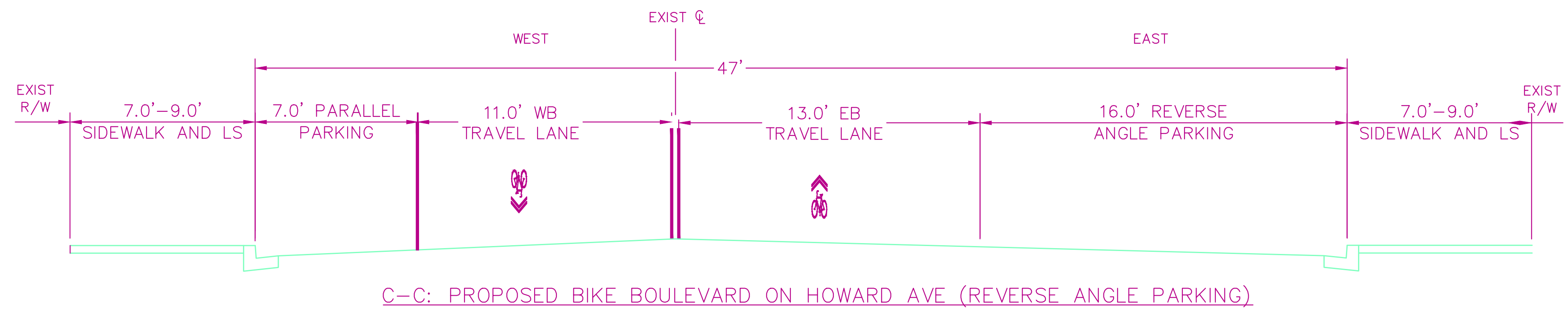
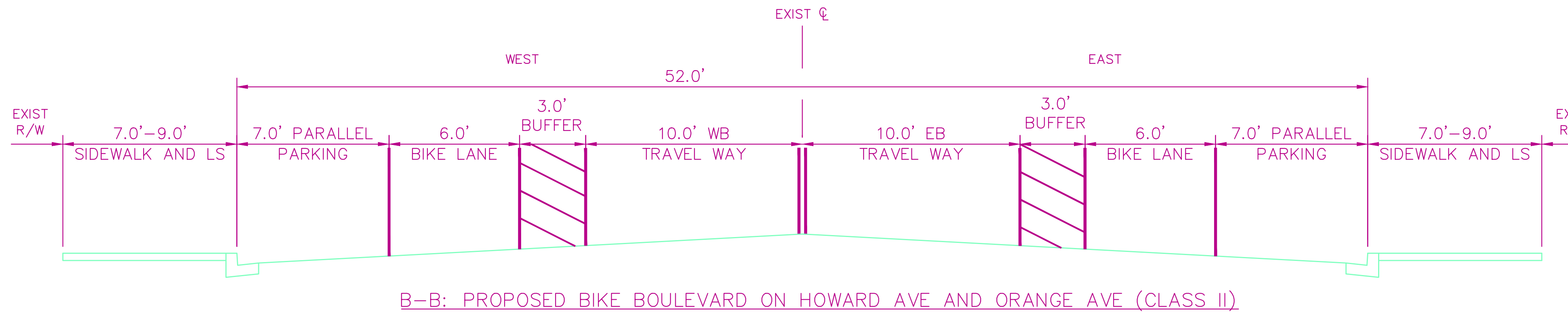
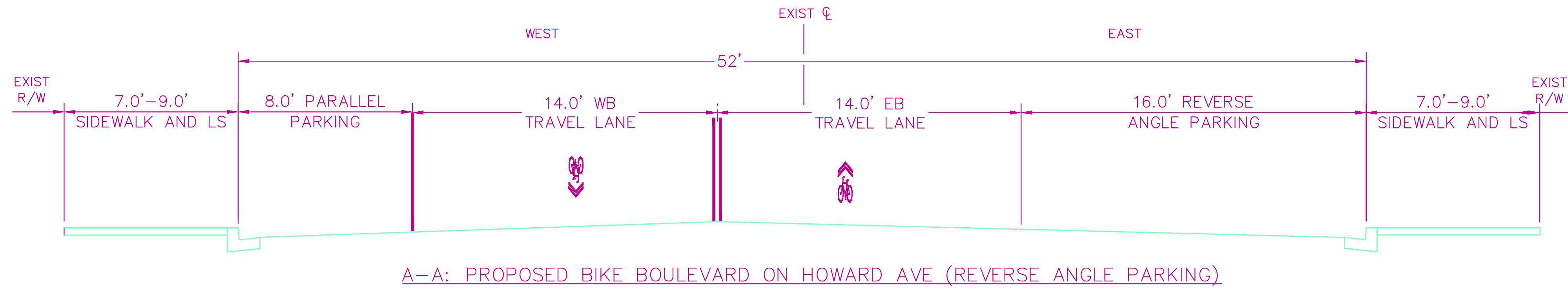
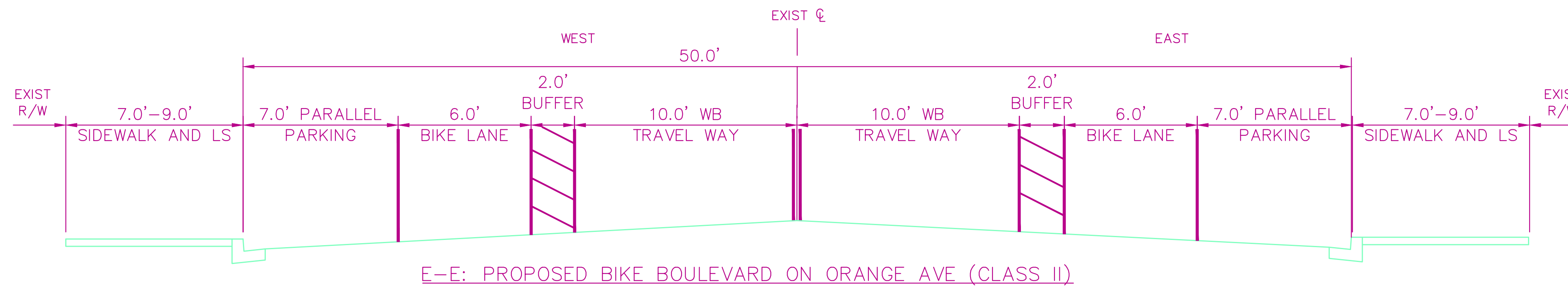
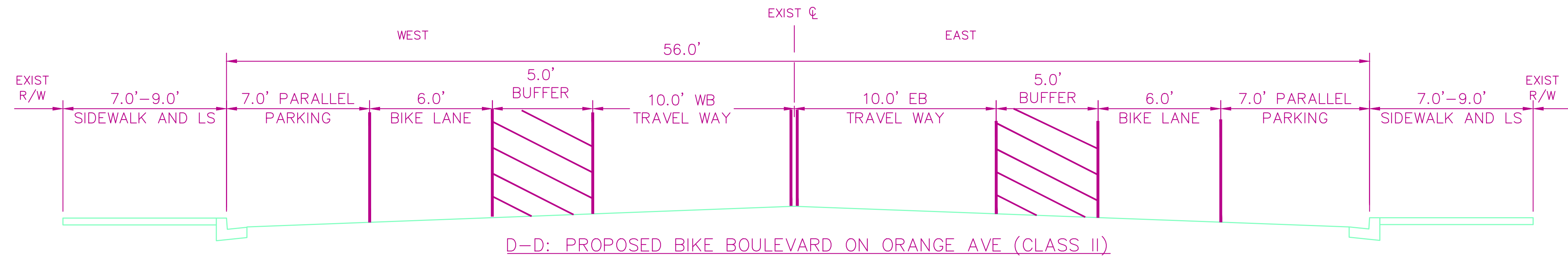


## **APPENDIX A: TYPICAL CROSS SECTIONS**





## **APPENDIX B: TRAFFIC COUNTS**

# Turn Count Summary

Accurate Video Counts Inc  
 info@accuratevideocounts.com  
 (619) 987-5136



**Location:** Howard Ave @ Florida St

**Date of Count:** Tuesday, March 21, 2017

**Analysts:** LV/CD

**Weather:** Sunny

**AVC Proj No:** 17-0643



# Vehicular Count

Accurate Video Counts Inc  
 info@accuratevideocounts.com  
 (619) 987-5136



**Location:** Howard Ave @ Florida St

| AM Period (7:00 AM - 9:00 AM) |            |            |           |           |            |           |            |            |           |           |           |           |              |
|-------------------------------|------------|------------|-----------|-----------|------------|-----------|------------|------------|-----------|-----------|-----------|-----------|--------------|
|                               | Southbound |            |           | Westbound |            |           | Northbound |            |           | Eastbound |           |           | TOTAL        |
|                               | Right      | Thru       | Left      | Right     | Thru       | Left      | Right      | Thru       | Left      | Right     | Thru      | Left      |              |
| 7:00 AM                       | 2          | 31         | 3         | 10        | 30         | 9         | 2          | 29         | 9         | 3         | 3         | 1         | 132          |
| 7:15 AM                       | 6          | 31         | 1         | 6         | 41         | 11        | 2          | 31         | 8         | 2         | 5         | 2         | 146          |
| 7:30 AM                       | 7          | 22         | 5         | 9         | 35         | 3         | 4          | 29         | 10        | 3         | 6         | 1         | 134          |
| 7:45 AM                       | 5          | 36         | 3         | 9         | 43         | 8         | 0          | 48         | 9         | 4         | 8         | 0         | 173          |
| 8:00 AM                       | 13         | 18         | 5         | 10        | 25         | 1         | 3          | 41         | 12        | 3         | 7         | 0         | 138          |
| 8:15 AM                       | 8          | 20         | 5         | 13        | 20         | 4         | 3          | 33         | 13        | 1         | 5         | 1         | 126          |
| 8:30 AM                       | 13         | 29         | 0         | 6         | 25         | 5         | 3          | 37         | 9         | 8         | 8         | 5         | 148          |
| 8:45 AM                       | 15         | 27         | 2         | 10        | 19         | 6         | 3          | 41         | 15        | 3         | 4         | 3         | 148          |
| <b>Total</b>                  | <b>69</b>  | <b>214</b> | <b>24</b> | <b>73</b> | <b>238</b> | <b>47</b> | <b>20</b>  | <b>289</b> | <b>85</b> | <b>27</b> | <b>46</b> | <b>13</b> | <b>1,145</b> |

AM Intersection Peak Hour : **7:15 AM - 8:15 AM**

Intersection PHF : **0.85**

|              | Southbound |      |      | Westbound |      |      | Northbound |      |      | Eastbound |      |      | TOTAL |
|--------------|------------|------|------|-----------|------|------|------------|------|------|-----------|------|------|-------|
|              | Right      | Thru | Left | Right     | Thru | Left | Right      | Thru | Left | Right     | Thru | Left |       |
| Volume       | 31         | 107  | 14   | 34        | 144  | 23   | 9          | 149  | 39   | 12        | 26   | 3    | 591   |
| PHF          | 0.60       | 0.74 | 0.70 | 0.85      | 0.84 | 0.52 | 0.56       | 0.78 | 0.81 | 0.75      | 0.81 | 0.38 | 0.85  |
| Movement PHF | 0.86       |      |      | 0.84      |      |      | 0.86       |      |      | 0.85      |      |      | 0.85  |

| PM Period (4:00 PM - 6:00 PM) |            |            |           |           |            |           |            |            |           |           |            |           |              |
|-------------------------------|------------|------------|-----------|-----------|------------|-----------|------------|------------|-----------|-----------|------------|-----------|--------------|
|                               | Southbound |            |           | Westbound |            |           | Northbound |            |           | Eastbound |            |           | TOTAL        |
|                               | Right      | Thru       | Left      | Right     | Thru       | Left      | Right      | Thru       | Left      | Right     | Thru       | Left      |              |
| 4:00 PM                       | 7          | 34         | 4         | 4         | 23         | 3         | 6          | 35         | 4         | 10        | 31         | 5         | 166          |
| 4:15 PM                       | 13         | 35         | 2         | 9         | 23         | 2         | 4          | 37         | 7         | 12        | 34         | 6         | 184          |
| 4:30 PM                       | 14         | 39         | 5         | 9         | 30         | 7         | 7          | 36         | 3         | 10        | 40         | 5         | 205          |
| 4:45 PM                       | 12         | 44         | 2         | 6         | 40         | 5         | 3          | 40         | 7         | 11        | 44         | 5         | 219          |
| 5:00 PM                       | 16         | 40         | 2         | 4         | 19         | 4         | 9          | 36         | 2         | 9         | 42         | 4         | 187          |
| 5:15 PM                       | 15         | 48         | 3         | 6         | 24         | 8         | 3          | 36         | 4         | 14        | 66         | 12        | 239          |
| 5:30 PM                       | 19         | 28         | 7         | 6         | 33         | 7         | 2          | 34         | 5         | 17        | 49         | 8         | 215          |
| 5:45 PM                       | 14         | 39         | 5         | 1         | 25         | 4         | 3          | 41         | 11        | 7         | 40         | 9         | 199          |
| <b>Total</b>                  | <b>110</b> | <b>307</b> | <b>30</b> | <b>45</b> | <b>217</b> | <b>40</b> | <b>37</b>  | <b>295</b> | <b>43</b> | <b>90</b> | <b>346</b> | <b>54</b> | <b>1,614</b> |

PM Intersection Peak Hour : **4:45 PM - 5:45 PM**

Intersection PHF : **0.90**

|              | Southbound |       |      | Westbound |       |      | Northbound |       |       | Eastbound |       |       | TOTAL |
|--------------|------------|-------|------|-----------|-------|------|------------|-------|-------|-----------|-------|-------|-------|
|              | Right      | Thru  | Left | Right     | Thru  | Left | Right      | Thru  | Left  | Right     | Thru  | Left  |       |
| Volume       | 62         | 160   | 14   | 22        | 116   | 24   | 17         | 146   | 18    | 51        | 201   | 29    | 860   |
| PHF          | 0.82       | 0.833 | 0.5  | 0.917     | 0.725 | 0.75 | 0.472      | 0.913 | 0.643 | 0.75      | 0.761 | 0.604 | 0.90  |
| Movement PHF | 0.89       |       |      | 0.79      |       |      | 0.91       |       |       | 0.76      |       |       | 0.90  |

# U-Turn Count Summary

Accurate Video Counts Inc  
 info@accuratevideocounts.com  
 (619) 987-1536



**Location:** Howard Ave @ Florida St

| AM Period (7:00 AM - 9:00 AM) |                      |                     |                      |                     |       |
|-------------------------------|----------------------|---------------------|----------------------|---------------------|-------|
|                               | Southbound<br>U-Turn | Westbound<br>U-Turn | Northbound<br>U-Turn | Eastbound<br>U-Turn | TOTAL |
| 7:00 AM                       | 1                    | 0                   | 0                    | 0                   | 1     |
| 7:15 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 7:30 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 7:45 AM                       | 0                    | 2                   | 0                    | 0                   | 2     |
| 8:00 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 8:15 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 8:30 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 8:45 AM                       | 1                    | 0                   | 0                    | 0                   | 1     |
| Total                         | 2                    | 2                   | 0                    | 0                   | 4     |

AM Intersection Peak Hour : **7:15 AM - 8:15 AM** Intersection PHF : **0.25**

|              | North Leg<br>EB | East Leg<br>SB | South Leg<br>EB | West Leg<br>SB | TOTAL |
|--------------|-----------------|----------------|-----------------|----------------|-------|
| Volume       | 0               | 2              | 0               | 0              | 2     |
| PHF          | #DIV/0!         | 0.25           | #DIV/0!         | #DIV/0!        | 0.25  |
| Movement PHF | #DIV/0!         | 0.25           | #DIV/0!         | #DIV/0!        | 0.25  |

| PM Period (4:00 PM - 6:00 PM) |                      |                     |                      |                     |       |
|-------------------------------|----------------------|---------------------|----------------------|---------------------|-------|
|                               | Southbound<br>U-Turn | Westbound<br>U-Turn | Northbound<br>U-Turn | Eastbound<br>U-Turn | TOTAL |
| 4:00 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 4:15 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 4:30 PM                       | 1                    | 0                   | 0                    | 0                   | 1     |
| 4:45 PM                       | 0                    | 2                   | 0                    | 0                   | 2     |
| 5:00 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 5:15 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 5:30 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 5:45 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| Total                         | 1                    | 2                   | 0                    | 0                   | 3     |

PM Intersection Peak Hour : **4:45 PM - 5:45 PM** Intersection PHF : **0.25**

|              | North Leg<br>EB | East Leg<br>SB | South Leg<br>EB | West Leg<br>SB | TOTAL |
|--------------|-----------------|----------------|-----------------|----------------|-------|
| Volume       | 0               | 2              | 0               | 0              | 2     |
| PHF          | #DIV/0!         | 0.25           | #DIV/0!         | #DIV/0!        | 0.25  |
| Movement PHF | #DIV/0!         | 0.25           | #DIV/0!         | #DIV/0!        | 0.25  |

# Bike Turn Count Summary

Accurate Video Counts Inc  
info@accuratevideocounts.com  
(619) 987-5136



**Location:** Howard Ave @ Florida St

**Date of Count:** Tuesday, March 21, 2017

**Analysts:** LV/CD

**Weather:** Sunny

**AVC Proj No:** 17-0643





# Bike Count

Accurate Video Counts Inc  
 info@accuratevideocounts.com  
 (619) 987-5136



**Location:** Howard Ave @ Florida St

| AM Period (7:00 AM - 9:00 AM) |            |      |      |           |      |      |            |      |      |           |      |      |       |
|-------------------------------|------------|------|------|-----------|------|------|------------|------|------|-----------|------|------|-------|
|                               | Southbound |      |      | Westbound |      |      | Northbound |      |      | Eastbound |      |      | TOTAL |
|                               | Right      | Thru | Left | Right     | Thru | Left | Right      | Thru | Left | Right     | Thru | Left |       |
| 7:00 AM                       | 0          | 0    | 0    | 0         | 0    | 0    | 0          | 0    | 0    | 0         | 1    | 0    | 1     |
| 7:15 AM                       | 0          | 0    | 0    | 0         | 1    | 0    | 0          | 1    | 0    | 0         | 0    | 0    | 2     |
| 7:30 AM                       | 0          | 0    | 0    | 0         | 1    | 0    | 0          | 1    | 0    | 0         | 0    | 0    | 2     |
| 7:45 AM                       | 0          | 0    | 0    | 0         | 2    | 0    | 0          | 0    | 0    | 0         | 0    | 0    | 2     |
| 8:00 AM                       | 0          | 0    | 0    | 0         | 1    | 0    | 0          | 0    | 0    | 0         | 0    | 0    | 1     |
| 8:15 AM                       | 0          | 0    | 0    | 0         | 1    | 0    | 0          | 0    | 0    | 0         | 0    | 0    | 1     |
| 8:30 AM                       | 0          | 0    | 0    | 0         | 2    | 0    | 0          | 0    | 0    | 0         | 0    | 0    | 2     |
| 8:45 AM                       | 0          | 0    | 0    | 0         | 0    | 0    | 0          | 0    | 0    | 0         | 0    | 0    | 0     |
| Total                         | 0          | 0    | 0    | 0         | 8    | 0    | 0          | 2    | 0    | 0         | 1    | 0    | 11    |

