improvements would be to increase intersection side street capacities along Kendall Drive between the Palmetto Expressway and US-1 and to upgrade the access classification of Kendall Drive in order to increase signal, median opening, and driveway connection spacing. Under the demand management options, measures such as an eastbound left turn prohibition at the intersection of Kendall Drive and US-1, and peak hour left turn prohibitions at 7500 Block, Dadeland Boulevard, Cadillac Dealer

Driveway, 7300 Block Drive and First Union Drive, can be easily implemented and are effective in improving traffic operations along Kendall Drive.

#### **4.2.2 Parallel Corridor Improvements**

SW 104<sup>th</sup> Street and Sunset Drive/SW 72<sup>nd</sup> Street are two important parallel arterial roadways. SW 104<sup>th</sup> Street is currently a two-lane road and could be expanded to four lanes. Intersection capacity enhancements, such as providing additional turning lanes and improving traffic signal synchronization, could also be implemented. According to the most recent Miami-Dade Transit Improvement Plan, there is a concept to extend Metrorail further south from the Dadeland South Station to SW 104<sup>th</sup> Street. One of the reasons for the extension is to provide additional parking facilities at the new station to attract more Metrorail passengers. Therefore, improving capacity along SW 104<sup>th</sup> Street would also improve accessibility for the proposed Metrorail line extension shifting auto trips further south and thus potentially reducing traffic demand along Kendall Drive.

Sunset Drive/SW 72<sup>nd</sup> Street is currently a four-lane arterial roadway. Due to right-of-way constraints, it would be difficult to widen the roadway from four to six lanes. Left-turns are currently prohibited for eastbound traffic on Sunset Drive accessing northbound US-1 at this intersection. By reinstating this left-turn, there would be some alleviation of congestion on Kendall Drive since this parallel route would become more direct. Intersection capacity enhancements could also be implemented along Sunset Drive to increase the throughput capacity of this corridor without adding through lanes.

#### **4.2.3 Other Access Road Improvements**

SW 76<sup>th</sup> Avenue and SW 72<sup>nd</sup> Avenue are two important north-south access roads that provide connections between the Dadeland Mall area, the Snapper Creek Expressway and Sunset Drive. Currently, the portion of SW 72<sup>nd</sup> Avenue north of the Snapper Creek Expressway is two lanes for both travel directions. This segment of road could be widened to four lanes and other intersection enhancements could be made to the four-lane segment to the south. The distance between Sunset Drive and Dadeland Mall is about 4,290 feet. The cost estimate to widen/improve this roadway is approximately 2.20 million dollars. Currently, SW 76<sup>th</sup> Avenue, a two lane undivided roadway, terminates at SW 82<sup>nd</sup> Street. This road could be extended further south to connect with the northern part of the Dadeland Mall Circulating Road. To avoid congestion at the intersection of Sunset Drive and SW 76<sup>th</sup> Avenue, this intersection could prohibit all left turns.

#### **4.2.4 Freeway Access Improvements**

The Snapper Creek Expressway is a very important parallel freeway corridor located north of Kendall Drive. Access and capacity improvements to the Snapper Creek Expressway would significantly impact auto travel demand on Kendall Drive. Several proposals, such as increasing expressway travel lanes, development of a Palmetto Expressway/Snapper Creek Expressway partial interchange, and/or constructing a flyover ramp from northbound US-1 to the Snapper Creek Expressway eastbound, could increase

the future demand of the Snapper Creek Expressway instead of Kendall Drive. However, these potential improvements are currently not included in the county's Long Range Transportation Plan and require significant capital investments.

#### **4.2.5 Local Street Grid Improvements**

Several street grid improvements could improve traffic circulation within the DKUCD area. These potential improvements could reduce travel demand and improve intersection efficiency along Kendall Drive. Connecting SW 82<sup>nd</sup> Street and/or SW 80<sup>th</sup> Street over the Palmetto Expressway could provide a direct link between the rental community located on the west side of the Palmetto Expressway and the Dadeland Mall area. This connection across the Palmetto Expressway could result in some additional cut through traffic that is not desired by the community located on the west side. Increasing the capacity of the Dadeland Mall Circle roadway or converting this circulator roadway to a one-way road could serve to remove some traffic from Kendall Drive.

### **4.3 Pedestrian and Bicycle Oriented Improvements**

The Kendall Downtown Master Plan has recommended several improvement proposals related to pedestrians and bicycles. These proposals could significantly promote pedestrian and bicycle trips within the study area and reduce local auto travel. Additional proposals, such as a pedestrian and bicycle facility along the Snapper Creek Canal, a crossing/connection across the Palmetto Expressway, and a continuous bike trail from the South Dade Busway to the existing M-Path Trail at SW 80<sup>th</sup> Street, could further improve non-motorized transportation within the area. The Snapper Creek Canal pedestrian/bicycle facility would have the most significant impact to travel demand along Kendall Drive.

This study has conducted comprehensive travel demand modeling and traffic operational analyses. The main objective of this study was to evaluate potential travel demand and traffic operational conditions for different proposed roadway schemes along Kendall Drive. Those analyses were focused on motorized vehicle traffic and have not taken into account potential reductions in vehicular traffic created by the proposed pedestrian and bicycle improvements and connections. As a result, the operational analysis results depict a "worst case" condition for vehicular traffic. In reality, there will be a reduction in vehicular travel as a result of the numerous pedestrian and bicycle improvements.

Following the planning principles of the Downtown Kendall Master Plan (DKMP), the traffic analysis has not proposed any direct roadway connections for vehicular traffic from the Downtown Kendall Area to adjacent neighborhood areas. The Palmetto Expressway serves as a physical barrier for the Kings Creek and Continental Park communities and this condition is proposed to remain. Providing roadway connections crossing the Palmetto Expressway would directly link these two communities to Dadeland Mall and US1. As a result, that could reduce potential vehicular traffic on Kendall Drive. However, that could bring cut-through vehicular traffic into these neighborhood areas as well as the Downtown Kendall area. Such proposals would

negatively impact the community. Therefore, this study did not recommend this type of improvement.

The Downtown Kendall Master Plan included two proposed pedestrian and bicycle connections. The first one is from the Kings Creek area to Dadeland Mall and the second one links Continental Park west of the Palmetto Expressway. Those two links and along with other proposed roadways within the Downtown Kendall areas could significantly improve non-motorized transport for those two neighborhoods.

The overall mobility, walkability and safety of Downtown Kendall will be enhanced as the various elements of the plan are implemented. From a pedestrian perspective, the following features were proposed by the Master Plan. By implementing these proposals, pedestrians will have significant benefits within the downtown area and the adjacent neighborhoods.

- Providing an interconnected network of streets with reduced block size. The streets will provide arcaded sidewalks, colonnades, awnings and canopies, and trees for weather protection and comfort.
- Providing a hierarchy of street types with defined pedestrian corridors.
- Providing increased open space in the form of squares and plazas next to public streets.
- Providing streets with street furniture to include benches light fixtures and bus shelters.
- Providing high visibility crosswalks and median refuge islands on all multilane roadways.
- Providing on-street parking to help reduce vehicle speeds (traffic calming measure).
- Providing buildings that are built to the edge of the street.
- Providing architectural elements at the street level that will have a human scale, abundant windows and doors and design variations.
- Providing mixed use developments that create a proximity of housing, retail and office uses that will allow residents to walk and bike for some daily trips

To improve safety for pedestrians crossing Kendall Drive, the following measures can be implemented in accordance with the Master Plan.

- Improve the traffic circulation and traffic control plan along Kendall Drive to be more pedestrian friendly. It is proposed to prohibit left turns for both approaches along Dadeland Boulevard. Pedestrians could then cross Kendall Drive during the signal phase for north/south though traffic on Dadeland Boulevard to reduce conflicts between left-turn vehicles and crossing pedestrians.
- During pedestrian peak hours such as lunch time or during weekends, traffic signals at different locations along Kendall Drive could be adjusted

- to favor pedestrian crossings by assigning more green time for north-south movements.
- o According to the master plan, an 18-foot median would be provided along Kendall Drive. Many other roadways are proposed to have median s and median refuge islands. This would provide major safety benefits for pedestrian crossings on multilane roadways.

#### **4.4 Transit Oriented Improvements**

Improving transit services and increasing transit ridership are the fundamental transportation policies for Miami-Dade County. Even though the DKUCD area has one of the most extensive transit services in the county, several transit-oriented improvements could increase transit ridership and potentially reduce single driver vehicle trips along Kendall Drive into the DKUCD area.

Bus transit headways for the Kendall KAT, Local Bus 104 and 88, could be reduced from 30 minutes to 5 minutes for peak hours and from 60 minutes to 15 minutes for off peak hours. It is important to enhance all local bus stops along the east-west bus routes to include park-and-ride lots, which would serve to reduce auto travel into the DKUCD area and reduce parking demand at the two Dadeland Metrorail stations. It is important to eliminate the bus-rail transfer fee at the Dadeland North Metrorail station for all Kendall Drive and other east-west bus routes to ensure successful implementation of this proposal. Other bus improvements could include the proposed circulator shuttle service within the Downtown Kendall Urban. However, the local circulator shuttle would have little impact to travel demand along Kendall Drive.

An elevated heavy rail rapid transit facility along Kendall Drive could reduce auto travel demand along Kendall Drive by at least 20 percent according to the FSUTMS model results performed for this study. However, this proposal is a high cost solution both in terms of initial capital and operation and maintenance costs. This proposal is not in the County's Year 2020 Long Range Transportation Plan. Therefore, at this time this is likely not a feasible solution.

As part of the development of the Downtown Kendall Master Plan, a bus rapid transit (BRT) or light rail transit (LRT) system was proposed along the median of Kendall Drive. It is necessary to allocate two vehicle lanes to adequately operate BRT or LRT along this corridor. This proposal could reduce auto travel demand on Kendall Drive; however, it could increase auto travel demand on the Snapper Creek Expressway.

Some other transit improvement alternatives along Kendall Drive could include the implementation of high occupancy vehicle (HOV) lanes and bus priority measures. More detailed transit studies are required to determine the viability of the various transit improvement alternatives along Kendall Drive.

## **Appendix I Summary of Vehicle Movements**

APPENDIX I  
**CIVIL WORKS, INC./Gannett Fleming, Inc.**  
 SUMMARY OF VEHICLE MOVEMENTS

LOCATION: 7500 Block & Kendall Dr. (SW 88 St)  
 COUNTY : Miami-Dade  
 OBSERVER: Traffic Counts Plus  
 PROJECT: Kendall Drive Master Plan  
 PROJ. No.: 21146.00

COMMENT:

CITY: Miami-Dade  
 DATE: July 17, 2001  
 FILE: TM 7500 Block & Dendall Dr

AADT

TIME		NORTHBOUND					SOUTHBOUND					EASTBOUND					WESTBOUND					GRAND
BEGIN	END	L	T	R	PEDS	Total	L	T	R	PEDS	Total	L	T	R	PEDS	Total	L	T	R	PEDS	Total	TOTAL
07:00 AM	07:15 AM	1	0	0	0	1	2	0	0	1	3	9	383	12	0	404	5	76	0	0	81	489
07:15 AM	07:30 AM	0	0	0	0	0	4	0	0	1	5	7	409	10	0	426	6	97	0	0	103	534
07:30 AM	07:45 AM	4	0	4	0	8	4	2	2	0	8	22	450	30	2	504	6	123	0	0	129	649
07:45 AM	08:00 AM	2	4	8	0	14	6	0	2	0	8	51	437	26	8	522	14	151	2	0	167	711
08:00 AM	08:15 AM	2	0	2	2	6	4	2	4	0	10	50	352	44	0	446	24	146	0	0	170	632
08:15 AM	08:30 AM	14	6	8	0	28	0	0	3	0	3	48	431	42	0	521	18	460	2	0	480	1032
08:30 AM	08:45 AM	6	0	10	0	16	12	4	2	0	18	42	407	42	0	491	20	181	0	0	201	726
08:45 AM	09:00 AM	14	2	10	8	34	14	2	4	0	20	79	444	42	0	565	28	183	0	8	219	838
11:00 AM	11:15 AM	50	4	16	0	70	10	4	14	0	28	55	237	32	0	324	16	216	0	0	232	654
11:15 AM	11:30 AM	67	10	50	0	127	8	4	28	0	40	87	319	42	0	448	42	228	2	0	272	887
11:30 AM	11:45 AM	27	2	19	0	48	4	2	11	1	18	41	272	19	0	332	14	214	0	0	228	626
11:45 AM	12:00 PM	40	2	22	0	64	6	2	18	0	26	93	308	46	0	447	36	232	0	0	268	805
12:00 PM	12:15 PM	30	5	12	0	47	5	1	12	0	18	50	273	29	0	352	22	239	0	0	261	678
12:15 PM	12:30 PM	30	3	17	0	50	3	2	10	1	16	43	299	34	0	376	18	290	0	0	308	750
12:30 PM	12:45 PM	79	18	50	0	147	22	2	26	0	50	113	390	97	0	600	40	357	1	0	398	1195
12:45 PM	01:00 PM	51	4	20	0	75	4	0	18	0	22	69	416	51	0	536	22	319	2	0	343	976
04:00 PM	04:15 PM	75	4	22	0	101	30	2	34	0	66	109	220	26	0	355	26	353	2	0	381	903
04:15 PM	04:30 PM	79	10	22	0	111	34	6	46	0	86	75	182	28	0	285	26	376	4	0	406	888
04:30 PM	04:45 PM	75	0	16	0	91	20	0	36	0	56	103	192	30	0	325	12	389	0	0	401	873
04:45 PM	05:00 PM	119	10	36	0	165	28	6	38	0	72	99	177	24	0	300	24	450	4	0	478	1015
05:00 PM	05:15 PM	73	2	12	0	87	30	6	30	0	66	75	188	12	0	275	12	488	2	0	502	930
05:15 PM	05:30 PM	87	8	24	0	119	26	6	22	2	56	65	179	18	0	262	12	391	0	0	403	840
05:30 PM	05:45 PM	50	5	8	0	63	11	2	19	1	33	57	187	7	0	251	10	404	1	0	415	762
05:45 PM	06:00 PM	115	14	28	0	157	26	2	53	0	81	141	226	12	0	379	18	465	2	0	485	1102

SUMMARY OF PEAK HOUR VEHICLE MOVEMENTS

PEAK HOUR FROM TO	NORTHBOUND					SOUTHBOUND					EASTBOUND					WESTBOUND					GRAND
	L	T	R	PEDS	Total	L	T	R	PEDS	Total	L	T	R	PEDS	Total	L	T	R	PEDS	Total	TOTAL
AM Peak 08:00 AM - 09:00 AM Peak Hour Factor	36	8	30	10	84	30	8	13	0	51	219	1634	170	0	2023	90	970	2	8	1062	3228
Midday Peak 12:00 PM - 01:00 PM Peak Hour Factor	190	30	99	0	319	34	5	66	1	106	275	1378	211	0	1864	102	1205	3	0	1310	3599
PM Peak 04:15 PM - 05:15 PM Peak Hour Factor	325	29	72	0	426	93	16	124	3	236	338	780	49	0	1167	52	1748	5	0	1805	3634

APPENDIX I  
**CIVIL WORKS, INC./Gannett Fleming, Inc.**  
 SUMMARY OF VEHICLE MOVEMENTS

LOCATION: SW 77 Ave & Kendall Dr. (SW 88 St)

COMMENT:

COUNTY : Miami-Dade

CITY: Miami-Dade

OBSERVER: Traffic Counts Plus

DATE: July 25, 2001

PROJECT: Kendall Drive Master Plan

FILE: SW 77 Ave & Kendall Dr

PROJ No.:

AADT

TIME BEGIN	TIME END	NORTHBOUND					SOUTHBOUND					EASTBOUND					WESTBOUND					GRAND TOTAL
		L	T	R	PEDS	Total	L	T	R	PEDS	Total	L	T	R	PEDS	Total	L	T	R	PEDS	Total	
07:00 AM	07:15 AM	27	0	43	0	70	1	0	0	0	1	0	528	9	0	537	23	210	0	0	233	841
07:15 AM	07:30 AM	34	1	41	0	76	0	0	0	0	0	0	594	12	6	612	31	221	1	0	253	941
07:30 AM	07:45 AM	35	0	47	0	82	3	1	0	0	4	0	651	17	2	670	34	224	6	0	264	1020
07:45 AM	08:00 AM	35	1	43	0	79	4	1	0	0	5	0	607	11	0	618	25	202	1	0	228	930
08:00 AM	08:15 AM	37	0	69	0	106	4	1	5	0	10	1	489	12	0	502	28	242	0	0	270	888
08:15 AM	08:30 AM	43	0	41	1	85	1	2	0	0	3	0	679	11	0	690	23	229	0	1	253	1031
08:30 AM	08:45 AM	50	0	52	0	102	0	0	0	0	0	2	599	14	1	616	22	259	0	1	282	1000
08:45 AM	09:00 AM	36	1	27	0	64	13	1	0	0	14	0	324	8	0	332	22	205	1	0	228	638
11:00 AM	11:15 AM	31	0	50	0	81	7	0	0	0	7	0	379	9	0	388	35	223	0	0	258	734
11:15 AM	11:30 AM	28	0	36	0	64	2	1	2	0	5	1	483	7	0	491	31	257	0	1	289	849
11:30 AM	11:45 AM	27	0	27	0	54	3	1	1	0	5	4	467	6	0	477	37	250	1	0	288	824
11:45 AM	12:00 PM	27	0	27	0	54	0	0	0	0	0	0	407	10	0	417	23	221	2	0	246	717
12:00 PM	12:15 PM	25	1	32	0	58	1	1	2	0	4	7	586	6	3	602	51	365	1	0	417	1081
12:15 PM	12:30 PM	33	2	27	1	63	2	0	2	0	4	2	529	5	0	536	54	285	0	2	341	944
12:30 PM	12:45 PM	28	3	44	0	75	6	1	0	0	7	0	391	5	0	396	34	284	0	0	318	796
12:45 PM	01:00 PM	43	1	48	0	92	3	3	2	0	8	4	512	4	1	521	43	329	1	0	373	994
04:00 PM	04:15 PM	40	2	43	0	85	1	0	0	0	1	0	463	5	0	468	70	305	0	0	375	929
04:15 PM	04:30 PM	36	0	49	0	85	3	1	1	0	5	1	438	7	0	446	76	306	0	0	382	918
04:30 PM	04:45 PM	38	3	50	2	93	2	0	0	2	4	1	405	10	2	418	64	320	0	1	385	900
04:45 PM	05:00 PM	55	0	47	1	103	2	1	1	0	4	0	422	9	0	431	66	366	0	0	432	970
05:00 PM	05:15 PM	86	7	62	1	156	3	0	1	1	5	4	425	9	4	442	62	315	0	0	377	980
05:15 PM	05:30 PM	54	0	42	0	96	1	1	2	0	4	2	484	7	1	494	78	343	0	0	421	1015
05:30 PM	05:45 PM	42	2	39	2	85	4	0	1	1	6	3	496	3	5	507	48	366	0	2	416	1014
05:45 PM	06:00 PM	38	1	34	0	73	2	0	0	0	2	2	510	3	0	515	53	353	0	0	406	996

**SUMMARY OF PEAK HOUR VEHICLE MOVEMENTS**

PEAK HOUR FROM TO	NORTHBOUND					SOUTHBOUND					EASTBOUND					WESTBOUND					GRAND TOTAL
	L	T	R	PEDS	Total	L	T	R	PEDS	Total	L	T	R	PEDS	Total	L	T	R	PEDS	Total	
AM Peak 08:00 AM 09:00 AM	166	1	189	1	357	18	4	5	0	27	3	2091	45	1	2140	95	935	1	2	1033	3557
Peak Hour Factor	0.83					0.55					0.90				0.94					0.94	
Midday Peak 12:00 PM 01:00 PM	129	7	151	1	288	12	5	6	0	23	13	2018	20	4	2055	182	1263	2	2	1447	3815
Peak Hour Factor	0.78					0.72					0.85				0.88						
PM Peak 05:00 PM 06:00 PM	220	10	177	3	410	10	1	4	2	17	11	1915	22	10	1958	241	1377	0	2	1618	4005
Peak Hour Factor	0.66					0.71					0.95				0.99						

APPENDIX I  
**CIVIL WORKS, INC./Gannett Fleming, Inc.**  
 SUMMARY OF VEHICLE MOVEMENTS

LOCATION: SW 79 Ave & Kendall Dr. (SW 88 St)

COMMENT:

COUNTY : Miami-Dade

CITY: Miami-Dade

OBSERVER: Traffic Counts Plus

DATE: July 25, 2001

PROJECT: Kendall Drive Master Plan

FILE: TM SW 79 Ave & Kendall Dr

PROJ. No.:

AADT

TIME BEGIN	TIME END	NORTHBOUND					SOUTHBOUND					EASTBOUND					WESTBOUND					GRAND TOTAL
		L	T	R	PEDS	Total	L	T	R	PEDS	Total	L	T	R	PEDS	Total	L	T	R	PEDS	Total	
07:00 AM	07:15 AM	1	0	0	0	1	21	2	4	0	27	2	546	0	0	548	0	242	1	0	243	819
07:15 AM	07:30 AM	3	2	0	0	5	43	0	3	0	46	1	564	0	0	565	0	248	3	0	251	867
07:30 AM	07:45 AM	1	0	0	0	1	64	2	8	0	74	2	594	1	0	597	1	257	7	0	265	937
07:45 AM	08:00 AM	2	0	0	0	2	71	1	3	0	75	3	545	2	0	550	2	225	12	0	239	866
08:00 AM	08:15 AM	2	0	0	0	2	76	1	2	0	79	5	426	4	0	435	0	279	9	0	288	804
08:15 AM	08:30 AM	0	0	2	0	2	81	1	3	2	87	5	604	7	0	616	1	263	6	0	270	975
08:30 AM	08:45 AM	0	2	1	0	3	60	1	9	0	70	9	552	4	0	565	5	286	14	0	305	943
08:45 AM	09:00 AM	4	5	0	0	9	23	0	3	0	26	2	311	2	0	315	1	242	8	0	251	601
11:00 AM	11:15 AM	4	2	3	0	9	44	0	4	0	48	5	341	2	0	348	10	223	6	0	239	644
11:15 AM	11:30 AM	10	5	5	0	20	43	3	4	0	50	5	447	7	0	459	11	257	5	0	273	802
11:30 AM	11:45 AM	19	0	7	0	26	41	1	8	0	50	5	426	2	0	433	6	250	12	0	268	777
11:45 AM	12:00 PM	9	1	7	0	17	37	1	8	0	46	8	379	1	0	388	11	221	9	0	241	692
12:00 PM	12:15 PM	11	2	4	0	17	44	0	3	0	47	12	543	2	0	557	10	365	19	0	394	1015
12:15 PM	12:30 PM	7	0	1	0	8	30	1	4	0	35	5	505	6	0	516	13	285	6	0	304	863
12:30 PM	12:45 PM	7	3	0	0	10	40	0	6	0	46	3	354	1	0	358	6	284	5	0	295	709
12:45 PM	01:00 PM	8	1	3	0	12	30	0	4	0	34	6	485	2	0	493	11	329	13	1	354	893
04:00 PM	04:15 PM	6	0	43	0	49	37	2	9	0	48	3	392	2	0	397	5	318	22	0	345	839
04:15 PM	04:30 PM	5	1	49	0	55	42	1	7	0	50	6	359	2	0	367	9	309	27	0	345	817
04:30 PM	04:45 PM	8	0	50	0	58	45	1	8	0	54	12	331	7	0	350	15	319	27	0	361	823
04:45 PM	05:00 PM	10	4	47	0	61	62	3	8	0	73	11	331	5	0	347	5	383	33	0	421	902
05:00 PM	05:15 PM	17	1	62	0	80	37	1	8	0	46	19	342	1	0	362	5	347	53	0	405	893
05:15 PM	05:30 PM	18	1	42	0	61	45	3	9	0	57	22	410	1	1	434	11	357	32	0	400	952
05:30 PM	05:45 PM	5	3	39	0	47	32	2	16	0	50	10	438	2	0	450	10	351	47	0	408	955
05:45 PM	06:00 PM	3	1	34	0	38	27	1	10	0	38	7	457	1	0	465	6	348	38	0	392	933

**SUMMARY OF PEAK HOUR VEHICLE MOVEMENTS**

PEAK HOUR FROM TO	NORTHBOUND					SOUTHBOUND					EASTBOUND					WESTBOUND					GRAND TOTAL	
	L	T	R	PEDS	Total	L	T	R	PEDS	Total	L	T	R	PEDS	Total	L	T	R	PEDS	Total		
<b>AM Peak</b>																						
08:00 AM	09:00 AM	6	7	3	0	16	240	3	17	2	262	21	1893	17	0	1931	7	1070	37	0	1114	3323
Peak Hour Factor		0.75					0.89						0.88					0.90				0.92
<b>Midday Peak</b>																						
12:00 PM	01:00 PM	33	6	8	0	47	144	1	17	0	162	26	1887	11	0	1924	40	1263	43	1	1346	3480
Peak Hour Factor		0.69					0.86						0.86					0.85				0.86
<b>PM Peak</b>																						
05:00 PM	06:00 PM	43	6	177	0	226	141	7	43	0	191	58	1647	5	1	1711	32	1403	170	0	1605	3733
Peak Hour Factor		0.71					0.84						0.92					0.98				0.98

**APPENDIX I**  
**CIVIL WORKS, INC./Gannett Fleming, Inc.**  
**SUMMARY OF VEHICLE MOVEMENTS**

**LOCATION:** Dadeland Blvd. & Kendall Dr. (SW 88 St.)

COUNTY : Miami-Dade

OBSERVER: Traffic Counts Plus

PROJECT: Kendall Drive Master Plan

PROJECT

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**COMMENT**

CITY: Miami-Dade

DATE: July 17, 2001

DATE: May 17, 2001

AADT

TIME		NORTHBOUND					SOUTHBOUND					EASTBOUND					WESTBOUND					GRAND TOTAL
BEGIN	END	L	T	R	PEDS	Total	L	T	R	PEDS	Total	L	T	R	PEDS	Total	L	T	R	PEDS	Total	
07:00 AM	07:15 AM	39	1	11	1	52	1	0	1	2	4	3	243	140	1	387	15	42	1	1	59	502
07:15 AM	07:30 AM	44	0	11	0	55	0	1	1	0	2	5	254	154	0	413	21	56	0	0	77	547
07:30 AM	07:45 AM	49	6	15	1	71	3	2	2	1	8	17	272	188	2	479	22	79	1	3	105	663
07:45 AM	08:00 AM	46	5	9	0	60	4	2	4	0	10	38	285	156	5	484	29	112	1	0	142	696
08:00 AM	08:15 AM	44	0	10	3	57	2	4	3	0	9	32	236	135	0	403	31	114	1	2	148	617
08:15 AM	08:30 AM	57	9	9	0	75	0	6	6	1	13	29	249	198	0	476	30	118	2	0	150	714
08:30 AM	08:45 AM	54	9	15	2	80	9	5	4	1	19	32	242	181	2	457	32	137	0	1	170	726
08:45 AM	09:00 AM	58	10	12	4	84	10	3	7	1	21	50	255	207	0	512	43	142	1	9	195	812
11:00 AM	11:15 AM	81	7	23	1	112	9	5	22	0	36	37	164	62	0	263	22	129	3	2	156	567
11:15 AM	11:30 AM	109	10	38	0	157	11	7	24	1	43	60	202	114	0	376	41	140	3	0	184	760
11:30 AM	11:45 AM	67	6	16	1	90	6	9	14	2	31	11	200	83	2	296	24	149	2	2	177	594
11:45 AM	12:00 PM	79	8	28	0	115	10	14	20	0	44	61	190	90	0	341	46	169	1	0	216	716
12:00 PM	12:15 PM	81	1	13	2	97	10	17	15	2	44	18	197	75	1	291	32	170	4	5	211	643
12:15 PM	12:30 PM	93	2	15	0	110	15	23	28	0	66	27	203	91	0	321	27	189	4	0	220	717
12:30 PM	12:45 PM	150	12	39	0	201	30	23	43	0	96	80	234	150	2	466	50	208	9	0	267	1030
12:45 PM	01:00 PM	128	15	33	1	177	15	30	48	1	94	51	254	134	0	439	45	167	8	3	223	933
04:00 PM	04:15 PM	123	19	21	0	163	26	14	42	0	82	64	144	66	2	276	32	218	3	1	254	775
04:15 PM	04:30 PM	130	20	20	1	171	27	15	55	0	97	54	128	59	0	241	41	219	3	0	263	772
04:30 PM	04:45 PM	156	17	14	0	187	17	8	42	0	67	72	109	50	1	232	25	205	1	0	231	717
04:45 PM	05:00 PM	190	16	31	2	239	25	13	54	0	92	71	121	54	0	246	28	238	3	1	270	847
05:00 PM	05:15 PM	215	21	20	0	256	20	16	43	0	79	65	127	41	3	236	16	251	2	4	273	844
05:15 PM	05:30 PM	194	24	28	1	247	21	15	39	1	76	56	148	33	0	237	29	168	5	0	202	762
05:30 PM	05:45 PM	144	16	12	0	172	10	9	36	0	55	33	143	33	1	210	17	237	4	2	260	697
05:45 PM	06:00 PM	194	24	25	0	243	22	18	65	0	105	100	146	36	0	282	30	233	4	0	267	897

## SUMMARY OF PEAK HOUR VEHICLE MOVEMENTS

SUMMARY OF PEAK HOUR VEHICLE MOVEMENTS																					GRAND TOTAL	
PEAK HOUR FROM TO		NORTHBOUND					SOUTHBOUND					EASTBOUND					WESTBOUND					
		L	T	R	PEDS	Total	L	T	R	PEDS	Total	L	T	R	PEDS	Total	L	T	R	PEDS	Total	
AM Peak																						
08:00 AM	09:00 AM	213	28	46	9	296	21	18	20	3	62	143	982	721	2	1848	136	511	4	12	651	2869
Peak Hour Factor		0.88					0.74					0.90					0.85					0.88
Midday Peak																						
12:00 PM	01:00 PM	452	30	100	3	585	70	93	134	3	300	176	888	450	3	1517	154	734	25	8	913	3323
Peak Hour Factor		0.73					0.78					0.81					0.86					0.81
PM Peak																						
05:00 PM	06:00 PM	747	85	85	1	918	73	58	183	1	315	254	564	143	4	965	92	889	15	6	996	3200
Peak Hour Factor		0.90					0.75					0.86					0.92					0.89

APPENDIX I  
**CIVIL WORKS, INC./Gannett Fleming, Inc.**  
SUMMARY OF VEHICLE MOVEMENTS

**LOCATION:** US 1 & Kendall Dr. (SW 88 St.)

COUNTY : Miami-Dade

**OBSERVER:** Traffic Counts Plus

PROJECT: Kendall Drive Master Plan

PROJ No:

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**COMMENT:**

CITY: Miami-Dade

DATE: JULY 18, 2001

FILE: TM US 1 & Kendall Dr

AADT

TIME		NORTHBOUND					SOUTHBOUND					EASTBOUND					WESTBOUND					GRAND TOTAL
BEGIN	END	L	T	R	PEDS	Total	L	T	R	PEDS	Total	L	T	R	PEDS	Total	L	T	R	PEDS	Total	
07:00 AM	07:15 AM	0	383	9	2	394	4	130	24	0	158	72	46	1	0	119	4	21	3	0	28	699
07:15 AM	07:30 AM	0	440	15	0	455	8	144	40	1	193	98	51	5	1	155	8	33	5	1	47	850
07:30 AM	07:45 AM	0	471	25	0	496	3	166	48	0	217	135	66	5	0	206	9	61	6	0	76	995
07:45 AM	08:00 AM	0	492	10	1	503	3	199	71	1	274	171	51	9	0	231	10	34	1	0	45	1053
08:00 AM	08:15 AM	0	485	7	0	492	5	201	63	2	271	184	45	6	1	236	13	44	1	1	59	1058
08:15 AM	08:30 AM	0	419	13	3	435	10	226	74	0	310	181	65	9	1	256	21	53	5	0	79	1080
08:30 AM	08:45 AM	0	406	14	0	420	7	245	78	0	330	164	70	11	0	245	31	70	1	2	104	1099
08:45 AM	09:00 AM	0	393	9	0	402	13	271	94	1	379	144	85	7	0	236	30	67	0	2	99	1116
11:00 AM	11:15 AM	0	316	5	0	321	11	298	135	1	445	152	40	18	0	210	20	89	3	0	112	1088
11:15 AM	11:30 AM	0	307	9	0	316	14	402	141	0	557	143	45	23	1	212	33	76	5	0	114	1199
11:30 AM	11:45 AM	0	319	12	0	331	11	475	114	0	600	194	43	23	0	260	47	82	1	0	130	1321
11:45 AM	12:00 PM	0	322	16	2	340	11	474	138	2	625	159	40	12	0	211	20	73	0	1	94	1270
12:00 PM	12:15 PM	0	375	10	1	386	8	490	148	0	646	152	49	25	0	226	29	97	1	0	127	1385
12:15 PM	12:30 PM	0	377	12	0	389	13	550	146	1	710	203	51	39	2	295	25	105	3	1	134	1528
12:30 PM	12:45 PM	0	397	15	0	412	18	591	157	1	767	166	60	32	0	258	43	91	0	0	134	1571
12:45 PM	01:00 PM	0	370	21	0	391	12	411	164	0	587	131	71	31	0	233	31	75	0	0	106	1317
04:00 PM	04:15 PM	0	250	15	0	265	12	473	124	0	609	132	50	27	0	209	30	103	1	1	135	1218
04:15 PM	04:30 PM	0	343	17	0	360	15	491	141	1	648	117	85	50	0	252	28	126	0	0	154	1414
04:30 PM	04:45 PM	0	243	15	0	258	20	477	136	0	633	140	68	48	1	257	30	108	0	0	138	1286
04:45 PM	05:00 PM	0	275	18	0	293	11	589	150	0	750	103	62	50	0	215	37	125	0	1	163	1421
05:00 PM	05:15 PM	0	306	18	0	324	12	564	122	0	698	129	62	47	0	238	32	118	6	0	156	1416
05:15 PM	05:30 PM	0	341	15	0	356	15	568	122	1	706	127	59	44	0	230	36	120	1	0	157	1449
05:30 PM	05:45 PM	0	289	11	0	300	18	606	132	0	756	133	86	50	1	270	31	110	2	2	145	1471
05:45 PM	06:00 PM	0	314	24	1	339	18	736	129	0	883	112	62	49	0	223	29	108	0	0	137	1582

## SUMMARY OF PEAK HOUR VEHICLE MOVEMENTS

SUMMARY OF PEAK HOUR VEHICLE MOVEMENTS																						
PEAK HOUR FROM TO		NORTHBOUND					SOUTHBOUND					EASTBOUND					WESTBOUND					GRAND TOTAL
		L	T	R	PEDS	Total	L	T	R	PEDS	Total	L	T	R	PEDS	Total	L	T	R	PEDS	Total	
AM Peak																						
08:00 AM	09:00 AM	0	1703	43	3	1749	35	943	309	3	1290	673	265	33	2	973	95	234	7	5	336	4353
Peak Hour Factor			0.89				0.85					0.95					0.82					0.98
Midday Peak																						
12:00 PM	01:00 PM	0	1519	58	1	1578	51	2042	615	2	2710	652	231	127	2	1012	128	368	4	1	500	5801
Peak Hour Factor			0.96				0.88					0.86					0.93					0.92
PM Peak																						
05:00 PM	06:00 PM	0	1250	68	1	1319	63	2474	505	1	3043	501	269	190	1	961	128	456	9	2	593	5918
Peak Hour Factor			0.93				0.86					0.89					0.95					0.94

**APPENDIX I**  
**CIVIL WORKS, INC./Gannett Fleming, Inc.**  
**SUMMARY OF VEHICLE MOVEMENTS**

LOCATION: First Union Bank Driveway & Kendall Dr. (SW 88 St.)

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**COMMENT**

COUNTY : Miami-Dade

#### **OBSERVER: Traffic Counts Plus**

PROJECT: Kendall Drive Master Plan

PROJ No.:

CITY: Miami-Dade

DATE: July 17, 2001

FILE: TM First Union

**THE FM First Union Bank Driveway & Kendall Dr.  
AAPT**

AADT

TIME		NORTHBOUND					SOUTHBOUND					EASTBOUND					WESTBOUND					GRAND TOTAL
BEGIN	END	L	T	R	PEDS	Total	L	T	R	PEDS	Total	L	T	R	PEDS	Total	L	T	R	PEDS	Total	
07:00 AM	07:15 AM	0	0	0	0	0	1	0	7	0	8	33	208	0	0	241	0	53	1	0	54	303
07:15 AM	07:30 AM	0	0	0	0	0	1	0	5	0	6	41	212	0	0	253	0	75	2	0	77	336
07:30 AM	07:45 AM	0	0	1	0	1	0	1	9	0	10	64	207	0	0	271	1	96	5	0	102	384
07:45 AM	08:00 AM	0	0	0	0	0	0	0	14	0	14	51	216	0	2	269	3	127	3	1	134	417
08:00 AM	08:15 AM	0	0	0	0	0	0	0	20	0	20	50	188	0	0	238	3	124	2	0	129	387
08:15 AM	08:30 AM	0	0	0	1	1	0	0	12	0	12	29	200	0	0	229	3	135	6	4	148	390
08:30 AM	08:45 AM	1	0	1	0	2	0	0	15	0	15	26	214	0	0	240	2	147	4	0	153	410
08:45 AM	09:00 AM	0	0	0	0	0	0	0	16	0	16	34	236	0	0	270	1	160	4	0	165	451
11:00 AM	11:15 AM	0	0	2	0	2	3	0	12	0	15	7	183	0	1	191	0	151	19	2	172	380
11:15 AM	11:30 AM	0	0	0	0	0	0	0	25	0	25	13	213	0	3	229	0	151	24	1	176	430
11:30 AM	11:45 AM	0	0	0	0	0	0	0	18	0	18	5	238	0	0	243	0	164	15	1	180	441
11:45 AM	12:00 PM	0	0	0	0	0	0	0	21	0	21	8	219	0	0	227	0	183	18	0	201	449
12:00 PM	12:15 PM	0	0	0	1	1	4	1	15	1	21	23	204	0	1	228	0	196	24	0	220	470
12:15 PM	12:30 PM	0	0	0	0	0	1	0	18	0	19	19	227	1	0	247	0	208	10	0	218	484
12:30 PM	12:45 PM	0	0	0	0	0	0	0	26	0	26	10	252	0	0	262	0	217	25	0	242	530
12:45 PM	01:00 PM	0	0	0	3	3	0	0	27	1	28	13	263	1	0	277	0	182	29	0	211	519
04:00 PM	04:15 PM	0	0	0	0	0	0	0	27	0	27	13	169	0	0	182	0	203	8	0	211	420
04:15 PM	04:30 PM	0	0	0	0	0	0	0	24	5	29	12	144	0	0	156	0	212	6	0	218	403
04:30 PM	04:45 PM	0	0	1	0	1	0	0	32	0	32	17	123	0	2	142	0	194	21	0	215	390
04:45 PM	05:00 PM	0	0	0	0	0	0	0	23	5	28	24	132	0	0	156	0	224	17	1	242	426
05:00 PM	05:15 PM	0	0	0	0	0	0	0	37	0	37	19	129	0	0	148	0	212	8	0	220	405
05:15 PM	05:30 PM	0	0	3	0	3	0	0	31	3	34	14	173	0	0	187	0	159	18	0	177	401
05:30 PM	05:45 PM	0	0	4	0	4	1	0	56	2	59	18	159	0	0	177	0	212	19	0	231	471
05:45 PM	06:00 PM	0	0	1	0	1	0	0	45	0	45	22	160	0	4	186	0	228	18	1	247	479

## SUMMARY OF PEAK HOUR VEHICLE MOVEMENTS

SUMMARY OF PEAK HOUR VEHICLE MOVEMENTS																								
PEAK HOUR FROM TO		NORTHBOUND					SOUTHBOUND					EASTBOUND					WESTBOUND					GRAND TOTAL		
		L	T	R	PEDS	Total	L	T	R	PEDS	Total	L	T	R	PEDS	Total	L	T	R	PEDS	Total			
AM Peak																								
08:00 AM 09:00 AM	Peak Hour Factor	1 0.38	0	1	1	3	0 0.79	0	63 0.79	0	63	139 0.90	838 0.90	0	0	977	9 0.90	566 0.90	16	4	591	1638 0.91		
Midday Peak																								
12:00 PM 01:00 PM	Peak Hour Factor	0 0.33	0	0	4	4	5 0.84	1	86 0.84	2	94	65 0.92	946 0.92	2	1	1014	0 0.92	803 0.92	88	0	891	2003 0.94		
PM Peak																								
05:00 PM 06:00 PM	Peak Hour Factor	0 0.50	0	0	8	8	1 0.74	0	169 0.74	5	175	73 0.93	621 0.93	0	4	698	0 0.89	811 0.89	63	1	874	1756 0.92		

**APPENDIX I**  
**CIVIL WORKS, INC./Gannett Fleming, Inc.**  
**SUMMARY OF VEHICLE MOVEMENTS**

LOCATION: SW 7300 Block & Kendall Dr. (SW 88 St)

COUNTY : Miami-Dade

OBSERVER: Traffic Counts Plus

PROJECT: Kendall Drive Master Plan

PROJ. No.:

COMMENT:

CITY: Miami-Dade

DATE: July 17, 2001

FILE: TM SW 7300 Block & Kendall Dr

AADT

TIME BEGIN	TIME END	NORTHBOUND					SOUTHBOUND					EASTBOUND					WESTBOUND					GRAND TOTAL
		L	T	R	PEDS	Total	L	T	R	PEDS	Total	L	T	R	PEDS	Total	L	T	R	PEDS	Total	
07:00 AM	07:15 AM	0	0	0	0	0	1	0	0	0	1	13	244	0	0	257	0	60	0	0	60	318
07:15 AM	07:30 AM	0	0	0	0	0	1	0	0	0	1	11	257	0	0	268	0	80	0	0	80	349
07:30 AM	07:45 AM	0	0	1	0	1	0	1	1	0	2	19	270	0	0	289	0	104	1	0	105	397
07:45 AM	08:00 AM	0	0	0	0	0	0	0	2	0	2	31	265	0	0	296	0	139	0	0	139	437
08:00 AM	08:15 AM	0	0	0	0	0	0	0	4	0	4	16	233	1	0	250	0	144	0	0	144	398
08:15 AM	08:30 AM	1	0	0	0	1	0	0	0	0	0	27	229	0	0	256	0	147	0	0	147	404
08:30 AM	08:45 AM	1	0	1	0	2	1	0	1	0	2	23	237	0	0	260	0	161	0	0	161	425
08:45 AM	09:00 AM	2	0	1	0	3	5	0	2	0	7	16	262	0	0	278	0	175	1	0	176	464
11:00 AM	11:15 AM	1	2	3	0	6	18	3	4	0	25	18	168	0	0	186	0	155	6	0	161	378
11:15 AM	11:30 AM	10	2	5	0	17	15	2	4	0	21	18	205	0	0	223	0	164	10	0	174	435
11:30 AM	11:45 AM	9	1	4	0	14	29	4	4	0	37	13	209	1	0	223	0	176	7	0	183	457
11:45 AM	12:00 PM	10	4	5	0	19	26	2	3	0	31	20	196	0	0	216	0	193	8	0	201	467
12:00 PM	12:15 PM	3	8	4	0	15	20	2	10	0	32	16	205	0	0	221	0	205	6	0	211	479
12:15 PM	12:30 PM	11	4	4	0	19	22	3	14	0	39	19	217	0	0	236	0	213	10	0	223	517
12:30 PM	12:45 PM	12	7	2	0	21	14	2	18	0	34	17	249	0	0	266	0	238	4	0	242	563
12:45 PM	01:00 PM	3	1	1	0	5	21	1	15	0	37	40	252	0	0	292	0	203	5	0	208	542
04:00 PM	04:15 PM	7	2	3	0	12	21	4	17	0	42	4	160	3	0	167	0	222	5	0	227	448
04:15 PM	04:30 PM	4	3	4	0	11	17	3	20	0	40	10	133	6	0	149	0	232	4	0	236	436
04:30 PM	04:45 PM	12	6	1	0	19	25	4	9	0	38	13	114	2	0	129	0	223	3	0	226	412
04:45 PM	05:00 PM	13	5	6	0	24	17	5	21	0	43	19	129	1	0	149	1	240	4	0	245	461
05:00 PM	05:15 PM	9	4	6	0	19	16	9	32	0	57	26	124	0	0	150	1	235	12	0	248	474
05:15 PM	05:30 PM	12	3	9	0	24	24	5	14	0	43	18	152	3	0	173	0	184	6	0	190	430
05:30 PM	05:45 PM	5	0	4	0	9	24	5	3	0	32	18	148	2	0	168	1	260	6	0	267	476
05:45 PM	06:00 PM	5	2	4	0	11	30	6	6	0	42	17	147	3	0	167	0	266	4	0	270	490

