
$11256-$ Sego Industries-Replace old xa⿴xx4 windows-\$315-445-3-77
\#13890-SeGo Indstures-Secuity Windows-Remove 4 windows and replace with 4 alum. single hung windows $0-\$ 300-9-20-78$

## M04383-McConnell A/C, Inc. - 1 cooling tower rpplacement-5-4-79

\#21244 11/20/81 Se-Go Ind. - furnish and install 5 single hung windows $\$ 750$.
\#23370 2/1/83 Se-go Ind/Security wind - install 2 awning type windows $\$ 250$.
\#25066 2/22/84 Se-go. Ind - install 6 double hung and 6 single hung windows $\$ 1,986$. Southern Atlantic Serv - 1-2 ton air cond central, replace exist
$\begin{array}{ll}\# 23370 & 2 / 1 / 83 \\ \# 25066 & 2 / 22 / 84\end{array}$
\#27281 8/12/85 Group III Gen Cont - new kitchen cabinets, vanities, retile bathroo
\#27834 12/30/85 paul Charez extorinr pressure cleaning and oainteत $\$ 22,000$
\#91706 1/21/86 Serse Taieb" repair to balcony railings under engineers supervision $\$ 54,000$.
\#27913 1/22/86 Abraham Levine Roof - repair roofing $\$ 5,000$.
\#M08722 1/26/87 Southern Atlantic $1-3^{\frac{1}{2}}$ ton air cond central

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| :---: | :---: |

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A/C change out

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10-26
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& c \text { change out } \\
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& 9-8-89-\# 207
\end{aligned}
$$

8-19-88-\#1008
\#25029 2/15/84 Se-go Ind/Security Windows - install 2 awning type windows $\$ 273$.


ENGINEERING, INC.
April 5, 2017
Mr. Cassiano Lopes de Goulart Almeida
Manager - Miami Beach Associates, LLC
1450 Brickell Avenue, Suite 1560
Miami, Florida 33131

## Re: 5775 Collins Avenue - Traffic Study

Dear Mr. Lopes de Goulart Almeida:
Traf Tech Engineering, Inc. is pleased to provide you with the results of the traffic study conducted for the proposed re-development of the existing residential development located at 5775 Collins Avenue in the City of Miami Beach in Miami-Dade County, Florida. Figure 1 depicts the location of the project site and the nearby transportation network. The existing residential development will be replaced with a less-intense residential building consisting of 83 high-rise residential units. Since the existing residential development currently has 10 residential units currently occupied, the new project impacts associated with 73 high-rise units will be assessed herein. It is important to note that the current residential development is more intense (more residential units) than the proposed building and the current building can be fully occupied without the need for a traffic study. However, as discussed with the City of Miami Beach, the future traffic impacts with the 73 high-rise units are documented herein.

This following section addresses the existing roadway system located in the vicinity of the project site, nearby U-turn locations, traffic counts, trip generation and trip distribution.

## Existing Roadway Conditions

The roadway system located near the project site includes Collins Avenue. Collins Avenue is a six-lane divided arterial roadway with a one-lane frontage road on the east side of the roadway. The driveway to the future high-rise development will remain unchanged (right-turns only).

## Nearby U-Turn Locations

For ingress and egress purposes, U-turns are expected at the signalized U-turn location at the 5800 block (north of the project site) and at a directional median opening located south of the 5775 Collins project.

Figure 2 shows the existing lane geometry of the two U-turn locations.

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## Traffic Counts

Traf Tech Engineering, Inc., in association with Video Data Solutions, Inc., collected traffic data at the two U-turn locations. These traffic counts were collected for information purposes.

The intersection turning movement counts were collected on Friday, March 10, 2017 during the PM peak period (4:00 PM to 7:00 PM). As indicated in the traffic counts, the amount of U-turn currently occurring at the two U-turn locations is minimal (less than one vehicle per minute). The existing PM peak hour traffic counts are contained in Appendix B.

## Trip Generation Estimation

The trip generation for the project was based on information contained in the Institute of Transportation Engineer's (ITE) Trip Generation Manual (9 $9^{\text {th }}$ Edition). According to the subject ITE manual, the most appropriate "land use" category for the proposed land use is: Land Use 232 - High Rise Residential Condominium/Townhouse. Table 1 below summarizes the external trips associated with the proposed 5775 Collins residential development.

| TABLE 1 <br> Trip Generation Summary <br> 5775 Collins |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Land Use | Size $^{\mathbf{1}}$ | Daily <br> Trips | Ins | PM Peak Hour |  |
| High-Rise | 73 | 305 | 17 | Out | Total |

SOURCE: ITE Trip Generation Manual ( $9^{\text {th }}$ Edition)
As indicated in Table 1, the proposed development is anticipated to generate approximately 305 new daily trips and approximately 28 new trips ( 17 inbound and 11 outbound) during the typical PM peak hour. Hence, the new trips generated by the 5775 Collins development are considered insignificant from a traffic engineering standpoint (one new peak hour trip every two minutes).