AM Intersection Peak Hour : **7:15 AM - 8:15 AM**

Intersection PHF : **0.88**

|              | Southbound |       |       | Westbound |      |       | Northbound |      |       | Eastbound |       |       | TOTAL |
|--------------|------------|-------|-------|-----------|------|-------|------------|------|-------|-----------|-------|-------|-------|
|              | Right      | Thru  | Left  | Right     | Thru | Left  | Right      | Thru | Left  | Right     | Thru  | Left  |       |
| Volume       | 0          | 0     | 0     | 0         | 4    | 0     | 0          | 2    | 0     | 0         | 1     | 0     | 7     |
| PHF          | #####      | ##### | ##### | #####     | 0.63 | ##### | #####      | 0.50 | ##### | #####     | ##### | ##### | 0.88  |
| Movement PHF | #DIV/0!    |       |       | 0.63      |      |       | 0.50       |      |       | #DIV/0!   |       |       | 0.88  |

| PM Period (4:00 PM - 6:00 PM) |            |      |      |           |      |      |            |      |      |           |      |      |       |
|-------------------------------|------------|------|------|-----------|------|------|------------|------|------|-----------|------|------|-------|
|                               | Southbound |      |      | Westbound |      |      | Northbound |      |      | Eastbound |      |      | TOTAL |
|                               | Right      | Thru | Left | Right     | Thru | Left | Right      | Thru | Left | Right     | Thru | Left |       |
| 4:00 PM                       | 0          | 0    | 0    | 0         | 0    | 0    | 0          | 0    | 0    | 0         | 0    | 1    | 1     |
| 4:15 PM                       | 0          | 0    | 0    | 0         | 0    | 0    | 0          | 1    | 0    | 0         | 0    | 0    | 1     |
| 4:30 PM                       | 0          | 0    | 0    | 0         | 0    | 0    | 0          | 0    | 0    | 0         | 1    | 0    | 1     |
| 4:45 PM                       | 0          | 0    | 0    | 1         | 0    | 0    | 0          | 2    | 0    | 0         | 1    | 0    | 4     |
| 5:00 PM                       | 0          | 0    | 0    | 0         | 3    | 0    | 0          | 0    | 0    | 0         | 2    | 0    | 5     |
| 5:15 PM                       | 0          | 0    | 0    | 0         | 1    | 1    | 0          | 0    | 0    | 0         | 0    | 0    | 2     |
| 5:30 PM                       | 0          | 0    | 0    | 0         | 1    | 0    | 0          | 0    | 0    | 0         | 0    | 0    | 1     |
| 5:45 PM                       | 0          | 0    | 0    | 0         | 0    | 0    | 0          | 0    | 0    | 0         | 2    | 0    | 2     |
| Total                         | 0          | 0    | 0    | 1         | 5    | 1    | 0          | 3    | 0    | 0         | 6    | 1    | 17    |

PM Intersection Peak Hour : **4:45 PM - 5:45 PM**

Intersection PHF : **0.60**

|              | Southbound |       |       | Westbound |       |      | Northbound |      |       | Eastbound |       |       | TOTAL |
|--------------|------------|-------|-------|-----------|-------|------|------------|------|-------|-----------|-------|-------|-------|
|              | Right      | Thru  | Left  | Right     | Thru  | Left | Right      | Thru | Left  | Right     | Thru  | Left  |       |
| Volume       | 0          | 0     | 0     | 1         | 4     | 1    | 0          | 2    | 0     | 0         | 4     | 0     | 12    |
| PHF          | #####      | ##### | ##### | 0.25      | 0.417 | 0.25 | #####      | 0.25 | ##### | #####     | 0.375 | ##### | 0.60  |
| Movement PHF | #DIV/0!    |       |       | 0.58      |       |      | 0.25       |      |       | 0.38      |       |       | 0.60  |

# Pedestrian Count

Accurate Video Counts Inc  
 info@accuratevideocounts.com  
 (619) 987-1536



**Location:** Howard Ave Florida St

| AM Period (7:00 AM - 9:00 AM) |                    |                   |                    |                   |           |
|-------------------------------|--------------------|-------------------|--------------------|-------------------|-----------|
|                               | North Leg<br>Total | East Leg<br>Total | South Leg<br>Total | West Leg<br>Total | TOTAL     |
| 7:00 AM                       | 0                  | 1                 | 1                  | 0                 | 2         |
| 7:15 AM                       | 0                  | 0                 | 3                  | 0                 | 3         |
| 7:30 AM                       | 0                  | 1                 | 2                  | 0                 | 3         |
| 7:45 AM                       | 0                  | 2                 | 4                  | 2                 | 8         |
| 8:00 AM                       | 0                  | 3                 | 5                  | 1                 | 9         |
| 8:15 AM                       | 1                  | 0                 | 0                  | 1                 | 2         |
| 8:30 AM                       | 1                  | 2                 | 2                  | 2                 | 7         |
| 8:45 AM                       | 4                  | 0                 | 2                  | 6                 | 12        |
| <b>Total</b>                  | <b>6</b>           | <b>9</b>          | <b>19</b>          | <b>12</b>         | <b>46</b> |

AM Intersection Peak Hour : **7:15 AM - 8:15 AM** **0.64**

|              | North Leg<br>Total | East Leg<br>Total | South Leg<br>Total | West Leg<br>Total | TOTAL |
|--------------|--------------------|-------------------|--------------------|-------------------|-------|
| Volume       | 0                  | 6                 | 14                 | 3                 | 46    |
| PHF          | #DIV/0!            | 0.50              | 0.70               | 0.38              | 0.64  |
| Movement PHF | #DIV/0!            | 0.50              | 0.70               | 0.38              | 0.64  |

| PM Period (4:00 PM - 6:00 PM) |                    |                   |                    |                   |            |
|-------------------------------|--------------------|-------------------|--------------------|-------------------|------------|
|                               | North Leg<br>Total | East Leg<br>Total | South Leg<br>Total | West Leg<br>Total | TOTAL      |
| 4:00 PM                       | 4                  | 2                 | 1                  | 2                 | 9          |
| 4:15 PM                       | 1                  | 3                 | 1                  | 5                 | 10         |
| 4:30 PM                       | 3                  | 1                 | 3                  | 7                 | 14         |
| 4:45 PM                       | 2                  | 4                 | 5                  | 1                 | 12         |
| 5:00 PM                       | 2                  | 2                 | 4                  | 0                 | 8          |
| 5:15 PM                       | 3                  | 7                 | 6                  | 6                 | 22         |
| 5:30 PM                       | 4                  | 10                | 9                  | 2                 | 25         |
| 5:45 PM                       | 5                  | 7                 | 6                  | 5                 | 23         |
| <b>Total</b>                  | <b>24</b>          | <b>36</b>         | <b>35</b>          | <b>28</b>         | <b>123</b> |

PM Intersection Peak Hour : **4:45 PM - 5:45 PM** **0.67**

|              | North Leg<br>Total | East Leg<br>Total | South Leg<br>Total | West Leg<br>Total | TOTAL |
|--------------|--------------------|-------------------|--------------------|-------------------|-------|
| Volume       | 11                 | 23                | 24                 | 9                 | 134   |
| PHF          | 0.6875             | 0.575             | 0.666666667        | 0.375             | 0.67  |
| Movement PHF | 0.69               | 0.58              | 0.67               | 0.38              | 0.67  |

# Turn Count Summary

Accurate Video Counts Inc  
 info@accuratevideocounts.com  
 (619) 987-5136



**Location:** Howard Ave @ Mississippi St

**Date of Count:** Tuesday, March 21, 2017

**Analysts:** LV/CD

**Weather:** Sunny

**AVC Proj No:** 17-0643



# Vehicular Count

Accurate Video Counts Inc  
 info@accuratevideocounts.com  
 (619) 987-5136



**Location:** Howard Ave @ Mississippi St

| AM Period (7:00 AM - 9:00 AM) |            |           |           |           |            |          |            |            |           |           |           |           |            |
|-------------------------------|------------|-----------|-----------|-----------|------------|----------|------------|------------|-----------|-----------|-----------|-----------|------------|
|                               | Southbound |           |           | Westbound |            |          | Northbound |            |           | Eastbound |           |           | TOTAL      |
|                               | Right      | Thru      | Left      | Right     | Thru       | Left     | Right      | Thru       | Left      | Right     | Thru      | Left      |            |
| 7:00 AM                       | 4          | 10        | 0         | 2         | 32         | 1        | 1          | 18         | 7         | 3         | 3         | 2         | 83         |
| 7:15 AM                       | 1          | 8         | 1         | 1         | 28         | 0        | 1          | 21         | 3         | 2         | 6         | 1         | 73         |
| 7:30 AM                       | 4          | 6         | 1         | 4         | 30         | 1        | 1          | 17         | 7         | 0         | 7         | 3         | 81         |
| 7:45 AM                       | 1          | 9         | 6         | 8         | 29         | 2        | 2          | 15         | 6         | 1         | 9         | 3         | 91         |
| 8:00 AM                       | 5          | 10        | 10        | 6         | 8          | 2        | 1          | 17         | 11        | 3         | 10        | 2         | 85         |
| 8:15 AM                       | 3          | 12        | 1         | 2         | 15         | 0        | 0          | 22         | 11        | 3         | 7         | 0         | 76         |
| 8:30 AM                       | 6          | 9         | 5         | 3         | 14         | 1        | 0          | 22         | 3         | 0         | 7         | 2         | 72         |
| 8:45 AM                       | 2          | 9         | 3         | 7         | 8          | 1        | 1          | 12         | 7         | 1         | 5         | 1         | 57         |
| <b>Total</b>                  | <b>26</b>  | <b>73</b> | <b>27</b> | <b>33</b> | <b>164</b> | <b>8</b> | <b>7</b>   | <b>144</b> | <b>55</b> | <b>13</b> | <b>54</b> | <b>14</b> | <b>618</b> |

AM Intersection Peak Hour : **7:30 AM - 8:30 AM**

Intersection PHF : **0.91**

|              | Southbound |      |      | Westbound |      |      | Northbound |      |      | Eastbound |      |      | TOTAL |
|--------------|------------|------|------|-----------|------|------|------------|------|------|-----------|------|------|-------|
|              | Right      | Thru | Left | Right     | Thru | Left | Right      | Thru | Left | Right     | Thru | Left |       |
| Volume       | 13         | 37   | 18   | 20        | 82   | 5    | 4          | 71   | 35   | 7         | 33   | 8    | 333   |
| PHF          | 0.65       | 0.77 | 0.45 | 0.63      | 0.68 | 0.63 | 0.50       | 0.81 | 0.80 | 0.58      | 0.83 | 0.67 | 0.91  |
| Movement PHF |            | 0.68 |      |           | 0.69 |      |            | 0.83 |      |           | 0.80 |      | 0.91  |

| PM Period (4:00 PM - 6:00 PM) |            |            |           |           |            |           |            |           |           |           |            |           |            |
|-------------------------------|------------|------------|-----------|-----------|------------|-----------|------------|-----------|-----------|-----------|------------|-----------|------------|
|                               | Southbound |            |           | Westbound |            |           | Northbound |           |           | Eastbound |            |           | TOTAL      |
|                               | Right      | Thru       | Left      | Right     | Thru       | Left      | Right      | Thru      | Left      | Right     | Thru       | Left      |            |
| 4:00 PM                       | 3          | 19         | 3         | 3         | 20         | 4         | 1          | 15        | 1         | 5         | 31         | 3         | 108        |
| 4:15 PM                       | 1          | 13         | 2         | 3         | 23         | 0         | 1          | 11        | 4         | 2         | 28         | 3         | 91         |
| 4:30 PM                       | 7          | 18         | 7         | 4         | 18         | 4         | 2          | 8         | 7         | 6         | 31         | 4         | 116        |
| 4:45 PM                       | 5          | 14         | 1         | 4         | 39         | 2         | 3          | 12        | 3         | 6         | 35         | 0         | 124        |
| 5:00 PM                       | 2          | 12         | 4         | 2         | 20         | 3         | 4          | 8         | 2         | 6         | 40         | 0         | 103        |
| 5:15 PM                       | 6          | 11         | 5         | 4         | 25         | 2         | 3          | 11        | 8         | 5         | 56         | 5         | 141        |
| 5:30 PM                       | 5          | 19         | 3         | 3         | 23         | 0         | 1          | 12        | 4         | 7         | 40         | 4         | 121        |
| 5:45 PM                       | 1          | 23         | 3         | 1         | 30         | 3         | 1          | 17        | 4         | 9         | 33         | 3         | 128        |
| <b>Total</b>                  | <b>30</b>  | <b>129</b> | <b>28</b> | <b>24</b> | <b>198</b> | <b>18</b> | <b>16</b>  | <b>94</b> | <b>33</b> | <b>46</b> | <b>294</b> | <b>22</b> | <b>932</b> |

PM Intersection Peak Hour : **5:00 PM - 6:00 PM**

Intersection PHF : **0.87**

|              | Southbound |       |      | Westbound |       |       | Northbound |       |       | Eastbound |       |      | TOTAL |
|--------------|------------|-------|------|-----------|-------|-------|------------|-------|-------|-----------|-------|------|-------|
|              | Right      | Thru  | Left | Right     | Thru  | Left  | Right      | Thru  | Left  | Right     | Thru  | Left |       |
| Volume       | 14         | 65    | 15   | 10        | 98    | 8     | 9          | 48    | 18    | 27        | 169   | 12   | 493   |
| PHF          | 0.58       | 0.707 | 0.75 | 0.625     | 0.817 | 0.667 | 0.563      | 0.706 | 0.563 | 0.75      | 0.754 | 0.6  | 0.87  |
| Movement PHF |            | 0.87  |      |           | 0.85  |       |            | 0.85  |       |           | 0.79  |      | 0.87  |

# U-Turn Count Summary

Accurate Video Counts Inc  
 info@accuratevideocounts.com  
 (619) 987-1536



**Location:** Howard Ave @ Mississippi St

| AM Period (7:00 AM - 9:00 AM) |                      |                     |                      |                     |       |
|-------------------------------|----------------------|---------------------|----------------------|---------------------|-------|
|                               | Southbound<br>U-Turn | Westbound<br>U-Turn | Northbound<br>U-Turn | Eastbound<br>U-Turn | TOTAL |
| 7:00 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 7:15 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 7:30 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 7:45 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 8:00 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 8:15 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 8:30 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 8:45 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| Total                         | 0                    | 0                   | 0                    | 0                   | 0     |

AM Intersection Peak Hour : **7:30 AM - 8:30 AM** Intersection PHF : **#DIV/0!**

|              | North Leg<br>EB | East Leg<br>SB | South Leg<br>EB | West Leg<br>SB | TOTAL   |
|--------------|-----------------|----------------|-----------------|----------------|---------|
| Volume       | 0               | 0              | 0               | 0              | 0       |
| PHF          | #DIV/0!         | #DIV/0!        | #DIV/0!         | #DIV/0!        | #DIV/0! |
| Movement PHF | #DIV/0!         | #DIV/0!        | #DIV/0!         | #DIV/0!        | #DIV/0! |

| PM Period (4:00 PM - 6:00 PM) |                      |                     |                      |                     |       |
|-------------------------------|----------------------|---------------------|----------------------|---------------------|-------|
|                               | Southbound<br>U-Turn | Westbound<br>U-Turn | Northbound<br>U-Turn | Eastbound<br>U-Turn | TOTAL |
| 4:00 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 4:15 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 4:30 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 4:45 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 5:00 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 5:15 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 5:30 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 5:45 PM                       | 0                    | 0                   | 0                    | 1                   | 1     |
| Total                         | 0                    | 0                   | 0                    | 1                   | 1     |

PM Intersection Peak Hour : **5:00 PM - 6:00 PM** Intersection PHF : **0.25**

|              | North Leg<br>EB | East Leg<br>SB | South Leg<br>EB | West Leg<br>SB | TOTAL |
|--------------|-----------------|----------------|-----------------|----------------|-------|
| Volume       | 0               | 0              | 0               | 1              | 1     |
| PHF          | #DIV/0!         | #DIV/0!        | #DIV/0!         | 0.25           | 0.25  |
| Movement PHF | #DIV/0!         | #DIV/0!        | #DIV/0!         | 0.25           | 0.25  |

# Bike Turn Count Summary

Accurate Video Counts Inc  
info@accuratevideocounts.com  
(619) 987-5136



**Location:** Howard Ave @ Mississippi St

**Date of Count:** Tuesday, March 21, 2017

**Analysts:** LV/CD

**Weather:** Sunny

**AVC Proj No:** 17-0643



# Bike Count

Accurate Video Counts Inc  
 info@accuratevideocounts.com  
 (619) 987-5136



**Location:** Howard Ave @ Mississippi St

| AM Period (7:00 AM - 9:00 AM) |            |          |          |           |          |          |            |          |          |           |          |          |          |
|-------------------------------|------------|----------|----------|-----------|----------|----------|------------|----------|----------|-----------|----------|----------|----------|
|                               | Southbound |          |          | Westbound |          |          | Northbound |          |          | Eastbound |          |          | TOTAL    |
|                               | Right      | Thru     | Left     | Right     | Thru     | Left     | Right      | Thru     | Left     | Right     | Thru     | Left     |          |
| 7:00 AM                       | 0          | 0        | 0        | 0         | 0        | 0        | 0          | 0        | 0        | 0         | 0        | 0        | 0        |
| 7:15 AM                       | 0          | 1        | 0        | 0         | 1        | 0        | 0          | 0        | 0        | 0         | 0        | 0        | 2        |
| 7:30 AM                       | 0          | 0        | 0        | 0         | 1        | 0        | 0          | 0        | 0        | 0         | 0        | 0        | 1        |
| 7:45 AM                       | 0          | 0        | 0        | 0         | 0        | 0        | 0          | 0        | 0        | 0         | 0        | 0        | 0        |
| 8:00 AM                       | 1          | 0        | 0        | 0         | 1        | 0        | 0          | 0        | 0        | 0         | 0        | 0        | 2        |
| 8:15 AM                       | 0          | 0        | 0        | 0         | 0        | 0        | 0          | 0        | 0        | 0         | 0        | 0        | 0        |
| 8:30 AM                       | 0          | 0        | 0        | 0         | 1        | 0        | 0          | 0        | 0        | 0         | 0        | 0        | 1        |
| 8:45 AM                       | 0          | 0        | 0        | 0         | 0        | 0        | 0          | 0        | 0        | 0         | 0        | 0        | 0        |
| <b>Total</b>                  | <b>1</b>   | <b>1</b> | <b>0</b> | <b>0</b>  | <b>4</b> | <b>0</b> | <b>0</b>   | <b>0</b> | <b>0</b> | <b>0</b>  | <b>0</b> | <b>0</b> | <b>6</b> |

