

---

# Traffic Impact Study

## Cutler Gate



**8495 SW 200<sup>th</sup> Street  
Cutler Bay, Florida**

**January 23<sup>rd</sup>, 2018**



**Richard Garcia & Associates, Inc.**

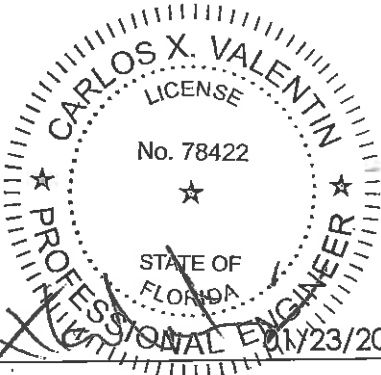
---

## Engineer's Certification

I, Carlos X. Valentin, P.E. # 78422, certify that I currently hold an active Professional Engineers License in the State of Florida and am competent through education and experience to provide engineering services in the civil and traffic engineering disciplines contained in this report. In addition, the firm Richard Garcia & Associates, Inc. holds a Certificate of Authorization # 9592 in the State of Florida. I further certify that this report was prepared by me or under my responsible charge as defined in Chapter 61G15-18.001 F.A.C. and that all statements, conclusions and recommendations made herein are true and correct to the best of my knowledge and ability.

**Project Description:**

Cutler Gate - Traffic Impact Study

**Project Location:**8495 SW 200<sup>th</sup> Street  
Cutler Bay, Florida

Carlos X. Valentin 04/23/2018  
Florida Registration No. 78422 Date

## TABLE OF CONTENTS

---

|                                                                  |           |
|------------------------------------------------------------------|-----------|
| <b>Engineer's Certification</b> .....                            | <b>i</b>  |
| <b>Executive Summary</b> .....                                   | <b>1</b>  |
| <b>Introduction</b> .....                                        | <b>4</b>  |
| Project Location / Description .....                             | 4         |
| <b>Existing Condition (2018)</b> .....                           | <b>6</b>  |
| Turning Movement Counts (TMC's).....                             | 6         |
| Operational Analysis - Intersection Level of Service (LOS) ..... | 6         |
| Roadway Analysis - Level of Service (LOS) & Capacity .....       | 8         |
| <b>Project Traffic</b> .....                                     | <b>9</b>  |
| Trip Generation.....                                             | 9         |
| Trip Distribution.....                                           | 10        |
| Trip Assignment.....                                             | 11        |
| <b>Proposed Future Condition (2019)</b> .....                    | <b>13</b> |
| Background Traffic Growth .....                                  | 13        |
| Future Traffic Volumes (Intersection) - AM & PM Peak Hour .....  | 13        |
| Operational Analysis - Intersection LOS .....                    | 13        |
| Roadway Analysis - Capacity / Level of Service (LOS) .....       | 15        |
| <b>Conclusion</b> .....                                          | <b>16</b> |

## LIST OF FIGURES

---

|                                                                                 |    |
|---------------------------------------------------------------------------------|----|
| Figure 1: Location Map.....                                                     | 4  |
| Figure 2: Site Plan.....                                                        | 5  |
| Figure 3: Existing Seasonally Adjusted TMC's (2018) - AM Peak Hour.....         | 7  |
| Figure 4: Existing Seasonally Adjusted TMC's (2018) - PM Peak Hour.....         | 7  |
| Figure 5: TAZ Map .....                                                         | 10 |
| Figure 6: Site Traffic (Project Gross Trips) - AM Peak Hour .....               | 12 |
| Figure 7: Site Traffic (Project Gross Trips) - PM Peak Hour.....                | 12 |
| Figure 8: Future Condition with Project Trips (Build 2019) - AM Peak Hour ..... | 14 |
| Figure 9: Future Condition with Project Trips (Build 2019) - PM Peak Hour.....  | 14 |

## LIST OF TABLES

---

|                                                                                   |    |
|-----------------------------------------------------------------------------------|----|
| Table 1: Intersection LOS Summary - AM & PM Peak Hour.....                        | 2  |
| Table 2: Roadway Link LOS Summary - AM & PM Peak Hour.....                        | 3  |
| Table 3: Existing Condition LOS & Delay (Intersections) - AM & PM Peak Hour ..... | 6  |
| Table 4: Existing Roadway Segment LOS & Capacity - AM & PM Peak Hour.....         | 8  |
| Table 5: Trip Generation - AM Peak Hour.....                                      | 9  |
| Table 6: Trip Generation - PM Peak Hour .....                                     | 9  |
| Table 7: Trip Distribution Percentages.....                                       | 11 |
| Table 8: Directional Trip Assignment .....                                        | 11 |
| Table 9: Future Condition LOS (Intersections) - AM & PM Peak Hour.....            | 13 |
| Table 10: Future Roadway Segment LOS & Capacity - AM & PM Peak Hour .....         | 15 |

## APPENDICES

---

|                                                                  |
|------------------------------------------------------------------|
| Appendix 1: Trip Generation                                      |
| Appendix 2: Trip Distribution / Assignment                       |
| Appendix 3: Growth Rate & Adjustment Factor                      |
| Appendix 4: Traffic Counts (TMC's)                               |
| Appendix 5: Operational Analysis - Intersection Level of Service |
| Appendix 6: Roadway Analysis                                     |

## Executive Summary

This study was prepared to evaluate the traffic impacts associated with the proposed development. The subject site is located at 8495 SW 200<sup>th</sup> Street in the Town of Cutler Bay, Florida. This vacant site will be developed as **multifamily housing** (36 dwelling units) and **retail** (4,186 square feet). The subject project will have one (1) driveway on Old Cutler Road, north of SW 200<sup>th</sup> Street and two (2) driveways on SW 85<sup>th</sup> Avenue.

The trip generation characteristics for the subject project were obtained from ITE's Trip Generation Manual, 10<sup>th</sup> Edition. ITE's Land Use 221 (Multifamily Housing) and 820 (Shopping Center), as identified by the Institute of Transportation Engineers (ITE), most closely resembles the proposed project. The trip generation analysis was performed for a typical weekday's AM and PM peak hour.

The trip generation calculations yielded 17 gross vehicle trips (5 trips-in & 12 trips-out) during the AM peak hour and 32 gross vehicle trips (18 trips-in & 14 trips-out) in the PM peak hour. The project trips were distributed to the study area and were assigned to the project's driveways consistent with the trip distribution percentages of the project's Traffic Analysis Zone 1356. The corresponding traffic distribution percentages were determined by interpolating between the 2010 TAZ and 2040 TAZ data for the projected design year of 2019.

Manual Turning Movement Counts (TMC's) and operational characteristics were gathered at the intersection of *Old Cutler Road* and *SW 200<sup>th</sup> Street*. These traffic counts were performed on Wednesday, January 17<sup>th</sup>, 2018 during the AM peak period (7:00 AM-9:00 AM) and PM peak period (4:00 PM-6:00 PM). Subsequently, the AM and PM peak hour traffic volumes were determined, adjusted for peak seasonal variations utilizing the Florida Department of Transportation Seasonal Factor (SF) and utilized in the operational analysis for the existing condition. As a result, the studied intersection yielded LOS A for the AM and PM peak hour.

Based on historical trends and published traffic data from the Florida Department of Transportation (FDOT), a regression analysis was performed to estimate any background traffic growth within the project's vicinity. The analysis yielded a growth rate of 1.76 percent (%). The existing seasonally adjusted turning movement counts were augmented with the background growth rate of 1.76 percent and the project gross trips. The resulting traffic volumes represent the proposed future condition with project trips in 2019 (Build Condition) and were evaluated to determine the future Level of Service. As a result, the operational analysis revealed that the studied intersection will maintain the existing LOS A for the future AM and PM peak hour condition in 2019. Lastly, the project's driveways were also evaluated

and yielded LOS A. Table 1 summarizes the LOS results and delay of the operational analysis for both the existing condition and proposed future condition.

Additionally, Old Cutler Road was identified as the roadway segment most impacted by the subject project and therefore, it was evaluated to determine the available roadway capacity and Level of Service (LOS) for the existing condition (2018) and proposed future condition with project (2019). The bi-directional traffic volumes for the AM and PM peak hour were obtained using the existing seasonally adjusted turning movement counts. The future roadway volumes were developed by augmenting the existing peak hour volumes with a background traffic growth rate of 1.76 percent and the project gross trips. The roadway traffic capacity was evaluated using the generalized Table 4 of the 2013 FDOT (Florida Department of Transportation) Quality / Level of Service Handbook. As result, the analysis revealed that Old Cutler Road within the project's vicinity is operating at LOS C during both the AM and PM peak hour and will maintain LOS C for the proposed future conditions in 2019. Table 2 summarizes the LOS results and available roadway capacity for the studied roadway segment.

In conclusion, the most impacted intersection and roadway segment is currently operating within the acceptable LOS and will continue to do so during the future AM and PM peak hour condition. Therefore, no off-site improvements are required or recommended at this time. Lastly, it is fair to conclude that sufficient roadway capacity exists to support the subject project.

**Table 1: Intersection LOS Summary - AM & PM Peak Hour**

| Existing Condition (2018)                             |                      | AM Peak Hour |             |                          |     |             | PM Peak Hour |             |                          |     |             |
|-------------------------------------------------------|----------------------|--------------|-------------|--------------------------|-----|-------------|--------------|-------------|--------------------------|-----|-------------|
| Location                                              | Intersection Control | Overall      |             | * Critical Approach TWSC |     |             | Overall      |             | * Critical Approach TWSC |     |             |
|                                                       |                      | LOS          | Delay (sec) | Approach                 | LOS | Delay (sec) | LOS          | Delay (sec) | Approach                 | LOS | Delay (sec) |
| 1 Old Cutler Road & SW 200 Street                     | Two-Way Stop         | A            | 0.0         | -                        | -   | -           | A            | 0.1         | EB                       | C   | 15.6        |
| Proposed Future Condition (with Project Trips) (2019) |                      | AM Peak Hour |             |                          |     |             | PM Peak Hour |             |                          |     |             |
| Location                                              | Intersection Control | Overall      |             | * Critical Approach TWSC |     |             | Overall      |             | * Critical Approach TWSC |     |             |
|                                                       |                      | LOS          | Delay (sec) | Approach                 | LOS | Delay (sec) | LOS          | Delay (sec) | Approach                 | LOS | Delay (sec) |
| 1 Old Cutler Road & SW 200 Street                     | Two-Way Stop         | A            | 0.0         | EB                       | B   | 14.1        | A            | 0.2         | EB                       | C   | 18.4        |
| 2 Old Cutler Road & Driveway 1 (DW1)                  | Two-Way Stop         | A            | 0.1         | EB                       | C   | 17.1        | A            | 0.2         | EB                       | C   | 23.2        |
| 3 SW 85 Avenue & Driveway 2 (DW2)                     | Two-Way Stop         | A            | 4.1         | WB                       | A   | 8.5         | A            | 1.5         | WB                       | A   | 8.5         |
| 4 SW 85 Avenue & Driveway 3 (DW3)                     | Two-Way Stop         | A            | 2.8         | WB                       | A   | 8.5         | A            | 1.3         | WB                       | A   | 8.6         |

Notes: \* Critical Approach for TWSC.

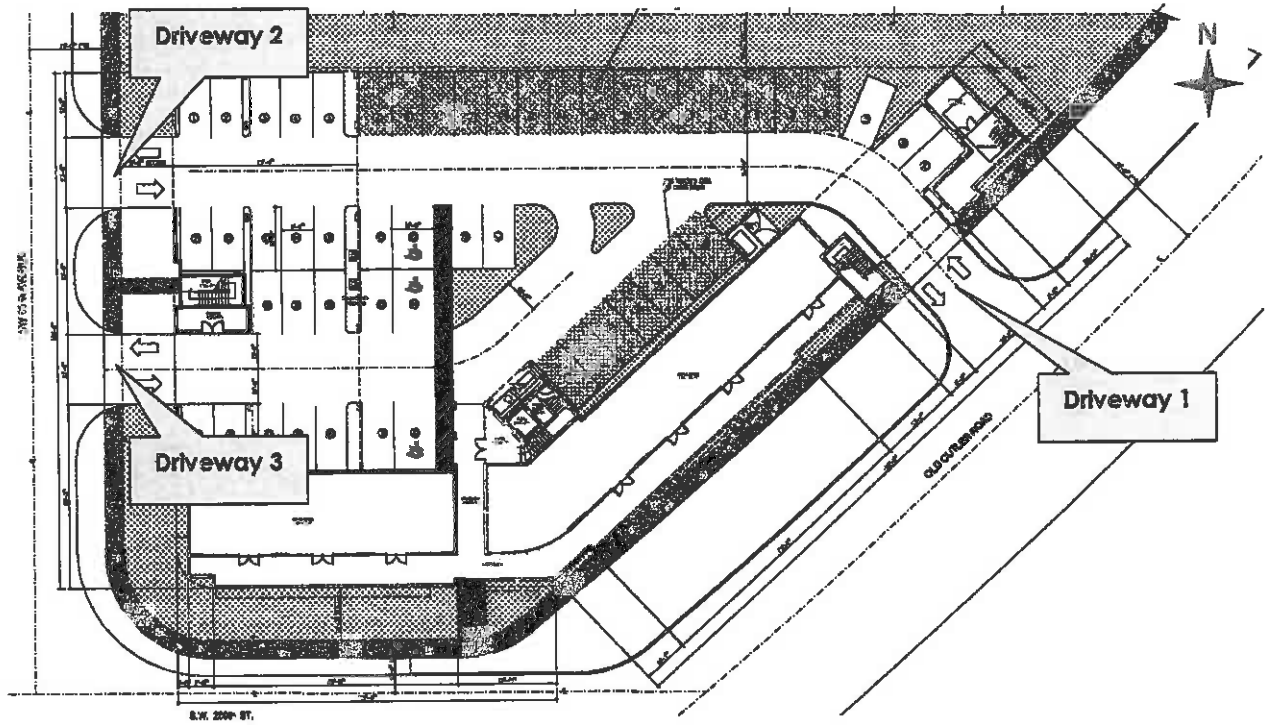
Table 2: Roadway Link LOS Summary - AM &amp; PM Peak Hour

| Roadway Analysis - AM Peak Hour |                 |                       | LOS / Volume Standard           | Roadway Segment                |                    |     | Background Growth @ 1.76% - 1 Year Build-Out (2019) | Project Gross Trips (2019) | Roadway Segment                |                    |     |
|---------------------------------|-----------------|-----------------------|---------------------------------|--------------------------------|--------------------|-----|-----------------------------------------------------|----------------------------|--------------------------------|--------------------|-----|
| Roadway                         |                 | Location              |                                 | Existing Two-Way Volume (2018) | Available Capacity | LOS |                                                     |                            | Proposed Traffic Volume (2019) | Available Capacity | LOS |
| 1                               | Old Cutler Road | North of SW 87 Avenue | LOS D / 1,600 VPH Class I - 2LU | 1,105                          | 495                | C   | 19                                                  | 8                          | 1,132                          | 468                | C   |

| Roadway Analysis - PM Peak Hour |                 |                       | LOS / Volume Standard           | Roadway Segment                |                    |     | Background Growth @ 1.76% - 1 Year Build-Out (2019) | Project Gross Trips (2019) | Roadway Segment                |                    |     |
|---------------------------------|-----------------|-----------------------|---------------------------------|--------------------------------|--------------------|-----|-----------------------------------------------------|----------------------------|--------------------------------|--------------------|-----|
| Roadway                         |                 | Location              |                                 | Existing Two-Way Volume (2018) | Available Capacity | LOS |                                                     |                            | Proposed Traffic Volume (2019) | Available Capacity | LOS |
| 1                               | Old Cutler Road | North of SW 87 Avenue | LOS D / 1,600 VPH Class I - 2LU | 1,258                          | 342                | C   | 22                                                  | 14                         | 1,295                          | 305                | C   |



Figure 2: Site Plan



## Existing Condition (2018)

The purpose of this section is to identify the current operational and geometric characteristics at the most impacted intersections and roadways in order to provide a comparison to future conditions.

### Turning Movement Counts (TMC's)

Manual Turning Movement Counts (TMC's) and operational characteristics were gathered at the intersection of *Old Cutler Road* and *SW 200<sup>th</sup> Street*. These traffic counts were performed on Wednesday, January 17<sup>th</sup>, 2018 during the AM peak period (7:00 AM-9:00 AM) and PM peak period (4:00 PM-6:00 PM). Subsequently, the AM and PM peak hour traffic volumes were determined, adjusted for peak seasonal variations utilizing the Florida Department of Transportation Seasonal Factor (SF) and utilized in the operational analysis for the existing condition. Figures 3 and 4 depict the existing seasonally adjusted AM and PM peak hour TMC's, respectively. Appendix 4 contains the raw data and the tables utilized to develop the seasonally adjusted traffic volumes.

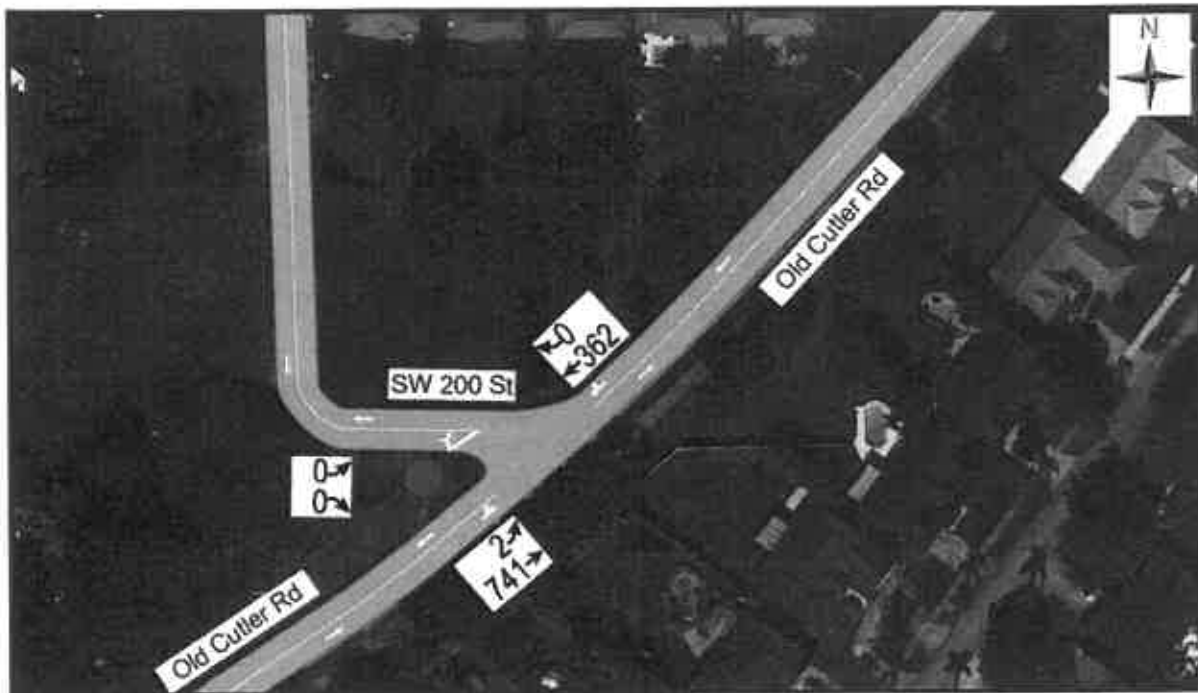
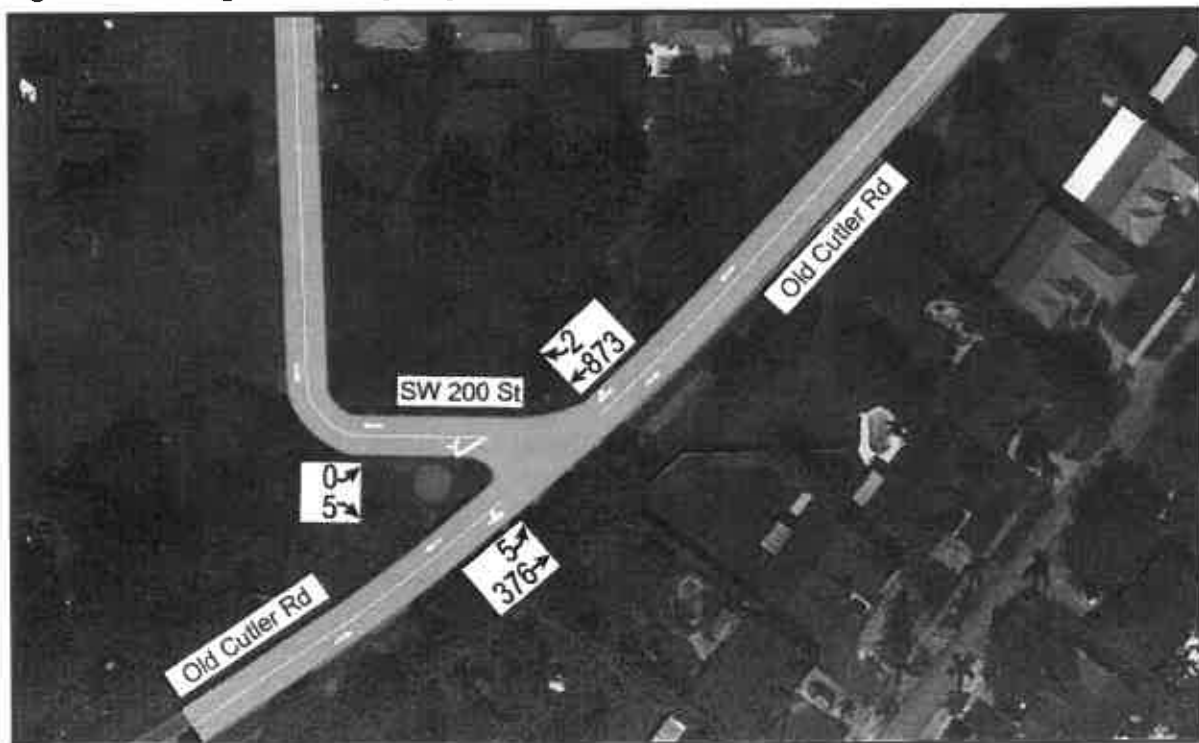
### Operational Analysis - Intersection Level of Service (LOS)

The turning movement counts shown in the Figures 3 and 4 were utilized to perform an operational analysis for the AM and PM peak hour condition. This analysis was performed consistent with the traffic operational characteristics (i.e. lane geometry, traffic control, etc.) at the time data collection took place and follows the latest Highway Capacity Manual (HCM) methodology. As a result, the studied intersection yielded LOS A for the AM and PM peak hour. Table 3 summarizes the LOS and vehicle delay results. Appendix 5 contains other outputs such as volume to capacity ratio (V/C) and 95<sup>th</sup> Percentile Queue.

**Table 3: Existing Condition LOS & Delay (Intersections) - AM & PM Peak Hour**

| Existing Condition (2018)         |                      | AM Peak Hour |             |                          |     |             | PM Peak Hour |             |                          |     |             |
|-----------------------------------|----------------------|--------------|-------------|--------------------------|-----|-------------|--------------|-------------|--------------------------|-----|-------------|
| Location                          | Intersection Control | Overall      |             | * Critical Approach TWSC |     |             | Overall      |             | * Critical Approach TWSC |     |             |
|                                   |                      | LOS          | Delay (sec) | Approach                 | LOS | Delay (sec) | LOS          | Delay (sec) | Approach                 | LOS | Delay (sec) |
| 1 Old Cutler Road & SW 200 Street | Two-Way Stop         | A            | 0.0         | EB                       | A   | 0.0         | A            | 0.1         | EB                       | C   | 15.6        |

Notes: \* Critical Approach for TWSC.

**Figure 3: Existing Seasonally Adjusted TMC's (2018) - AM Peak Hour****Figure 4: Existing Seasonally Adjusted TMC's (2018) - PM Peak Hour**

### Roadway Analysis - Level of Service (LOS) & Capacity

Old Cutler Road was identified as the roadway segment most impacted by the subject project and therefore, it was evaluated to determine the available roadway capacity and Level of Service (LOS). The bi-directional traffic volumes for the AM and PM peak hour were obtained using the seasonally adjusted turning movement counts. The roadway analysis was performed using the generalized Table 4 of the 2013 FDOT (Florida Department of Transportation) Quality / Level of Service Handbook. As result, the analysis revealed that Old Cutler Road is operating at LOS C during both the AM and PM peak hour. Table 4 summarizes the LOS results and available capacity for each roadway link during the AM and PM peak hour.

**Table 4: Existing Roadway Segment LOS & Capacity - AM & PM Peak Hour**

| Roadway Analysis - AM Peak Hour |                 |                       | LOS / Volume Standard                 | Roadway Segment                |                    |     |
|---------------------------------|-----------------|-----------------------|---------------------------------------|--------------------------------|--------------------|-----|
| Roadway                         |                 | Location              |                                       | Existing Two-Way Volume (2018) | Available Capacity | LOS |
| 1                               | Old Cutler Road | North of SW 87 Avenue | LOS D /<br>1,600 VPH<br>Class I - 2LU | 1,105                          | 495                | C   |
| Roadway Analysis - PM Peak Hour |                 |                       | LOS / Volume Standard                 | Roadway Segment                |                    |     |
| Roadway                         |                 | Location              |                                       | Existing Two-Way Volume (2018) | Available Capacity | LOS |
| 1                               | Old Cutler Road | North of SW 87 Avenue | LOS D /<br>1,600 VPH<br>Class I - 2LU | 1,258                          | 342                | C   |

## Project Traffic

This section of the report describes the analysis for estimating the traffic associated with the subject project. The trip generation analysis summarized below was performed consistent with the methodology described in the Institute of Transportation Engineers (ITE) Trip Generation Handbook, 3rd Edition.

### Trip Generation



The trip generation characteristics for the subject project were obtained from ITE's Trip Generation Manual, 10<sup>th</sup> Edition. ITE's Land Use 221 (Multifamily Housing) and 820 (Shopping Center), as identified by the Institute of Transportation Engineers (ITE), most closely resembles the proposed project. The trip generation analysis was performed for a typical weekday's AM and PM peak hour.

The trip generation calculations yielded **17 gross vehicle trips** (5 trips-in & 12 trips-out) during the **AM peak hour** and **32 gross vehicle trips** (18 trips-in & 14 trips-out) in the **PM peak hour**. Note, the resulting trips are likely to be reduced based on the rate and extent of internalization, transit, and pedestrian/bicycle since neither of these trip adjustments were utilized in the analysis as a conservative approach. Tables 5 and 6 summarize the trip generation results for the AM and PM peak hour, respectively.