ITE Land Use 232 - High Rise Residential Condominium/Townhouses
Weekday Trip Generation
T = 4.18 (X)
Where $T=$ number of weekday trips and
$\mathrm{X}=$ number of units

[^0]ENGINEERING, INC.
Weekday PM Peak Hour of Adjacent Street
$\mathrm{T}=0.38$ (X) ( $62 \%$ inbound and $38 \%$ outbound)
Where $\mathrm{T}=$ number of weekday PM peak hour trips and
$\mathrm{X}=$ number of units

## Trip Distribution and Traffic Circulation

The trip distribution and traffic assignment for the project were based on Miami-Dade County's Cardinal Distribution information for the study area. Table 2 summarizes the County's cardinal distribution data for Traffic Analysis Zone 527, which is applicable to the project site from the latest SERPM data published by Miami-Dade County.

| TABLE 2 <br> Project Trip Distribution <br> 5775 Collins |  |  |
| :--- | :--- | :---: |
| Direction | \% of Total Trips |  |
| North: | Northwest | 14.0 |
|  | Northeast | 13.7 |
| South: | Southwest | 13.3 |
|  | Southeast | 9.8 |
| East: | Northeast | 7.0 |
|  | Southeast | 3.7 |
| West: | Northwest | 18.1 |
|  | Southwest | 20.5 |
|  |  | $100.00 \%$ |

Source: Miami-Dade County (2040 SERPM)
Based on the above, the following traffic assignment was assumed for the proposed restaurant development:

- $55 \%$ to/from the north via Collins Avenue
- $45 \%$ to/from the south via Collins Avenue

The new peak hour traffic generated by the project was assigned to the nearby transportation network using the traffic assignment documented above. The new project traffic assignment is summarized in Figure 3. As depicted in Figure 3, the projected Uturns at the north and south median openings are minimal (less than one new vehicle trip every six minutes).

The traffic circulation within the site consists of the following:

- All inbound vehicles will enter via the south driveway from the Collins Avenue frontage road and drop-off at the porte-cochere area near the center of the site. The south driveway is restricted to right-turns-in only. Vehicles will be parked by entering via the north ramp that leads to the underground parking garage.

ENGINEERING, INC.
Vehicles are retrieved from the underground parking garage and returned to the porte-cochere via the south ramp. From the porte-cochere all exiting vehicles exit onto the Collins Avenue frontage road via the north driveway which is restricted to right-turns-out only.

## Pedestrian Circulation

A 9-foot four-inch sidewalk is located in front of the 5775 Collins Avenue site (east side of Collins Avenue/frontage road). The wide-sidewalk provides north-south pedestrian mobility within the immediate area of the project. From the sidewalk, access to the subject residential development is provided via a pedestrian access path/stairs located between the sidewalk and the porte-cochere. Moreover, a signalized pedestrian crossing is provided at the 5800 block approximately 625 feet north of the site.

## Pedestrian Facilities Analysis (Sidewalks and Crosswalks)

Based on the traffic counts contained in Appendix B, approximately 22 pedestrians used the signalized pedestrian crosswalk located at the 5800 -block during the peak pedestrian hour. As shown in the signal timing plans contained in Appendix C for the signalized located at the 5800 block (timing plan refers to the location as the 5875 block, but the street sign indicates 5800 block), the subject pedestrian crossing operates with a signal cycle of 140 seconds, which results in approximately 25 pedestrian crossing opportunities per hour. Hence, the signalized pedestrian crossing at the 5800 block has 25 opportunities per hour to accommodate 22 pedestrians per hour (sufficient pedestrian capacity is available at the subject signalized pedestrian crossing).

The traffic counts contained in Appendix B show a maximum of 27 pedestrians during the peak 15 -minute period using the sidewalk located on the east side of Collins Avenue/frontage road (west of the site, refer to ped column on westbound approach at Collins Ave at 5701 Block). With a sidewalk width of 9.33 feet ( 9 feet, 4 inches), the resulting pedestrian flow rate is approximately 0.193 pedestrians/minute/foot of sidewalk width ( 27 pedestrians per peak 15 -minute period divided by 15 divided by 9.33 ). According the 2010 Highway Capacity Manual (refer to Appendix D), the resulting level of service of the sidewalk adjacent to the site is "A".

## Summary

The proposed 5775 residential development is anticipated to generate approximately 305 new daily trips and approximately 28 new trips ( 17 inbound and 11 outbound) during the typical PM peak hour. Hence, the new trips generated by the 5775 Collins development are considered insignificant from a traffic engineering standpoint (one new peak hour trip every two minutes). The projected U-turns at the north and south median openings are minimal (less than one new vehicle trip every six minutes).

## Traf Tech

ENGINEERING, INC.
Adequate traffic and pedestrian circulation is provided for the 5775 Collins redevelopment project. Sufficient pedestrian capacity is available at the signalized pedestrian crossing located at the 5800 block (within walking distance from the site). Finally, the sidewalk located adjacent to the site is currently operating at level of service "A".

It has been a pleasure working with you on this project.
Sincerely,
TRAF TECH ENGINEERING, INC.