AM Intersection Peak Hour : **7:15 AM - 8:15 AM**

Intersection PHF : **0.63**

|              | Southbound |      |       | Westbound |      |       | Northbound |       |       | Eastbound |         |       | TOTAL |
|--------------|------------|------|-------|-----------|------|-------|------------|-------|-------|-----------|---------|-------|-------|
|              | Right      | Thru | Left  | Right     | Thru | Left  | Right      | Thru  | Left  | Right     | Thru    | Left  |       |
| Volume       | 1          | 1    | 0     | 0         | 3    | 0     | 0          | 0     | 0     | 0         | 0       | 0     | 5     |
| PHF          | 0.25       | 0.25 | ##### | #####     | 0.75 | ##### | #####      | ##### | ##### | #####     | #####   | ##### | 0.63  |
| Movement PHF |            | 0.50 |       |           | 0.75 |       | #DIV/0!    |       |       |           | #DIV/0! |       | 0.63  |

| PM Period (4:00 PM - 6:00 PM) |            |          |          |           |          |          |            |          |          |           |          |          |           |
|-------------------------------|------------|----------|----------|-----------|----------|----------|------------|----------|----------|-----------|----------|----------|-----------|
|                               | Southbound |          |          | Westbound |          |          | Northbound |          |          | Eastbound |          |          | TOTAL     |
|                               | Right      | Thru     | Left     | Right     | Thru     | Left     | Right      | Thru     | Left     | Right     | Thru     | Left     |           |
| 4:00 PM                       | 0          | 0        | 0        | 0         | 0        | 0        | 0          | 0        | 0        | 0         | 0        | 0        | 0         |
| 4:15 PM                       | 0          | 0        | 0        | 0         | 0        | 0        | 0          | 0        | 0        | 0         | 0        | 0        | 0         |
| 4:30 PM                       | 0          | 0        | 0        | 0         | 0        | 0        | 0          | 0        | 0        | 1         | 1        | 0        | 2         |
| 4:45 PM                       | 0          | 0        | 0        | 0         | 0        | 0        | 0          | 0        | 1        | 1         | 0        | 0        | 2         |
| 5:00 PM                       | 0          | 1        | 0        | 0         | 2        | 0        | 0          | 0        | 0        | 0         | 3        | 0        | 6         |
| 5:15 PM                       | 0          | 0        | 0        | 0         | 1        | 0        | 0          | 0        | 0        | 0         | 1        | 0        | 2         |
| 5:30 PM                       | 0          | 0        | 0        | 0         | 1        | 0        | 0          | 0        | 0        | 0         | 0        | 0        | 1         |
| 5:45 PM                       | 0          | 0        | 0        | 0         | 0        | 0        | 0          | 0        | 0        | 0         | 1        | 0        | 1         |
| <b>Total</b>                  | <b>0</b>   | <b>1</b> | <b>0</b> | <b>0</b>  | <b>4</b> | <b>0</b> | <b>0</b>   | <b>0</b> | <b>1</b> | <b>2</b>  | <b>6</b> | <b>0</b> | <b>14</b> |

PM Intersection Peak Hour : **4:30 PM - 5:30 PM**

Intersection PHF : **0.50**

|              | Southbound |      |       | Westbound |       |       | Northbound |       |      | Eastbound |       |       | TOTAL |
|--------------|------------|------|-------|-----------|-------|-------|------------|-------|------|-----------|-------|-------|-------|
|              | Right      | Thru | Left  | Right     | Thru  | Left  | Right      | Thru  | Left | Right     | Thru  | Left  |       |
| Volume       | 0          | 1    | 0     | 0         | 3     | 0     | 0          | 0     | 1    | 2         | 5     | 0     | 12    |
| PHF          | #####      | 0.25 | ##### | #####     | 0.375 | ##### | #####      | ##### | 0.25 | 0.5       | 0.417 | ##### | 0.50  |
| Movement PHF |            | 0.25 |       |           | 0.38  |       |            |       | 0.25 |           | 0.58  |       | 0.50  |

# Pedestrian Count

Accurate Video Counts Inc  
 info@accuratevideocounts.com  
 (619) 987-1536



**Location:** Howard Ave Mississippi St

| AM Period (7:00 AM - 9:00 AM) |                    |                   |                    |                   |           |
|-------------------------------|--------------------|-------------------|--------------------|-------------------|-----------|
|                               | North Leg<br>Total | East Leg<br>Total | South Leg<br>Total | West Leg<br>Total | TOTAL     |
| 7:00 AM                       | 1                  | 0                 | 0                  | 1                 | 2         |
| 7:15 AM                       | 2                  | 0                 | 1                  | 0                 | 3         |
| 7:30 AM                       | 0                  | 1                 | 2                  | 1                 | 4         |
| 7:45 AM                       | 1                  | 3                 | 1                  | 3                 | 8         |
| 8:00 AM                       | 0                  | 1                 | 1                  | 10                | 12        |
| 8:15 AM                       | 3                  | 2                 | 3                  | 0                 | 8         |
| 8:30 AM                       | 0                  | 0                 | 3                  | 1                 | 4         |
| 8:45 AM                       | 2                  | 2                 | 1                  | 1                 | 6         |
| <b>Total</b>                  | <b>9</b>           | <b>9</b>          | <b>12</b>          | <b>17</b>         | <b>47</b> |

AM Intersection Peak Hour : **7:30 AM - 8:30 AM** **0.67**

|              | North Leg<br>Total | East Leg<br>Total | South Leg<br>Total | West Leg<br>Total | TOTAL |
|--------------|--------------------|-------------------|--------------------|-------------------|-------|
| Volume       | 4                  | 7                 | 7                  | 14                | 64    |
| PHF          | 0.33               | 0.58              | 0.58               | 0.35              | 0.67  |
| Movement PHF | 0.33               | 0.58              | 0.58               | 0.35              | 0.67  |

| PM Period (4:00 PM - 6:00 PM) |                    |                   |                    |                   |           |
|-------------------------------|--------------------|-------------------|--------------------|-------------------|-----------|
|                               | North Leg<br>Total | East Leg<br>Total | South Leg<br>Total | West Leg<br>Total | TOTAL     |
| 4:00 PM                       | 1                  | 0                 | 0                  | 0                 | 1         |
| 4:15 PM                       | 1                  | 1                 | 3                  | 0                 | 5         |
| 4:30 PM                       | 1                  | 0                 | 4                  | 2                 | 7         |
| 4:45 PM                       | 2                  | 0                 | 2                  | 1                 | 5         |
| 5:00 PM                       | 1                  | 0                 | 3                  | 1                 | 5         |
| 5:15 PM                       | 0                  | 1                 | 3                  | 3                 | 7         |
| 5:30 PM                       | 4                  | 0                 | 4                  | 1                 | 9         |
| 5:45 PM                       | 2                  | 0                 | 7                  | 5                 | 14        |
| <b>Total</b>                  | <b>12</b>          | <b>2</b>          | <b>26</b>          | <b>13</b>         | <b>53</b> |

PM Intersection Peak Hour : **5:00 PM - 6:00 PM** **0.63**

|              | North Leg<br>Total | East Leg<br>Total | South Leg<br>Total | West Leg<br>Total | TOTAL |
|--------------|--------------------|-------------------|--------------------|-------------------|-------|
| Volume       | 7                  | 1                 | 17                 | 10                | 70    |
| PHF          | 0.4375             | 0.25              | 0.607142857        | 0.5               | 0.63  |
| Movement PHF | 0.44               | 0.25              | 0.61               | 0.50              | 0.63  |



# Turn Count Summary

Accurate Video Counts Inc  
 info@accuratevideocounts.com  
 (619) 987-5136



**Location:** Howard Ave @ Texas St

**Date of Count:** Tuesday, March 21, 2017

**Analysts:** LV/CD

**Weather:** Sunny

**AVC Proj No:** 17-0643



# Vehicular Count

Accurate Video Counts Inc  
 info@accuratevideocounts.com  
 (619) 987-5136



**Location:** Howard Ave @ Texas St

| AM Period (7:00 AM - 9:00 AM) |            |            |           |           |           |          |            |            |           |           |           |           |              |
|-------------------------------|------------|------------|-----------|-----------|-----------|----------|------------|------------|-----------|-----------|-----------|-----------|--------------|
|                               | Southbound |            |           | Westbound |           |          | Northbound |            |           | Eastbound |           |           | TOTAL        |
|                               | Right      | Thru       | Left      | Right     | Thru      | Left     | Right      | Thru       | Left      | Right     | Thru      | Left      |              |
| 7:00 AM                       | 2          | 18         | 2         | 11        | 21        | 3        | 2          | 45         | 1         | 0         | 3         | 2         | 110          |
| 7:15 AM                       | 3          | 20         | 3         | 9         | 25        | 1        | 4          | 57         | 0         | 1         | 7         | 0         | 130          |
| 7:30 AM                       | 4          | 28         | 2         | 12        | 22        | 3        | 3          | 74         | 2         | 1         | 6         | 3         | 160          |
| 7:45 AM                       | 6          | 30         | 4         | 18        | 19        | 1        | 8          | 62         | 2         | 1         | 6         | 2         | 159          |
| 8:00 AM                       | 6          | 35         | 4         | 0         | 0         | 0        | 1          | 62         | 5         | 4         | 12        | 0         | 129          |
| 8:15 AM                       | 7          | 40         | 2         | 1         | 0         | 0        | 2          | 70         | 2         | 1         | 5         | 4         | 134          |
| 8:30 AM                       | 6          | 38         | 5         | 0         | 0         | 0        | 1          | 61         | 3         | 1         | 6         | 1         | 122          |
| 8:45 AM                       | 7          | 59         | 5         | 0         | 0         | 0        | 3          | 65         | 3         | 0         | 11        | 2         | 155          |
| <b>Total</b>                  | <b>41</b>  | <b>268</b> | <b>27</b> | <b>51</b> | <b>87</b> | <b>8</b> | <b>24</b>  | <b>496</b> | <b>18</b> | <b>9</b>  | <b>56</b> | <b>14</b> | <b>1,099</b> |

AM Intersection Peak Hour : **7:30 AM - 8:30 AM**

Intersection PHF : **0.91**

|              | Southbound |      |      | Westbound |      |      | Northbound |      |      | Eastbound |      |      | TOTAL |
|--------------|------------|------|------|-----------|------|------|------------|------|------|-----------|------|------|-------|
|              | Right      | Thru | Left | Right     | Thru | Left | Right      | Thru | Left | Right     | Thru | Left |       |
| Volume       | 23         | 133  | 12   | 31        | 41   | 4    | 14         | 268  | 11   | 7         | 29   | 9    | 582   |
| PHF          | 0.82       | 0.83 | 0.75 | 0.43      | 0.47 | 0.33 | 0.44       | 0.91 | 0.55 | 0.44      | 0.60 | 0.56 | 0.91  |
| Movement PHF | 0.86       |      |      | 0.50      |      |      | 0.93       |      |      | 0.70      |      |      | 0.91  |

| PM Period (4:00 PM - 6:00 PM) |            |            |           |           |            |           |            |            |          |           |            |           |              |
|-------------------------------|------------|------------|-----------|-----------|------------|-----------|------------|------------|----------|-----------|------------|-----------|--------------|
|                               | Southbound |            |           | Westbound |            |           | Northbound |            |          | Eastbound |            |           | TOTAL        |
|                               | Right      | Thru       | Left      | Right     | Thru       | Left      | Right      | Thru       | Left     | Right     | Thru       | Left      |              |
| 4:00 PM                       | 11         | 81         | 6         | 7         | 17         | 1         | 5          | 60         | 0        | 6         | 24         | 3         | 221          |
| 4:15 PM                       | 9          | 75         | 11        | 6         | 12         | 5         | 3          | 70         | 1        | 3         | 29         | 1         | 225          |
| 4:30 PM                       | 15         | 89         | 5         | 15        | 11         | 2         | 3          | 56         | 1        | 1         | 37         | 1         | 236          |
| 4:45 PM                       | 12         | 112        | 15        | 9         | 40         | 7         | 4          | 50         | 1        | 0         | 35         | 3         | 288          |
| 5:00 PM                       | 9          | 101        | 17        | 12        | 18         | 4         | 2          | 60         | 2        | 2         | 38         | 3         | 268          |
| 5:15 PM                       | 6          | 99         | 14        | 12        | 21         | 6         | 3          | 65         | 1        | 5         | 48         | 3         | 283          |
| 5:30 PM                       | 5          | 85         | 17        | 4         | 21         | 1         | 5          | 54         | 0        | 8         | 37         | 5         | 242          |
| 5:45 PM                       | 7          | 101        | 13        | 8         | 28         | 2         | 4          | 39         | 0        | 5         | 29         | 3         | 239          |
| <b>Total</b>                  | <b>74</b>  | <b>743</b> | <b>98</b> | <b>73</b> | <b>168</b> | <b>28</b> | <b>29</b>  | <b>454</b> | <b>6</b> | <b>30</b> | <b>277</b> | <b>22</b> | <b>2,002</b> |

PM Intersection Peak Hour : **4:45 PM - 5:45 PM**

Intersection PHF : **0.94**

|              | Southbound |       |       | Westbound |       |       | Northbound |       |      | Eastbound |       |      | TOTAL |
|--------------|------------|-------|-------|-----------|-------|-------|------------|-------|------|-----------|-------|------|-------|
|              | Right      | Thru  | Left  | Right     | Thru  | Left  | Right      | Thru  | Left | Right     | Thru  | Left |       |
| Volume       | 32         | 397   | 63    | 37        | 100   | 18    | 14         | 229   | 4    | 15        | 158   | 14   | 1081  |
| PHF          | 0.67       | 0.886 | 0.926 | 0.771     | 0.625 | 0.643 | 0.7        | 0.881 | 0.5  | 0.469     | 0.823 | 0.7  | 0.94  |
| Movement PHF | 0.88       |       |       | 0.69      |       |       | 0.89       |       |      | 0.83      |       |      | 0.94  |

# U-Turn Count Summary

Accurate Video Counts Inc  
 info@accuratevideocounts.com  
 (619) 987-1536



**Location:** Howard Ave @ Texas St

| AM Period (7:00 AM - 9:00 AM) |                      |                     |                      |                     |       |
|-------------------------------|----------------------|---------------------|----------------------|---------------------|-------|
|                               | Southbound<br>U-Turn | Westbound<br>U-Turn | Northbound<br>U-Turn | Eastbound<br>U-Turn | TOTAL |
| 7:00 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 7:15 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 7:30 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 7:45 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 8:00 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 8:15 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 8:30 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 8:45 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| Total                         | 0                    | 0                   | 0                    | 0                   | 0     |

AM Intersection Peak Hour : **7:30 AM - 8:30 AM** Intersection PHF : **#DIV/0!**

|              | North Leg<br>EB | East Leg<br>SB | South Leg<br>EB | West Leg<br>SB | TOTAL   |
|--------------|-----------------|----------------|-----------------|----------------|---------|
| Volume       | 0               | 0              | 0               | 0              | 0       |
| PHF          | #DIV/0!         | #DIV/0!        | #DIV/0!         | #DIV/0!        | #DIV/0! |
| Movement PHF | #DIV/0!         | #DIV/0!        | #DIV/0!         | #DIV/0!        | #DIV/0! |

| PM Period (4:00 PM - 6:00 PM) |                      |                     |                      |                     |       |
|-------------------------------|----------------------|---------------------|----------------------|---------------------|-------|
|                               | Southbound<br>U-Turn | Westbound<br>U-Turn | Northbound<br>U-Turn | Eastbound<br>U-Turn | TOTAL |
| 4:00 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 4:15 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 4:30 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 4:45 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 5:00 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 5:15 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 5:30 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 5:45 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| Total                         | 0                    | 0                   | 0                    | 0                   | 0     |

PM Intersection Peak Hour : **4:45 PM - 5:45 PM** Intersection PHF : **#DIV/0!**

|              | North Leg<br>EB | East Leg<br>SB | South Leg<br>EB | West Leg<br>SB | TOTAL   |
|--------------|-----------------|----------------|-----------------|----------------|---------|
| Volume       | 0               | 0              | 0               | 0              | 0       |
| PHF          | #DIV/0!         | #DIV/0!        | #DIV/0!         | #DIV/0!        | #DIV/0! |
| Movement PHF | #DIV/0!         | #DIV/0!        | #DIV/0!         | #DIV/0!        | #DIV/0! |

# Bike Turn Count Summary

Accurate Video Counts Inc  
info@accuratevideocounts.com  
(619) 987-5136



**Location:** Howard Ave @ Texas St

**Date of Count:** Tuesday, March 21, 2017

**Analysts:** LV/CD

**Weather:** Sunny

**AVC Proj No:** 17-0643



# Bike Count

Accurate Video Counts Inc  
 info@accuratevideocounts.com  
 (619) 987-5136



**Location:** Howard Ave @ Texas St

| AM Period (7:00 AM - 9:00 AM) |            |          |          |           |          |          |            |          |          |           |          |          |          |
|-------------------------------|------------|----------|----------|-----------|----------|----------|------------|----------|----------|-----------|----------|----------|----------|
|                               | Southbound |          |          | Westbound |          |          | Northbound |          |          | Eastbound |          |          | TOTAL    |
|                               | Right      | Thru     | Left     | Right     | Thru     | Left     | Right      | Thru     | Left     | Right     | Thru     | Left     |          |
| 7:00 AM                       | 0          | 0        | 0        | 0         | 0        | 0        | 0          | 1        | 0        | 0         | 1        | 0        | 2        |
| 7:15 AM                       | 0          | 0        | 0        | 0         | 1        | 0        | 0          | 1        | 0        | 0         | 0        | 0        | 2        |
| 7:30 AM                       | 0          | 0        | 0        | 0         | 1        | 0        | 0          | 0        | 0        | 0         | 0        | 0        | 1        |
| 7:45 AM                       | 0          | 0        | 0        | 0         | 0        | 0        | 0          | 0        | 0        | 0         | 0        | 0        | 0        |
| 8:00 AM                       | 0          | 0        | 0        | 0         | 1        | 0        | 0          | 1        | 0        | 0         | 0        | 0        | 2        |
| 8:15 AM                       | 0          | 0        | 0        | 0         | 0        | 0        | 0          | 0        | 0        | 0         | 0        | 0        | 0        |
| 8:30 AM                       | 0          | 0        | 0        | 0         | 1        | 0        | 0          | 0        | 0        | 0         | 0        | 0        | 1        |
| 8:45 AM                       | 0          | 0        | 0        | 0         | 1        | 0        | 0          | 0        | 0        | 0         | 0        | 0        | 1        |
| <b>Total</b>                  | <b>0</b>   | <b>0</b> | <b>0</b> | <b>0</b>  | <b>5</b> | <b>0</b> | <b>0</b>   | <b>3</b> | <b>0</b> | <b>0</b>  | <b>1</b> | <b>0</b> | <b>9</b> |