**Table 5: Trip Generation - AM Peak Hour**

| LAND USE (LU)                       | UNITS           | ITE LU CODE | TRIP GENERATION RATE | AM PEAK HOUR TRIPS |           |           |
|-------------------------------------|-----------------|-------------|----------------------|--------------------|-----------|-----------|
|                                     |                 |             |                      | IN                 | OUT       | TOTAL     |
| <b>Proposed</b>                     |                 |             |                      |                    |           |           |
| Multifamily Housing (Mid-Rise)      | 36 D.U.         | 221         | 0.36                 | 3                  | 10        | 13        |
| Shopping Center (Retail)            | 4,186 Th.Sq.Ft. | 820         | 0.94                 | 2                  | 2         | 4         |
| <b>External Trips (Gross Trips)</b> |                 |             |                      | <b>5</b>           | <b>12</b> | <b>17</b> |

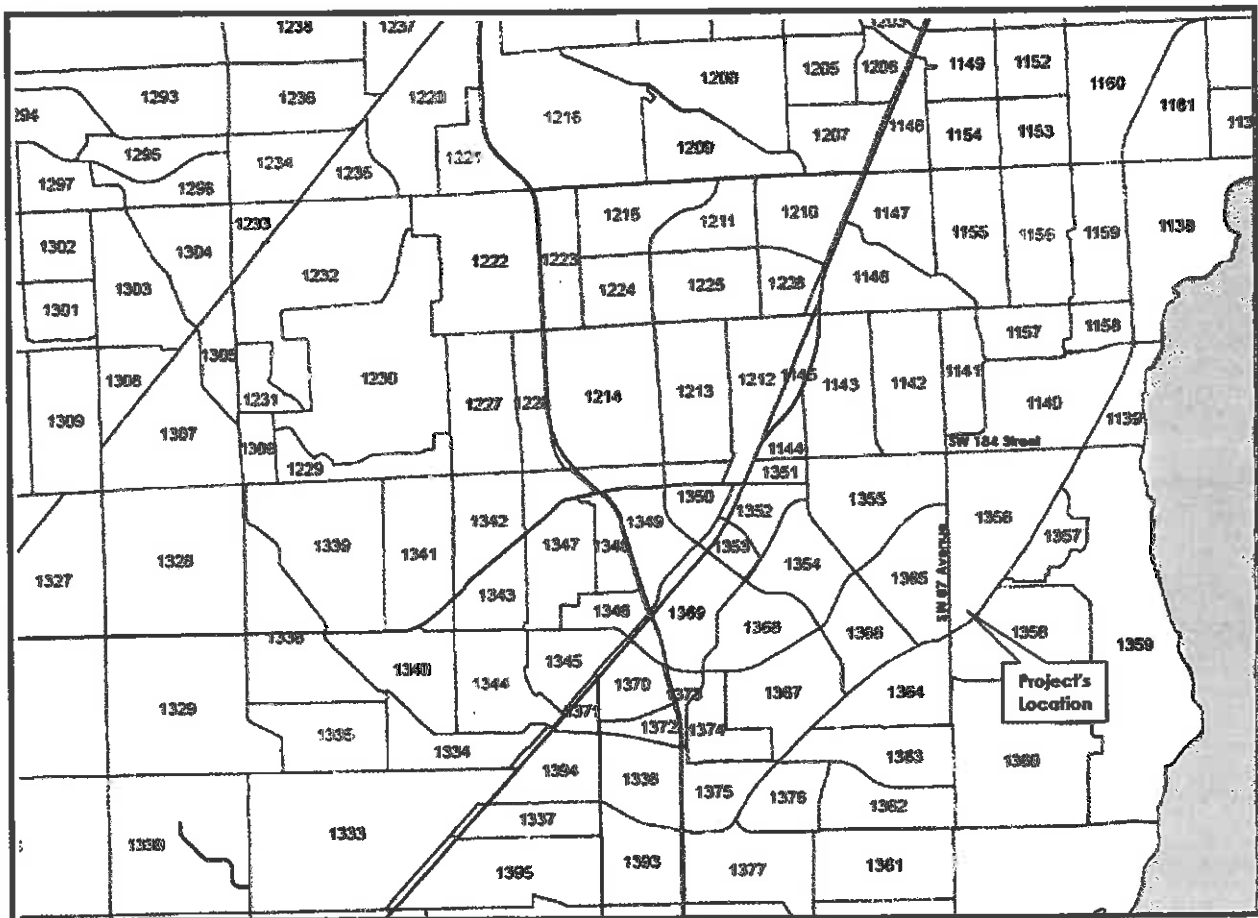
**Table 6: Trip Generation - PM Peak Hour**

| LAND USE (LU)                       | UNITS           | ITE LU CODE | TRIP GENERATION RATE | PM PEAK HOUR TRIPS |           |           |
|-------------------------------------|-----------------|-------------|----------------------|--------------------|-----------|-----------|
|                                     |                 |             |                      | IN                 | OUT       | TOTAL     |
| <b>Proposed</b>                     |                 |             |                      |                    |           |           |
| Multifamily Housing (Mid-Rise)      | 36 D.U.         | 221         | 0.44                 | 10                 | 6         | 16        |
| Shopping Center (Retail)            | 4,186 Th.Sq.Ft. | 820         | 3.81                 | 8                  | 8         | 16        |
| <b>External Trips (Gross Trips)</b> |                 |             |                      | <b>18</b>          | <b>14</b> | <b>32</b> |

## Trip Distribution

The subject project is located within the Traffic Analysis Zone (TAZ) 1356 as assigned by the Metropolitan Planning Organization's (MPO) on the Miami-Dade Transportation Plan (to the Year 2040) Directional Trips Distribution Report, October 2014. As such, the trip distribution was performed consistent with the trip distribution percentages of TAZ 1356 and by interpolating between the 2010 and 2040 TAZ data for the projected design year of 2019. Figure 5 depicts the TAZ map while the directional trip distribution percentages are outlined in Table 7. Appendix 2 contains the supporting documentation.

**Figure 5: TAZ Map**



**Table 7: Trip Distribution Percentages**

| DIRECTION    | DISTRIBUTION PERCENTAGES (%) |               |               |
|--------------|------------------------------|---------------|---------------|
|              | MIAMI-DADE LRTP MODEL YEAR   |               | DESIGN YEAR   |
|              | 2010                         | 2040          | 2019          |
| NNE          | 25.40                        | 20.00         | 23.78         |
| ENE          | 1.60                         | 0.50          | 1.27          |
| ESE          | 0.40                         | 0.60          | 0.46          |
| SSE          | 6.40                         | 4.20          | 5.74          |
| SSW          | 7.20                         | 7.60          | 7.32          |
| WSW          | 21.50                        | 23.00         | 21.95         |
| WNW          | 13.80                        | 18.40         | 15.18         |
| NNW          | 23.80                        | 25.70         | 24.37         |
| <b>TOTAL</b> | <b>100.00</b>                | <b>100.00</b> | <b>100.00</b> |

### Trip Assignment

The gross peak hour trips generated by the subject project have been further distributed into the four quadrants: North, South, East and West. Table 8 includes the trip distribution percentages and the corresponding trip assignments for the AM and PM peak hour. Lastly, Figures 6 and 7 depict the gross trips assigned to the study area and project's driveways for the AM and PM peak hour, respectively.

**Table 8: Directional Trip Assignment**

| DIRECTION | DISTRIBUTION   | AM PEAK HOUR TRIPS |           |           | PM PEAK HOUR TRIPS |           |           |
|-----------|----------------|--------------------|-----------|-----------|--------------------|-----------|-----------|
|           |                | IN                 | OUT       | TOTAL     | IN                 | OUT       | TOTAL     |
| NORTH     | 48.15%         | 2                  | 6         | 8         | 9                  | 7         | 16        |
| EAST      | 1.73%          | 0                  | 0         | 0         | 0                  | 0         | 0         |
| SOUTH     | 13.06%         | 1                  | 2         | 3         | 2                  | 2         | 4         |
| WEST      | 37.13%         | 2                  | 4         | 6         | 7                  | 5         | 12        |
|           | <b>100.00%</b> | <b>5</b>           | <b>12</b> | <b>17</b> | <b>18</b>          | <b>14</b> | <b>32</b> |

Figure 6: Site Traffic (Project Gross Trips) - AM Peak Hour

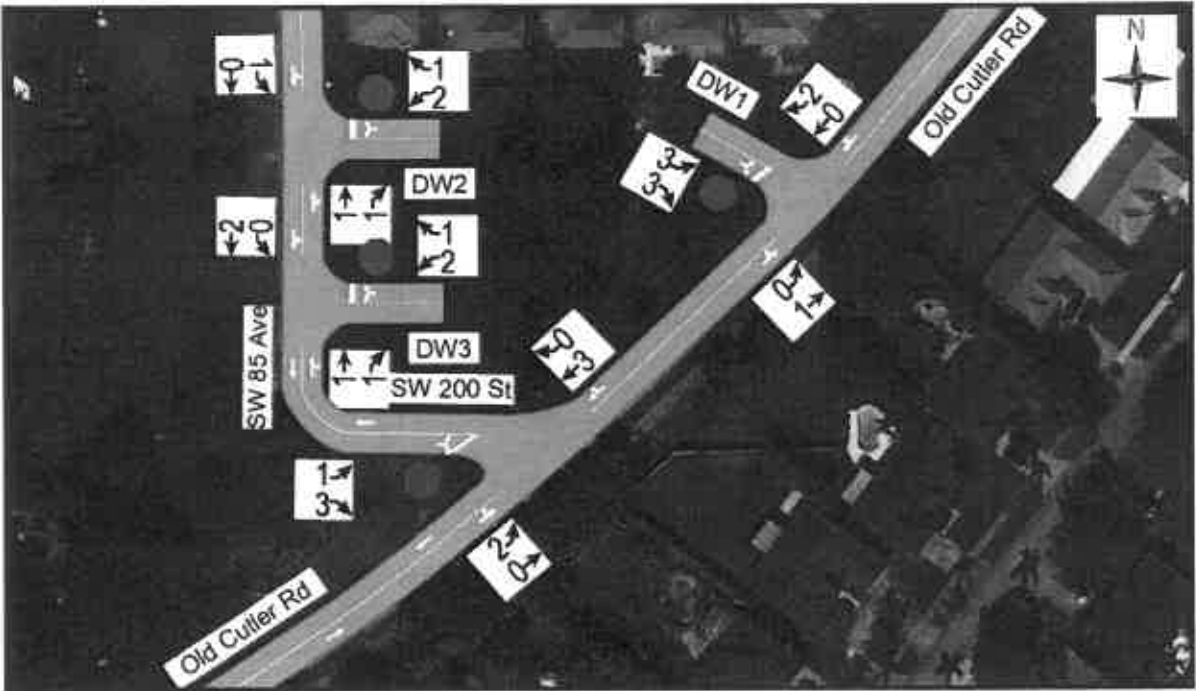
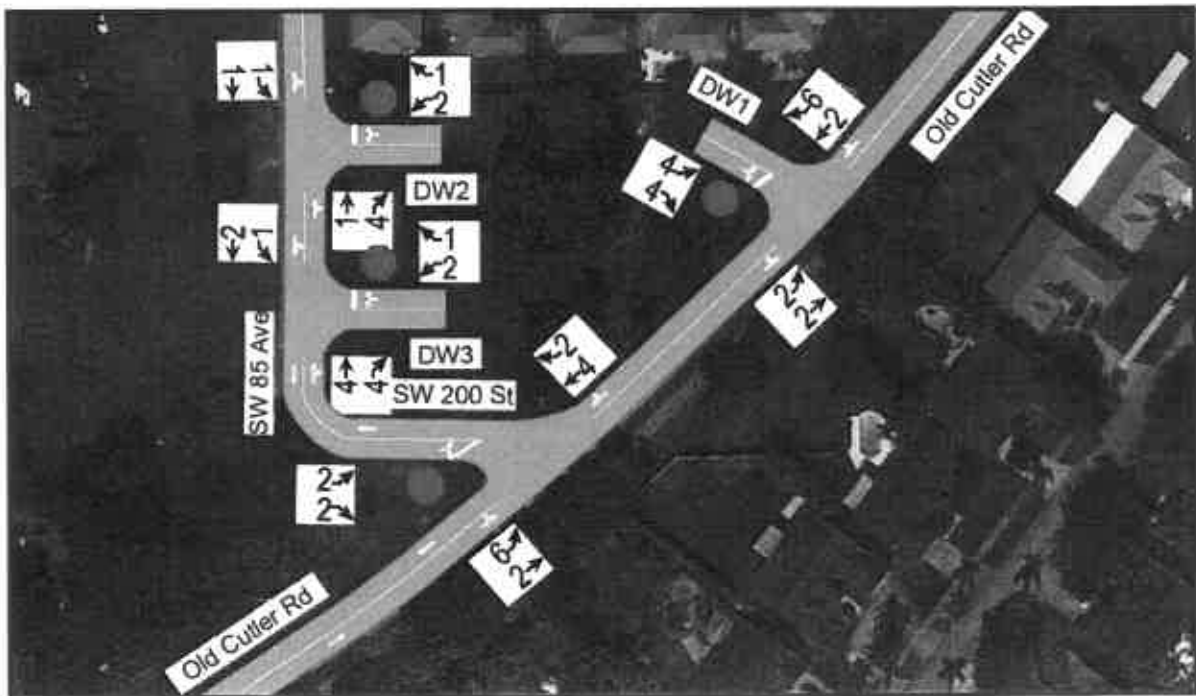


Figure 7: Site Traffic (Project Gross Trips) - PM Peak Hour



## Proposed Future Condition (2019)

This section of the report describes the traffic parameters utilized to develop the future peak hour volumes and to evaluate the future condition with the project trips in 2019 (projected build-out year).

### Background Traffic Growth

Using available traffic data from the Florida Department of Transportation (FDOT Count Station 8310), a regression analysis was performed to estimate any background traffic growth within the project's vicinity. The analysis yielded a growth rate of 1.76 percent (%). This growth rate was utilized to develop the traffic volumes for the proposed condition with project. Appendix 3 contains the supporting documentation.

### Future Traffic Volumes (Intersection) - AM & PM Peak Hour

The existing seasonally adjusted turning movement counts were augmented with a background growth rate of 1.76 percent and the project gross trips. The resulting traffic volumes represent the proposed future condition with project traffic in 2019 (Build Condition). The calculations for the specific movements at each intersection are contained in Appendix 4. Figures 8 and 9 depict the future traffic volumes with project trips for the AM and PM peak hour, respectively.

### Operational Analysis - Intersection LOS

The future traffic volumes with project traffic were evaluated to determine the future Level of Service at the intersection of Old Cutler Road and SW 200<sup>th</sup> Street. As a result, the operational analysis revealed that the studied intersection will maintain the existing LOS A for the future AM and PM peak hour condition in 2019. Lastly, the project's driveways were also evaluated and yielded LOS A. Table 9 summarizes the LOS and vehicle delays for the proposed future condition. Appendix 5 includes the Synchro software sheets with other outputs such as queue lengths and volume to capacity ratios.

**Table 9: Future Condition LOS (Intersections) - AM & PM Peak Hour**

| Proposed Future Condition (with Project Trips) (2019) |                      |  | AM Peak Hour |             |                          |     |             | PM Peak Hour |             |                          |     |             |
|-------------------------------------------------------|----------------------|--|--------------|-------------|--------------------------|-----|-------------|--------------|-------------|--------------------------|-----|-------------|
| Location                                              | Intersection Control |  | Overall      |             | * Critical Approach TWSC |     |             | Overall      |             | * Critical Approach TWSC |     |             |
|                                                       |                      |  | LOS          | Delay (sec) | Approach                 | LOS | Delay (sec) | LOS          | Delay (sec) | Approach                 | LOS | Delay (sec) |
| 1 Old Cutler Road & SW 200 Street                     | Two-Way Stop         |  | A            | 0.0         | EB                       | B   | 14.1        | A            | 0.2         | EB                       | C   | 18.4        |
| 2 Old Cutler Road & Driveway 1 (DW1)                  | Two-Way Stop         |  | A            | 0.1         | EB                       | C   | 17.1        | A            | 0.2         | EB                       | C   | 23.2        |
| 3 SW 85 Avenue & Driveway 2 (DW2)                     | Two-Way Stop         |  | A            | 4.1         | WB                       | A   | 8.5         | A            | 1.5         | WB                       | A   | 8.5         |
| 4 SW 85 Avenue & Driveway 3 (DW3)                     | Two-Way Stop         |  | A            | 2.8         | WB                       | A   | 8.5         | A            | 1.3         | WB                       | A   | 8.6         |

Notes: \* Critical Approach for TWSC.

Figure 8: Future Condition with Project Trips (Build 2019) - AM Peak Hour

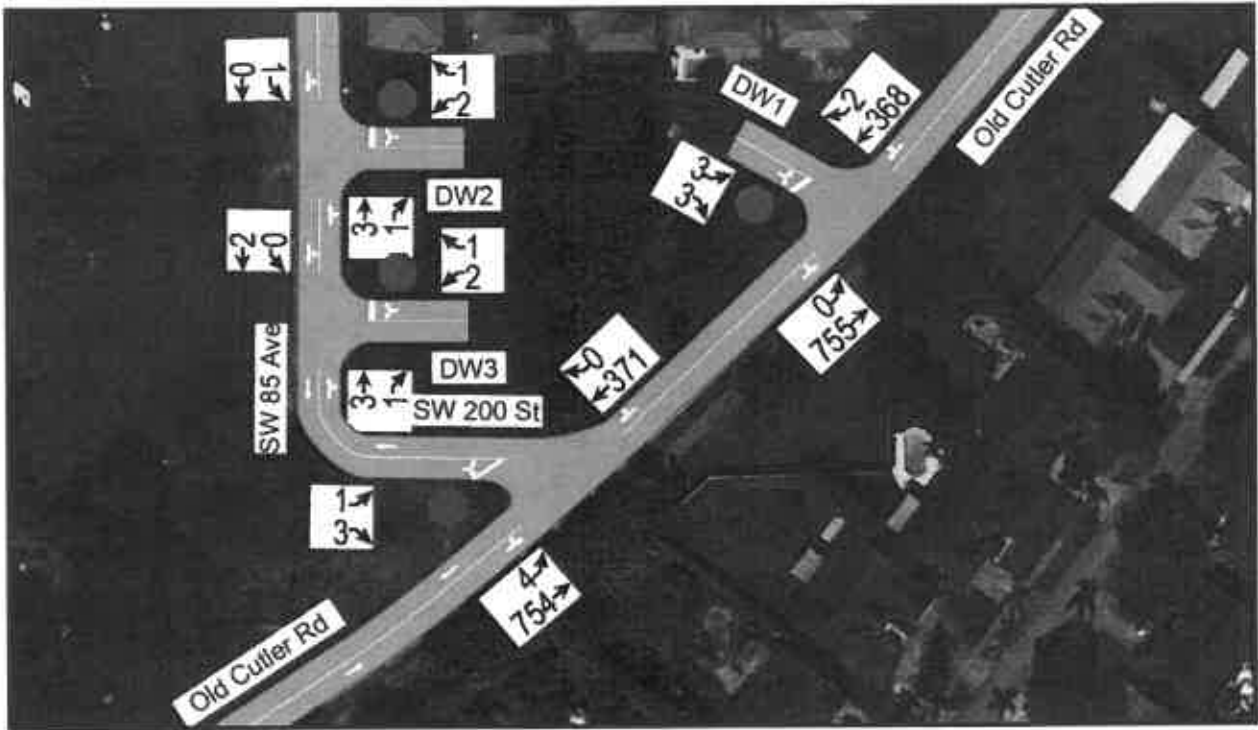
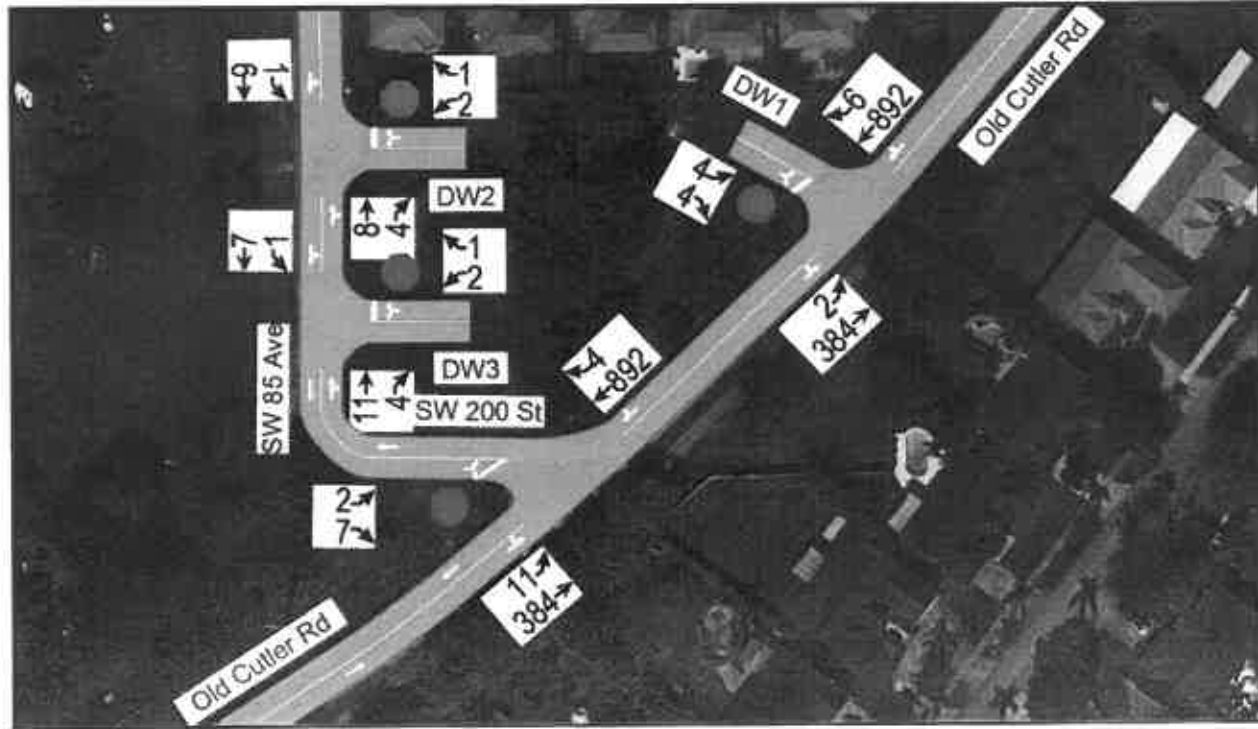


Figure 9: Future Condition with Project Trips (Build 2019) - PM Peak Hour



### Roadway Analysis - Capacity / Level of Service (LOS)

A short-term traffic analysis was performed to evaluate the roadway Level of Service for the future condition in 2019. The future volumes were developed by augmenting the existing peak hour volumes with a background traffic growth rate of 1.76 percent and the project gross trips. The analysis revealed that Old Cutler Road within the project's vicinity will have LOS C during the AM and PM peak hour. Table 10 summarizes the LOS results and available capacity for the AM and PM peak hour.

**Table 10: Future Roadway Segment LOS & Capacity - AM & PM Peak Hour**

| Roadway Analysis - AM Peak Hour |                 |                       | LOS / Volume Standard           | Existing Two-Way Volume (2018) | Background Growth @ 1.76% - 1 Year Build-Out (2019) | Project Gross Trips (2019) | Roadway Segment                |                    |     |
|---------------------------------|-----------------|-----------------------|---------------------------------|--------------------------------|-----------------------------------------------------|----------------------------|--------------------------------|--------------------|-----|
| Roadway                         | Location        |                       |                                 |                                |                                                     |                            | Proposed Traffic Volume (2019) | Available Capacity | LOS |
| 1                               | Old Cutler Road | North of SW 87 Avenue | LOS D / 1,600 VPH Class I - 2LU | 1,105                          | 19                                                  | 8                          | 1,132                          | 468                | C   |
| Roadway Analysis - PM Peak Hour |                 |                       | LOS / Volume Standard           | Existing Two-Way Volume (2018) | Background Growth @ 1.76% - 1 Year Build-Out (2019) | Project Gross Trips (2019) | Roadway Segment                |                    |     |
| Roadway                         | Location        |                       |                                 |                                |                                                     |                            | Proposed Traffic Volume (2019) | Available Capacity | LOS |
| 1                               | Old Cutler Road | North of SW 87 Avenue | LOS D / 1,600 VPH Class I - 2LU | 1,258                          | 22                                                  | 14                         | 1,295                          | 305                | C   |

## Conclusion

In conclusion, the most impacted intersection and roadway segment is currently operating within the acceptable LOS and will continue to do so during the future AM and PM peak hour condition. Therefore, no off-site improvements are required or recommended at this time. Lastly, it is fair to conclude that sufficient roadway capacity exists to support the subject project.

## Appendix 1: Trip Generation



TABLE: A1  
**TRIP GENERATION ANALYSIS**  
**AM PEAK HOUR**

Project Name: Cutler Gate

| LAND USE (LU)                  | UNITS           | ITE LU CODE | TRIP GENERATION RATE | AM PEAK HOUR TRIPS |    |     |     |       |
|--------------------------------|-----------------|-------------|----------------------|--------------------|----|-----|-----|-------|
|                                |                 |             |                      | %                  | IN | %   | OUT | TOTAL |
| Proposed                       |                 |             |                      |                    |    |     |     |       |
| Multifamily Housing (Mid-Rise) | 36 D.U.         | 221         | 0.36                 | 26%                | 3  | 74% | 10  | 13    |
| Shopping Center (Retail)       | 4,186 Th.Sq.Ft. | 820         | 0.94                 | 62%                | 2  | 38% | 2   | 4     |
| External Trips (Gross Trips)   |                 |             |                      | 29%                | 5  | 71% | 12  | 17    |

Notes: Sources: ITE Trip Generation, 10th Edition & ITE Trip Generation Handbook, 3rd Edition.

TABLE: A2  
**TRIP GENERATION ANALYSIS**  
**PM PEAK HOUR**

Project Name: Cutler Gate

| LAND USE (LU)                                                                 | UNITS           | ITE LU CODE | TRIP GENERATION RATE | PM PEAK HOUR TRIPS |           |            |           |
|-------------------------------------------------------------------------------|-----------------|-------------|----------------------|--------------------|-----------|------------|-----------|
|                                                                               |                 |             |                      | %                  | IN        | %          | OUT       |
| <b>Proposed</b><br>Multifamily Housing (Mid-Rise)<br>Shopping Center (Retail) | 36 D.U.         | 221         | 0.44                 | 61%                | 10        | 39%        | 6         |
|                                                                               | 4,186 Th.Sq.Ft. | 820         | 3.81                 | 48%                | 8         | 52%        | 8         |
| <b>External Trips (Gross Trips)</b>                                           |                 |             |                      | <b>56%</b>         | <b>18</b> | <b>44%</b> | <b>14</b> |
|                                                                               |                 |             |                      |                    |           |            | <b>32</b> |

Notes: Sources: ITE Trip Generation, 10th Edition & ITE Trip Generation Handbook, 3rd Edition.