**SUMMARY OF PEAK HOUR VEHICLE MOVEMENTS**

PEAK HOUR FROM	TO	NORTHBOUND					SOUTHBOUND					EASTBOUND					WESTBOUND					GRAND TOTAL
		L	T	R	PEDS	Total	L	T	R	PEDS	Total	L	T	R	PEDS	Total	L	T	R	PEDS	Total	
AM Peak																						
08:00 AM	09:00 AM	4	0	2	0	6	6	0	7	0	13	82	961	1	0	1044	0	627	1	0	628	1691
Peak Hour Factor		0.50					0.46					0.94					0.89					0.91
Midday Peak																						
12:00 PM	01:00 PM	29	20	11	0	60	77	8	57	0	142	92	923	0	0	1015	0	859	25	0	884	2101
Peak Hour Factor		0.71					0.91					0.87					0.91					0.93
PM Peak																						
05:00 PM	06:00 PM	31	9	23	0	63	94	25	55	0	174	79	571	8	0	658	2	945	28	0	975	1870
Peak Hour Factor		0.66					0.76					0.95					0.90					0.95

**APPENDIX I**  
**CIVIL WORKS, INC./Gannett Fleming, Inc.**  
**SUMMARY OF VEHICLE MOVEMENTS**

**LOCATION:** SW 79 Ave & Kendall Dr. (SW 88 St)

COUNTY : Miami-Dade

#### **OBSERVER: Traffic Counts Plus**

PROJECT: Kendall Drive Master Plan

БРОЛН-

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**COMMENT**

CITY: Miami-Dade

DATE: July 25, 2001

DATE: July 23, 2001

TIME		NORTHBOUND					SOUTHBOUND					EASTBOUND					WESTBOUND					GRAND TOTAL
BEGIN	END	L	T	R	PEDS	Total	L	T	R	PEDS	Total	L	T	R	PEDS	Total	L	T	R	PEDS	Total	
07:00 AM	07:15 AM	1	0	0	0	1	21	2	4	0	27	2	546	0	0	548	0	242	1	0	243	819
07:15 AM	07:30 AM	3	2	0	0	5	43	0	3	0	46	1	564	0	0	565	0	248	3	0	251	867
07:30 AM	07:45 AM	1	0	0	0	1	64	2	8	0	74	2	594	1	0	597	1	257	7	0	265	937
07:45 AM	08:00 AM	2	0	0	0	2	71	1	3	0	75	3	545	2	0	550	2	225	12	0	239	866
08:00 AM	08:15 AM	2	0	0	0	2	76	1	2	0	79	5	426	4	0	435	0	279	9	0	288	804
08:15 AM	08:30 AM	0	0	2	0	2	81	1	3	2	87	5	604	7	0	616	1	263	6	0	270	975
08:30 AM	08:45 AM	0	2	1	0	3	60	1	9	0	70	9	552	4	0	565	5	286	14	0	305	943
08:45 AM	09:00 AM	4	5	0	0	9	23	0	3	0	26	2	311	2	0	315	1	242	8	0	251	601
11:00 AM	11:15 AM	4	2	3	0	9	44	0	4	0	48	5	341	2	0	348	10	223	6	0	239	644
11:15 AM	11:30 AM	10	5	5	0	20	43	3	4	0	50	5	447	7	0	459	11	257	5	0	273	802
11:30 AM	11:45 AM	19	0	7	0	26	41	1	8	0	50	5	426	2	0	433	6	250	12	0	268	777
11:45 AM	12:00 PM	9	1	7	0	17	37	1	8	0	46	8	379	1	0	388	11	221	9	0	241	692
12:00 PM	12:15 PM	11	2	4	0	17	44	0	3	0	47	12	543	2	0	557	10	365	19	0	394	1015
12:15 PM	12:30 PM	7	0	1	0	8	30	1	4	0	35	5	505	6	0	516	13	285	6	0	304	863
12:30 PM	12:45 PM	7	3	0	0	10	40	0	6	0	46	3	354	1	0	358	6	284	5	0	295	709
12:45 PM	01:00 PM	8	1	3	0	12	30	0	4	0	34	6	485	2	0	493	11	329	13	1	354	893
04:00 PM	04:15 PM	6	0	43	0	49	37	2	9	0	48	3	392	2	0	397	5	318	22	0	345	839
04:15 PM	04:30 PM	5	1	49	0	55	42	1	7	0	50	6	359	2	0	367	9	309	27	0	345	817
04:30 PM	04:45 PM	8	0	50	0	58	45	1	8	0	54	12	331	7	0	350	15	319	27	0	361	823
04:45 PM	05:00 PM	10	4	47	0	61	62	3	8	0	73	11	331	5	0	347	5	383	33	0	421	902
05:00 PM	05:15 PM	17	1	62	0	80	37	1	8	0	46	19	342	1	0	362	5	347	53	0	405	893
05:15 PM	05:30 PM	18	1	42	0	61	45	3	9	0	57	22	410	1	1	434	11	357	32	0	400	952
05:30 PM	05:45 PM	5	3	39	0	47	32	2	16	0	50	10	438	2	0	450	10	351	47	0	408	955
05:45 PM	06:00 PM	3	1	34	0	38	27	1	10	0	38	7	457	1	0	465	6	348	38	0	392	933

## SUMMARY OF PEAK HOUR VEHICLE MOVEMENTS

SUMMARY OF PEAK HOUR VEHICLE MOVEMENTS																															
PEAK HOUR FROM TO		NORTHBOUND					SOUTHBOUND					EASTBOUND					WESTBOUND					GRAND TOTAL									
		L	T	R	PEDS	Total	L	T	R	PEDS	Total	L	T	R	PEDS	Total	L	T	R	PEDS	Total										
AM Peak																															
07:45 AM	08:45 AM	4	2	3	0	9	288	4	17	2	311	22	2127	17	0	2166	8	1053	41	0	1102	3588									
Peak Hour Factor		0.75					0.89					0.88					0.90					0.92									
Midday Peak																															
12:00 PM	01:00 PM	33	6	8	0	47	144	1	17	0	162	26	1887	11	0	1924	40	1263	43	1	1346	3480									
Peak Hour Factor		0.69					0.86					0.86					0.85					0.86									
PM Peak																															
05:00 PM	06:00 PM	43	6	177	0	226	141	7	43	0	191	58	1647	5	1	1711	32	1403	170	0	1605	3733									
Peak Hour Factor		0.71					0.84					0.92					0.98					0.98									

**APPENDIX I**  
**CIVIL WORKS, INC./Gannett Fleming, Inc.**  
**SUMMARY OF VEHICLE MOVEMENTS**

LOCATION: US 1 & SR 878/ Snapper Crk Exwy

COUNTY : Miami-Dade

OBSERVER: Traffic Counts Plus

PROJECT: Kendall Drive Master Plan

PROJ. No.:

COMMENT: Traffic Report Update

CITY: Kendall

DATE: August 01, 2001

FILE: TM US 1 & SR 878

AADT

TIME BEGIN	TIME END	NORTHBOUND					SOUTHBOUND					EASTBOUND					WESTBOUND					GRAND TOTAL	
		L	T	R	PEDS	Total	L	T	R	PEDS	Total	L	T	R	PEDS	Total	L	T	R	PEDS	Total		
07:00 AM	07:15 AM	0	547	0	0	547	0	136	60	0	196	353	0	9	0	362	0	0	0	0	0	0	1105
07:15 AM	07:30 AM	0	564	0	0	564	0	139	58	0	197	345	0	7	0	352	0	0	0	0	0	0	1113
07:30 AM	07:45 AM	0	543	0	0	543	0	176	75	0	251	399	0	12	0	411	0	0	0	0	0	0	1205
07:45 AM	08:00 AM	0	646	0	0	646	0	188	80	0	268	361	0	5	0	366	0	0	0	0	0	0	1280
08:00 AM	08:15 AM	0	661	0	0	661	0	201	52	0	253	336	0	6	0	342	0	0	0	0	0	0	1256
08:15 AM	08:30 AM	0	597	0	0	597	0	218	78	0	296	402	0	12	0	414	0	0	0	0	0	0	1307
08:30 AM	08:45 AM	0	574	0	0	574	0	225	60	0	285	342	0	8	0	350	0	0	0	0	0	0	1209
08:45 AM	09:00 AM	0	485	0	0	485	0	253	104	0	357	327	0	7	0	334	0	0	0	0	0	0	1176
11:00 AM	11:15 AM	0	376	0	0	376	0	378	87	0	465	187	0	5	0	192	0	0	0	0	0	0	1033
11:15 AM	11:30 AM	0	381	0	0	381	0	378	73	0	451	197	0	8	0	205	0	0	0	0	0	0	1037
11:30 AM	11:45 AM	0	402	0	0	402	0	454	122	0	576	179	0	11	0	190	0	0	0	0	0	0	1168
11:45 AM	12:00 PM	0	475	0	0	475	0	416	112	0	528	159	0	16	0	175	0	0	0	0	0	0	1178
12:00 PM	12:15 PM	0	500	0	0	500	0	439	118	0	557	201	0	23	0	224	0	0	0	0	0	0	1281
12:15 PM	12:30 PM	0	473	0	0	473	0	442	132	0	574	149	0	16	0	165	0	0	0	0	0	0	1212
12:30 PM	12:45 PM	0	501	0	0	501	0	460	122	0	582	162	0	16	0	178	0	0	0	0	0	0	1261
12:45 PM	01:00 PM	0	519	0	0	519	0	411	94	0	505	167	0	12	0	179	0	0	0	0	0	0	1203
04:00 PM	04:15 PM	0	431	0	0	431	0	564	254	0	818	146	0	17	0	163	0	0	0	0	0	0	1412
04:15 PM	04:30 PM	0	436	0	0	436	0	461	262	0	723	155	0	10	0	165	0	0	0	0	0	0	1324
04:30 PM	04:45 PM	0	459	0	0	459	0	468	261	0	729	125	0	11	0	136	0	0	0	0	0	0	1324
04:45 PM	05:00 PM	0	416	0	0	416	0	481	310	0	791	146	0	8	0	154	0	0	0	0	0	0	1361
05:00 PM	05:15 PM	0	473	0	0	473	0	499	342	0	841	123	0	15	0	138	0	0	0	0	0	0	1452
05:15 PM	05:30 PM	0	431	0	0	431	0	483	390	0	873	188	0	22	0	210	0	0	0	0	0	0	1514
05:30 PM	05:45 PM	0	442	0	0	442	0	450	386	0	836	153	0	13	0	166	0	0	0	0	0	0	1444
05:45 PM	06:00 PM	0	412	0	0	412	0	418	316	0	734	163	0	18	0	181	0	0	0	0	0	0	1327

**SUMMARY OF PEAK HOUR VEHICLE MOVEMENTS**

PEAK HOUR FROM TO	NORTHBOUND					SOUTHBOUND					EASTBOUND					WESTBOUND					GRAND TOTAL	
	L	T	R	PEDS	Total	L	T	R	PEDS	Total	L	T	R	PEDS	Total	L	T	R	PEDS	Total		
<b>AM Peak</b>																						
07:45 AM	08:45 AM	0	2478	0	0	2478	0	832	270	0	1102	1441	0	31	0	1472	0	0	0	0	0	5052
Peak Hour Factor		0.94				0.93					0.89					#N/A						0.97
<b>Midday Peak</b>																						
12:00 PM	01:00 PM	0	1993	0	0	1993	0	1752	466	0	2218	679	0	67	0	746	0	0	0	0	0	4957
Peak Hour Factor		0.96				0.95					0.83					#N/A						0.97
<b>PM Peak</b>																						
04:45 PM	05:45 PM	0	1762	0	0	1762	0	1913	1428	0	3341	610	0	58	0	668	0	0	0	0	0	5771
Peak Hour Factor		0.93				0.96					0.80					#N/A						0.95

APPENDIX I  
**CIVIL WORKS, INC./Gannett Fleming, Inc.**  
SUMMARY OF VEHICLE MOVEMENTS

LOCATION: SW 77 Ave & Kendall Dr. (SW 88 St)

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**COMMENT:**

COUNTY : Miami-Dade

CITY—Miami, Fla.

OBSERVER: Traffic Counts Plus

CITY: Miami-Dade

**PROJECT:** Kendall Drive Master Plan

DATE: July 25, 2001

PROJECT  
PROJN

AADT

TIME BEGIN	TIME END	NORTHBOUND					SOUTHBOUND					EASTBOUND					WESTBOUND					GRAND TOTAL
		L	T	R	PEDS	Total	L	T	R	PEDS	Total	L	T	R	PEDS	Total	L	T	R	PEDS	Total	
07:00 AM	07:15 AM	27	0	43	0	70	1	0	0	0	1	0	528	9	0	537	23	210	0	0	233	841
07:15 AM	07:30 AM	34	1	41	0	76	0	0	0	0	0	0	594	12	6	612	31	221	1	0	253	941
07:30 AM	07:45 AM	35	0	47	0	82	3	1	0	0	4	0	651	17	2	670	34	224	6	0	264	1020
07:45 AM	08:00 AM	35	1	43	0	79	4	1	0	0	5	0	607	11	0	618	25	202	1	0	228	930
08:00 AM	08:15 AM	37	0	69	0	106	4	1	5	0	10	1	489	12	0	502	28	242	0	0	270	888
08:15 AM	08:30 AM	43	0	41	1	85	1	2	0	0	3	0	679	11	0	690	23	229	0	1	253	1031
08:30 AM	08:45 AM	50	0	52	0	102	0	0	0	0	0	2	599	14	1	616	22	259	0	1	282	1000
08:45 AM	09:00 AM	36	1	27	0	64	13	1	0	0	14	0	324	8	0	332	22	205	1	0	228	638
11:00 AM	11:15 AM	31	0	50	0	81	7	0	0	0	7	0	379	9	0	388	35	223	0	0	258	734
11:15 AM	11:30 AM	28	0	36	0	64	2	1	2	0	5	1	483	7	0	491	31	257	0	1	289	849
11:30 AM	11:45 AM	27	0	27	0	54	3	1	1	0	5	4	467	6	0	477	37	250	1	0	288	824
11:45 AM	12:00 PM	27	0	27	0	54	0	0	0	0	0	0	407	10	0	417	23	221	2	0	246	717
12:00 PM	12:15 PM	25	1	32	0	58	1	1	2	0	4	7	586	6	3	602	51	365	1	0	417	1081
12:15 PM	12:30 PM	33	2	27	1	63	2	0	2	0	4	2	529	5	0	536	54	285	0	2	341	944
12:30 PM	12:45 PM	28	3	44	0	75	6	1	0	0	7	0	391	5	0	396	34	284	0	0	318	796
12:45 PM	01:00 PM	43	1	48	0	92	3	3	2	0	8	4	512	4	1	521	43	329	1	0	373	994
04:00 PM	04:15 PM	40	2	43	0	85	1	0	0	0	1	0	463	5	0	468	70	305	0	0	375	929
04:15 PM	04:30 PM	36	0	49	0	85	3	1	1	0	5	1	438	7	0	446	76	306	0	0	382	918
04:30 PM	04:45 PM	38	3	50	2	93	2	0	0	2	4	1	405	10	2	418	64	320	0	1	385	900
04:45 PM	05:00 PM	55	0	47	1	103	2	1	1	0	4	0	422	9	0	431	66	366	0	0	432	970
05:00 PM	05:15 PM	86	7	62	1	156	3	0	1	1	5	4	425	9	4	442	62	315	0	0	377	980
05:15 PM	05:30 PM	54	0	42	0	96	1	1	2	0	4	2	484	7	1	494	78	343	0	0	421	1015
05:30 PM	05:45 PM	42	2	39	2	85	4	0	1	1	6	3	496	3	5	507	48	366	0	2	416	1014
05:45 PM	06:00 PM	38	1	34	0	73	2	0	0	0	2	2	510	3	0	515	53	353	0	0	406	996

## SUMMARY OF PEAK HOUR VEHICLE MOVEMENTS

SUMMARY OF PEAK HOUR VEHICLE MOVEMENTS																					
PEAK HOUR FROM TO	NORTHBOUND					SOUTHBOUND					EASTBOUND					WESTBOUND					GRAND TOTAL
	L	T	R	PEDS	Total	L	T	R	PEDS	Total	L	T	R	PEDS	Total	L	T	R	PEDS	Total	
AM Peak 07:30 AM - 08:30 AM Peak Hour Factor	150 0.83	1	200	1	352	12 0.55	5	5	0	22	1	2426 0.90	51	2	2480	110 0.94	897	7	1	1014	3869 0.94
Midday Peak 12:00 PM - 01:00 PM Peak Hour Factor	129 0.78	7	151	1	288	12 0.72	5	6	0	23	13	2018 0.85	20	4	2055	182 0.87	1263	2	2	1447	3815 0.88
PM Peak 05:00 PM - 06:00 PM Peak Hour Factor	220 0.66	10	177	3	410	10 0.71	1	4	2	17	11	1915 0.95	22	10	1958	241 0.96	1377	0	2	1618	4005 0.99

**APPENDIX I**  
**CIVIL WORKS, INC.**  
**SUMMARY OF VEHICLE MOVEMENTS**

LOCATION: SR 826 & Kendall Dr. (SW 88 St)

COUNTY : Miami-Dade

OBSERVER: Traffic Counts Plus

PROJECT: Kendall Drive Master Plan

PROJ. No.: 21146.00

COMMENT:

CITY: Miami-Dade

DATE: July 25, 2001

FILE: TM SR 826 & Kendall Dr

AADT

TIME BEGIN END	NORTHBOUND					SOUTHBOUND					EASTBOUND					WESTBOUND					GRAND TOTAL
	L	T	R	PEDS	Total	L	T	R	PEDS	Total	L	T	R	PEDS	Total	L	T	R	PEDS	Total	
07:00 AM 07:15 AM	10	0	3	0	13	0	0	0	0	0	0	374	0	0	374	0	84	40	0	124	511
07:15 AM 07:30 AM	6	0	2	2	10	0	0	0	2	2	0	481	0	0	481	0	106	46	0	152	645
07:30 AM 07:45 AM	8	0	5	0	13	0	0	0	1	1	0	498	0	1	499	0	111	45	0	156	669
07:45 AM 08:00 AM	12	0	9	0	21	0	0	0	2	2	0	544	0	1	545	0	122	52	1	175	743
08:00 AM 08:15 AM	7	0	8	3	18	0	0	0	4	4	0	566	0	0	566	0	148	50	1	199	787
08:15 AM 08:30 AM	13	0	12	3	28	0	0	0	3	3	0	589	0	3	592	0	133	71	0	204	827
08:30 AM 08:45 AM	13	0	17	3	33	0	0	0	7	7	0	519	0	6	525	0	149	55	0	204	769
08:45 AM 09:00 AM	10	0	17	3	30	0	0	0	3	3	0	549	0	5	554	0	151	65	2	218	805
11:00 AM 11:15 AM	13	0	18	1	32	0	0	0	2	2	0	369	0	5	374	0	196	111	1	308	716
11:15 AM 11:30 AM	16	0	15	4	35	0	0	0	2	2	0	363	0	2	365	0	220	125	0	345	747
11:30 AM 11:45 AM	11	0	10	0	21	0	0	0	3	3	0	364	1	1	366	0	193	116	1	310	700
11:45 AM 12:00 PM	9	0	17	2	28	0	0	0	0	0	0	435	0	1	436	0	200	156	2	358	822
12:00 PM 12:15 PM	9	0	11	3	23	0	0	0	0	0	0	433	0	4	437	0	230	169	0	399	859
12:15 PM 12:30 PM	19	0	10	0	29	0	0	0	0	0	0	395	0	7	402	0	217	160	0	377	808
12:30 PM 12:45 PM	17	0	17	2	36	0	0	0	0	0	0	418	0	0	418	0	243	139	0	382	836
12:45 PM 01:00 PM	13	0	15	0	28	0	0	0	2	2	0	418	0	2	420	0	272	166	0	438	888
04:00 PM 04:15 PM	17	0	18	2	37	0	0	0	0	0	0	381	0	1	382	0	302	155	2	459	878
04:15 PM 04:30 PM	19	0	16	4	39	0	0	0	3	3	0	342	0	4	346	0	352	180	1	533	921
04:30 PM 04:45 PM	12	0	18	5	35	0	0	0	2	2	0	367	0	4	371	0	276	176	1	453	861
04:45 PM 05:00 PM	20	0	8	4	32	0	0	0	5	5	0	303	0	2	305	0	326	210	1	537	879
05:00 PM 05:15 PM	19	0	14	5	38	0	0	0	0	0	0	369	0	7	376	0	324	193	4	521	935
05:15 PM 05:30 PM	26	0	10	1	37	0	0	0	2	2	0	371	0	2	373	0	403	230	2	635	1047
05:30 PM 05:45 PM	18	0	12	2	32	0	0	0	0	0	0	363	0	4	367	0	413	217	1	631	1030
05:45 PM 06:00 PM	15	0	9	0	24	0	0	0	0	0	0	350	0	2	352	0	392	208	1	601	977

**SUMMARY OF PEAK HOUR VEHICLE MOVEMENTS**

PEAK HOUR FROM TO	NORTHBOUND					SOUTHBOUND					EASTBOUND					WESTBOUND					GRAND TOTAL
	L	T	R	PEDS	Total	L	T	R	PEDS	Total	L	T	R	PEDS	Total	L	T	R	PEDS	Total	
AM Peak 08:00 AM 09:00 AM	43	0	54	12	109	0	0	0	17	17	0	2223	0	14	2237	0	581	241	3	822	3188
Peak Hour Factor	0.83					0.61					0.94					0.95					0.96
Midday Peak 12:00 PM 01:00 PM	58	0	53	5	116	0	0	0	2	2	0	1664	0	13	1677	0	962	634	0	1596	3391
Peak Hour Factor	0.81					0.25					0.96					0.91					0.95
PM Peak 05:00 PM 06:00 PM	78	0	45	8	131	0	0	0	2	2	0	1453	0	15	1468	0	1532	848	8	2380	3989
Peak Hour Factor	0.86					0.25					0.98					0.94					0.95

**APPENDIX I**  
**CIVIL WORKS, INC./Gannett Fleming, Inc.**  
**SUMMARY OF VEHICLE MOVEMENTS**

LOCATION:	SW 67 Ave. & Kendall Dr. (SW 88 St)
COUNTY :	Miami-Dade
OBSERVER:	Traffic Counts Plus
PROJECT:	Kendall Drive Master Plan
PROJ. No.:	21146.00

**COMMENT:**  
CITY: Miami-Dade  
DATE: July 25, 2001  
FILE: TM SW 67 Ave. & Kendall Dr.  
APT

TIME		NORTHBOUND					SOUTHBOUND					EASTBOUND					WESTBOUND					GRAND TOTAL
BEGIN	END	L	T	R	PEDS	Total	L	T	R	PEDS	Total	L	T	R	PEDS	Total	L	T	R	PEDS	Total	
07:00 AM	07:15 AM	19	92	15	0	126	3	33	5	0	41	6	52	22	0	80	3	11	4	0	18	265
07:15 AM	07:30 AM	18	90	16	0	124	4	29	6	1	40	10	51	23	0	84	2	12	4	0	18	266
07:30 AM	07:45 AM	33	92	14	0	139	4	43	6	2	55	8	60	27	0	95	5	17	3	0	25	314
07:45 AM	08:00 AM	25	109	14	0	148	16	43	9	0	68	15	68	19	1	103	5	20	5	0	30	349
08:00 AM	08:15 AM	18	127	28	0	173	7	28	9	0	44	17	52	19	0	88	3	12	3	0	18	323
08:15 AM	08:30 AM	27	120	19	1	167	5	45	9	0	59	13	71	10	0	94	8	29	8	0	45	365
08:30 AM	08:45 AM	33	123	35	0	191	7	48	12	2	69	15	74	22	0	111	9	23	7	0	39	410
08:45 AM	09:00 AM	24	132	36	0	192	23	52	10	0	85	10	73	13	0	96	15	42	6	0	63	436
11:00 AM	11:15 AM	25	56	8	0	89	5	60	12	0	77	7	39	21	0	67	12	63	7	0	82	315
11:15 AM	11:30 AM	30	61	6	0	97	5	54	15	0	74	9	37	19	0	65	10	47	12	0	69	305
11:30 AM	11:45 AM	28	52	5	0	85	6	36	11	0	53	16	34	29	0	79	12	56	9	0	77	294
11:45 AM	12:00 PM	21	56	5	1	83	5	41	23	0	69	15	23	21	0	59	7	38	8	0	53	264
12:00 PM	12:15 PM	22	60	6	0	88	10	52	15	0	77	15	30	17	0	62	9	58	11	0	78	305
12:15 PM	12:30 PM	24	59	6	0	89	8	58	11	0	77	16	28	11	0	55	10	49	6	0	65	286
12:30 PM	12:45 PM	35	57	12	0	104	3	50	17	0	70	17	43	23	0	83	10	50	14	0	74	331
12:45 PM	01:00 PM	26	55	7	0	88	7	56	24	0	87	17	55	24	0	96	17	58	15	0	90	361
04:00 PM	04:15 PM	29	57	7	0	93	4	85	15	1	105	16	41	24	0	81	16	75	19	0	110	389
04:15 PM	04:30 PM	19	53	5	0	77	9	76	20	0	105	13	34	27	0	74	20	74	18	3	115	371
04:30 PM	04:45 PM	23	54	7	0	84	8	86	18	0	112	20	27	27	0	74	30	80	13	0	123	393
04:45 PM	05:00 PM	20	68	4	0	92	3	79	17	2	101	14	31	31	0	76	17	57	19	0	93	362
05:00 PM	05:15 PM	23	50	2	0	75	6	96	23	0	125	20	37	32	0	89	20	52	17	0	89	378
05:15 PM	05:30 PM	21	60	9	0	90	8	109	22	0	139	18	44	39	0	101	45	53	14	0	112	442
05:30 PM	05:45 PM	21	57	8	0	86	8	130	21	0	159	14	35	30	0	79	43	56	18	0	117	441
05:45 PM	06:00 PM	20	48	10	0	78	6	91	17	0	114	12	44	46	0	102	41	84	17	0	142	436

## SUMMARY OF PEAK HOUR VEHICLE MOVEMENTS

PEAK HOUR FROM TO		NORTHBOUND					SOUTHBOUND					EASTBOUND					WESTBOUND					GRAND TOTAL
		L	T	R	PEDS	Total	L	T	R	PEDS	Total	L	T	R	PEDS	Total	L	T	R	PEDS	Total	
<b>AM Peak</b>																						
08:00 AM	09:00 AM	102	502	118	1	723	42	173	40	2	257	55	270	64	0	389	35	106	24	0	165	1534
Peak Hour Factor		0.94					0.76					0.88					0.65					0.88
<b>Midday Peak</b>																						
12:00 PM	01:00 PM	107	231	31	0	369	28	216	67	0	311	65	156	75	0	296	46	215	46	0	307	1283
Peak Hour Factor		0.89					0.89					0.77					0.85					0.89
<b>PM Peak</b>																						
05:00 PM	06:00 PM	85	215	29	0	329	28	426	83	0	537	64	160	147	0	371	149	245	66	0	460	1697
Peak Hour Factor		0.91					0.84					0.91					0.81					0.96

**APPENDIX I**  
**CIVIL WORKS, INC/Gannett Fleming, Inc.**  
**SUMMARY OF VEHICLE MOVEMENTS**

LOCATION: US-1 & Datron Road

COUNTY : Miami-Dade

OBSERVER: Traffic Counts Plus

PROJECT: Kendall Drive Master Plan

PROJ. No.: 21146.00

COMMENT:

CITY: Miami-Dade

DATE: July 25, 2001

FILE: TM US-1 & Datron Road

AADT

TIME		NORTHBOUND					SOUTHBOUND					EASTBOUND					WESTBOUND					GRAND
BEGIN	END	L	T	R	PEDS	Total	L	T	R	PEDS	Total	L	T	R	PEDS	Total	L	T	R	PEDS	Total	TOTAL
07:00 AM	07:15 AM	87	483	0	0	570	0	161	9	3	173	3	0	7	0	10	0	0	0	0	0	753
07:15 AM	07:30 AM	74	468	0	0	542	1	144	4	0	149	3	1	11	0	15	0	0	0	0	0	706
07:30 AM	07:45 AM	71	489	1	0	561	2	203	7	0	212	4	0	11	0	15	1	1	0	0	0	790
07:45 AM	08:00 AM	100	487	0	0	587	6	253	7	0	266	3	3	20	0	26	0	1	0	0	0	880
08:00 AM	08:15 AM	93	457	1	0	551	3	239	8	0	250	8	0	9	0	17	0	3	1	0	0	822
08:15 AM	08:30 AM	106	457	0	0	563	12	238	23	1	274	6	0	18	0	24	0	1	2	0	0	864
08:30 AM	08:45 AM	88	424	0	0	512	6	298	16	5	325	10	3	31	0	44	0	3	1	0	0	885
08:45 AM	09:00 AM	75	382	1	0	458	16	289	16	1	322	4	1	28	0	33	3	5	3	0	0	824
11:00 AM	11:15 AM	44	321	1	0	366	21	362	3	1	387	12	6	23	0	41	6	3	9	0	18	812
11:15 AM	11:30 AM	41	311	1	0	353	22	413	2	3	440	20	1	30	0	51	5	3	4	0	0	856
11:30 AM	11:45 AM	37	332	2	1	372	21	509	7	0	537	10	3	26	0	39	17	2	4	0	0	971
11:45 AM	12:00 PM	41	304	1	2	348	36	488	5	0	529	22	1	42	2	67	15	3	12	0	30	974
12:00 PM	12:15 PM	33	369	0	1	403	40	533	10	1	584	23	9	35	1	68	12	3	12	0	0	1082
12:15 PM	12:30 PM	43	343	0	2	388	38	589	7	6	640	20	7	37	0	64	7	4	9	0	0	1112
12:30 PM	12:45 PM	43	386	4	0	433	43	637	11	0	691	21	9	36	0	66	7	4	10	0	0	1211
12:45 PM	01:00 PM	41	363	1	0	405	30	493	1	3	527	27	4	32	0	63	15	10	9	0	0	1029
04:00 PM	04:15 PM	31	306	2	0	339	11	544	12	0	567	14	3	42	0	59	13	4	9	0	26	991
04:15 PM	04:30 PM	27	317	1	1	346	10	565	12	1	588	13	5	46	0	64	12	3	8	0	0	1021
04:30 PM	04:45 PM	30	310	1	0	341	14	545	11	0	570	19	1	53	0	73	15	2	7	0	0	1008
04:45 PM	05:00 PM	47	291	3	0	341	14	679	8	0	701	25	1	71	0	97	14	2	8	0	0	1163
05:00 PM	05:15 PM	34	288	1	0	323	14	686	6	0	706	38	4	117	4	163	11	4	11	0	0	1218
05:15 PM	05:30 PM	33	239	1	0	273	16	596	10	1	623	48	3	132	0	183	7	4	6	0	0	1096
05:30 PM	05:45 PM	42	255	1	2	300	15	715	16	1	747	35	4	127	0	166	10	6	5	0	0	1234
05:45 PM	06:00 PM	40	200	0	0	240	13	884	13	0	910	50	3	163	2	218	13	2	10	0	0	1393

**SUMMARY OF PEAK HOUR VEHICLE MOVEMENTS**

PEAK HOUR FROM TO	NORTHBOUND					SOUTHBOUND					EASTBOUND					WESTBOUND					GRAND TOTAL	
	L	T	R	PEDS	Total	L	T	R	PEDS	Total	L	T	R	PEDS	Total	L	T	R	PEDS	Total		
<b>AM Peak</b>																						
07:45 AM 08:45 AM	387	1825	1	0	2213	27	1028	54	6	1115	27	6	78	0	111	0	8	4	0	12	3451	
Peak Hour Factor		0.94					0.86					0.63					0.75					0.97
<b>Midday Peak</b>																						
12:00 PM 01:00 PM	160	1461	5	3	1629	151	2252	29	10	2442	91	29	140	1	261	41	21	40	0	102	4434	
Peak Hour Factor		0.94					0.88					0.96					0.75					0.92
<b>PM Peak</b>																						
05:00 PM 06:00 PM	149	982	3	2	1136	58	2881	45	2	2986	171	14	539	6	730	41	16	32	0	89	4941	
Peak Hour Factor		0.88					0.82					0.84					0.86					0.89

APPENDIX I  
**CIVIL WORKS, INC./Gannett Fleming, Inc.**  
 SUMMARY OF VEHICLE MOVEMENTS

LOCATION: US-1 & Dadeland Blvd.

COUNTY : Miami-Dade

OBSERVER: Traffic Counts Plus

PROJECT: Kendall Drive Master Plan

PROJ. No.: 21146.00

COMMENT:

CITY: Miami-Dade

DATE: July 25, 2001

FILE: TM US-1 & Dadeland Blvd

AADT

TIME BEGIN	TIME END	NORTHBOUND					SOUTHBOUND					EASTBOUND					WESTBOUND					GRAND TOTAL
		L	T	R	PEDS	Total	L	T	R	PEDS	Total	L	T	R	PEDS	Total	L	T	R	PEDS	Total	
07:00 AM	07:15 AM	40	440	7	0	487	4	145	6	2	157	5	3	22	0	30	3	3	2	1	9	683
07:15 AM	07:30 AM	48	418	6	0	472	2	126	7	1	136	5	3	23	0	31	1	3	1	1	6	645
07:30 AM	07:45 AM	60	427	6	0	493	4	189	7	0	200	9	7	20	0	36	3	1	0	1	5	734
07:45 AM	08:00 AM	53	432	5	0	490	2	228	17	2	249	11	6	32	0	49	7	2	2	2	13	801
08:00 AM	08:15 AM	50	406	10	0	466	9	219	32	0	260	9	3	29	0	41	3	7	1	1	12	779
08:15 AM	08:30 AM	60	395	8	0	463	7	228	17	2	254	15	3	37	0	55	5	2	0	4	11	783
08:30 AM	08:45 AM	51	381	2	0	434	7	272	23	3	305	14	4	38	0	56	7	4	1	2	14	809
08:45 AM	09:00 AM	47	340	3	0	390	9	291	24	2	326	14	4	25	0	43	5	8	0	1	14	773
11:00 AM	11:15 AM	48	288	6	1	343	11	344	23	1	379	17	2	37	0	56	5	0	2	2	9	787
11:15 AM	11:30 AM	38	293	4	0	335	10	393	16	0	419	16	4	39	0	59	5	2	2	0	9	822
11:30 AM	11:45 AM	40	300	5	1	346	11	498	23	2	534	20	7	30	0	57	4	3	5	1	13	950
11:45 AM	12:00 PM	44	292	2	0	338	13	478	20	1	512	20	4	37	0	61	12	4	3	0	19	930
12:00 PM	12:15 PM	47	350	7	1	405	16	535	17	2	570	33	12	33	0	78	14	6	6	2	28	1081
12:15 PM	12:30 PM	51	310	10	3	374	20	589	12	2	623	41	7	37	2	87	9	5	4	5	23	1107
12:30 PM	12:45 PM	75	336	7	0	418	24	647	19	5	695	22	11	27	0	60	17	7	10	0	34	1207
12:45 PM	01:00 PM	53	343	6	0	402	18	468	11	3	500	25	5	36	0	66	19	9	6	0	34	1002
04:00 PM	04:15 PM	55	269	4	0	328	14	519	3	4	540	21	6	34	2	63	13	4	3	1	21	952
04:15 PM	04:30 PM	27	308	4	0	339	16	561	4	1	582	21	2	20	2	45	6	3	3	1	13	979
04:30 PM	04:45 PM	46	287	2	1	336	14	533	12	4	563	28	4	30	0	62	9	2	2	0	13	974
04:45 PM	05:00 PM	29	292	3	0	324	7	669	9	3	688	28	3	22	0	53	8	3	2	2	15	1080
05:00 PM	05:15 PM	50	285	0	2	337	9	638	6	7	660	47	7	61	0	115	6	7	1	0	14	1126
05:15 PM	05:30 PM	41	249	3	0	293	10	576	1	1	588	25	5	37	0	67	8	3	0	3	14	962
05:30 PM	05:45 PM	40	253	1	1	295	5	690	4	0	699	28	2	46	0	76	10	2	1	2	15	1085
05:45 PM	06:00 PM	64	195	1	0	260	4	849	0	5	858	25	8	40	0	73	19	3	0	0	22	1213

**SUMMARY OF PEAK HOUR VEHICLE MOVEMENTS**

PEAK HOUR FROM TO	NORTHBOUND					SOUTHBOUND					EASTBOUND					WESTBOUND					GRAND TOTAL	
	L	T	R	PEDS	Total	L	T	R	PEDS	Total	L	T	R	PEDS	Total	L	T	R	PEDS	Total		
AM Peak																						
07:45 AM	08:45 AM	214	1614	25	0	1853	25	947	89	7	1068	49	16	136	0	201	22	15	4	9	41	3172
Peak Hour Factor			0.95					0.88						0.90				0.89				0.98
Midday Peak																						
12:00 PM	01:00 PM	226	1339	30	4	1599	78	2239	59	12	2388	121	35	133	2	291	59	27	26	7	112	4397
Peak Hour Factor			0.96					0.86						0.84				0.88				0.91
PM Peak																						
05:00 PM	06:00 PM	195	982	5	3	1185	28	2753	11	13	2805	125	22	184	0	331	43	15	2	5	60	4386
Peak Hour Factor			0.88					0.82						0.72				0.74				0.90

APPENDIX I  
**CIVIL WORKS, INC./Gannett Fleming, Inc.**  
SUMMARY OF VEHICLE MOVEMENTS

**LOCATION:** SW 82 Ave & Kendall Dr. (SW 88 St)  
**COUNTY :** Miami-Dade  
**OBSERVER:** Traffic Counts Plus  
**PROJECT:** Kendall Drive Master Plan  
**PROJ. No.:** 21146.00

COMMENT

CITY: Miami-Dade

DATE: July 26, 2001

FILE: TM SW 82 Ave & Kendall Dr

AADT

TIME		NORTHBOUND					SOUTHBOUND					EASTBOUND					WESTBOUND					GRAND TOTAL
BEGIN	END	L	T	R	PEDS	Total	L	T	R	PEDS	Total	L	T	R	PEDS	Total	L	T	R	PEDS	Total	
07:00 AM	07:15 AM	2	0	32	0	34	1	0	1	0	2	0	512	1	0	513	5	243	0	0	248	797
07:15 AM	07:30 AM	2	0	53	0	55	1	0	0	0	1	0	522	2	0	524	7	250	0	0	257	837
07:30 AM	07:45 AM	3	0	31	0	34	1	0	0	0	1	1	567	4	0	572	9	254	0	0	263	870
07:45 AM	08:00 AM	6	0	44	0	50	2	0	1	0	3	1	523	4	0	528	7	228	0	0	235	816
08:00 AM	08:15 AM	4	0	58	0	62	4	0	1	0	5	1	559	11	0	571	5	282	0	0	287	925
08:15 AM	08:30 AM	7	0	40	0	47	3	0	1	0	4	1	595	6	0	602	5	262	0	0	267	920
08:30 AM	08:45 AM	8	1	42	0	51	0	0	0	0	0	1	466	4	0	471	7	293	0	0	300	822
08:45 AM	09:00 AM	6	0	29	0	35	0	0	2	0	2	0	360	5	0	365	4	248	1	0	253	655
11:00 AM	11:15 AM	4	0	18	1	23	2	0	1	0	3	1	358	3	0	362	6	195	2	0	203	591
11:15 AM	11:30 AM	6	0	15	0	21	4	0	2	1	7	1	356	3	0	360	2	214	0	0	216	604
11:30 AM	11:45 AM	3	0	14	0	17	1	0	2	0	3	0	418	1	0	419	4	246	0	0	250	689
11:45 AM	12:00 PM	3	0	21	0	24	3	0	1	0	4	1	450	4	0	455	6	276	4	0	286	769
12:00 PM	12:15 PM	2	0	10	0	12	2	0	1	0	3	0	429	5	0	434	3	277	2	0	282	731
12:15 PM	12:30 PM	3	0	22	0	25	1	0	1	0	2	1	444	2	0	447	5	283	1	0	289	763
12:30 PM	12:45 PM	2	0	30	0	32	3	0	1	0	4	0	454	3	0	457	4	265	0	0	269	762
12:45 PM	01:00 PM	4	0	23	0	27	1	0	0	0	1	1	450	1	0	452	2	289	2	0	293	773
04:00 PM	04:15 PM	0	0	15	0	15	3	0	1	0	4	0	379	9	0	388	3	328	2	0	333	740
04:15 PM	04:30 PM	0	0	15	0	15	0	0	0	0	0	0	390	6	0	396	3	320	0	0	323	734
04:30 PM	04:45 PM	1	0	20	0	21	1	0	0	0	1	0	330	3	0	333	5	323	1	0	329	684
04:45 PM	05:00 PM	2	0	30	0	32	2	0	2	0	4	0	391	8	0	399	4	299	0	0	303	738
05:00 PM	05:15 PM	6	0	34	0	40	2	0	1	0	3	0	423	9	0	432	3	363	3	0	369	844
05:15 PM	05:30 PM	2	0	30	0	32	3	0	1	0	4	0	397	7	0	404	5	332	1	0	338	778
05:30 PM	05:45 PM	5	0	33	0	38	1	0	0	0	1	0	416	4	0	420	1	370	2	0	373	832
05:45 PM	06:00 PM	2	0	29	0	31	1	0	0	0	1	0	396	7	0	403	5	357	2	0	364	799

## SUMMARY OF PEAK HOUR VEHICLE MOVEMENTS

SUMMARY OF PEAK HOUR VEHICLE MOVEMENTS																						
PEAK HOUR FROM TO		NORTHBOUND					SOUTHBOUND					EASTBOUND					WESTBOUND					GRAND TOTAL
		L	T	R	PEDS	Total	L	T	R	PEDS	Total	L	T	R	PEDS	Total	L	T	R	PEDS	Total	
AM Peak																						
07:30 AM	08:30 AM	20	0	173	0	193	10	0	3	0	13	4	2244	25	0	2273	26	1026	0	0	1052	3531
Peak Hour Factor		0.78					0.65					0.94					0.92					0.95
Midday Peak																						
12:00 PM	01:00 PM	11	0	85	0	96	7	0	3	0	10	2	1777	11	0	1790	14	1114	5	0	1133	3029
Peak Hour Factor		0.75					0.63					0.98					0.97					0.98
PM Peak																						
05:00 PM	06:00 PM	15	0	126	0	141	7	0	2	0	9	0	1632	27	0	1659	14	1422	8	0	1444	3253
Peak Hour Factor		0.88					0.56					0.96					0.97					0.96

**APPENDIX I**  
**CIVIL WORKS, INC./Gannett Fleming, Inc.**  
**SUMMARY OF VEHICLE MOVEMENTS**

LOCATION: SW 87 Ave & Kendall Dr. (SW 88 St)  
 COUNTY : Miami-Dade  
 OBSERVER: Traffic Counts Plus  
 PROJECT: Kendall Drive Master Plan  
 PROJ. No.: 21146.00

COMMENT:

CITY: Miami-Dade  
 DATE: July 25, 2001  
 FILE: TM SW 87 Ave & Kendall Dr.