AM Intersection Peak Hour : **7:00 AM - 8:00 AM**

Intersection PHF : **0.63**

|              | Southbound |       |       | Westbound |      |       | Northbound |      |       | Eastbound |      |       | TOTAL |
|--------------|------------|-------|-------|-----------|------|-------|------------|------|-------|-----------|------|-------|-------|
|              | Right      | Thru  | Left  | Right     | Thru | Left  | Right      | Thru | Left  | Right     | Thru | Left  |       |
| Volume       | 0          | 0     | 0     | 0         | 2    | 0     | 0          | 2    | 0     | 0         | 1    | 0     | 5     |
| PHF          | #####      | ##### | ##### | #####     | 0.50 | ##### | #####      | 0.50 | ##### | #####     | 0.25 | ##### | 0.63  |
| Movement PHF | #DIV/0!    |       |       | 0.50      |      |       | 0.50       |      |       | 0.25      |      |       | 0.63  |

| PM Period (4:00 PM - 6:00 PM) |            |          |          |           |          |          |            |          |          |           |          |          |           |
|-------------------------------|------------|----------|----------|-----------|----------|----------|------------|----------|----------|-----------|----------|----------|-----------|
|                               | Southbound |          |          | Westbound |          |          | Northbound |          |          | Eastbound |          |          | TOTAL     |
|                               | Right      | Thru     | Left     | Right     | Thru     | Left     | Right      | Thru     | Left     | Right     | Thru     | Left     |           |
| 4:00 PM                       | 0          | 0        | 0        | 0         | 0        | 0        | 0          | 0        | 0        | 0         | 0        | 0        | 0         |
| 4:15 PM                       | 0          | 0        | 0        | 0         | 0        | 0        | 0          | 1        | 0        | 0         | 0        | 0        | 1         |
| 4:30 PM                       | 0          | 1        | 0        | 0         | 0        | 0        | 0          | 0        | 0        | 0         | 1        | 0        | 2         |
| 4:45 PM                       | 0          | 0        | 2        | 2         | 0        | 2        | 0          | 0        | 0        | 1         | 0        | 0        | 7         |
| 5:00 PM                       | 0          | 0        | 0        | 0         | 2        | 0        | 0          | 0        | 0        | 2         | 2        | 0        | 6         |
| 5:15 PM                       | 0          | 1        | 0        | 0         | 1        | 0        | 0          | 1        | 0        | 0         | 1        | 0        | 4         |
| 5:30 PM                       | 0          | 0        | 0        | 0         | 1        | 0        | 0          | 0        | 0        | 0         | 1        | 0        | 2         |
| 5:45 PM                       | 0          | 0        | 0        | 0         | 0        | 1        | 0          | 0        | 0        | 0         | 1        | 0        | 2         |
| <b>Total</b>                  | <b>0</b>   | <b>2</b> | <b>2</b> | <b>2</b>  | <b>4</b> | <b>3</b> | <b>0</b>   | <b>2</b> | <b>0</b> | <b>3</b>  | <b>6</b> | <b>0</b> | <b>24</b> |

PM Intersection Peak Hour : **4:30 PM - 5:30 PM**

Intersection PHF : **0.68**

|              | Southbound |      |      | Westbound |       |      | Northbound |      |       | Eastbound |      |       | TOTAL |
|--------------|------------|------|------|-----------|-------|------|------------|------|-------|-----------|------|-------|-------|
|              | Right      | Thru | Left | Right     | Thru  | Left | Right      | Thru | Left  | Right     | Thru | Left  |       |
| Volume       | 0          | 2    | 2    | 2         | 3     | 2    | 0          | 1    | 0     | 3         | 4    | 0     | 19    |
| PHF          | #####      | 0.5  | 0.25 | 0.25      | 0.375 | 0.25 | #####      | 0.25 | ##### | 0.375     | 0.5  | ##### | 0.68  |
| Movement PHF | 0.50       |      |      | 0.44      |       |      | 0.25       |      |       | 0.44      |      |       | 0.68  |

# Pedestrian Count

Accurate Video Counts Inc  
 info@accuratevideocounts.com  
 (619) 987-1536



**Location:** Howard Ave Texas St

| AM Period (7:00 AM - 9:00 AM) |                    |                   |                    |                   |           |
|-------------------------------|--------------------|-------------------|--------------------|-------------------|-----------|
|                               | North Leg<br>Total | East Leg<br>Total | South Leg<br>Total | West Leg<br>Total | TOTAL     |
| 7:00 AM                       | 0                  | 1                 | 0                  | 2                 | 3         |
| 7:15 AM                       | 1                  | 5                 | 0                  | 0                 | 6         |
| 7:30 AM                       | 1                  | 1                 | 0                  | 3                 | 5         |
| 7:45 AM                       | 0                  | 2                 | 0                  | 2                 | 4         |
| 8:00 AM                       | 0                  | 1                 | 0                  | 1                 | 2         |
| 8:15 AM                       | 0                  | 2                 | 2                  | 1                 | 5         |
| 8:30 AM                       | 2                  | 4                 | 0                  | 0                 | 6         |
| 8:45 AM                       | 1                  | 2                 | 2                  | 6                 | 11        |
| <b>Total</b>                  | <b>5</b>           | <b>18</b>         | <b>4</b>           | <b>15</b>         | <b>42</b> |

AM Intersection Peak Hour : **7:30 AM - 8:30 AM** **0.80**

|              | North Leg<br>Total | East Leg<br>Total | South Leg<br>Total | West Leg<br>Total | TOTAL |
|--------------|--------------------|-------------------|--------------------|-------------------|-------|
| Volume       | 1                  | 6                 | 2                  | 7                 | 32    |
| PHF          | 0.25               | 0.75              | 0.25               | 0.58              | 0.80  |
| Movement PHF | 0.25               | 0.75              | 0.25               | 0.58              | 0.80  |

| PM Period (4:00 PM - 6:00 PM) |                    |                   |                    |                   |           |
|-------------------------------|--------------------|-------------------|--------------------|-------------------|-----------|
|                               | North Leg<br>Total | East Leg<br>Total | South Leg<br>Total | West Leg<br>Total | TOTAL     |
| 4:00 PM                       | 1                  | 3                 | 0                  | 0                 | 4         |
| 4:15 PM                       | 0                  | 1                 | 0                  | 3                 | 4         |
| 4:30 PM                       | 3                  | 0                 | 0                  | 3                 | 6         |
| 4:45 PM                       | 3                  | 5                 | 0                  | 1                 | 9         |
| 5:00 PM                       | 0                  | 5                 | 0                  | 2                 | 7         |
| 5:15 PM                       | 1                  | 4                 | 0                  | 3                 | 8         |
| 5:30 PM                       | 2                  | 2                 | 0                  | 4                 | 8         |
| 5:45 PM                       | 0                  | 0                 | 0                  | 10                | 10        |
| <b>Total</b>                  | <b>10</b>          | <b>20</b>         | <b>0</b>           | <b>26</b>         | <b>56</b> |

PM Intersection Peak Hour : **4:45 PM - 5:45 PM** **0.89**

|              | North Leg<br>Total | East Leg<br>Total | South Leg<br>Total | West Leg<br>Total | TOTAL |
|--------------|--------------------|-------------------|--------------------|-------------------|-------|
| Volume       | 6                  | 16                | 0                  | 10                | 64    |
| PHF          | 0.5                | 0.8               | #DIV/0!            | 0.625             | 0.89  |
| Movement PHF | 0.50               | 0.80              | #DIV/0!            | 0.63              | 0.89  |

# Turn Count Summary

Accurate Video Counts Inc  
 info@accuratevideocounts.com  
 (619) 987-5136



**Location:** Howard Ave @ Oregon St

**Date of Count:** Tuesday, March 21, 2017

**Analysts:** LV/CD

**Weather:** Sunny

**AVC Proj No:** 17-0643



# Vehicular Count

Accurate Video Counts Inc  
 info@accuratevideocounts.com  
 (619) 987-5136



**Location:** Howard Ave @ Oregon St

| AM Period (7:00 AM - 9:00 AM) |            |            |           |            |            |           |            |            |           |           |            |           |            |
|-------------------------------|------------|------------|-----------|------------|------------|-----------|------------|------------|-----------|-----------|------------|-----------|------------|
|                               | Southbound |            |           | Westbound  |            |           | Northbound |            |           | Eastbound |            |           | TOTAL      |
|                               | Right      | Thru       | Left      | Right      | Thru       | Left      | Right      | Thru       | Left      | Right     | Thru       | Left      |            |
| 7:00 AM                       | 1          | 10         | 4         | 25         | 28         | 4         | 9          | 16         | 0         | 1         | 5          | 2         | 105        |
| 7:15 AM                       | 2          | 10         | 6         | 18         | 26         | 8         | 7          | 35         | 2         | 0         | 11         | 8         | 133        |
| 7:30 AM                       | 2          | 17         | 5         | 19         | 33         | 6         | 3          | 23         | 1         | 2         | 10         | 5         | 126        |
| 7:45 AM                       | 1          | 12         | 9         | 18         | 33         | 3         | 8          | 20         | 5         | 2         | 16         | 5         | 132        |
| 8:00 AM                       | 2          | 10         | 8         | 21         | 30         | 9         | 6          | 9          | 4         | 1         | 17         | 5         | 122        |
| 8:15 AM                       | 5          | 10         | 7         | 19         | 22         | 5         | 8          | 15         | 3         | 1         | 8          | 11        | 114        |
| 8:30 AM                       | 1          | 13         | 2         | 15         | 30         | 8         | 7          | 24         | 0         | 2         | 14         | 6         | 122        |
| 8:45 AM                       | 2          | 18         | 3         | 13         | 28         | 6         | 6          | 22         | 0         | 0         | 19         | 2         | 119        |
| <b>Total</b>                  | <b>16</b>  | <b>100</b> | <b>44</b> | <b>148</b> | <b>230</b> | <b>49</b> | <b>54</b>  | <b>164</b> | <b>15</b> | <b>9</b>  | <b>100</b> | <b>44</b> | <b>973</b> |

AM Intersection Peak Hour : **7:15 AM - 8:15 AM**

Intersection PHF : **0.96**

|              | Southbound |      |      | Westbound |      |      | Northbound |      |      | Eastbound |      |      | TOTAL |
|--------------|------------|------|------|-----------|------|------|------------|------|------|-----------|------|------|-------|
|              | Right      | Thru | Left | Right     | Thru | Left | Right      | Thru | Left | Right     | Thru | Left |       |
| Volume       | 7          | 49   | 28   | 76        | 122  | 26   | 24         | 87   | 12   | 5         | 54   | 23   | 513   |
| PHF          | 0.88       | 0.72 | 0.78 | 0.90      | 0.92 | 0.72 | 0.75       | 0.62 | 0.60 | 0.63      | 0.79 | 0.72 | 0.96  |
| Movement PHF | 0.88       |      |      | 0.93      |      |      | 0.70       |      |      | 0.89      |      |      | 0.96  |

| PM Period (4:00 PM - 6:00 PM) |            |            |           |           |            |           |            |            |           |           |            |           |              |
|-------------------------------|------------|------------|-----------|-----------|------------|-----------|------------|------------|-----------|-----------|------------|-----------|--------------|
|                               | Southbound |            |           | Westbound |            |           | Northbound |            |           | Eastbound |            |           | TOTAL        |
|                               | Right      | Thru       | Left      | Right     | Thru       | Left      | Right      | Thru       | Left      | Right     | Thru       | Left      |              |
| 4:00 PM                       | 1          | 20         | 7         | 5         | 25         | 5         | 8          | 19         | 1         | 0         | 31         | 3         | 125          |
| 4:15 PM                       | 2          | 23         | 12        | 10        | 26         | 8         | 11         | 19         | 0         | 3         | 43         | 4         | 161          |
| 4:30 PM                       | 8          | 19         | 11        | 7         | 19         | 9         | 12         | 17         | 2         | 4         | 43         | 6         | 157          |
| 4:45 PM                       | 5          | 23         | 11        | 6         | 46         | 7         | 11         | 18         | 2         | 3         | 41         | 10        | 183          |
| 5:00 PM                       | 2          | 17         | 14        | 11        | 27         | 4         | 16         | 24         | 1         | 3         | 45         | 3         | 167          |
| 5:15 PM                       | 3          | 30         | 8         | 10        | 40         | 12        | 16         | 11         | 1         | 5         | 52         | 5         | 193          |
| 5:30 PM                       | 1          | 21         | 9         | 14        | 23         | 8         | 12         | 24         | 3         | 5         | 46         | 5         | 171          |
| 5:45 PM                       | 0          | 24         | 7         | 20        | 39         | 11        | 7          | 21         | 1         | 3         | 34         | 3         | 170          |
| <b>Total</b>                  | <b>22</b>  | <b>177</b> | <b>79</b> | <b>83</b> | <b>245</b> | <b>64</b> | <b>93</b>  | <b>153</b> | <b>11</b> | <b>26</b> | <b>335</b> | <b>39</b> | <b>1,327</b> |

PM Intersection Peak Hour : **4:45 PM - 5:45 PM**

Intersection PHF : **0.92**

|              | Southbound |       |      | Westbound |       |       | Northbound |       |       | Eastbound |       |       | TOTAL |
|--------------|------------|-------|------|-----------|-------|-------|------------|-------|-------|-----------|-------|-------|-------|
|              | Right      | Thru  | Left | Right     | Thru  | Left  | Right      | Thru  | Left  | Right     | Thru  | Left  |       |
| Volume       | 11         | 91    | 42   | 41        | 136   | 31    | 55         | 77    | 7     | 16        | 184   | 23    | 714   |
| PHF          | 0.55       | 0.758 | 0.75 | 0.732     | 0.739 | 0.646 | 0.859      | 0.802 | 0.583 | 0.8       | 0.885 | 0.575 | 0.92  |
| Movement PHF | 0.88       |       |      | 0.84      |       |       | 0.85       |       |       | 0.90      |       |       | 0.92  |



# U-Turn Count Summary

Accurate Video Counts Inc  
 info@accuratevideocounts.com  
 (619) 987-1536



**Location:** Howard Ave @ Oregon St

| AM Period (7:00 AM - 9:00 AM) |                      |                     |                      |                     |       |
|-------------------------------|----------------------|---------------------|----------------------|---------------------|-------|
|                               | Southbound<br>U-Turn | Westbound<br>U-Turn | Northbound<br>U-Turn | Eastbound<br>U-Turn | TOTAL |
| 7:00 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 7:15 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 7:30 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 7:45 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 8:00 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 8:15 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 8:30 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 8:45 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| Total                         | 0                    | 0                   | 0                    | 0                   | 0     |

AM Intersection Peak Hour : **7:15 AM - 8:15 AM** Intersection PHF : **#DIV/0!**

|              | North Leg<br>EB | East Leg<br>SB | South Leg<br>EB | West Leg<br>SB | TOTAL   |
|--------------|-----------------|----------------|-----------------|----------------|---------|
| Volume       | 0               | 0              | 0               | 0              | 0       |
| PHF          | #DIV/0!         | #DIV/0!        | #DIV/0!         | #DIV/0!        | #DIV/0! |
| Movement PHF | #DIV/0!         | #DIV/0!        | #DIV/0!         | #DIV/0!        | #DIV/0! |

| PM Period (4:00 PM - 6:00 PM) |                      |                     |                      |                     |       |
|-------------------------------|----------------------|---------------------|----------------------|---------------------|-------|
|                               | Southbound<br>U-Turn | Westbound<br>U-Turn | Northbound<br>U-Turn | Eastbound<br>U-Turn | TOTAL |
| 4:00 PM                       | 1                    | 0                   | 0                    | 0                   | 1     |
| 4:15 PM                       | 1                    | 0                   | 0                    | 0                   | 1     |
| 4:30 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 4:45 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 5:00 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 5:15 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 5:30 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 5:45 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| Total                         | 2                    | 0                   | 0                    | 0                   | 2     |

PM Intersection Peak Hour : **4:45 PM - 5:45 PM** Intersection PHF : **#DIV/0!**

|              | North Leg<br>EB | East Leg<br>SB | South Leg<br>EB | West Leg<br>SB | TOTAL   |
|--------------|-----------------|----------------|-----------------|----------------|---------|
| Volume       | 0               | 0              | 0               | 0              | 0       |
| PHF          | #DIV/0!         | #DIV/0!        | #DIV/0!         | #DIV/0!        | #DIV/0! |
| Movement PHF | #DIV/0!         | #DIV/0!        | #DIV/0!         | #DIV/0!        | #DIV/0! |

# Bike Turn Count Summary

Accurate Video Counts Inc  
info@accuratevideocounts.com  
(619) 987-5136



**Location:** Howard Ave @ Oregon St

**Date of Count:** Tuesday, March 21, 2017

**Analysts:** LV/CD

**Weather:** Sunny

**AVC Proj No:** 17-0643



# Bike Count

Accurate Video Counts Inc  
 info@accuratevideocounts.com  
 (619) 987-5136



**Location:** Howard Ave @ Oregon St

| AM Period (7:00 AM - 9:00 AM) |            |      |      |           |      |      |            |      |      |           |      |      |       |
|-------------------------------|------------|------|------|-----------|------|------|------------|------|------|-----------|------|------|-------|
|                               | Southbound |      |      | Westbound |      |      | Northbound |      |      | Eastbound |      |      | TOTAL |
|                               | Right      | Thru | Left | Right     | Thru | Left | Right      | Thru | Left | Right     | Thru | Left |       |
| 7:00 AM                       | 0          | 0    | 0    | 0         | 0    | 0    | 0          | 1    | 0    | 0         | 1    | 0    | 2     |
| 7:15 AM                       | 0          | 0    | 0    | 0         | 1    | 0    | 0          | 0    | 0    | 0         | 0    | 0    | 1     |
| 7:30 AM                       | 0          | 0    | 0    | 0         | 1    | 0    | 0          | 0    | 0    | 0         | 0    | 0    | 1     |
| 7:45 AM                       | 0          | 0    | 0    | 0         | 1    | 0    | 0          | 0    | 0    | 0         | 0    | 0    | 1     |
| 8:00 AM                       | 0          | 0    | 0    | 0         | 1    | 0    | 0          | 0    | 0    | 0         | 0    | 0    | 1     |
| 8:15 AM                       | 0          | 0    | 0    | 0         | 0    | 0    | 0          | 0    | 0    | 0         | 0    | 0    | 0     |
| 8:30 AM                       | 0          | 0    | 0    | 0         | 0    | 0    | 0          | 0    | 0    | 0         | 0    | 0    | 0     |
| 8:45 AM                       | 0          | 0    | 2    | 0         | 1    | 0    | 0          | 0    | 0    | 0         | 1    | 0    | 4     |
| Total                         | 0          | 0    | 2    | 0         | 5    | 0    | 0          | 1    | 0    | 0         | 2    | 0    | 10    |