## Multifamily Housing (Mid-Rise) (221)

Vehicle Trip Ends vs: Dwelling Units  
 On a: Weekday,  
 Peak Hour of Adjacent Street Traffic,  
 One Hour Between 7 and 9 a.m.  
 Setting/Location: General Urban/Suburban  
 Number of Studies: 53  
 Avg. Num. of Dwelling Units: 207  
 Directional Distribution: 26% entering, 74% exiting

### Vehicle Trip Generation per Dwelling Unit

Average Rate

0.36

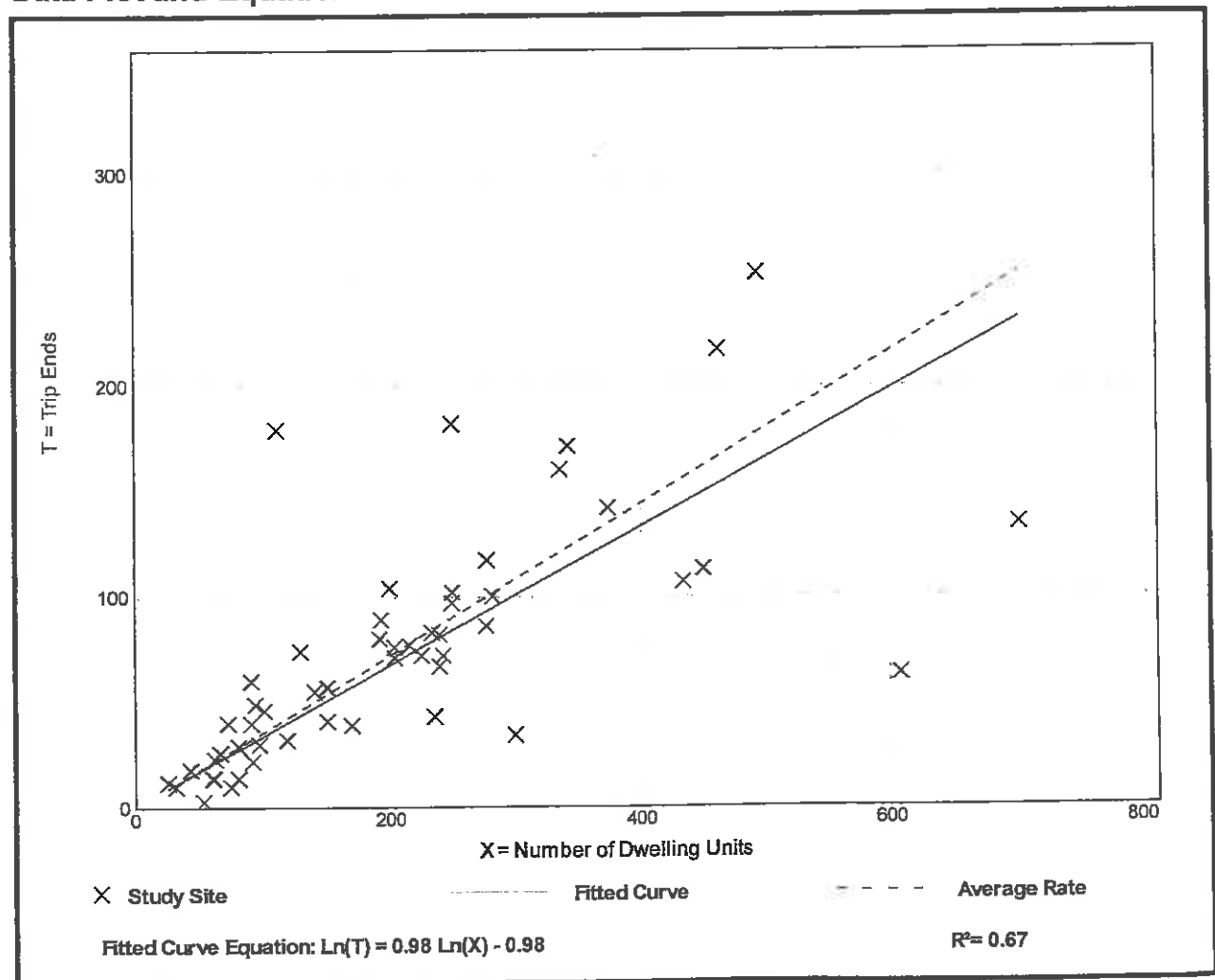
Range of Rates

0.06 - 1.61

Standard Deviation

0.19

### Data Plot and Equation



## Multifamily Housing (Mid-Rise) (221)

Vehicle Trip Ends vs: Dwelling Units  
 On a: Weekday,  
 Peak Hour of Adjacent Street Traffic,  
 One Hour Between 4 and 6 p.m.  
 Setting/Location: General Urban/Suburban  
 Number of Studies: 60  
 Avg. Num. of Dwelling Units: 208  
 Directional Distribution: 61% entering, 39% exiting

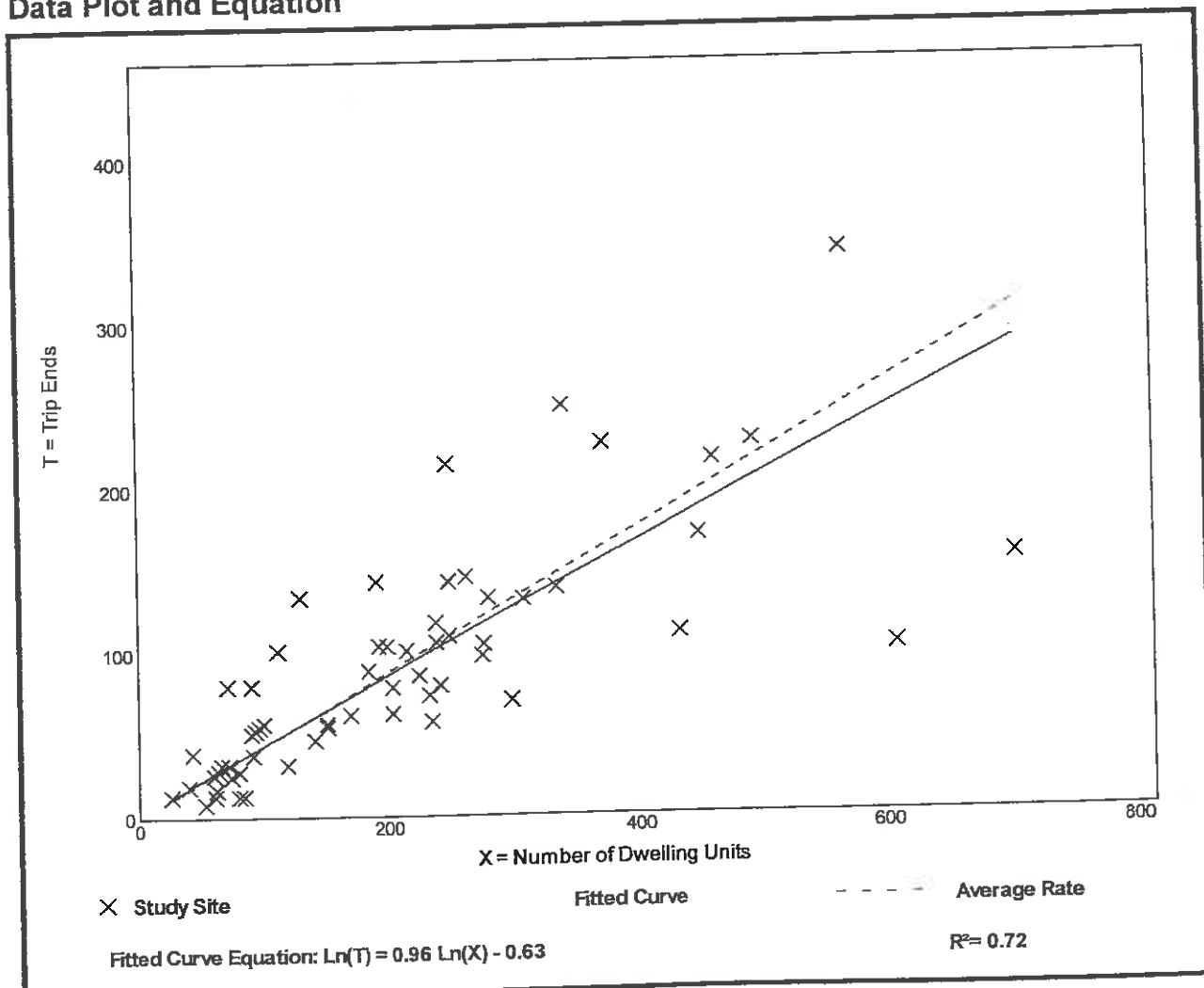
### Vehicle Trip Generation per Dwelling Unit

Average Rate  
 0.44

Range of Rates  
 0.15 - 1.11

Standard Deviation  
 0.19

### Data Plot and Equation



## Shopping Center (820)

Vehicle Trip Ends vs: 1000 Sq. Ft. GLA  
 On a: Weekday,  
 Peak Hour of Adjacent Street Traffic,  
 One Hour Between 7 and 9 a.m.  
 Setting/Location: General Urban/Suburban  
 Number of Studies: 84  
 1000 Sq. Ft. GLA: 351  
 Directional Distribution: 62% entering, 38% exiting

### Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate

Range of Rates

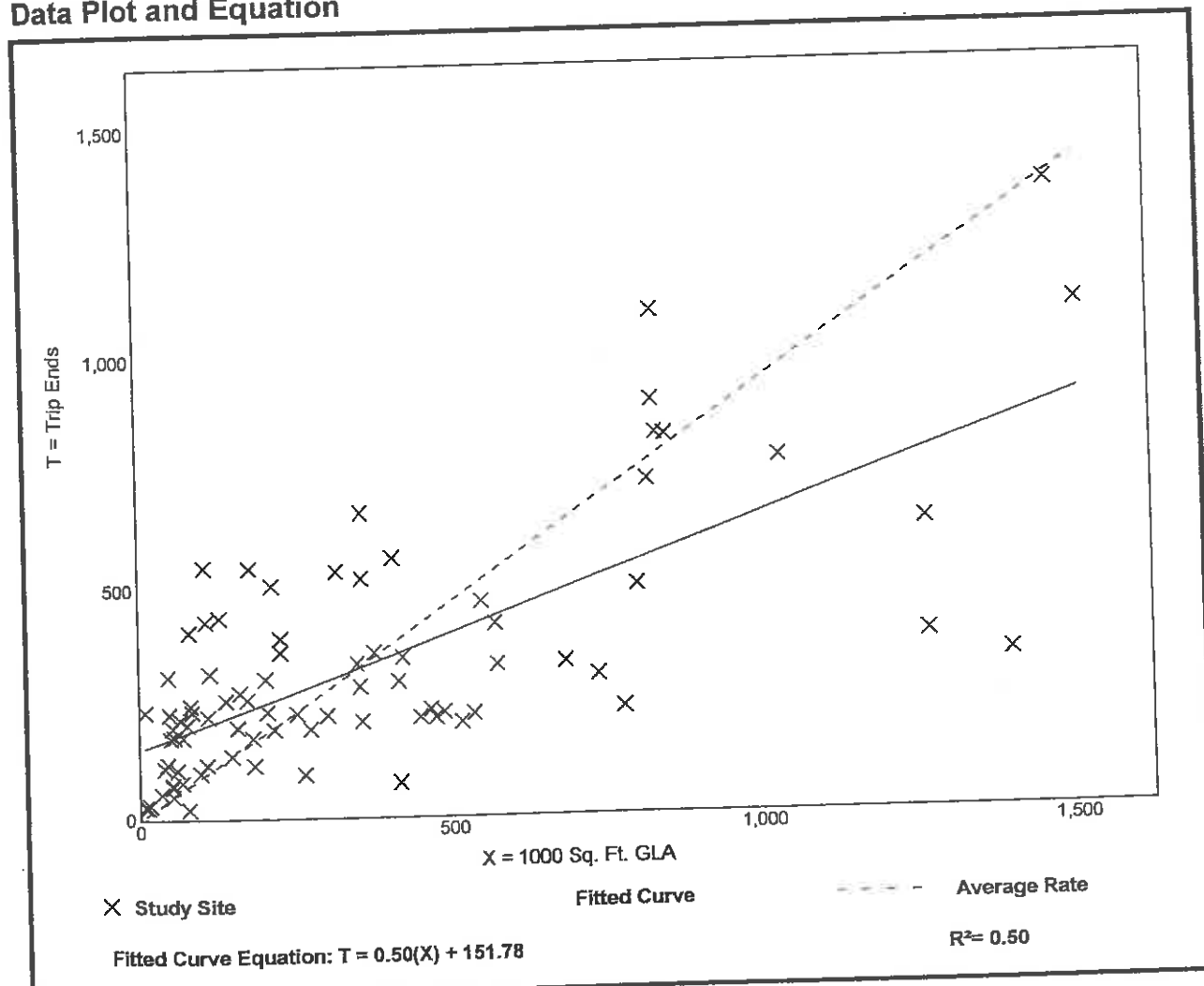
Standard Deviation

0.94

0.18 - 23.74

0.87

### Data Plot and Equation



## Shopping Center (820)

Vehicle Trip Ends vs: 1000 Sq. Ft. GLA  
 On a: Weekday,  
 Peak Hour of Adjacent Street Traffic,  
 One Hour Between 4 and 6 p.m.  
 Setting/Location: General Urban/Suburban  
 Number of Studies: 261  
 1000 Sq. Ft. GLA: 327  
 Directional Distribution: 48% entering, 52% exiting

### Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate

Range of Rates

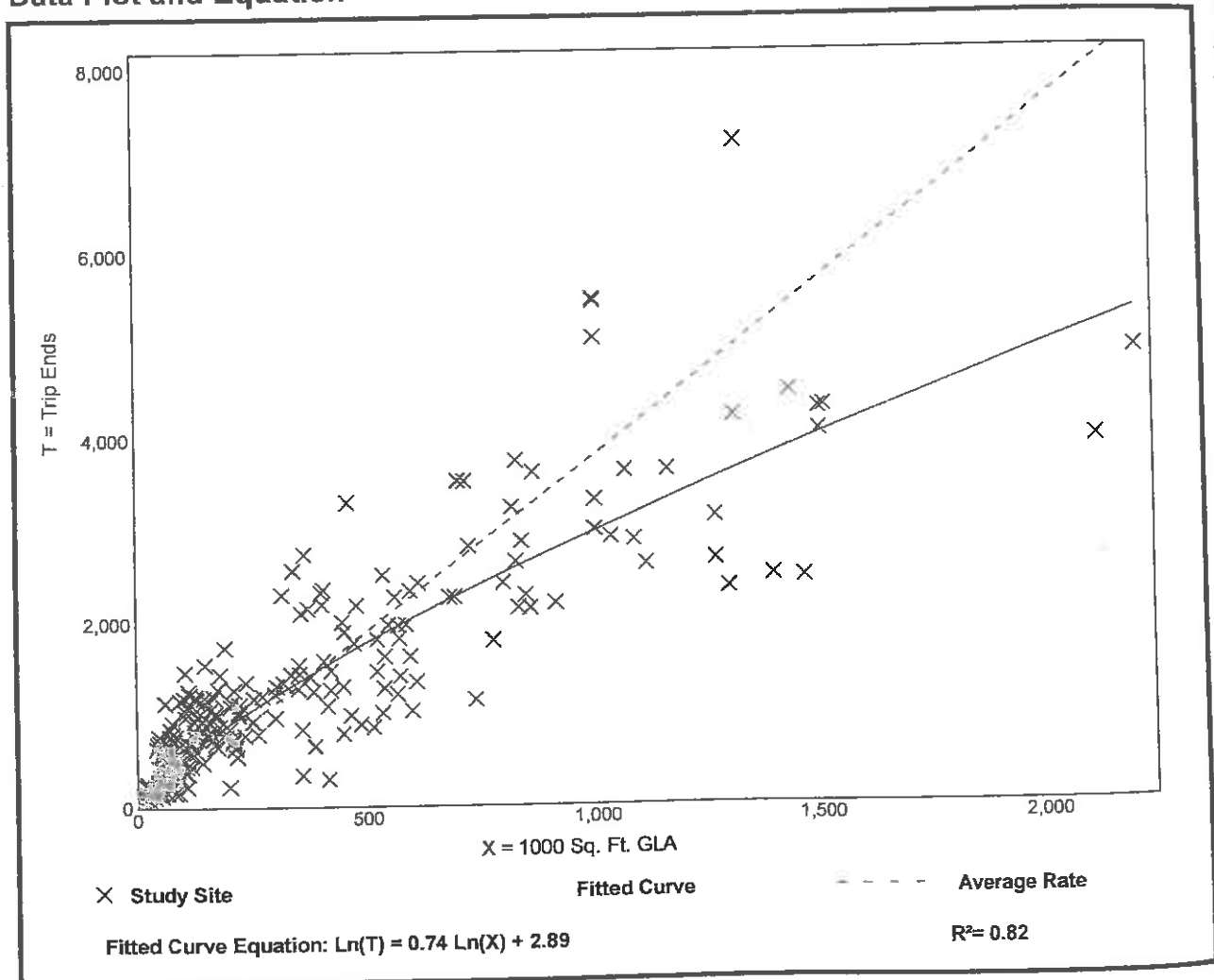
Standard Deviation

3.81

0.74 - 18.69

2.04

### Data Plot and Equation



## Appendix 2: Trip Distribution / Assignment



Cutler Gate

Site Traffic (Project Gross Trips) - AM Peak Hour

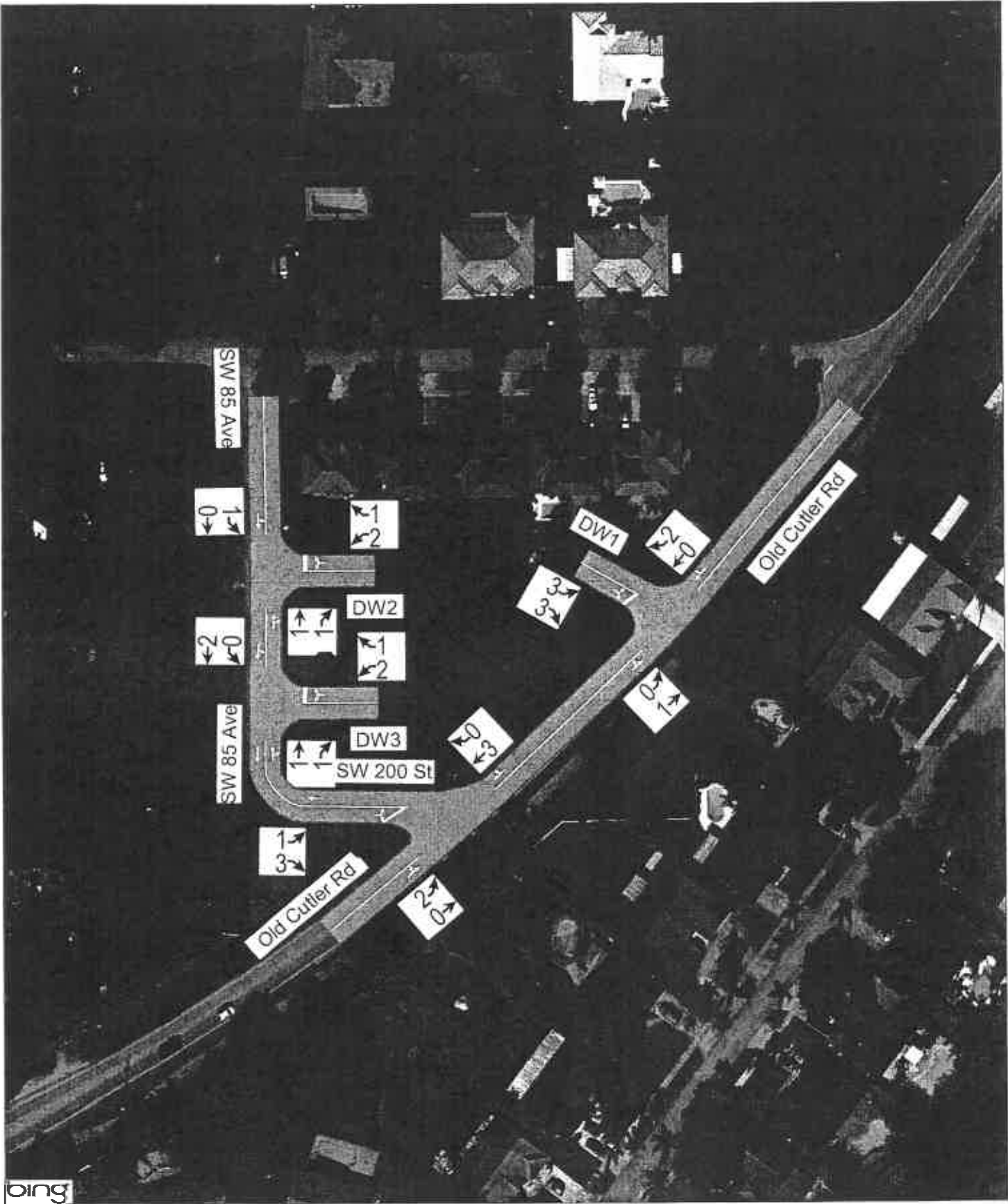


TABLE: A3

Cardinal Distribution  
AM Peak Hour  
Traffic Analysis Zone (TAZ) 1356  
Project Name: Cutler Gate

| DIRECTION | DISTRIBUTION (%)<br>DESIGN YEAR | DIRECTION | DISTRIBUTION | AM PEAK HOUR TRIPS |     |       |
|-----------|---------------------------------|-----------|--------------|--------------------|-----|-------|
|           |                                 |           |              | IN                 | OUT | TOTAL |
| NNE       | 23.78                           | NORTH     | 48.15%       | 2                  | 6   | 8     |
| ENE       | 1.27                            | EAST      | 1.73%        | 0                  | 0   | 0     |
| ESE       | 0.46                            |           |              |                    |     |       |
| SSE       | 5.74                            | SOUTH     | 13.06%       | 1                  | 2   | 3     |
| SSW       | 7.32                            | WEST      | 37.13%       | 2                  | 4   | 6     |
| WSW       | 21.95                           |           |              |                    |     |       |
| WNW       | 15.18                           |           |              |                    |     |       |
| NNW       | 24.37                           |           |              |                    |     |       |
| TOTAL     | 100.00                          |           | 100.00%      | 5                  | 12  | 17    |

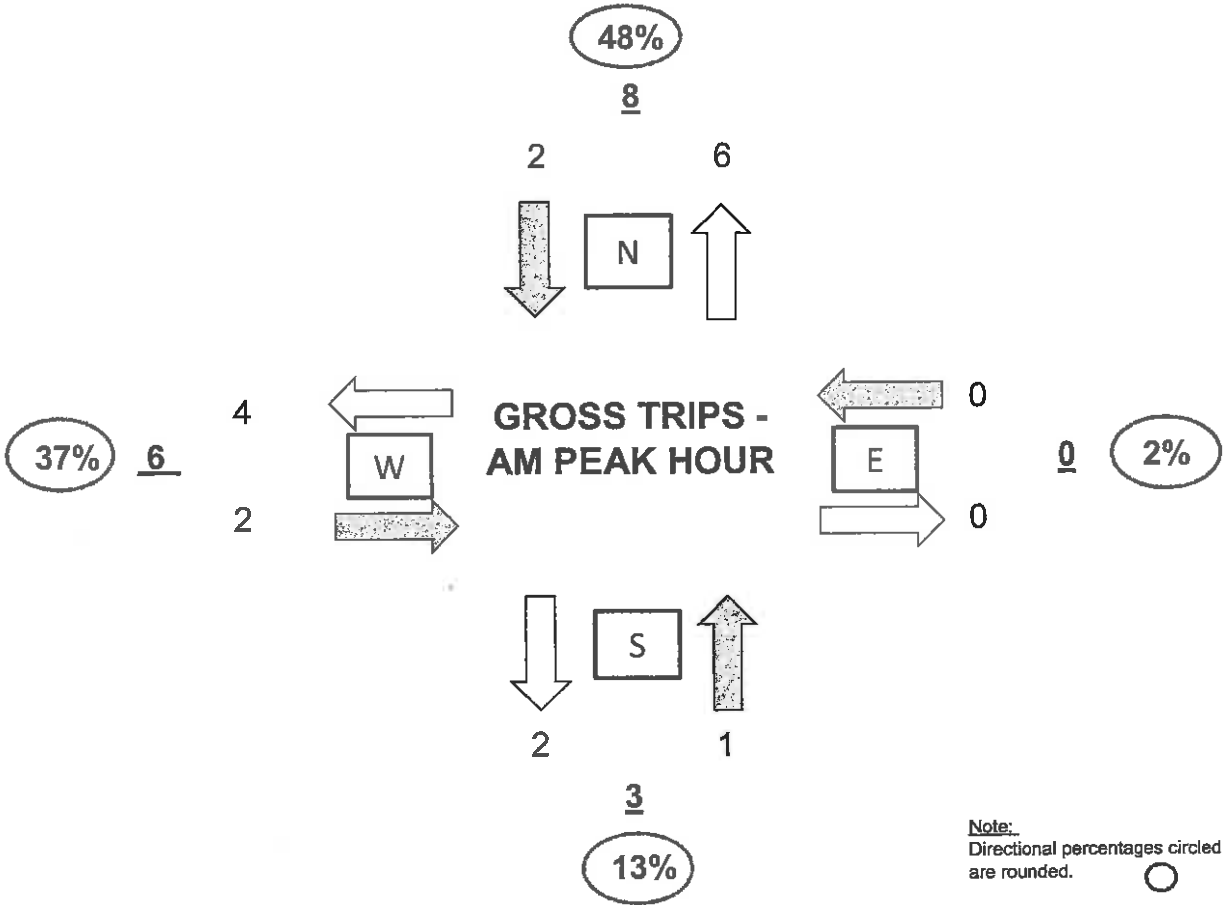


TABLE: A3-1

**Cardinal Distribution**  
**AM Peak Hour**  
**Traffic Analysis Zone (TAZ) 1356**  
 Project Name: Cutler Gate

| DIRECTION | DISTRIBUTION PERCENTAGES (%) |        |             | AM PEAK HOUR |     |       |
|-----------|------------------------------|--------|-------------|--------------|-----|-------|
|           | MIAMI-DADE LRTP MODEL YEAR   |        | DESIGN YEAR | IN           | OUT | TOTAL |
|           | 2010                         | 2040   | 2019        |              |     |       |
| NNE       | 25.40                        | 20.00  | 23.78       | 1            | 3   | 4     |
| ENE       | 1.60                         | 0.50   | 1.27        | 0            | 0   | 0     |
| ESE       | 0.40                         | 0.60   | 0.46        | 0            | 0   | 0     |
| SSE       | 6.40                         | 4.20   | 5.74        | 0            | 1   | 1     |
| SSW       | 7.20                         | 7.60   | 7.32        | 1            | 1   | 2     |
| WSW       | 21.50                        | 23.00  | 21.95       | 1            | 2   | 3     |
| WNW       | 13.80                        | 18.40  | 15.18       | 1            | 2   | 3     |
| NNW       | 23.80                        | 25.70  | 24.37       | 1            | 3   | 4     |
| TOTAL     | 100.00                       | 100.00 | 100.00      | 5            | 12  | 17    |

Note:

Based on Miami-Dade Transportation Plan (to the Year 2040) Directional Trip Distribution Report, October 2014. Since the current data is only available for the model years 2010 and 2040, the eight (8) cardinal directions were interpolated to the design year of 2019.