AADT

TIME BEGIN	TIME END	NORTHBOUND					SOUTHBOUND					EASTBOUND					WESTBOUND					GRAND TOTAL
		L	T	R	PEDS	Total	L	T	R	PEDS	Total	L	T	R	PEDS	Total	L	T	R	PEDS	Total	
07:00 AM	07:15 AM	21	81	35	1	138	49	91	33	0	173	62	411	21	0	494	19	218	18	0	255	1060
07:15 AM	07:30 AM	19	78	37	2	136	49	89	41	1	180	66	433	18	0	517	22	219	21	1	263	1096
07:30 AM	07:45 AM	22	102	33	1	158	61	95	49	0	205	64	450	24	1	539	32	214	27	0	273	1175
07:45 AM	08:00 AM	33	86	22	0	141	56	99	42	0	197	51	431	35	3	520	34	181	32	0	247	1105
08:00 AM	08:15 AM	19	106	35	0	160	49	116	52	1	218	58	381	20	0	459	37	236	17	0	290	1127
08:15 AM	08:30 AM	17	106	37	1	161	66	162	42	0	270	75	426	33	0	534	37	232	12	1	282	1247
08:30 AM	08:45 AM	29	95	42	0	166	57	128	50	0	235	80	367	34	0	481	48	241	16	1	306	1188
08:45 AM	09:00 AM	30	92	34	1	157	65	169	51	0	285	74	356	39	0	469	50	185	29	0	264	1175
11:00 AM	11:15 AM	27	88	41	0	156	46	126	42	0	214	84	267	38	0	389	36	189	32	0	257	1016
11:15 AM	11:30 AM	47	83	33	3	166	55	126	44	1	226	79	314	42	0	435	35	182	30	0	247	1074
11:30 AM	11:45 AM	49	92	33	0	174	50	137	57	1	245	92	312	32	0	436	57	179	49	3	288	1143
11:45 AM	12:00 PM	52	99	45	0	196	57	145	46	0	248	73	296	35	2	406	44	203	35	0	282	1132
12:00 PM	12:15 PM	62	95	46	0	203	52	113	55	1	221	106	338	27	0	471	45	192	46	0	283	1178
12:15 PM	12:30 PM	28	89	42	0	159	58	107	64	0	229	80	340	35	2	457	41	213	39	0	293	1138
12:30 PM	12:45 PM	40	88	39	0	167	59	80	47	0	186	85	352	32	0	469	48	228	27	1	304	1126
12:45 PM	01:00 PM	56	91	33	1	181	64	152	57	0	273	73	350	44	0	467	38	214	45	0	297	1218
04:00 PM	04:15 PM	42	120	34	0	196	54	149	44	0	247	88	282	26	0	396	48	252	31	0	331	1170
04:15 PM	04:30 PM	46	81	35	1	163	54	169	34	0	257	72	296	39	0	407	49	251	29	0	329	1156
04:30 PM	04:45 PM	49	104	28	0	181	63	137	48	1	249	69	236	27	1	333	45	239	45	0	329	1092
04:45 PM	05:00 PM	46	97	37	1	181	48	168	38	0	254	58	305	34	0	397	43	226	39	0	308	1140
05:00 PM	05:15 PM	50	123	41	0	214	68	166	36	1	271	62	311	30	1	404	49	285	43	3	380	1269
05:15 PM	05:30 PM	42	114	37	1	194	66	140	30	0	236	83	291	27	1	402	66	235	41	0	342	1174
05:30 PM	05:45 PM	45	90	35	1	171	50	133	32	0	215	66	326	35	2	429	46	294	42	1	383	1198
05:45 PM	06:00 PM	41	91	31	0	163	47	136	24	0	207	62	314	29	2	407	41	285	38	0	364	1141

SUMMARY OF PEAK HOUR VEHICLE MOVEMENTS

PEAK HOUR FROM TO	NORTHBOUND					SOUTHBOUND					EASTBOUND					WESTBOUND					GRAND TOTAL
	L	T	R	PEDS	Total	L	T	R	PEDS	Total	L	T	R	PEDS	Total	L	T	R	PEDS	Total	
AM Peak																					
08:00 AM 09:00 AM Peak Hour Factor	95	399	148	2	644	237	575	195	1	1008	287	1530	126	0	1943	172	894	74	2	1140	4737 0.95
Midday Peak																					
12:00 PM 01:00 PM Peak Hour Factor	186	363	160	1	710	233	452	223	1	909	344	1380	138	2	1864	172	847	157	1	1176	4660 0.96
PM Peak																					
05:00 PM 06:00 PM Peak Hour Factor	178	418	144	2	742	231	575	122	1	929	273	1242	121	6	1642	202	1099	164	4	1465	4782 0.94

**APPENDIX I**  
**CIVIL WORKS, INC./Gannett Fleming, Inc.**  
**SUMMARY OF VEHICLE MOVEMENTS**

**LOCATION:** 7500 Block & Kendall Dr. (SW 88 St)  
**COUNTY :** Miami-Dade  
**OBSERVER:** Traffic Counts Plus  
**PROJECT:** Kendall Drive Master Plan  
**PROJ. No.:** 21146.00

**COMMENT:**

CITY: Miami-Dade

DATE: July 17, 2001

FILE: TM 7500 Block & Dendall Dr

AADT

TIME		NORTHBOUND					SOUTHBOUND					EASTBOUND					WESTBOUND					GRAND TOTAL
BEGIN	END	L	T	R	PEDS	Total	L	T	R	PEDS	Total	L	T	R	PEDS	Total	L	T	R	PEDS	Total	
07:00 AM	07:15 AM	1	0	0	0	1	2	0	0	1	3	9	383	12	0	404	5	76	0	0	81	489
07:15 AM	07:30 AM	0	0	0	0	0	4	0	0	1	5	7	409	10	0	426	6	97	0	0	103	534
07:30 AM	07:45 AM	4	0	4	0	8	4	2	2	0	8	22	450	30	2	504	6	123	0	0	129	649
07:45 AM	08:00 AM	2	4	8	0	14	6	0	2	0	8	51	437	26	8	522	14	151	2	0	167	711
08:00 AM	08:15 AM	2	0	2	2	6	4	2	4	0	10	50	352	44	0	446	24	146	0	0	170	632
08:15 AM	08:30 AM	14	6	8	0	28	0	0	3	0	3	48	431	42	0	521	18	460	2	0	480	1032
08:30 AM	08:45 AM	6	0	10	0	16	12	4	2	0	18	42	407	42	0	491	20	181	0	0	201	726
08:45 AM	09:00 AM	14	2	10	8	34	14	2	4	0	20	79	444	42	0	565	28	183	0	8	219	838
11:00 AM	11:15 AM	50	4	16	0	70	10	4	14	0	28	55	237	32	0	324	16	216	0	0	232	654
11:15 AM	11:30 AM	67	10	50	0	127	8	4	28	0	40	87	319	42	0	448	42	228	2	0	272	887
11:30 AM	11:45 AM	27	2	19	0	48	4	2	11	1	18	41	272	19	0	332	14	214	0	0	228	626
11:45 AM	12:00 PM	40	2	22	0	64	6	2	18	0	26	93	308	46	0	447	36	232	0	0	268	805
12:00 PM	12:15 PM	30	5	12	0	47	5	1	12	0	18	50	273	29	0	352	22	239	0	0	261	678
12:15 PM	12:30 PM	30	3	17	0	50	3	2	10	1	16	43	299	34	0	376	18	290	0	0	308	750
12:30 PM	12:45 PM	79	18	50	0	147	22	2	26	0	50	113	390	97	0	600	40	357	1	0	398	1195
12:45 PM	01:00 PM	51	4	20	0	75	4	0	18	0	22	69	416	51	0	536	22	319	2	0	343	976
04:00 PM	04:15 PM	75	4	22	0	101	30	2	34	0	66	109	220	26	0	355	26	353	2	0	381	903
04:15 PM	04:30 PM	79	10	22	0	111	34	6	46	0	86	75	182	28	0	285	26	376	4	0	406	888
04:30 PM	04:45 PM	75	0	16	0	91	20	0	36	0	56	103	192	30	0	325	12	389	0	0	401	873
04:45 PM	05:00 PM	119	10	36	0	165	28	6	38	0	72	99	177	24	0	300	24	450	4	0	478	1015
05:00 PM	05:15 PM	73	2	12	0	87	30	6	30	0	66	75	188	12	0	275	12	488	2	0	502	930
05:15 PM	05:30 PM	87	8	24	0	119	26	6	22	2	56	65	179	18	0	262	12	391	0	0	403	840
05:30 PM	05:45 PM	50	5	8	0	63	11	2	19	1	33	57	187	7	0	251	10	404	1	0	415	762
05:45 PM	06:00 PM	115	14	28	0	157	26	2	53	0	81	141	226	12	0	379	18	465	2	0	485	1102

## SUMMARY OF PEAK HOUR VEHICLE MOVEMENTS

SUMMARY OF PEAK HOUR VEHICLE MOVEMENTS																						
PEAK HOUR FROM TO		NORTHBOUND					SOUTHBOUND					EASTBOUND					WESTBOUND					GRAND TOTAL
		L	T	R	PEDS	Total	L	T	R	PEDS	Total	L	T	R	PEDS	Total	L	T	R	PEDS	Total	
AM Peak																						
08:00 AM	09:00 AM	36	8	30	10	84	30	8	13	0	51	219	1634	170	0	2023	90	970	2	8	1062	3228
Peak Hour Factor			0.62					0.64										0.56				0.78
Midday Peak																						
12:00 PM	01:00 PM	190	30	99	0	319	34	5	66	1	106	275	1378	211	0	1864	102	1205	3	0	1310	3599
Peak Hour Factor			0.54					0.53										0.82				0.75
PM Peak																						
04:15 PM	05:15 PM	346	22	86	0	454	112	18	150	0	280	352	739	94	0	1185	74	1703	10	0	1787	3706
Peak Hour Factor			0.69					0.81										0.89				0.91

## **Appendix II Summary of 24 Hour Traffic Counts**

APPENDIX II  
**CIVIL WORKS, INC./Gannett Fleming, Inc.**

**Traffic Count Summary**

SW 82 Ave South of Kendall Dr

Count Date: July 25,2001

Job Name: Kendall Drive Master Plan

Project #: FILE: 24HR01.WK4

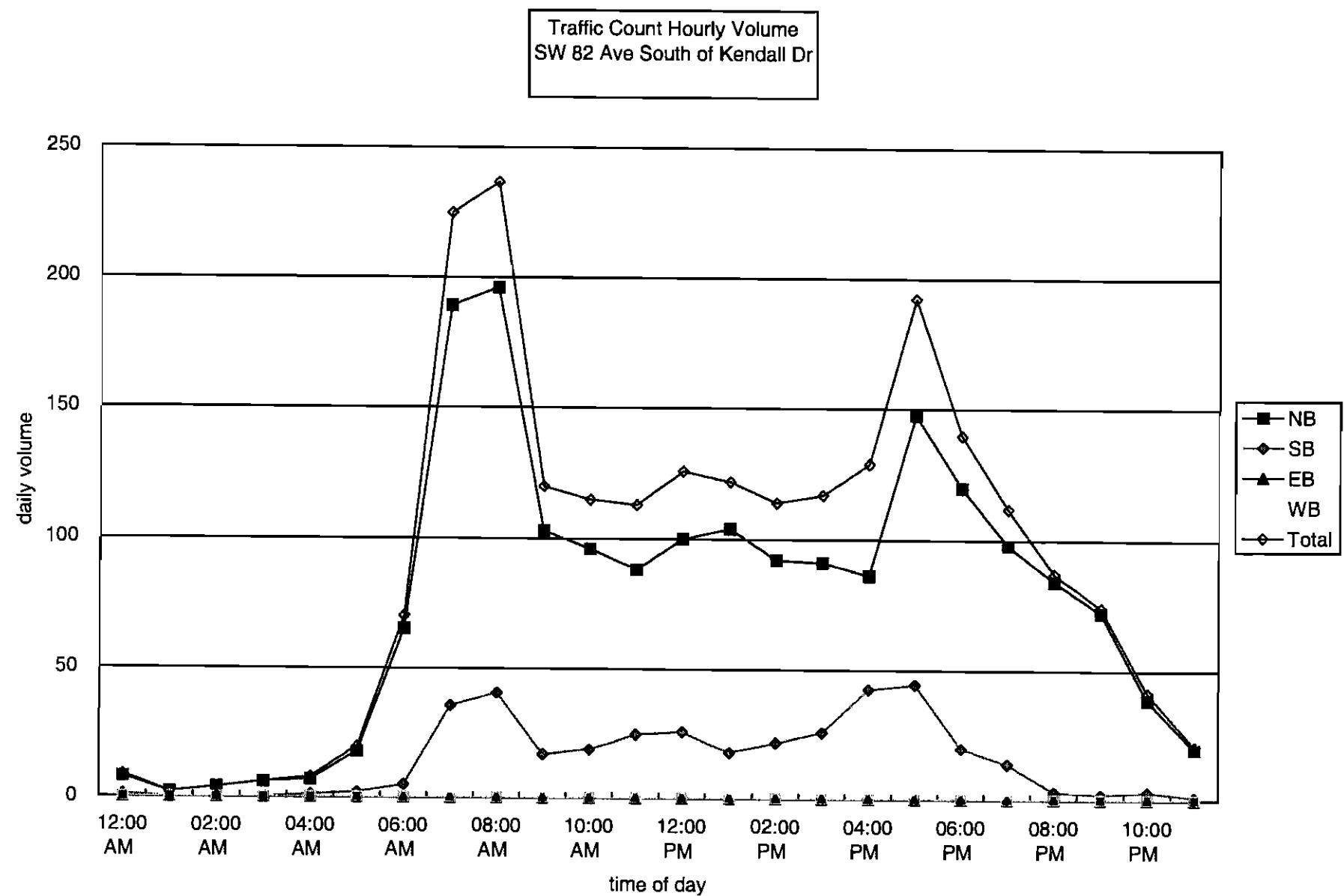
Approach( )

Midblock(X) SEASONALLY ADJUSTED (AADT)

Weekly FDOT

Adjustment Factor = 1.01

Hour Beginning	Hourly Count Volume				Directional Totals		Average Daily Traffic		
	North (Day 1)	South (Day 1)	North (Day 2)	South (Day 2)	N + S (Day 1)	N + S (Day 2)	North	South	2-Way Total
12:00 AM	8	1	0	0	9	0	8	1	9
01:00 AM	2	0	0	0	2	0	2	0	2
02:00 AM	4	0	0	0	4	0	4	0	4
03:00 AM	6	0	0	0	6	0	6	0	6
04:00 AM	7	1	0	0	8	0	7	1	8
05:00 AM	18	2	0	0	20	0	18	2	20
06:00 AM	65	5	0	0	70	0	65	5	70
07:00 AM	189	36	0	0	225	0	189	36	225
08:00 AM	196	41	0	0	237	0	196	41	237
09:00 AM	103	17	0	0	120	0	103	17	120
10:00 AM	96	19	0	0	115	0	96	19	115
11:00 AM	88	25	0	0	113	0	88	25	113
12:00 PM	100	26	0	0	126	0	100	26	126
01:00 PM	104	18	0	0	122	0	104	18	122
02:00 PM	92	22	0	0	114	0	92	22	114
03:00 PM	91	26	0	0	117	0	91	26	117
04:00 PM	86	43	0	0	129	0	86	43	129
05:00 PM	148	45	0	0	192	0	148	45	192
06:00 PM	120	20	0	0	140	0	120	20	140
07:00 PM	98	14	0	0	112	0	98	14	112
08:00 PM	84	3	0	0	87	0	84	3	87
09:00 PM	72	2	0	0	74	0	72	2	74
10:00 PM	39	3	0	0	42	0	39	3	42
11:00 PM	20	1	0	0	21	0	20	1	21
<b>Totals:</b>							1,836	366	2,202
<b>AM Peak Hour:</b>							196	41	237
<b>PM Peak Hour:</b>							148	45	192

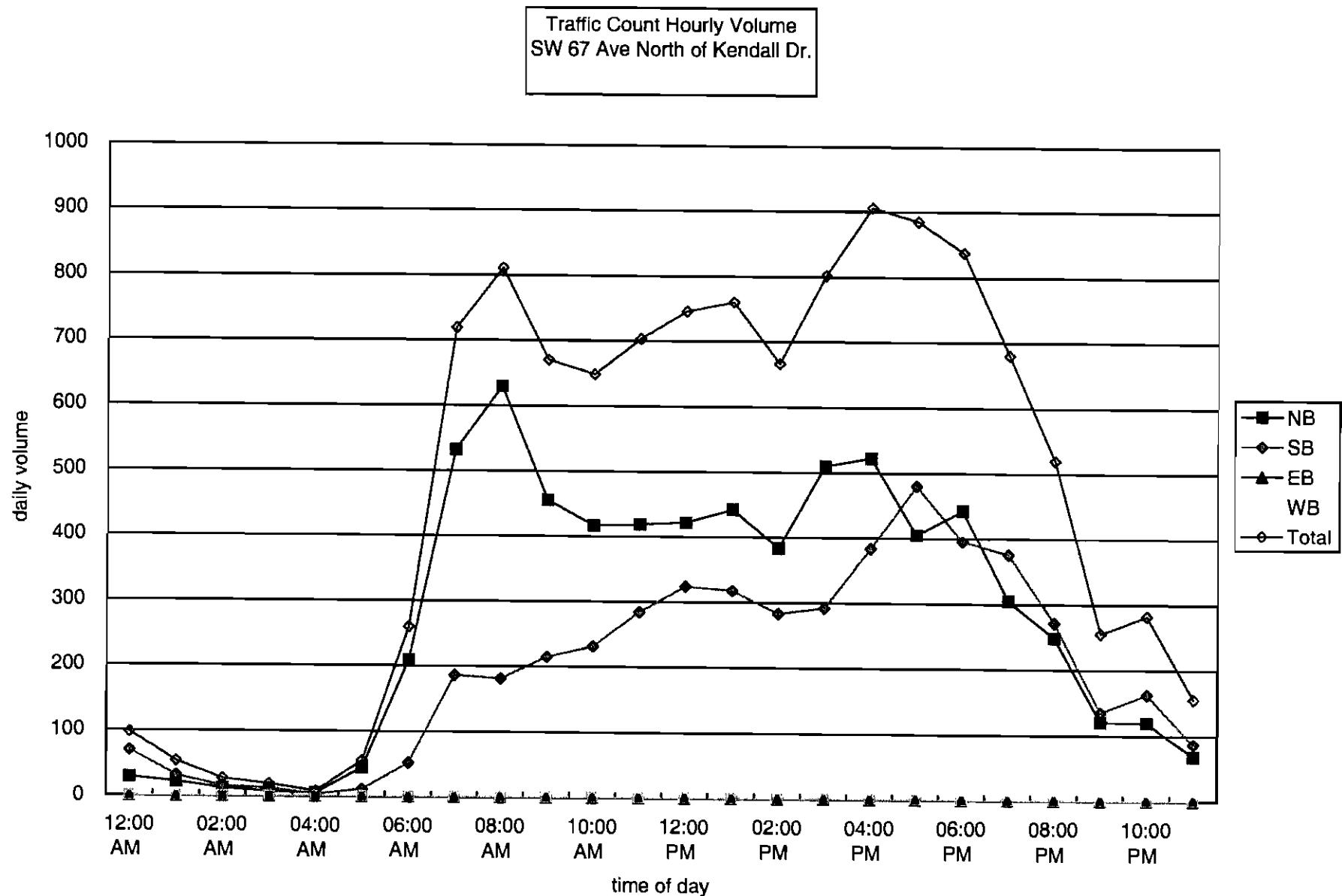


APPENDIX II  
**CIVIL WORKS, INC./Gannett Fleming Inc.**  
 Traffic Count Summary  
 SW 67 Ave North of Kendall Dr.

Count Date: July 25,2001  
 Job Name: Kendall Drive Master Plan  
 Project #: FILE: 24HR02.WK4  
 Approach() Midblock(X) SEASONALLY ADJUSTED (AADT)

Weekly FDOT  
 Adjustment Factor = 1.01

Hour Beginning	Hourly Count Volume				Directional Totals		Average Daily Traffic		
	North (Day 1)	South (Day 1)	North (Day 2)	South (Day 2)	N + S (Day 1)	N + S (Day 2)	North	South	2-Way Total
12:00 AM	29	69	0	0	98	0	29	69	98
01:00 AM	22	32	0	0	53	0	22	32	53
02:00 AM	12	15	0	0	27	0	12	15	27
03:00 AM	7	12	0	0	19	0	7	12	19
04:00 AM	5	3	0	0	8	0	5	3	8
05:00 AM	44	11	0	0	54	0	44	11	54
06:00 AM	209	51	0	0	260	0	209	51	260
07:00 AM	533	186	0	0	719	0	533	186	719
08:00 AM	630	181	0	0	811	0	630	181	811
09:00 AM	455	215	0	0	670	0	455	215	670
10:00 AM	417	232	0	0	649	0	417	232	649
11:00 AM	419	284	0	0	703	0	419	284	703
12:00 PM	422	324	0	0	746	0	422	324	746
01:00 PM	443	318	0	0	760	0	443	318	760
02:00 PM	383	283	0	0	666	0	383	283	666
03:00 PM	510	292	0	0	802	0	510	292	802
04:00 PM	523	383	0	0	906	0	523	383	906
05:00 PM	405	480	0	0	885	0	405	480	885
06:00 PM	443	395	0	0	838	0	443	395	838
07:00 PM	305	375	0	0	680	0	305	375	680
08:00 PM	249	271	0	0	520	0	249	271	520
09:00 PM	121	135	0	0	255	0	121	135	255
10:00 PM	120	162	0	0	282	0	120	162	282
11:00 PM	68	87	0	0	155	0	68	87	155
<b>Totals:</b>							6,770	4,797	11,567
<b>AM Peak Hour:</b>				08:00 AM			630	181	811
<b>PM Peak Hour:</b>				04:00 PM			523	383	906

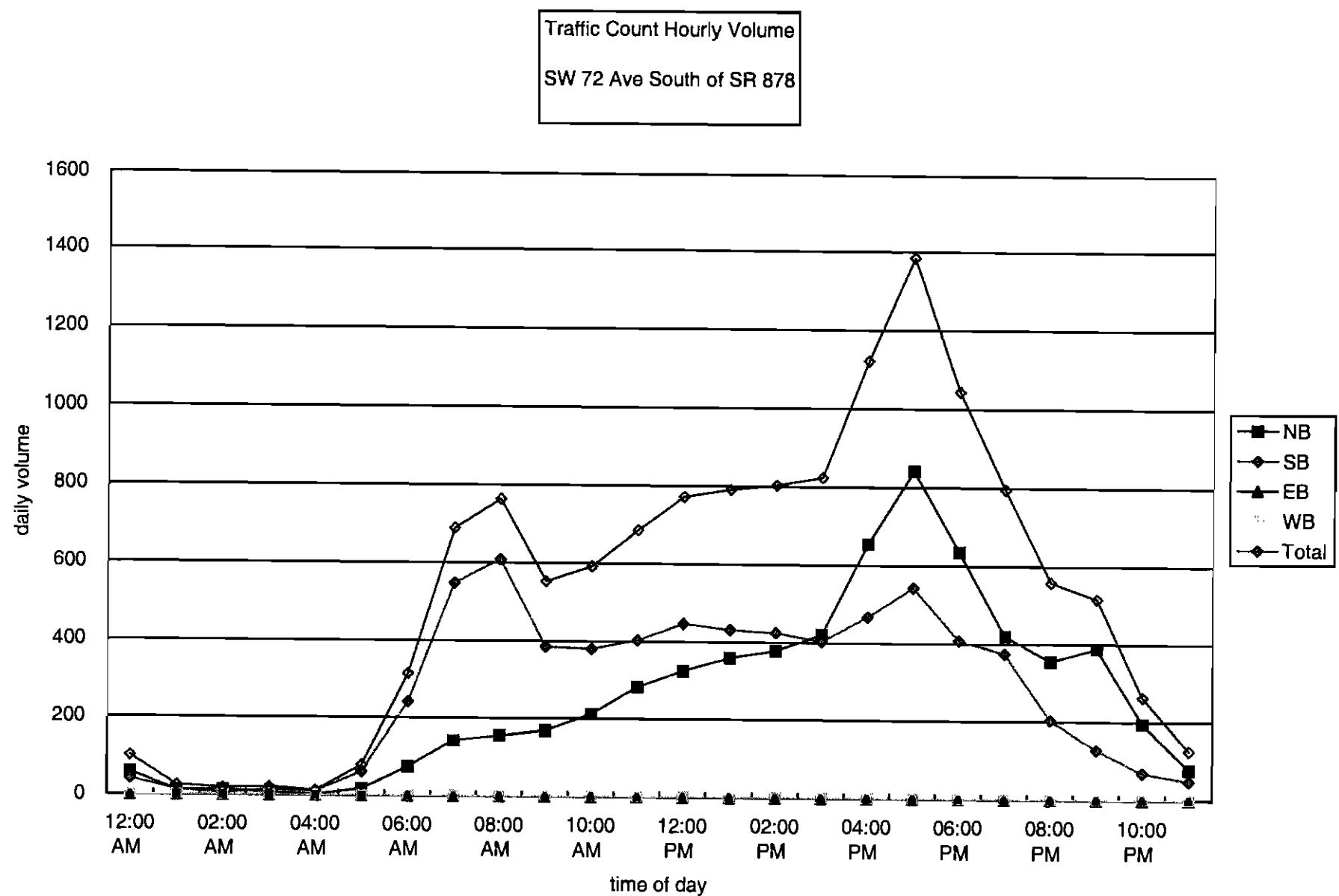


**APPENDIX II**  
**CIVIL WORKS, INC./Gannett Fleming, Inc**  
**Traffic Count Summary**  
**SW 72 Ave South of SR 878**

Count Date: July 17 ,2001  
 Job Name: Kendall Drive Master Plan  
 Project #: FILE: 24HR09.WK4  
 Approach( )  
 Midblock(X) SEASONALLY ADJUSTED (AADT)

Weekly FDOT  
 Adjustment Factor = 1.01

Hour Beginning	Hourly Count Volume				Directional Totals		Average Daily Traffic		
	North (Day 1)	South (Day 1)	North (Day 2)	South (Day 2)	N + S (Day 1)	N + S (Day 2)	North	South	2-Way Total
12:00 AM	58	42	0	0	100	0	58	42	100
01:00 AM	12	13	0	0	25	0	12	13	25
02:00 AM	13	5	0	0	18	0	13	5	18
03:00 AM	7	14	0	0	21	0	7	14	21
04:00 AM	2	10	0	0	12	0	2	10	12
05:00 AM	17	60	0	0	77	0	17	60	77
06:00 AM	73	242	0	0	315	0	73	242	315
07:00 AM	142	548	0	0	689	0	142	548	689
08:00 AM	154	609	0	0	763	0	154	609	763
09:00 AM	168	385	0	0	553	0	168	385	553
10:00 AM	212	380	0	0	592	0	212	380	592
11:00 AM	283	403	0	0	686	0	283	403	686
12:00 PM	326	447	0	0	772	0	326	447	772
01:00 PM	359	432	0	0	791	0	359	432	791
02:00 PM	378	425	0	0	803	0	378	425	803
03:00 PM	421	403	0	0	824	0	421	403	824
04:00 PM	654	467	0	0	1122	0	654	467	1122
05:00 PM	842	543	0	0	1384	0	842	543	1384
06:00 PM	636	408	0	0	1044	0	636	408	1044
07:00 PM	421	374	0	0	795	0	421	374	795
08:00 PM	355	203	0	0	558	0	355	203	558
09:00 PM	389	127	0	0	516	0	389	127	516
10:00 PM	195	68	0	0	263	0	195	68	263
11:00 PM	77	48	0	0	125	0	77	48	125
Totals:							6,195	6,653	12,849
AM Peak Hour:				08:00 AM		154	609	763	
PM Peak Hour:				05:00 PM		842	543	1,384	



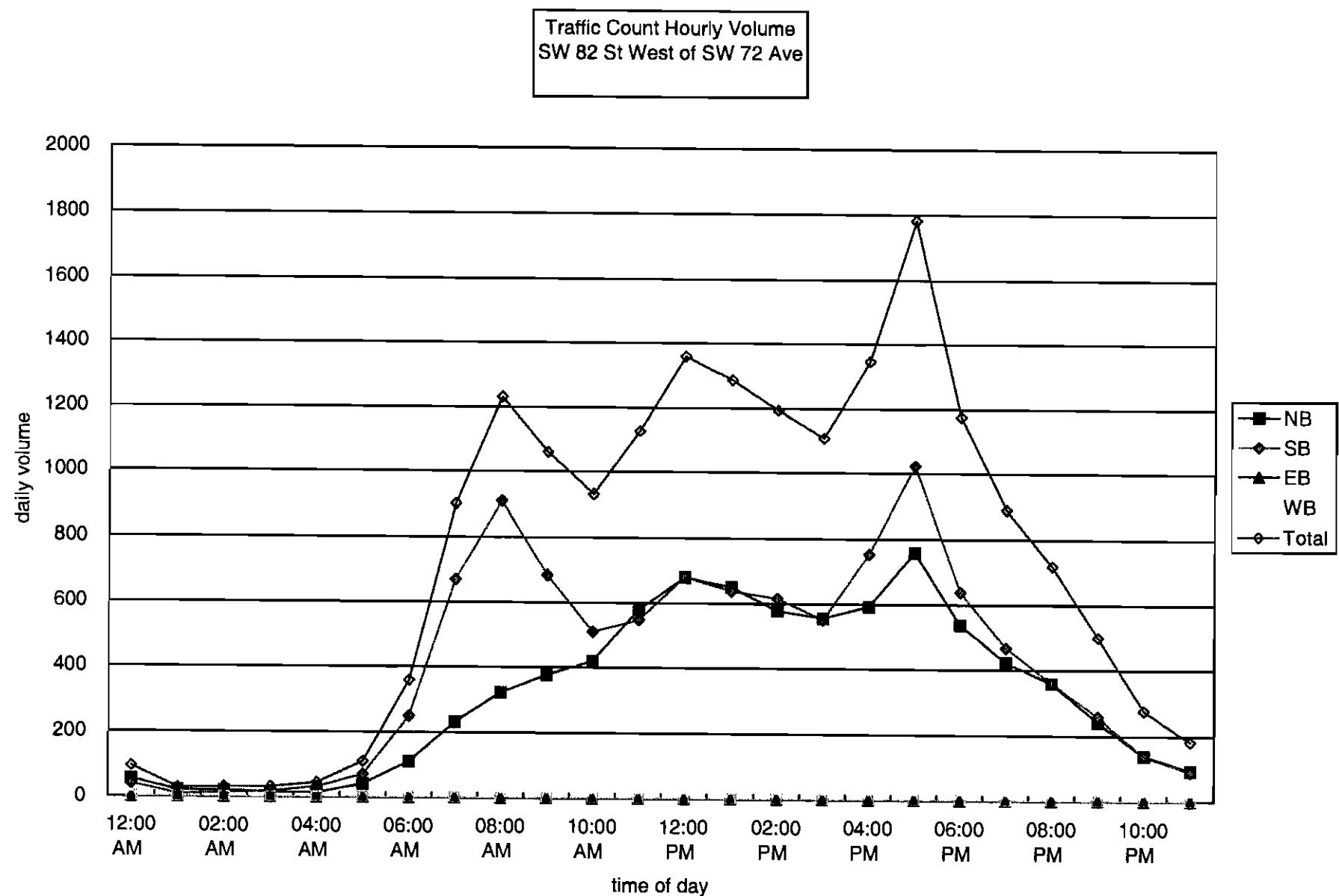
APPENDIX II  
**CIVIL WORKS, INC./Gannett Fleming, Inc.**

**Traffic Count Summary**

SW 82 St West of SW 72 Ave

Count Date: July 17 ,2001  
 Job Name: Kendall Drive Master Plan  
 Project #: FILE: 24HR08.WK4  
 Approach( )  
 Midblock(X) SEASONALLY ADJUSTED (AADT) Weekly FDOT  
 Adjustment Factor = 1.01

Hour Beginning	Hourly Count Volume				Directional Totals		Average Daily Traffic		
	North (Day 1)	South (Day 1)	North (Day 2)	South (Day 2)	N + S (Day 1)	N + S (Day 2)	North	South	2-Way Total
12:00 AM	54	40	0	0	94	0	54	40	94
01:00 AM	20	8	0	0	28	0	20	8	28
02:00 AM	19	12	0	0	31	0	19	12	31
03:00 AM	14	17	0	0	31	0	14	17	31
04:00 AM	13	31	0	0	44	0	13	31	44
05:00 AM	41	69	0	0	110	0	41	69	110
06:00 AM	110	250	0	0	359	0	110	250	359
07:00 AM	232	669	0	0	901	0	232	669	901
08:00 AM	322	910	0	0	1232	0	322	910	1232
09:00 AM	377	683	0	0	1060	0	377	683	1060
10:00 AM	421	510	0	0	931	0	421	510	931
11:00 AM	579	548	0	0	1127	0	579	548	1127
12:00 PM	679	680	0	0	1359	0	679	680	1359
01:00 PM	650	638	0	0	1287	0	650	638	1287
02:00 PM	578	616	0	0	1194	0	578	616	1194
03:00 PM	556	551	0	0	1108	0	556	551	1108
04:00 PM	593	753	0	0	1347	0	593	753	1347
05:00 PM	758	1024	0	0	1782	0	758	1024	1782
06:00 PM	538	639	0	0	1176	0	538	639	1176
07:00 PM	423	467	0	0	890	0	423	467	890
08:00 PM	359	359	0	0	719	0	359	359	719
09:00 PM	242	258	0	0	500	0	242	258	500
10:00 PM	139	138	0	0	276	0	139	138	276
11:00 PM	93	89	0	0	182	0	93	89	182
<b>Totals:</b>							7,809	9,958	17,767
<b>AM Peak Hour:</b>				08:00 AM		322	910	1,232	
<b>PM Peak Hour:</b>				05:00 PM		758	1,024	1,782	

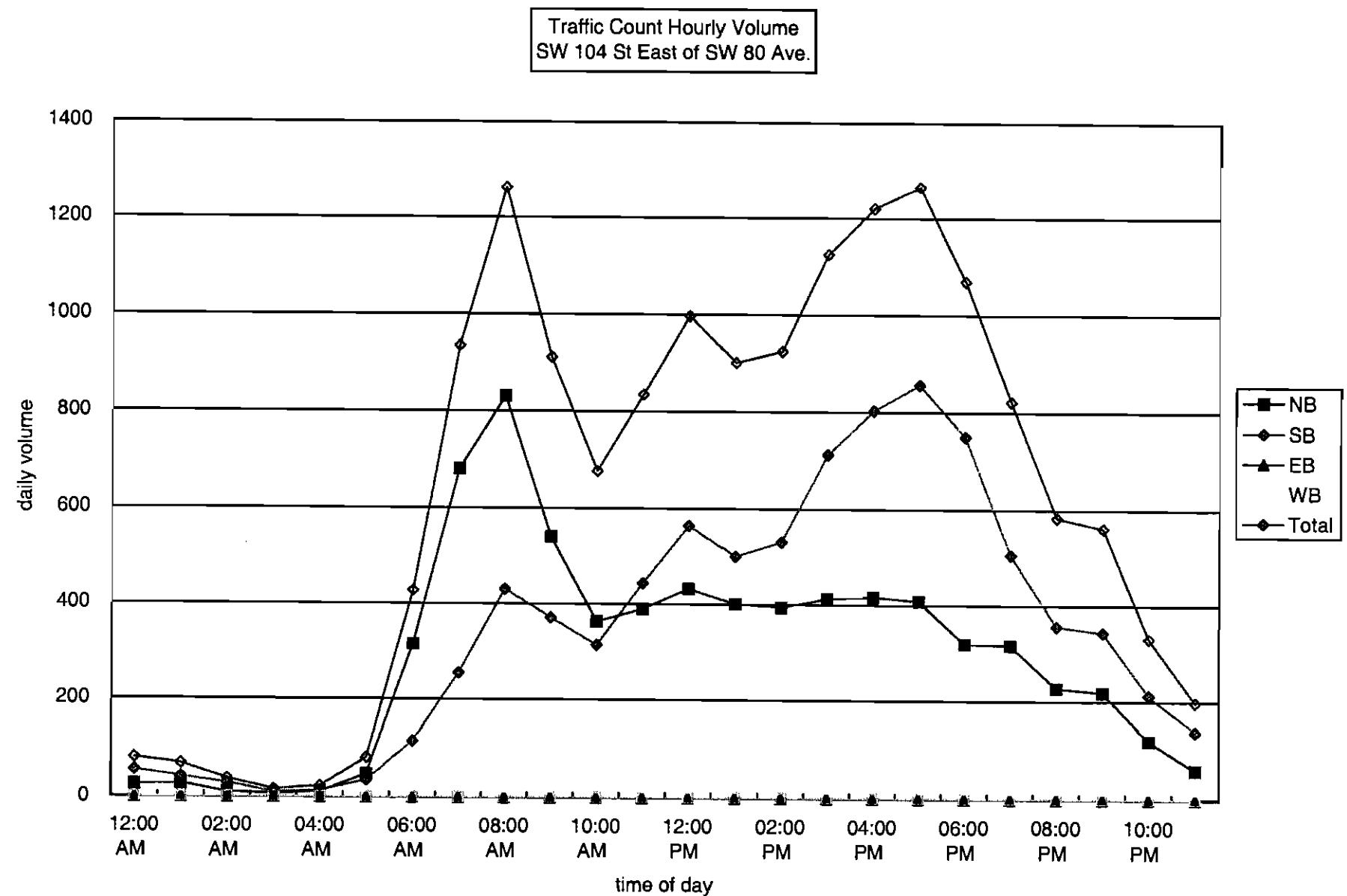


APPENDIX II  
**CIVIL WORKS, INC./Gannett Fleming, Inc.**  
 Traffic Count Summary  
 SW 104 St East of SW 80 Ave.

Count Date: July 25 ,2001  
 Job Name: Kendall Drive Master Plan  
 Project #: FILE: 24HR07.WK4  
 Approach() Midblock(X) SEASONALLY ADJUSTED (AADT)

Weekly FDOT  
 Adjustment Factor = 1.01

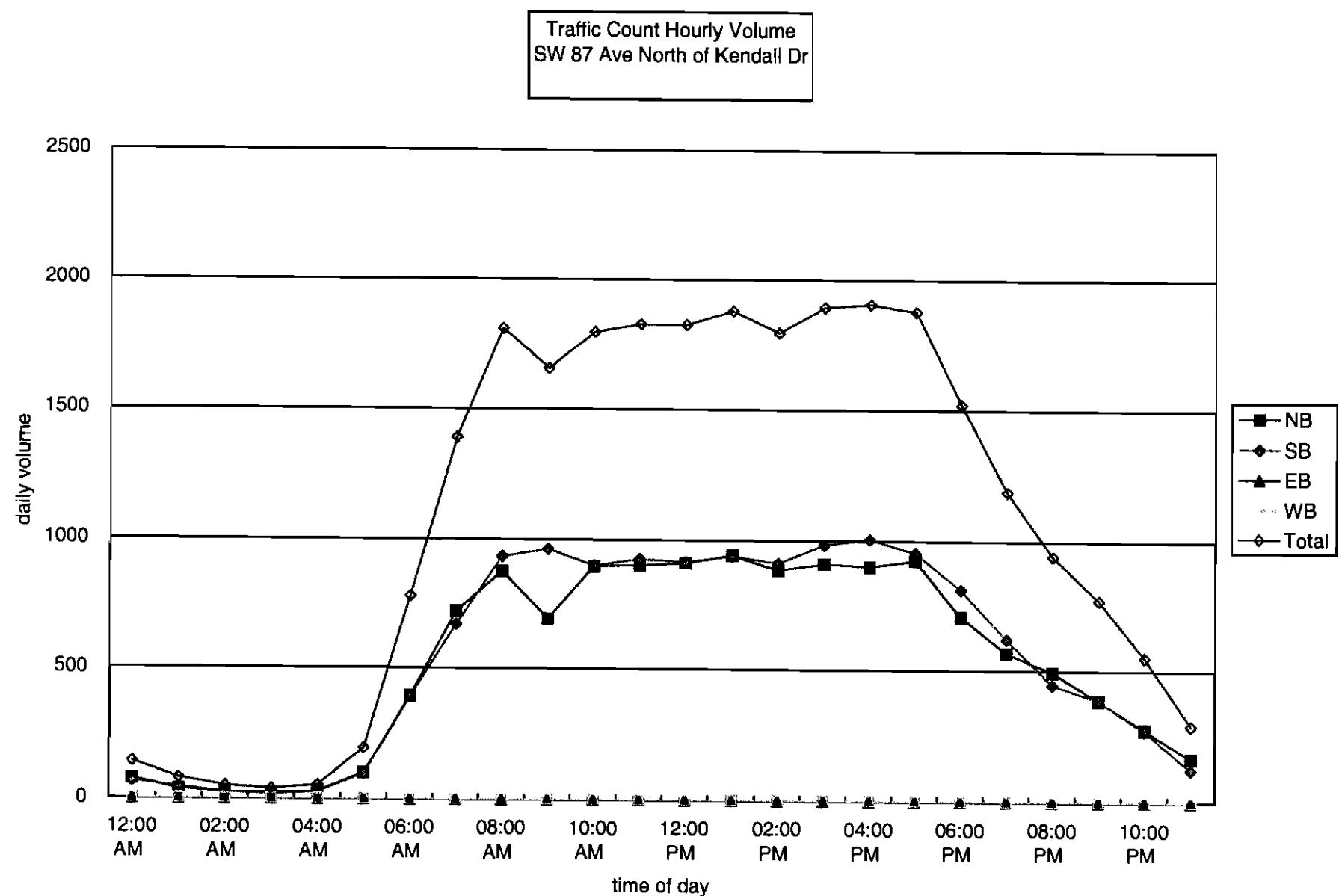
Hour Beginning	Hourly Count Volume				Directional Totals		Average Daily Traffic		
	East (Day 1)	West (Day 1)	East (Day 2)	West (Day 2)	E + W (Day 1)	E + W (Day 2)	East	West	2-Way Total
12:00 AM	25	54	0	0	79	0	25	54	79
01:00 AM	27	41	0	0	67	0	27	41	67
02:00 AM	9	28	0	0	37	0	9	28	37
03:00 AM	6	9	0	0	15	0	6	9	15
04:00 AM	10	12	0	0	22	0	10	12	22
05:00 AM	46	34	0	0	79	0	46	34	79
06:00 AM	315	113	0	0	428	0	315	113	428
07:00 AM	681	254	0	0	936	0	681	254	936
08:00 AM	831	431	0	0	1261	0	831	431	1261
09:00 AM	541	371	0	0	912	0	541	371	912
10:00 AM	363	314	0	0	677	0	363	314	677
11:00 AM	390	445	0	0	835	0	390	445	835
12:00 PM	433	564	0	0	997	0	433	564	997
01:00 PM	401	501	0	0	902	0	401	501	902
02:00 PM	394	531	0	0	925	0	394	531	925
03:00 PM	413	713	0	0	1126	0	413	713	1126
04:00 PM	417	803	0	0	1220	0	417	803	1220
05:00 PM	408	856	0	0	1264	0	408	856	1264
06:00 PM	319	750	0	0	1069	0	319	750	1069
07:00 PM	316	506	0	0	822	0	316	506	822
08:00 PM	227	356	0	0	583	0	227	356	583
09:00 PM	218	344	0	0	561	0	218	344	561
10:00 PM	119	212	0	0	331	0	119	212	331
11:00 PM	59	138	0	0	197	0	59	138	197
<b>Totals:</b>							6,965	8,379	15,345
<b>AM Peak Hour:</b>				08:00 AM	831	431	1,261		
<b>PM Peak Hour:</b>				05:00 PM	408	856	1,264		



APPENDIX II  
**CIVIL WORKS, INC./Gannett Fleming, Inc.**  
 Traffic Count Summary  
 SW 87 Ave North of Kendall Dr

Count Date: July 25 ,2001  
 Job Name: Kendall Drive Master Plan  
 Project #: FILE: 24HR06.WK4  
 Approach( )  
 Midblock(X) SEASONALLY ADJUSTED (AADT) Weekly FDOT  
 Adjustment Factor = 1.01