AM Intersection Peak Hour : **7:00 AM - 8:00 AM**

Intersection PHF : **0.63**

|              | Southbound |       |       | Westbound |      |       | Northbound |      |       | Eastbound |      |       | TOTAL |
|--------------|------------|-------|-------|-----------|------|-------|------------|------|-------|-----------|------|-------|-------|
|              | Right      | Thru  | Left  | Right     | Thru | Left  | Right      | Thru | Left  | Right     | Thru | Left  |       |
| Volume       | 0          | 0     | 0     | 0         | 3    | 0     | 0          | 1    | 0     | 0         | 1    | 0     | 5     |
| PHF          | #####      | ##### | ##### | #####     | 0.75 | ##### | #####      | 0.25 | ##### | #####     | 0.25 | ##### | 0.63  |
| Movement PHF | #DIV/0!    |       |       | 0.75      |      |       | 0.25       |      |       | 0.25      |      |       | 0.63  |

| PM Period (4:00 PM - 6:00 PM) |            |      |      |           |      |      |            |      |      |           |      |      |       |
|-------------------------------|------------|------|------|-----------|------|------|------------|------|------|-----------|------|------|-------|
|                               | Southbound |      |      | Westbound |      |      | Northbound |      |      | Eastbound |      |      | TOTAL |
|                               | Right      | Thru | Left | Right     | Thru | Left | Right      | Thru | Left | Right     | Thru | Left |       |
| 4:00 PM                       | 0          | 0    | 0    | 0         | 0    | 0    | 0          | 0    | 0    | 0         | 0    | 0    | 0     |
| 4:15 PM                       | 0          | 2    | 0    | 0         | 0    | 0    | 0          | 0    | 0    | 0         | 1    | 0    | 3     |
| 4:30 PM                       | 0          | 0    | 1    | 0         | 0    | 1    | 0          | 1    | 0    | 0         | 0    | 0    | 3     |
| 4:45 PM                       | 0          | 0    | 0    | 0         | 4    | 0    | 0          | 0    | 0    | 0         | 3    | 0    | 7     |
| 5:00 PM                       | 0          | 0    | 1    | 0         | 2    | 0    | 0          | 0    | 0    | 0         | 2    | 0    | 5     |
| 5:15 PM                       | 0          | 0    | 1    | 0         | 2    | 0    | 0          | 0    | 0    | 0         | 1    | 0    | 4     |
| 5:30 PM                       | 0          | 0    | 0    | 0         | 1    | 0    | 0          | 0    | 0    | 0         | 0    | 0    | 1     |
| 5:45 PM                       | 0          | 0    | 0    | 0         | 1    | 0    | 0          | 0    | 0    | 0         | 1    | 0    | 2     |
| Total                         | 0          | 2    | 3    | 0         | 10   | 1    | 0          | 1    | 0    | 0         | 8    | 0    | 25    |

PM Intersection Peak Hour : **4:30 PM - 5:30 PM**

Intersection PHF : **0.68**

|              | Southbound |       |      | Westbound |      |      | Northbound |      |       | Eastbound |      |       | TOTAL |
|--------------|------------|-------|------|-----------|------|------|------------|------|-------|-----------|------|-------|-------|
|              | Right      | Thru  | Left | Right     | Thru | Left | Right      | Thru | Left  | Right     | Thru | Left  |       |
| Volume       | 0          | 0     | 3    | 0         | 8    | 1    | 0          | 1    | 0     | 0         | 6    | 0     | 19    |
| PHF          | #####      | ##### | 0.75 | #####     | 0.5  | 0.25 | #####      | 0.25 | ##### | #####     | 0.5  | ##### | 0.68  |
| Movement PHF | 0.75       |       |      | 0.56      |      |      | 0.25       |      |       | 0.50      |      |       | 0.68  |

# Pedestrian Count

Accurate Video Counts Inc  
 info@accuratevideocounts.com  
 (619) 987-1536



**Location:** Howard Ave Oregon St

| AM Period (7:00 AM - 9:00 AM) |                    |                   |                    |                   |           |
|-------------------------------|--------------------|-------------------|--------------------|-------------------|-----------|
|                               | North Leg<br>Total | East Leg<br>Total | South Leg<br>Total | West Leg<br>Total | TOTAL     |
| 7:00 AM                       | 1                  | 3                 | 4                  | 2                 | 10        |
| 7:15 AM                       | 1                  | 2                 | 0                  | 1                 | 4         |
| 7:30 AM                       | 2                  | 0                 | 4                  | 1                 | 7         |
| 7:45 AM                       | 2                  | 2                 | 1                  | 2                 | 7         |
| 8:00 AM                       | 2                  | 0                 | 4                  | 1                 | 7         |
| 8:15 AM                       | 7                  | 3                 | 3                  | 2                 | 15        |
| 8:30 AM                       | 0                  | 1                 | 5                  | 3                 | 9         |
| 8:45 AM                       | 2                  | 1                 | 2                  | 5                 | 10        |
| <b>Total</b>                  | <b>17</b>          | <b>12</b>         | <b>23</b>          | <b>17</b>         | <b>69</b> |

AM Intersection Peak Hour : **7:15 AM - 8:15 AM** **0.89**

|              | North Leg<br>Total | East Leg<br>Total | South Leg<br>Total | West Leg<br>Total | TOTAL |
|--------------|--------------------|-------------------|--------------------|-------------------|-------|
| Volume       | 7                  | 4                 | 9                  | 5                 | 50    |
| PHF          | 0.88               | 0.50              | 0.56               | 0.63              | 0.89  |
| Movement PHF | 0.88               | 0.50              | 0.56               | 0.63              | 0.89  |

| PM Period (4:00 PM - 6:00 PM) |                    |                   |                    |                   |            |
|-------------------------------|--------------------|-------------------|--------------------|-------------------|------------|
|                               | North Leg<br>Total | East Leg<br>Total | South Leg<br>Total | West Leg<br>Total | TOTAL      |
| 4:00 PM                       | 1                  | 3                 | 1                  | 0                 | 5          |
| 4:15 PM                       | 7                  | 6                 | 4                  | 2                 | 19         |
| 4:30 PM                       | 0                  | 1                 | 2                  | 0                 | 3          |
| 4:45 PM                       | 5                  | 1                 | 9                  | 1                 | 16         |
| 5:00 PM                       | 4                  | 5                 | 9                  | 7                 | 25         |
| 5:15 PM                       | 0                  | 6                 | 1                  | 1                 | 8          |
| 5:30 PM                       | 2                  | 11                | 2                  | 3                 | 18         |
| 5:45 PM                       | 5                  | 14                | 5                  | 1                 | 25         |
| <b>Total</b>                  | <b>24</b>          | <b>47</b>         | <b>33</b>          | <b>15</b>         | <b>119</b> |

PM Intersection Peak Hour : **4:45 PM - 5:45 PM** **0.67**

|              | North Leg<br>Total | East Leg<br>Total | South Leg<br>Total | West Leg<br>Total | TOTAL |
|--------------|--------------------|-------------------|--------------------|-------------------|-------|
| Volume       | 11                 | 23                | 21                 | 12                | 134   |
| PHF          | 0.55               | 0.522727273       | 0.583333333        | 0.428571429       | 0.67  |
| Movement PHF | 0.55               | 0.52              | 0.58               | 0.43              | 0.67  |

# Turn Count Summary

Accurate Video Counts Inc  
 info@accuratevideocounts.com  
 (619) 987-5136



**Location:** Howard Ave @ Utah St

**Date of Count:** Tuesday, March 21, 2017

**Analysts:** LV/CD

**Weather:** Sunny

**AVC Proj No:** 17-0643



# Vehicular Count

Accurate Video Counts Inc  
info@accuratevideocounts.com  
(619) 987-5136



**Location:** Howard Ave @ Utah St

| AM Period (7:00 AM - 9:00 AM) |            |            |           |           |            |           |            |            |           |           |            |           |              |
|-------------------------------|------------|------------|-----------|-----------|------------|-----------|------------|------------|-----------|-----------|------------|-----------|--------------|
|                               | Southbound |            |           | Westbound |            |           | Northbound |            |           | Eastbound |            |           | TOTAL        |
|                               | Right      | Thru       | Left      | Right     | Thru       | Left      | Right      | Thru       | Left      | Right     | Thru       | Left      |              |
| 7:00 AM                       | 3          | 14         | 6         | 5         | 44         | 2         | 1          | 19         | 2         | 3         | 19         | 4         | 122          |
| 7:15 AM                       | 1          | 14         | 1         | 6         | 38         | 6         | 2          | 21         | 2         | 0         | 24         | 3         | 118          |
| 7:30 AM                       | 2          | 21         | 0         | 9         | 49         | 4         | 2          | 29         | 4         | 1         | 17         | 5         | 143          |
| 7:45 AM                       | 0          | 24         | 6         | 8         | 45         | 13        | 3          | 22         | 3         | 1         | 30         | 2         | 157          |
| 8:00 AM                       | 1          | 29         | 1         | 10        | 51         | 9         | 6          | 24         | 4         | 5         | 27         | 4         | 171          |
| 8:15 AM                       | 1          | 15         | 8         | 8         | 35         | 4         | 1          | 19         | 1         | 2         | 24         | 3         | 121          |
| 8:30 AM                       | 2          | 13         | 4         | 12        | 41         | 1         | 5          | 29         | 0         | 3         | 21         | 2         | 133          |
| 8:45 AM                       | 1          | 16         | 4         | 6         | 37         | 5         | 3          | 19         | 4         | 4         | 24         | 3         | 126          |
| <b>Total</b>                  | <b>11</b>  | <b>146</b> | <b>30</b> | <b>64</b> | <b>340</b> | <b>44</b> | <b>23</b>  | <b>182</b> | <b>20</b> | <b>19</b> | <b>186</b> | <b>26</b> | <b>1,091</b> |

AM Intersection Peak Hour : **7:30 AM - 8:30 AM**

Intersection PHF : **0.87**

|              | Southbound |      |      | Westbound |      |      | Northbound |      |      | Eastbound |      |      | TOTAL |
|--------------|------------|------|------|-----------|------|------|------------|------|------|-----------|------|------|-------|
|              | Right      | Thru | Left | Right     | Thru | Left | Right      | Thru | Left | Right     | Thru | Left |       |
| Volume       | 4          | 89   | 15   | 35        | 180  | 30   | 12         | 94   | 12   | 9         | 98   | 14   | 592   |
| PHF          | 0.50       | 0.77 | 0.47 | 0.88      | 0.88 | 0.58 | 0.50       | 0.81 | 0.75 | 0.45      | 0.82 | 0.70 | 0.87  |
| Movement PHF |            | 0.87 |      |           | 0.88 |      |            | 0.84 |      |           | 0.84 |      | 0.87  |

| PM Period (4:00 PM - 6:00 PM) |            |            |           |           |            |           |            |            |           |           |            |           |              |
|-------------------------------|------------|------------|-----------|-----------|------------|-----------|------------|------------|-----------|-----------|------------|-----------|--------------|
|                               | Southbound |            |           | Westbound |            |           | Northbound |            |           | Eastbound |            |           | TOTAL        |
|                               | Right      | Thru       | Left      | Right     | Thru       | Left      | Right      | Thru       | Left      | Right     | Thru       | Left      |              |
| 4:00 PM                       | 4          | 27         | 11        | 5         | 33         | 4         | 5          | 20         | 2         | 3         | 44         | 3         | 161          |
| 4:15 PM                       | 4          | 35         | 11        | 10        | 32         | 1         | 3          | 20         | 0         | 7         | 47         | 4         | 174          |
| 4:30 PM                       | 2          | 33         | 14        | 9         | 28         | 10        | 7          | 21         | 1         | 0         | 56         | 4         | 185          |
| 4:45 PM                       | 3          | 29         | 13        | 3         | 52         | 4         | 2          | 25         | 3         | 5         | 54         | 2         | 195          |
| 5:00 PM                       | 6          | 35         | 9         | 6         | 33         | 8         | 4          | 27         | 2         | 2         | 65         | 3         | 200          |
| 5:15 PM                       | 6          | 35         | 13        | 5         | 51         | 10        | 6          | 28         | 3         | 5         | 69         | 3         | 234          |
| 5:30 PM                       | 5          | 49         | 6         | 7         | 30         | 8         | 9          | 36         | 6         | 7         | 49         | 5         | 217          |
| 5:45 PM                       | 5          | 37         | 13        | 7         | 52         | 4         | 5          | 22         | 4         | 4         | 35         | 4         | 192          |
| <b>Total</b>                  | <b>35</b>  | <b>280</b> | <b>90</b> | <b>52</b> | <b>311</b> | <b>49</b> | <b>41</b>  | <b>199</b> | <b>21</b> | <b>33</b> | <b>419</b> | <b>28</b> | <b>1,558</b> |

PM Intersection Peak Hour : **4:45 PM - 5:45 PM**

Intersection PHF : **0.90**

|              | Southbound |       |       | Westbound |       |      | Northbound |       |       | Eastbound |       |      | TOTAL |
|--------------|------------|-------|-------|-----------|-------|------|------------|-------|-------|-----------|-------|------|-------|
|              | Right      | Thru  | Left  | Right     | Thru  | Left | Right      | Thru  | Left  | Right     | Thru  | Left |       |
| Volume       | 20         | 148   | 41    | 21        | 166   | 30   | 21         | 116   | 14    | 19        | 237   | 13   | 846   |
| PHF          | 0.83       | 0.755 | 0.788 | 0.75      | 0.798 | 0.75 | 0.583      | 0.806 | 0.583 | 0.679     | 0.859 | 0.65 | 0.90  |
| Movement PHF |            | 0.87  |       |           | 0.82  |      |            | 0.74  |       |           | 0.87  |      | 0.90  |

# U-Turn Count Summary

Accurate Video Counts Inc  
 info@accuratevideocounts.com  
 (619) 987-1536



**Location:** Howard Ave @ Utah St

| AM Period (7:00 AM - 9:00 AM) |                      |                     |                      |                     |       |
|-------------------------------|----------------------|---------------------|----------------------|---------------------|-------|
|                               | Southbound<br>U-Turn | Westbound<br>U-Turn | Northbound<br>U-Turn | Eastbound<br>U-Turn | TOTAL |
| 7:00 AM                       | 0                    | 0                   | 0                    | 1                   | 1     |
| 7:15 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 7:30 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 7:45 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 8:00 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 8:15 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 8:30 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 8:45 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| Total                         | 0                    | 0                   | 0                    | 1                   | 1     |

AM Intersection Peak Hour : **7:30 AM - 8:30 AM** Intersection PHF : **#DIV/0!**

|              | North Leg<br>EB | East Leg<br>SB | South Leg<br>EB | West Leg<br>SB | TOTAL   |
|--------------|-----------------|----------------|-----------------|----------------|---------|
| Volume       | 0               | 0              | 0               | 0              | 0       |
| PHF          | #DIV/0!         | #DIV/0!        | #DIV/0!         | #DIV/0!        | #DIV/0! |
| Movement PHF | #DIV/0!         | #DIV/0!        | #DIV/0!         | #DIV/0!        | #DIV/0! |

| PM Period (4:00 PM - 6:00 PM) |                      |                     |                      |                     |       |
|-------------------------------|----------------------|---------------------|----------------------|---------------------|-------|
|                               | Southbound<br>U-Turn | Westbound<br>U-Turn | Northbound<br>U-Turn | Eastbound<br>U-Turn | TOTAL |
| 4:00 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 4:15 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 4:30 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 4:45 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 5:00 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 5:15 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 5:30 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 5:45 PM                       | 1                    | 0                   | 0                    | 0                   | 1     |
| Total                         | 1                    | 0                   | 0                    | 0                   | 1     |

PM Intersection Peak Hour : **4:45 PM - 5:45 PM** Intersection PHF : **#DIV/0!**

|              | North Leg<br>EB | East Leg<br>SB | South Leg<br>EB | West Leg<br>SB | TOTAL   |
|--------------|-----------------|----------------|-----------------|----------------|---------|
| Volume       | 0               | 0              | 0               | 0              | 0       |
| PHF          | #DIV/0!         | #DIV/0!        | #DIV/0!         | #DIV/0!        | #DIV/0! |
| Movement PHF | #DIV/0!         | #DIV/0!        | #DIV/0!         | #DIV/0!        | #DIV/0! |

# Bike Turn Count Summary

Accurate Video Counts Inc  
info@accuratevideocounts.com  
(619) 987-5136



**Location:** Howard Ave @ Utah St

**Date of Count:** Tuesday, March 21, 2017

**Analysts:** LV/CD

**Weather:** Sunny

**AVC Proj No:** 17-0643





# Bike Count

Accurate Video Counts Inc  
 info@accuratevideocounts.com  
 (619) 987-5136



**Location:** Howard Ave @ Utah St

| AM Period (7:00 AM - 9:00 AM) |            |          |          |           |          |          |            |          |          |           |          |          |           |
|-------------------------------|------------|----------|----------|-----------|----------|----------|------------|----------|----------|-----------|----------|----------|-----------|
|                               | Southbound |          |          | Westbound |          |          | Northbound |          |          | Eastbound |          |          | TOTAL     |
|                               | Right      | Thru     | Left     | Right     | Thru     | Left     | Right      | Thru     | Left     | Right     | Thru     | Left     |           |
| 7:00 AM                       | 0          | 0        | 0        | 0         | 0        | 0        | 0          | 1        | 0        | 0         | 1        | 0        | 2         |
| 7:15 AM                       | 0          | 1        | 0        | 1         | 1        | 0        | 0          | 0        | 0        | 0         | 0        | 0        | 3         |
| 7:30 AM                       | 0          | 0        | 0        | 0         | 1        | 0        | 0          | 2        | 0        | 0         | 0        | 0        | 3         |
| 7:45 AM                       | 0          | 1        | 1        | 0         | 1        | 0        | 0          | 0        | 0        | 0         | 0        | 0        | 3         |
| 8:00 AM                       | 0          | 1        | 0        | 0         | 3        | 0        | 0          | 1        | 0        | 0         | 0        | 0        | 5         |
| 8:15 AM                       | 0          | 1        | 1        | 0         | 0        | 0        | 0          | 0        | 0        | 0         | 0        | 0        | 2         |
| 8:30 AM                       | 0          | 1        | 0        | 0         | 0        | 0        | 0          | 0        | 0        | 0         | 1        | 0        | 2         |
| 8:45 AM                       | 0          | 2        | 0        | 0         | 1        | 0        | 0          | 0        | 0        | 0         | 0        | 0        | 3         |
| <b>Total</b>                  | <b>0</b>   | <b>7</b> | <b>2</b> | <b>1</b>  | <b>7</b> | <b>0</b> | <b>0</b>   | <b>4</b> | <b>0</b> | <b>0</b>  | <b>2</b> | <b>0</b> | <b>23</b> |