Senior Transportation Engineer





## APPENDIX A

## Site Plan - 5775 Collins



## APPENDIX B

## Traffic Counts

# Video Data Solutions, Inc. 

A Traffic Data Collection Company
O. (305)253-1553 F.(305)235-7703
CLIENT: TRAF TECH Engineering
JOB NO : $2017-26$
PROJECT: Collins Ave
COUNTY : Miami-Dade

File Name : 1- Collins Ave at 5800 Block
Site Code : 00000000 Start Date : 3/10/2017
Page No : 1

Groups Printed- Auto - Heavy Vehicles

|  | Collins Ave Southbound |  |  |  |  | 5800 Block Westbound |  |  |  |  | Collins Ave Northbound |  |  |  |  | 5800 Block <br> Eastbound |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Start Time | Right | Thru | Left | U-Tums | App. Total | Right | Thru | Left | U-Turs | App. Total | Right | Thru | Left | U-Tums | App. Total | Right | Thru | Left | U-Turns | App. Total | Int. Total |
| 16:30 | 0 | 230 | 0 | 1 | 231 | 0 | 0 | 0 | 0 | 0 | 0 | 279 | 0 | 15 | 294 | 0 | 0 | 0 | 0 | 0 | 525 |
| 16:45 | 0 | 235 | 0 | 3 | 238 | 0 | 0 | 0 | 0 | 0 | 0 | 295 | 0 | 9 | 304 | 0 | 0 | 0 | 0 | 0 | 542 |
| Total | 0 | 465 | 0 | 4 | 469 | 0 | 0 | 0 | 0 | 0 | 0 | 574 | 0 | 24 | 598 | 0 | 0 | 0 | 0 | 0 | 1067 |
| 17:00 | 0 | 234 | 0 | 6 | 240 | 0 | 0 | 0 | 0 | 0 | 0 | 300 | 0 | 7 | 307 | 0 | 0 | 0 | 0 | 0 | 547 |
| 17:15 | 0 | 246 | 0 | 3 | 249 | 0 | 0 | 0 | 0 | 0 | 0 | 325 | 0 | 8 | 333 | 0 | 0 | 0 | 0 | 0 | 582 |
| 17:30 | 0 | 255 | 0 | 4 | 259 | 0 | 0 | 0 | 0 | 0 | 0 | 339 | 0 | 6 | 345 | 0 | 0 | 0 | 0 | 0 | 604 |
| 17:45 | 0 | 242 | 0 | 2 | 244 | 0 | 0 | 0 | 0 | 0 | 0 | 340 | 0 | 9 | 349 | 0 | 0 | 0 | 0 | 0 | 593 |
| Total | 0 | 977 | 0 | 15 | 992 | 0 | 0 | 0 | 0 | 0 | 0 | 1304 | 0 | 30 | 1334 | 0 | 0 | 0 | 0 | 0 | 2326 |
| 18:00 | 0 | 215 | 0 | 2 | 217 | 0 | 0 | 0 | 0 | 0 | 0 | 329 | 0 | 8 | 337 | 0 | 0 | 0 | 0 | 0 | 554 |
| 18:15 | 0 | 221 | 0 | 3 | 224 | 0 | 0 | 0 | 0 | 0 | 0 | 314 | 0 | 7 | 321 | 0 | 0 | 0 | 0 | 0 | 545 |
| 18:30 | 0 | 205 | 0 | 0 | 205 | 0 | 0 | 0 | 0 | 0 | 0 | 305 | 0 | 0 | 305 | 0 | 0 | 0 | 0 | 0 | 510 |
| 18:45 | 0 | 195 | 0 | 0 | 195 | 0 | 0 | 0 | 0 | 0 | 0 | 289 | 0 | 0 | 289 | 0 | 0 | 0 | 0 | 0 | 484 |
| Total | 0 | 836 | 0 | 5 | 841 | 0 | 0 | 0 | 0 | 0 | 0 | 1237 | 0 | 15 | 1252 | 0 | 0 | 0 | 0 | 0 | 2093 |
| Grand Total | 0 | 2278 |  |  |  |  |  |  |  |  |  | 3115 | 0 | 69 | 3184 | 0 | 0 | 0 | 0 | 0 | 5486 |
| Apprch \% | 0 | 99 | 0 | 1 |  | 0 | 0 | 0 | 0 |  | 0 | 97.8 | 0 | 2.2 |  | 0 | 0 | 0 | 0 |  |  |
| Total \% | 0 | 41.5 | 0 | 0.4 | 42 | 0 | 0 | 0 | 0 | 0 | 0 | 56.8 | 0 | 1.3 | 58 | 0 | 0 | 0 | 0 | 0 |  |
| Auto | 0 | 2246 | 0 | 24 | 2270 | 0 | 0 | 0 | 0 | 0 | 0 | 3078 | 0 | 69 | 3147 | 0 | 0 | 0 | 0 | 0 | 5417 |
| \% Auto | 0 | 98.6 | 0 | 100 | 98.6 | 0 | 0 | 0 | 0 | 0 | 0 | 98.8 | 0 | 100 | 98.8 | 0 | 0 | 0 | 0 | 0 | 98.7 |
| Heavy Vehicles \% Heavy Vehicles | 0 | 1.4 | 0 | 0 | 1.4 | 0 | 0 | 0 | 0 | 0 | 0 | 1.2 | 0 | 0 | 1.2 | 0 | 0 | 0 | 0 | 0 | 1.3 |