Hour Beginning	Hourly Count Volume				Directional Totals		Average Daily Traffic		
	North (Day 1)	South (Day 1)	North (Day 2)	South (Day 2)	N + S (Day 1)	N + S (Day 2)	North	South	2-Way Total
12:00 AM	75	66	0	0	142	0	75	66	142
01:00 AM	36	44	0	0	79	0	36	44	79
02:00 AM	25	24	0	0	49	0	25	24	49
03:00 AM	21	17	0	0	38	0	21	17	38
04:00 AM	27	25	0	0	51	0	27	25	51
05:00 AM	99	96	0	0	195	0	99	96	195
06:00 AM	392	388	0	0	780	0	392	388	780
07:00 AM	721	669	0	0	1390	0	721	669	1390
08:00 AM	875	934	0	0	1809	0	875	934	1809
09:00 AM	694	962	0	0	1656	0	694	962	1656
10:00 AM	896	900	0	0	1796	0	896	900	1796
11:00 AM	902	925	0	0	1827	0	902	925	1827
12:00 PM	910	915	0	0	1825	0	910	915	1825
01:00 PM	941	939	0	0	1879	0	941	939	1879
02:00 PM	884	911	0	0	1795	0	884	911	1795
03:00 PM	910	984	0	0	1894	0	910	984	1894
04:00 PM	900	1006	0	0	1906	0	900	1006	1906
05:00 PM	924	954	0	0	1878	0	924	954	1878
06:00 PM	708	813	0	0	1521	0	708	813	1521
07:00 PM	568	621	0	0	1189	0	568	621	1189
08:00 PM	495	447	0	0	942	0	495	447	942
09:00 PM	386	387	0	0	773	0	386	387	773
10:00 PM	277	273	0	0	550	0	277	273	550
11:00 PM	168	124	0	0	292	0	168	124	292
<b>Totals:</b>							12,834	13,423	26,256
<b>AM Peak Hour:</b>				08:00 AM			875	934	1,809
<b>PM Peak Hour:</b>				04:00 PM			900	1,006	1,906



APPENDIX II  
**CIVIL WORKS, INC./Ganett Fleming, Inc.**

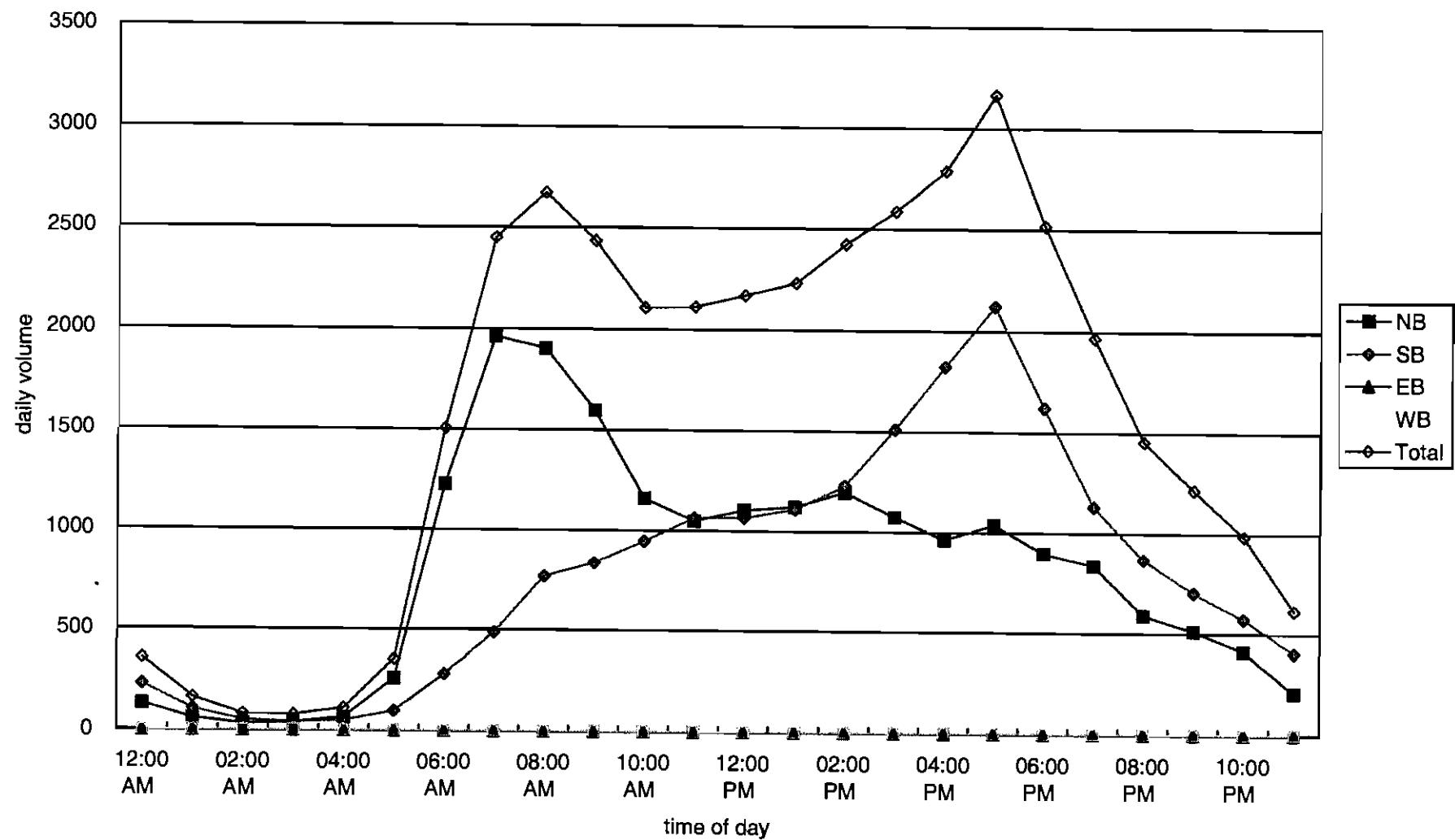
**Traffic Count Summary**  
 Sunset Drive East Of State Road 826

Count Date: July 31 ,2001  
 Job Name: Kendall Drive Master Plan  
 Project #: FILE: 24HR05.WK4  
 Approach() Midblock(X) SEASONALLY ADJUSTED (AADT)

Weekly FDOT  
 Adjustment Factor = 1.01

Hour Beginning	Hourly Count Volume				Directional Totals		Average Daily Traffic		
	East (Day 1)	West (Day 1)	East (Day 2)	West (Day 2)	E + W (Day 1)	E + W (Day 2)	East	West	2-Way Total
12:00 AM	131	228	0	0	358	0	131	228	358
01:00 AM	57	105	0	0	162	0	57	105	162
02:00 AM	31	49	0	0	79	0	31	49	79
03:00 AM	37	39	0	0	75	0	37	39	75
04:00 AM	62	48	0	0	110	0	62	48	110
05:00 AM	258	96	0	0	354	0	258	96	354
06:00 AM	1226	279	0	0	1505	0	1226	279	1505
07:00 AM	1961	488	0	0	2450	0	1961	488	2450
08:00 AM	1904	767	0	0	2671	0	1904	767	2671
09:00 AM	1598	837	0	0	2435	0	1598	837	2435
10:00 AM	1160	947	0	0	2107	0	1160	947	2107
11:00 AM	1049	1063	0	0	2112	0	1049	1063	2112
12:00 PM	1104	1065	0	0	2169	0	1104	1065	2169
01:00 PM	1122	1110	0	0	2232	0	1122	1110	2232
02:00 PM	1196	1228	0	0	2424	0	1196	1228	2424
03:00 PM	1074	1512	0	0	2586	0	1074	1512	2586
04:00 PM	963	1824	0	0	2787	0	963	1824	2787
05:00 PM	1040	2123	0	0	3162	0	1040	2123	3162
06:00 PM	896	1622	0	0	2518	0	896	1622	2518
07:00 PM	837	1132	0	0	1968	0	837	1132	1968
08:00 PM	588	867	0	0	1455	0	588	867	1455
09:00 PM	513	702	0	0	1215	0	513	702	1215
10:00 PM	415	572	0	0	987	0	415	572	987
11:00 PM	208	405	0	0	613	0	208	405	613
Totals:							19,430	19,106	38,536
AM Peak Hour:				08:00 AM	1,904	767	2,671		
PM Peak Hour:				05:00 PM	1,040	2,123	3,162		

Traffic Count Hourly Volume  
Sunset Drive East Of State Road 826

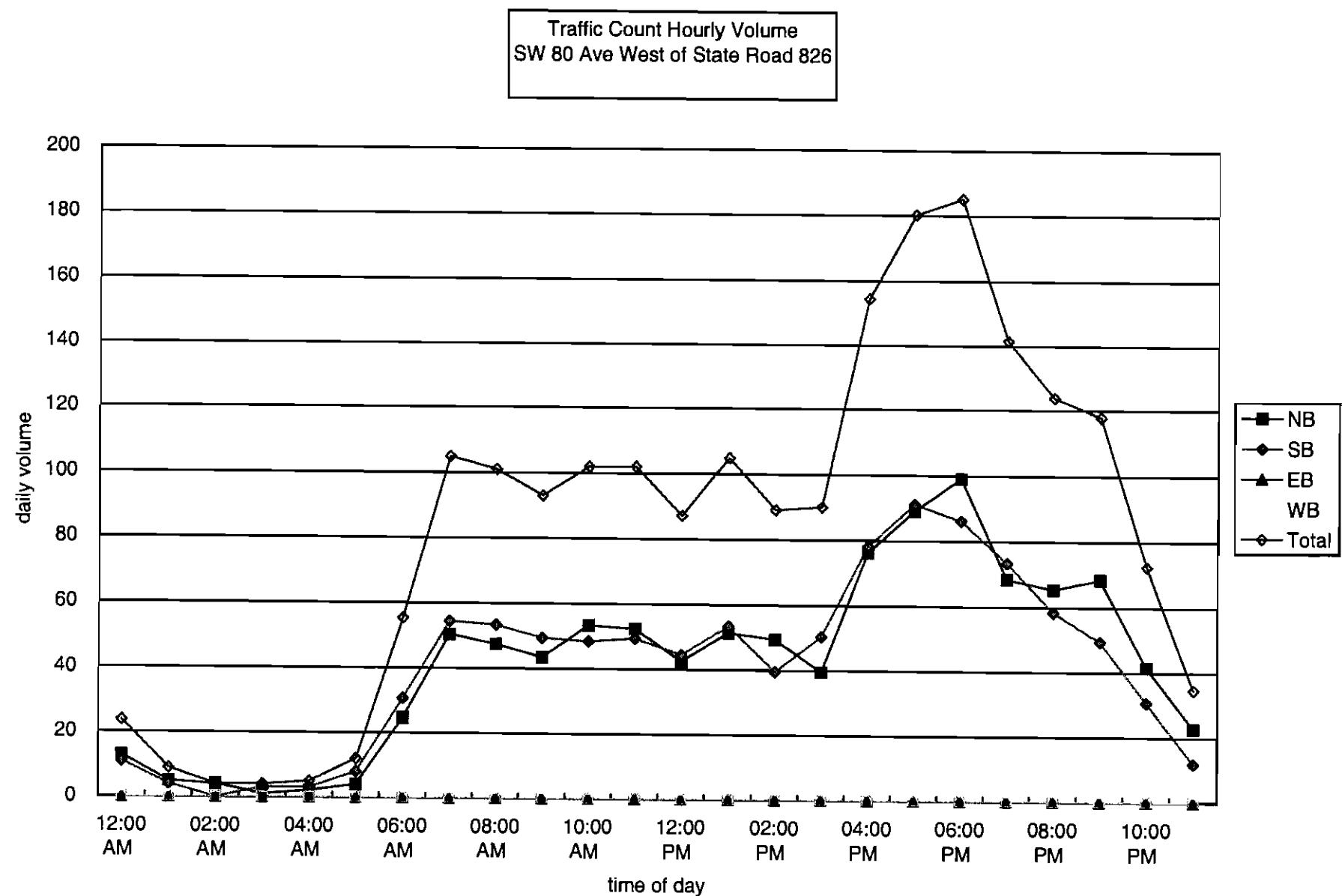


**APPENDIX II**  
**CIVIL WORKS, INC./Gannett Fleming, Inc.**  
**Traffic Count Summary**  
**SW 80 Ave West of State Road 826**

Count Date: July 31 ,2001  
 Job Name: Kendall Drive Master Plan  
 Project #: FILE: 24HR04.WK4  
 Approach( )  
 Midblock(X) SEASONALLY ADJUSTED (AADT)

Weekly FDOT  
 Adjustment Factor = 1.01

Hour Beginning	Hourly Count Volume				Directional Totals		Average Daily Traffic		
	East (Day 1)	West (Day 1)	East (Day 2)	West (Day 2)	E + W (Day 1)	E + W (Day 2)	East	West	2-Way Total
12:00 AM	13	11	0	0	24	0	13	11	24
01:00 AM	5	4	0	0	9	0	5	4	9
02:00 AM	4	0	0	0	4	0	4	0	4
03:00 AM	1	3	0	0	4	0	1	3	4
04:00 AM	2	3	0	0	5	0	2	3	5
05:00 AM	4	8	0	0	12	0	4	8	12
06:00 AM	25	31	0	0	55	0	25	31	55
07:00 AM	50	54	0	0	105	0	50	54	105
08:00 AM	48	53	0	0	101	0	48	53	101
09:00 AM	44	50	0	0	93	0	44	50	93
10:00 AM	53	49	0	0	102	0	53	49	102
11:00 AM	52	50	0	0	102	0	52	50	102
12:00 PM	43	45	0	0	87	0	43	45	87
01:00 PM	51	53	0	0	105	0	51	53	105
02:00 PM	50	40	0	0	89	0	50	40	89
03:00 PM	40	50	0	0	90	0	40	50	90
04:00 PM	76	78	0	0	154	0	76	78	154
05:00 PM	89	91	0	0	180	0	89	91	180
06:00 PM	99	86	0	0	185	0	99	86	185
07:00 PM	68	73	0	0	142	0	68	73	142
08:00 PM	65	58	0	0	124	0	65	58	124
09:00 PM	68	50	0	0	118	0	68	50	118
10:00 PM	42	31	0	0	72	0	42	31	72
11:00 PM	23	12	0	0	35	0	23	12	35
Totals:							1,015	982	1,997
AM Peak Hour:					07:00 AM	50	54	105	
PM Peak Hour:					05:00 PM	89	91	180	

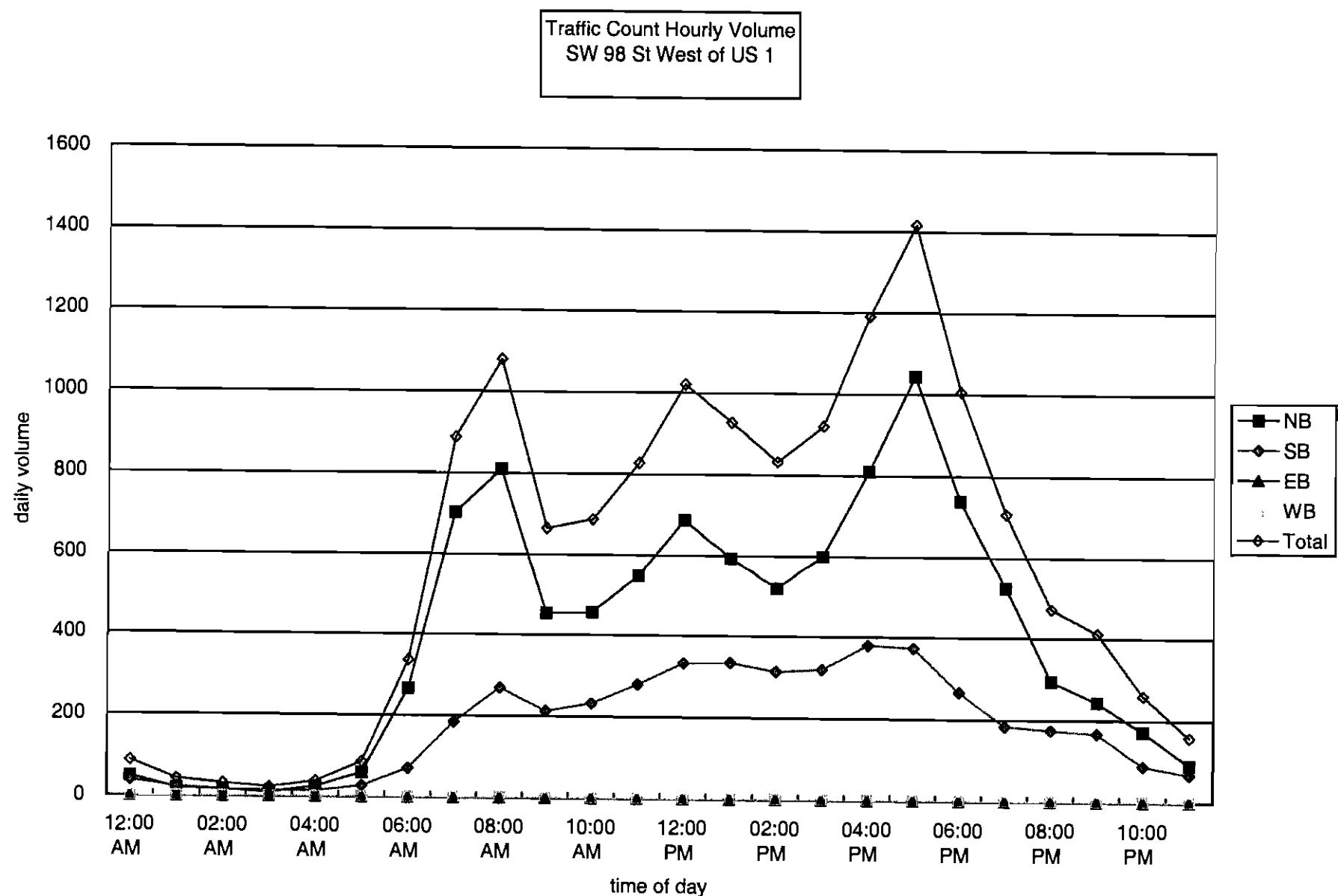


**APPENDIX II**  
**CIVIL WORKS, INC./Gannett Fleming, Inc.**  
**Traffic Count Summary**  
**SW 80 Ave West of State Road 826**

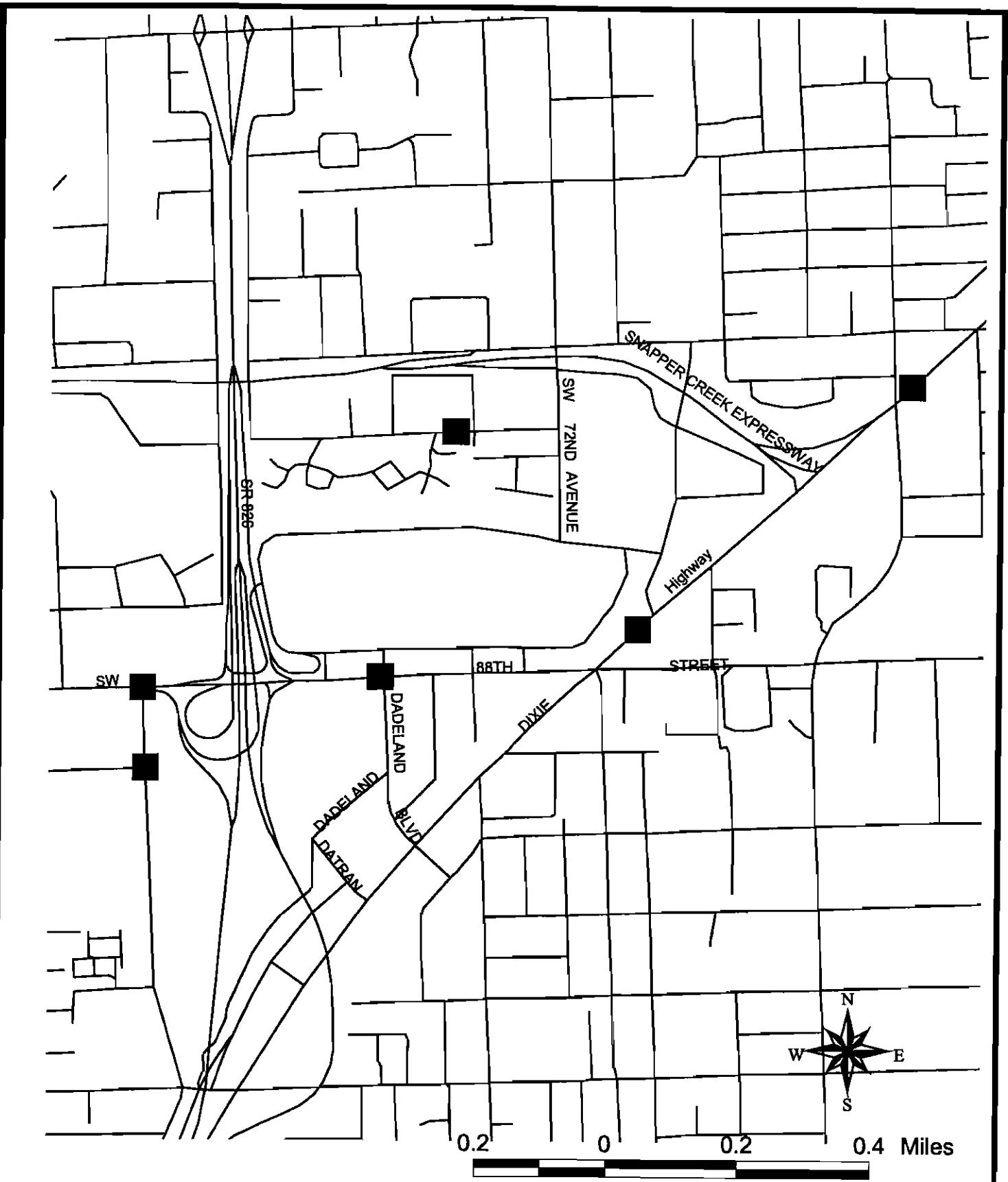
Count Date: July 31 ,2001  
 Job Name: Kendall Drive Master Plan  
 Project #: FILE: 24HR04.WK4  
 Approach() Midblock(X) SEASONALLY ADJUSTED (AADT)

Weekly FDOT  
 Adjustment Factor = 1.0I

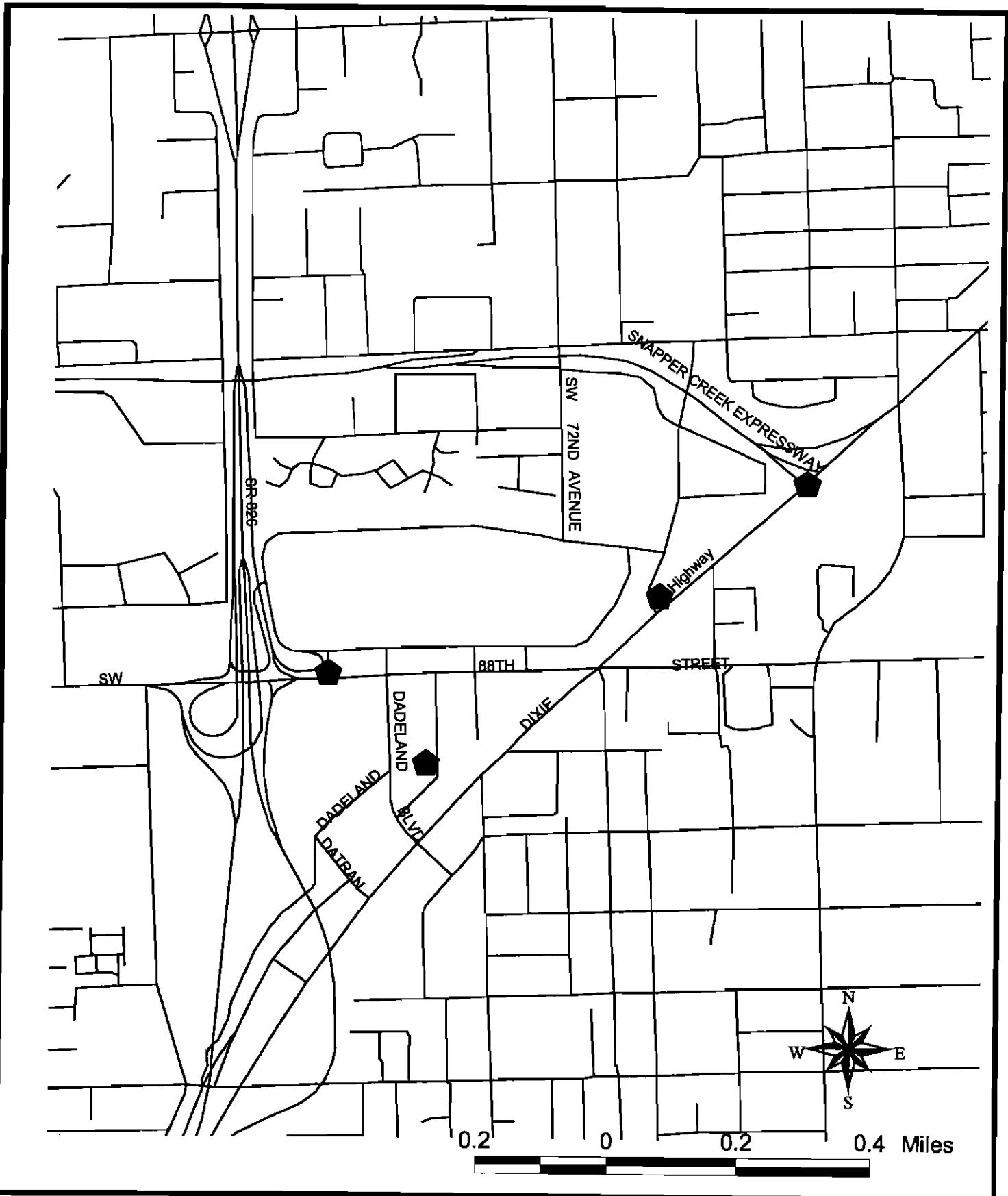
Hour Beginning	Hourly Count Volume				Directional Totals		Average Daily Traffic		
	East (Day 1)	West (Day 1)	East (Day 2)	West (Day 2)	E + W (Day 1)	E + W (Day 2)	East	West	2-Way Total
12:00 AM	13	11	0	0	24	0	13	11	24
01:00 AM	5	4	0	0	9	0	5	4	9
02:00 AM	4	0	0	0	4	0	4	0	4
03:00 AM	1	3	0	0	4	0	1	3	4
04:00 AM	2	3	0	0	5	0	2	3	5
05:00 AM	4	8	0	0	12	0	4	8	12
06:00 AM	25	31	0	0	55	0	25	31	55
07:00 AM	50	54	0	0	105	0	50	54	105
08:00 AM	48	53	0	0	101	0	48	53	101
09:00 AM	44	50	0	0	93	0	44	50	93
10:00 AM	53	49	0	0	102	0	53	49	102
11:00 AM	52	50	0	0	102	0	52	50	102
12:00 PM	43	45	0	0	87	0	43	45	87
01:00 PM	51	53	0	0	105	0	51	53	105
02:00 PM	50	40	0	0	89	0	50	40	89
03:00 PM	40	50	0	0	90	0	40	50	90
04:00 PM	76	78	0	0	154	0	76	78	154
05:00 PM	89	91	0	0	180	0	89	91	180
06:00 PM	99	86	0	0	185	0	99	86	185
07:00 PM	68	73	0	0	142	0	68	73	142
08:00 PM	65	58	0	0	124	0	65	58	124
09:00 PM	68	50	0	0	118	0	68	50	118
10:00 PM	42	31	0	0	72	0	42	31	72
11:00 PM	23	12	0	0	35	0	23	12	35
<b>Totals:</b>							1,015	982	1,997
<b>AM Peak Hour:</b>				07:00 AM	50	54	105		
<b>PM Peak Hour:</b>				05:00 PM	89	91	180		



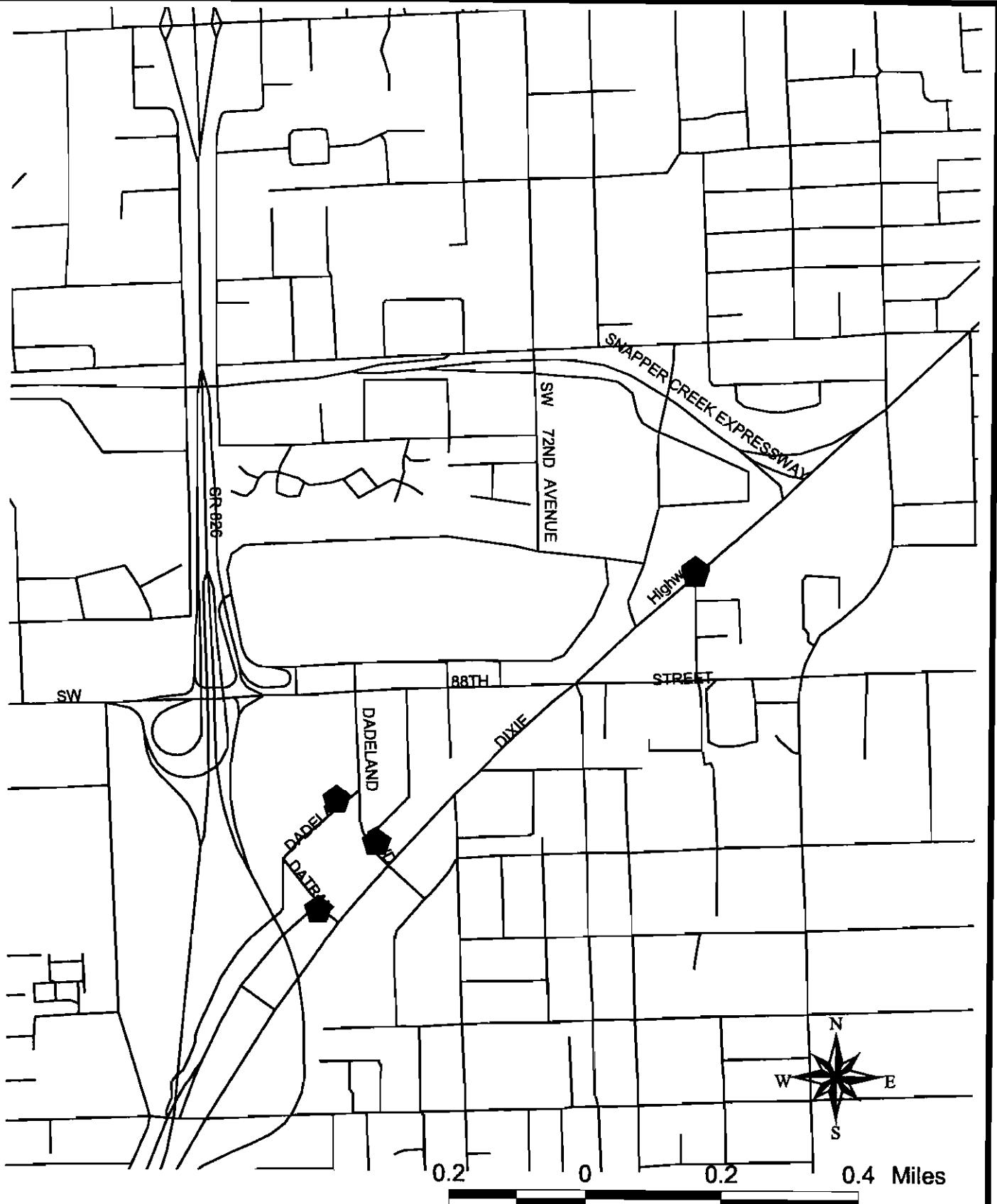
## **Appendix II-2 Pedestrian and Bicycle Crash Locations**



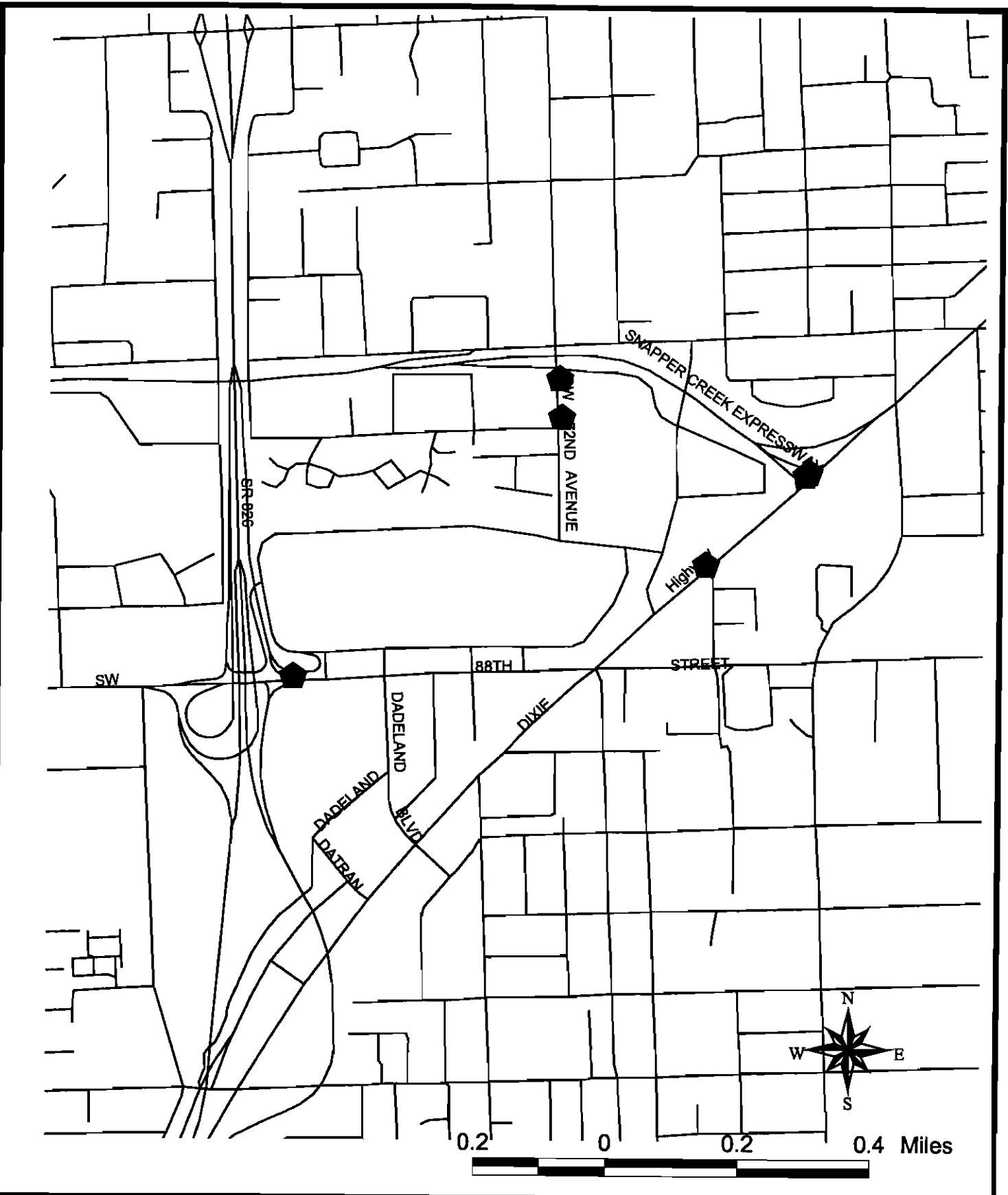
Bicycle Crash Analysis  
Year 2000 Crash Summary



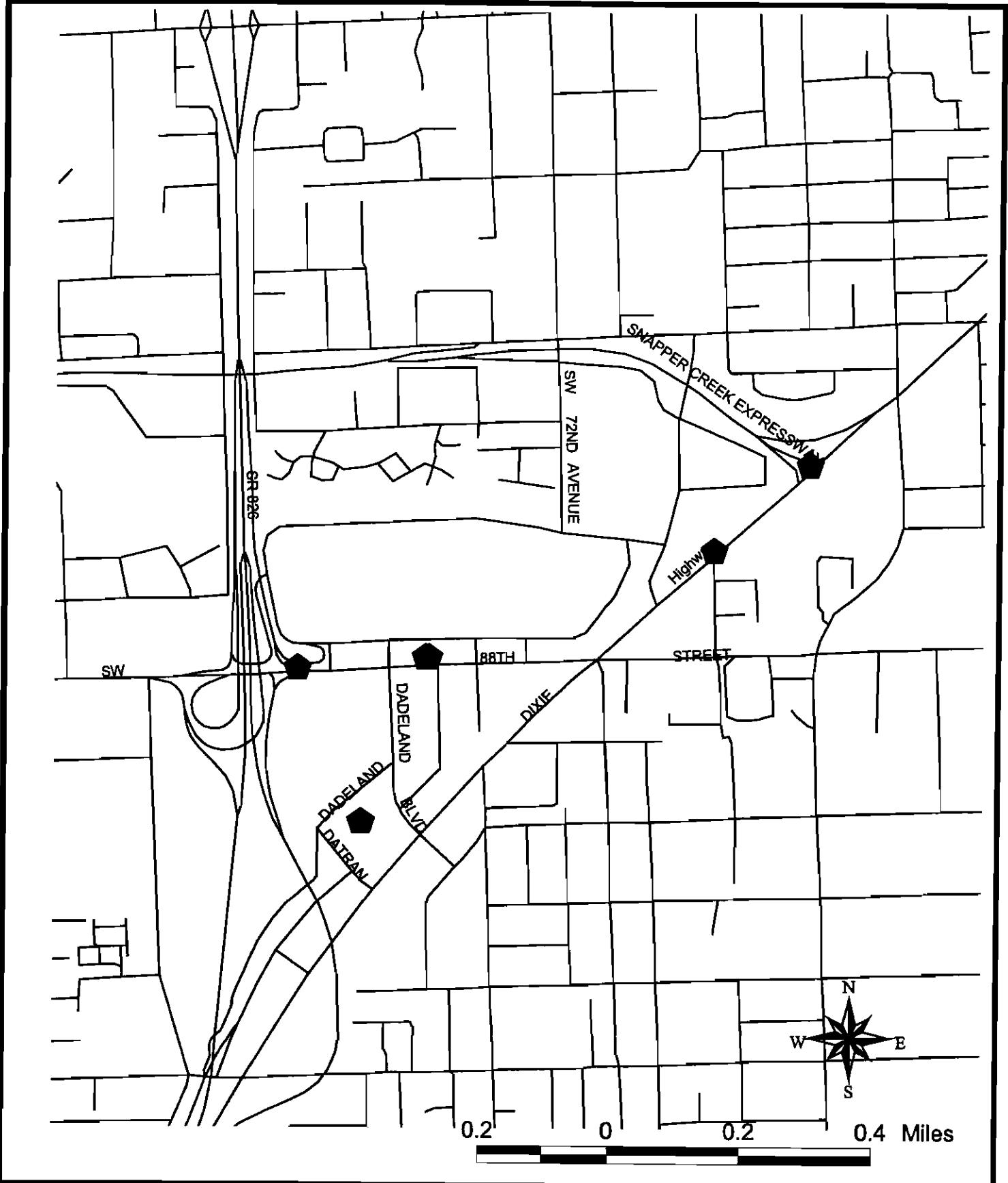
Pedestrian Crash Analysis  
Year 1996 Crash Summary



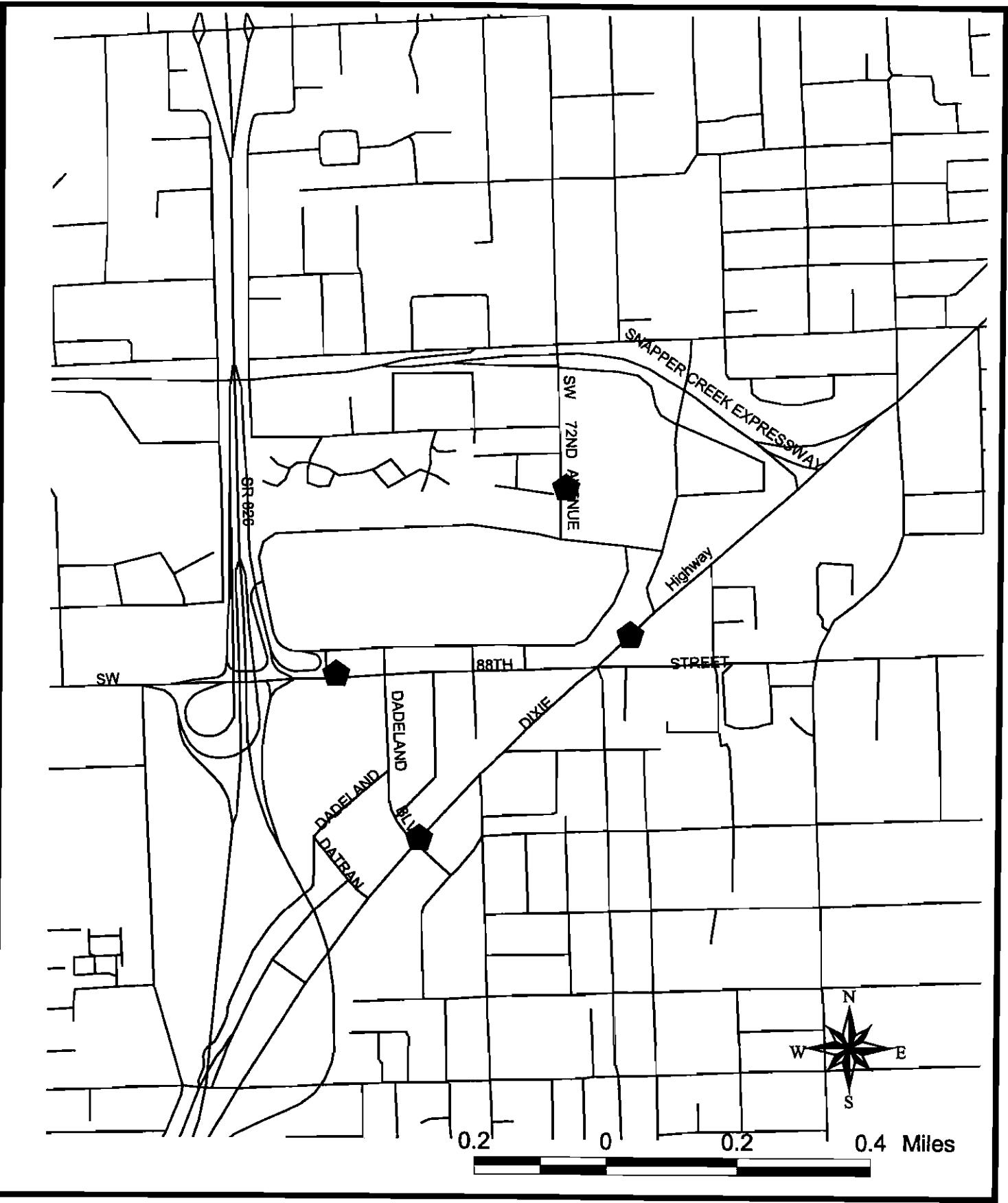
Pedestrian Crash Analysis  
Year 1997 Crash Summary



## Pedestrian Crash Analysis Year 1998 Crash Summary

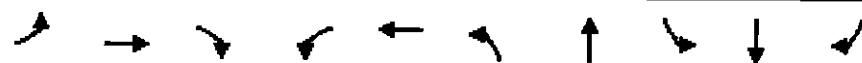


Pedestrian Crash Analysis  
Year 1999 Crash Summary



**Pedestrian Crash Analysis**  
**Year 2000 Crash Summary**

### **Appendix III Results of Synchro Simulation One**



Lane Group	1:NBL	2:NBL	3:NBL	4:NBL	5:NBL	6:NBL	7:NBL	8:NBL	9:NBL	10:NBL
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Volume (vph)	229	514	527	278	458	244	618	48	723	140
Turn Type	pm+pt		Perm	pm+pt		Perm		Perm		Perm
Protected Phases	7	4	4	3	8	2	2	6	6	6
Permitted Phases	4	4	8	2	2	6	6	6	6	6
Detector Phases	7	4	4	3	8	2	2	6	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	11.0	22.0	22.0	9.0	20.0	44.0	44.0	44.0	44.0	44.0
Total Split (%)	15%	29%	29%	12%	27%	59%	59%	59%	59%	59%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag					
Lead/Lag Optimize?										
Recall Mode	None	None	None	None	None	Coord	Coord	Coord	Coord	Coord
Actuated Green (s)	25.0	15.0	18.0	21.0	16.0	40.0	40.0	40.0	40.0	40.0
Actuated g/C Ratio	0.33	0.24	0.24	0.28	0.21	0.53	0.53	0.53	0.53	0.53
Vc Ratio	0.94	1.25	1.17	1.39	0.69	1.72	0.78	0.30	0.79	0.17
Uniform Delay, d1	18.5	28.5	20.1	20.5	26.3	17.5	13.6	9.7	14.1	0.0
Delay	28.4	76.7	52.8	165.4	30.6	226.6	15.2	11.3	16.2	14.8
LOS	C	E	D	F	C	F	B	B	B	A
Approach Delay	58.1				74.2		59.7		13.7	
Approach LOS	E				E		E		B	

Cycle Length: 75

Actuated Cycle Length: 75

Offset: 38 (51%), Referenced to phase 2:NBL and 6:SBTL, Start of Green

Natural Cycle: 54

Control Type: Actuated-Coordinated

Maximum Vc Ratio: 1.72

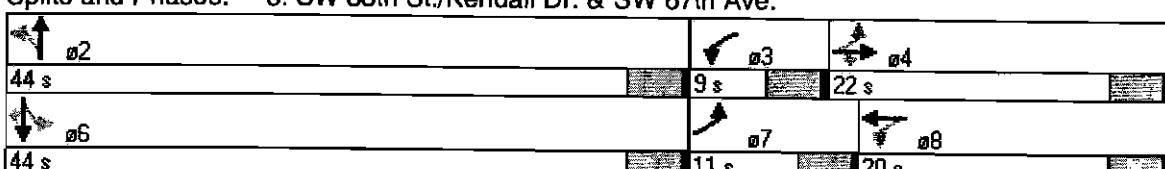
Intersection Signal Delay: 54.2

Intersection LOS: D

Intersection Capacity Utilization: 115.5%

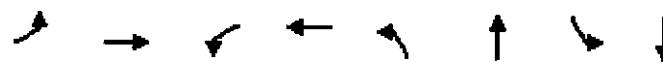
ICU Level of Service: G

Splits and Phases: 3: SW 88th St./Kendall Dr. & SW 67th Ave.