AM Intersection Peak Hour : **7:15 AM - 8:15 AM**

Intersection PHF : **0.70**

|              | Southbound |      |      | Westbound |      |       | Northbound |      |       | Eastbound |         |       | TOTAL |
|--------------|------------|------|------|-----------|------|-------|------------|------|-------|-----------|---------|-------|-------|
|              | Right      | Thru | Left | Right     | Thru | Left  | Right      | Thru | Left  | Right     | Thru    | Left  |       |
| Volume       | 0          | 3    | 1    | 1         | 6    | 0     | 0          | 3    | 0     | 0         | 0       | 0     | 14    |
| PHF          | #####      | 0.75 | 0.25 | 0.25      | 0.50 | ##### | #####      | 0.38 | ##### | #####     | #####   | ##### | 0.70  |
| Movement PHF |            | 0.50 |      |           | 0.58 |       |            | 0.38 |       |           | #DIV/0! |       | 0.70  |

| PM Period (4:00 PM - 6:00 PM) |            |          |          |           |          |          |            |          |          |           |          |          |           |
|-------------------------------|------------|----------|----------|-----------|----------|----------|------------|----------|----------|-----------|----------|----------|-----------|
|                               | Southbound |          |          | Westbound |          |          | Northbound |          |          | Eastbound |          |          | TOTAL     |
|                               | Right      | Thru     | Left     | Right     | Thru     | Left     | Right      | Thru     | Left     | Right     | Thru     | Left     |           |
| 4:00 PM                       | 0          | 1        | 0        | 0         | 0        | 0        | 0          | 0        | 0        | 0         | 0        | 0        | 1         |
| 4:15 PM                       | 0          | 1        | 0        | 0         | 0        | 0        | 1          | 1        | 0        | 0         | 1        | 0        | 4         |
| 4:30 PM                       | 1          | 1        | 1        | 1         | 0        | 0        | 0          | 0        | 0        | 0         | 0        | 0        | 4         |
| 4:45 PM                       | 2          | 0        | 1        | 0         | 0        | 0        | 0          | 2        | 0        | 0         | 1        | 0        | 6         |
| 5:00 PM                       | 0          | 0        | 0        | 0         | 2        | 0        | 0          | 1        | 0        | 0         | 2        | 0        | 5         |
| 5:15 PM                       | 0          | 1        | 1        | 0         | 1        | 0        | 0          | 1        | 0        | 0         | 0        | 0        | 4         |
| 5:30 PM                       | 0          | 0        | 0        | 0         | 3        | 0        | 0          | 1        | 0        | 0         | 1        | 0        | 5         |
| 5:45 PM                       | 0          | 1        | 1        | 0         | 1        | 0        | 0          | 1        | 0        | 0         | 1        | 0        | 5         |
| <b>Total</b>                  | <b>3</b>   | <b>5</b> | <b>4</b> | <b>1</b>  | <b>7</b> | <b>0</b> | <b>1</b>   | <b>7</b> | <b>0</b> | <b>0</b>  | <b>6</b> | <b>0</b> | <b>34</b> |

PM Intersection Peak Hour : **4:45 PM - 5:45 PM**

Intersection PHF : **0.83**

|              | Southbound |      |      | Westbound |      |       | Northbound |       |       | Eastbound |      |       | TOTAL |
|--------------|------------|------|------|-----------|------|-------|------------|-------|-------|-----------|------|-------|-------|
|              | Right      | Thru | Left | Right     | Thru | Left  | Right      | Thru  | Left  | Right     | Thru | Left  |       |
| Volume       | 2          | 1    | 2    | 0         | 6    | 0     | 0          | 5     | 0     | 0         | 4    | 0     | 20    |
| PHF          | 0.25       | 0.25 | 0.5  | #####     | 0.5  | ##### | #####      | 0.625 | ##### | #####     | 0.5  | ##### | 0.83  |
| Movement PHF |            | 0.42 |      |           | 0.50 |       |            | 0.63  |       |           | 0.50 |       | 0.83  |

# Pedestrian Count

Accurate Video Counts Inc  
 info@accuratevideocounts.com  
 (619) 987-1536



**Location:** Howard Ave Utah St

| AM Period (7:00 AM - 9:00 AM) |                    |                   |                    |                   |           |
|-------------------------------|--------------------|-------------------|--------------------|-------------------|-----------|
|                               | North Leg<br>Total | East Leg<br>Total | South Leg<br>Total | West Leg<br>Total | TOTAL     |
| 7:00 AM                       | 1                  | 0                 | 4                  | 4                 | 9         |
| 7:15 AM                       | 3                  | 3                 | 2                  | 1                 | 9         |
| 7:30 AM                       | 1                  | 0                 | 4                  | 0                 | 5         |
| 7:45 AM                       | 4                  | 0                 | 3                  | 4                 | 11        |
| 8:00 AM                       | 7                  | 2                 | 4                  | 0                 | 13        |
| 8:15 AM                       | 2                  | 3                 | 0                  | 1                 | 6         |
| 8:30 AM                       | 0                  | 2                 | 5                  | 1                 | 8         |
| 8:45 AM                       | 1                  | 1                 | 5                  | 1                 | 8         |
| <b>Total</b>                  | <b>19</b>          | <b>11</b>         | <b>27</b>          | <b>12</b>         | <b>69</b> |

AM Intersection Peak Hour : **7:30 AM - 8:30 AM** **0.67**

|              | North Leg<br>Total | East Leg<br>Total | South Leg<br>Total | West Leg<br>Total | TOTAL |
|--------------|--------------------|-------------------|--------------------|-------------------|-------|
| Volume       | 14                 | 5                 | 11                 | 5                 | 70    |
| PHF          | 0.50               | 0.42              | 0.69               | 0.31              | 0.67  |
| Movement PHF | 0.50               | 0.42              | 0.69               | 0.31              | 0.67  |

| PM Period (4:00 PM - 6:00 PM) |                    |                   |                    |                   |            |
|-------------------------------|--------------------|-------------------|--------------------|-------------------|------------|
|                               | North Leg<br>Total | East Leg<br>Total | South Leg<br>Total | West Leg<br>Total | TOTAL      |
| 4:00 PM                       | 5                  | 0                 | 2                  | 2                 | 9          |
| 4:15 PM                       | 2                  | 4                 | 4                  | 1                 | 11         |
| 4:30 PM                       | 5                  | 3                 | 6                  | 6                 | 20         |
| 4:45 PM                       | 2                  | 0                 | 6                  | 0                 | 8          |
| 5:00 PM                       | 2                  | 1                 | 5                  | 4                 | 12         |
| 5:15 PM                       | 2                  | 0                 | 3                  | 1                 | 6          |
| 5:30 PM                       | 7                  | 5                 | 5                  | 1                 | 18         |
| 5:45 PM                       | 6                  | 3                 | 8                  | 2                 | 19         |
| <b>Total</b>                  | <b>31</b>          | <b>16</b>         | <b>39</b>          | <b>17</b>         | <b>103</b> |

PM Intersection Peak Hour : **4:45 PM - 5:45 PM** **0.61**

|              | North Leg<br>Total | East Leg<br>Total | South Leg<br>Total | West Leg<br>Total | TOTAL |
|--------------|--------------------|-------------------|--------------------|-------------------|-------|
| Volume       | 13                 | 6                 | 19                 | 6                 | 88    |
| PHF          | 0.464285714        | 0.3               | 0.791666667        | 0.375             | 0.61  |
| Movement PHF | 0.46               | 0.30              | 0.79               | 0.38              | 0.61  |

# Turn Count Summary

Accurate Video Counts Inc  
 info@accuratevideocounts.com  
 (619) 987-5136



**Location:** Howard Ave @ 30th St

**Date of Count:** Tuesday, March 21, 2017

**Analysts:** LV/CD

**Weather:** Sunny

**AVC Proj No:** 17-0643



# Vehicular Count

Accurate Video Counts Inc  
 info@accuratevideocounts.com  
 (619) 987-5136



**Location:** Howard Ave @ 30th St

| AM Period (7:00 AM - 9:00 AM) |            |            |           |            |            |           |            |            |           |           |            |           |              |
|-------------------------------|------------|------------|-----------|------------|------------|-----------|------------|------------|-----------|-----------|------------|-----------|--------------|
|                               | Southbound |            |           | Westbound  |            |           | Northbound |            |           | Eastbound |            |           | TOTAL        |
|                               | Right      | Thru       | Left      | Right      | Thru       | Left      | Right      | Thru       | Left      | Right     | Thru       | Left      |              |
| 7:00 AM                       | 0          | 29         | 6         | 10         | 38         | 4         | 4          | 55         | 1         | 2         | 17         | 1         | 167          |
| 7:15 AM                       | 2          | 30         | 2         | 14         | 42         | 7         | 6          | 74         | 5         | 2         | 26         | 4         | 214          |
| 7:30 AM                       | 1          | 35         | 7         | 17         | 47         | 5         | 5          | 89         | 7         | 1         | 19         | 1         | 234          |
| 7:45 AM                       | 1          | 49         | 3         | 8          | 56         | 9         | 10         | 68         | 5         | 4         | 41         | 3         | 257          |
| 8:00 AM                       | 4          | 53         | 8         | 10         | 51         | 6         | 5          | 69         | 6         | 6         | 32         | 4         | 254          |
| 8:15 AM                       | 5          | 48         | 4         | 14         | 35         | 12        | 7          | 83         | 10        | 5         | 21         | 2         | 246          |
| 8:30 AM                       | 2          | 50         | 5         | 15         | 51         | 8         | 6          | 73         | 5         | 4         | 31         | 3         | 253          |
| 8:45 AM                       | 4          | 55         | 5         | 19         | 49         | 5         | 6          | 68         | 11        | 6         | 27         | 5         | 260          |
| <b>Total</b>                  | <b>19</b>  | <b>349</b> | <b>40</b> | <b>107</b> | <b>369</b> | <b>56</b> | <b>49</b>  | <b>579</b> | <b>50</b> | <b>30</b> | <b>214</b> | <b>23</b> | <b>1,885</b> |

AM Intersection Peak Hour : **8:00 AM - 9:00 AM**

Intersection PHF : **0.97**

|              | Southbound |      |      | Westbound |      |      | Northbound |      |      | Eastbound |      |      | TOTAL |
|--------------|------------|------|------|-----------|------|------|------------|------|------|-----------|------|------|-------|
|              | Right      | Thru | Left | Right     | Thru | Left | Right      | Thru | Left | Right     | Thru | Left |       |
| Volume       | 15         | 206  | 22   | 58        | 186  | 31   | 24         | 293  | 32   | 21        | 111  | 14   | 1,013 |
| PHF          | 0.75       | 0.94 | 0.69 | 0.76      | 0.91 | 0.65 | 0.86       | 0.88 | 0.73 | 0.88      | 0.87 | 0.70 | 0.97  |
| Movement PHF |            | 0.93 |      |           | 0.93 |      |            | 0.87 |      |           | 0.87 |      | 0.97  |

| PM Period (4:00 PM - 6:00 PM) |            |            |            |            |            |           |            |            |           |           |            |           |              |
|-------------------------------|------------|------------|------------|------------|------------|-----------|------------|------------|-----------|-----------|------------|-----------|--------------|
|                               | Southbound |            |            | Westbound  |            |           | Northbound |            |           | Eastbound |            |           | TOTAL        |
|                               | Right      | Thru       | Left       | Right      | Thru       | Left      | Right      | Thru       | Left      | Right     | Thru       | Left      |              |
| 4:00 PM                       | 4          | 67         | 17         | 19         | 31         | 9         | 10         | 72         | 7         | 7         | 39         | 3         | 285          |
| 4:15 PM                       | 3          | 75         | 15         | 13         | 37         | 10        | 17         | 76         | 8         | 10        | 60         | 7         | 331          |
| 4:30 PM                       | 4          | 65         | 12         | 18         | 33         | 9         | 8          | 64         | 7         | 6         | 65         | 6         | 297          |
| 4:45 PM                       | 5          | 84         | 10         | 14         | 40         | 15        | 13         | 59         | 15        | 16        | 70         | 6         | 347          |
| 5:00 PM                       | 1          | 63         | 28         | 12         | 44         | 8         | 8          | 87         | 10        | 12        | 68         | 7         | 348          |
| 5:15 PM                       | 9          | 78         | 13         | 11         | 44         | 10        | 3          | 77         | 9         | 13        | 76         | 8         | 351          |
| 5:30 PM                       | 6          | 68         | 17         | 10         | 46         | 8         | 9          | 83         | 10        | 14        | 70         | 6         | 347          |
| 5:45 PM                       | 6          | 77         | 16         | 10         | 51         | 8         | 10         | 84         | 9         | 14        | 48         | 6         | 339          |
| <b>Total</b>                  | <b>38</b>  | <b>577</b> | <b>128</b> | <b>107</b> | <b>326</b> | <b>77</b> | <b>78</b>  | <b>602</b> | <b>75</b> | <b>92</b> | <b>496</b> | <b>49</b> | <b>2,645</b> |

PM Intersection Peak Hour : **4:45 PM - 5:45 PM**

Intersection PHF : **0.99**

|              | Southbound |       |       | Westbound |       |       | Northbound |       |       | Eastbound |       |       | TOTAL |
|--------------|------------|-------|-------|-----------|-------|-------|------------|-------|-------|-----------|-------|-------|-------|
|              | Right      | Thru  | Left  | Right     | Thru  | Left  | Right      | Thru  | Left  | Right     | Thru  | Left  |       |
| Volume       | 21         | 293   | 68    | 47        | 174   | 41    | 33         | 306   | 44    | 55        | 284   | 27    | 1393  |
| PHF          | 0.58       | 0.872 | 0.607 | 0.839     | 0.946 | 0.683 | 0.635      | 0.879 | 0.733 | 0.859     | 0.934 | 0.844 | 0.99  |
| Movement PHF |            | 0.96  |       |           | 0.95  |       |            | 0.91  |       |           | 0.94  |       | 0.99  |

# U-Turn Count Summary

Accurate Video Counts Inc  
 info@accuratevideocounts.com  
 (619) 987-1536



**Location:** Howard Ave @ 30th St

| AM Period (7:00 AM - 9:00 AM) |                      |                     |                      |                     |       |
|-------------------------------|----------------------|---------------------|----------------------|---------------------|-------|
|                               | Southbound<br>U-Turn | Westbound<br>U-Turn | Northbound<br>U-Turn | Eastbound<br>U-Turn | TOTAL |
| 7:00 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 7:15 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 7:30 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 7:45 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 8:00 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 8:15 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 8:30 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 8:45 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| Total                         | 0                    | 0                   | 0                    | 0                   | 0     |

AM Intersection Peak Hour : **8:00 AM - 9:00 AM** Intersection PHF : **#DIV/0!**

|              | North Leg<br>EB | East Leg<br>SB | South Leg<br>EB | West Leg<br>SB | TOTAL   |
|--------------|-----------------|----------------|-----------------|----------------|---------|
| Volume       | 0               | 0              | 0               | 0              | 0       |
| PHF          | #DIV/0!         | #DIV/0!        | #DIV/0!         | #DIV/0!        | #DIV/0! |
| Movement PHF | #DIV/0!         | #DIV/0!        | #DIV/0!         | #DIV/0!        | #DIV/0! |

| PM Period (4:00 PM - 6:00 PM) |                      |                     |                      |                     |       |
|-------------------------------|----------------------|---------------------|----------------------|---------------------|-------|
|                               | Southbound<br>U-Turn | Westbound<br>U-Turn | Northbound<br>U-Turn | Eastbound<br>U-Turn | TOTAL |
| 4:00 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 4:15 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 4:30 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 4:45 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 5:00 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 5:15 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 5:30 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 5:45 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| Total                         | 0                    | 0                   | 0                    | 0                   | 0     |

PM Intersection Peak Hour : **4:45 PM - 5:45 PM** Intersection PHF : **#DIV/0!**

|              | North Leg<br>EB | East Leg<br>SB | South Leg<br>EB | West Leg<br>SB | TOTAL   |
|--------------|-----------------|----------------|-----------------|----------------|---------|
| Volume       | 0               | 0              | 0               | 0              | 0       |
| PHF          | #DIV/0!         | #DIV/0!        | #DIV/0!         | #DIV/0!        | #DIV/0! |
| Movement PHF | #DIV/0!         | #DIV/0!        | #DIV/0!         | #DIV/0!        | #DIV/0! |

# Bike Turn Count Summary

Accurate Video Counts Inc  
info@accuratevideocounts.com  
(619) 987-5136



**Location:** Howard Ave @ 30th St

**Date of Count:** Tuesday, March 21, 2017

**Analysts:** LV/CD

**Weather:** Sunny

**AVC Proj No:** 17-0643



# Bike Count

Accurate Video Counts Inc  
 info@accuratevideocounts.com  
 (619) 987-5136



**Location:** Howard Ave @ 30th St

| AM Period (7:00 AM - 9:00 AM) |            |          |          |           |          |          |            |          |          |           |          |          |           |
|-------------------------------|------------|----------|----------|-----------|----------|----------|------------|----------|----------|-----------|----------|----------|-----------|
|                               | Southbound |          |          | Westbound |          |          | Northbound |          |          | Eastbound |          |          | TOTAL     |
|                               | Right      | Thru     | Left     | Right     | Thru     | Left     | Right      | Thru     | Left     | Right     | Thru     | Left     |           |
| 7:00 AM                       | 0          | 0        | 0        | 0         | 0        | 0        | 0          | 1        | 0        | 0         | 1        | 0        | 2         |
| 7:15 AM                       | 0          | 1        | 0        | 0         | 1        | 1        | 0          | 0        | 0        | 0         | 0        | 0        | 3         |
| 7:30 AM                       | 0          | 1        | 1        | 0         | 0        | 0        | 0          | 0        | 0        | 0         | 0        | 0        | 2         |
| 7:45 AM                       | 0          | 1        | 0        | 0         | 1        | 0        | 0          | 0        | 0        | 0         | 0        | 0        | 2         |
| 8:00 AM                       | 0          | 0        | 0        | 0         | 3        | 1        | 0          | 0        | 0        | 0         | 0        | 0        | 4         |
| 8:15 AM                       | 0          | 0        | 0        | 0         | 1        | 0        | 0          | 1        | 0        | 0         | 1        | 0        | 3         |
| 8:30 AM                       | 0          | 0        | 0        | 0         | 0        | 0        | 0          | 1        | 0        | 0         | 1        | 0        | 2         |
| 8:45 AM                       | 0          | 2        | 0        | 0         | 1        | 0        | 0          | 0        | 0        | 0         | 0        | 0        | 3         |
| <b>Total</b>                  | <b>0</b>   | <b>5</b> | <b>1</b> | <b>0</b>  | <b>7</b> | <b>2</b> | <b>0</b>   | <b>3</b> | <b>0</b> | <b>0</b>  | <b>3</b> | <b>0</b> | <b>21</b> |