## Video Data Solutions, Inc.

A Traffic Data Collection Company
O.(305)253-1553 F.(305)235-7703

CLIENT : TRAF TECH Engineering<br>JOB NO : 2017-26<br>PROJECT: Collins Ave<br>COUNTY : Miami-Dade

File Name : 1-Collins Ave at 5800 Block
Site Code : 00000000
Page No : 2


## Video Data Solutions, Inc.

A Traffic Data Collection Company
O.(305)253-1553 F.(305)235-7703

CLIENT : TRAF TECH Engineering<br>JOB NO : 2017-26<br>PROJECT: Collins Ave<br>COUNTY : Miami-Dade

File Name : 1-Collins Ave at 5800 Block

Site Code : 00000000
Start Date : 3/10/2017
Page No : 4

|  | Collins Ave Southbound |  |  |  |  | 5800 Block Westbound |  |  |  |  | Collins Ave Northbound |  |  |  |  | 5800 Block Eastbound |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Start Time | Right | Thru | Left | U-Turns | App. Total | Right | Thru | Left | U-Turns | App. Total | Right | Thru | Left | U-Turns | App. Total | Right | Thru | Left | U-Turns | App. Total | Int. Total |
| Peak Hour Analysis From 16:30 to 18:45-Peak 1 of 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Peak Hour for Entire Intersection Begins at 17:15 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 17:15 | 0 | 246 | 0 | 3 | 249 | 0 | 0 | 0 | 0 | 0 | 0 | 325 | 0 | 8 | 333 | 0 | 0 | 0 | 0 | 0 | 582 |
| 17:30 | 0 | 255 | 0 | 4 | 259 | 0 | 0 | 0 | 0 | 0 | 0 | 339 | 0 | 6 | 345 | 0 | 0 | 0 | 0 | 0 | 604 |
| 17:45 | 0 | 242 | 0 | 2 | 244 | 0 | 0 | 0 | 0 | 0 | 0 | 340 | 0 | 9 | 349 | 0 | 0 | 0 | 0 | 0 | 593 |
| 18:00 | 0 | 215 | 0 | 2 | 217 | 0 | 0 | 0 | 0 | 0 | 0 | 329 | 0 | 8 | 337 | 0 | 0 | 0 | 0 | 0 | 554 |
| Total Volume \% App. Total | 0 | 958 | 0 | 11 | 969 | 0 | 0 | 0 | 0 | 0 | 0 | 1333 | 0 | 31 | 1364 | 0 | 0 | 0 | 0 | 0 | 2333 |
| PHF | . 000 | . 939 | . 000 | . 688 | . 935 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 980 | . 000 | . 861 | . 977 | . 000 | . 000 | . 000 | . 000 | . 000 | . 966 |



## Video Data Solutions, Inc.

A Traffic Data Collection Company
O.(305)253-1553 F.(305)235-7703

CLIENT : TRAF TECH Engineering<br>JOB NO : 2017-26<br>PROJECT: Collins Ave<br>COUNTY : Miami-Dade

File Name : 1- Collins Ave at 5800 Block

Site Code : 00000000
Start Date: 3/10/2017
Page No : 1


| 16:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 16:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 3 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 4 |
| 17:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 9 |
| 17:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 5 |
| 17:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 4 |
| 17:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 4 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 22 | 0 | 0 | 0 | 0 | 22 |
| 18:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 5 |
| 18:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 5 |
| 18:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 6 |
| 18:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 2 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 18 | 0 | 0 | 0 | 0 | 18 |
| Grand Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 44 | 0 | 0 | 0 | 0 | 44 |
| Apprch \% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 0 |  |
| Total \% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 0 |  |

## Video Data Solutions, Inc.

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O.(305)253-1553 F.(305)235-7703

CLIENT : TRAF TECH Engineering<br>JOB NO : 2017-26<br>PROJECT: Collins Ave<br>COUNTY : Miami-Dade

File Name : 1-Collins Ave at 5800 Block
Site Code : 00000000 Start Date : 3/10/2017
Page No : 2

|  | Collins Ave Southbound |  |  |  |  | 5800 Block Westbound |  |  |  |  | Collins Ave Northbound |  |  |  |  | 5800 Block 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 16:30 to 18:45-Peak 1 of 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Peak Hour fo | Entire | Inters | ction | Begin | at 17:00 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 17:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 9 |
| 17:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 5 | 0 | 0 | 0 | 0 | 0 | 5 |
| 17:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 4 | 0 | 0 | 0 | 0 | 0 | 4 |
| 17:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 4 | 0 | 0 | 0 | 0 | 0 | 4 |
| Total Volume | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 22 | 22 | 0 | 0 | 0 | 0 | 0 | 22 |
| \% App. Total | 0 | 0 | 0 | 0 |  | 0 | 0 | 0 | 0 |  | 0 | 0 | 0 | 100 |  | 0 | 0 | 0 | 0 |  |  |
| PHF | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 611 | . 611 | . 000 | . 000 | . 000 | . 000 | . 000 | . 611 |