TABLE: A3-2

|              |        |        |              |
|--------------|--------|--------|--------------|
| AM PEAK HOUR | IN     | OUT    | TOTAL        |
| TRIPS:       | 5      | 12     | 17           |
| PERCENT:     | 29.41% | 70.59% | (Calculated) |

| DIRECTION    | DISTRIBUTION % | INGRESS      |          | EGRESS        |           | TOTAL     |
|--------------|----------------|--------------|----------|---------------|-----------|-----------|
|              |                | CALCULATED   | USED     | CALCULATED    | USED      |           |
| NNE          | 23.78          | 1.189        | 1        | 2.854         | 3         | 4         |
| ENE          | 1.27           | 0.064        | 0        | 0.152         | 0         | 0         |
| ESE          | 0.46           | 0.023        | 0        | 0.055         | 0         | 0         |
| SSE          | 5.74           | 0.287        | 0        | 0.689         | 1         | 1         |
| SSW          | 7.32           | 0.366        | 1        | 0.878         | 1         | 2         |
| WSW          | 21.95          | 1.098        | 1        | 2.634         | 2         | 3         |
| WNW          | 15.18          | 0.759        | 1        | 1.822         | 2         | 3         |
| NNW          | 24.37          | 1.219        | 1        | 2.924         | 3         | 4         |
| <b>TOTAL</b> | <b>100.00</b>  | <b>5.004</b> | <b>5</b> | <b>12.008</b> | <b>12</b> | <b>17</b> |

Cutler Gate

Site Traffic (Project Gross Trips) - PM Peak Hour

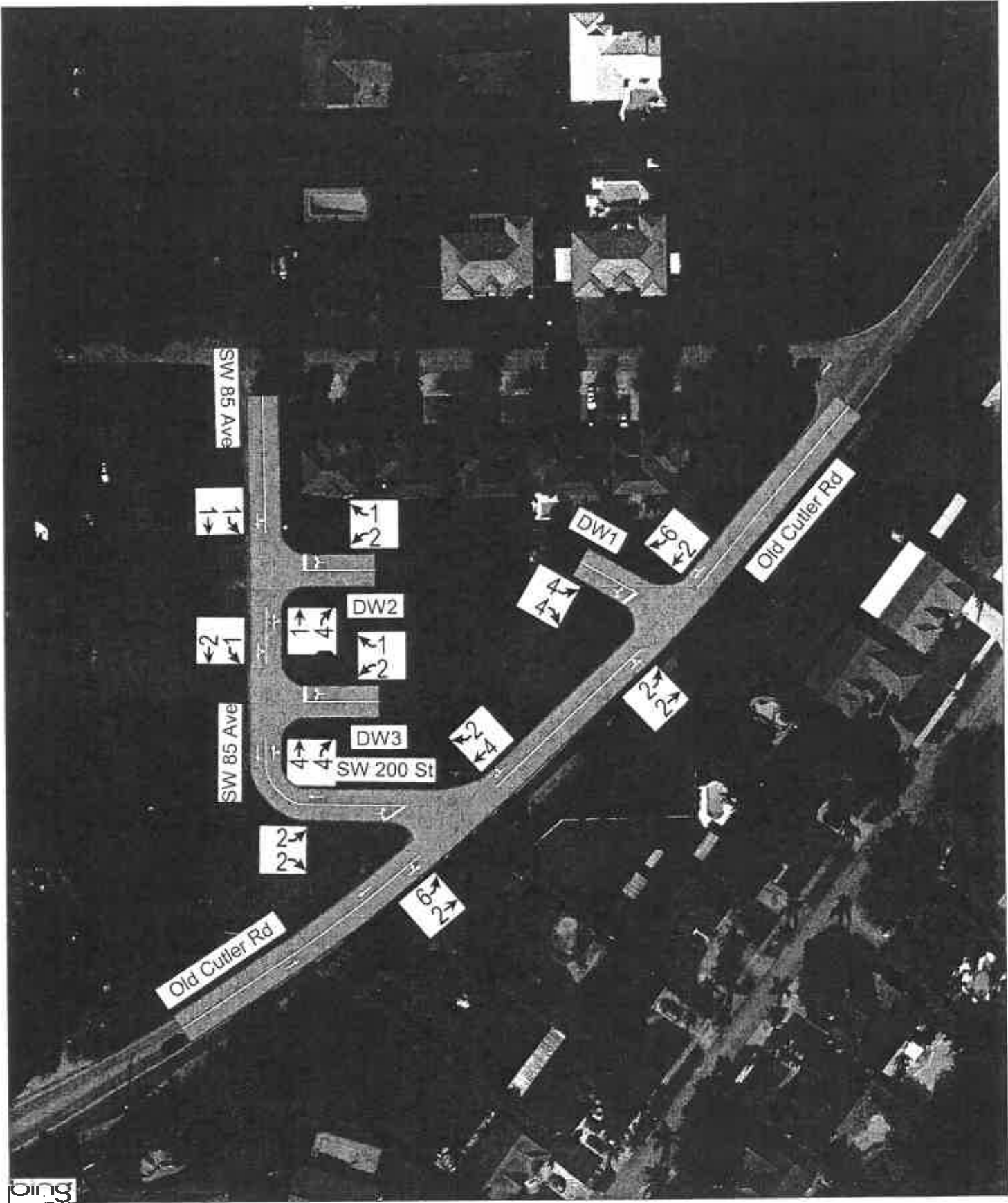


TABLE: A4

Cardinal Distribution  
PM Peak Hour  
Traffic Analysis Zone (TAZ) 1356  
Project Name: Cutler Gate

| DIRECTION | DISTRIBUTION (%)<br>DESIGN YEAR | DIRECTION | DISTRIBUTION | PM PEAK HOUR TRIPS |     |       |
|-----------|---------------------------------|-----------|--------------|--------------------|-----|-------|
|           |                                 |           |              | IN                 | OUT | TOTAL |
| NNE       | 23.78                           | NORTH     | 48.15%       | 9                  | 7   | 16    |
| ENE       | 1.27                            |           |              |                    |     |       |
| ESE       | 0.46                            | EAST      | 1.73%        | 0                  | 0   | 0     |
| SSE       | 5.74                            |           |              |                    |     |       |
| SSW       | 7.32                            | SOUTH     | 13.06%       | 2                  | 2   | 4     |
| WSW       | 21.95                           |           |              |                    |     |       |
| WNW       | 15.18                           | WEST      | 37.13%       | 7                  | 5   | 12    |
| NNW       | 24.37                           |           |              |                    |     |       |
| TOTAL     | 100.00                          |           | 100.00%      | 18                 | 14  | 32    |

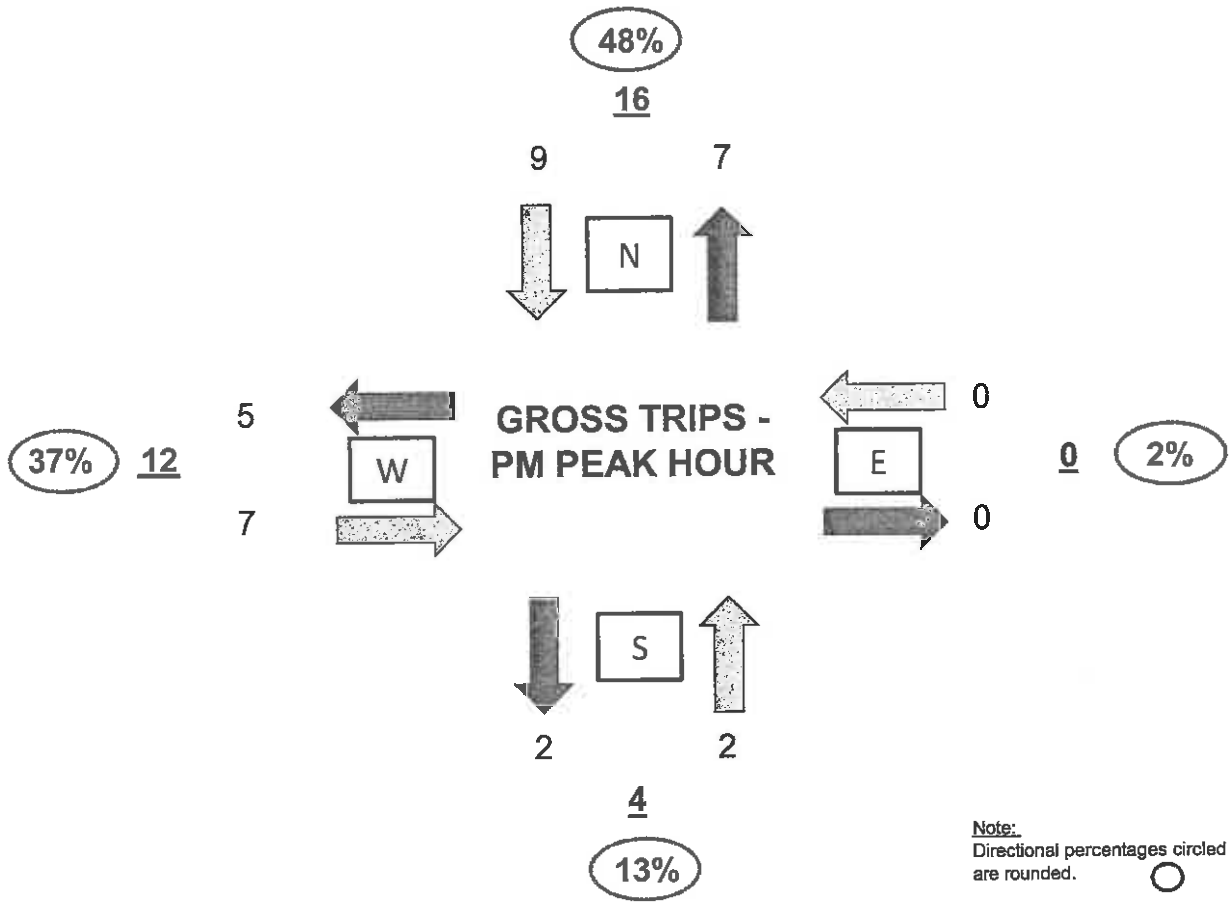


TABLE: A4-1

**Cardinal Distribution**  
**PM Peak Hour**  
**Traffic Analysis Zone (TAZ) 1356**  
 Project Name: Cutler Gate

| DIRECTION    | DISTRIBUTION PERCENTAGES (%) |               |               | PM PEAK HOUR |           |           |
|--------------|------------------------------|---------------|---------------|--------------|-----------|-----------|
|              | MIAMI-DADE LRTP MODEL YEAR   |               | DESIGN YEAR   | IN           | OUT       | TOTAL     |
|              | 2010                         | 2040          | 2019          |              |           |           |
| NNE          | 25.40                        | 20.00         | 23.78         | 4            | 3         | 7         |
| ENE          | 1.60                         | 0.50          | 1.27          | 0            | 0         | 0         |
| ESE          | 0.40                         | 0.60          | 0.46          | 0            | 0         | 0         |
| SSE          | 6.40                         | 4.20          | 5.74          | 1            | 1         | 2         |
| SSW          | 7.20                         | 7.60          | 7.32          | 1            | 1         | 2         |
| WSW          | 21.50                        | 23.00         | 21.95         | 4            | 3         | 7         |
| WNW          | 13.80                        | 18.40         | 15.18         | 3            | 2         | 5         |
| NNW          | 23.80                        | 25.70         | 24.37         | 5            | 4         | 9         |
| <b>TOTAL</b> | <b>100.00</b>                | <b>100.00</b> | <b>100.00</b> | <b>18</b>    | <b>14</b> | <b>32</b> |

Note:

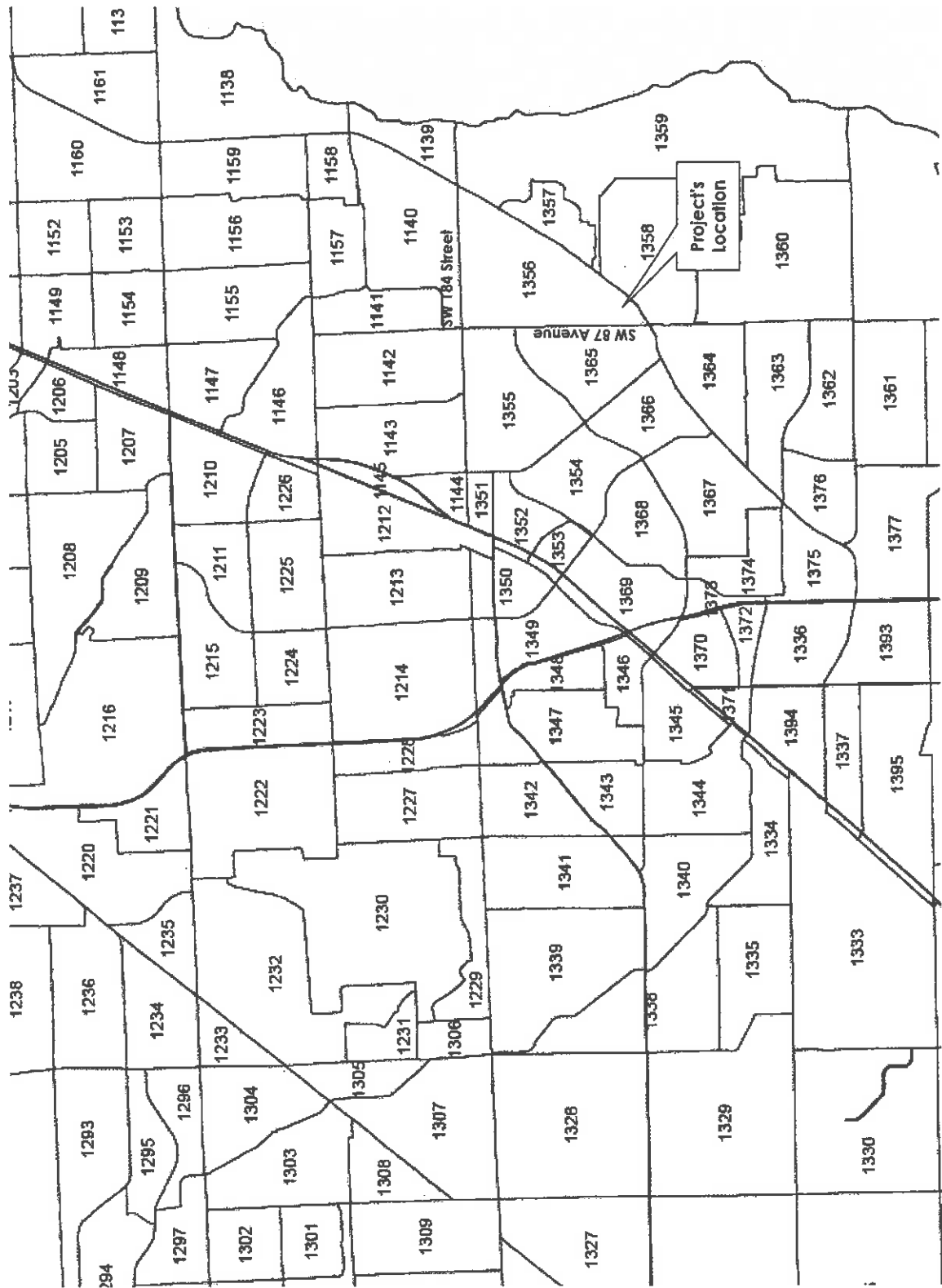
Based on Miami-Dade Transportation Plan (to the Year 2040) Directional Trip Distribution Report, October 2014. Since the current data is only available for the model years 2010 and 2040, the eight (8) cardinal directions were interpolated to the design year of 2019.

TABLE: A4-2

|              |        |        |              |
|--------------|--------|--------|--------------|
| PM PEAK HOUR | IN     | OUT    | TOTAL        |
| TRIPS:       | 18     | 14     | 32           |
| PERCENT:     | 56.25% | 43.75% | (Calculated) |

| DIRECTION    | DISTRIBUTION % | INGRESS       |           | EGRESS        |           | TOTAL     |
|--------------|----------------|---------------|-----------|---------------|-----------|-----------|
|              |                | CALCULATED    | USED      | CALCULATED    | USED      |           |
| NNE          | 23.78          | 4.280         | 4         | 3.329         | 3         | 7         |
| ENE          | 1.27           | 0.229         | 0         | 0.178         | 0         | 0         |
| ESE          | 0.46           | 0.083         | 0         | 0.064         | 0         | 0         |
| SSE          | 5.74           | 1.033         | 1         | 0.804         | 1         | 2         |
| SSW          | 7.32           | 1.318         | 1         | 1.025         | 1         | 2         |
| WSW          | 21.95          | 3.951         | 4         | 3.073         | 3         | 7         |
| WNW          | 15.18          | 2.732         | 3         | 2.125         | 2         | 5         |
| NNW          | 24.37          | 4.387         | 5         | 3.412         | 4         | 9         |
| <b>TOTAL</b> | <b>100.00</b>  | <b>18.013</b> | <b>18</b> | <b>14.010</b> | <b>14</b> | <b>32</b> |

TRAFFIC ANALYSIS ZONE (TAZ)

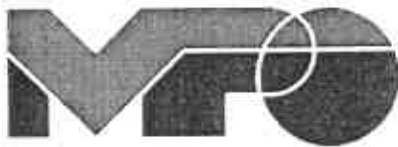
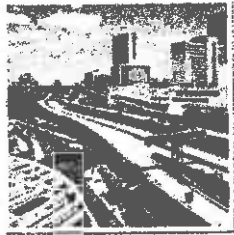




MOBILITY OPTIONS ---  
**2040** Miami-Dade  
Transportation Plan  
--- EYES ON THE FUTURE

# MIAMI-DADE 2040

Long Range Transportation Plan  
Directional Trip Distribution Report  
October 23, 2014



MIAMI-DADE METROPOLITAN  
PLANNING ORGANIZATION



Photo by Asad Gilani

### Miami-Dade 2010 Directional Distribution Summary

| Origin TAZ |              |         | Cardinal Directions |     |     |     |       |      |      |       | Total |
|------------|--------------|---------|---------------------|-----|-----|-----|-------|------|------|-------|-------|
| County TAZ | Regional TAZ |         | NNE                 | ENE | ESE | SSE | SSW   | WSW  | WNW  | NNW   |       |
| 1354       | 4254         | TRIPS   | 772                 | 139 | 56  | 130 | 317   | 390  | 359  | 487   | 2,650 |
| 1354       | 4254         | PERCENT | 29.1                | 5.3 | 2.1 | 4.9 | 12.0  | 14.7 | 13.6 | 18.4  |       |
| 1355       | 4255         | TRIPS   | 1,441               | 39  | 114 | 303 | 465   | 507  | 512  | 993   | 4,374 |
| 1355       | 4255         | PERCENT | 32.9                | 0.9 | 2.6 | 6.9 | 10.6  | 11.6 | 11.7 | 22.7  |       |
| 1356       | 4256         | TRIPS   | 988                 | 61  | 16  | 251 | 279   | 837  | 538  | 927   | 3,897 |
| 1356       | 4256         | PERCENT | 25.4                | 1.6 | 0.4 | 6.4 | 7.2   | 21.5 | 13.8 | 23.8  |       |
| 1357       | 4257         | TRIPS   | 151                 | 0   | 0   | 8   | 63    | 71   | 91   | 141   | 525   |
| 1357       | 4257         | PERCENT | 28.8                | 0.0 | 0.0 | 1.5 | 12.0  | 13.5 | 17.3 | 26.9  |       |
| 1358       | 4258         | TRIPS   | 806                 | 3   | 13  | 238 | 90    | 316  | 562  | 982   | 3,010 |
| 1358       | 4258         | PERCENT | 26.8                | 0.1 | 0.4 | 7.9 | 3.0   | 10.5 | 18.7 | 32.6  |       |
| 1359       | 4259         | TRIPS   | 700                 | 5   | 0   | 0   | 14    | 414  | 414  | 841   | 2,388 |
| 1359       | 4259         | PERCENT | 29.3                | 0.2 | 0.0 | 0.0 | 0.6   | 17.3 | 17.3 | 35.2  |       |
| 1360       | 4260         | TRIPS   | 904                 | 65  | 0   | 0   | 111   | 769  | 963  | 1,780 | 4,592 |
| 1360       | 4260         | PERCENT | 19.7                | 1.4 | 0.0 | 0.0 | 2.4   | 16.8 | 21.0 | 38.8  |       |
| 1361       | 4261         | TRIPS   | 1,058               | 33  | 0   | 0   | 39    | 207  | 448  | 871   | 2,656 |
| 1361       | 4261         | PERCENT | 39.8                | 1.2 | 0.0 | 0.0 | 1.5   | 7.8  | 16.9 | 32.8  |       |
| 1362       | 4262         | TRIPS   | 601                 | 131 | 0   | 0   | 46    | 174  | 440  | 749   | 2,141 |
| 1362       | 4262         | PERCENT | 28.1                | 6.1 | 0.0 | 0.0 | 2.2   | 8.1  | 20.6 | 35.0  |       |
| 1363       | 4263         | TRIPS   | 1,113               | 103 | 0   | 40  | 43    | 463  | 584  | 869   | 3,215 |
| 1363       | 4263         | PERCENT | 34.6                | 3.2 | 0.0 | 1.2 | 1.3   | 14.4 | 18.2 | 27.0  |       |
| 1364       | 4264         | TRIPS   | 1,341               | 161 | 191 | 71  | 348   | 759  | 745  | 1,251 | 4,867 |
| 1364       | 4264         | PERCENT | 27.6                | 3.3 | 3.9 | 1.5 | 7.2   | 15.6 | 15.3 | 25.7  |       |
| 1365       | 4265         | TRIPS   | 900                 | 198 | 84  | 51  | 353   | 382  | 466  | 837   | 3,271 |
| 1365       | 4265         | PERCENT | 27.5                | 6.1 | 2.6 | 1.6 | 10.8  | 11.7 | 14.3 | 25.6  |       |
| 1366       | 4266         | TRIPS   | 865                 | 54  | 57  | 220 | 169   | 440  | 502  | 658   | 2,965 |
| 1366       | 4266         | PERCENT | 29.2                | 1.8 | 1.9 | 7.4 | 5.7   | 14.8 | 16.9 | 22.2  |       |
| 1367       | 4267         | TRIPS   | 1,586               | 202 | 242 | 149 | 315   | 712  | 536  | 1,260 | 5,002 |
| 1367       | 4267         | PERCENT | 31.7                | 4.0 | 4.8 | 3.0 | 6.3   | 14.2 | 10.7 | 25.2  |       |
| 1368       | 4268         | TRIPS   | 922                 | 71  | 171 | 212 | 313   | 292  | 443  | 435   | 2,859 |
| 1368       | 4268         | PERCENT | 32.3                | 2.5 | 6.0 | 7.4 | 11.0  | 10.2 | 15.5 | 15.2  |       |
| 1369       | 4269         | TRIPS   | 1,773               | 294 | 456 | 386 | 1,128 | 650  | 688  | 1,133 | 6,508 |
| 1369       | 4269         | PERCENT | 27.2                | 4.5 | 7.0 | 5.9 | 17.3  | 10.0 | 10.6 | 17.4  |       |
| 1370       | 4270         | TRIPS   | 1,163               | 466 | 437 | 214 | 1,118 | 389  | 616  | 901   | 5,304 |
| 1370       | 4270         | PERCENT | 21.9                | 8.8 | 8.2 | 4.0 | 21.1  | 7.3  | 11.6 | 17.0  |       |
| 1371       | 4271         | TRIPS   | 640                 | 243 | 156 | 140 | 444   | 102  | 279  | 537   | 2,541 |
| 1371       | 4271         | PERCENT | 25.2                | 9.6 | 6.1 | 5.5 | 17.5  | 4.0  | 11.0 | 21.1  |       |
| 1372       | 4272         | TRIPS   | 75                  | 0   | 20  | 0   | 50    | 38   | 58   | 49    | 290   |
| 1372       | 4272         | PERCENT | 25.9                | 0.0 | 6.9 | 0.0 | 17.2  | 13.1 | 20.0 | 16.9  |       |
| 1373       | 4273         | TRIPS   | 83                  | 23  | 13  | 13  | 22    | 25   | 35   | 29    | 243   |
| 1373       | 4273         | PERCENT | 34.2                | 9.5 | 5.4 | 5.4 | 9.1   | 10.3 | 14.4 | 11.9  |       |
| 1374       | 4274         | TRIPS   | 1,589               | 387 | 169 | 0   | 343   | 262  | 524  | 880   | 4,154 |