AM Intersection Peak Hour : **8:00 AM - 9:00 AM**

Intersection PHF : **0.75**

|              | Southbound |      |       | Westbound |      |      | Northbound |      |       | Eastbound |      |       | TOTAL |
|--------------|------------|------|-------|-----------|------|------|------------|------|-------|-----------|------|-------|-------|
|              | Right      | Thru | Left  | Right     | Thru | Left | Right      | Thru | Left  | Right     | Thru | Left  |       |
| Volume       | 0          | 2    | 0     | 0         | 5    | 1    | 0          | 2    | 0     | 0         | 2    | 0     | 12    |
| PHF          | #####      | 0.25 | ##### | #####     | 0.42 | 0.25 | #####      | 0.50 | ##### | #####     | 0.50 | ##### | 0.75  |
| Movement PHF |            | 0.25 |       |           | 0.38 |      |            | 0.50 |       |           | 0.50 |       | 0.75  |

| PM Period (4:00 PM - 6:00 PM) |            |          |          |           |          |          |            |           |          |           |          |          |           |
|-------------------------------|------------|----------|----------|-----------|----------|----------|------------|-----------|----------|-----------|----------|----------|-----------|
|                               | Southbound |          |          | Westbound |          |          | Northbound |           |          | Eastbound |          |          | TOTAL     |
|                               | Right      | Thru     | Left     | Right     | Thru     | Left     | Right      | Thru      | Left     | Right     | Thru     | Left     |           |
| 4:00 PM                       | 0          | 2        | 1        | 0         | 0        | 0        | 0          | 2         | 0        | 0         | 0        | 0        | 5         |
| 4:15 PM                       | 0          | 1        | 0        | 0         | 1        | 0        | 0          | 3         | 1        | 0         | 0        | 2        | 8         |
| 4:30 PM                       | 1          | 1        | 1        | 0         | 2        | 0        | 0          | 3         | 0        | 0         | 1        | 0        | 9         |
| 4:45 PM                       | 0          | 0        | 0        | 0         | 0        | 0        | 0          | 0         | 0        | 1         | 3        | 0        | 4         |
| 5:00 PM                       | 1          | 1        | 1        | 0         | 3        | 1        | 1          | 2         | 2        | 1         | 1        | 0        | 14        |
| 5:15 PM                       | 2          | 0        | 0        | 0         | 0        | 0        | 0          | 3         | 0        | 0         | 1        | 1        | 7         |
| 5:30 PM                       | 0          | 1        | 0        | 0         | 3        | 0        | 1          | 1         | 0        | 0         | 0        | 0        | 6         |
| 5:45 PM                       | 0          | 2        | 0        | 1         | 0        | 0        | 0          | 2         | 0        | 0         | 0        | 0        | 5         |
| <b>Total</b>                  | <b>4</b>   | <b>8</b> | <b>3</b> | <b>1</b>  | <b>9</b> | <b>1</b> | <b>2</b>   | <b>16</b> | <b>3</b> | <b>2</b>  | <b>6</b> | <b>3</b> | <b>58</b> |

PM Intersection Peak Hour : **4:15 PM - 5:15 PM**

Intersection PHF : **0.63**

|              | Southbound |      |      | Westbound |      |      | Northbound |       |       | Eastbound |       |      | TOTAL |
|--------------|------------|------|------|-----------|------|------|------------|-------|-------|-----------|-------|------|-------|
|              | Right      | Thru | Left | Right     | Thru | Left | Right      | Thru  | Left  | Right     | Thru  | Left |       |
| Volume       | 2          | 3    | 2    | 0         | 6    | 1    | 1          | 8     | 3     | 2         | 5     | 2    | 35    |
| PHF          | 0.50       | 0.75 | 0.5  | #####     | 0.5  | 0.25 | 0.25       | 0.667 | 0.375 | 0.5       | 0.417 | 0.25 | 0.63  |
| Movement PHF |            | 0.58 |      |           | 0.44 |      |            | 0.60  |       |           | 0.56  |      | 0.63  |

# Pedestrian Count

Accurate Video Counts Inc  
 info@accuratevideocounts.com  
 (619) 987-1536



**Location:** Howard Ave 30th St

| AM Period (7:00 AM - 9:00 AM) |                    |                   |                    |                   |            |
|-------------------------------|--------------------|-------------------|--------------------|-------------------|------------|
|                               | North Leg<br>Total | East Leg<br>Total | South Leg<br>Total | West Leg<br>Total | TOTAL      |
| 7:00 AM                       | 2                  | 0                 | 2                  | 4                 | 8          |
| 7:15 AM                       | 2                  | 1                 | 3                  | 3                 | 9          |
| 7:30 AM                       | 0                  | 4                 | 3                  | 2                 | 9          |
| 7:45 AM                       | 3                  | 5                 | 13                 | 2                 | 23         |
| 8:00 AM                       | 4                  | 2                 | 4                  | 5                 | 15         |
| 8:15 AM                       | 1                  | 2                 | 5                  | 7                 | 15         |
| 8:30 AM                       | 5                  | 8                 | 2                  | 7                 | 22         |
| 8:45 AM                       | 2                  | 6                 | 10                 | 3                 | 21         |
| <b>Total</b>                  | <b>19</b>          | <b>28</b>         | <b>42</b>          | <b>33</b>         | <b>122</b> |

AM Intersection Peak Hour : **8:00 AM - 9:00 AM** **0.83**

|              | North Leg<br>Total | East Leg<br>Total | South Leg<br>Total | West Leg<br>Total | TOTAL |
|--------------|--------------------|-------------------|--------------------|-------------------|-------|
| Volume       | 12                 | 18                | 21                 | 22                | 146   |
| PHF          | 0.60               | 0.56              | 0.53               | 0.79              | 0.83  |
| Movement PHF | 0.60               | 0.56              | 0.53               | 0.79              | 0.83  |

| PM Period (4:00 PM - 6:00 PM) |                    |                   |                    |                   |            |
|-------------------------------|--------------------|-------------------|--------------------|-------------------|------------|
|                               | North Leg<br>Total | East Leg<br>Total | South Leg<br>Total | West Leg<br>Total | TOTAL      |
| 4:00 PM                       | 5                  | 16                | 7                  | 7                 | 35         |
| 4:15 PM                       | 4                  | 9                 | 10                 | 7                 | 30         |
| 4:30 PM                       | 3                  | 14                | 7                  | 9                 | 33         |
| 4:45 PM                       | 4                  | 20                | 11                 | 8                 | 43         |
| 5:00 PM                       | 9                  | 7                 | 7                  | 8                 | 31         |
| 5:15 PM                       | 5                  | 16                | 5                  | 7                 | 33         |
| 5:30 PM                       | 9                  | 16                | 15                 | 15                | 55         |
| 5:45 PM                       | 10                 | 18                | 22                 | 14                | 64         |
| <b>Total</b>                  | <b>49</b>          | <b>116</b>        | <b>84</b>          | <b>75</b>         | <b>324</b> |

PM Intersection Peak Hour : **4:45 PM - 5:45 PM** **0.74**

|              | North Leg<br>Total | East Leg<br>Total | South Leg<br>Total | West Leg<br>Total | TOTAL |
|--------------|--------------------|-------------------|--------------------|-------------------|-------|
| Volume       | 27                 | 59                | 38                 | 38                | 324   |
| PHF          | 0.75               | 0.7375            | 0.633333333        | 0.633333333       | 0.74  |
| Movement PHF | 0.75               | 0.74              | 0.63               | 0.63              | 0.74  |



# Turn Count Summary

Accurate Video Counts Inc  
 info@accuratevideocounts.com  
 (619) 987-5136



**Location:** Howard Ave @ Illinois St

**Date of Count:** Tuesday, March 21, 2017

**Analysts:** LV/CD

**Weather:** Sunny

**AVC Proj No:** 17-0643



# Vehicular Count

Accurate Video Counts Inc  
 info@accuratevideocounts.com  
 (619) 987-5136



**Location:** Howard Ave @ Illinois St

| AM Period (7:00 AM - 9:00 AM) |            |           |           |           |            |          |            |            |           |           |            |           |              |
|-------------------------------|------------|-----------|-----------|-----------|------------|----------|------------|------------|-----------|-----------|------------|-----------|--------------|
|                               | Southbound |           |           | Westbound |            |          | Northbound |            |           | Eastbound |            |           | TOTAL        |
|                               | Right      | Thru      | Left      | Right     | Thru       | Left     | Right      | Thru       | Left      | Right     | Thru       | Left      |              |
| 7:00 AM                       | 1          | 4         | 1         | 8         | 46         | 0        | 0          | 23         | 1         | 0         | 20         | 8         | 112          |
| 7:15 AM                       | 3          | 12        | 5         | 8         | 57         | 3        | 2          | 30         | 0         | 1         | 21         | 8         | 150          |
| 7:30 AM                       | 7          | 8         | 2         | 16        | 69         | 0        | 2          | 28         | 4         | 2         | 19         | 12        | 169          |
| 7:45 AM                       | 5          | 19        | 3         | 12        | 60         | 0        | 2          | 33         | 0         | 3         | 21         | 9         | 167          |
| 8:00 AM                       | 1          | 8         | 2         | 14        | 62         | 0        | 1          | 30         | 2         | 2         | 23         | 11        | 156          |
| 8:15 AM                       | 5          | 6         | 5         | 13        | 44         | 3        | 3          | 22         | 2         | 0         | 22         | 7         | 132          |
| 8:30 AM                       | 3          | 10        | 3         | 5         | 50         | 1        | 2          | 17         | 1         | 0         | 21         | 13        | 126          |
| 8:45 AM                       | 4          | 7         | 1         | 5         | 47         | 0        | 2          | 25         | 1         | 1         | 24         | 10        | 127          |
| <b>Total</b>                  | <b>29</b>  | <b>74</b> | <b>22</b> | <b>81</b> | <b>435</b> | <b>7</b> | <b>14</b>  | <b>208</b> | <b>11</b> | <b>9</b>  | <b>171</b> | <b>78</b> | <b>1,139</b> |

AM Intersection Peak Hour : **7:15 AM - 8:15 AM**

Intersection PHF : **0.95**

|              | Southbound |      |      | Westbound |      |      | Northbound |      |      | Eastbound |      |      | TOTAL |
|--------------|------------|------|------|-----------|------|------|------------|------|------|-----------|------|------|-------|
|              | Right      | Thru | Left | Right     | Thru | Left | Right      | Thru | Left | Right     | Thru | Left |       |
| Volume       | 16         | 47   | 12   | 50        | 248  | 3    | 7          | 121  | 6    | 8         | 84   | 40   | 642   |
| PHF          | 0.57       | 0.62 | 0.60 | 0.78      | 0.90 | 0.25 | 0.88       | 0.92 | 0.38 | 0.67      | 0.91 | 0.83 | 0.95  |
| Movement PHF | 0.69       |      |      | 0.89      |      |      | 0.96       |      |      | 0.92      |      |      | 0.95  |

| PM Period (4:00 PM - 6:00 PM) |            |            |            |           |            |           |            |            |           |           |            |           |              |
|-------------------------------|------------|------------|------------|-----------|------------|-----------|------------|------------|-----------|-----------|------------|-----------|--------------|
|                               | Southbound |            |            | Westbound |            |           | Northbound |            |           | Eastbound |            |           | TOTAL        |
|                               | Right      | Thru       | Left       | Right     | Thru       | Left      | Right      | Thru       | Left      | Right     | Thru       | Left      |              |
| 4:00 PM                       | 6          | 33         | 13         | 8         | 36         | 3         | 0          | 14         | 3         | 3         | 56         | 12        | 187          |
| 4:15 PM                       | 9          | 44         | 16         | 4         | 40         | 2         | 0          | 20         | 2         | 2         | 71         | 10        | 220          |
| 4:30 PM                       | 5          | 41         | 11         | 2         | 42         | 5         | 1          | 18         | 9         | 2         | 70         | 11        | 217          |
| 4:45 PM                       | 7          | 34         | 10         | 3         | 52         | 2         | 4          | 22         | 0         | 4         | 58         | 8         | 204          |
| 5:00 PM                       | 4          | 32         | 11         | 6         | 52         | 2         | 6          | 29         | 1         | 4         | 73         | 14        | 234          |
| 5:15 PM                       | 10         | 45         | 17         | 3         | 44         | 5         | 5          | 24         | 3         | 2         | 65         | 7         | 230          |
| 5:30 PM                       | 10         | 31         | 15         | 3         | 38         | 3         | 6          | 18         | 4         | 4         | 74         | 14        | 220          |
| 5:45 PM                       | 10         | 38         | 14         | 5         | 42         | 2         | 2          | 21         | 6         | 2         | 51         | 11        | 204          |
| <b>Total</b>                  | <b>61</b>  | <b>298</b> | <b>107</b> | <b>34</b> | <b>346</b> | <b>24</b> | <b>24</b>  | <b>166</b> | <b>28</b> | <b>23</b> | <b>518</b> | <b>87</b> | <b>1,716</b> |

PM Intersection Peak Hour : **4:45 PM - 5:45 PM**

Intersection PHF : **0.95**

|              | Southbound |       |       | Westbound |       |      | Northbound |       |      | Eastbound |       |       | TOTAL |
|--------------|------------|-------|-------|-----------|-------|------|------------|-------|------|-----------|-------|-------|-------|
|              | Right      | Thru  | Left  | Right     | Thru  | Left | Right      | Thru  | Left | Right     | Thru  | Left  |       |
| Volume       | 31         | 142   | 53    | 15        | 186   | 12   | 21         | 93    | 8    | 14        | 270   | 43    | 888   |
| PHF          | 0.78       | 0.789 | 0.779 | 0.625     | 0.894 | 0.6  | 0.875      | 0.802 | 0.5  | 0.875     | 0.912 | 0.768 | 0.95  |
| Movement PHF | 0.78       |       |       | 0.89      |       |      | 0.85       |       |      | 0.89      |       |       | 0.95  |

# U-Turn Count Summary

Accurate Video Counts Inc  
 info@accuratevideocounts.com  
 (619) 987-1536



**Location:** Howard Ave @ Illinois St

| AM Period (7:00 AM - 9:00 AM) |                      |                     |                      |                     |       |
|-------------------------------|----------------------|---------------------|----------------------|---------------------|-------|
|                               | Southbound<br>U-Turn | Westbound<br>U-Turn | Northbound<br>U-Turn | Eastbound<br>U-Turn | TOTAL |
| 7:00 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 7:15 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 7:30 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 7:45 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 8:00 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 8:15 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 8:30 AM                       | 0                    | 0                   | 1                    | 0                   | 1     |
| 8:45 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| Total                         | 0                    | 0                   | 1                    | 0                   | 1     |

AM Intersection Peak Hour : **7:15 AM - 8:15 AM** Intersection PHF : **#DIV/0!**

|              | North Leg<br>EB | East Leg<br>SB | South Leg<br>EB | West Leg<br>SB | TOTAL   |
|--------------|-----------------|----------------|-----------------|----------------|---------|
| Volume       | 0               | 0              | 0               | 0              | 0       |
| PHF          | #DIV/0!         | #DIV/0!        | #DIV/0!         | #DIV/0!        | #DIV/0! |
| Movement PHF | #DIV/0!         | #DIV/0!        | #DIV/0!         | #DIV/0!        | #DIV/0! |

| PM Period (4:00 PM - 6:00 PM) |                      |                     |                      |                     |       |
|-------------------------------|----------------------|---------------------|----------------------|---------------------|-------|
|                               | Southbound<br>U-Turn | Westbound<br>U-Turn | Northbound<br>U-Turn | Eastbound<br>U-Turn | TOTAL |
| 4:00 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 4:15 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 4:30 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 4:45 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 5:00 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 5:15 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 5:30 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 5:45 PM                       | 1                    | 0                   | 0                    | 0                   | 1     |
| Total                         | 1                    | 0                   | 0                    | 0                   | 1     |

PM Intersection Peak Hour : **4:45 PM - 5:45 PM** Intersection PHF : **#DIV/0!**

|              | North Leg<br>EB | East Leg<br>SB | South Leg<br>EB | West Leg<br>SB | TOTAL   |
|--------------|-----------------|----------------|-----------------|----------------|---------|
| Volume       | 0               | 0              | 0               | 0              | 0       |
| PHF          | #DIV/0!         | #DIV/0!        | #DIV/0!         | #DIV/0!        | #DIV/0! |
| Movement PHF | #DIV/0!         | #DIV/0!        | #DIV/0!         | #DIV/0!        | #DIV/0! |

# Bike Turn Count Summary

Accurate Video Counts Inc  
 info@accuratevideocounts.com  
 (619) 987-5136



**Location:** Howard Ave @ Illinois St

**Date of Count:** Tuesday, March 21, 2017

**Analysts:** LV/CD

**Weather:** Sunny

**AVC Proj No:** 17-0643



# Bike Count

Accurate Video Counts Inc  
 info@accuratevideocounts.com  
 (619) 987-5136



**Location:** Howard Ave @ Illinois St

| AM Period (7:00 AM - 9:00 AM) |            |          |          |           |           |          |            |          |          |           |          |          |           |
|-------------------------------|------------|----------|----------|-----------|-----------|----------|------------|----------|----------|-----------|----------|----------|-----------|
|                               | Southbound |          |          | Westbound |           |          | Northbound |          |          | Eastbound |          |          | TOTAL     |
|                               | Right      | Thru     | Left     | Right     | Thru      | Left     | Right      | Thru     | Left     | Right     | Thru     | Left     |           |
| 7:00 AM                       | 1          | 0        | 0        | 0         | 1         | 0        | 0          | 0        | 0        | 0         | 1        | 0        | 3         |
| 7:15 AM                       | 0          | 0        | 0        | 0         | 2         | 0        | 0          | 0        | 0        | 0         | 0        | 0        | 2         |
| 7:30 AM                       | 0          | 0        | 0        | 0         | 0         | 0        | 0          | 0        | 0        | 0         | 0        | 0        | 0         |
| 7:45 AM                       | 0          | 0        | 0        | 0         | 4         | 0        | 0          | 0        | 0        | 0         | 0        | 0        | 4         |
| 8:00 AM                       | 0          | 0        | 0        | 0         | 1         | 0        | 0          | 1        | 0        | 0         | 0        | 0        | 2         |
| 8:15 AM                       | 0          | 1        | 0        | 0         | 0         | 0        | 0          | 1        | 0        | 0         | 1        | 0        | 3         |
| 8:30 AM                       | 0          | 1        | 0        | 0         | 3         | 0        | 1          | 0        | 0        | 0         | 0        | 0        | 5         |
| 8:45 AM                       | 0          | 2        | 0        | 0         | 1         | 0        | 0          | 0        | 0        | 0         | 0        | 0        | 3         |
| <b>Total</b>                  | <b>1</b>   | <b>4</b> | <b>0</b> | <b>0</b>  | <b>12</b> | <b>0</b> | <b>1</b>   | <b>2</b> | <b>0</b> | <b>0</b>  | <b>2</b> | <b>0</b> | <b>22</b> |