# Video Data Solutions, Inc. 

A Traffic Data Collection Company
O. (305)253-1553 F.(305)235-7703
CLIENT: TRAF TECH Engineering
JOB NO : $2017-26$
PROJECT: Collins Ave
COUNTY : Miami-Dade

File Name : 2- Collins Ave at 5701 Block
Site Code : 00000000 Start Date : 3/10/2017
Page No : 1

|  | Collins Ave Southbound |  |  |  |  | 5701 Block Westbound |  |  |  |  | Collins Ave Northbound |  |  |  |  | 5701 Block Eastbound |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Start Time | Thru | Left | U-Turn A | U-Turn B | App. Total | Right | Thru | Left | U-Turs | App. Total | Right | Thru | Left | U-Turns | App. Total | Right | Thru | Left | U-Turns | App. Total | Int. Total |
| 16:30 | 221 | 6 | 4 | 7 | 238 | 1 | 0 | 1 | 0 | 2 | 3 | 309 | 0 | 7 | 319 | 0 | 0 | 0 | 0 | 0 | 559 |
| 16:45 | 226 | 5 | 3 | 11 | 245 | 1 | 0 | 0 | 0 | 1 | 2 | 313 | 0 | 7 | 322 | 0 | 0 | 0 | 0 | 0 | 568 |
| Total | 447 | 11 | 7 | 18 | 483 | 2 | 0 | 1 | 0 | 3 | 5 | 622 | 0 | 14 | 641 | 0 | 0 | 0 | 0 | 0 | 1127 |
| 17:00 | 231 | 3 | 1 | 5 | 240 | 2 | 0 | 1 | 0 | 3 | 5 | 325 | 0 | 2 | 332 | 0 | 0 | 0 | 0 | 0 | 575 |
| 17:15 | 233 | 2 | 0 | 5 | 240 | 1 | 0 | 1 | 0 | 2 | 4 | 347 | 0 | 5 | 356 | 0 | 0 | 0 | 0 | 0 | 598 |
| 17:30 | 232 | 0 | 2 | 2 | 236 | 2 | 0 | 0 | 0 | 2 | 5 | 372 | 0 | 3 | 380 | 0 | 0 | 0 | 0 | 0 | 618 |
| 17:45 | 219 | 1 | 11 | 15 | 246 | 0 | 0 | 0 | 0 | 0 | 1 | 360 | 0 | 11 | 372 | 0 | 0 | 0 | 0 | 0 | 618 |
| Total | 915 | 6 | 14 | 27 | 962 | 5 | 0 | 2 | 0 | 7 | 15 | 1404 | 0 | 21 | 1440 | 0 | 0 | 0 | 0 | 0 | 2409 |
| 18:00 | 207 | 2 | 8 | 8 | 225 | 1 | 0 | 0 | 0 | 1 | 2 | 350 | 0 | 8 | 360 | 0 | 0 | 0 | 0 | 0 | 586 |
| 18:15 | 201 | 3 | 3 | 5 | 212 | 1 | 0 | 0 | 0 | 1 | 3 | 342 | 0 | 7 | 352 | 0 | 0 | 0 | 0 | 0 | 565 |
| 18:30 | 194 | 1 | 4 | 4 | 203 | 2 | 0 | 0 | 0 | 2 | 3 | 336 | 0 | 7 | 346 | 0 | 0 | 0 | 0 | 0 | 551 |
| 18:45 | 197 | 2 | 3 | 5 | 207 | 1 | 0 | 0 | 0 | 1 | 2 | 327 | 0 | 5 | 334 | 0 | 0 | 0 | 0 | 0 | 542 |
| Total | 799 | 8 | 18 | 22 | 847 | 5 | 0 | 0 | 0 | 5 | 10 | 1355 | 0 | 27 | 1392 | 0 | 0 | 0 | 0 | 0 | 2244 |
| Grand Total | 2161 | 25 | 39 | 67 | 2292 | 12 | 0 | 3 | 0 | 15 | 30 | 3381 | 0 | 62 | 3473 | 0 | 0 | 0 | 0 | 0 | 5780 |
| Apprch \% | 94.3 | 1.1 | 1.7 | 2.9 |  | 80 | 0 | 20 | 0 |  | 0.9 | 97.4 | 0 | 1.8 |  | 0 | 0 | 0 | 0 |  |  |
| Total \% | 37.4 | 0.4 | 0.7 | 1.2 | 39.7 | 0.2 | 0 | 0.1 | 0 | 0.3 | 0.5 | 58.5 | 0 | 1.1 | 60.1 | 0 | 0 | 0 | 0 | 0 |  |
| Auto | 2135 | 25 | 39 | 67 | 2266 | 12 | 0 | 3 | 0 | 15 | 30 | 3353 | 0 | 62 | 3445 | 0 | 0 | 0 | 0 | 0 | 5726 |
| \% Auto | 98.8 | 100 | 100 | 100 | 98.9 | 100 | 0 | 100 | 0 | 100 | 100 | 99.2 | 0 | 100 | 99.2 | 0 | 0 | 0 | 0 | 0 | 99.1 |
| Heavy Vehicles <br> \% Heavy Vehicles | 1.2 | 0 | 0 | 0 | 1.1 | 0 | 0 | 0 | 0 | 0 | 0 | 0.8 | 0 | 0 | 0.8 | 0 | 0 | 0 | 0 | 0 | 0.9 |