Kendall 6 Lanes/US1 Existing  
6: SW 88th St./Kendall Dr. & SW 87th Ave.

10/12/2001



Lane Configurations	1	↑↑↑	1	↑↑↑	1	↑↑↑	1	↑↑↑
Volume (vph)	540	2459	360	1960	174	408	471	123
Turn Type	pm+pt							
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	4		8		2		6	
Detector Phases	7	4	3	8	5	2	1	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	19.0	42.0	14.0	37.0	9.0	26.0	18.0	35.0
Total Split (%)	19%	42%	14%	37%	9%	26%	18%	35%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead/Lag Optimize?								
Recall Mode	None	None	None	None	None	Min	None	Min
Adj. Effct Green (s)	52.0	38.0	43.0	33.0	27.0	22.0	40.0	31.0
Actuated g/C Ratio	0.52	0.38	0.43	0.33	0.27	0.22	0.40	0.31
v/c Ratio	1.73	1.53	1.56	1.47	1.18	0.76	1.58	1.42
Uniform Delay, d1	26.3	30.7	24.4	32.9	24.6	33.7	24.3	33.7
Delay	226.7	96.1	195.7	184.3	115.7	34.1	199.8	174.2
LOS	F	F	F	F	F	C	F	F
Approach Delay	201.2		185.8		53.8	1		179.8
Approach LOS	F		F		D		F	

Cycle Length: 100

Actuated Cycle Length: 100

Natural Cycle: 100

Control Type: Actuated - Uncoordinated

Maximum v/c Ratio: 1.73

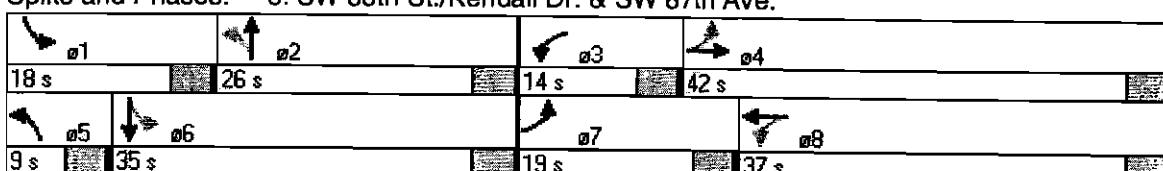
Intersection Signal Delay: 179.1

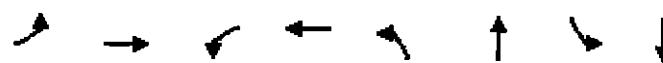
Intersection LOS: F

Intersection Capacity Utilization 148.5%

ICU Level of Service H

Splits and Phases: 6: SW 88th St./Kendall Dr. & SW 87th Ave.





Lane Configurations	1	↑↑↑	↓↑↑	↑	↑↑	↑	↑	↓	↔
Volume (vph)	109	3088	64	2827	10	10	324	16	
Turn Type	pm+pt		pm+pt		Split		Split		
Protected Phases	7	4	3	8	2	2	6	6	
Permitted Phases	4		8						
Detector Phases	7	4	3	8	2	2	6	6	
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0	
Total Split (s)	9.0	98.0	8.0	97.0	20.0	20.0	24.0	24.0	
Total Split (%)	6%	65%	5%	65%	13%	13%	16%	16%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	
Lead/Lag	Lead	Lag	Lead	Lag					
Lead/Lag Optimize?									
Recall Mode	None	None	None	None	Coord	Coord	Min	Min	
Act Effl Green (s)	89.0	94.1	97.1	93.0	16.1	18.1	20.0	20.0	
Actuated g/C Ratio	0.66	0.63	0.65	0.62	0.11	0.11	0.13	0.13	
V/C Ratio	1.08	1.06	0.72	1.11	0.05	0.23	1.06	1.02	
Uniform Delay, d1	27.6	28.0	8.7	28.2	60.2	13.8	65.0	58.7	
Delay	112.0	58.3	29.3	74.0	60.6	24.3	120.3	103.6	
LOS	F	E	C	E	E	C	F	F	
Approach Delay					60.1	73.1	31.1	111.9	
Approach LOS					E	E	C	F	

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 103 (69%), Referenced to phase 2:NBTI, Start of Green

Natural Cycle: 150

Control Type: Actuated-Coordinated

Maximum V/C Ratio: 1.11

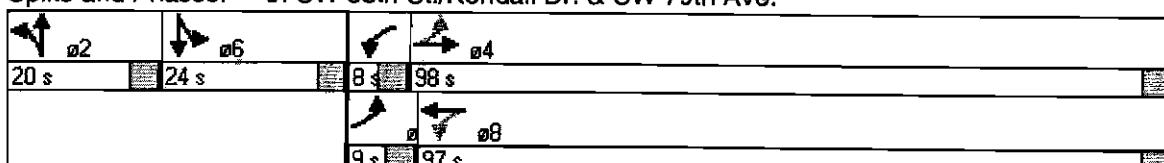
Intersection Signal Delay: 69.2

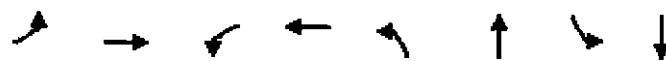
Intersection LOS: E

Intersection Capacity Utilization: 104.4%

ICU Level of Service: F

Splits and Phases: 9: SW 88th St./Kendall Dr. & SW 79th Ave.





Lane Configurations	4↑↓	↑	4↑↓	↑	↑	↑↓	↓	
Volume (vph)	13	3389	528	3018	205	10	11	10
Turn Type	pm+pt	pm+pt		Perm		Perm		
Protected Phases	7	4	3	8	1	2	5	
Permitted Phases	4		8		2	6		
Detector Phases	7	4	3	8	2	6	6	
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	
Total Split (s)	8.0	91.0	32.0	115.0	27.0	27.0	27.0	
Total Split (%)	5%	61%	21%	77%	18%	18%	18%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes		Yes					
Recall Mode	None	None	None	None	Coord	Coord	Coord	
Act Effct Green (s)	9.1	119.0	119.0	20.0	23.0		23.0	
Actuated g/C Ratio	0.61	0.79	0.79	0.15	0.15		0.15	
We Ratio	1.49	1.51	0.82	1.11	0.48		0.22	
Uniform Delay, d1	31.5	49.1	9.1	63.5	3.1		22.8	
Delay	103.4	211.2	9.4	132.4	9.3		28.2	
LOS	F	F	A	F	A		C	
Approach Delay	103.4		39.3		73.6		28.2	
Approach LOS	F		D		E		C	

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 113 (75%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 130

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.57

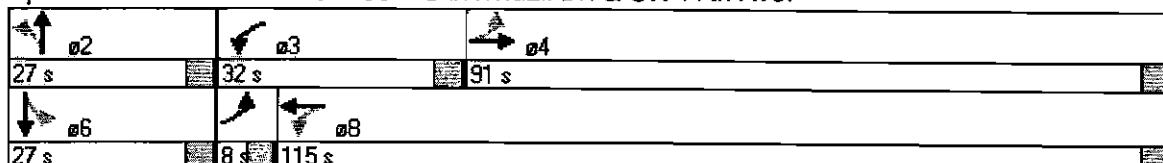
Intersection Signal Delay: 107.9

Intersection LOS: F

Intersection Capacity Utilization: 165.2%

ICU Level of Service: H

Splits and Phases: 12: SW 88th St./Kendall Dr. & SW 77th Ave.





Intersection 16: SW 88th St./Kendall Dr. & SR 826 NB Off-Ramp				
Lane Configurations	→	←	↖	↗
Volume (vph)	3470	2628	125	72
Turn Type	custom	custom		
Protected Phases	4	8	5	2
Permitted Phases			5	2
Detector Phases	4	8	5	2
Minimum Initial (s)	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	8.0	20.0
Total Split (s)	40.0	40.0	20.0	20.0
Total Split (%)	67%	67%	33%	33%
Yellow Time (s)	3.5	3.5	3.5	3.5
All Red Time (s)	0.5	0.5	0.5	0.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	None	Min
Act. Effct Green (s)	36.1	36.1	7.9	7.9
Actuated g/C Ratio	0.69	0.69	0.15	0.15
v/c Ratio	1.02	0.78	0.25	0.31
Uniform Delay, d1	7.9	5.3	19.4	19.5
Delay	32.0	5.9	19.2	19.6
LOS	C	A	B	B
Approach Delay	32.0	5.9		
Approach LOS	C	A		

Cycle Length: 60

Actuated Cycle Length: 52

Natural Cycle: 90

Control Type: Actuated/Uncoordinated

Maximum v/c Ratio: 1.02

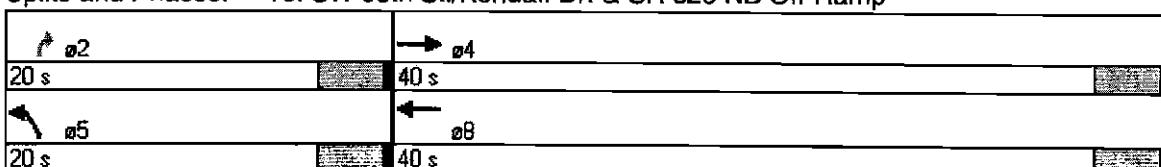
Intersection Signal Delay: 20.7

Intersection LOS: C

Intersection Capacity Utilization 81.1%

ICU Level of Service D

Splits and Phases: 16: SW 88th St./Kendall Dr. & SR 826 NB Off-Ramp



Kendall 6 Lanes/US1 Existing  
18: SW 88th St./Kendall Dr. & US1

10/12/2001



Lane Configurations	1	↑↓	1	↑↓	↑↓	↑↓	↑↓↑↓	1	↑↓↑↓	1
Volume (vph)	916	492	347	314	1120	23	2616	77	3046	621
Turn Type	Split		Perm	Split		Perm		Perm		Perm
Protected Phases	4	4	4	8	8	8	2	6	6	6
Permitted Phases			4			8		6		6
Detector Phases	4	4	4	8	8	8	2	6	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	35.0	35.0	35.0	38.0	38.0	38.0	77.0	77.0	77.0	77.0
Total Split (%)	23%	23%	23%	25%	25%	25%	51%	51%	51%	51%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	None	None	None	None	None	None	Coord	Coord	Coord	Coord
Act. Effct Green (s)	31.1	31.1	31.1	34.1	34.1	34.1	43.1	43.1	71.1	73.1
Actuated g/C Ratio	0.21	0.21	0.21	0.23	0.23	0.23	0.49	0.49	0.49	0.49
v/c Ratio	1.50	1.51	1.03	0.85	1.52	0.07	1.20	1.68	1.34	0.65
Uniform Delay, d1	59.5	59.5	51.6	55.5	58.0	43.7	38.4	38.8	38.5	5.3
Delay	212.6	215.9	92.7	67.0	195.2	44.7	121.7	251.3	164.7	5.9
LOS	F	F	F	E	F	D	F	F	F	A
Approach Delay		190.7			183.1		121.7		140.2	
Approach LOS		F			F		F		F	

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 118 (79%), Referenced to phase 2:NET and 6:SWTL, Start of Green

Natural Cycle: 150

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.68

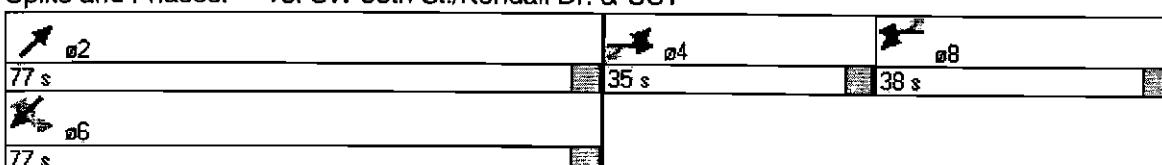
Intersection Signal Delay: 147.6

Intersection LOS: F

Intersection Capacity Utilization: 138.2%

ICU Level of Service: H

Splits and Phases: 18: SW 88th St./Kendall Dr. & US1



## Kendall 6 Lanes/US1 Existing 21: SW 88th St./Kendall Dr. & 7500 Block

10/12/2001



Lane Configurations	1 ↑↑↑	1 ↑↑↑	1 ↑↑↑	1 ↑↑↑	1 ↑↑↑	1 ↑↑↑	1 ↑↑↑	1 ↑↑↑
Volume (vph)	1036	2361	10	2473	917	92	45	694
Turn Type	pm+pt	pm+pt			Split		pm+ov	
Protected Phases	7	4	3	8	2	2	6	7
Permitted Phases	4		8				6	
Detector Phases	7	4	3	8	2	2	6	7
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	8.0
Total Split (s)	47.0	88.0	8.0	49.0	34.0	34.0	20.0	47.0
Total Split (%)	31%	59%	5%	33%	23%	23%	13%	31%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag	Lead	Lag	Lead	Lag			Lead	
Lead/Lag Optimize?								
Recall Mode	None	None	None	None	Min	Min	Min	None
Act. Edge Green (s)	92.0	88.9	49.0	45.0	30.0	20.0	10.2	57.3
Actuated g/C Ratio	0.64	0.62	0.33	0.31	0.21	0.21	0.07	0.40
v/s Ratio	1.96	0.95	0.10	1.63	1.34	0.28	0.48	1.15
Uniform Delay, d1	42.5	23.9	16.8	49.6	58.4	47.8	65.7	44.6
Delay	289.0	251.1	180.0	251.6	183.8	47.8	64.4	92.8
LOS	F	C	B	F	F	D	E	F
Approach Delay	101.7		250.7		70.2	90.5		
Approach LOS	F		F		F	F		

**Cycle Length: 150**

Actual Cycle Length: 14

Natural Cycle: 150

**SERIAL TYPE: Aquated Uncoordinated**

**Maximum v/c Ratio: 1.86**

Maximum V/C Ratio: 1.86

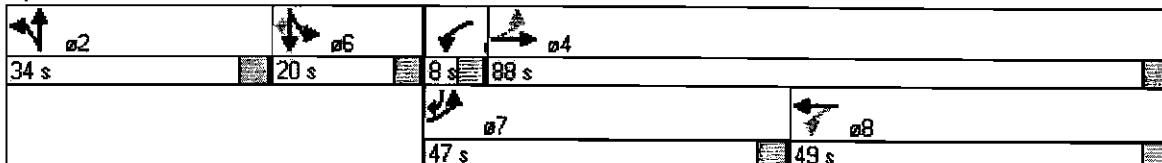
#### **Interaction Capacity Utilization**

**Intersection Capacity Utilization 153.6%**

[Interscience.wiley.com](http://www.interscience.wiley.com)

Journal Sections D, E, F

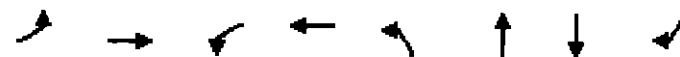
**Splits and Phases:** 21: SW 88th St./Kendall Dr. & 7500 Block



## Baseline

C:\Kendall\Kendall\_Synchro\NEW\_6IN\_US1\_Adj.sv6

Auj.syst  
Радио 7



	1	2	3	4	5	6	7	8	9	10	11	12
Lane Configurations	↑↑↑	↑↑↑	↑↑↑	↑↑↑	↑↑↑	↑↑↑	↑↑↑	↑↑↑	↑↑↑	↑↑↑	↑↑↑	↑↑↑
Volume (vph)	631	1537	211	1897	438	59	150	200	150	200	150	200
Turn Type	pm+pt	pm+pt	pm+pt	pm+pt	Split	Split	Perm	Perm	Perm	Perm	Perm	Perm
Protected Phases	7	4	3	8	2	2	6	6	6	6	6	6
Permitted Phases	4	8	8	8	2	2	6	6	6	6	6	6
Detector Phases	7	4	3	8	2	2	6	6	6	6	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	36.0	63.0	20.0	47.0	23.0	23.0	24.0	24.0	24.0	24.0	24.0	24.0
Total Split (%)	26%	48%	15%	36%	18%	18%	18%	18%	18%	18%	18%	18%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag	Lead	Lag	Lead	Lag								
Lead/Lag Optimize?												
Recall Mode	None	None	None	None	Min	Min	Min	Min	Min	Min	Min	Min
Act. Effct. Green (s)	79.0	60.4	57.7	43.0	19.0	19.0	20.0	20.0	20.0	20.0	20.0	20.0
Actuated g/C Ratio	0.61	0.46	0.44	0.33	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
v/c Ratio	1.32	0.79	0.85	1.29	0.97	0.65	1.17	0.51	0.51	0.51	0.51	0.51
Uniform Delay, d1	38.5	28.9	35.9	43.2	55.2	48.3	55.0	0.0	0.0	0.0	0.0	0.0
Delay	157.7	29.3	44.1	160.1	92.0	54.8	153.0	6.5	6.5	6.5	6.5	6.5
LOS	F	C	D	F	F	D	F	A	A	A	A	A
Approach Delay	63.4		140.3		67.8	82.4						
Approach LOS	E		F		E	F						

Cycle Length: 130

Actuated Cycle Length: 130

Natural Cycle: 130

Control Type: Actuated Uncoordinated

Maximum v/c Ratio: 1.33

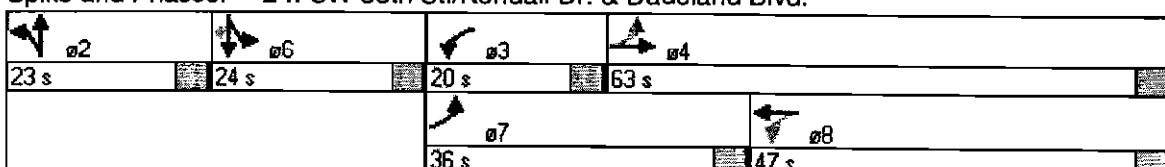
Intersection Signal Delay: 95.3

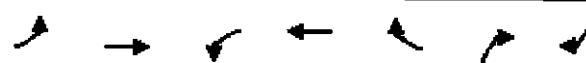
Intersection LOS: E

Intersection Capacity Utilization 125.9%

ICU Level of Service H

Splits and Phases: 24: SW 88th St./Kendall Dr. & Dadeland Blvd.





Lane Configurations	146	117	72	931	965	578	491
Volume (vph)							
Sign Control	Free	Free					
Intersection Summary							
Control Type: Unsignalized							
Intersection Capacity Utilization 80.4% ICU Level of Service D							



	N	S	E	W	N	S	E	W	N	S	E	W
Lane Configurations	1	↑↑↑	↑↑↑	↑	1	↑↑	↑↑	↑	1	↑↑	↑↑	↑
Volume (vph)	156	743	1362	16	41	610	225	491	156	743	1362	16
Turn Type	pm+pt				Perm		Split		pm			Perm
Protected Phases	7	4	8	2		2	6	6	5			5
Permitted Phases	4				2		6	6	5			6
Detector Phases	7	4	8	2	2	2	6	6	6	6	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	9.0	40.0	31.0	21.0	21.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0
Total Split (%)	10%	44%	34%	23%	23%	32%	32%	32%	32%	32%	32%	32%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag	Lead		Lag									
Lead/Lag Optimize?												
Recall Mode	None	None	None	Min	Min	Min	Min	Min	Min	Min	Min	Min
Actuated Green (s)	36.0	36.0	26.9	8.6	8.6	24.1	24.1	24.1	24.1	24.1	24.1	24.1
Actuated g/C Ratio	0.45	0.45	0.33	0.11	0.11	0.30	0.30	0.30	0.30	0.30	0.30	0.30
v/c Ratio	0.80	0.64	0.67	0.38	0.21	0.84	0.86	0.86	0.70	0.70	0.70	0.70
Uniform Delay, d1	13.6	13.4	25.1	33.5	0.0	26.4	26.7	6.1				
Delay	36.0	14.1	29.9	34.0	11.2	34.7	45.8	7.5				
LOS	D	B	C	C	B	C	D	A				
Approach Delay		16.3	28.3	25.5			25.0					
Approach LOS	B	C	C				C					

Cycle Length: 90

Actuated Cycle Length: 80.7

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.87

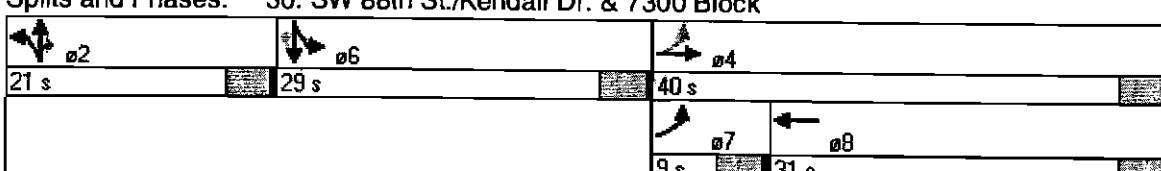
Intersection Signal Delay: 23.3

Intersection LOS: C

Intersection Capacity Utilization: 78.2%

ICU Level of Service: C

Splits and Phases: 30: SW 88th St./Kendall Dr. & 7300 Block





Lane Configurations	↑↑↑	↑↑↑	↑	↑
Volume (vph)	1448	1906	373	111
Turn Type			Perm	
Protected Phases	4	8	2	2
Permitted Phases			2	
Detector Phases	4	8	2	2
Minimum Initial (s)	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	20.0	20.0
Total Split (s)	87.0	87.0	63.0	63.0
Total Split (%)	54%	58%	42%	42%
Yellow Time (s)	3.5	3.5	3.5	3.5
All Red Time (s)	0.5	0.5	0.5	0.5
Lead/Lag				
Lead/Lag Optimize?				
Recall Mode	None	None	Min	Min
Act Effct Green (s)	39.1	39.1	20.3	20.3
Actuated g/C Ratio	0.57	0.57	0.30	0.30
v/c Ratio	0.69	0.69	0.79	0.24
Uniform Delay, d1	9.3	9.7	21.1	13.4
Delay	10.6	11.1	24.2	17.2
LOS	B	B	C	B
Approach Delay	10.6	11.1	22.6	
Approach LOS	B	B	C	

Cycle Length: 150

Actuated Cycle Length: 68.8

Natural Cycle: 50

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.75

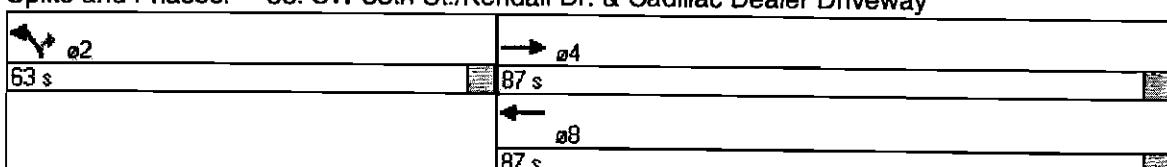
Intersection Signal Delay: 12.2

Intersection LOS: B

Intersection Capacity Utilization 67.1%

ICU Level of Service B

Splits and Phases: 33: SW 88th St./Kendall Dr. & Cadillac Dealer Driveway



## **Appendix IV Results of Synchro Simulation Two**

	↑	→	↓	↗	↖	↙	↖	↗	↑	→	↓	↗	↖	↙	↖
<b>Lane Group Flow (vph)</b>															
Lane Configurations	1	↑	1	↑	1	↑↓	1	↑	1	↑	1	↑	1	↑	1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	1770	1863	1583	1770	3426	0	1770	1829	0	1770	1863	1583	0	1770	1863
PH Permitted	0.392			0.286			0.250			0.250			0.250		
Satd. Flow (perm)	730	1863	1583	533	3426	0	466	1829	0	466	1863	1583	0	466	1863
Satd. Flow (HTOR)				89			101			20			146		
Volume (vph)	229	514	527	278	458	123	244	618	84	48	723	140			
Lane Group Flow (vph)	239	535	549	290	605	0	254	732	0	50	753	146			
Turn Type	Perm		Perm	Perm			Perm			Perm			Perm		Perm
Protected Phases	1	4	1	1	6		1	2		1	6		1	6	
Permitted Phases	4		4	8			2			6			6		6
Detector Phases	4	4	4	8	8		2	2		6	6		6		6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0		20.0	20.0		20.0	20.0		20.0	20.0	20.0
Total Split (s)	20.0	20.0	20.0	20.0	20.0	0.0	20.0	20.0	0.0	20.0	20.0		20.0	20.0	20.0
Total Split (%)	50%	50%	50%	50%	50%	0%	50%	50%	0%	50%	50%		50%	50%	50%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	3.5
All Red Time (s)	0.5	0.5	0.5	0.5	0.5		0.5	0.5		0.5	0.5		0.5	0.5	0.5
Lead/Lag															
<b>Lead/Lag Optimizer:</b>															
Recall Mode	None	None	None	None	None		Min	Min		Min	Min		Min	Min	Min
Act Effect Green (s)	16.0	16.0	16.0	16.0	16.0		16.0	16.0		16.0	16.0		16.0	16.0	16.0
Actuated g/C Ratio	0.40	0.40	0.40	0.40	0.40		0.40	0.40		0.40	0.40		0.40	0.40	0.40
v/c Ratio	0.32	0.72	0.80	1.36	0.42		1.37	0.98		0.27	1.01		0.20		
Uniform Delay, d1	10.7	10.1	8.7	12.0	7.0		12.0	11.5		8.0	12.0		0.0		
Delay	30.0	13.2	15.3	151.8	7.3		154.5	38.8		9.2	45.4		2.2		
LOS	C	B	B	F	A		F	D		A	D		A		
Approach Delay	7.1			54.1			60.6			36.6					
Approach LOS	B			D			E			D					

Cycle Length: 40

Actuated Cycle Length: 40

Natural Cycle: 40

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.37

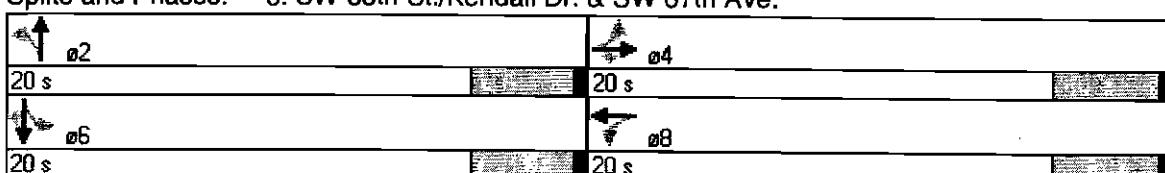
Intersection Signal Delay: 41.8

Intersection LOS: D

Intersection Capacity Utilization 111.3%

ICU Level of Service G

Splits and Phases: 3: SW 88th St./Kendall Dr. & SW 67th Ave.



Kendall 6 Lanes/US 1 Square  
6: SW 88th St./Kendall Dr. & SW 87th Ave.

10/12/2001

	↑	→	↓	↗	↖	↙	↖	↑	↗	↖	↙	↑	↗	↖	↙
<b>Lane Configurations</b>															
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	1770	5019	0	1770	4989	0	1770	3405	0	1770	3447	0	1770	3447	0
FIR Permitted	0.108	—	—	0.121	—	—	0.235	—	—	—	0.196	—	—	—	—
Satd. Flow (perm)	201	5019	0	225	4989	0	438	3405	0	354	3447	0	354	3447	0
Satd. Flow (FTR)	—	19	—	—	30	—	—	41	—	—	26	—	—	—	—
Volume (vph)	540	2459	240	360	1960	293	174	408	140	471	1173	249	—	—	—
Lane Group Flow (vph)	562	2811	0	376	2347	0	181	571	0	491	1481	0	—	—	—
Turn Type	pm+pt														
Protected Phases	7	4	3	8	5	2	1	6	—	—	—	—	—	—	—
Permitted Phases	4	—	8	—	2	—	6	—	—	—	—	—	—	—	—
Detector Phases	7	4	3	8	5	2	1	6	—	—	—	—	—	—	—
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0	8.0
Total Split (s)	19.0	42.0	0.0	14.0	37.0	0.0	9.0	21.0	0.0	23.0	35.0	0.0	—	—	—
Total Split (%)	19%	42%	0%	14%	37%	0%	9%	21%	0%	23%	35%	0%	—	—	—
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lag
Exact Lag Optimized?	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Recall Mode	None	None	None	None	None	None	Min	None	Min	None	Min	—	—	—	—
Act Effct Green (s)	52.0	38.0	43.0	33.0	22.0	17.0	10.0	31.0	—	—	—	—	—	—	—
Actuated g/C Ratio	0.52	0.38	0.43	0.33	0.22	0.17	0.40	0.31	—	—	—	—	—	—	—
v/c Ratio	1.69	1.46	1.49	1.40	1.31	0.93	1.19	1.36	—	—	—	—	—	—	—
Uniform Delay, d1	26.3	30.7	24.4	32.9	25.8	37.9	26.0	33.7	—	—	—	—	—	—	—
Delay	214.3	182.4	183.7	170.2	103.7	52.6	101.1	158.4	—	—	—	—	—	—	—
LOS	F	F	F	F	F	D	F	F	—	—	—	—	—	—	—
Approach Delay	187.7	172.1	65.4	146.3	—	—	—	—	—	—	—	—	—	—	—
Approach LOS	F	F	E	F	—	—	—	—	—	—	—	—	—	—	—

Cycle Length: 100

Actuated Cycle Length: 100

Natural Cycle: 100

Control Type: Actuated/Uncoordinated

Maximum v/c Ratio: 1.65

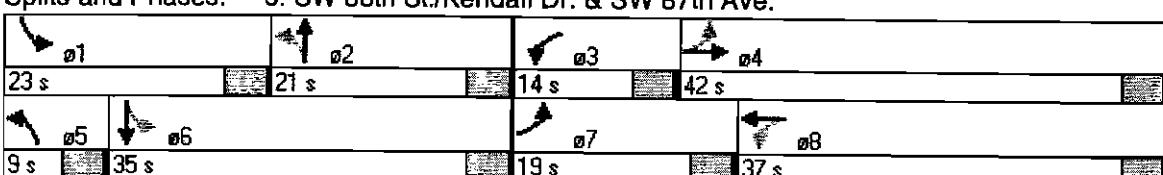
Intersection Signal Delay: 163.2

Intersection LOS: F

Intersection Capacity Utilization 142.8%

ICU Level of Service H

Splits and Phases: 6: SW 88th St./Kendall Dr. & SW 87th Ave.



**Kendall 6 Lanes/US 1 Square**  
**9: SW 88th St./Kendall Dr. & SW 79th Ave.**

10/12/2001



Cycle Length: 150

#### Activated Cycle Lengths

Offset: 67 (45%), Referenced to phase 2:NBTI. Start of Green

Natural Cycle, 100-200

### **Control Type: Actuated-Coordinated**

**MAXTRONIC® Q-BAND 10**

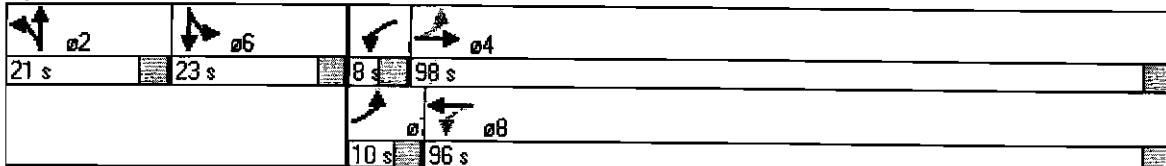
**Intersection Signal Delay: 52.0**

Intersection LOS: D

Intersection Capacity Utilization 100.7%

ICU Level of Service

Splits and Phases: 9: SW 88th St./Kendall Dr. & SW 79th Ave.





Lane Configurations	W <sup>↑↑</sup>	E <sup>↑↑</sup>	S <sup>↑↑</sup>	N <sup>↑↑</sup>	W <sup>↑</sup>	E <sup>↑</sup>	S <sup>↑</sup>	N <sup>↑</sup>	W <sup>↓</sup>	E <sup>↓</sup>	S <sup>↓</sup>	N <sup>↓</sup>
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	0	5075	0	1770	5085	0	1770	1598	0	0	1697	0
Eff Permitted	0.758		0.049			0.950					0.989	
Satd. Flow (perm)	0	3847	0	91	5085	0	1770	1598	0	0	1697	0
Satd. Flow (HTOR)		2		1			173				30	
Volume (vph)	19	3389	39	528	3018	10	205	10	166	11	10	29
Lane Group Flow (vph)	0	3591	0	550	3154	0	214	183	0	0	51	0
Turn Type	pm+pt		pm+pt			Split				Split		
Protected Phases	7	4	3	8	2	2			6	6		
Permitted Phases	4		8									
Detector Phases	7	4	3	8	2	2			6	6		
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	8.0	81.0	0.0	27.0	100.0	0.0	22.0	22.0	0.0	20.0	20.0	0.0
Total Split (%)	5%	54%	0%	18%	67%	0%	15%	15%	0%	13%	13%	0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag	Lead	Lag	Lead	Lag								
Lead/Lag Optimized?												
Recall Mode	None	None	None	None	Coord	Coord			Min	Min		
Act Effct Green (s)	81.0		104.0	104.0	26.3	26.3			7.7			
Actuated g/C Ratio	0.54		0.69	0.69	0.18	0.18			0.05			
W/C Ratio	1.20		1.71	0.89	0.69	0.43			0.44			
Uniform Delay, d1	36.5		48.5	18.6	58.0	2.8			28.1			
Delay	219.1		248.0	13.7	65.6	9.2			34.2			
LOS	F		F	B	E	A			C			
Approach Delay	219.1		48.5		39.6				34.2			
Approach LOS	F		D		D				C			

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 80 (53%), Referenced to phase 2:NBT, Start of Green

Natural Cycle: 150

Control Type: Actuated-Coordinated

Maximum W/C Ratio: 1.71

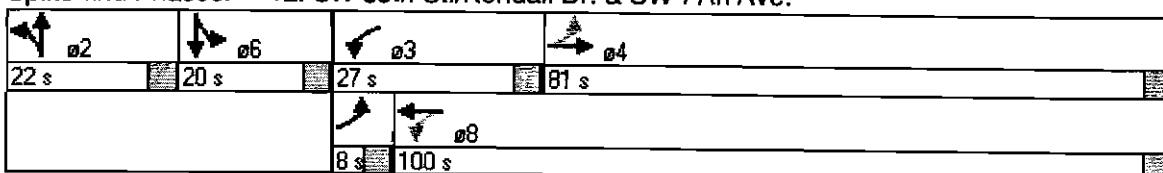
Intersection Signal Delay: 127.1

Intersection LOS: F

Intersection Capacity Utilization 159.0%

ICU Level of Service H

Splits and Phases: 12: SW 88th St./Kendall Dr. & SW 77th Ave.



Kendall 6 Lanes/US 1 Square  
16: SW 88th St./Kendall Dr. & SR 826 NB Off-Ramp

10/12/2001

	↑↑	→	↓↑	↙	↖	↖↑	↖↖	↑	↗	↘	↓	↙↖
<b>Lane Configurations</b>												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	0	5085	0	0	5085	0	3433	0	1583	0	0	0
FIR Permitted							0.950					
Satd. Flow (perm)	0	5085	0	0	5085	0	3433	0	1583	0	0	0
Satd. Flow (RTOR)							2					
Volume (vph)	0	3470	0	0	2628	0	125	0	72	0	0	0
Lane Group Flow (vph)	0	3615	0	0	2736	0	130	0	75	0	0	0
Turn Type						custom	custom					
Protected Phases	4		2		8		5					
Permitted Phases							5		2			
Detector Phases	4		2		8		5		2			
Minimum Initial (s)	4.0				4.0		4.0		4.0			
Minimum Split (s)	20.0				20.0		8.0		20.0			
Total Split (s)	0.0	128.0	0.0	0.0	128.0	0.0	22.0	0.0	22.0	0.0	0.0	0.0
Total Split (%)	0%	85%	0%	0%	85%	0%	15%	0%	15%	0%	0%	0%
Yellow Time (s)	3.5				3.5		3.5		3.5			
All Red Time (s)	0.5				0.5		0.5		0.5			
Lead/Lag												
<b>Lead-Lag Optimized</b>												
Recall Mode	None		None		None		None		Coord			
Actuated Cycle (s)	124.1		124.1		124.1		12.0		18.0			
Actuated g/C Ratio	0.83		0.83		0.83		0.12		0.12			
V/C Ratio	0.86		0.65		0.62		0.39		0.39			
Uniform Delay, d1	7.8		4.9		60.3		59.2					
Delay	11.1		7.6		60.7		60.0		60.0			
LOS	B		A		E		E					
Approach Delay	11.1		7.6									
Approach LOS	B		A									

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 134 (89%), Referenced to phase 2:NBR and 6:, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.86

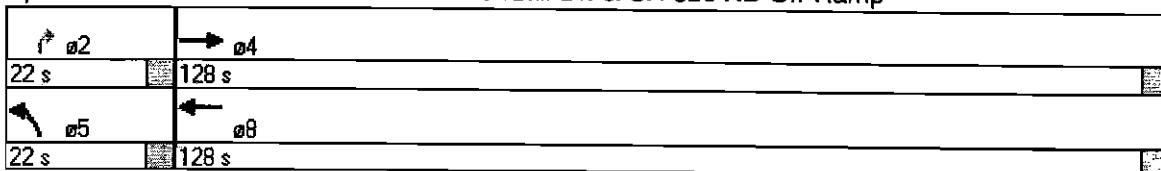
Intersection Signal Delay: 11.2

Intersection LOS: B

Intersection Capacity Utilization 81.1%

[ICU Level of Service D]

Splits and Phases: 16: SW 88th St./Kendall Dr. & SR 826 NB Off-Ramp





Lane Configurations	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	1770	2787	1583	0	0	0	4968	0	1770	5085	1583			
Flt Permitted	0.950											0.040		
Satd. Flow (perm)	1770	2787	1583	0	0	0	4968	0	75	5085	1583			
Satd. Flow (RTOR)							51					3		
Volume (vph)	314	1120	23	0	0	0	3532	635	77	3046	621			
Lane Group Flow (vph)	327	1167	24	0	0	0	4340	0	89	3173	647			
Turn Type	custom	custom								Perm		Perm		
Protected Phases								2				6		
Permitted Phases	8	8	8									6		6
Detector Phases	8	8	8					2				6		6
Minimum Initial (s)	4.0	4.0	4.0					4.0				4.0		4.0
Minimum Split (s)	20.0	20.0	20.0					20.0				20.0		20.0
Total Split (s)	46.0	46.0	46.0	0.0	0.0	0.0	104.0	0.0	104.0	104.0	104.0			
Total Split (%)	31%	31%	31%	0%	0%	0%	62%	0%	69%	69%	69%			
Yellow Time (s)	3.5	3.5	3.5				3.5		3.5	3.5	3.5			
All Red Time (s)	0.5	0.5	0.5				0.5		0.5	0.5	0.5			
Lead/Lag														
Lead/Lag Optimize?														
Recall Mode	None	None	None					Coord		Coord	Coord	Coord		
Act. Total Green (s)	42.0	42.0	42.0					100.1		100.1	100.1	100.1		
Actuated g/C Ratio	0.28	0.28	0.28					0.67		0.67	0.67	0.67		
v/c Ratio	0.66	1.50	0.05					1.30		1.60	0.94	0.51		
Uniform Delay, d1	47.7	54.0	39.5					24.6		25.0	22.2	14.0		
Delay	48.4	210.5	39.9					24.4		234.3	24.5	14.5		
LOS	D	F	D					F		F	C	B		
Approach Delay	72.9							24.4		27.1				
Approach LOS	F							F		C				

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 52 (35%), Referenced to phase 2:NET and 6:SWTL, Start of Green

Natural Cycle: 150

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.60

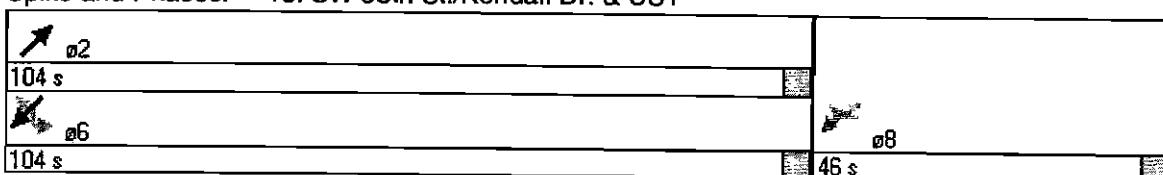
Intersection Signal Delay: 93.1

Intersection LOS: F

Intersection Capacity Utilization 133.3%

ICU Level of Service H

Splits and Phases: 18: SW 88th St./Kendall Dr. & US1





Lane Group	1	2	3	4	5	6	7	8	9	10	11	12
<b>Lane Configurations</b>												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	1770	5029	0	1770	5085	0	3433	1837	0	0	0	1839
Flt Permitted	0.082			0.089		0.950						0.987
Satd. Flow (perm)	153	5029	0	166	5085	0	3433	1837	0	0	0	1839
Satd. Flow (PTOP)												
Volume (vph)	1036	2361	180	10	2473	5	917	92	10	15	45	694
Lane Group Flow (vph)	1079	2647	0	10	2581	0	955	106	0	0	63	723
Turn Type	pm+pt		pm+pt			Split			Split			pm+ov
Protected Phases	7	4		3	8	2	2		6	6	6	7
Permitted Phases	4			8								6
Detector Phases	7	4		3	8	2	2		6	6	6	7
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0
Minimum Split (s)	5.0	20.0		8.0	20.0	20.0	20.0		20.0	20.0	20.0	20.0
Total Split (s)	47.0	88.0	0.0	8.0	49.0	0.0	34.0	34.0	0.0	20.0	20.0	47.0
Total Split (%)	31%	59%	0%	5%	95%	0%	25%	25%	0%	13%	13%	31%
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5		3.5	3.5	3.5	3.5
All Red Time (s)	0.5	0.5		0.5	0.5	0.5	0.5		0.5	0.5	0.5	0.5
Lead/Lag	Lead	Lag		Lead	Lag							Lead
Lead/Lag Optimized												
Recall Mode	None	None		None	None	Coord	Coord		Min	Min	None	
Actuated Cycle (s)	92.0	130.0		49.1	49.0	35.6	35.6		10.4	57.4		
Actuated g/C Ratio	0.61	0.59		0.33	0.30	0.24	0.24			0.07	0.38	
WC Ratio	1.94	1.689		0.10	1.69	1.17	0.24			0.49	1.19	
Uniform Delay, d1	43.9	26.1		17.7	51.3	58.4	46.8			67.2	46.2	
Delay	279.5	133.8		10.1	202.1	132.1	46.4			66.5	128.3	
LOS	F	B		B	F	F	D			E	F	
Approach Delay	90.8			201.6		123.8				123.4		
Approach LOS	F			F		F				F		

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 130 (87%), Referenced to phase 2:NBL, Start of Green

Natural Cycle: 150

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.94

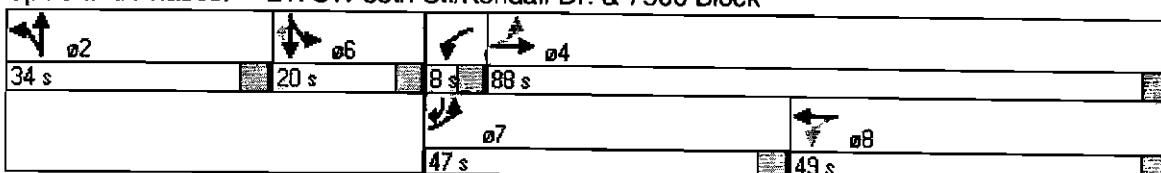
Intersection Signal Delay: 133.4

Intersection LOS: F

Intersection Capacity Utilization: 153.6%

ICU Level of Service: H

Splits and Phases: 21: SW 88th St./Kendall Dr. & 7500 Block





Lane Configurations	1	↑↑↑	1	↑↑↑	1	↑↑↑	1	↑↑↑	1	↑↑↑	1	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Satd. Flow (prot)	1770	4989	0	1770	5024	0	1610	3144	0	0	1727	1504
Flt Permitted	0.073			0.073			0.950	0.974			0.976	
Satd. Flow (perm)	136	4989	0	145	5024	0	1610	3144	0	0	1727	1504
Satd. Flow (RTOR)		23			11		38				208	
Volume (vph)	631	1537	219	211	1897	172	438	59	129	150	150	200
Lane Group Flow (vph)	637	1829	0	220	2153	0	228	423	0	0	312	208
Turn Type	pm+pt		pm+pt			Split			Split		Perm	
Protected Phases	7	4	3	8	9	2			6	6		
Permitted Phases	4		8								6	
Detector Phases	7	4	3	8	12	12			6	6	6	
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	8.0	20.0	6.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	
Total Split (s)	43.0	74.0	0.0	24.0	55.0	0.0	25.0	25.0	0.0	27.0	27.0	27.0
Total Split (%)	25%	49%	0%	16%	37%	0%	17%	17%	0%	18%	18%	18%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag	Lead	Lag	Lead	Lag								
Is Signal Optimized?												
Recall Mode	None	None	None	None	None	Coord	Coord		Min	Min	Min	
Act Effct Green (s)	9.1	72.1	68.9	51.0	21.0	21.0	21.0		23.0	23.0		
Actuated g/C Ratio	0.63	0.48	0.46	0.34	0.14	0.14	0.14		0.15	0.15		
V/C Ratio	1.29	0.76	0.94	1.26	1.01	0.89	0.89		1.18	0.51		
Uniform Delay, d1	45.4	31.4	44.5	49.1	64.5	57.6	64.5		63.5	0.0		
Delay	163.9	14.6	61.2	133.1	109.3	67.9	109.3		141.8	70		
LOS	F	B	E	F	F	E	F		F	A		
Approach Delay		54.0		126.5		82.1				87.9		
Approach LOS	D		F		F		F		F			

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 118 (79%), Referenced to phase 2:NBTL, Start of Green

Natural Cycle: 130

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.29

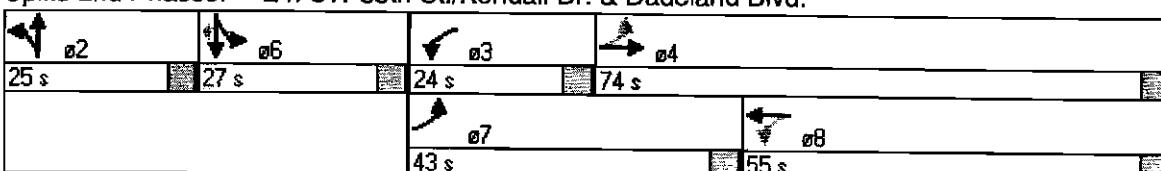
Intersection Signal Delay: 88.5

Intersection LOS: F

Intersection Capacity Utilization: 125.9%

[CU Level of Service H]

Splits and Phases: 24: SW 88th St./Kendall Dr. & Dadeland Blvd.