## Miami-Dade 2040 Directional Distribution Summary

| Origin TAZ |              |         | Cardinal Directions |       |       |       |       |       |       |       | Total  |
|------------|--------------|---------|---------------------|-------|-------|-------|-------|-------|-------|-------|--------|
| County TAZ | Regional TAZ |         | NNE                 | ENE   | ESE   | SSE   | SSW   | WSW   | WNW   | NNW   |        |
| 1354       | 4254         | TRIPS   | 785                 | 126   | 39    | 143   | 431   | 443   | 476   | 714   | 3,157  |
| 1354       | 4254         | PERCENT | 24.9                | 4.0   | 1.2   | 4.5   | 13.7  | 14.0  | 15.1  | 22.6  |        |
| 1355       | 4255         | TRIPS   | 1,260               | 35    | 86    | 232   | 526   | 839   | 533   | 1,085 | 4,596  |
| 1355       | 4255         | PERCENT | 27.4                | 0.8   | 1.9   | 5.1   | 11.4  | 18.3  | 11.6  | 23.6  |        |
| 1356       | 4256         | TRIPS   | 1,050               | 26    | 33    | 218   | 399   | 1,204 | 966   | 1,348 | 5,244  |
| 1356       | 4256         | PERCENT | 20.0                | 0.5   | 0.6   | 4.2   | 7.6   | 23.0  | 18.4  | 25.7  |        |
| 1357       | 4257         | TRIPS   | 162                 | 0     | 0     | 6     | 64    | 168   | 117   | 161   | 678    |
| 1357       | 4257         | PERCENT | 23.9                | 0.0   | 0.0   | 0.9   | 9.4   | 24.8  | 17.3  | 23.8  |        |
| 1358       | 4258         | TRIPS   | 797                 | 0     | 20    | 172   | 107   | 721   | 684   | 992   | 3,493  |
| 1358       | 4258         | PERCENT | 22.8                | 0.0   | 0.6   | 4.9   | 3.1   | 20.6  | 19.6  | 28.4  |        |
| 1359       | 4259         | TRIPS   | 489                 | 0     | 0     | 0     | 29    | 611   | 524   | 846   | 2,499  |
| 1359       | 4259         | PERCENT | 19.6                | 0.0   | 0.0   | 0.0   | 1.2   | 24.5  | 21.0  | 33.9  |        |
| 1360       | 4260         | TRIPS   | 1,066               | 69    | 0     | 0     | 270   | 1,361 | 1,211 | 2,072 | 6,049  |
| 1360       | 4260         | PERCENT | 17.6                | 1.1   | 0.0   | 0.0   | 4.5   | 22.5  | 20.0  | 34.3  |        |
| 1361       | 4261         | TRIPS   | 1,797               | 43    | 0     | 4     | 107   | 916   | 1,216 | 1,574 | 5,657  |
| 1361       | 4261         | PERCENT | 31.8                | 0.8   | 0.0   | 0.1   | 1.9   | 16.2  | 21.5  | 27.8  |        |
| 1362       | 4262         | TRIPS   | 669                 | 197   | 0     | 0     | 139   | 642   | 580   | 929   | 3,156  |
| 1362       | 4262         | PERCENT | 21.2                | 6.2   | 0.0   | 0.0   | 4.4   | 20.3  | 18.4  | 29.4  |        |
| 1363       | 4263         | TRIPS   | 949                 | 111   | 0     | 80    | 89    | 851   | 875   | 966   | 3,921  |
| 1363       | 4263         | PERCENT | 24.2                | 2.8   | 0.0   | 2.0   | 2.3   | 21.7  | 22.3  | 24.6  |        |
| 1364       | 4264         | TRIPS   | 1,298               | 155   | 104   | 107   | 372   | 1,230 | 857   | 1,610 | 5,733  |
| 1364       | 4264         | PERCENT | 22.6                | 2.7   | 1.8   | 1.9   | 6.5   | 21.5  | 15.0  | 28.1  |        |
| 1365       | 4265         | TRIPS   | 814                 | 153   | 76    | 111   | 425   | 558   | 469   | 977   | 3,583  |
| 1365       | 4265         | PERCENT | 22.7                | 4.3   | 2.1   | 3.1   | 11.9  | 15.6  | 13.1  | 27.3  |        |
| 1366       | 4266         | TRIPS   | 790                 | 104   | 85    | 174   | 166   | 573   | 357   | 638   | 2,887  |
| 1366       | 4266         | PERCENT | 27.4                | 3.6   | 2.9   | 6.0   | 5.8   | 19.9  | 12.4  | 22.1  |        |
| 1367       | 4267         | TRIPS   | 1,229               | 224   | 295   | 102   | 442   | 898   | 591   | 1,060 | 4,841  |
| 1367       | 4267         | PERCENT | 25.4                | 4.6   | 6.1   | 2.1   | 9.1   | 18.6  | 12.2  | 21.9  |        |
| 1368       | 4268         | TRIPS   | 944                 | 102   | 197   | 263   | 460   | 515   | 549   | 516   | 3,546  |
| 1368       | 4268         | PERCENT | 26.6                | 2.9   | 5.6   | 7.4   | 13.0  | 14.5  | 15.5  | 14.6  |        |
| 1369       | 4269         | TRIPS   | 2,342               | 286   | 483   | 337   | 1,822 | 950   | 590   | 1,182 | 7,992  |
| 1369       | 4269         | PERCENT | 29.3                | 3.6   | 6.0   | 4.2   | 22.8  | 11.9  | 7.4   | 14.8  |        |
| 1370       | 4270         | TRIPS   | 4,691               | 1,256 | 1,320 | 1,059 | 5,372 | 2,645 | 1,818 | 3,513 | 21,674 |
| 1370       | 4270         | PERCENT | 21.6                | 5.8   | 6.1   | 4.9   | 24.8  | 12.2  | 8.4   | 16.2  |        |
| 1371       | 4271         | TRIPS   | 948                 | 623   | 251   | 190   | 1,048 | 448   | 280   | 710   | 4,498  |
| 1371       | 4271         | PERCENT | 21.1                | 13.9  | 5.6   | 4.2   | 23.3  | 10.0  | 6.2   | 15.8  |        |
| 1372       | 4272         | TRIPS   | 258                 | 19    | 18    | 4     | 132   | 140   | 109   | 252   | 932    |
| 1372       | 4272         | PERCENT | 27.7                | 2.0   | 1.9   | 0.4   | 14.2  | 15.0  | 11.7  | 27.0  |        |
| 1373       | 4273         | TRIPS   | 127                 | 23    | 8     | 15    | 24    | 42    | 40    | 53    | 332    |
| 1373       | 4273         | PERCENT | 38.3                | 6.9   | 2.4   | 4.5   | 7.2   | 12.7  | 12.1  | 16.0  |        |
| 1374       | 4274         | TRIPS   | 1,372               | 317   | 125   | 2     | 456   | 416   | 644   | 864   | 4,196  |

### Appendix 3: Growth Rate & Adjustment Factor

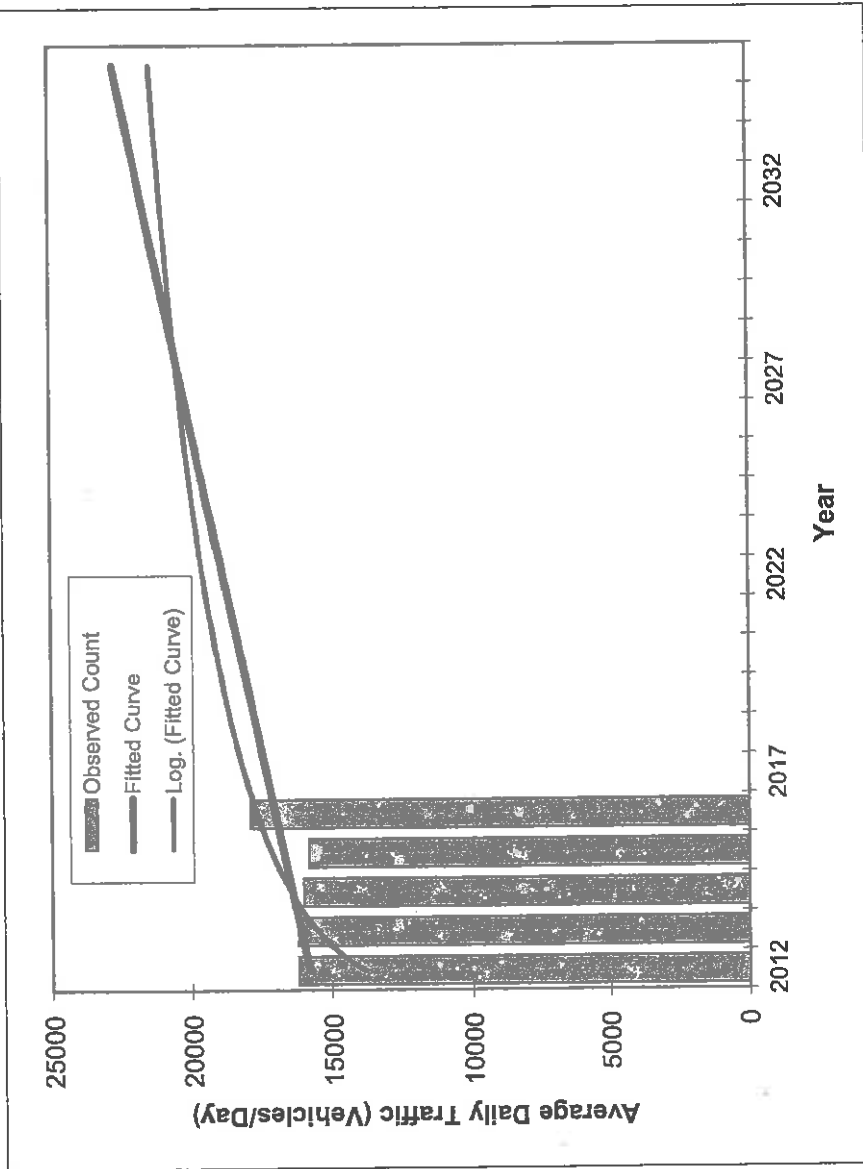


# Traffic Trends - V2.0

## OLD CUTLER RD -- 200' SOUTH OF FRANJO RD

PIN# 973215-1  
Location 1

County: Miami (87)  
Station #: 8310  
Highway: OLD CUTLER RD



| Traffic (ADT/AADT)        |        |         |
|---------------------------|--------|---------|
| Year                      | Count* | Trend** |
| 2012                      | 16200  | 15800   |
| 2013                      | 16200  | 16100   |
| 2014                      | 16000  | 16400   |
| 2015                      | 15800  | 16700   |
| 2016                      | 17900  | 17000   |
| 2017 Opening Year Trend   |        |         |
| 2017                      | N/A    | 17300   |
| 2018 Mid-Year Trend       |        |         |
| 2018                      | N/A    | 17600   |
| 2019 Design Year Trend    |        |         |
| 2019                      | N/A    | 17900   |
| TRANPLAN Forecasts/Trends |        |         |
|                           |        |         |

\*Axle-Adjusted

\*\* Annual Trend Increase: 300  
Trend R-squared: 31.60%  
Trend Annual Historic Growth Rate: 1.90%  
Trend Growth Rate (2016 to Design Year): 1.76%  
Printed: 22-Jan-18

Straight Line Growth Option

FLORIDA DEPARTMENT OF TRANSPORTATION  
 TRANSPORTATION STATISTICS OFFICE  
 2016 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 8310 - OLD CUTLER RD, 200' SOUTH OF FRANJO RD

| YEAR | AADT    | DIRECTION 1 | DIRECTION 2 | *K FACTOR | D FACTOR | T FACTOR |
|------|---------|-------------|-------------|-----------|----------|----------|
| 2016 | 17900 C | N 8900      | S 9000      | 9.00      | 56.10    | 13.50    |
| 2015 | 15800 T | N 8100      | S 7700      | 9.00      | 57.40    | 13.70    |
| 2014 | 16000 S | N 8200      | S 7800      | 9.00      | 59.30    | 17.40    |
| 2013 | 16200 F | N 8300      | S 7900      | 9.00      | 58.90    | 16.20    |
| 2012 | 16200 C | N 8300      | S 7900      | 9.00      | 59.70    | 16.00    |

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE  
 S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE  
 V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN  
 \*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

2016 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL  
 CATEGORY: 8701 MIAMI-DADE SOUTH

| WEEK | DATES                   | SF   | MOCF: 0.99<br>PSCF |
|------|-------------------------|------|--------------------|
| 1    | 01/01/2016 - 01/02/2016 | 0.99 | 1.00               |
| 2    | 01/03/2016 - 01/09/2016 | 1.00 | 1.01               |
| 3    | 01/10/2016 - 01/16/2016 | 1.02 | 1.03               |
| 4    | 01/17/2016 - 01/23/2016 | 1.01 | 1.02               |
| 5    | 01/24/2016 - 01/30/2016 | 1.01 | 1.02               |
| 6    | 01/31/2016 - 02/06/2016 | 1.00 | 1.01               |
| 7    | 02/07/2016 - 02/13/2016 | 0.99 | 1.00               |
| * 8  | 02/14/2016 - 02/20/2016 | 0.99 | 1.00               |
| * 9  | 02/21/2016 - 02/27/2016 | 0.99 | 1.00               |
| *10  | 02/28/2016 - 03/05/2016 | 0.99 | 1.00               |
| *11  | 03/06/2016 - 03/12/2016 | 0.99 | 1.00               |
| *12  | 03/13/2016 - 03/19/2016 | 0.99 | 1.00               |
| *13  | 03/20/2016 - 03/26/2016 | 0.99 | 1.00               |
| *14  | 03/27/2016 - 04/02/2016 | 0.99 | 1.00               |
| *15  | 04/03/2016 - 04/09/2016 | 0.98 | 0.99               |
| *16  | 04/10/2016 - 04/16/2016 | 0.98 | 0.99               |
| *17  | 04/17/2016 - 04/23/2016 | 0.98 | 0.99               |
| *18  | 04/24/2016 - 04/30/2016 | 0.99 | 1.00               |
| *19  | 05/01/2016 - 05/07/2016 | 0.99 | 1.00               |
| *20  | 05/08/2016 - 05/14/2016 | 0.99 | 1.00               |
| 21   | 05/15/2016 - 05/21/2016 | 1.00 | 1.01               |
| 22   | 05/22/2016 - 05/28/2016 | 1.00 | 1.01               |
| 23   | 05/29/2016 - 06/04/2016 | 1.00 | 1.01               |
| 24   | 06/05/2016 - 06/11/2016 | 1.00 | 1.01               |
| 25   | 06/12/2016 - 06/18/2016 | 1.00 | 1.01               |
| 26   | 06/19/2016 - 06/25/2016 | 1.01 | 1.02               |
| 27   | 06/26/2016 - 07/02/2016 | 1.02 | 1.03               |
| 28   | 07/03/2016 - 07/09/2016 | 1.02 | 1.03               |
| 29   | 07/10/2016 - 07/16/2016 | 1.03 | 1.04               |
| 30   | 07/17/2016 - 07/23/2016 | 1.03 | 1.04               |
| 31   | 07/24/2016 - 07/30/2016 | 1.02 | 1.03               |
| 32   | 07/31/2016 - 08/06/2016 | 1.02 | 1.03               |
| 33   | 08/07/2016 - 08/13/2016 | 1.01 | 1.02               |
| 34   | 08/14/2016 - 08/20/2016 | 1.01 | 1.02               |
| 35   | 08/21/2016 - 08/27/2016 | 1.01 | 1.02               |
| 36   | 08/28/2016 - 09/03/2016 | 1.02 | 1.03               |
| 37   | 09/04/2016 - 09/10/2016 | 1.02 | 1.03               |
| 38   | 09/11/2016 - 09/17/2016 | 1.03 | 1.04               |
| 39   | 09/18/2016 - 09/24/2016 | 1.02 | 1.03               |
| 40   | 09/25/2016 - 10/01/2016 | 1.01 | 1.02               |
| 41   | 10/02/2016 - 10/08/2016 | 1.00 | 1.01               |
| 42   | 10/09/2016 - 10/15/2016 | 1.00 | 1.01               |
| 43   | 10/16/2016 - 10/22/2016 | 1.00 | 1.01               |
| 44   | 10/23/2016 - 10/29/2016 | 1.00 | 1.01               |
| 45   | 10/30/2016 - 11/05/2016 | 1.00 | 1.01               |
| 46   | 11/06/2016 - 11/12/2016 | 1.00 | 1.01               |
| 47   | 11/13/2016 - 11/19/2016 | 1.01 | 1.02               |
| 48   | 11/20/2016 - 11/26/2016 | 1.00 | 1.01               |
| 49   | 11/27/2016 - 12/03/2016 | 1.00 | 1.01               |
| 50   | 12/04/2016 - 12/10/2016 | 0.99 | 1.00               |
| 51   | 12/11/2016 - 12/17/2016 | 0.99 | 1.00               |
| 52   | 12/18/2016 - 12/24/2016 | 1.00 | 1.01               |
| 53   | 12/25/2016 - 12/31/2016 | 1.02 | 1.03               |

\* PEAK SEASON

21-FEB-2017 10:54:35

830UPD

6\_8701\_PKSEASON.TXT

#### Appendix 4: Traffic Counts (TMC's)



TABLE: A5

## INTERSECTION APPROACH VOLUMES - AM PEAK HOUR

Project Name: Cutler Gate

| INTERSECTION NO. | 1                               | 2          | 3        | 4                | 5                           | 6     | 7    | 8                                             | 9                                                                       | 10                                         | 11                                       | 12                                              |
|------------------|---------------------------------|------------|----------|------------------|-----------------------------|-------|------|-----------------------------------------------|-------------------------------------------------------------------------|--------------------------------------------|------------------------------------------|-------------------------------------------------|
|                  | INTERSECTION NAME               | APPROACH   | MOVEMENT | AM PEAK HR COUNT | DATE OF COUNT               | PHF   | SF   | AM PEAK SEASONALLY ADJUSTED (EXISTING) (2018) | BACKGROUND GROWTH @ 1.76% FOR PROJECT BUILD-OUT OF 2019 (1 YEAR GROWTH) | PROPOSED FUTURE TRAFFIC W/O PROJECT (2019) | SITE TRAFFIC (PROJECT GROSS TRIPS) (VPH) | PROPOSED FUTURE TRAFFIC W/ PROJECT (VPH) (2019) |
| 1                | Old Cutler Road & SW 200 Street | SOUTHBOUND | SBR      | 0                | Wednesday, January 17, 2018 | 0.900 | 1.01 | 0                                             | 0                                                                       | 0                                          | 0                                        | 0                                               |
|                  |                                 |            | SBT      | 358              |                             |       | 1.01 | 362                                           | 6                                                                       | 368                                        | 3                                        | 371                                             |
|                  |                                 |            | SBL      | 0                |                             |       | 1.01 | 0                                             | 0                                                                       | 0                                          | 0                                        | 0                                               |
|                  |                                 |            | TOTAL    | 358              |                             |       |      | 362                                           | 6                                                                       | 368                                        | 3                                        | 371                                             |
|                  |                                 | WESTBOUND  | WBR      | 0                |                             |       | 1.01 | 0                                             | 0                                                                       | 0                                          | 0                                        | 0                                               |
|                  |                                 |            | WBT      | 0                |                             |       | 1.01 | 0                                             | 0                                                                       | 0                                          | 0                                        | 0                                               |
|                  |                                 |            | WBL      | 0                |                             |       | 1.01 | 0                                             | 0                                                                       | 0                                          | 0                                        | 0                                               |
|                  |                                 |            | TOTAL    | 0                |                             |       |      | 0                                             | 0                                                                       | 0                                          | 0                                        | 0                                               |
|                  |                                 | NORTHBOUND | NBR      | 0                |                             |       | 1.01 | 0                                             | 0                                                                       | 0                                          | 0                                        | 0                                               |
|                  |                                 |            | NBT      | 734              |                             |       | 1.01 | 741                                           | 13                                                                      | 754                                        | 0                                        | 754                                             |
|                  |                                 |            | NBL      | 2                |                             |       | 1.01 | 2                                             | 0                                                                       | 2                                          | 2                                        | 4                                               |
|                  |                                 |            | TOTAL    | 736              |                             |       |      | 743                                           | 13                                                                      | 756                                        | 2                                        | 758                                             |
|                  |                                 | EASTBOUND  | EBR      | 0                |                             |       | 1.01 | 0                                             | 0                                                                       | 0                                          | 3                                        | 3                                               |
|                  |                                 |            | EBT      | 0                |                             |       | 1.01 | 0                                             | 0                                                                       | 0                                          | 0                                        | 0                                               |
|                  |                                 |            | EBL      | 0                |                             |       | 1.01 | 0                                             | 0                                                                       | 0                                          | 1                                        | 1                                               |
|                  |                                 |            | TOTAL    | 0                |                             |       |      | 0                                             | 0                                                                       | 0                                          | 4                                        | 4                                               |
|                  |                                 | TOTAL      |          | 1,094            |                             |       |      | 1,105                                         | 19                                                                      | 1,124                                      | 9                                        | 1,133                                           |

Notes:

- 1 Intersection Name
- 2 Intersection Approach
- 3 Intersection Approach Movement
- 4 TMC data provided by RGA, Inc.
- 5 Date of Count
- 6 Peak Hour Factor
- 7 Seasonal Factor
- 8 Seasonally Adjusted TMC = Count \* SF (Existing Condition).
- 9 A 1.76 percent background growth was utilized with a project build-out of 2019.
- 10 Proposed Traffic w/o Project = Seasonally Adjusted TMC + Background
- 11 Project Gross Trips.
- 12 Total Traffic = Net Traffic w/o Project + Site Traffic (Proposed Condition with Project)

TABLE: A6

## INTERSECTION APPROACH VOLUMES - PM PEAK HOUR

Project Name: Cutler Gate

| INTERSECTION NO. | 1                               | 2          | 3        | 4                | 5                           | 6     | 7    | 8                                      | 9                                                                       | 10                                         | 11                                       | 12                                              |
|------------------|---------------------------------|------------|----------|------------------|-----------------------------|-------|------|----------------------------------------|-------------------------------------------------------------------------|--------------------------------------------|------------------------------------------|-------------------------------------------------|
|                  | INTERSECTION NAME               | APPROACH   | MOVEMENT | PM PEAK HR COUNT | DATE OF COUNT               | PHF   | SF   | PM PEAK SEASONALLY ADJUSTED (EXISTING) | BACKGROUND GROWTH @ 1.76% FOR PROJECT BUILD-OUT OF 2019 (1 YEAR GROWTH) | PROPOSED FUTURE TRAFFIC W/O PROJECT (2019) | SITE TRAFFIC (PROJECT GROSS TRIPS) (VPH) | PROPOSED FUTURE TRAFFIC W/ PROJECT (VPH) (2019) |
| 1                | Old Cutler Road & SW 200 Street | SOUTHBOUND | SBR      | 2                | Wednesday, January 17, 2018 | 0.987 | 1.01 | 2                                      | 0                                                                       | 2                                          | 2                                        | 4                                               |
|                  |                                 |            | SBT      | 864              |                             |       | 1.01 | 873                                    | 15                                                                      | 888                                        | 4                                        | 892                                             |
|                  |                                 |            | SBL      | 0                |                             |       | 1.01 | 0                                      | 0                                                                       | 0                                          | 0                                        | 0                                               |
|                  |                                 |            | TOTAL    | 866              |                             |       | 875  | 15                                     | 890                                                                     | 6                                          | 896                                      |                                                 |
|                  |                                 | WBR        | 0        | 1.01             |                             |       | 0    | 0                                      | 0                                                                       | 0                                          | 0                                        |                                                 |
|                  |                                 | WBT        | 0        | 1.01             |                             |       | 0    | 0                                      | 0                                                                       | 0                                          | 0                                        |                                                 |
|                  |                                 | WBL        | 0        | 1.01             |                             |       | 0    | 0                                      | 0                                                                       | 0                                          | 0                                        |                                                 |
|                  |                                 | TOTAL      | 0        | 0                |                             |       | 0    | 0                                      | 0                                                                       | 0                                          | 0                                        |                                                 |
|                  |                                 | NBR        | 0        | 1.01             |                             |       | 0    | 0                                      | 0                                                                       | 0                                          | 0                                        |                                                 |
|                  |                                 | NBT        | 372      | 1.01             |                             |       | 376  | 7                                      | 382                                                                     | 2                                          | 384                                      |                                                 |
|                  |                                 | NBL        | 5        | 1.01             |                             |       | 5    | 0                                      | 5                                                                       | 6                                          | 11                                       |                                                 |
|                  |                                 | TOTAL      | 377      | 381              |                             |       | 7    | 387                                    | 8                                                                       | 395                                        |                                          |                                                 |
|                  |                                 | EBR        | 5        | 1.01             |                             |       | 5    | 0                                      | 5                                                                       | 2                                          | 7                                        |                                                 |
|                  |                                 | EBT        | 0        | 1.01             |                             |       | 0    | 0                                      | 0                                                                       | 0                                          | 0                                        |                                                 |
|                  |                                 | EBL        | 0        | 1.01             |                             |       | 0    | 0                                      | 0                                                                       | 2                                          | 2                                        |                                                 |
|                  |                                 | TOTAL      | 5        | 5                |                             |       | 0    | 5                                      | 4                                                                       | 9                                          |                                          |                                                 |
| TOTAL            |                                 |            | 1,248    |                  |                             | 1,260 | 22   |                                        | 1,283                                                                   | 18                                         | 1,301                                    |                                                 |

Notes:

- 1 Intersection Name
- 2 Intersection Approach
- 3 Intersection Approach Movement
- 4 TMC data provided by RGA, Inc.
- 5 Date of Count
- 6 Peak Hour Factor
- 7 Seasonal Factor
- 8 Seasonally Adjusted TMC = Count \* SF (Existing Condition).
- 9 A 1.76 percent background growth was utilized with a project build-out of 2019.
- 10 Proposed Traffic w/o Project = Seasonally Adjusted TMC + Background
- 11 Project Gross Trips.
- 12 Total Traffic = Net Traffic w/o Project + Site Traffic (Proposed Condition with Project)