## Video Data Solutions, Inc.

A Traffic Data Collection Company
O.(305)253-1553 F.(305)235-7703

CLIENT : TRAF TECH Engineering<br>JOB NO : 2017-26<br>PROJECT: Collins Ave<br>COUNTY : Miami-Dade

File Name : 2- Collins Ave at 5701 Block
Site Code : 00000000
Start Date : 3/10/2017
Page No : 2


## Video Data Solutions, Inc.

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CLIENT : TRAF TECH Engineering<br>JOB NO : 2017-26<br>PROJECT: Collins Ave

File Name : 2- Collins Ave at 5701 Block
Site Code : 00000000
Start Date : 3/10/2017
Page No : 4

|  | Collins Ave Southbound |  |  |  |  | 5701 Block Westbound |  |  |  |  | Collins Ave Northbound |  |  |  |  | 5701 Block Eastbound |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Start Time | Thru | Left | U-Turn A | U-Turn B | App. Total | Right | Thru | Left | U-Turns | App. Total | Right | Thru | Left | U-Turns | App. Total | Right | Thru | Left | U-Turns | App. Total | Int. Total |
| Peak Hour Analysis From 16:30 to 18:45-Peak 1 of 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Peak Hour for Entire Intersection Begins at 17:15 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 17:15 | 233 | 2 | 0 | 5 | 240 | 1 | 0 | 1 | 0 | 2 | 4 | 347 | 0 | 5 | 356 | 0 | 0 | 0 | 0 | 0 | 598 |
| 17:30 | 232 | 0 | 2 | 2 | 236 | 2 | 0 | 0 | 0 | 2 | 5 | 372 | 0 | 3 | 380 | 0 | 0 | 0 | 0 | 0 | 618 |
| 17:45 | 219 | 1 | 11 | 15 | 246 | 0 | 0 | 0 | 0 | 0 | 1 | 360 | 0 | 11 | 372 | 0 | 0 | 0 | 0 | 0 | 618 |
| 18:00 | 207 | 2 | 8 | 8 | 225 | 1 | 0 | 0 | 0 | 1 | 2 | 350 | 0 | 8 | 360 | 0 | 0 | 0 | 0 | 0 | 586 |
| Total Volume \% App. Total | 891 | 5 | 21 | 30 | 947 | 4 | 0 | 1 | 0 | 5 | 12 | 1429 | 0 | 27 | 1468 | 0 | 0 | 0 | 0 | 0 | 2420 |
| PHF | . 956 | . 625 | . 477 | . 500 | . 962 | . 500 | . 000 | . 250 | . 000 | . 625 | . 600 | . 960 | . 000 | . 614 | . 966 | . 000 | . 000 | . 000 | . 000 | . 000 | . 979 |



# Video Data Solutions, Inc. 

A Traffic Data Collection Company
O. (305)253-1553 F.(305)235-7703

CLIENT : TRAF TECH Engineering<br>JOB NO : 2017-26<br>PROJECT: Collins Ave<br>COUNTY : Miami-Dade

File Name : 2- Collins Ave at 5701 Block

Site Code : 00000000
Start Date: 3/10/2017
Page No : 1


| 16:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 2 | 11 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 16:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 7 | 14 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 9 | 25 |
| 17:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 4 | 18 |
| 17:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 19 |
| 17:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 9 | 26 |
| 17:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 3 | 18 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 56 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 18 | 81 |
| 18:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 27 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 10 | 39 |
| 18:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 23 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 7 | 31 |
| 18:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 5 | 23 |
| 18:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 3 | 17 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 78 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 25 | 110 |


| Grand Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 145 | 0 | 0 | 0 | 19 | 0 | 0 | 0 | 52 | 216 |  |  |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Apprch \% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 100 | 0 | 0 | 0 |

## APPENDIX C

## Signal Timing Plan

(Collins Avenue and 5800/5875 Block)

## TOD Schedule Report



| Phase | Phase Bank | Don't Walk | Min Initial | Veh Ext | Max Limit | Max 2 | Yellow | Red |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 123 | 123 | 123 | $1 \begin{array}{lll}1 & 2\end{array}$ | 23 | 123 |  |  |
| 1 SBL | 0-0-0 | 0-0-0 | 5-5-5 | 2-2-2 | 15-15-15 | 30-28-28\| | 3.7 | 2.3 |
| 2 NBT | 0-0-0 | 0-0-0 | 16-16-16 | 1-1-1 | 30-30-30 | 0-0-0 | 4 | 2.3 |
| 3 NWT | 0-0-0 | 0-0-0 | $5-5-5$ | $2-2-2$ | 9-9-9 | 12-12-12 | 4 | 3.3 |
| 4 PED | $5-5-5$ | 27-27-27 | 0-0-0 | 0-0-0 | 0-0-0 | 0-0-0 | 3.7 | 2.3 |
| 5 - | 0-0-0 | 0-0-0 | 0-0-0 | 0-0-0 | 0-0-0 | 0-0-0 | 0 | 0 |
| 6 SBT | 0-0-0 | 0-0-0 | 16-16-16 | 1-1-1 | 30-30-30 | 0-0-0 | 4 | 2.3 |
| 7 | 0-0-0 | 0-0-0 | 0-0-0 | 0-0-0 | 0-0-0 | $0-0-0$ | 0 | 0 |
| 8 | 0-0-0 | 0-0-0 | 0-0-0 | 0-0-0 | 0-0-0 | 0-0-0 | 0 | 0 |