Kendall 6 Lanes/US 1 Square  
27: SW 88th St./Kendall Dr. & First Union Driveway

10/12/2001



Lane Configurations	1	↑↑↑	1	↑↑↑	1	↑	1	↑	1	↑	1	↑
Solo Flow (prot)	1770	5040	0	1770	5085	1583	0	0	1611	0	0	1611
Flt Permitted	0.950		0.950									
Solo Flow (perm)	1770	5040	0	1770	5085	1583	0	0	1611	0	0	1611
Volume (vph)	146	1171	77	72	931	788	0	0	578	0	0	491
Lane Group Flow (vph)	152	1300	0	75	970	821	0	0	602	0	0	511
Sign Control		Free		Free			Stop			Stop		

Control Type: Unsignalized

Intersection Capacity Utilization 69.3%

ICU Level of Service B

Kendall 6 Lanes/US 1 Square  
30: SW 88th St./Kendall Dr. & 7300 Block

10/12/2001



Lane Configurations	1	↑↑↑	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	1770	4724	0	0	5055	0	0	1794	1583	1681	1729	1583		
Fit Permitted	0.074							0.963		0.950	0.977			
Satd. Flow (perm)	138	4724	0	0	5055	0	0	1794	1583	1681	1729	1583		
Satd. Flow (RTOR)	201				4			43		43		338		
Volume (vph)	156	743	661	0	1362	57	54	16	41	610	225	491		
Lane Group Flow (vph)	152	1463	0	0	1478	0	0	73	43	423	446	511		
Turn Type	pm+pt						Split		Perm	Split		Perm		
Protected Phases	7	4			8		2	2		6	6			
Permitted Phases	4								2					6
Detector Phases	7	4			8		2	2		6	6			6
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	20.0			20.0		20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	20.0	74.0	0.0	0.0	54.0	0.0	22.0	22.0	22.0	54.0	54.0	54.0	54.0	54.0
Total Split (%)	13%	49%	0%	0%	36%	0%	15%	15%	15%	36%	36%	36%	36%	36%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5			0.5		0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag	Lead				Lag									
Lead/Lag Optimize?														
Recall Mode	None	None			None		Coord	Coord	Coord	Min	Min	Min		
Act. Effct Green (s)	69.2	69.2			50.3		24.9	24.9	43.9	43.9	43.9			
Actuated g/C Ratio	0.46	0.46			0.34		0.17	0.17	0.29	0.29	0.29			
v/d Ratio	0.72	0.64			0.87		0.24	0.14	0.86	0.86	0.86			
Uniform Delay, d1	30.2	26.0			46.6		54.4	0.0	50.1	50.5	14.8			
Delay	65.0	25.6			38.8		58.5	16.0	49.6	50.4	14.6			
LOS	E	C			D		E	B	D	D	B			
Approach Delay		29.5			38.8		42.8					36.9		
Approach LOS		C			D		D					D		

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 107 (71%), Referenced to phase 2:NBT, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.88

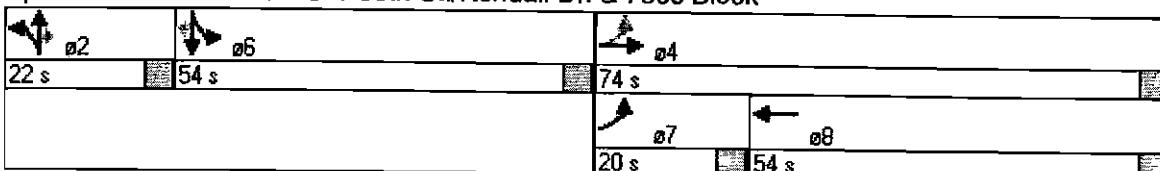
Intersection Signal Delay: 35.0

Intersection LOS: D

Intersection Capacity Utilization: 76.2%

ICU Level of Service: C

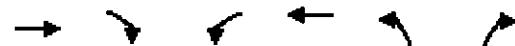
Splits and Phases: 30: SW 88th St./Kendall Dr. & 7300 Block



Baseline

C:\Kendall\Kendall\_Synchro\Round\_6LN\_US1 Adj.sy6

Page 10



Intersection Summary						
Lane Configurations	↑↑↓	↑↑↑	↑	↑	↑	↑
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	4912	0	0	5085	1770	1583
Eff Permitted				0.950		
Satd. Flow (perm)	4912	0	0	5085	1770	1583
Satd. Flow (PTOP)	78				27	
Volume (vph)	1448	418	0	1906	373	111
Lane Group Flow (vph)	1943	0	0	1985	388	116
Turn Type						Perm
Protected Phases	4		8	2		
Permitted Phases				2		
Detector Phases	4		8	2		
Minimum Initial (s)	4.0		4.0	4.0	4.0	4.0
Minimum Split (s)	20.0		20.0	20.0	20.0	20.0
Total Split (s)	87.0	0.0	0.0	87.0	63.0	63.0
Total Split (%)	58%	0%	0%	58%	42%	42%
Yellow Time (s)	3.5		3.5	3.5	3.5	3.5
All-Red Time (s)	0.5		0.5	0.5	0.5	0.5
Lead/Lag						
Lead-Lag Optimized?						
Recall Mode	None		None	Coord	Coord	
Act Effct Green (s)	74.3		74.3	67.7	67.7	
Actuated g/C Ratio	0.50		0.50	0.45	0.45	
Vc Ratio	0.79		0.79	0.49	0.16	
Uniform Delay, d1	29.8		31.3	28.9	18.4	
Delay	12.2		10.4	31.4	20.9	
LOS	B		B	C	C	
Approach Delay	12.2		10.4	29.0		
Approach LOS	B		B	C		

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 130 (87%), Referenced to phase 2:NBL and 6:, Start of Green

Natural Cycle: 50

Control Type: Actuated-Coordinated

Maximum Vc Ratio: 0.79

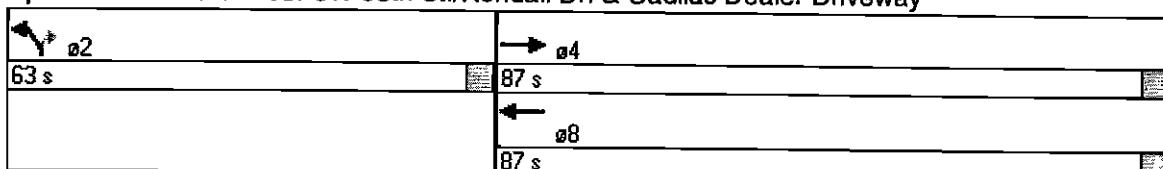
Intersection Signal Delay: 13.3

Intersection LOS: B

Intersection Capacity Utilization 67.1%

ICU Level of Service: B

Splits and Phases: 33: SW 88th St./Kendall Dr. & Cadillac Dealer Driveway





Lane Configurations

Setd. Flow (proj)	0	2787	3433	1583	0	0
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Flt Permitted	0.950
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Setd. Flow (perm)	0	2787	3433	1583	0	0
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Volume (vph)	0	200	1464	100	0	0
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Lane Group Flow (vph)	0	208	1525	104	0	0
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Sign Control	Yield	Free	Stop			
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Intersection Summary

Control Type: Unsignalized

Intersection Capacity Utilization 57.5%

ICU Level of Service A



Lane Configurations	SW	NW	EW	SW	NW	EW
Satl. Flow (proj)	0 2787	0 1	0	0	2787	
Flt Permitted						
Satl. Flow (perm)	0 2787	0	0	0	2787	
Volume (vph)	0 1755	0	0	0	1564	
Lane Group Flow (vph)	0 1828	0	0	0	1629	
Sign Control	Free	Stop		Free		

Intersection Capacity Utilization

Control Type: Unsignalized

Intersection Capacity Utilization 67.3%

ICU Level of Service B



Intersection Summary					
Lane Configurations	1	2	3	4	5
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	3433	1583	0	5085	5085
Flt Permitted	0.950				
Satd. Flow (perm)	3433	1583	0	5085	5085
Satd. Flow (RTOR)					
Volume (vph)	1408	347	0	2718	3360
Lane Group Flow (vph)	1467	361	0	2831	3560
Turn Type	Perm				
Protected Phases	6		4	8	
Permitted Phases		6			
Detector Phases	6	6	4	8	
Minimum Initial (s)	4.0	4.0	4.0	4.0	
Minimum Split (s)	20.0	20.0	20.0	20.0	
Total Split (s)	59.0	59.0	0.0	91.0	91.0
Total Split (%)	39%	39%	0%	61%	61%
Yellow Time (s)	3.5	3.5	3.5	3.5	
All Red Time (s)	0.5	0.5	0.5	0.5	
Lead/Lag					
Lead/Lag Optimized?					
Recall Mode	Coord	Coord	None	None	
Act. Effct Green (s)	55.1	55.1	87.0	87.0	
Actuated g/C Ratio	0.37	0.37	0.58	0.58	
V/C Ratio	1.17	0.62	0.98	1.19	
Uniform Delay, d1	47.5	39.0	29.8	31.5	
Delay	124	34.4	34.5	102.0	
LOS	F	C	C	F	
Approach Delay	97.0		34.5	102.0	
Approach LOS	F		C	F	

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 8 (5%), Referenced to phase 2: and 6:SEL, Start of Green

Natural Cycle: 150

Control Type: Actuated-Coordinated

Maximum V/C Ratio: 1.19

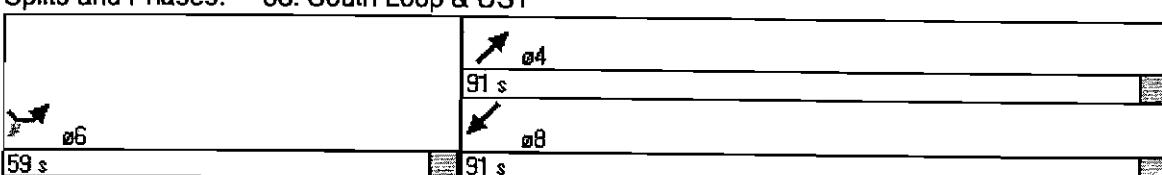
Intersection Signal Delay: 77.5

Intersection LOS: E

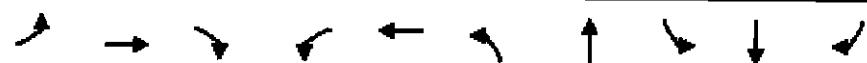
Intersection Capacity Utilization: 116.1%

ICU Level of Service: G

Splits and Phases: 38: South Loop & US1



## **Appendix V Results of Synchro Simulation Three**



	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	
Volume (vph)	216	540	497	282	464	241	610	47	716	139															
Turn Type	pm+pt	pm+pt	perm	pm+pt	perm	perm	perm	perm	perm	perm	perm	perm	perm	perm	perm	perm	perm	perm	perm	perm	perm	perm	perm	perm	
Projected Phases	7	4	4	3	8	2	2	2	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	
Permitted Phases	4	4	4	8	2	2	2	2	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	
Detector Phases	7	4	4	3	8	2	2	2	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	
Total Split (s)	11.0	23.0	23.0	9.0	21.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	
Total Split (%)	15%	31%	31%	12%	28%	57%	57%	57%	57%	57%	57%	57%	57%	57%	57%	57%	57%	57%	57%	57%	57%	57%	57%	57%	57%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag																				
Recall Mode	None	None	None	None	None	None	Coord																		
Act. Effct Green (s)	26.0	19.0	19.0	22.0	17.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	
Actuated g/C Ratio	0.35	0.25	0.25	0.29	0.23	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	
v/c Ratio	0.89	1.24	1.07	1.																					

Kendall Drive 4 Lanes/US 1 Existing  
6: SW 88th St./Kendall Dr. & SW 87th Ave.

10/12/2001

	→	↗	↖	←	↙	↑	↗	↖	↓
<b>Lane Configurations</b>									
Volume (vph)	545	2479	351	1908	161	378	442	1099	
Turn Type	pm+pt								
Prescribed Phases	7	4	3	8	5	2	1	6	
Permitted Phases	4	8	2	6					
Detector Phases	7	4	3	8	5	2	1	6	
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0	
Total Split (s)	21.0	43.0	14.0	36.0	8.0	26.0	17.0	35.0	
Total Split (%)	21%	43%	14%	36%	8%	26%	17%	35%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	None	Min	None	Min	
Act Effct Green (s)	53.0	39.0	42.0	32.0	26.0	22.0	39.0	31.0	
Actuated g/C Ratio	0.53	0.39	0.42	0.32	0.26	0.22	0.39	0.31	
v/c Ratio	1.58	1.50	1.52	1.47	1.31	0.70	1.50	1.33	
Uniform Delay, d1	26.9	30.2	24.9	33.4	26.3	33.0	23.0	33.7	
Delay	200.9	190.3	166.1	185.5	129.4	133.4	182.5	150.3	
LOS	F	F	F	F	F	C	F	F	
Approach Delay		192.1		185.9		56.5		158.3	
Approach LOS		F		F		E		F	

Cycle Length: 100

Actuated Cycle Length: 100

Natural Cycle: 100

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.58

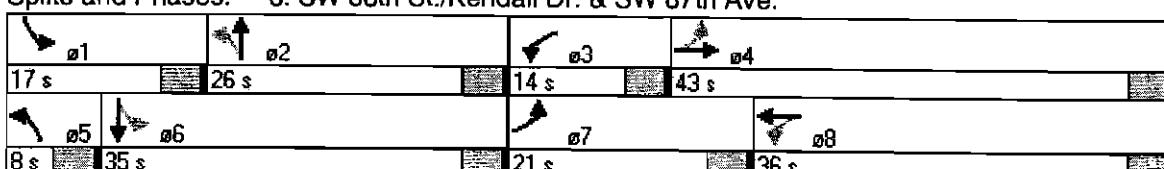
Intersection Signal Delay: 177.9

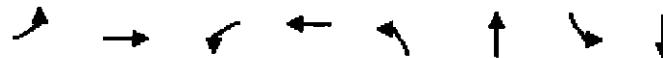
Intersection LOS: F

Intersection Capacity Utilization 143.9%

ICU Level of Service H

Splits and Phases: 6: SW 88th St./Kendall Dr. & SW 87th Ave.





Lane Configurations	1	2	3	4	5	6	7	8	9	10	11	12
Volume (vph)	60	2906	64	2804	16	2	293	18				
Turn Type	pm+pt		pm+pt		Split							
Protected Phases	7	4	3	8	2	2	6	6				
Permitted Phases	4		8									
Detector Phases	1	4	3	8	2	2	6	6				
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0	20.0			
Total Split (s)	8.0	99.0	8.0	99.0	21.0	21.0	22.0	22.0	22.0			
Total Split (%)	5%	66%	5%	66%	14%	14%	15%	15%	15%			
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5			
All Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5			
Lead/Lag	Lead	Lag	Lead	Lag								
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	Coord	Coord	Min	Min				
Actuated Green (s)	99.0	95.0	99.0	95.0	17.0	17.0	18.0	18.0				
Actuated g/C Ratio	0.66	0.63	0.66	0.63	0.11	0.11	0.12	0.12				
V/C Ratio	0.67	1.01	0.72	1.08	0.08	0.35	1.06	1.02				
Uniform Delay, d1	8.0	27.5	8.2	27.2	59.5	26.9	66.0	60.3				
Delay	30.7	42.1	29.9	58.2	60.0	30.9	22.7	108.1				
LOS	C	D	C	E	E	C	F	F				
Approach Delay		41.8		57.5		36.2		115.4				
Approach LOS	D		E		D		F					

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 13 (9%), Referenced to phase 2:NBL, Start of Green

Natural Cycle: 150

Control Type: Actuated-Coordinated

Maximum V/C Ratio: 1.06

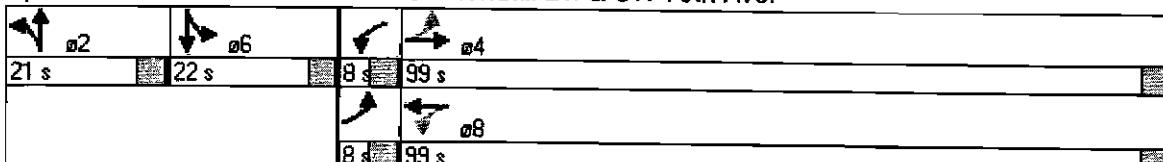
Intersection Signal Delay: 53.6

Intersection LOS: D

Intersection Capacity Utilization: 99.5%

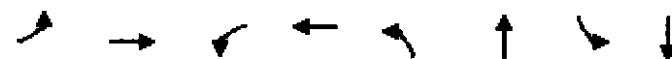
ICU Level of Service: E

Splits and Phases: 9: SW 88th St./Kendall Dr. & SW 79th Ave.



Kendall Drive 4 Lanes/US 1 Existing  
12: SW 88th St./Kendall Dr. & SW 77th Ave.

10/12/2001



Lane Configurations	18	3217	361	2980	205	9	57	6
Turn Type	pm+pt	pm+pt		Perm		Perm		
Protected Phases	7	4	3	8		2		6
Permitted Phases	4		8		2		6	
Detector Phases	7	4	3	8	2	2	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	8.0	98.0	25.0	115.0	27.0	27.0	27.0	27.0
Total Split (%)	5%	65%	17%	77%	18%	18%	18%	18%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes		Yes					
Recall Mode	None	None	None	None	Coord	Coord	Coord	Coord
Act. Effect Green (s)	98.0	119.0	119.0	23.0	23.0		23.0	
Actuated g/C Ratio	0.65	0.79	0.79	0.15	0.15		0.15	
vc Ratio	1.31	1.32	0.91	1.14	0.54		0.80	
Uniform Delay, d1	28.0	49.3	9.0	63.5	18.3		54.6	
Delay	22.6	163.2	9.3	137.6	20.5		78.1	
LOS	F	F	A	F	C		E	
Approach Delay	12.6		26.3		82.7		78.1	
Approach LOS	F		C		F		E	

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 23 (15%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 150

Control Type: Actuated-Coordinated

Maximum vc Ratio: 1.32

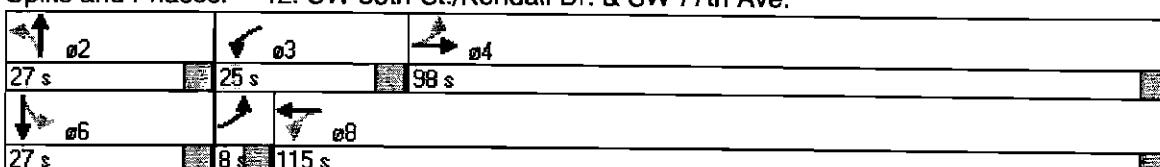
Intersection Signal Delay: 74.3

Intersection LOS: E

Intersection Capacity Utilization: 163.2%

ICU Level of Service H

Splits and Phases: 12: SW 88th St./Kendall Dr. & SW 77th Ave.





Lane Configurations	1	2	3	4
Volume (vph)	3157	2413	67	38
Turn Type	custom	custom		
Protected Phases	4	5	5	1
Permitted Phases		5	2	
Detector Phases	4	8	5	2
Minimum Initial (s)	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	8.0	20.0
Total Split (s)	40.0	40.0	20.0	20.0
Total Split (%)	67%	67%	33%	33%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5
Lead/Lag				
Lead/Lag Optimize?				
Recall Mode	None	None	None	Min
Actuated Green (s)	36.0	36.0	6.9	6.9
Actuated g/C Ratio	0.71	0.71	0.14	0.14
v/c Ratio	0.91	0.70	0.15	0.19
Uniform Delay, d1	6.2	4.3	19.4	19.5
Delay	10.2	4.7	19.3	19.6
LOS	B	A	B	B
Approach Delay	10.2	4.7		
Approach LOS	B	A		

Cycle Length: 60

Actuated Cycle Length: 50.9

Natural Cycle: 75

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.91

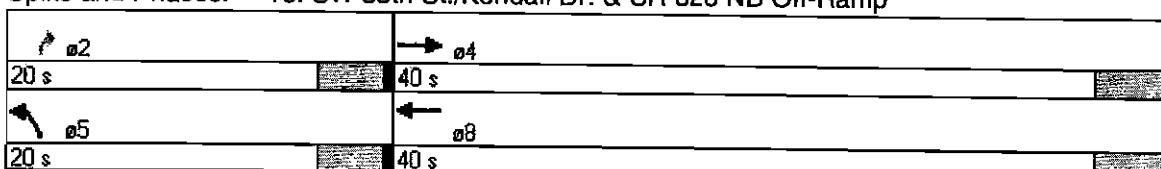
Intersection Signal Delay: 9.0

Intersection LOS: A

Intersection Capacity Utilization 73.5%

ICU Level of Service C

Splits and Phases: 16: SW 88th St./Kendall Dr. & SR 826 NB Off-Ramp



	→	→	↗	↖	←	↖	↗	↙	↖	↙	↖
<b>Lane Configurations</b>											
Volume (vph)	791	425	299	290	1031	20	2516	49	3046	395	
Turn Type	Split		Perm	Split		Perm		Perm		Perm	
Protected Phases	4	4	4	8	8	8	2	6	6	6	
Permitted Phases			4								
Detector Phases	4	4	4	8	8	8	2	6	6	6	
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	
Total Split (s)	35.0	35.0	35.0	40.0	40.0	40.0	75.0	75.0	75.0	75.0	
Total Split (%)	23%	23%	23%	27%	27%	27%	50%	50%	50%	50%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	
Lead/Lag											
Lead/Lag Optimize?											
Recall Mode	None	None	None	None	None	None	Coord	Coord	Coord	Coord	
Act. Effct Green (s)	31.1	31.1	31.1	36.0	36.0	36.0	71.0	71.0	71.0	71.0	
Actuated g/C Ratio	0.21	0.21	0.21	0.24	0.24	0.24	0.47	0.47	0.47	0.47	
Vc Ratio	1.29	1.30	1.09	0.74	1.32	0.06	1.23	1.08	1.08	0.46	
Uniform Delay, d1	59.5	59.5	46.3	52.7	57.0	41.9	39.4	39.3	39.5	4.8	
Delay	186.4	107.2	105.5	54.6	146.5	43.2	132.1	153.5	175.5	5.5	
LOS	F	F	F	D	F	D	F	F	F	A	
Approach Delay		154.8			125.1		132.1		156.0		
Approach LOS	F			F		F		F		F	

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 14 (9%), Referenced to phase 2:NET and 6:SWTL, Start of Green

Natural Cycle: 130

Control Type: Actuated-Coordinated

Maximum Vc Ratio: 1.38

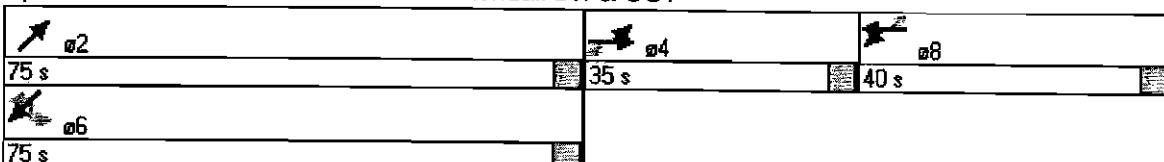
Intersection Signal Delay: 144.1

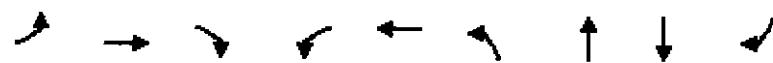
Intersection LOS: F

Intersection Capacity Utilization: 130.2%

ICU Level of Service: H

Splits and Phases: 18: SW 88th St./Kendall Dr. & US1





Phase Group	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Lane Configurations														
Volume (vph)	926	1790	480	20	1739	932	95	49	644					
Turn Type	pm+pt		Perm	pm+pt		Split			pm+ov					
Protected Phases	7	4	3	8	2	2	6	7						
Permitted Phases	4	4	8						6	6				
Detector Phases	7	4	4	3	8	2	2	6	7					
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0					
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0					
Total Split (s)	42.0	88.0	88.0	8.0	54.0	34.0	34.0	20.0	42.0					
Total Split (%)	28%	59%	59%	5%	36%	23%	23%	13%	28%					
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5					
All Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5					
Lead/Lag	Lead	Lag	Lag	Lead	Lag				Lead					
Lead/Lag Optimize?														
Recall Mode	None	None	None	None	None	Min	Min	Min	None					
Act Effct Green (s)	92.0	87.2	87.2	54.0	50.0	30.0	30.0	16.1	58.1					
Actuated g/C Ratio	0.61	0.58	0.58	0.35	0.33	0.20	0.20	0.11	0.39					
v/c Ratio	1.94	0.91	0.61	0.22	1.76	1.41	0.36	0.93	1.09					
Uniform Delay, d1	46.0	28.9	6.8	17.2	49.6	60.8	48.4	67.3	46.7					
Delay	280.0	33.0	7.6	18.0	255.4	195.1	48.2	97.1	96.9					
LOS	F	C	A	B	F	F	F	D	F	F				
Approach Delay	100.8				253.0		177.5	98.9						
Approach LOS	F				F		F	F						

Cycle Length: 150

Actuated Cycle Length: 150

Natural Cycle: 150

Control Type: Actuated/Uncoordinated

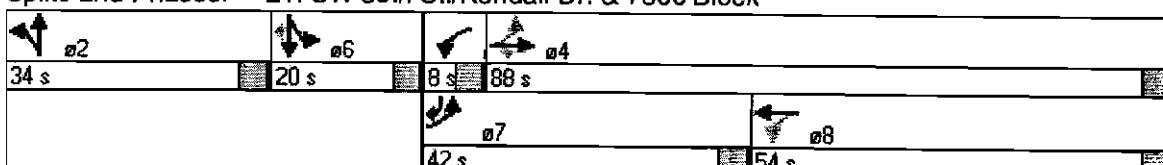
Maximum v/c Ratio: 1.94

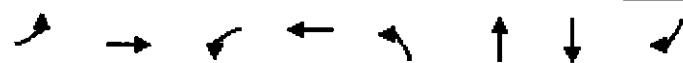
Intersection Signal Delay: 154.6

Intersection LOS: F

Intersection Capacity Utilization 161.7% ICU Level of Service H

Splits and Phases: 21: SW 88th St./Kendall Dr. & 7500 Block





Lane Configurations	4↑	4↑	↑	4↑	↓	4↑	↓	↑
Volume (vph)	514	1282	161	1415	401	54	194	168
Turn Type	pm+pt		pm+pt		Split		Perm	
Protected Phases	7	4	3	8	2	2	6	6
Permitted Phases	4		8					6
Detector Phases	7	4	3	8	2	2	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	8.0	72.0	8.0	72.0	21.0	21.0	29.0	29.0
Total Split (%)	6%	55%	6%	55%	16%	16%	22%	22%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag	Lead	Lag	Lead	Lag				
Lead/Lag Optimize?								
Recall Mode	None	None	None	None	Min	Min	Min	Min
Actuated g/C Green (s)		72.0			72.0	17.0	17.0	25.0
Actuated g/C Ratio	0.55		0.55	0.14	0.14	0.20	0.20	
v/c Ratio	4.61d		1.80	0.93	0.82	1.42	0.53	
Uniform Delay, d1	26.7		26.6	51.9	45.1	48.5	35.2	
Delay	266.5		250.3	81.8	49.3	197.1	160.0	
LOS	F		F	F	D	F	D	
Approach Delay	266.5		250.3		60.7	155.2		
Approach LOS	F		F		E	F		

Cycle Length: 130

Actuated Cycle Length: 122

Natural Cycle: 130

Control Type: Actuated - Uncoordinated

Maximum v/c Ratio: 1.91

Intersection Signal Delay: 222.2

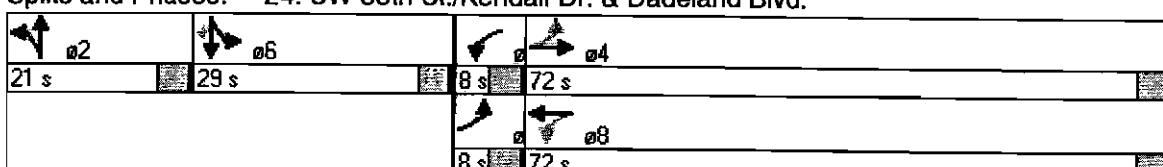
Intersection LOS: F

Intersection Capacity Utilization 164.2%

ICU Level of Service H

d1 = Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 24: SW 88th St./Kendall Dr. & Dadeland Blvd.



	↗	→	↙	←	↗	↙
<b>Lane Configurations</b>						
VOLUME (vph)	122	979	108	781	409	536
Sign Control	Free	Free				
<b>Intersection Summary</b>						
Control Type:	Unsignalized					
Intersection Capacity Utilization	89.1%					
ICU Level of Service	D					

## Kendall Drive 4 Lanes/US 1 Existing 30: SW 88th St./Kendall Dr. & 7300 Block

10/12/2001



**Cycle Length: 80**

#### **Estimated Cycle Length: 764**

Natural Cycle: 80

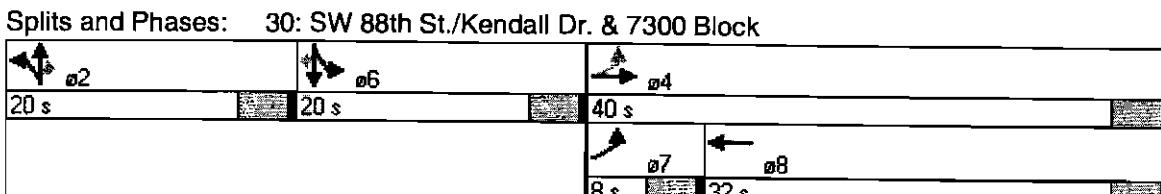
[Género](#) | [Lugar](#) | [Avaliação](#) | [Uncategorised](#)

**Maximum v/c Ratio: 0.95**

#### **Inelasticity and Delay**

Intersection Capacity Utilization 92.8%

Intersection Capacity Utilization 82.5% 100 Level



## Baseline

C:\Kenda\Kendall\_Synchro\NEW\_4LN.US1\_Adj\_wtib\_Turbbay.scs

nbay.sy6  
Page 10

Kendall Drive 4 Lanes/US 1 Existing  
33: SW 88th St./Kendall Dr. & New Proposed Roadway

10/12/2001



Intersection Summary				
Lane Configurations	↑↓	↑↑	↖	↗
Volume (vph)	1230	1412	330	154
Turn Type			Perm	
Protected Phases	4	8	2	1
Permitted Phases			2	
Detector Phases	4	8	2	2
Minimum Initial (s)	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	20.0	20.0
Total Split (s)	101.0	101.0	49.0	49.0
Total Split (%)	67%	67%	33%	33%
Yellow Time (s)	3.5	3.5	3.5	3.5
All Red Time (s)	0.5	0.5	0.5	0.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	Min	Min
Act Effct Green (s)	50.5	50.5	21.4	21.4
Actuated g/C Ratio	0.62	0.62	0.26	0.26
v/c Ratio	0.83	0.77	0.74	0.34
Uniform Delay, d1	10.5	10.3	26.6	11.6
Delay	12.2	12.0	32.1	17.2
LOS	B	B	C	B
Approach Delay	12.2	12.0	27.3	
Approach LOS	B	B	C	

Cycle Length: 150

Actuated Cycle Length: 82.1

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.83

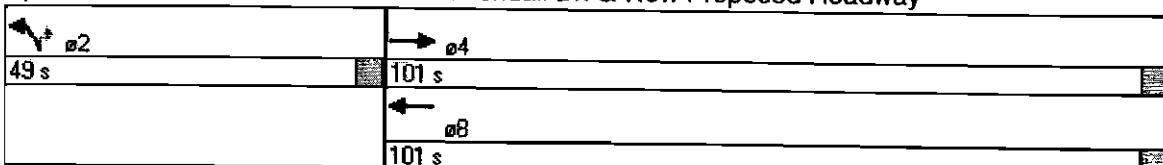
Intersection Signal Delay: 14.2

Intersection LOS: C

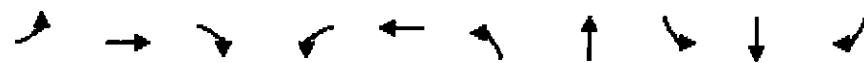
Intersection Capacity Utilization 76.3%

ICU Level of Service C

Splits and Phases: 33: SW 88th St./Kendall Dr. & New Proposed Roadway



## **Appendix VI Results of Synchro Simulation Four**



Lane Group	N	S	E	W	NBL	SBTL	NEBL	SWBL	NEBT	SWBT	ASBL	ASBT
Lane Configurations	↑ ↗	↑ ↘	↗ ↙	↖ ↖	↑ ↗	↗ ↙	↑ ↗	↗ ↙	↑ ↗	↗ ↙	↑ ↗	↗ ↙
Volume (vph)	216	540	497	282	464	241	610	47	716	139		
Turn Type	pm+pt		perm	pm+pt		perm		perm		perm		perm
Protected Phases	7	4	3	8	8	2	2	6	6	6		
Permitted Phases	4	4	8	2	6	6	6	6	6	6		
Detector Phases	7	4	4	3	8	2	2	6	6	6		
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0	20.0		
Total Split (s)	11.0	23.0	23.0	9.0	21.0	43.0	43.0	43.0	43.0	43.0		
Total Split (%)	15%	31%	31%	12%	28%	57%	57%	57%	57%	57%		
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		
All Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5		
Lead/Lag	Lead	Lag	Lag	Lead	Lag							
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None	Coord	Coord	Coord	Coord	Coord		
Act. Effect Green (s)	26.0	19.0	19.0	22.0	17.0	39.0	39.0	39.0	39.0	39.0		
Actuated g/C Ratio	0.35	0.25	0.25	0.29	0.23	0.52	0.52	0.52	0.52	0.52		
V/c Ratio	0.89	1.24	1.07	1.41	0.79	1.82	0.79	0.31	0.80	0.17		
Uniform Delay, d1	17.1	28.0	20.3	19.7	25.4	18.1	14.3	10.3	14.8	0.0		
Delay	24.3	92.7	60.0	170.1	27.9	240.9	6.4	12.0	17.4	1.9		
LOS	C	F	E	F	C	F	B	B	B	A		
Approach Delay	57.9				74.0		74.4		14.7			
Approach LOS	E				E		E		B			

Cycle Length: 75

Actuated Cycle Length: 75

Offset: 32 (43%), Referenced to phase 2:NBL and 6:SBTL, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.82

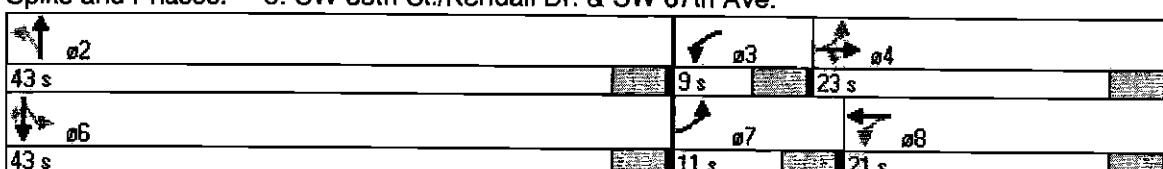
Intersection Signal Delay: 58.7

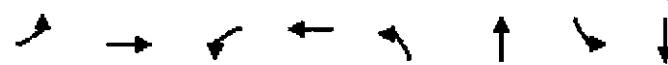
Intersection LOS: E

Intersection Capacity Utilization: 116.7%

ICU Level of Service: G

Splits and Phases: 3: SW 88th St./Kendall Dr. & SW 67th Ave.





Lane Configurations	1	2	3	4	5	6	7	8
Volume (vph)	545	2479	951	1908	161	978	442	1099
Turn Type	pm+pt							
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	4	8		2	6			
Detector Phases	1	4	3	8	5	2	1	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	21.0	43.0	14.0	36.0	8.0	26.0	17.0	35.0
Total Split (%)	21%	43%	14%	36%	8%	26%	17%	35%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead/Lag Optimize?	1	1	1	1	1	1	1	1
Recall Mode	None	None	None	None	None	Min	None	Min
Act. G/Gt Green (s)	53.0	39.0	42.0	32.0	26.0	22.0	39.0	31.0
Actuated g/C Ratio	0.53	0.39	0.42	0.32	0.26	0.22	0.39	0.31
v/c Ratio	1.58	1.50	1.52	1.47	1.21	0.70	1.50	1.33
Uniform Delay, d1	26.9	30.2	24.9	33.4	26.3	33.0	23.0	33.7
Delay	200.9	190.3	168.1	185.5	129.4	374	182.3	150.3
LOS	F	F	F	F	F	C	F	F
Approach Delay		192.1		185.9		56.5		158.3
Approach LOS	F		F		E		F	

Cycle Length: 100

Actuated Cycle Length: 100

Natural Cycle: 100

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.58

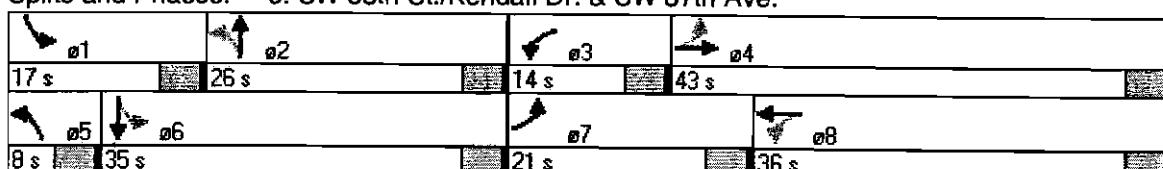
Intersection Signal Delay: 171.9

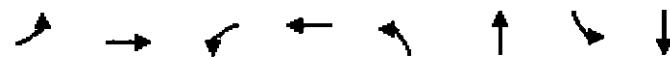
Intersection LOS: H

Intersection Capacity Utilization 143.9%

ICU Level of Service H

Splits and Phases: 6: SW 88th St./Kendall Dr. & SW 87th Ave.





Lane Configurations	1	2	3	4	5	6	7	8	9	10	11	12
Volume (vph)	60	2906	64	2804	16	72	299	16	72	299	16	72
Turn Type	pm+pt		pm+pt		Split		Split		Split		Split	
Protected Phases	1	4	3	8	2	2	6	6	1	1	1	1
Permitted Phases	4		8									
Detector Phases	1	2	3	4	5	6	7	8	9	10	11	12
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	8.0	99.0	8.0	99.0	21.0	21.0	22.0	22.0	22.0	22.0	22.0	22.0
Total Split (%)	5%	66%	5%	66%	14%	14%	15%	15%	15%	15%	15%	15%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag	Lead	Lag	Lead	Lag								
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	Coord	Coord	Min	Min				
Act. Eff. Green (s)	99.0	95.0	99.0	95.0	17.0	17.0	18.0	18.0				
Actuated g/C Ratio	0.66	0.63	0.66	0.63	0.11	0.11	0.12	0.12				
v/c Ratio	0.67	1.01	0.72	1.08	0.08	0.35	1.06	1.02				
Uniform Delay, d1	8.0	27.5	8.2	27.2	59.5	26.9	66.0	60.3				
Delay	30.7	42.1	29.9	58.2	60.0	30.2	42.7	46.1				
LOS	C	D	C	E	E	C	F	F				
Approach Delay	41.8		57.6		36.2		41.4					
Approach LOS	D		E		D		F					

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 90 (60%), Referenced to phase 2:NBL, Start of Green

Natural Cycle: 150

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.08

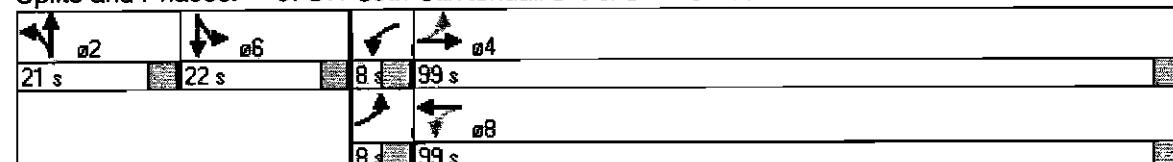
Intersection Signal Delay: 53.6

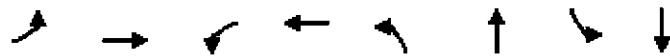
Intersection LOS: D

Intersection Capacity Utilization 99.5%

ICU Level of Service: E

Splits and Phases: 9: SW 88th St./Kendall Dr. & SW 79th Ave.