# Richard Garcia & Associates, Inc.

8065 NW 98 Street  
Hialeah Gardens, FL 33016  
Phone: 305-362-0677  
Fax: 305-675-6474

File Name : Old Cutler Rd\_SW 200 St\_AM

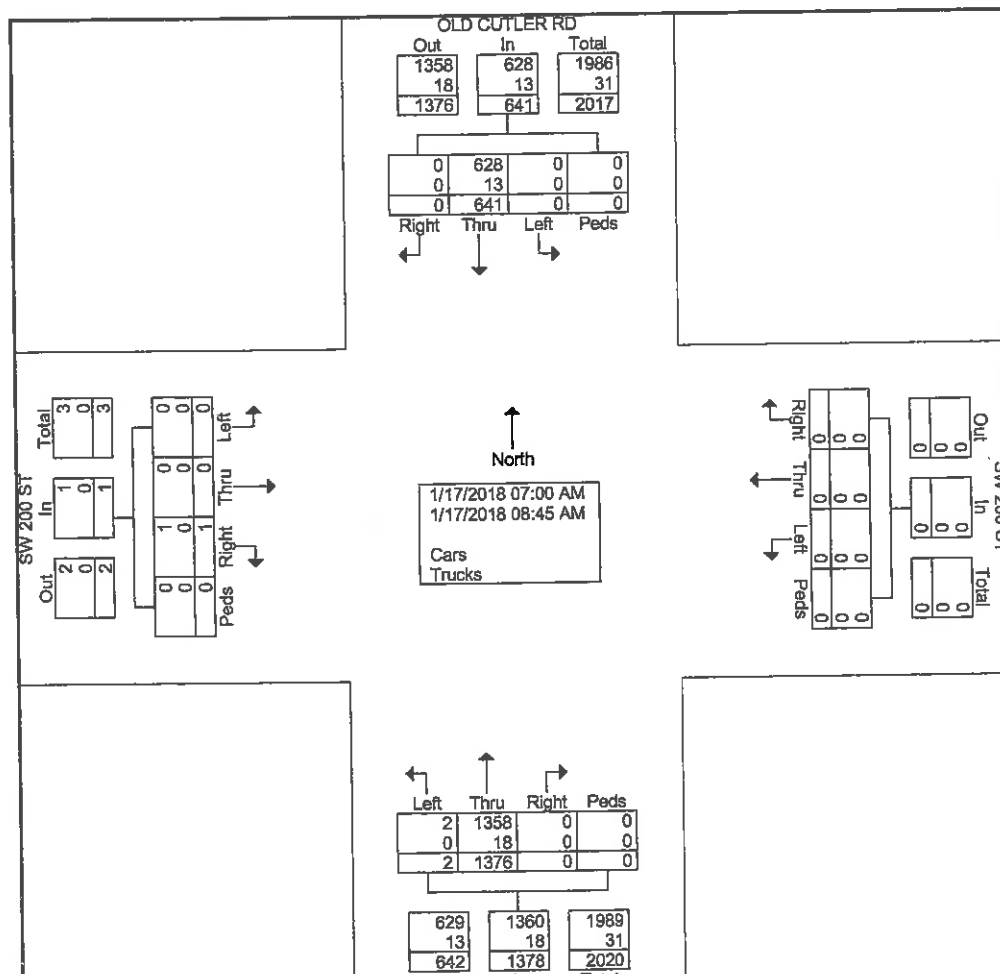
Site Code : 00000000

Start Date : 1/17/2018

Page No : 1

## Groups Printed- Cars - Trucks

| Start Time  | OLD CUTLER RD Southbound |      |      |      |            | SW 200 ST Westbound |      |      |      |            | OLD CUTLER RD Northbound |      |      |      |            | SW 200 ST Eastbound |      |      |      |            | Int. Total |
|-------------|--------------------------|------|------|------|------------|---------------------|------|------|------|------------|--------------------------|------|------|------|------------|---------------------|------|------|------|------------|------------|
|             | Right                    | Thru | Left | Peds | App. Total | Right               | Thru | Left | Peds | App. Total | Right                    | Thru | Left | Peds | App. Total | Right               | Thru | Left | Peds | App. Total |            |
| 07:00 AM    | 0                        | 55   | 0    | 0    | 55         | 0                   | 0    | 0    | 0    | 0          | 0                        | 173  | 0    | 0    | 173        | 0                   | 0    | 0    | 0    | 0          | 228        |
| 07:15 AM    | 0                        | 57   | 0    | 0    | 57         | 0                   | 0    | 0    | 0    | 0          | 0                        | 156  | 0    | 0    | 156        | 0                   | 0    | 0    | 0    | 0          | 213        |
| 07:30 AM    | 0                        | 96   | 0    | 0    | 96         | 0                   | 0    | 0    | 0    | 0          | 0                        | 153  | 0    | 0    | 153        | 1                   | 0    | 0    | 0    | 1          | 250        |
| 07:45 AM    | 0                        | 75   | 0    | 0    | 75         | 0                   | 0    | 0    | 0    | 0          | 0                        | 160  | 0    | 0    | 160        | 0                   | 0    | 0    | 0    | 0          | 235        |
| Total       | 0                        | 283  | 0    | 0    | 283        | 0                   | 0    | 0    | 0    | 0          | 0                        | 642  | 0    | 0    | 642        | 1                   | 0    | 0    | 0    | 1          | 926        |
| 08:00 AM    | 0                        | 80   | 0    | 0    | 80         | 0                   | 0    | 0    | 0    | 0          | 0                        | 153  | 1    | 0    | 154        | 0                   | 0    | 0    | 0    | 0          | 234        |
| 08:15 AM    | 0                        | 96   | 0    | 0    | 96         | 0                   | 0    | 0    | 0    | 0          | 0                        | 197  | 0    | 0    | 197        | 0                   | 0    | 0    | 0    | 0          | 293        |
| 08:30 AM    | 0                        | 96   | 0    | 0    | 96         | 0                   | 0    | 0    | 0    | 0          | 0                        | 207  | 1    | 0    | 208        | 0                   | 0    | 0    | 0    | 0          | 304        |
| 08:45 AM    | 0                        | 86   | 0    | 0    | 86         | 0                   | 0    | 0    | 0    | 0          | 0                        | 177  | 0    | 0    | 177        | 0                   | 0    | 0    | 0    | 0          | 263        |
| Total       | 0                        | 358  | 0    | 0    | 358        | 0                   | 0    | 0    | 0    | 0          | 0                        | 734  | 2    | 0    | 736        | 0                   | 0    | 0    | 0    | 0          | 1094       |
| Grand Total | 0                        | 641  | 0    | 0    | 641        | 0                   | 0    | 0    | 0    | 0          | 0                        | 1376 | 2    | 0    | 1378       | 1                   | 0    | 0    | 0    | 1          | 2020       |
| Apprch %    | 0                        | 100  | 0    | 0    |            | 0                   | 0    | 0    | 0    |            | 0                        | 99.9 | 0.1  | 0    |            | 100                 | 0    | 0    | 0    |            |            |
| Total %     | 0                        | 31.7 | 0    | 0    | 31.7       | 0                   | 0    | 0    | 0    |            | 0                        | 68.1 | 0.1  | 0    | 68.2       | 0                   | 0    | 0    | 0    |            |            |
| Cars        | 0                        | 628  | 0    | 0    | 628        | 0                   | 0    | 0    | 0    | 0          | 0                        | 1358 | 2    | 0    | 1360       | 1                   | 0    | 0    | 0    | 1          | 1989       |
| % Cars      | 0                        | 98   | 0    | 0    | 98         | 0                   | 0    | 0    | 0    | 0          | 0                        | 98.7 | 100  | 0    | 98.7       | 100                 | 0    | 0    | 0    | 100        | 98.5       |
| Trucks      | 0                        | 13   | 0    | 0    | 13         | 0                   | 0    | 0    | 0    | 0          | 0                        | 18   | 0    | 0    | 18         | 0                   | 0    | 0    | 0    | 0          | 31         |
| % Trucks    | 0                        | 2    | 0    | 0    | 2          | 0                   | 0    | 0    | 0    | 0          | 0                        | 1.3  | 0    | 0    | 1.3        | 0                   | 0    | 0    | 0    | 0          | 1.5        |

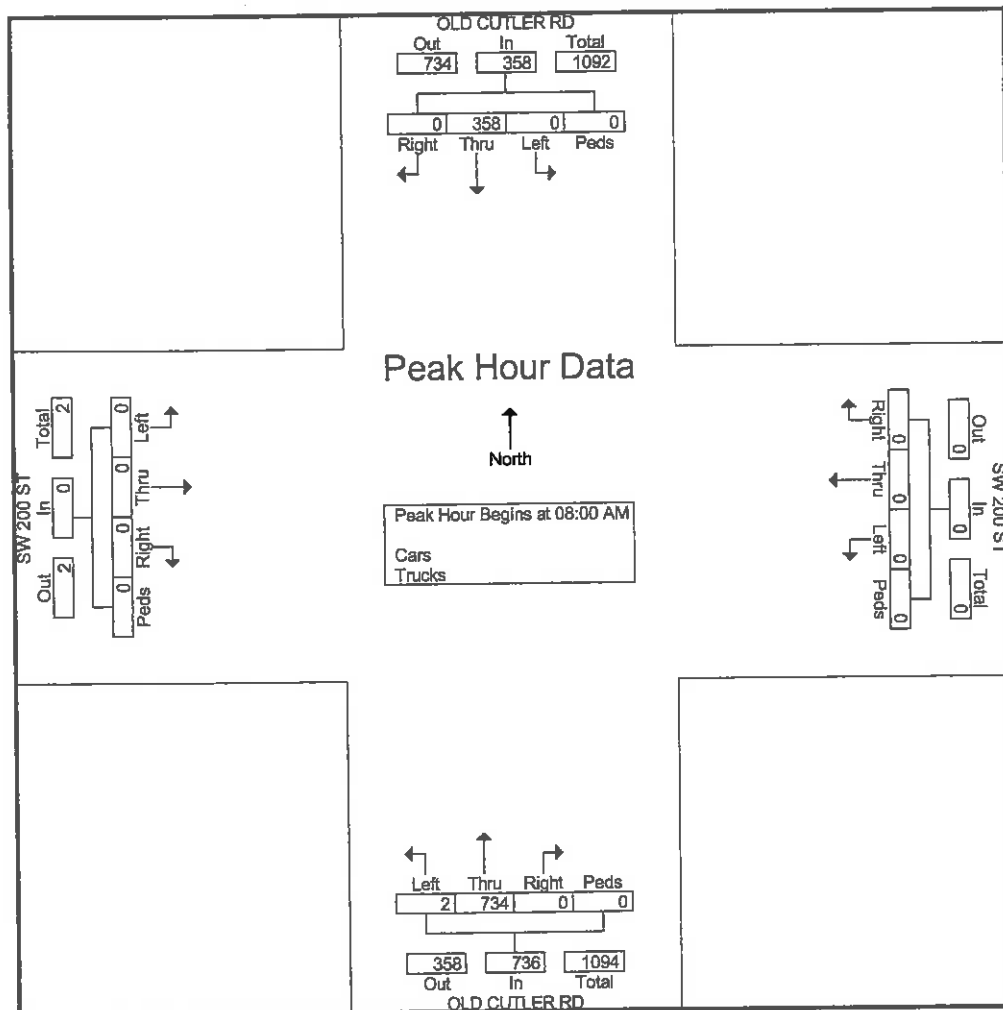




**Richard Garcia & Associates, Inc.**  
 8065 NW 98 Street  
 Hialeah Gardens, FL 33016  
 Phone: 305-362-0677  
 Fax: 305-675-6474

File Name : Old Cutler Rd\_SW 200 St\_AM  
 Site Code : 00000000  
 Start Date : 1/17/2018  
 Page No : 2

|                                                            | OLD CUTLER RD<br>Southbound |      |      |      |            | SW 200 ST<br>Westbound |      |      |      |            | OLD CUTLER RD<br>Northbound |      |      |      |            | SW 200 ST<br>Eastbound |      |      |      |            |            |
|------------------------------------------------------------|-----------------------------|------|------|------|------------|------------------------|------|------|------|------------|-----------------------------|------|------|------|------------|------------------------|------|------|------|------------|------------|
| Start Time                                                 | Right                       | Thru | Left | Peds | App. Total | Right                  | Thru | Left | Peds | App. Total | Right                       | Thru | Left | Peds | App. Total | Right                  | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 |                             |      |      |      |            |                        |      |      |      |            |                             |      |      |      |            |                        |      |      |      |            |            |
| Peak Hour for Entire Intersection Begins at 08:00 AM       |                             |      |      |      |            |                        |      |      |      |            |                             |      |      |      |            |                        |      |      |      |            |            |
| 08:00 AM                                                   | 0                           | 80   | 0    | 0    | 80         | 0                      | 0    | 0    | 0    | 0          | 0                           | 153  | 1    | 0    | 154        | 0                      | 0    | 0    | 0    | 0          | 234        |
| 08:15 AM                                                   | 0                           | 96   | 0    | 0    | 96         | 0                      | 0    | 0    | 0    | 0          | 0                           | 197  | 0    | 0    | 197        | 0                      | 0    | 0    | 0    | 0          | 293        |
| 08:30 AM                                                   | 0                           | 96   | 0    | 0    | 96         | 0                      | 0    | 0    | 0    | 0          | 0                           | 207  | 1    | 0    | 208        | 0                      | 0    | 0    | 0    | 0          | 304        |
| 08:45 AM                                                   | 0                           | 86   | 0    | 0    | 86         | 0                      | 0    | 0    | 0    | 0          | 0                           | 177  | 0    | 0    | 177        | 0                      | 0    | 0    | 0    | 0          | 263        |
| Total Volume                                               | 0                           | 358  | 0    | 0    | 358        | 0                      | 0    | 0    | 0    | 0          | 0                           | 734  | 2    | 0    | 736        | 0                      | 0    | 0    | 0    | 0          | 1094       |
| % App. Total                                               |                             |      |      |      |            |                        |      |      |      |            |                             |      |      |      |            |                        |      |      |      |            |            |
| PHF                                                        | .000                        | .932 | .000 | .000 | .932       | .000                   | .000 | .000 | .000 | .000       | .000                        | .886 | .500 | .000 | .885       | .000                   | .000 | .000 | .000 | .000       | .900       |





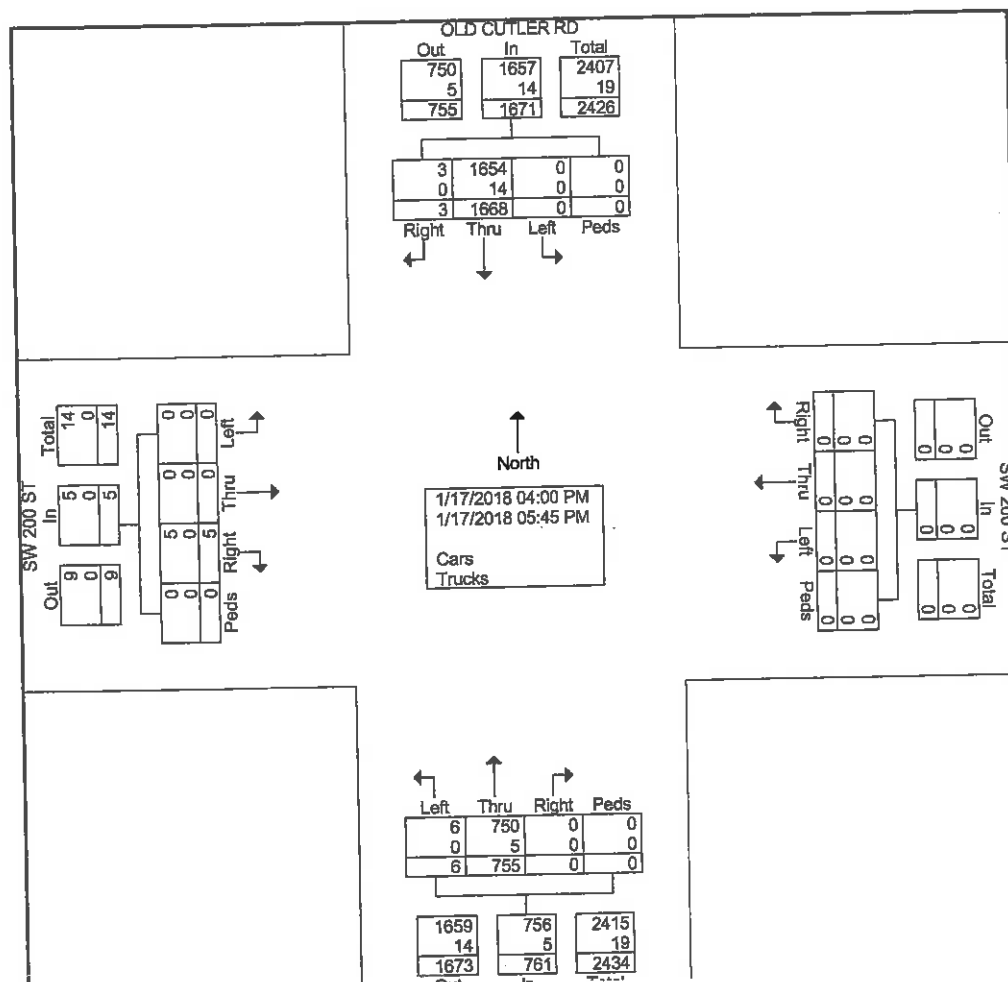
# Richard Garcia & Associates, Inc.

8065 NW 98 Street  
Hialeah Gardens, FL 33016  
Phone: 305-362-0677  
Fax: 305-675-6474

File Name : Old Cutler Rd\_SW 200 St\_PM  
Site Code : 00000000  
Start Date : 1/17/2018  
Page No : 1

## Groups Printed- Cars - Trucks

| Start Time  | OLD CUTLER RD Southbound |      |      |      |            | SW 200 ST Westbound |      |      |      |            | OLD CUTLER RD Northbound |      |      |      |            | SW 200 ST Eastbound |      |      |      |            | Int. Total |
|-------------|--------------------------|------|------|------|------------|---------------------|------|------|------|------------|--------------------------|------|------|------|------------|---------------------|------|------|------|------------|------------|
|             | Right                    | Thru | Left | Peds | App. Total | Right               | Thru | Left | Peds | App. Total | Right                    | Thru | Left | Peds | App. Total | Right               | Thru | Left | Peds | App. Total |            |
| 04:00 PM    | 0                        | 211  | 0    | 0    | 211        | 0                   | 0    | 0    | 0    | 0          | 0                        | 110  | 0    | 0    | 110        | 0                   | 0    | 0    | 0    | 0          | 321        |
| 04:15 PM    | 0                        | 182  | 0    | 0    | 182        | 0                   | 0    | 0    | 0    | 0          | 0                        | 92   | 1    | 0    | 93         | 0                   | 0    | 0    | 0    | 0          | 275        |
| 04:30 PM    | 1                        | 189  | 0    | 0    | 190        | 0                   | 0    | 0    | 0    | 0          | 0                        | 101  | 0    | 0    | 101        | 0                   | 0    | 0    | 0    | 0          | 291        |
| 04:45 PM    | 1                        | 218  | 0    | 0    | 219        | 0                   | 0    | 0    | 0    | 0          | 0                        | 92   | 3    | 0    | 95         | 2                   | 0    | 0    | 0    | 2          | 316        |
| Total       | 2                        | 800  | 0    | 0    | 802        | 0                   | 0    | 0    | 0    | 0          | 0                        | 395  | 4    | 0    | 399        | 2                   | 0    | 0    | 0    | 2          | 1203       |
| 05:00 PM    | 1                        | 201  | 0    | 0    | 202        | 0                   | 0    | 0    | 0    | 0          | 0                        | 105  | 0    | 0    | 105        | 1                   | 0    | 0    | 0    | 1          | 308        |
| 05:15 PM    | 0                        | 224  | 0    | 0    | 224        | 0                   | 0    | 0    | 0    | 0          | 0                        | 84   | 0    | 0    | 84         | 1                   | 0    | 0    | 0    | 1          | 309        |
| 05:30 PM    | 0                        | 221  | 0    | 0    | 221        | 0                   | 0    | 0    | 0    | 0          | 0                        | 91   | 2    | 0    | 93         | 1                   | 0    | 0    | 0    | 1          | 315        |
| 05:45 PM    | 0                        | 222  | 0    | 0    | 222        | 0                   | 0    | 0    | 0    | 0          | 0                        | 80   | 0    | 0    | 80         | 0                   | 0    | 0    | 0    | 0          | 302        |
| Total       | 1                        | 868  | 0    | 0    | 869        | 0                   | 0    | 0    | 0    | 0          | 0                        | 360  | 2    | 0    | 362        | 3                   | 0    | 0    | 0    | 3          | 1234       |
| Grand Total | 3                        | 1668 | 0    | 0    | 1671       | 0                   | 0    | 0    | 0    | 0          | 0                        | 755  | 6    | 0    | 761        | 5                   | 0    | 0    | 0    | 5          | 2437       |
| Apprch %    | 0.2                      | 99.8 | 0    | 0    |            | 0                   | 0    | 0    | 0    | 0          | 0                        | 99.2 | 0.8  | 0    |            | 100                 | 0    | 0    | 0    |            |            |
| Total %     | 0.1                      | 68.4 | 0    | 0    | 68.6       | 0                   | 0    | 0    | 0    | 0          | 0                        | 31   | 0.2  | 0    | 31.2       | 0.2                 | 0    | 0    | 0    | 0.2        |            |
| Cars        | 3                        | 1654 | 0    | 0    | 1657       | 0                   | 0    | 0    | 0    | 0          | 0                        | 750  | 6    | 0    | 756        | 5                   | 0    | 0    | 0    | 5          | 2418       |
| % Cars      | 100                      | 99.2 | 0    | 0    | 99.2       | 0                   | 0    | 0    | 0    | 0          | 0                        | 99.3 | 100  | 0    | 99.3       | 100                 | 0    | 0    | 0    | 100        | 99.2       |
| Trucks      | 0                        | 14   | 0    | 0    | 14         | 0                   | 0    | 0    | 0    | 0          | 0                        | 5    | 0    | 0    | 5          | 0                   | 0    | 0    | 0    | 0          | 19         |
| % Trucks    | 0                        | 0.8  | 0    | 0    | 0.8        | 0                   | 0    | 0    | 0    | 0          | 0                        | 0.7  | 0    | 0    | 0.7        | 0                   | 0    | 0    | 0    | 0          | 0.8        |



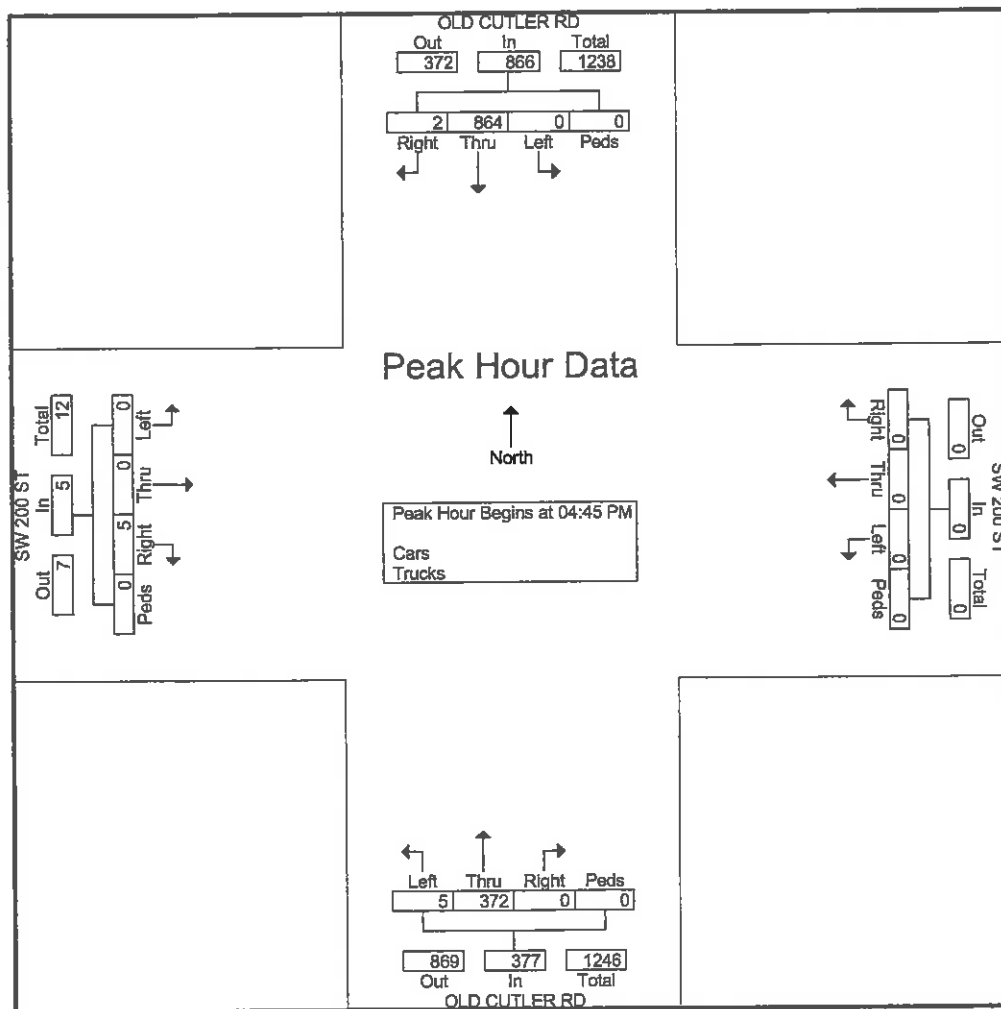


# Richard Garcia & Associates, Inc.

8065 NW 98 Street  
Hialeah Gardens, FL 33016  
Phone: 305-362-0677  
Fax: 305-675-6474

File Name : Old Cutler Rd\_SW 200 St\_PM  
Site Code : 00000000  
Start Date : 1/17/2018  
Page No : 2

|                                                            | OLD CUTLER RD<br>Southbound |      |      |      |            | SW 200 ST<br>Westbound |      |      |      |            | OLD CUTLER RD<br>Northbound |      |      |      |            | SW 200 ST<br>Eastbound |      |      |      |            |            |
|------------------------------------------------------------|-----------------------------|------|------|------|------------|------------------------|------|------|------|------------|-----------------------------|------|------|------|------------|------------------------|------|------|------|------------|------------|
| Start Time                                                 | Right                       | Thru | Left | Peds | App. Total | Right                  | Thru | Left | Peds | App. Total | Right                       | Thru | Left | Peds | App. Total | Right                  | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 |                             |      |      |      |            |                        |      |      |      |            |                             |      |      |      |            |                        |      |      |      |            |            |
| Peak Hour for Entire Intersection Begins at 04:45 PM       |                             |      |      |      |            |                        |      |      |      |            |                             |      |      |      |            |                        |      |      |      |            |            |
| 04:45 PM                                                   | 1                           | 218  | 0    | 0    | 219        | 0                      | 0    | 0    | 0    | 0          | 0                           | 92   | 3    | 0    | 95         | 2                      | 0    | 0    | 0    | 2          | 316        |
| 05:00 PM                                                   | 1                           | 201  | 0    | 0    | 202        | 0                      | 0    | 0    | 0    | 0          | 0                           | 105  | 0    | 0    | 105        | 1                      | 0    | 0    | 0    | 1          | 308        |
| 05:15 PM                                                   | 0                           | 224  | 0    | 0    | 224        | 0                      | 0    | 0    | 0    | 0          | 0                           | 84   | 0    | 0    | 84         | 1                      | 0    | 0    | 0    | 1          | 309        |
| 05:30 PM                                                   | 0                           | 221  | 0    | 0    | 221        | 0                      | 0    | 0    | 0    | 0          | 0                           | 91   | 2    | 0    | 93         | 1                      | 0    | 0    | 0    | 1          | 315        |
| Total Volume                                               | 2                           | 864  | 0    | 0    | 866        | 0                      | 0    | 0    | 0    | 0          | 0                           | 372  | 5    | 0    | 377        | 5                      | 0    | 0    | 0    | 5          | 1248       |
| % App. Total                                               |                             |      |      |      |            |                        |      |      |      |            |                             |      |      |      |            |                        |      |      |      |            |            |
| PHF                                                        | .500                        | .964 | .000 | .000 | .967       | .000                   | .000 | .000 | .000 | .000       | .000                        | .886 | .417 | .000 | .898       | .625                   | .000 | .000 | .000 | .625       | .987       |