Last In Service Date: unknown

| Permitted Phases |  |
| :---: | :---: |
|  | 12345678 |
| Default | 1234-6-- |
| External Permit 0 | --- |
| External Permit 1 | -- |
| External Permit 2 | ----- |

## TOD Schedule Report

| Green Time |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Current TOD Schedule | Plan | Cycle | $\begin{gathered} \mathbf{1} \\ \text { SBL } \end{gathered}$ | $\begin{gathered} \mathbf{2} \\ \text { NBT } \end{gathered}$ | $\begin{gathered} \mathbf{3} \\ \text { NWT } \end{gathered}$ | $\begin{gathered} 4 \\ \text { PED } \end{gathered}$ | 5- | $\begin{gathered} \mathbf{6} \\ \text { SBT } \end{gathered}$ | 7- | 8- | Ring Offset | Offset |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 2 | 100 | ** | 37 | 11 | 33 | 0 | 37 | 0 | 0 | 0 | 35 |
| 0700 | 18 | 140 | ** | 77 | 11 | 33 | 0 | 77 | 0 | 0 | 0 | 101 |
| 0930 | 2 | 100 | ** | 37 | 11 | 33 | 0 | 37 | 0 | 0 | 0 | 35 |
| 1500 | 19 | 140 | ** | 77 | 11 | 33 | 0 | 77 | 0 | 0 | 0 | 11 |
| 2200 | 2 | 100 | ** | 37 | 11 | 33 | 0 | 37 | 0 | 0 | 0 | 35 |
|  | 1 | 90 | ** | 30 | 8 | 33 | 0 | 30 | 0 | 0 | 0 | 79 |
|  | 3 | 100 | ** | 37 | 11 | 33 | 0 | 37 | 0 | 0 | 0 | 49 |
|  | 4 | 140 | ** | 78 | 10 | 33 | 0 | 78 | 0 | 0 | 0 | 59 |
|  | 5 | 100 | ** | 37 | 11 | 33 | 0 | 37 | 0 | 0 | 0 | 44 |
|  | 6 | 100 | ** | 37 | 11 | 33 | 0 | 37 | 0 | 0 | 0 | 44 |
|  | 8 | 105 | ** | 42 | 11 | 33 | 0 | 42 | 0 | 0 | 0 | 6 |
|  | 9 | 105 | ** | 42 | 11 | 33 | 0 | 42 | 0 | 0 | 0 | 8 |
|  | 10 | 120 | ** | 58 | 10 | 33 | 0 | 58 | 0 | 0 | 0 | 62 |
|  | 11 | 140 | ** | 78 | 10 | 33 | 0 | 78 | 0 | 0 | 0 | 6 |
|  | 12 | 120 | ** | 57 | 11 | 33 | 0 | 57 | 0 | 0 | 0 | 84 |
|  | 13 | 100 | ** | 37 | 11 | 33 | 0 | 37 | 0 | 0 | 0 | 44 |
|  | 14 | 105 | ** | 42 | 11 | 33 | 0 | 42 | 0 | 0 | 0 | 59 |
|  | 15 | 120 | ** | 57 | 11 | 33 | 0 | 57 | 0 | 0 | 0 | 84 |
|  | 16 | 100 | ** | 37 | 11 | 33 | 0 | 37 | 0 | 0 | 0 | 45 |
|  | 17 | 100 | ** | 37 | 11 | 33 | 0 | 37 | 0 | 0 | 0 | 35 |
|  | 20 | 120 | ** | 58 | 10 | 33 | 0 | 58 | 0 | 0 | 0 | 62 |
|  | 21 | 120 | ** | 58 | 10 | 33 | 0 | 58 | 0 | 0 | 0 | 62 |
|  | 22 | 90 | ** | 28 | 10 | 33 | 0 | 28 | 0 | 0 | 0 | 55 |
|  | 23 | 90 | ** | 28 | 10 | 33 | 0 | 28 | 0 | 0 | 0 | 55 |


| Local TOD Schedule |  |  |  |
| :---: | :---: | :---: | :---: |
| Time | Plan | DOW |  |
| 0000 | 1 | Su | S |
| 0000 | 2 | M TW ThF |  |
| 0700 | 18 | M TW ThF |  |
| 0930 | 2 | M TW ThF |  |
| 1000 | 2 | Su | S |
| 1500 | 19 | M TW ThF |  |
| 2000 | 1 | Su | S |
| 2200 | 2 | M TW ThF |  |


| Current Time of Day Function |  |  |  | Local Time of Day Function |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Time | Function | Settings * | Day of Week | Time | Function | Settings* | Day of Week |
| 0000 | TOD OUTPUTS | -------- | SuM T W ThF S | 0000 | TOD OUTPUTS | -------- | SuM T W ThF S |