Lane Configurations	4↑↓	1↑↓	1↑↓	2↑↓	1↑↓	1↑↓	4↑↓
Volume (vph)	18	3217	361	2980	2054	9	57
Turn Type	pm+pt	pm+pt		Perm		Perm	
Protected Phases	7	4	3	8	2	2	6
Permitted Phases	4		8	2		6	
Detector Phases	7	4	3	8	2	2	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0
Total Split (s)	8.0	98.0	25.0	115.0	27.0	27.0	27.0
Total Split (%)	5%	65%	17%	77%	18%	18%	18%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag	Lead	Lag	Lead	Lag			
Lead/Lag Optimize?	Yes		Yes				
Recall Mode	None	None	None	None	Coord	Coord	Coord
Act. Effct Green (s)	98.0	119.0	119.0	23.0	23.0		23.0
Actuated g/C Ratio	0.65	0.79	0.79	0.15	0.15		0.15
Vc Ratio	1.31	1.32	0.81	1.14	0.54		0.80
Uniform Delay, d1	28.0	49.3	9.0	63.5	18.3		54.6
Delay	122.6	168.2	9.3	137.6	20.5		78.1
LOS	F	F	A	F	C		E
Approach Delay	122.6		25.3		83.7		78.1
Approach LOS	F		C		F		E

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 100 (67%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 50

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.32

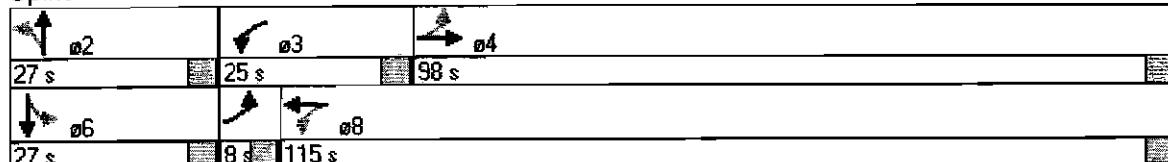
Intersection Signal Delay: 74.3

Intersection LOS: E

Intersection Capacity Utilization: 163.2%

ICU Level of Service: H

Splits and Phases: 12: SW 88th St./Kendall Dr. & SW 77th Ave.





Lane Configurations	↑↑	↑↑	↑↓	↓↑
Volume (vph)	3157	2419	67	98
Turn Type		custom	custom	
Protected Phases	4	8	5	2
Permitted Phases			5	2
Detector Phases	4	8	5	2
Minimum Initial (s)	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	8.0	20.0
Total Split (s)	40.0	40.0	20.0	20.0
Total Split (%)	67%	67%	33%	33%
Yellow Time (s)	3.5	3.5	3.5	3.5
All Red Time (s)	0.5	0.5	0.5	0.5
Lead/Lag				
Lead/Lag Optimize?				
Recall Mode	None	None	None	Min
Act Effct Green (s)	36.0	36.0	6.9	6.9
Actuated g/C Ratio	0.71	0.71	0.14	0.14
v/c Ratio	0.91	0.70	0.15	0.19
Uniform Delay, d1	6.2	4.3	19.4	19.5
Delay	10.2	4.7	19.3	19.6
LOS	B	A	B	B
Approach Delay	10.2	4.7		
Approach LOS	B	A		

Cycle Length: 60

Actuated Cycle Length: 50.9

Natural Cycle: 75

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.91

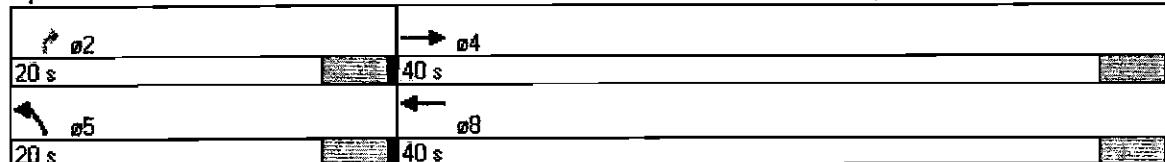
Intersection Signal Delay: 8.0

Intersection LOS: A

Intersection Capacity Utilization 73.5%

ICU Level of Service C

Splits and Phases: 16: SW 88th St./Kendall Dr. & SR 826 NB Off-Ramp





Lane Configurations	1	1↑	1↑	↑↑↑	1	↑↑↑	1↑
Volume (vph)	290	1033	20	3407	49	3046	395
Turn Type	Prot	custom			Perm		Perm
Protected Phases	8			2		6	
Permitted Phases		8	8		6	6	
Detector Phases	8	8	8	2	6	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	49.0	49.0	49.0	101.0	101.0	101.0	101.0
Total Split (%)	33%	35%	33%	67%	67%	67%	67%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag							
Lead-Lag Optimize?							
Recall Mode	None	None	None	Coord	Coord	Coord	Coord
Act. Effec. Green (s)	45.0	45.0	45.0	97.1	97.1	97.1	97.1
Actuated g/C Ratio	0.30	0.30	0.30	0.65	0.65	0.65	0.65
V/C Ratio	0.59	1.29	0.05	1.32	1.08	1.01	0.40
Uniform Delay, d1	44.7	52.5	37.2	26.2	26.3	26.5	12.3
Delay	43.1	131.8	35.8	140.9	144.9	39.8	12.0
LOS	D	F	D	F	F	D	B
Approach Delay	110.5			140.9		38.3	
Approach LOS	F			F		D	

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 91 (61%), Referenced to phase 2:NET and 6:SWTL, Start of Green

Natural Cycle: 150

Control Type: Actuated-Coordinated

Maximum V/C Ratio: 1.92

Intersection Signal Delay: 95.4

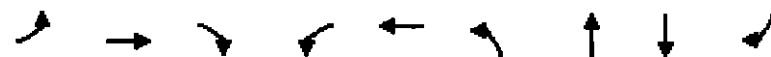
Intersection LOS: F

Intersection Capacity Utilization: 128.4%

ICU Level of Service: H

Splits and Phases: 18: SW 88th St./Kendall Dr. & US1

	02		08
101 s			49 s
	06		
101 s			



Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑	↑
Volume (vph)	926	1790	480	20	739	932	95	49	644
Turn Type	pm+pt		Perm	pm+pt		Split			pm+ov
Protected Phases	7	4	3	8	2	2	6	7	
Permitted Phases	4	4	8						6
Detector Phases	7	4	4	3	8	2	2	6	7
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	20.0	20.0	20.0	8.0
Total Split (s)	38.0	90.0	90.0	8.0	60.0	32.0	32.0	20.0	38.0
Total Split (%)	25%	60%	60%	5%	40%	21%	21%	13%	25%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag				Lead
Lead/Lag Optimize?									
Recall Mode	None	None	None	None	None	Min	Min	Min	None
Act Eff/Green (s)	94.1	94.1	94.1		50.0	26.1	26.1	16.1	54.0
Actuated g/C Ratio	0.63	0.63	0.63		0.38	0.19	0.19	0.11	0.36
V/C Ratio	2.14	0.64	0.58		2.02	1.51	0.48	0.53	1.18
Uniform Delay, d1	46.5	22.1	4.9		46.4	61.0	49.2	66.4	47.8
Delay	303.0	22.6	5.4		303.0	217.4	49.8	97.1	24.6
LOS	F	C	A		F	F	D	F	F
Approach Delay	101.4				303.0	197.4	118.0		
Approach LOS	F				F	F	F		

Cycle Length: 150

Actuated Cycle Length: 150

Natural Cycle: 150

Control Type: Actuated Uncoordinated

Maximum v/c Ratio: 2.14

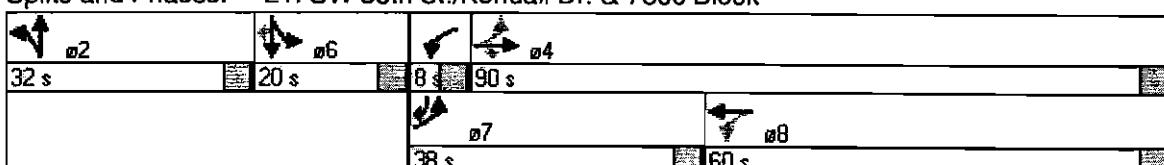
Intersection Signal Delay: 174.0

Intersection LOS: F

Intersection Capacity Utilization 162.3%

ICU Level of Service H

Splits and Phases: 21: SW 88th St./Kendall Dr. & 7500 Block



## Kendall 4 Lanes/US1 Square

24: SW 88th St./Kendall Dr. &amp; Dadeland Blvd.

10/12/2001



Lane Configurations	↓↑	↓↑	↑	↓↑	↔	↑	↓	↙
Volume (vph)	514	1282	181	1415	401	54	194	168
Turn Type	pm+pt	pm+pt			Split			Perm
Protected Phases	7	4	13	8	2	2	6	6
Permitted Phases	4		8					6
Detector Phases	7	4	3	8	2	2	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	8.0	72.0	8.0	72.0	21.0	21.0	29.0	29.0
Total Split (%)	6%	55%	6%	55%	16%	16%	22%	22%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	Min	Min	Min	Min
Act. Effct Green (s)	72.0		72.0	17.0	17.0	25.0	25.0	
Actuated g/C Ratio	0.55		0.55	0.14	0.14	0.20	0.20	
v/c Ratio	4.61 dl		1.60	0.95	0.82	1.42	0.53	
Uniform Delay, d1	26.7		26.6	51.9	45.1	48.5	35.2	
Delay	266.5		259.8	81.8	49.3	97.1	36.0	
LOS	F		F	F	D	F	D	
Approach Delay	266.5		259.8		60.7	155.2		
Approach LOS	F		F		E	F		

Cycle Length: 130

Actuated Cycle Length: 122

Natural Cycle: 130

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.91

Intersection Signal Delay: 222.4

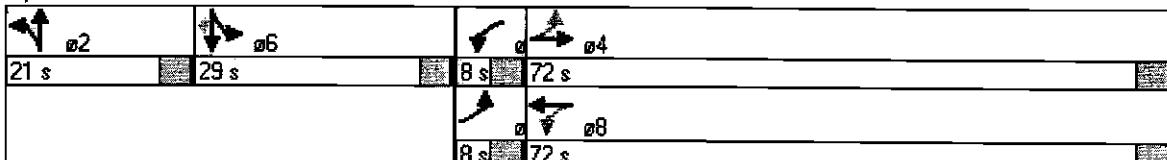
Intersection LOS: F

Intersection Capacity Utilization 164.2%

ICU Level of Service H

dl = Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 24: SW 88th St./Kendall Dr. &amp; Dadeland Blvd.





Lane Configuration		VOLUME (VPH)		CAPACITY (CPH)		LEVEL OF SERVICE			
Lane Configurations		↑↑	↓↓	↑	↑				
Volume (vph)		979	781	409	536				
Sign Control		Free	Free						
<b>Intersection Summary</b>									
Control Type: Unsignalized				ICU Level of Service E					
Intersection Capacity Utilization 92.5%									

Kendall 4 Lanes/US1 Square  
30: SW 88th St./Kendall Dr. & 7300 Block

10/12/2001



Lane Configurations								
Volume (vph)	138	771	769	127	21	374	192	566
Turn Type	pm+pt				Perm	Split		Perm
Protected Phases	7	4	8	2	1	6	6	1
Permitted Phases	4				2			6
Detector Phases	7	4	8	2	2	6	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	8.0	82.0	74.0	22.0	22.0	26.0	26.0	26.0
Total Split (%)	6%	63%	57%	17%	17%	20%	20%	20%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag	Lead		Lag					
Lead-Lag Optimize?								
Recall Mode	None	None	None	Min	Min	Min	Min	Min
Act. Effct Green (s)	82.0	78.0	16.5	16.5	22.0	22.0	22.0	22.0
Actuated g/C Ratio	0.60	0.61	0.13	0.13	0.17	0.17	0.17	0.17
v/c Ratio	1.24	0.60	0.81	0.10	1.00	1.02	1.17	1.17
Uniform Delay, d1	22.4	13.9	54.5	0.0	53.2	53.3	23.5	
Delay	22.0	14.3	60.3	18.4	53.0	56.4	101.4	
LOS	F	B	E	B	F	F	F	
Approach Delay	22.0	14.3	56.0		98.1			
Approach LOS	F	B	E		F			

Cycle Length: 130

Actuated Cycle Length: 128.5

Natural Cycle: 130

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.24

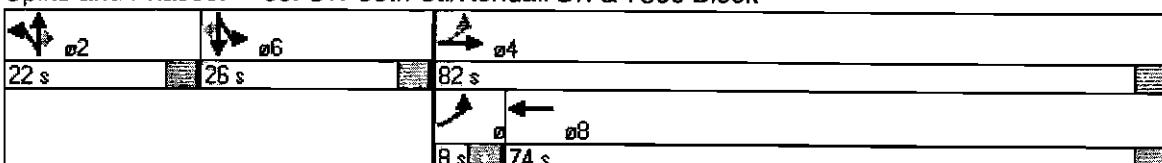
Intersection Signal Delay: 79.6

Intersection LOS: F

Intersection Capacity Utilization 117.9%

ICU Level of Service G

Splits and Phases: 30: SW 88th St./Kendall Dr. & 7300 Block





Lane Configurations				
	↑↑	↑↑	↑	↑
Volume (vph)	1230	1412	330	154
Turn Type			Perm	
Protected Phases	4	8	2	
Permitted Phases			2	
Detector Phases	4	8	2	2
Minimum Initial (s)	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	20.0	20.0
Total Split (s)	101.0	101.0	49.0	49.0
Total Split (%)	67%	67%	33%	33%
Yellow Time (s)	3.5	3.5	3.5	3.5
All Red Time (s)	0.5	0.5	0.5	0.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	Min	Min
Act. Effec Green (s)	50.5	50.5	21.4	21.4
Actuated g/C Ratio	0.62	0.62	0.26	0.26
v/c Ratio	0.83	0.77	0.74	0.34
Uniform Delay, d1	10.5	10.3	26.6	11.6
Delay	12.2	12.0	32.1	17.2
LOS	B	B	C	B
Approach Delay	12.2	12.0	27.3	
Approach LOS	B	B	C	

Cycle Length: 150

Actuated Cycle Length: 82.1

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.83

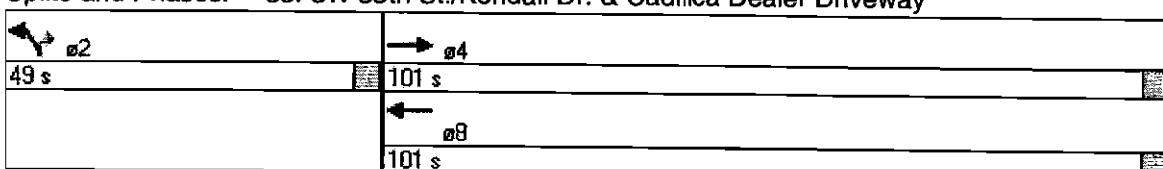
Intersection Signal Delay: 14.2

Intersection LOS: B

Intersection Capacity Utilization 76.3%

ICU Level of Service C

Splits and Phases: 33: SW 88th St./Kendall Dr. & Cadilica Dealer Driveway



Lane Configurations	1	1	1
Volume (vph)	100	1428	100
Sign Control	Free		
Control Type: Unsignalized	ICU Level of Service A		

Lane Configurations

Volume (vph) 1515 1426

Sign Control

Control Type: Unsignalized

Intersection Capacity Utilization 68.5% ICU Level of Service A



Lane Configurations	1	2	3	4
Volume (vph)	1216	299	2710	3336
Turn Type	Perm			
Protected Phases	6		4	8
Permitted Phases		6		
Detector Phases	6	6	4	8
Minimum Initial (s)	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	20.0	20.0
Total Split (s)	54.0	54.0	96.0	96.0
Total Split (%)	36%	36%	64%	64%
Yellow Time (s)	3.5	3.5	3.5	3.5
All Red Time (s)	0.5	0.5	0.5	0.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	Coord	Coord	None	None
Act Filt Green (s)	50.0	50.0	92.0	92.0
Actuated g/C Ratio	0.33	0.33	0.61	0.61
V/C Ratio	1.1	0.59	0.91	1.1
Uniform Delay, d1	50.0	41.5	25.2	29.0
Delay	99.8	42.2	26.1	58.0
LOS	F	D	C	E
Approach Delay	88.5		26.1	68.0
Approach LOS	F		C	E

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 47 (31%), Referenced to phase 2: and 6:SEL, Start of Green

Natural Cycle: 150

Control Type: Actuated-Coordinated

Maximum V/C Ratio: 1.1

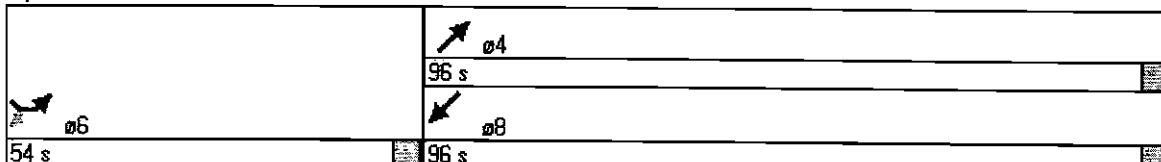
Intersection Signal Delay: 57.1

Intersection LOS: E

Intersection Capacity Utilization: 109.9%

ICU Level of Service F

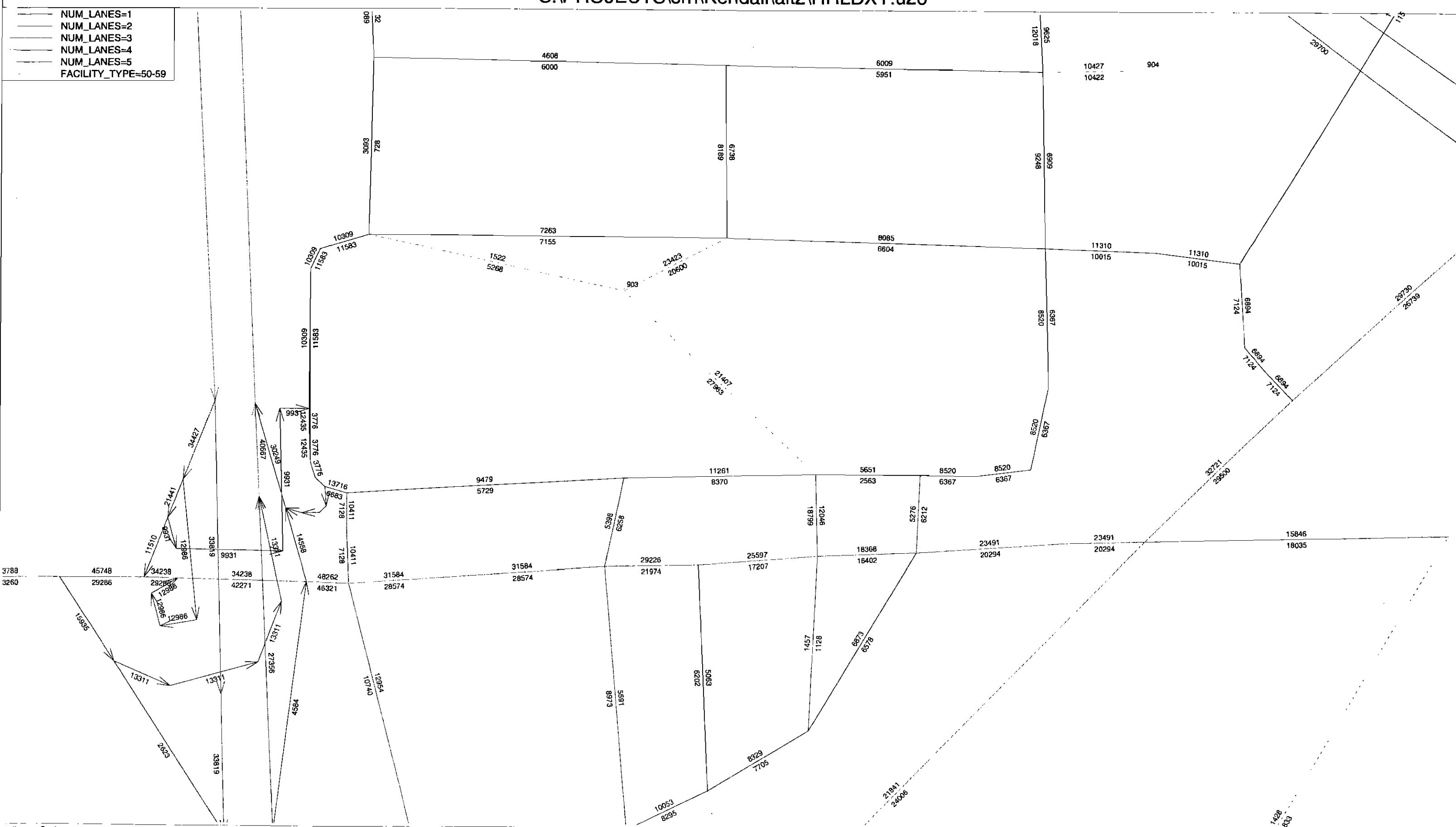
Splits and Phases: 38: Kendall Eastbound & US1



## **Appendix VII Travel Demand Model Results**

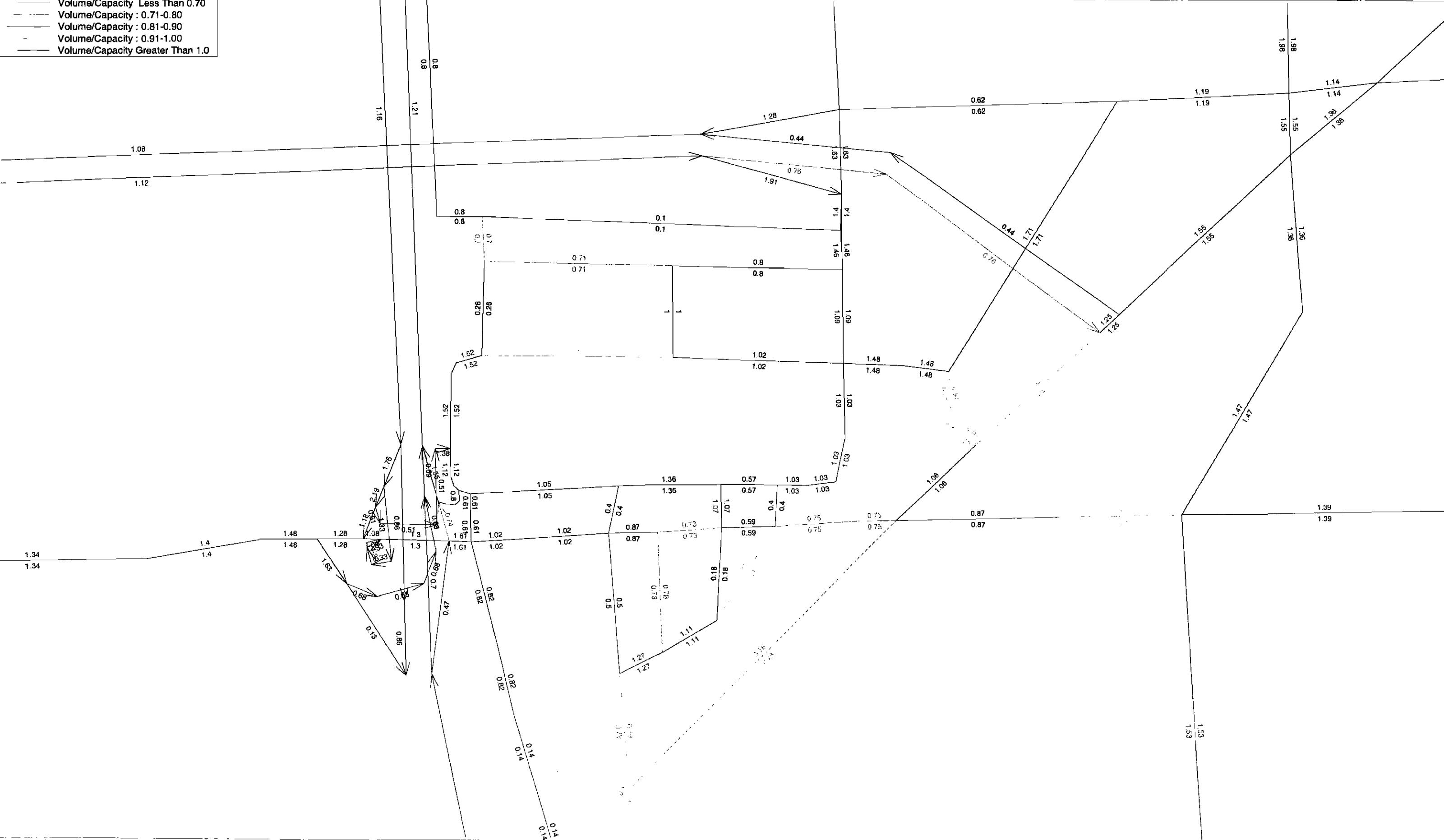
**Appendix VII Travel Demand Model Results  
Simulation 1**

2020 Kendall Alternative 2  
 Volume Plot  
 New KTC Network with New SE Data  
 S:\PROJECTS\srh\Kendall\alt2\HRLDXY.u20



2020 Miami-Dade Network  
Alt 2: Kendall Drive 6 Lanes  
S:\projects\srh\kendall\alt2\HRLDXY.u20

- Volume/Capacity Less Than 0.70
- Volume/Capacity : 0.71-0.80
- Volume/Capacity : 0.81-0.90
- Volume/Capacity : 0.91-1.00
- Volume/Capacity Greater Than 1.0

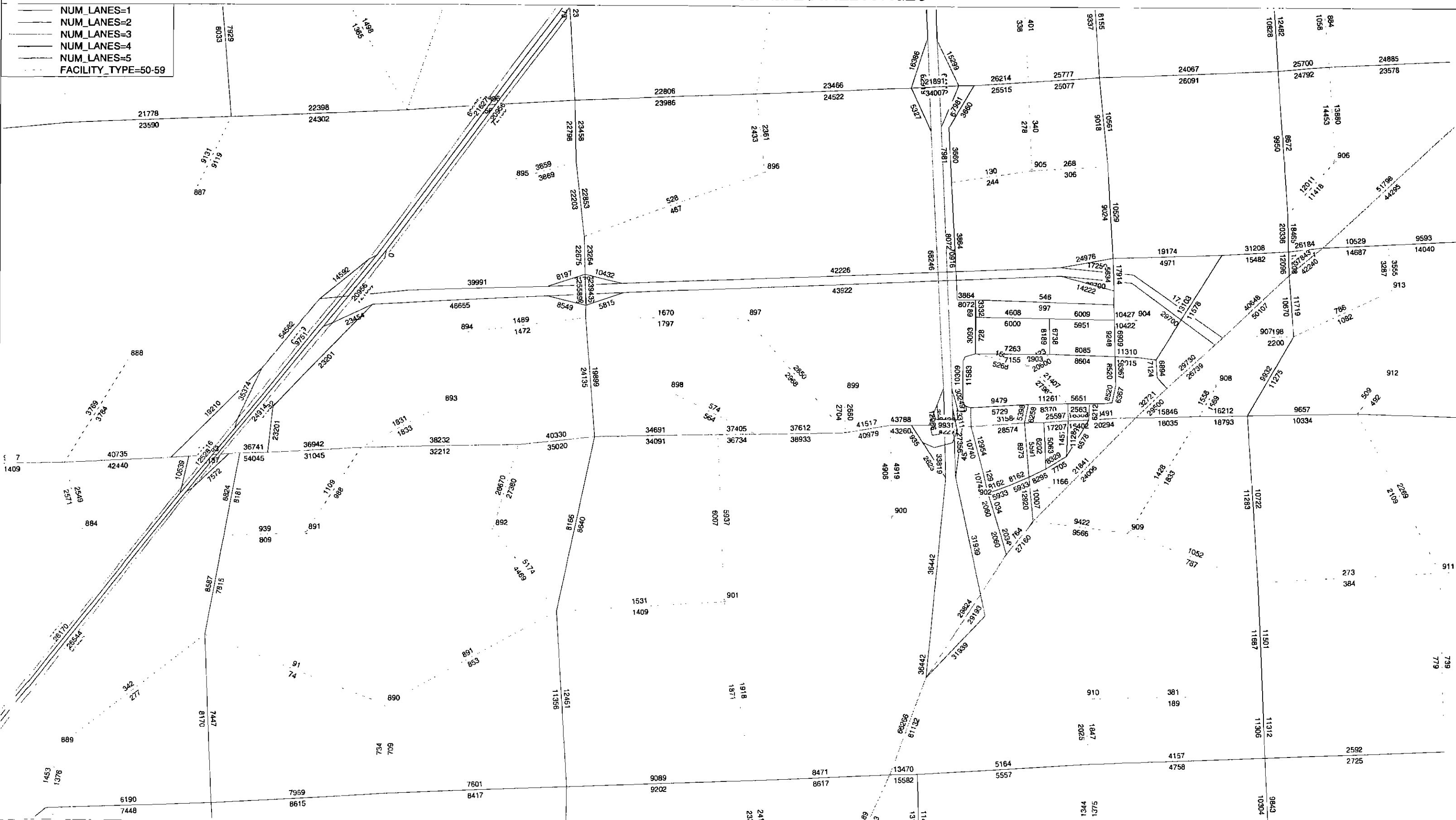


$1'' = 1000 \text{ ft.}$

Viper Software by The Urban Analysis Group

Licensed to: Central Florida University

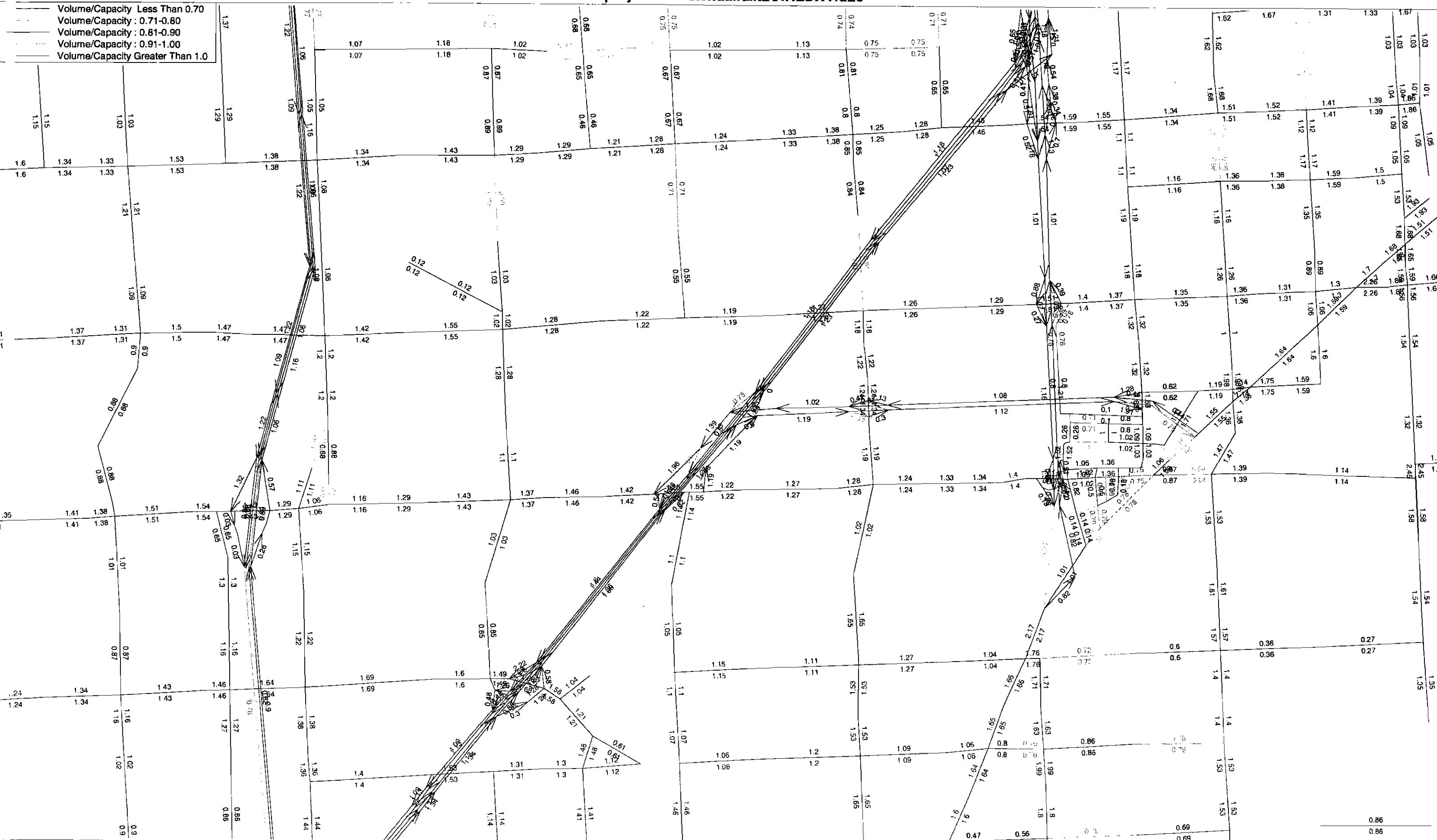
2020 Kendall Alternative 2  
Volume Plot  
New KTC Network with New SE Data  
S:\PROJECTS\srh\Kendall\alt2\HRLDXY.u20



# 2020 Miami-Dade Network

## Alt 2: Kendall Drive 6 Lanes

S:\projects\srh\kendall\alt2\HRLDXY.u20

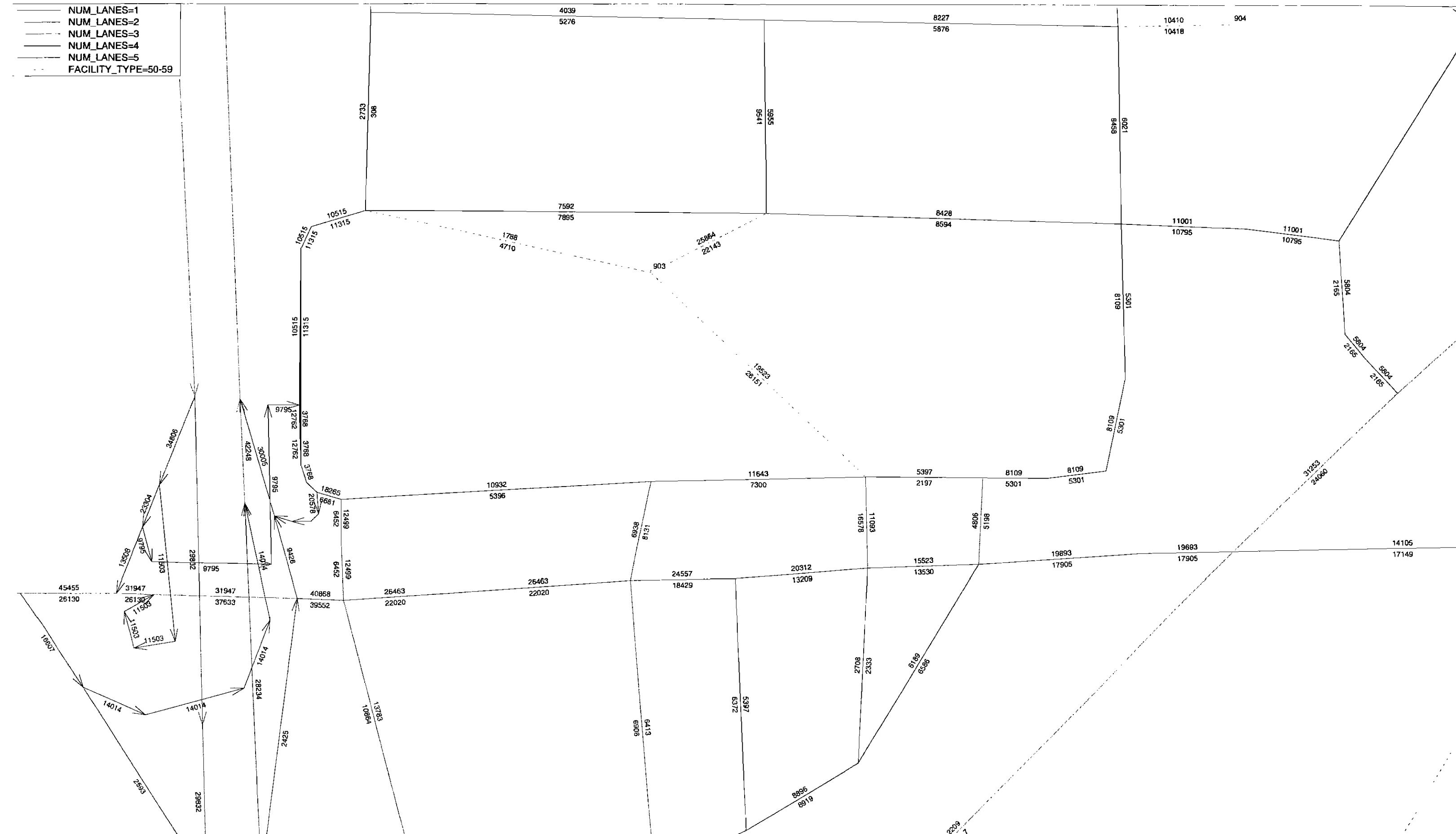


**Appendix VII Travel Demand Model Results  
Simulation 2**

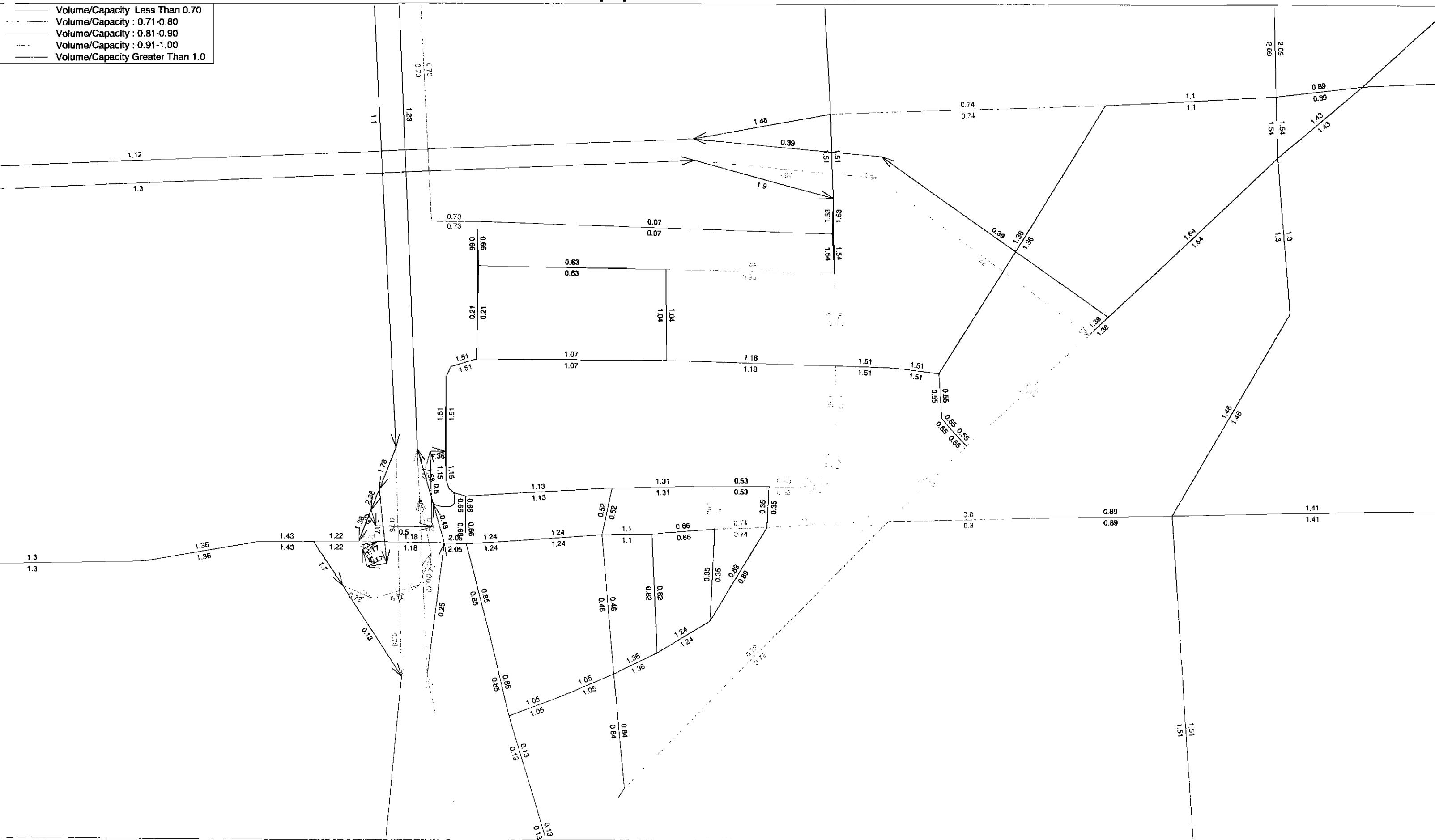
# 2020 Kendall Alternative 3 Volume Plot 4 Lane Kendall Alternative

- NUM\_LANES=1
- NUM\_LANES=2
- NUM\_LANES=3
- NUM\_LANES=4
- NUM\_LANES=5

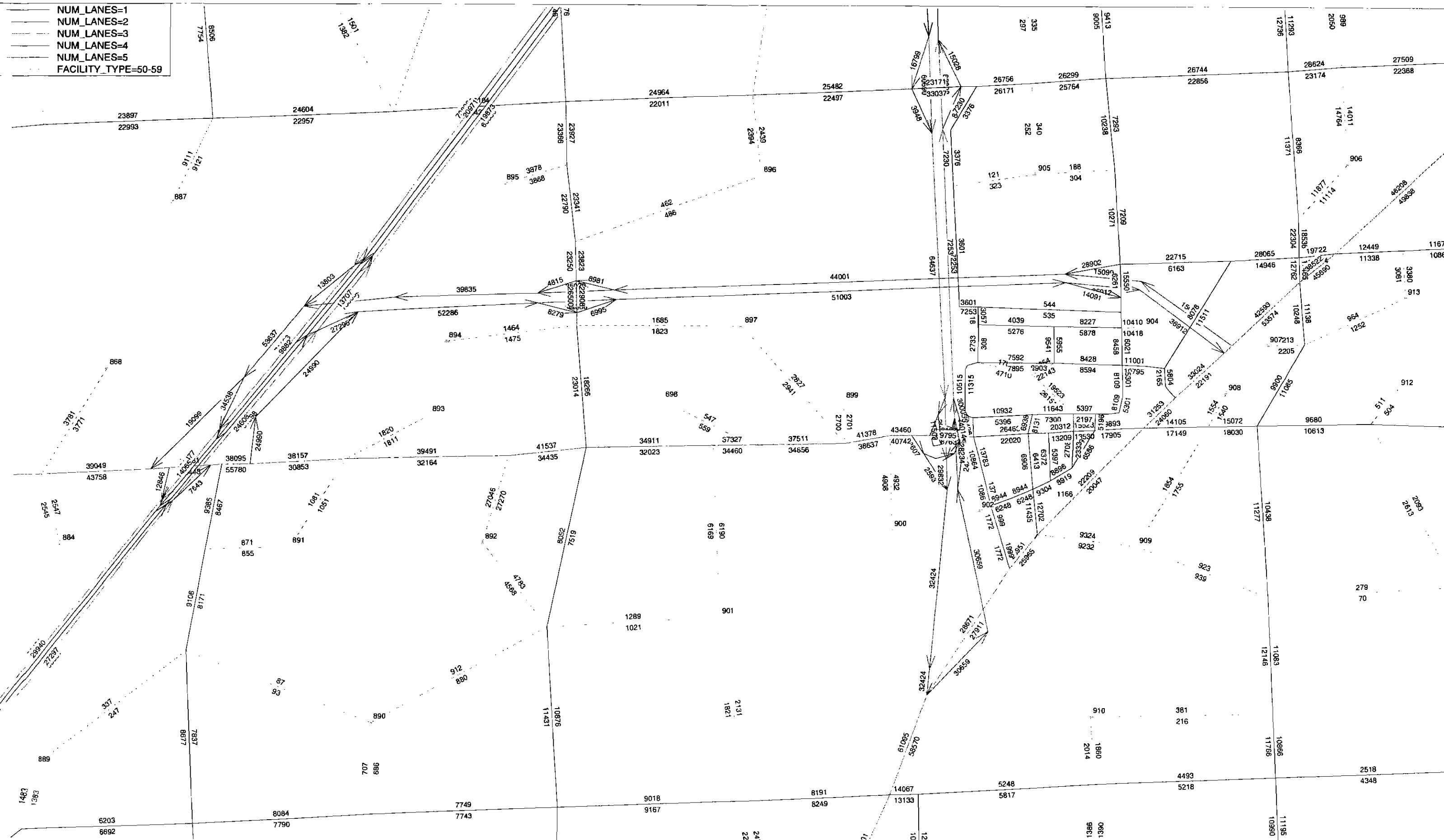
FACILITY\_TYPE=50-59



**2020 Miami-Dade Network**  
**Alt 3: Kendall Drive 4 Lanes**  
**S:\projects\srh\kendall\alt3\HRLDXY.u20**

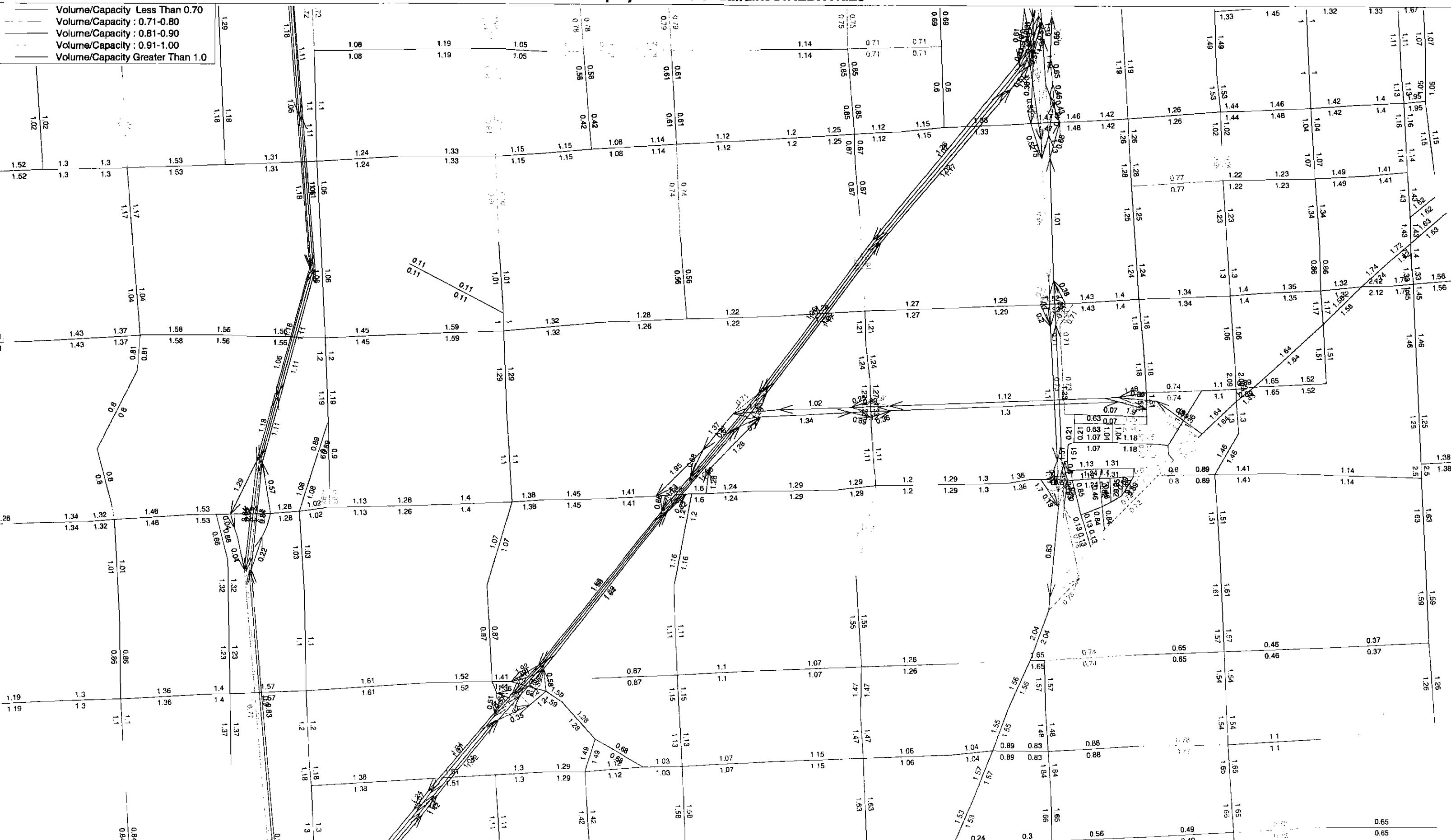


**2020 Kendall Alternative 3**  
**Volume Plot**  
**4 Lane Kendall Alternative**



**2020 Miami-Dade Network**  
**Alt 3: Kendall Drive 4 Lanes**  
**S:\projects\srh\kendall\alt3\HRLDXY.u20**

Volume/Capacity Less Than 0.70  
 Volume/Capacity : 0.71-0.80  
 Volume/Capacity : 0.81-0.90  
 Volume/Capacity : 0.91-1.00  
 Volume/Capacity Greater Than 1.0



1"=1000 ft.