**Appendix 5: Operational Analysis - Intersection Level of Service**



TABLE: A7  
Level of Service (LOS) Summary - AM & PM Peak Hour

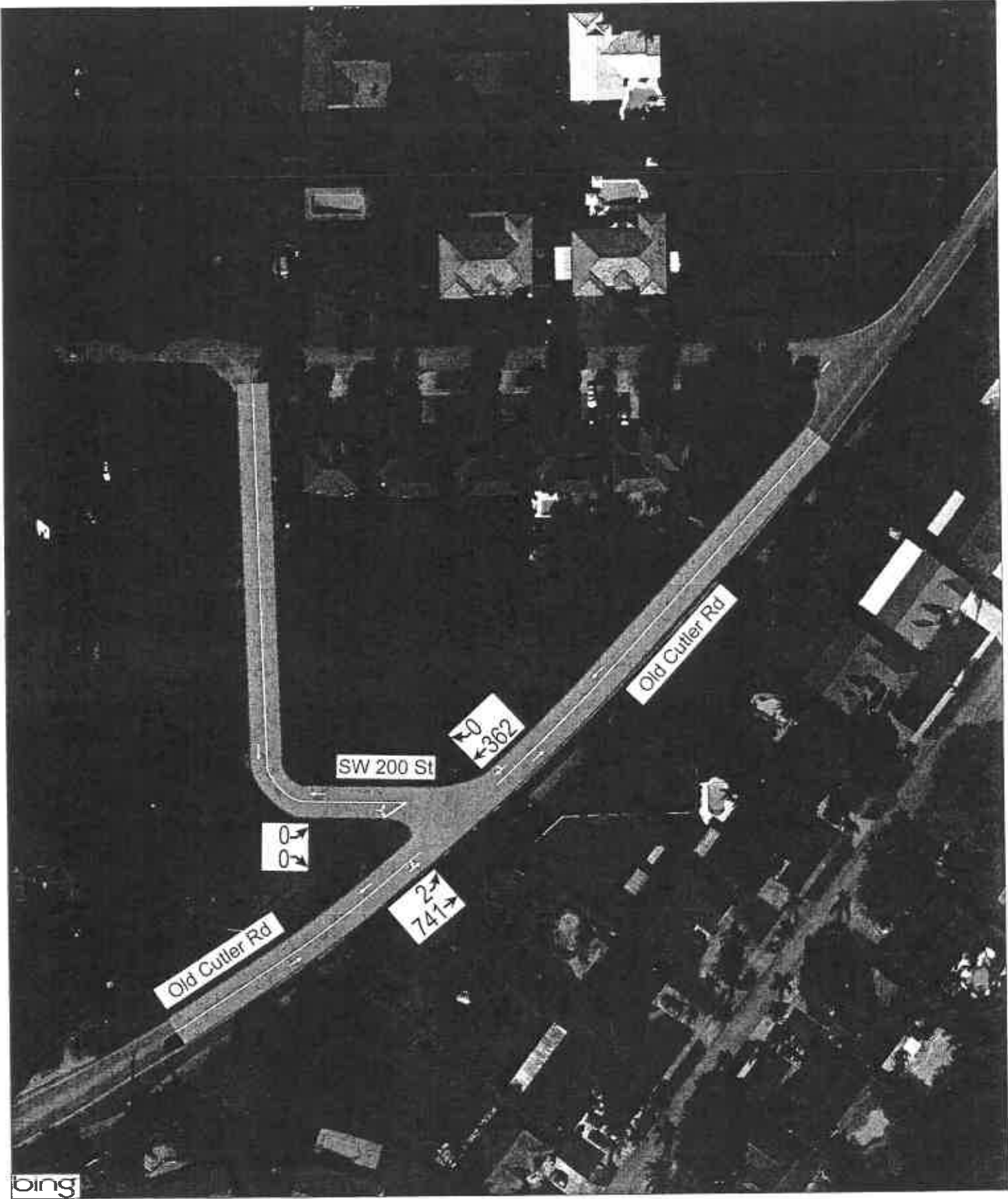
Project Name: Cutler Gate

| Existing Condition (2018)                             |                                    | AM Peak Hour         |         |     |             |          |     | PM Peak Hour |         |     |             |          |                          |
|-------------------------------------------------------|------------------------------------|----------------------|---------|-----|-------------|----------|-----|--------------|---------|-----|-------------|----------|--------------------------|
|                                                       |                                    | Intersection Control | Overall | LOS | Delay (sec) | Approach | LOS | Delay (sec)  | Overall | LOS | Delay (sec) | Approach | * Critical Approach TWSC |
| 1                                                     | Old Cutler Road & SW 200 Street    | Two-Way Stop         | A       | 0.0 | -           | -        | -   | -            | A       | 0.1 | 15.6        | EB       | C                        |
| Proposed Future Condition (with Project Trips) (2019) |                                    | AM Peak Hour         |         |     |             |          |     | PM Peak Hour |         |     |             |          |                          |
|                                                       |                                    | Intersection Control | Overall | LOS | Delay (sec) | Approach | LOS | Delay (sec)  | Overall | LOS | Delay (sec) | Approach | * Critical Approach TWSC |
| 1                                                     | Old Cutler Road & SW 200 Street    | Two-Way Stop         | A       | 0.0 | 14.1        | EB       | B   | 0.2          | A       | 0.2 | 18.4        | EB       | C                        |
| 2                                                     | Old Cutler Road & Driveway 1 (DW1) | Two-Way Stop         | A       | 0.1 | 17.1        | EB       | C   | 0.2          | A       | 0.2 | 23.2        | EB       | C                        |
| 3                                                     | SW 85 Avenue & Driveway 2 (DW2)    | Two-Way Stop         | A       | 4.1 | 8.5         | WB       | A   | 1.5          | A       | 1.5 | 8.5         | WB       | A                        |
| 4                                                     | SW 85 Avenue & Driveway 3 (DW3)    | Two-Way Stop         | A       | 2.8 | 8.5         | WB       | A   | 1.3          | A       | 1.3 | 8.6         | WB       | A                        |

Notes: \* Critical Approach for TWSC.

Cutler Gate

Existing Condition - AM Peak Hour



HCM 6th TWSC  
1: Old Cutler Rd & SW 200 St

Cutler Gate  
Existing Condition - AM Peak Hour

Int Delay, s/veh 0

| Major Street             | EB   | WB   | NB   | SB   | WB   | SB   |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations      | Y    |      |      | ↑    | ↑    |      |
| Traffic Vol, veh/h       | 0    | 0    | 2    | 741  | 362  | 0    |
| Future Vol, veh/h        | 0    | 0    | 2    | 741  | 362  | 0    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Stop | Stop | Free | Free | Free | Free |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | 0    | -    | -    | -    | -    | -    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 90   | 90   | 90   | 90   | 90   | 90   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 0    | 0    | 2    | 823  | 402  | 0    |

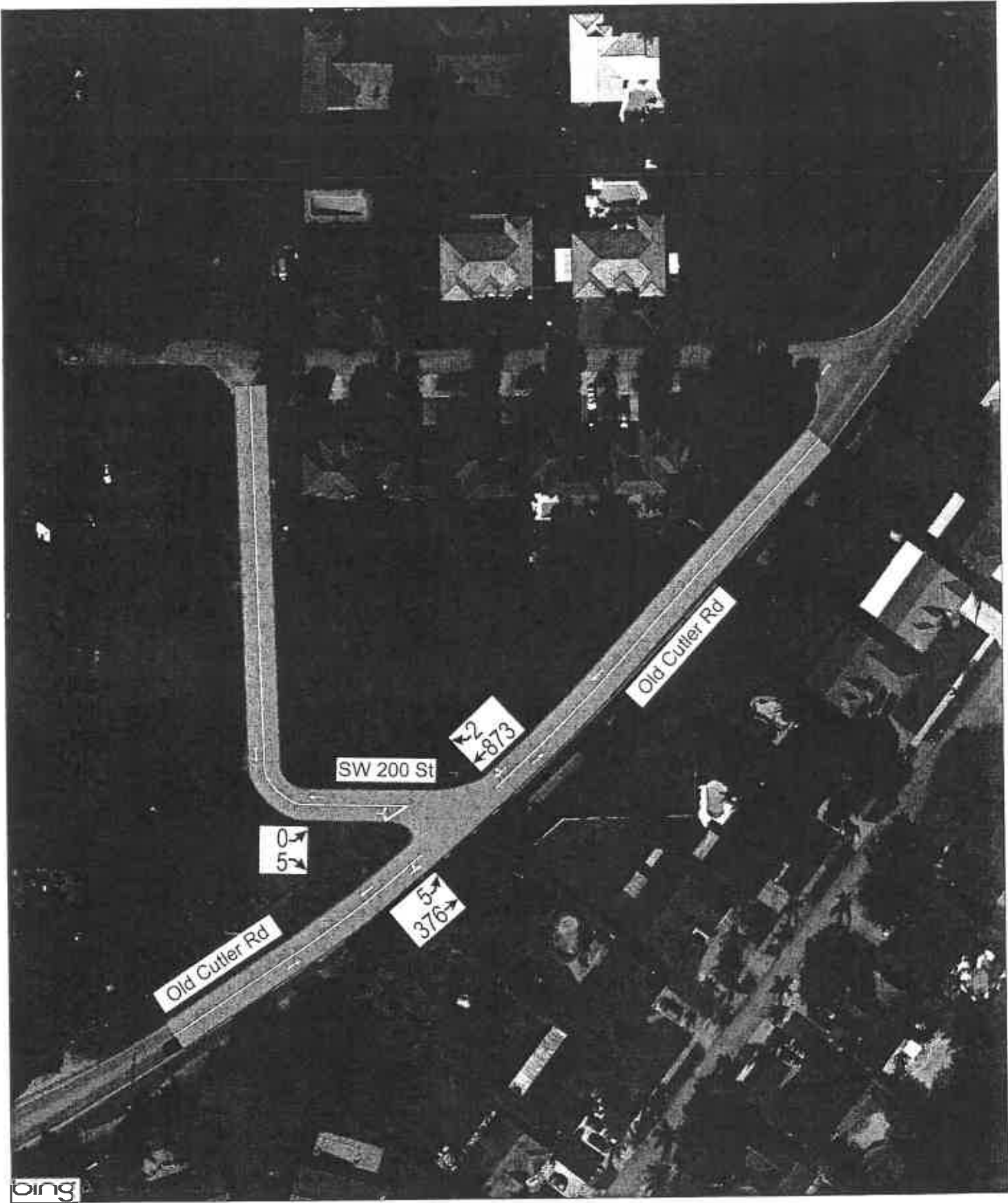
| Major Street         | EB    | WB    | NB    | SB | WB | SB |
|----------------------|-------|-------|-------|----|----|----|
| Conflicting Flow All | 1229  | 402   | 402   | 0  | -  | 0  |
| Stage 1              | 402   | -     | -     | -  | -  | -  |
| Stage 2              | 827   | -     | -     | -  | -  | -  |
| Critical Hdwy        | 6.42  | 6.22  | 4.12  | -  | -  | -  |
| Critical Hdwy Stg 1  | 5.42  | -     | -     | -  | -  | -  |
| Critical Hdwy Stg 2  | 5.42  | -     | -     | -  | -  | -  |
| Follow-up Hdwy       | 3.518 | 3.318 | 2.218 | -  | -  | -  |
| Pot Cap-1 Maneuver   | 196   | 648   | 1157  | -  | -  | -  |
| Stage 1              | 676   | -     | -     | -  | -  | -  |
| Stage 2              | 430   | -     | -     | -  | -  | -  |
| Platoon blocked, %   | -     | -     | -     | -  | -  | -  |
| Mov Cap-1 Maneuver   | 195   | 648   | 1157  | -  | -  | -  |
| Mov Cap-2 Maneuver   | 195   | -     | -     | -  | -  | -  |
| Stage 1              | 674   | -     | -     | -  | -  | -  |
| Stage 2              | 430   | -     | -     | -  | -  | -  |

| Major Street         | EB | WB | NB | SB | WB | SB |
|----------------------|----|----|----|----|----|----|
| HCM Control Delay, s | 0  | 0  | 0  | 0  | 0  | 0  |
| HCM LOS              | A  | A  | A  | A  | A  | A  |

| Major Street          | EB    | WB | NB | SB | WB | SB |
|-----------------------|-------|----|----|----|----|----|
| Capacity (veh/h)      | 1157  | -  | -  | -  | -  | -  |
| HCM Lane V/C Ratio    | 0.002 | -  | -  | -  | -  | -  |
| HCM Control Delay (s) | 8.1   | 0  | 0  | -  | -  | -  |
| HCM Lane LOS          | A     | A  | A  | -  | -  | -  |
| HCM 95th %tile Q(veh) | 0     | -  | -  | -  | -  | -  |

Cutler Gate

Existing Condition - PM Peak Hour



HCM 6th TWSC  
1: Old Cutler Rd & SW 200 St

Cutler Gate  
Existing Condition - PM Peak Hour

Intersection: Old Cutler Rd & SW 200 St

Int Delay, s/veh 0.1

Control: SEMA (S) - SEMA (S) - SEMA (S) - SEMA (S)

|                          |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations      | W    |      |      | 4    | 4    |      |
| Traffic Vol, veh/h       | 0    | 5    | 5    | 376  | 873  | 2    |
| Future Vol, veh/h        | 0    | 5    | 5    | 376  | 873  | 2    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Stop | Stop | Free | Free | Free | Free |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | 0    | -    | -    | -    | -    | -    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 99   | 99   | 99   | 99   | 99   | 99   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 0    | 5    | 5    | 380  | 882  | 2    |

Flow: 1273 883 884 0 - 0

|                      |       |       |       |   |   |   |
|----------------------|-------|-------|-------|---|---|---|
| Conflicting Flow All | 1273  | 883   | 884   | 0 | - | 0 |
| Stage 1              | 883   | -     | -     | - | - | - |
| Stage 2              | 390   | -     | -     | - | - | - |
| Critical Hdwy        | 6.42  | 6.22  | 4.12  | - | - | - |
| Critical Hdwy Stg 1  | 5.42  | -     | -     | - | - | - |
| Critical Hdwy Stg 2  | 5.42  | -     | -     | - | - | - |
| Follow-up Hdwy       | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver   | 185   | 345   | 765   | - | - | - |
| Stage 1              | 404   | -     | -     | - | - | - |
| Stage 2              | 684   | -     | -     | - | - | - |
| Platoon blocked, %   |       |       |       | - | - | - |
| Mov Cap-1 Maneuver   | 184   | 345   | 765   | - | - | - |
| Mov Cap-2 Maneuver   | 184   | -     | -     | - | - | - |
| Stage 1              | 401   | -     | -     | - | - | - |
| Stage 2              | 684   | -     | -     | - | - | - |

Control: SEMA (S) - SEMA (S) - SEMA (S) - SEMA (S)

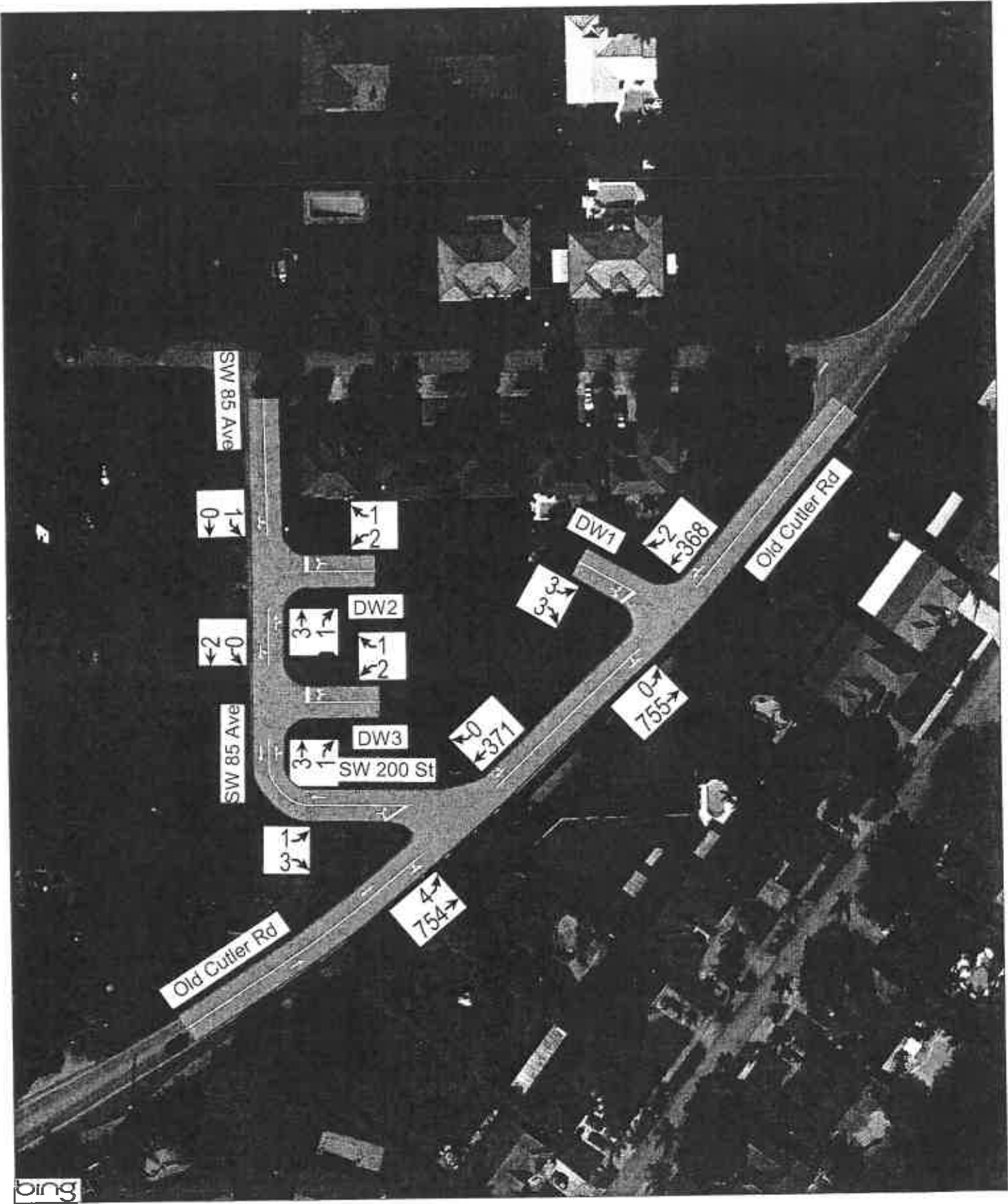
|                      |      |     |   |  |  |  |
|----------------------|------|-----|---|--|--|--|
| HCM Control Delay, s | 15.6 | 0.1 | 0 |  |  |  |
| HCM LOS              | C    |     |   |  |  |  |

Capacity: 765 - 345 - -

|                       |       |   |       |   |   |  |
|-----------------------|-------|---|-------|---|---|--|
| Capacity (veh/h)      | 765   | - | 345   | - | - |  |
| HCM Lane V/C Ratio    | 0.007 | - | 0.015 | - | - |  |
| HCM Control Delay (s) | 9.7   | 0 | 15.6  | - | - |  |
| HCM Lane LOS          | A     | A | C     | - | - |  |
| HCM 95th %ile Q(veh)  | 0     | - | 0     | - | - |  |

Cutler Gate

Future Condition w/ Project - AM Peak Hour



HCM 6th TWSC  
1: Old Cutler Rd & SW 200 St

Cutler Gate  
Future Condition w/ Project - AM Peak Hour

Int Delay, s/veh 0

|                          |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations      | Y    |      |      | ↑    | ↑    |      |
| Traffic Vol, veh/h       | 1    | 3    | 4    | 754  | 371  | 0    |
| Future Vol, veh/h        | 1    | 3    | 4    | 754  | 371  | 0    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Stop | Stop | Free | Free | Free | Free |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | 0    | -    | -    | -    | -    | -    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 90   | 90   | 90   | 90   | 90   | 90   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 1    | 3    | 4    | 838  | 412  | 0    |

|                      |       |       |       |   |   |   |
|----------------------|-------|-------|-------|---|---|---|
| Conflicting Flow All | 1258  | 412   | 412   | 0 | - | 0 |
| Stage 1              | 412   | -     | -     | - | - | - |
| Stage 2              | 846   | -     | -     | - | - | - |
| Critical Hdwy        | 6.42  | 6.22  | 4.12  | - | - | - |
| Critical Hdwy Stg 1  | 5.42  | -     | -     | - | - | - |
| Critical Hdwy Stg 2  | 5.42  | -     | -     | - | - | - |
| Follow-up Hdwy       | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver   | 189   | 640   | 1147  | - | - | - |
| Stage 1              | 669   | -     | -     | - | - | - |
| Stage 2              | 421   | -     | -     | - | - | - |
| Platoon blocked, %   | -     | -     | -     | - | - | - |
| Mov Cap-1 Maneuver   | 188   | 640   | 1147  | - | - | - |
| Mov Cap-2 Maneuver   | 188   | -     | -     | - | - | - |
| Stage 1              | 664   | -     | -     | - | - | - |
| Stage 2              | 421   | -     | -     | - | - | - |

HCM Control Delay, s 14.1 0 0

HCM LOS B

|                       |       |   |       |   |   |
|-----------------------|-------|---|-------|---|---|
| Capacity (veh/h)      | 1147  | - | 400   | - | - |
| HCM Lane V/C Ratio    | 0.004 | - | 0.011 | - | - |
| HCM Control Delay (s) | 8.2   | 0 | 14.1  | - | - |
| HCM Lane LOS          | A     | A | B     | - | - |
| HCM 95th %tile Q(veh) | 0     | - | 0     | - | - |

HCM 6th TWSC  
2: Old Cutler Rd & DW1

Cutler Gate  
Future Condition w/ Project - AM Peak Hour

| Intersection     |     |  |  |  |  |  |
|------------------|-----|--|--|--|--|--|
| Int Delay, s/veh | 0.1 |  |  |  |  |  |

|                          | EB   | WB   | NB   | SB   | WB   | SB   |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations      | 3    | 3    | 0    | 3    | 3    | 2    |
| Traffic Vol, veh/h       | 3    | 3    | 0    | 755  | 368  | 2    |
| Future Vol, veh/h        | 3    | 3    | 0    | 755  | 368  | 2    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Stop | Stop | Free | Free | Free | Free |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | 0    | -    | -    | -    | -    | -    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 3    | 3    | 0    | 821  | 400  | 2    |

|                      | EB    | WB    | NB    | SB | WB | SB |
|----------------------|-------|-------|-------|----|----|----|
| Conflicting Flow All | 1222  | 401   | 402   | 0  | -  | 0  |
| Stage 1              | 401   | -     | -     | -  | -  | -  |
| Stage 2              | 821   | -     | -     | -  | -  | -  |
| Critical Hdwy        | 6.42  | 6.22  | 4.12  | -  | -  | -  |
| Critical Hdwy Stg 1  | 5.42  | -     | -     | -  | -  | -  |
| Critical Hdwy Stg 2  | 5.42  | -     | -     | -  | -  | -  |
| Follow-up Hdwy       | 3.518 | 3.318 | 2.218 | -  | -  | -  |
| Pot Cap-1 Maneuver   | 198   | 649   | 1157  | -  | -  | -  |
| Stage 1              | 676   | -     | -     | -  | -  | -  |
| Stage 2              | 432   | -     | -     | -  | -  | -  |
| Platoon blocked, %   |       |       |       |    |    |    |
| Mov Cap-1 Maneuver   | 198   | 649   | 1157  | -  | -  | -  |
| Mov Cap-2 Maneuver   | 198   | -     | -     | -  | -  | -  |
| Stage 1              | 676   | -     | -     | -  | -  | -  |
| Stage 2              | 432   | -     | -     | -  | -  | -  |

|                      | EB   | WB | NB | SB | WB | SB |
|----------------------|------|----|----|----|----|----|
| HCM Control Delay, s | 17.1 | -  | 0  | -  | 0  | -  |
| HCM LOS              | C    |    |    |    |    |    |

|                       | EB   | WB | NB    | SB | WB | SB |
|-----------------------|------|----|-------|----|----|----|
| Capacity (veh/h)      | 1157 | -  | 303   | -  | -  | -  |
| HCM Lane V/C Ratio    | -    | -  | 0.022 | -  | -  | -  |
| HCM Control Delay (s) | 0    | -  | 17.1  | -  | -  | -  |
| HCM Lane LOS          | A    | -  | C     | -  | -  | -  |
| HCM 95th %tile Q(veh) | 0    | -  | 0.1   | -  | -  | -  |