## * Settings

Blank - FREE - Phase Bank 1, Max 1 Blank - Plan - Phase Bank 1, Max 2
1 - Phase Bank 2, Max 1
2 - Phase Bank 2, Max 2
3 - Phase Bank 3, Max 1
4 - Phase Bank 3, Max 2
5 - EXTERNAL PERMIT 1
6 - EXTERNAL PERMIT 2
7 - X-PED OMIT
8 - TBA

## TOD Schedule Report

No Calendar Defined/Enabled

## APPENDIX D

## Pedestrian LOS <br> (Source: $\mathbf{2 0 1 0} \mathbf{H C M}$ )

parts of the walkway. In cross-flow locations, the LOS E-F threshold is $13 \mathrm{ft}^{2} / \mathrm{p}$, as indicated in the notes for Exhibit 23-1 and Exhibit 23-2.

| LOS | Average Space ( $\mathrm{ft}^{2} / \mathrm{p}$ ) | Related Measures |  |  | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Flow Rate $(\mathrm{p} / \mathrm{min} / \mathrm{ft})^{a}$ | Average Speed (ft/s) | $v / C$ Ratio ${ }^{\text {b }}$ |  |
| A | >60 | $\leq 5$ | >4.25 | $\leq 0.21$ | Ability to move in desired path, no need to alter movements |
| B | >40-60 | >5-7 | >4.17-4.25 | >0.21-0.31 | Occasional need to adjust path to avoid conflicts |
| C | >24-40 | >7-10 | >4.00-4.17 | >0.31-0.44 | Frequent need to adjust path to avoid conflicts |
| D | >15-24 | >10-15 | >3.75-4.00 | >0.44-0.65 | Speed and ability to pass slower pedestrians restricted |
| E | $>8-15^{c}$ | >15-23 | >2.50-3.75 | >0.65-1.00 | Speed restricted, very limited ability to pass slower pedestrians |
| F | $\leq 8^{\text {c }}$ | Variable | $\leq 2.50$ | Variable | Speeds severely restricted, frequent contact with other users |

Notes: Exhibit 23-1 does not apply to walkways with steep grades ( $>5 \%$ ). See the Special Cases section for further discussion.
${ }^{a}$ Pedestrians per minute per foot of walkway width.
${ }^{\circ} \mathrm{V} / \mathrm{c}$ ratio $=$ flow rate/23. LOS is based on average space per pedestrian.
${ }^{c}$ In cross-flow situations, the LOS E-F threshold is $13 \mathrm{ft}^{2} / \mathrm{p}$.

| LOS | Average Space ( $\mathrm{ft}^{2} / \mathrm{p}$ ) | Related Measure Flow Rate ${ }^{a}$ $(\mathrm{p} / \mathrm{min} / \mathrm{ft})^{b}$ | Comments |
| :---: | :---: | :---: | :---: |
| A | >530 | $\leq 0.5$ | Ability to move in desired path, no need to alter movements |
| B | >90-530 | >0.5-3 | Occasional need to adjust path to avoid conflicts |
| C | >40-90 | >3-6 | Frequent need to adjust path to avoid conflicts |
| D | >23-40 | >6-11 | Speed and ability to pass slower pedestrians restricted |
| E | $>11-23^{\text {c }}$ | >11-18 | Speed restricted, very limited ability to pass slower pedestrians |
| F | $\leq 11^{\text {c }}$ | >18 | Speeds severely restricted, frequent contact with other users |

Notes: ${ }^{a}$ Rates in the table represent average flow rates over a 5 -min period. Flow rate is directly related to space; however, LOS is based on average space per pedestrian.
${ }^{b}$ Pedestrians per minute per foot of walkway width.
${ }^{c}$ In cross-flow situations, the LOS E-F threshold is $13 \mathrm{ft}^{2} / \mathrm{p}$.

## Stairways

Exhibit 23-3 provides the LOS criteria for stairways.

|  | $\begin{array}{c}\text { Average } \\ \text { Space } \\ \left(\mathbf{f t}^{2} / \mathbf{p}\right)\end{array}$ | $\begin{array}{c}\text { Related Measures } \\ \text { Flow Rate } \\ (\mathbf{p} / \mathbf{m i n} / \mathrm{ft})^{\boldsymbol{a}}\end{array}$ |  | $\mathbf{v} / \boldsymbol{c}$ Ratio $^{\boldsymbol{b}}$ |
| :---: | :---: | :---: | :---: | :--- |$)$ Comments | LOS |
| :---: |
| A |
| $>20$ |

Notes: ${ }^{a}$ Pedestrians per minute per foot of walkway width.
${ }^{b} \mathrm{~V} / \mathrm{C}$ ratio $=$ flow rate $/ 15$. LOS is based on average space per pedestrian.

Exhibit 23-1
Average Flow LOS Criteria for Walkways

Exhibit 23-2
Platoon-Adjusted LOS Criteria for Walkways

Exhibit 23-3
LOS Criteria for Stairways


[^0]:    ${ }^{1} 83$ New Units minus 10 existing units currently occupied