Viner Software by The Urban Analysis Group

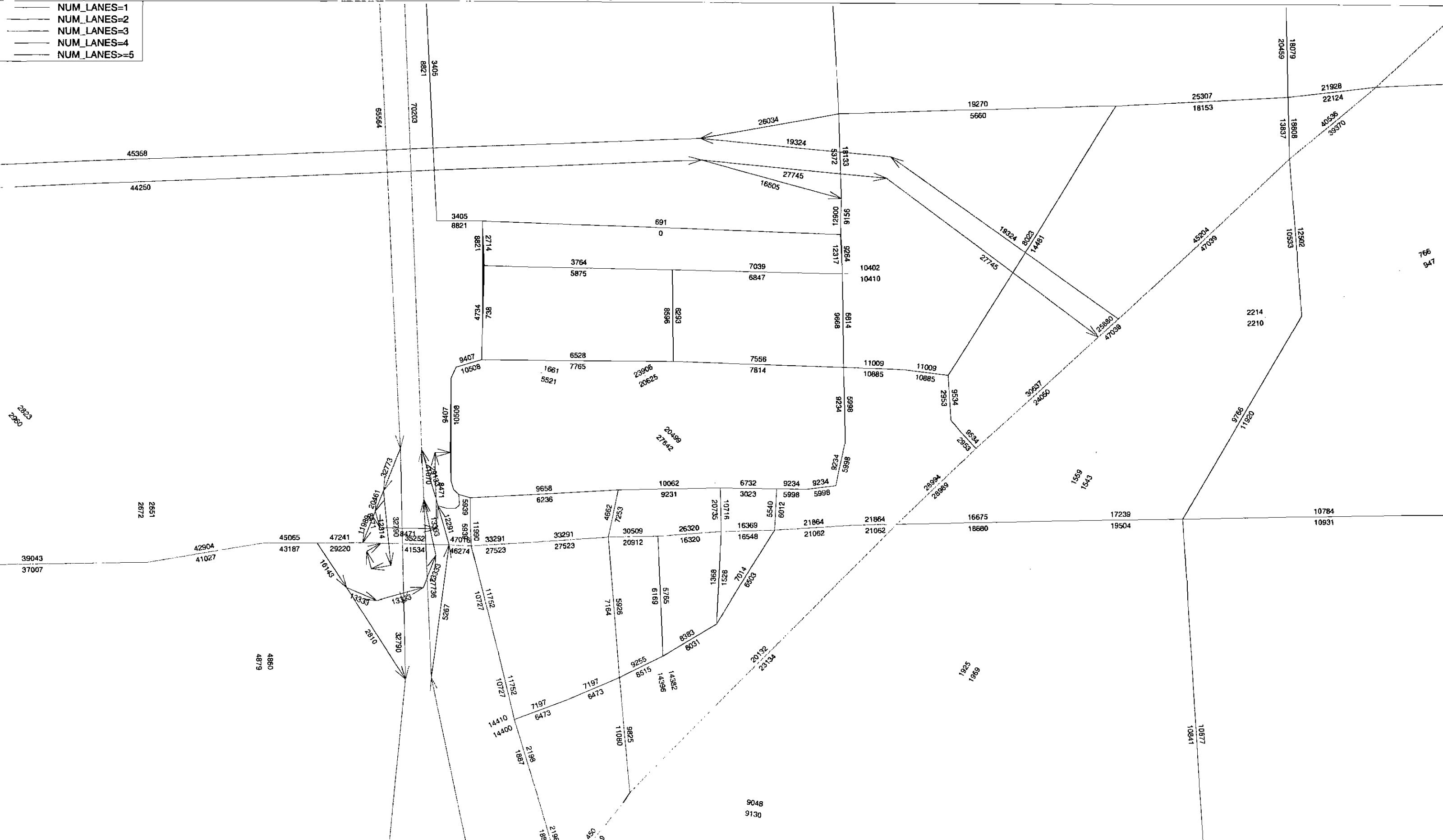
**Appendix VII Travel Demand Model Results  
Simulation 3**

## **2020 Miami-Dade Network-Volume**

### **Alt 6: Kendall Drive 6 Lanes with Improved Transit Services**

**S:\projects\srh\kendall\alt6-6lane\HRLDXY.u20**

- NUM\_LANES=1
- NUM\_LANES=2
- NUM\_LANES=3
- NUM\_LANES=4
- NUM\_LANES>=5



$1^{\circ} = 1000 \text{ ft.}$

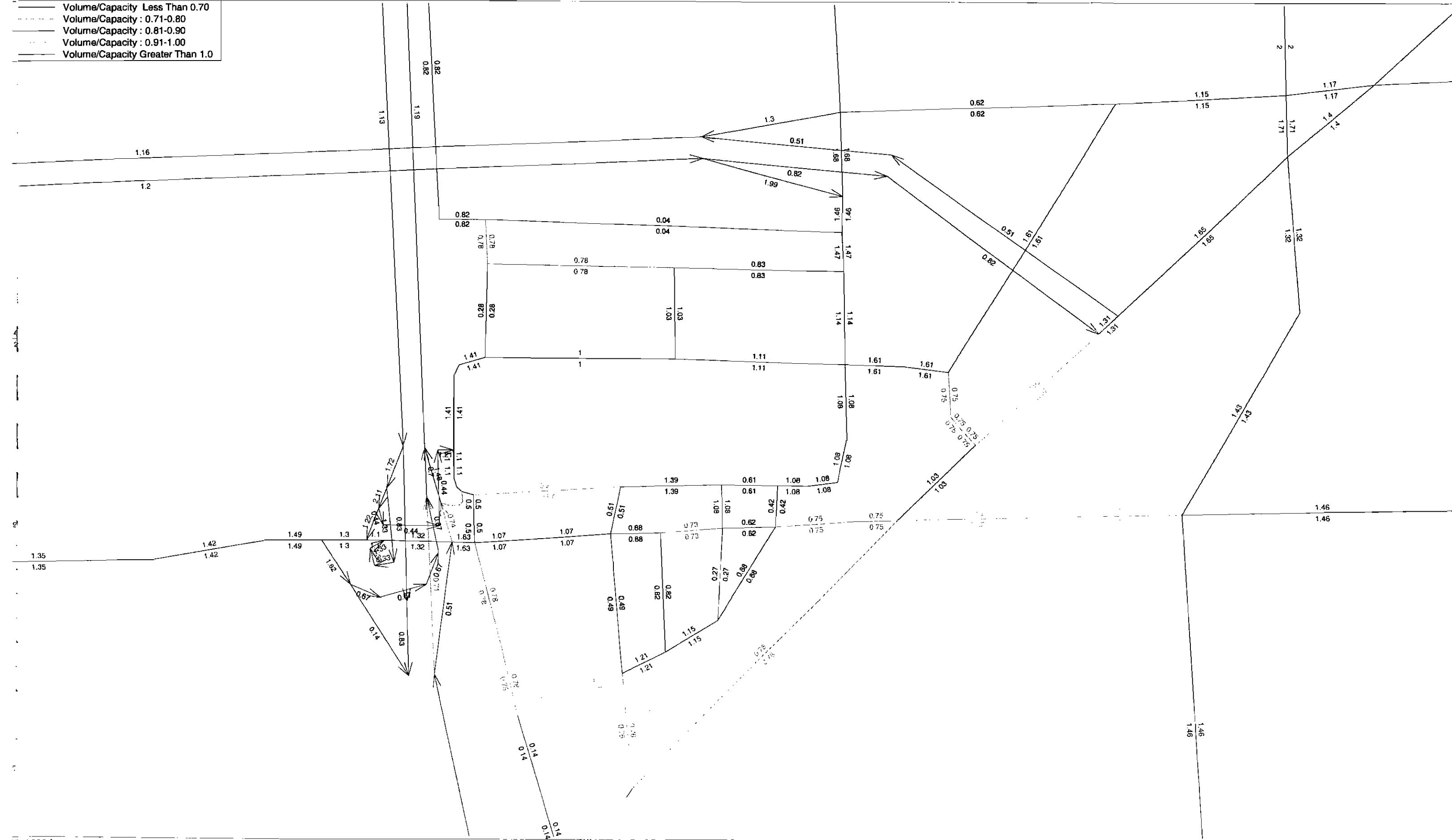
Viper Software by The Urban Analysis Group

## 2020 Miami-Dade Network

## Alt 6: Kendall Drive 6 Lanes with Improved Transit Services

S:\projects\srh\kendall\alt6-6lane\HRLDXY.u20

- Volume/Capacity Less Than 0.70
- Volume/Capacity : 0.71-0.80
- Volume/Capacity : 0.81-0.90
- Volume/Capacity : 0.91-1.00
- Volume/Capacity Greater Than 1.0

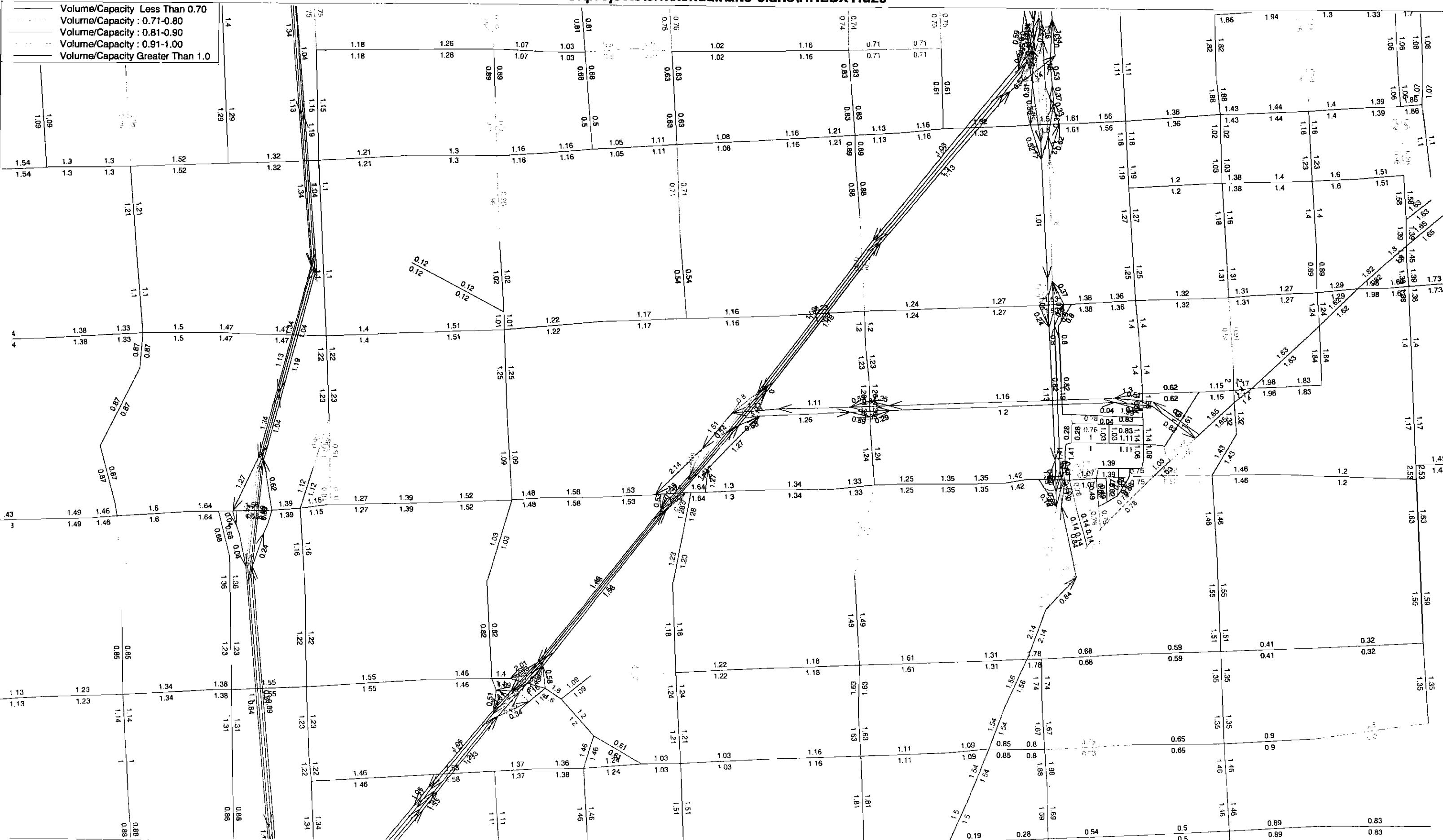


# 2020 Miami-Dade Network

## Alt 6: Kendall Drive 6 Lanes with Improved Transit Services

S:\projects\srh\kendall\alt6-6lane\HRLDXY.u20

Volume/Capacity	Less Than 0.70
Volume/Capacity	: 0.71-0.80
Volume/Capacity	: 0.81-0.90
Volume/Capacity	: 0.91-1.00
Volume/Capacity	Greater Than 1.0



1"=1000 ft.

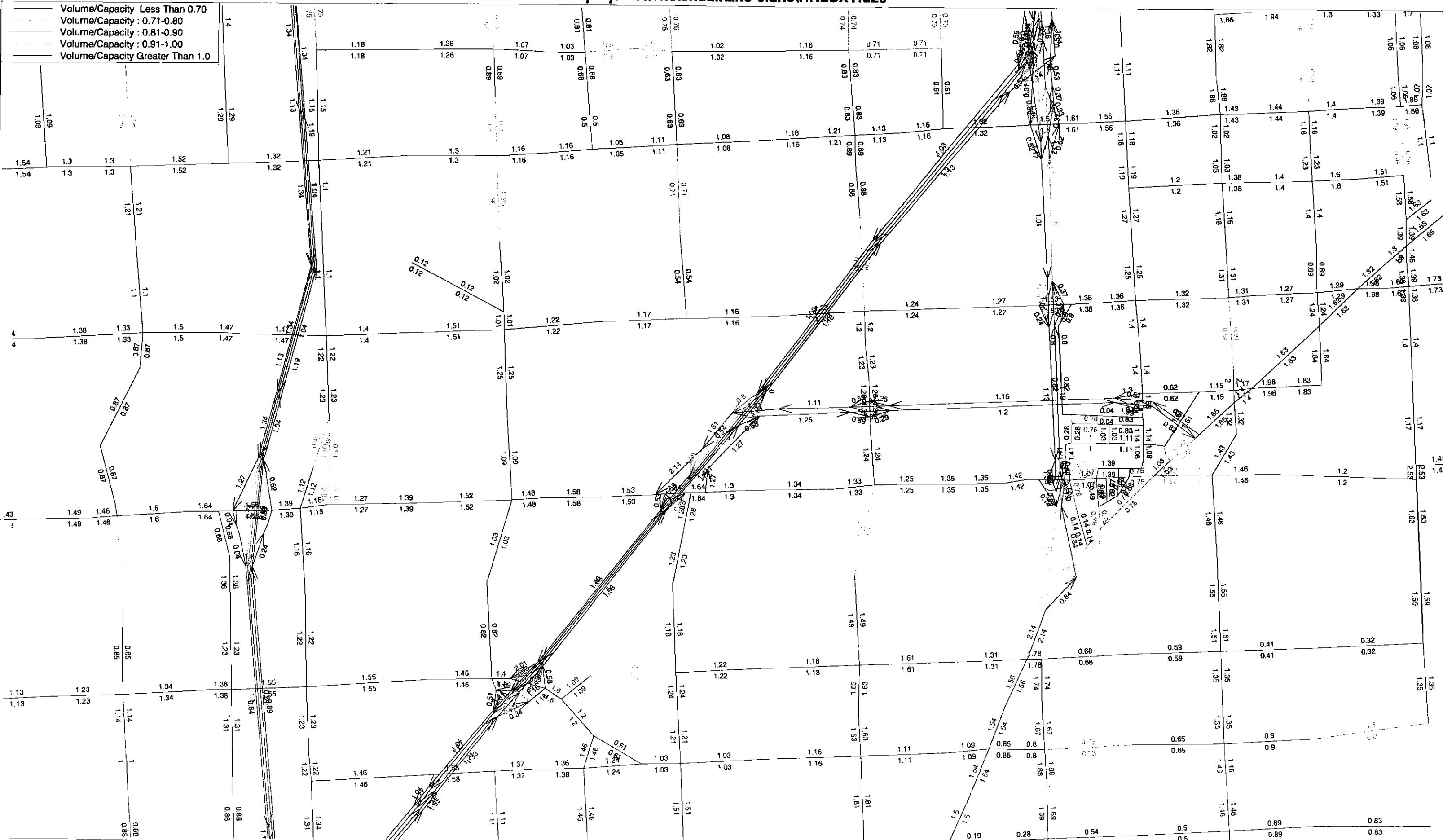
Viper Software by The Urban Analysis Group

# 2020 Miami-Dade Network

## Alt 6: Kendall Drive 6 Lanes with Improved Transit Services

S:\projects\srh\kendall\alt6-6lane\HRLDXY.u20

Volume/Capacity	Less Than 0.70
Volume/Capacity	: 0.71-0.80
Volume/Capacity	: 0.81-0.90
Volume/Capacity	: 0.91-1.00
Volume/Capacity	Greater Than 1.0



1"=1000 ft.

Viper Software by The Urban Analysis Group

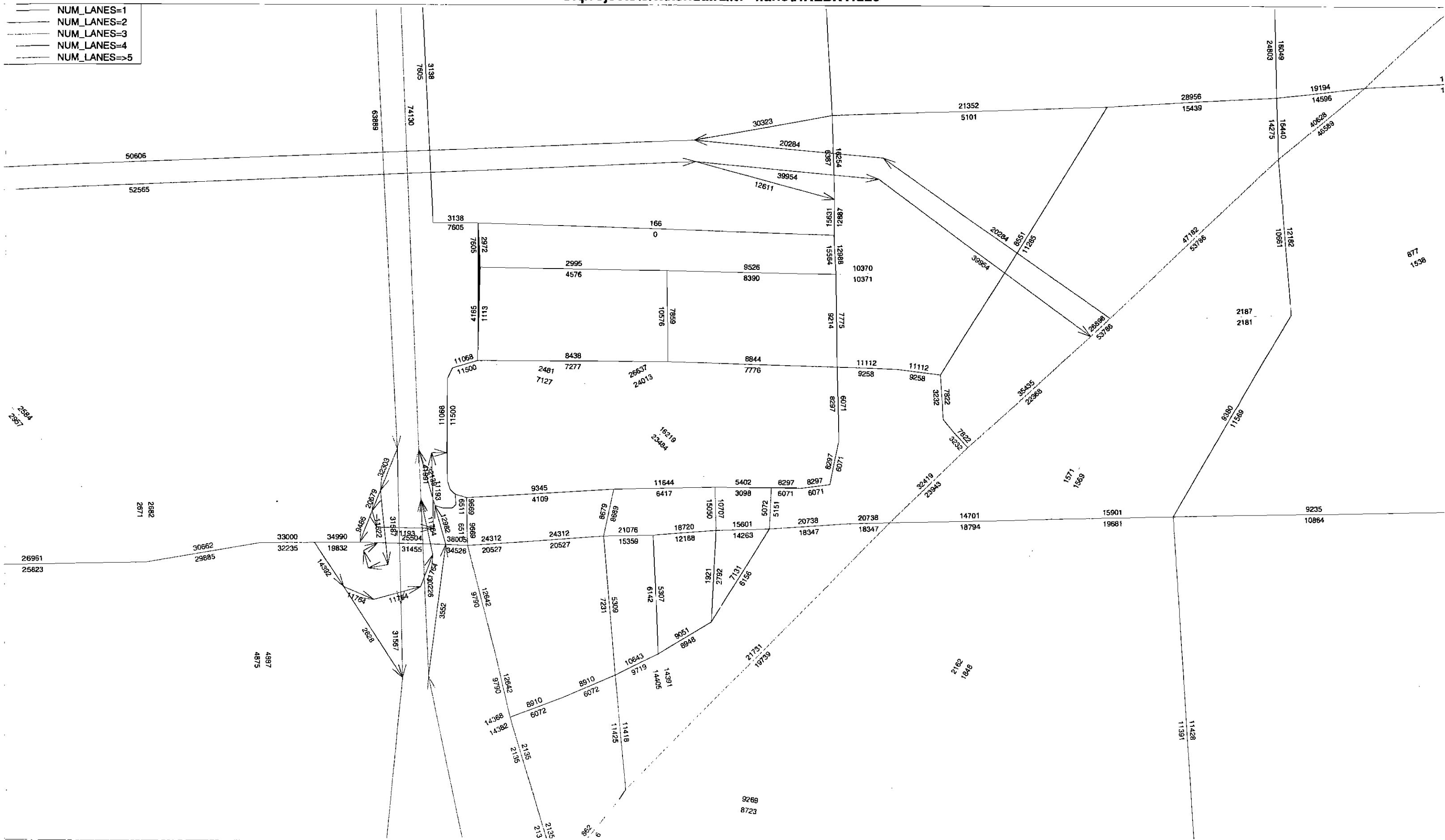
**Appendix VII Travel Demand Model Results  
Simulation 4**

## **2020 Miami-Dade Network: Volume**

### **Alt 7: Kendall Drive 4 Lanes with Bus Rapid Transit Services**

**S:\projects\srh\kendall\alt7-4lane\HRLDXY.u20**

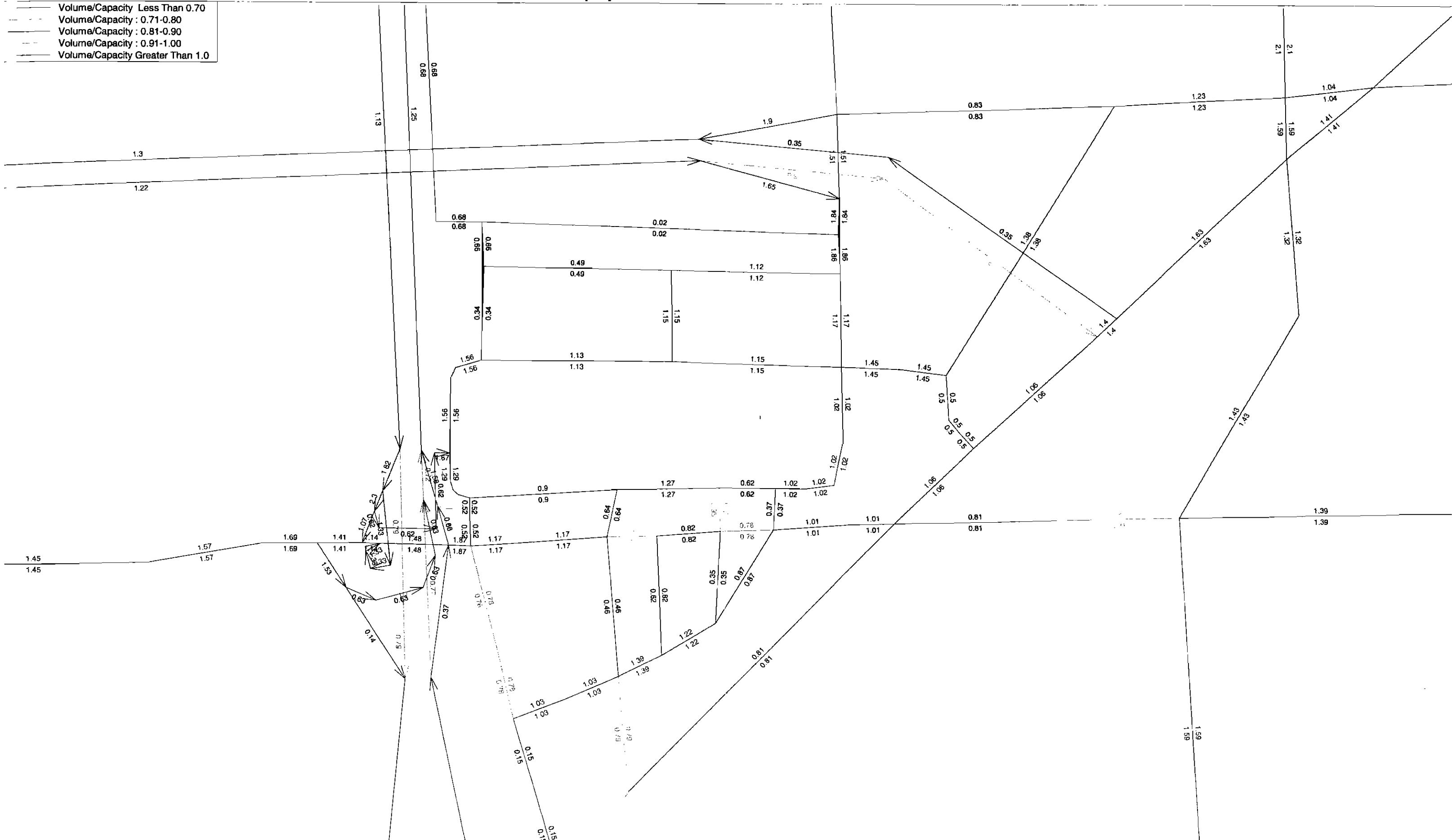
- NUM\_LANES=1
- NUM\_LANES=2
- NUM\_LANES=3
- NUM\_LANES=4
- NUM\_LANES=>5



1"=1000 ft.

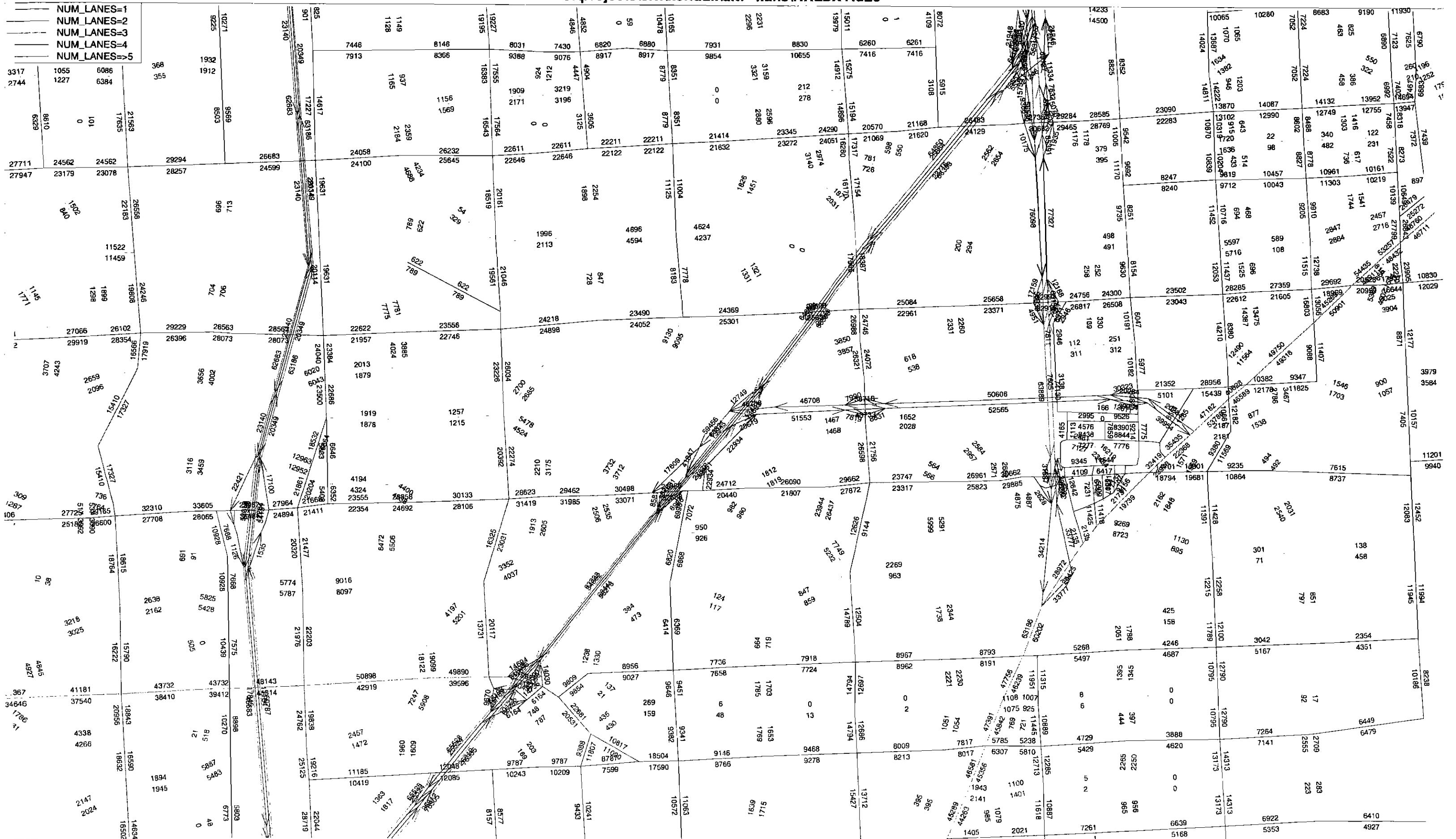
**2020 Miami-Dade Network**  
**Alt 7: Kendall Drive 4 Lanes with Bus Rapid Transit Services**  
**S:\projects\srh\kendall\alt7-4lane\HRLDXY.u20**

- Volume/Capacity Less Than 0.70
- Volume/Capacity : 0.71-0.80
- Volume/Capacity : 0.81-0.90
- Volume/Capacity : 0.91-1.00
- Volume/Capacity Greater Than 1.0



$1'' = \overline{1000 \text{ ft.}}$

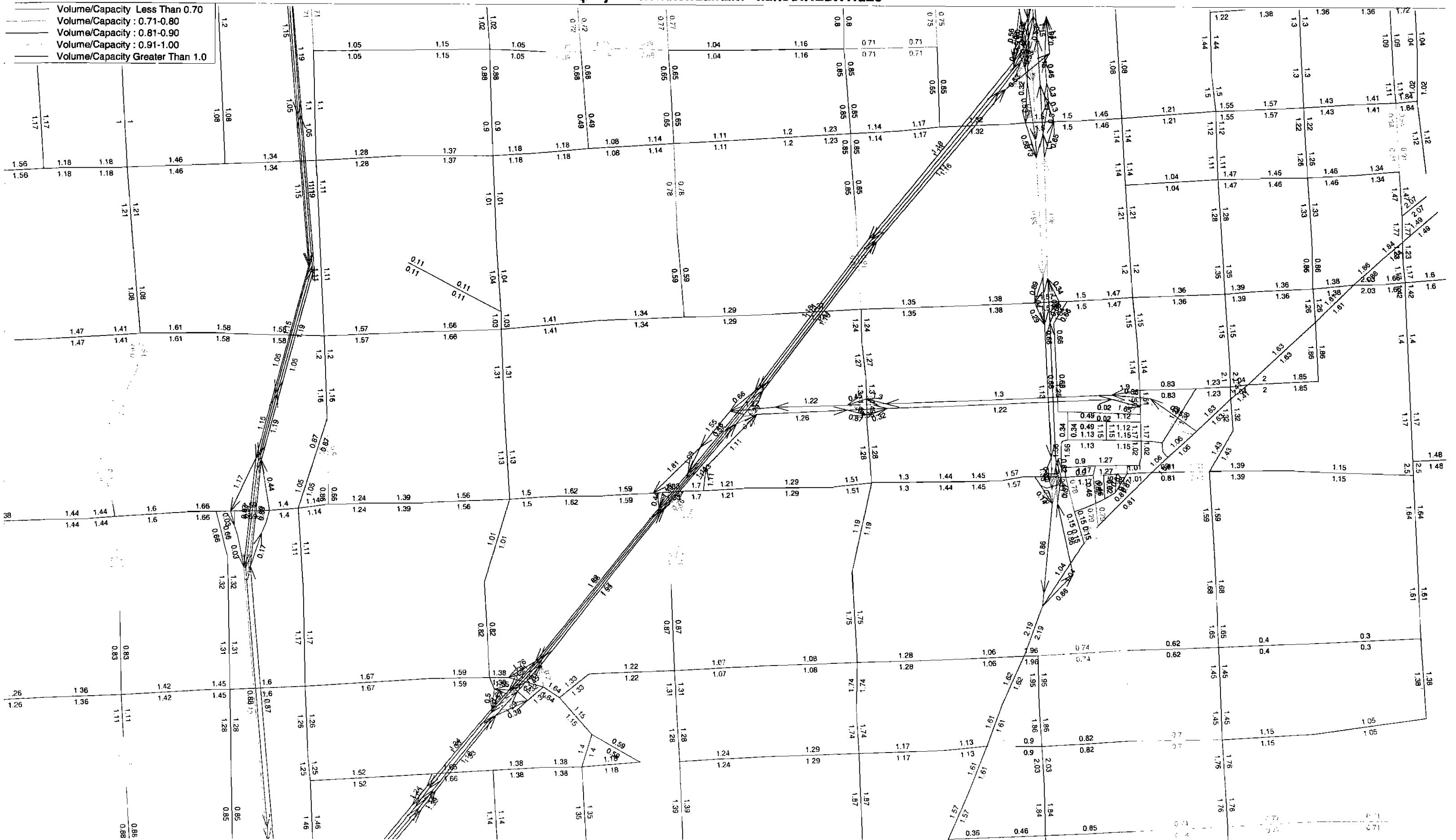
**2020 Miami-Dade Network: Volume**  
**Alt 7: Kendall Drive 4 Lanes with Bus Rapid Transit Services**  
**S:\projects\srh\kendall\alt7-4lane\HRLDXY.u20**



## 2020 Miami-Dade Network

## Alt 7: Kendall Drive 4 Lanes with Bus Rapid Transit Services

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## **Appendix VIII Questions and Answers**

## **ZDATA Analysis**

1. To be provided by Mr. Somoza
2. To be provided by Mr. Somoza
3. To be provided by Mr. Somoza
4. To be provided by Mr. Somoza
5. To be provided by Mr. Somoza
  
6. **Question:** *Were the 2020 FSUTMS data sets checked for reasonableness in relation to existing, approved, and planned area development?*

**Answer:** *Yes. Five-year AADT (year 1996 through 2000) were obtained along Kendall Drive, US1, and other roadways in the study area from Florida Department of Transportation. An area wide traffic count survey was conducted by this study as well. Those two sets of information were used for the verification of the reasonableness for the 2020 FSUTMS forecasts.*

## **FSUTMS Simulations**

1. **Question:** What were the Bus Rapid Transit runs used for?

**Answer:** *To analyze potential impacts on traffic demands along the Kendall corridor and parallel roads such as Snapper Creek Expressway, Sunset Drive and SW 104<sup>th</sup> Street. The analysis results are discussed in the report.*

## **FSUTMS Network**

1. **Question:** Are the two new vehicle bridges over the Snapper Creek canal included in the Master Plan? Although it may be incorrect, information that we have shows the two new bridges as being pedestrian-only facilities. Inasmuch as the two new bridges carry the majority of the 35,000 vehicles per day crossing the canal, the elimination of one or both of the bridges should have a significant effect on the volume projections.

**Answer:** *With the proposed re-development, it is essential to develop those new vehicle bridges over the Snapper Creek canal to enhance traffic circulation for the area. SW 72<sup>nd</sup> Avenue is the only north-south access road for the Dadeland Mall, with limited capacity (one travel lane in each travel direction). With the proposed development in the Dadeland Mall area, SW 72<sup>nd</sup> Avenue would be extremely congested. As a result some traffic would be forced to use Kendall Drive as the alternative route to access areas north of the Sunset Drive. Such arrangement would create unnecessary vehicle demands and would reduce level of services on Kendall Drive.*

2. **Question:** The model included a new two-lane road, which was presumably coded as a collector, from the Master Plan area to Sunset Drive. The new road,

which appears to be in the location of the local street S.W. 76th Avenue was shown to carry approximately 11,000 vehicles per day, almost all of which were through trips. Did the Master Plan include a new collector road north of the Snapper Creek Expressway? Given the volumes on the parallel S.W. 72nd Avenue, deletion of this new road from the model should have a significant effect on the volume projections.

**Answer:** *As discussed in Question 1, it is important to improve access roads in the north part of the Dadeland Mall. By connecting SW 76<sup>th</sup> Avenue with two proposed new bridges, that would provide additional capacities to connect Dadeland Mall with Sunset Drive. Left-turn prohibitions were added to the model at the intersection of SW 76<sup>th</sup> Avenue and Sunset Drive. Without those turn prohibitions, the forecasted volume on SW 76<sup>th</sup> Avenue would be higher.*

### **Development of Design Hour Traffic**

1. **Question:** It appears that the FSUTMS generated volumes were used as a direct input to the volume development worksheets. Were the FSUTMS volumes checked or verified relative to existing traffic volumes?

**Answer:** *Yes, the validity of the FSUTMS forecasted volumes was checked relative to existing traffic volumes. Some necessary modifications were made at the intersection of US1 and Kendall Drive. The justifications of adjustment and modified forecasts are discussed in the report.*

### **Corridor and Intersection Level of Service Analysis**

1. **Question:** The item listed as #1, a generalized LOS analysis did not appear to be included in your transmittal. Is this information available?

**Answer:** *The LOS analysis results were distributed at the meeting*

2. **Question:** The SYNCHRO runs for US 1 & Kendall Drive with the current geometry appear to use splits that give far less time to US 1 through movements than the current timing plans. What was the cause for the reduction of US 1 green time from 56% of the cycle to 51% of the cycle?

**Answer:** *We should not apply the existing traffic signal plans for the future traffic conditions. Based on SYNCHRO signal optimization process, reductions of green time on US 1 would reduce overall intersection delays.*

3. **Question:** Can you provide more information regarding the signal phasing plan used in the SYNCHRO analysis for the US 1 & Kendall Drive Plaza configuration? Specifically, the phasing appears to create a significant issue that SYNCHRO is not equipped to recognize: The eastbound left-turn Kendall Drive movement is not operated in conjunction with a northeastbound green indication

at the existing Kendall Drive signal. The result is that the movement allows only a few cars to turn onto US 1 before the queue spills back into the intersection. The SYNCHRO runs assume that all of the remaining eastbound cars will wait on Kendall Drive, not taking advantage of the green signal indication. In reality, this appears highly improbable. Adverse traffic operations would be expected with the signal phasing plan as presented. Why was the phasing plan presented at an earlier meeting by Mr. Rick Hall not used in the analysis?

**Answer:** *The purpose of this analysis is to compare level of services for two proposed alternatives at the intersection of US 1 and Kendall Drive.*

**4. Question:** Does the County plan to include any of the other critical intersections in the area into the analysis? Of particular note are the intersections of Dadeland Mall Circle & SW 72 Avenue and the intersections along the southern portion of Dadeland Boulevard.

**Answer:** To be answered by Mr. Somoza

**5. Question:** Is any reassignment of traffic volumes going to be performed to reflect the facilities that are exhibiting excessive delays, such as the easternmost and westernmost new roads south of Kendall Drive?

**Answer:** *No. The purpose of the demand forecast is to illustrate potential travel demand on those roads.*

**6. Question:** Are any analyses of existing conditions to be performed?

**Answers:** *No. The objective of this study is to analyze traffic impacts on Kendall Drive with proposed land developments and road network arrangements in future condition.*