HCM 6th TWSC  
3: SW 85 Ave & DW2

Cutler Gate  
Future Condition w/ Project - AM Peak Hour

| Intersection     |     |  |  |  |  |  |
|------------------|-----|--|--|--|--|--|
| Int Delay, s/veh | 4.1 |  |  |  |  |  |

| Level                    | EB   | WB   | NB   | SB   | ST   | LT   |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations      | Y    |      | 1    |      | 1    | 1    |
| Traffic Vol, veh/h       | 2    | 1    | 3    | 1    | 1    | 0    |
| Future Vol, veh/h        | 2    | 1    | 3    | 1    | 1    | 0    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Stop | Stop | Free | Free | Free | Free |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | 0    | -    | -    | -    | -    | -    |
| Veh in Median Storage, # | 0    | -    | 0    | -    | -    | 0    |
| Grade, %                 | 0    | -    | 0    | -    | -    | 0    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 2    | 1    | 3    | 1    | 1    | 0    |

| Major Minor          | Minor | Major | Major | Major | Major |
|----------------------|-------|-------|-------|-------|-------|
| Conflicting Flow All | 6     | 4     | 0     | 0     | 4     |
| Stage 1              | 4     | -     | -     | -     | -     |
| Stage 2              | 2     | -     | -     | -     | -     |
| Critical Hdwy        | 6.42  | 6.22  | -     | -     | 4.12  |
| Critical Hdwy Stg 1  | 5.42  | -     | -     | -     | -     |
| Critical Hdwy Stg 2  | 5.42  | -     | -     | -     | -     |
| Follow-up Hdwy       | 3.518 | 3.318 | -     | -     | 2.218 |
| Pot Cap-1 Maneuver   | 1015  | 1080  | -     | -     | 1618  |
| Stage 1              | 1019  | -     | -     | -     | -     |
| Stage 2              | 1021  | -     | -     | -     | -     |
| Platoon blocked, %   |       |       | -     | -     | -     |
| Mov Cap-1 Maneuver   | 1014  | 1080  | -     | -     | 1618  |
| Mov Cap-2 Maneuver   | 1014  | -     | -     | -     | -     |
| Stage 1              | 1018  | -     | -     | -     | -     |
| Stage 2              | 1021  | -     | -     | -     | -     |

| 95th %               | 5th % | Peak | 5th % | 95th % |
|----------------------|-------|------|-------|--------|
| HCM Control Delay, s | 8.5   | 0    | 7.2   |        |
| HCM LOS              | A     |      |       |        |

| Proportion of Traffic | EB | WB | NB    | SB    | ST | LT |
|-----------------------|----|----|-------|-------|----|----|
| Capacity (veh/h)      | -  | -  | 1035  | 1618  | -  | -  |
| HCM Lane V/C Ratio    | -  | -  | 0.003 | 0.001 | -  | -  |
| HCM Control Delay (s) | -  | -  | 8.5   | 7.2   | 0  | -  |
| HCM Lane LOS          | -  | -  | A     | A     | A  | -  |
| HCM 95th %tile Q(veh) | -  | -  | 0     | 0     | -  | -  |

HCM 6th TWSC  
4: SW 85 Ave & DW3

Cutler Gate  
Future Condition w/ Project - AM Peak Hour

Int Delay, s/veh 2.8

| Lane Configurations      | W    | T    | T    | T    | T    | T    |
|--------------------------|------|------|------|------|------|------|
| Traffic Vol, veh/h       | 2    | 1    | 3    | 1    | 0    | 2    |
| Future Vol, veh/h        | 2    | 1    | 3    | 1    | 0    | 2    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Stop | Stop | Free | Free | Free | Free |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | 0    | -    | -    | -    | -    | -    |
| Veh in Median Storage, # | 0    | -    | 0    | -    | -    | 0    |
| Grade, %                 | 0    | -    | 0    | -    | -    | 0    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 2    | 1    | 3    | 1    | 0    | 2    |

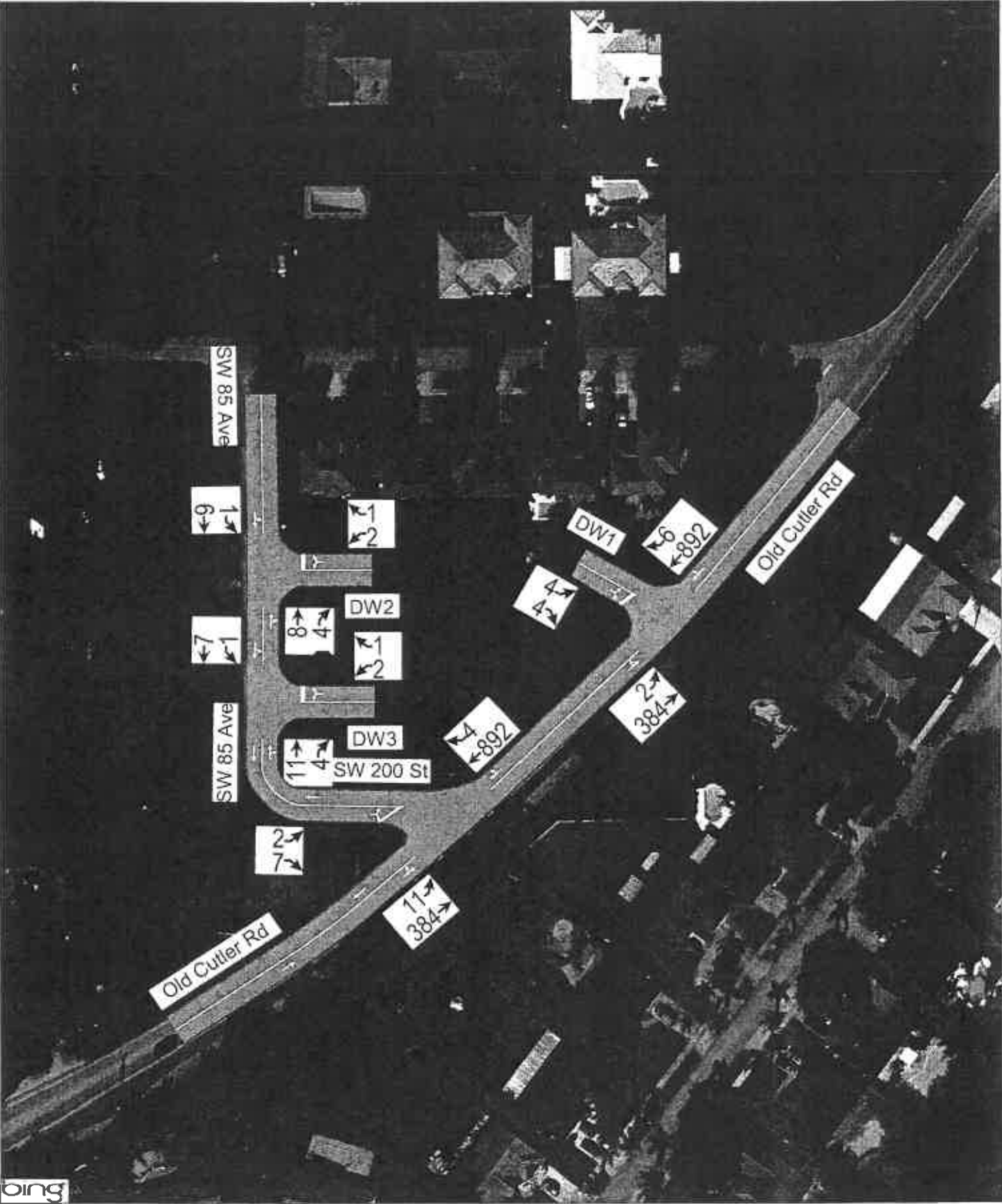
|                      |       |       |   |   |       |   |
|----------------------|-------|-------|---|---|-------|---|
| Conflicting Flow All | 6     | 4     | 0 | 0 | 4     | 0 |
| Stage 1              | 4     | -     | - | - | -     | - |
| Stage 2              | 2     | -     | - | - | -     | - |
| Critical Hdwy        | 6.42  | 6.22  | - | - | 4.12  | - |
| Critical Hdwy Stg 1  | 5.42  | -     | - | - | -     | - |
| Critical Hdwy Stg 2  | 5.42  | -     | - | - | -     | - |
| Follow-up Hdwy       | 3.518 | 3.318 | - | - | 2.218 | - |
| Pot Cap-1 Maneuver   | 1015  | 1080  | - | - | 1618  | - |
| Stage 1              | 1019  | -     | - | - | -     | - |
| Stage 2              | 1021  | -     | - | - | -     | - |
| Platoon blocked, %   | -     | -     | - | - | -     | - |
| Mov Cap-1 Maneuver   | 1015  | 1080  | - | - | 1618  | - |
| Mov Cap-2 Maneuver   | 1015  | -     | - | - | -     | - |
| Stage 1              | 1019  | -     | - | - | -     | - |
| Stage 2              | 1021  | -     | - | - | -     | - |

HCM Control Delay, s 8.5  
HCM LOS A

|                       |   |   |       |      |   |
|-----------------------|---|---|-------|------|---|
| Capacity (veh/h)      | - | - | 1036  | 1618 | - |
| HCM Lane V/C Ratio    | - | - | 0.003 | -    | - |
| HCM Control Delay (s) | - | - | 8.5   | 0    | - |
| HCM Lane LOS          | - | - | A     | A    | - |
| HCM 95th %tile Q(veh) | - | - | 0     | 0    | - |

Cutler Gate

Future Condition w/ Project - PM Peak Hour



**HCM 6th TWSC**  
**1: Old Cutler Rd & SW 200 St**

**Cutler Gate**  
 Future Condition w/ Project - PM Peak Hour

**Intersection**

Int Delay, s/veh 0.2

**Approach**

| Lane Configurations      | EB   | WB   | EB   | WB   | EB   | WB   |
|--------------------------|------|------|------|------|------|------|
| Traffic Vol, veh/h       | 2    | 7    | 11   | 384  | 892  | 4    |
| Future Vol, veh/h        | 2    | 7    | 11   | 384  | 892  | 4    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Stop | Stop | Free | Free | Free | Free |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | 0    | -    | -    | -    | -    | -    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 99   | 99   | 99   | 99   | 99   | 99   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 2    | 7    | 11   | 388  | 901  | 4    |

**Approach**

| Conflicting Flow All | EB    | WB    | EB    | WB | EB | WB |
|----------------------|-------|-------|-------|----|----|----|
| Stage 1              | 903   | -     | -     | -  | -  | -  |
| Stage 2              | 410   | -     | -     | -  | -  | -  |
| Critical Hdwy        | 6.42  | 6.22  | 4.12  | -  | -  | -  |
| Critical Hdwy Stg 1  | 5.42  | -     | -     | -  | -  | -  |
| Critical Hdwy Stg 2  | 5.42  | -     | -     | -  | -  | -  |
| Follow-up Hdwy       | 3.518 | 3.318 | 2.218 | -  | -  | -  |
| Pot Cap-1 Maneuver   | 175   | 336   | 752   | -  | -  | -  |
| Stage 1              | 396   | -     | -     | -  | -  | -  |
| Stage 2              | 670   | -     | -     | -  | -  | -  |
| Platoon blocked, %   | -     | -     | -     | -  | -  | -  |
| Mov Cap-1 Maneuver   | 172   | 336   | 752   | -  | -  | -  |
| Mov Cap-2 Maneuver   | 172   | -     | -     | -  | -  | -  |
| Stage 1              | 388   | -     | -     | -  | -  | -  |
| Stage 2              | 670   | -     | -     | -  | -  | -  |

**Approach**

|                      |      |     |   |
|----------------------|------|-----|---|
| HCM Control Delay, s | 18.4 | 0.3 | 0 |
| HCM LOS              | C    |     |   |

**Approach**

| Capacity (veh/h)      | EB    | WB | EB    | WB | EB | WB |
|-----------------------|-------|----|-------|----|----|----|
| HCM Lane V/C Ratio    | 0.015 | -  | 0.033 | -  | -  | -  |
| HCM Control Delay (s) | 9.9   | 0  | 18.4  | -  | -  | -  |
| HCM Lane LOS          | A     | A  | C     | -  | -  | -  |
| HCM 95th %tile Q(veh) | 0     | -  | 0.1   | -  | -  | -  |

HCM 6th TWSC  
2: Old Cutler Rd & DW1

Cutler Gate  
Future Condition w/ Project - PM Peak Hour

Int Delay, s/veh 0.2

|                          |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations      | 4    | 4    | 2    | 384  | 892  | 6    |
| Traffic Vol, veh/h       | 4    | 4    | 2    | 384  | 892  | 6    |
| Future Vol, veh/h        | 4    | 4    | 2    | 384  | 892  | 6    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Stop | Stop | Free | Free | Free | Free |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | 0    | -    | -    | -    | -    | -    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 4    | 4    | 2    | 417  | 970  | 7    |

|                      |       |       |       |   |   |   |
|----------------------|-------|-------|-------|---|---|---|
| Conflicting Flow All | 1395  | 974   | 977   | 0 | - | 0 |
| Stage 1              | 974   | -     | -     | - | - | - |
| Stage 2              | 421   | -     | -     | - | - | - |
| Critical Hdwy        | 6.42  | 6.22  | 4.12  | - | - | - |
| Critical Hdwy Stg 1  | 5.42  | -     | -     | - | - | - |
| Critical Hdwy Stg 2  | 5.42  | -     | -     | - | - | - |
| Follow-up Hdwy       | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver   | 156   | 306   | 706   | - | - | - |
| Stage 1              | 366   | -     | -     | - | - | - |
| Stage 2              | 662   | -     | -     | - | - | - |
| Platoon blocked, %   | -     | -     | -     | - | - | - |
| Mov Cap-1 Maneuver   | 155   | 306   | 706   | - | - | - |
| Mov Cap-2 Maneuver   | 155   | -     | -     | - | - | - |
| Stage 1              | 365   | -     | -     | - | - | - |
| Stage 2              | 662   | -     | -     | - | - | - |

|                      |      |     |   |
|----------------------|------|-----|---|
| HCM Control Delay, s | 23.2 | 0.1 | 0 |
| HCM LOS              | C    |     |   |

|                       |       |   |       |
|-----------------------|-------|---|-------|
| Capacity (veh/h)      | 706   | - | 206   |
| HCM Lane V/C Ratio    | 0.003 | - | 0.042 |
| HCM Control Delay (s) | 10.1  | 0 | 23.2  |
| HCM Lane LOS          | B     | A | C     |
| HCM 95th %tile Q(veh) | 0     | - | 0.1   |

HCM 6th TWSC  
3: SW 85 Ave & DW2

Cutler Gate  
Future Condition w/ Project - PM Peak Hour

Int Delay, s/veh 1.5

|                          |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations      | Y    |      | 1    |      | 1    |      |
| Traffic Vol, veh/h       | 2    | 1    | 8    | 4    | 1    | 6    |
| Future Vol, veh/h        | 2    | 1    | 8    | 4    | 1    | 6    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Stop | Stop | Free | Free | Free | Free |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | 0    | -    | -    | -    | -    | -    |
| Veh in Median Storage, # | 0    | -    | 0    | -    | -    | 0    |
| Grade, %                 | 0    | -    | 0    | -    | -    | 0    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 2    | 1    | 9    | 4    | 1    | 7    |

|                      |       |       |   |   |       |   |
|----------------------|-------|-------|---|---|-------|---|
| Conflicting Flow All | 20    | 11    | 0 | 0 | 13    | 0 |
| Stage 1              | 11    | -     | - | - | -     | - |
| Stage 2              | 9     | -     | - | - | -     | - |
| Critical Hdwy        | 6.42  | 6.22  | - | - | 4.12  | - |
| Critical Hdwy Stg 1  | 5.42  | -     | - | - | -     | - |
| Critical Hdwy Stg 2  | 5.42  | -     | - | - | -     | - |
| Follow-up Hdwy       | 3.518 | 3.318 | - | - | 2.218 | - |
| Pot Cap-1 Maneuver   | 997   | 1070  | - | - | 1606  | - |
| Stage 1              | 1012  | -     | - | - | -     | - |
| Stage 2              | 1014  | -     | - | - | -     | - |
| Platoon blocked, %   | -     | -     | - | - | -     | - |
| Mov Cap-1 Maneuver   | 996   | 1070  | - | - | 1606  | - |
| Mov Cap-2 Maneuver   | 996   | -     | - | - | -     | - |
| Stage 1              | 1011  | -     | - | - | -     | - |
| Stage 2              | 1014  | -     | - | - | -     | - |

HCM Control Delay, s 8.5 0 1  
HCM LOS A

|                       |   |   |       |       |   |
|-----------------------|---|---|-------|-------|---|
| Capacity (veh/h)      | - | - | 1020  | 1606  | - |
| HCM Lane V/C Ratio    | - | - | 0.003 | 0.001 | - |
| HCM Control Delay (s) | - | - | 8.5   | 7.2   | 0 |
| HCM Lane LOS          | - | - | A     | A     | A |
| HCM 95th %tile Q(veh) | - | - | 0     | 0     | - |

HCM 6th TWSC  
4: SW 85 Ave & DW3

Cutler Gate  
Future Condition w/ Project - PM Peak Hour

Int Delay, s/veh 1.3

| Lane Configurations      | Y    | T    | TB   | TB   | TB   | TB   |
|--------------------------|------|------|------|------|------|------|
| Traffic Vol, veh/h       | 2    | 1    | 11   | 4    | 1    | 7    |
| Future Vol, veh/h        | 2    | 1    | 11   | 4    | 1    | 7    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Stop | Stop | Free | Free | Free | Free |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | 0    | -    | -    | -    | -    | -    |
| Veh in Median Storage, # | 0    | -    | 0    | -    | -    | 0    |
| Grade, %                 | 0    | -    | 0    | -    | -    | 0    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 2    | 1    | 12   | 4    | 1    | 8    |

| Conflicting Flow All | 24    | 14    | 0 | 0 | 16    | 0 |
|----------------------|-------|-------|---|---|-------|---|
| Stage 1              | 14    | -     | - | - | -     | - |
| Stage 2              | 10    | -     | - | - | -     | - |
| Critical Hdwy        | 6.42  | 6.22  | - | - | 4.12  | - |
| Critical Hdwy Stg 1  | 5.42  | -     | - | - | -     | - |
| Critical Hdwy Stg 2  | 5.42  | -     | - | - | -     | - |
| Follow-up Hdwy       | 3.518 | 3.318 | - | - | 2.218 | - |
| Pot Cap-1 Maneuver   | 992   | 1066  | - | - | 1602  | - |
| Stage 1              | 1009  | -     | - | - | -     | - |
| Stage 2              | 1013  | -     | - | - | -     | - |
| Platoon blocked, %   | -     | -     | - | - | -     | - |
| Mov Cap-1 Maneuver   | 991   | 1066  | - | - | 1602  | - |
| Mov Cap-2 Maneuver   | 991   | -     | - | - | -     | - |
| Stage 1              | 1008  | -     | - | - | -     | - |
| Stage 2              | 1013  | -     | - | - | -     | - |

HCM Control Delay, s 8.6 0 0.9  
HCM LOS A

| Capacity (veh/h)      | - | - | 1015  | 1602  | - |
|-----------------------|---|---|-------|-------|---|
| HCM Lane V/C Ratio    | - | - | 0.003 | 0.001 | - |
| HCM Control Delay (s) | - | - | 8.6   | 7.2   | 0 |
| HCM Lane LOS          | - | - | A     | A     | A |
| HCM 95th %tile Q(veh) | - | - | 0     | 0     | - |

## Appendix 6: Roadway Analysis



TABLE: A8

# ROADWAY ANALYSIS - AM & PM PEAK HOUR EXISTING CONDITION (2018) & FUTURE CONDITION (2019)

Project Name: Cutler Gate

| 1                               |  | 2               |  | 3                     |  | 4                               |                    |     | 5                                                   |    | 6                          |    | 7                              |                    |     |   |
|---------------------------------|--|-----------------|--|-----------------------|--|---------------------------------|--------------------|-----|-----------------------------------------------------|----|----------------------------|----|--------------------------------|--------------------|-----|---|
| Roadway Analysis - AM Peak Hour |  |                 |  |                       |  |                                 |                    |     |                                                     |    |                            |    |                                |                    |     |   |
| Roadway                         |  | Location        |  | LOS / Volume Standard |  | Roadway Segment                 |                    |     | Background Growth @ 1.76% - 1 Year Build-Out (2019) |    | Project Gross Trips (2019) |    | Roadway Segment                |                    |     |   |
|                                 |  |                 |  |                       |  | Existing Two-Way Volume (2018)  | Available Capacity | LOS |                                                     |    |                            |    | Proposed Traffic Volume (2019) | Available Capacity | LOS |   |
| 1                               |  | Old Cutler Road |  | North of SW 87 Avenue |  | LOS D / 1,600 VPH Class I - 2LU | 1,105              | 495 | C                                                   | 19 |                            | 8  |                                | 1,132              | 468 | C |
| Roadway Analysis - PM Peak Hour |  |                 |  |                       |  |                                 |                    |     |                                                     |    |                            |    |                                |                    |     |   |
| Roadway                         |  | Location        |  | LOS / Volume Standard |  | Roadway Segment                 |                    |     | Background Growth @ 1.76% - 1 Year Build-Out (2019) |    | Project Gross Trips (2019) |    | Roadway Segment                |                    |     |   |
|                                 |  |                 |  |                       |  | Existing Two-Way Volume (2018)  | Available Capacity | LOS |                                                     |    |                            |    | Proposed Traffic Volume (2019) | Available Capacity | LOS |   |
| 1                               |  | Old Cutler Road |  | North of SW 87 Avenue |  | LOS D / 1,600 VPH Class I - 2LU | 1,258              | 342 | C                                                   | 22 |                            | 14 |                                | 1,295              | 305 | C |

Notes:

1 Roadway Name

2 Location

3 Roadway / Volume Standard \*

4 Existing Roadway Segment Two-Way Volume, Available Capacity &amp; LOS\*\*

5 Background Traffic Growth by 2019

6 Project Gross Trips by 2019

7 Proposed Roadway Segment Two-Way Volume, Available Capacity &amp; LOS by Year 2019

\* LOS / Volume Standard based on the FDOT generalized Table 4 (Peak Hour Two-Way Volumes for Florida's Urbanized Areas).

\*\* Existing Roadway volumes obtained from TMC's

TABLE 4

Generalized **Peak Hour Two-Way** Volumes for Florida's  
Urbanized Areas<sup>1</sup>

12/18/12

12/18/12

INTERRUPTED FLOW FACILITIES

STATE SIGNALIZED ARTERIALS

| Class I (40 mph or higher posted speed limit) |           |   |       |       |    |
|-----------------------------------------------|-----------|---|-------|-------|----|
| Lanes                                         | Median    | B | C     | D     | E  |
| 2                                             | Undivided | * | 1,510 | 1,600 | ** |
| 4                                             | Divided   | * | 3,420 | 3,580 | ** |
| 6                                             | Divided   | * | 5,250 | 5,390 | ** |
| 8                                             | Divided   | * | 7,090 | 7,210 | ** |

| Class II (35 mph or slower posted speed limit) |           |   |       |       |       |
|------------------------------------------------|-----------|---|-------|-------|-------|
| Lanes                                          | Median    | B | C     | D     | E     |
| 2                                              | Undivided | * | 660   | 1,330 | 1,410 |
| 4                                              | Divided   | * | 1,310 | 2,920 | 3,040 |
| 6                                              | Divided   | * | 2,090 | 4,500 | 4,590 |
| 8                                              | Divided   | * | 2,880 | 6,060 | 6,130 |

Non-State Signalized Roadway Adjustments

(Alter corresponding state volumes by the indicated percent.)

Non-State Signalized Roadways - 10%

Median & Turn Lane Adjustments

| Lanes | Median    | Exclusive Left Lanes | Exclusive Right Lanes | Adjustment Factors |
|-------|-----------|----------------------|-----------------------|--------------------|
| 2     | Divided   | Yes                  | No                    | +5%                |
| 2     | Undivided | No                   | No                    | -20%               |
| Multi | Undivided | Yes                  | No                    | -5%                |
| Multi | Undivided | No                   | No                    | -25%               |
|       |           |                      | Yes                   | + 5%               |

One-Way Facility Adjustment

Multiply the corresponding two-directional volumes in this table by 0.6

BICYCLE MODE<sup>2</sup>

(Multiply motorized vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)

Paved Shoulder/Bicycle

| Lane Coverage | B   | C     | D      | E      |
|---------------|-----|-------|--------|--------|
| 0-49%         | *   | 260   | 680    | 1,770  |
| 50-84%        | 190 | 600   | 1,770  | >1,770 |
| 85-100%       | 830 | 1,770 | >1,770 | **     |

PEDESTRIAN MODE<sup>2</sup>

(Multiply motorized vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)

| Sidewalk Coverage | B   | C   | D     | E      |
|-------------------|-----|-----|-------|--------|
| 0-49%             | *   | *   | 250   | 850    |
| 50-84%            | *   | 150 | 780   | 1,420  |
| 85-100%           | 340 | 960 | 1,560 | >1,770 |

BUS MODE (Scheduled Fixed Route)<sup>3</sup>

(Buses in peak hour in peak direction)

| Sidewalk Coverage | B   | C   | D   | E   |
|-------------------|-----|-----|-----|-----|
| 0-84%             | > 5 | ≥ 4 | ≥ 3 | ≥ 2 |
| 85-100%           | > 4 | ≥ 3 | ≥ 2 | ≥ 1 |

UNINTERRUPTED FLOW FACILITIES

FREEWAYS

| Lanes | B      | C      | D      | E      |
|-------|--------|--------|--------|--------|
| 4     | 4,120  | 5,540  | 6,700  | 7,190  |
| 6     | 6,130  | 8,370  | 10,060 | 11,100 |
| 8     | 8,230  | 11,100 | 13,390 | 15,010 |
| 10    | 10,330 | 14,040 | 16,840 | 18,930 |
| 12    | 14,450 | 18,880 | 22,030 | 22,860 |

Freeway Adjustments

| Auxiliary Lanes                    | Ramp Metering |
|------------------------------------|---------------|
| Present in Both Directions + 1,800 | + 5%          |

UNINTERRUPTED FLOW HIGHWAYS

| Lanes | Median    | B     | C     | D     | E     |
|-------|-----------|-------|-------|-------|-------|
| 2     | Undivided | 770   | 1,530 | 2,170 | 2,990 |
| 4     | Divided   | 3,300 | 4,660 | 5,900 | 6,530 |
| 6     | Divided   | 4,950 | 6,990 | 8,840 | 9,790 |

Uninterrupted Flow Highway Adjustments

| Lanes | Median    | Exclusive left lanes | Adjustment factors |
|-------|-----------|----------------------|--------------------|
| 2     | Divided   | Yes                  | +5%                |
| Multi | Undivided | Yes                  | -5%                |
| Multi | Undivided | No                   | -25%               |

<sup>1</sup>Values shown are presented as peak hour two-way volumes for levels of service and are for the automobile/truck modes unless specifically stated. This table does not constitute a standard and should be used only for general planning applications. The computer models from which this table is derived should be used for more specific planning applications. The table and deriving computer models should not be used for corridor or intersection design, where more refined techniques exist. Calculations are based on planning applications of the Highway Capacity Manual and the Transit Capacity and Quality of Service Manual.

<sup>2</sup>Level of service for the bicycle and pedestrian modes in this table is based on number of motorized vehicles, not number of bicyclists or pedestrians using the facility.

<sup>3</sup>Buses per hour shown are only for the peak hour in the single direction of the higher traffic flow.

\* Cannot be achieved using table input value defaults

\*\* Not applicable for that level of service letter grade. For the automobile mode, volumes greater than level of service D become F because intersection capacities have been reached. For the bicycle mode, the level of service letter grade (including F) is not achievable because there is no maximum vehicle volume threshold using table input value defaults.

Source:

Florida Department of Transportation  
Systems Planning Office

[www.dot.state.fl.us/planning/systems/sip/los/default.shtm](http://www.dot.state.fl.us/planning/systems/sip/los/default.shtm)