AM Intersection Peak Hour : **7:45 AM - 8:45 AM**

Intersection PHF : **0.70**

|              | Southbound |      |       | Westbound |      |       | Northbound |      |       | Eastbound |      |       | TOTAL |
|--------------|------------|------|-------|-----------|------|-------|------------|------|-------|-----------|------|-------|-------|
|              | Right      | Thru | Left  | Right     | Thru | Left  | Right      | Thru | Left  | Right     | Thru | Left  |       |
| Volume       | 0          | 2    | 0     | 0         | 8    | 0     | 1          | 2    | 0     | 0         | 1    | 0     | 14    |
| PHF          | #####      | 0.50 | ##### | #####     | 0.50 | ##### | 0.25       | 0.50 | ##### | #####     | 0.25 | ##### | 0.70  |
| Movement PHF |            | 0.50 |       |           | 0.50 |       |            | 0.75 |       |           | 0.25 |       | 0.70  |

| PM Period (4:00 PM - 6:00 PM) |            |          |          |           |           |          |            |          |          |           |          |          |           |
|-------------------------------|------------|----------|----------|-----------|-----------|----------|------------|----------|----------|-----------|----------|----------|-----------|
|                               | Southbound |          |          | Westbound |           |          | Northbound |          |          | Eastbound |          |          | TOTAL     |
|                               | Right      | Thru     | Left     | Right     | Thru      | Left     | Right      | Thru     | Left     | Right     | Thru     | Left     |           |
| 4:00 PM                       | 0          | 0        | 0        | 1         | 0         | 0        | 0          | 0        | 0        | 0         | 1        | 0        | 2         |
| 4:15 PM                       | 0          | 0        | 0        | 0         | 1         | 0        | 0          | 1        | 0        | 0         | 0        | 0        | 2         |
| 4:30 PM                       | 1          | 0        | 0        | 0         | 1         | 0        | 1          | 0        | 0        | 0         | 1        | 0        | 4         |
| 4:45 PM                       | 0          | 1        | 0        | 0         | 0         | 0        | 0          | 0        | 1        | 0         | 2        | 0        | 4         |
| 5:00 PM                       | 0          | 0        | 0        | 0         | 2         | 0        | 0          | 1        | 0        | 0         | 2        | 0        | 5         |
| 5:15 PM                       | 0          | 0        | 1        | 0         | 2         | 0        | 0          | 1        | 0        | 0         | 1        | 0        | 5         |
| 5:30 PM                       | 0          | 0        | 0        | 0         | 5         | 0        | 0          | 0        | 0        | 0         | 1        | 0        | 6         |
| 5:45 PM                       | 0          | 0        | 0        | 0         | 3         | 0        | 0          | 0        | 0        | 0         | 1        | 0        | 4         |
| <b>Total</b>                  | <b>1</b>   | <b>1</b> | <b>1</b> | <b>1</b>  | <b>14</b> | <b>0</b> | <b>1</b>   | <b>3</b> | <b>1</b> | <b>0</b>  | <b>9</b> | <b>0</b> | <b>32</b> |

PM Intersection Peak Hour : **4:45 PM - 5:45 PM**

Intersection PHF : **0.83**

|              | Southbound |      |      | Westbound |      |       | Northbound |      |      | Eastbound |      |       | TOTAL |
|--------------|------------|------|------|-----------|------|-------|------------|------|------|-----------|------|-------|-------|
|              | Right      | Thru | Left | Right     | Thru | Left  | Right      | Thru | Left | Right     | Thru | Left  |       |
| Volume       | 0          | 1    | 1    | 0         | 9    | 0     | 0          | 2    | 1    | 0         | 6    | 0     | 20    |
| PHF          | #####      | 0.25 | 0.25 | #####     | 0.45 | ##### | #####      | 0.5  | 0.25 | #####     | 0.75 | ##### | 0.83  |
| Movement PHF |            | 0.50 |      |           | 0.45 |       |            | 0.75 |      |           | 0.75 |       | 0.83  |

# Pedestrian Count

Accurate Video Counts Inc  
 info@accuratevideocounts.com  
 (619) 987-1536



**Location:** Howard Ave Illinois St

| AM Period (7:00 AM - 9:00 AM) |                    |                   |                    |                   |           |
|-------------------------------|--------------------|-------------------|--------------------|-------------------|-----------|
|                               | North Leg<br>Total | East Leg<br>Total | South Leg<br>Total | West Leg<br>Total | TOTAL     |
| 7:00 AM                       | 1                  | 1                 | 3                  | 0                 | 5         |
| 7:15 AM                       | 1                  | 0                 | 5                  | 0                 | 6         |
| 7:30 AM                       | 1                  | 1                 | 2                  | 2                 | 6         |
| 7:45 AM                       | 2                  | 2                 | 4                  | 4                 | 12        |
| 8:00 AM                       | 0                  | 1                 | 2                  | 0                 | 3         |
| 8:15 AM                       | 0                  | 0                 | 4                  | 1                 | 5         |
| 8:30 AM                       | 2                  | 1                 | 4                  | 2                 | 9         |
| 8:45 AM                       | 0                  | 2                 | 2                  | 2                 | 6         |
| <b>Total</b>                  | <b>7</b>           | <b>8</b>          | <b>26</b>          | <b>11</b>         | <b>52</b> |

AM Intersection Peak Hour : **7:15 AM - 8:15 AM** **0.56**

|              | North Leg<br>Total | East Leg<br>Total | South Leg<br>Total | West Leg<br>Total | TOTAL |
|--------------|--------------------|-------------------|--------------------|-------------------|-------|
| Volume       | 4                  | 4                 | 13                 | 6                 | 54    |
| PHF          | 0.50               | 0.50              | 0.65               | 0.38              | 0.56  |
| Movement PHF | 0.50               | 0.50              | 0.65               | 0.38              | 0.56  |

| PM Period (4:00 PM - 6:00 PM) |                    |                   |                    |                   |           |
|-------------------------------|--------------------|-------------------|--------------------|-------------------|-----------|
|                               | North Leg<br>Total | East Leg<br>Total | South Leg<br>Total | West Leg<br>Total | TOTAL     |
| 4:00 PM                       | 2                  | 0                 | 2                  | 1                 | 5         |
| 4:15 PM                       | 3                  | 1                 | 6                  | 3                 | 13        |
| 4:30 PM                       | 2                  | 2                 | 3                  | 2                 | 9         |
| 4:45 PM                       | 0                  | 3                 | 3                  | 4                 | 10        |
| 5:00 PM                       | 2                  | 0                 | 3                  | 0                 | 5         |
| 5:15 PM                       | 1                  | 0                 | 3                  | 1                 | 5         |
| 5:30 PM                       | 2                  | 0                 | 4                  | 1                 | 7         |
| 5:45 PM                       | 1                  | 4                 | 11                 | 3                 | 19        |
| <b>Total</b>                  | <b>13</b>          | <b>10</b>         | <b>35</b>          | <b>15</b>         | <b>73</b> |

PM Intersection Peak Hour : **4:45 PM - 5:45 PM** **0.68**

|              | North Leg<br>Total | East Leg<br>Total | South Leg<br>Total | West Leg<br>Total | TOTAL |
|--------------|--------------------|-------------------|--------------------|-------------------|-------|
| Volume       | 5                  | 3                 | 13                 | 6                 | 54    |
| PHF          | 0.625              | 0.25              | 0.8125             | 0.375             | 0.68  |
| Movement PHF | 0.63               | 0.25              | 0.81               | 0.38              | 0.68  |

# Turn Count Summary

Accurate Video Counts Inc  
 info@accuratevideocounts.com  
 (619) 987-5136



**Location:** Howard Ave @ 32nd St

**Date of Count:** Tuesday, March 21, 2017

**Analysts:** LV/CD

**Weather:** Sunny

**AVC Proj No:** 17-0643



# Vehicular Count

Accurate Video Counts Inc  
 info@accuratevideocounts.com  
 (619) 987-5136



**Location:** Howard Ave @ 32nd St

| AM Period (7:00 AM - 9:00 AM) |            |          |          |           |            |           |            |          |           |           |            |          |            |
|-------------------------------|------------|----------|----------|-----------|------------|-----------|------------|----------|-----------|-----------|------------|----------|------------|
|                               | Southbound |          |          | Westbound |            |           | Northbound |          |           | Eastbound |            |          | TOTAL      |
|                               | Right      | Thru     | Left     | Right     | Thru       | Left      | Right      | Thru     | Left      | Right     | Thru       | Left     |            |
| 7:00 AM                       | 0          | 0        | 0        | 1         | 51         | 2         | 4          | 0        | 7         | 2         | 17         | 0        | 84         |
| 7:15 AM                       | 2          | 0        | 0        | 0         | 59         | 6         | 3          | 0        | 11        | 3         | 21         | 1        | 106        |
| 7:30 AM                       | 0          | 0        | 0        | 0         | 70         | 6         | 3          | 0        | 7         | 3         | 20         | 1        | 110        |
| 7:45 AM                       | 2          | 0        | 0        | 0         | 76         | 4         | 10         | 0        | 7         | 3         | 25         | 0        | 127        |
| 8:00 AM                       | 0          | 0        | 0        | 0         | 65         | 9         | 3          | 1        | 7         | 5         | 17         | 0        | 107        |
| 8:15 AM                       | 1          | 0        | 0        | 0         | 60         | 9         | 11         | 0        | 5         | 3         | 21         | 0        | 110        |
| 8:30 AM                       | 0          | 0        | 0        | 1         | 55         | 7         | 7          | 1        | 8         | 0         | 17         | 1        | 97         |
| 8:45 AM                       | 0          | 0        | 0        | 0         | 56         | 2         | 11         | 0        | 5         | 3         | 23         | 0        | 100        |
| <b>Total</b>                  | <b>5</b>   | <b>0</b> | <b>0</b> | <b>2</b>  | <b>492</b> | <b>45</b> | <b>52</b>  | <b>2</b> | <b>57</b> | <b>22</b> | <b>161</b> | <b>3</b> | <b>841</b> |

AM Intersection Peak Hour : **7:30 AM - 8:30 AM**

Intersection PHF : **0.89**

|              | Southbound |       |       | Westbound |      |      | Northbound |      |      | Eastbound |      |      | TOTAL |
|--------------|------------|-------|-------|-----------|------|------|------------|------|------|-----------|------|------|-------|
|              | Right      | Thru  | Left  | Right     | Thru | Left | Right      | Thru | Left | Right     | Thru | Left |       |
| Volume       | 3          | 0     | 0     | 0         | 271  | 28   | 27         | 1    | 26   | 14        | 83   | 1    | 454   |
| PHF          | 0.38       | ##### | ##### | #####     | 0.89 | 0.78 | 0.61       | 0.25 | 0.93 | 0.70      | 0.83 | 0.25 | 0.89  |
| Movement PHF |            | 0.38  |       |           | 0.93 |      |            | 0.79 |      |           | 0.88 |      | 0.89  |

| PM Period (4:00 PM - 6:00 PM) |            |          |          |           |            |           |            |          |           |           |            |          |              |
|-------------------------------|------------|----------|----------|-----------|------------|-----------|------------|----------|-----------|-----------|------------|----------|--------------|
|                               | Southbound |          |          | Westbound |            |           | Northbound |          |           | Eastbound |            |          | TOTAL        |
|                               | Right      | Thru     | Left     | Right     | Thru       | Left      | Right      | Thru     | Left      | Right     | Thru       | Left     |              |
| 4:00 PM                       | 0          | 0        | 0        | 0         | 52         | 8         | 10         | 0        | 9         | 16        | 47         | 1        | 143          |
| 4:15 PM                       | 1          | 0        | 0        | 1         | 44         | 12        | 14         | 1        | 2         | 20        | 63         | 0        | 158          |
| 4:30 PM                       | 0          | 0        | 0        | 0         | 48         | 8         | 10         | 0        | 6         | 11        | 66         | 0        | 149          |
| 4:45 PM                       | 0          | 0        | 0        | 0         | 62         | 11        | 14         | 0        | 5         | 5         | 64         | 1        | 162          |
| 5:00 PM                       | 0          | 0        | 0        | 2         | 64         | 11        | 14         | 0        | 5         | 3         | 80         | 0        | 179          |
| 5:15 PM                       | 1          | 0        | 0        | 0         | 55         | 8         | 16         | 2        | 4         | 9         | 37         | 2        | 134          |
| 5:30 PM                       | 0          | 0        | 0        | 0         | 51         | 5         | 8          | 1        | 1         | 13        | 79         | 1        | 159          |
| 5:45 PM                       | 1          | 0        | 1        | 0         | 53         | 10        | 13         | 0        | 3         | 15        | 46         | 0        | 142          |
| <b>Total</b>                  | <b>3</b>   | <b>0</b> | <b>1</b> | <b>3</b>  | <b>429</b> | <b>73</b> | <b>99</b>  | <b>4</b> | <b>35</b> | <b>92</b> | <b>482</b> | <b>5</b> | <b>1,226</b> |

PM Intersection Peak Hour : **4:15 PM - 5:15 PM**

Intersection PHF : **0.91**

|              | Southbound |       |       | Westbound |       |       | Northbound |      |      | Eastbound |       |      | TOTAL |
|--------------|------------|-------|-------|-----------|-------|-------|------------|------|------|-----------|-------|------|-------|
|              | Right      | Thru  | Left  | Right     | Thru  | Left  | Right      | Thru | Left | Right     | Thru  | Left |       |
| Volume       | 1          | 0     | 0     | 3         | 218   | 42    | 52         | 1    | 18   | 39        | 273   | 1    | 648   |
| PHF          | 0.25       | ##### | ##### | 0.375     | 0.852 | 0.875 | 0.929      | 0.25 | 0.75 | 0.488     | 0.853 | 0.25 | 0.91  |
| Movement PHF |            | 0.25  |       |           | 0.85  |       |            | 0.93 |      |           | 0.94  |      | 0.91  |



# U-Turn Count Summary

Accurate Video Counts Inc  
 info@accuratevideocounts.com  
 (619) 987-1536



**Location:** Howard Ave @ 32nd St

| AM Period (7:00 AM - 9:00 AM) |                      |                     |                      |                     |       |
|-------------------------------|----------------------|---------------------|----------------------|---------------------|-------|
|                               | Southbound<br>U-Turn | Westbound<br>U-Turn | Northbound<br>U-Turn | Eastbound<br>U-Turn | TOTAL |
| 7:00 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 7:15 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 7:30 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 7:45 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 8:00 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 8:15 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 8:30 AM                       | 0                    | 0                   | 0                    | 1                   | 1     |
| 8:45 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| Total                         | 0                    | 0                   | 0                    | 1                   | 1     |

AM Intersection Peak Hour : **7:30 AM - 8:30 AM** Intersection PHF : **#DIV/0!**

|              | North Leg<br>EB | East Leg<br>SB | South Leg<br>EB | West Leg<br>SB | TOTAL   |
|--------------|-----------------|----------------|-----------------|----------------|---------|
| Volume       | 0               | 0              | 0               | 0              | 0       |
| PHF          | #DIV/0!         | #DIV/0!        | #DIV/0!         | #DIV/0!        | #DIV/0! |
| Movement PHF | #DIV/0!         | #DIV/0!        | #DIV/0!         | #DIV/0!        | #DIV/0! |

| PM Period (4:00 PM - 6:00 PM) |                      |                     |                      |                     |       |
|-------------------------------|----------------------|---------------------|----------------------|---------------------|-------|
|                               | Southbound<br>U-Turn | Westbound<br>U-Turn | Northbound<br>U-Turn | Eastbound<br>U-Turn | TOTAL |
| 4:00 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 4:15 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 4:30 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 4:45 PM                       | 0                    | 0                   | 1                    | 0                   | 1     |
| 5:00 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 5:15 PM                       | 0                    | 0                   | 0                    | 1                   | 1     |
| 5:30 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 5:45 PM                       | 0                    | 0                   | 0                    | 2                   | 2     |
| Total                         | 0                    | 0                   | 1                    | 3                   | 4     |

PM Intersection Peak Hour : **4:15 PM - 5:15 PM** Intersection PHF : **0.25**

|              | North Leg<br>EB | East Leg<br>SB | South Leg<br>EB | West Leg<br>SB | TOTAL |
|--------------|-----------------|----------------|-----------------|----------------|-------|
| Volume       | 0               | 0              | 1               | 0              | 1     |
| PHF          | #DIV/0!         | #DIV/0!        | 0.25            | #DIV/0!        | 0.25  |
| Movement PHF | #DIV/0!         | #DIV/0!        | 0.25            | #DIV/0!        | 0.25  |

# Bike Turn Count Summary

Accurate Video Counts Inc  
info@accuratevideocounts.com  
(619) 987-5136



**Location:** Howard Ave @ 32nd St

**Date of Count:** Tuesday, March 21, 2017

**Analysts:** LV/CD

**Weather:** Sunny

**AVC Proj No:** 17-0643



# Bike Count

Accurate Video Counts Inc  
 info@accuratevideocounts.com  
 (619) 987-5136



**Location:** Howard Ave @ 32nd St

| AM Period (7:00 AM - 9:00 AM) |            |          |          |           |           |          |            |          |          |           |          |          |           |
|-------------------------------|------------|----------|----------|-----------|-----------|----------|------------|----------|----------|-----------|----------|----------|-----------|
|                               | Southbound |          |          | Westbound |           |          | Northbound |          |          | Eastbound |          |          | TOTAL     |
|                               | Right      | Thru     | Left     | Right     | Thru      | Left     | Right      | Thru     | Left     | Right     | Thru     | Left     |           |
| 7:00 AM                       | 0          | 0        | 0        | 0         | 0         | 0        | 0          | 0        | 0        | 0         | 1        | 0        | 1         |
| 7:15 AM                       | 0          | 0        | 0        | 0         | 2         | 0        | 0          | 0        | 0        | 0         | 1        | 0        | 3         |
| 7:30 AM                       | 0          | 0        | 0        | 0         | 2         | 0        | 0          | 0        | 0        | 0         | 0        | 0        | 2         |
| 7:45 AM                       | 0          | 0        | 0        | 0         | 1         | 0        | 0          | 0        | 0        | 0         | 0        | 0        | 1         |
| 8:00 AM                       | 0          | 0        | 0        | 0         | 1         | 0        | 1          | 0        | 0        | 0         | 0        | 0        | 2         |
| 8:15 AM                       | 0          | 0        | 0        | 0         | 2         | 0        | 0          | 1        | 0        | 0         | 1        | 0        | 4         |
| 8:30 AM                       | 0          | 0        | 0        | 0         | 0         | 0        | 0          | 1        | 0        | 0         | 1        | 0        | 2         |
| 8:45 AM                       | 0          | 0        | 0        | 0         | 2         | 0        | 0          | 0        | 0        | 0         | 0        | 0        | 2         |
| <b>Total</b>                  | <b>0</b>   | <b>0</b> | <b>0</b> | <b>0</b>  | <b>10</b> | <b>0</b> | <b>1</b>   | <b>2</b> | <b>0</b> | <b>0</b>  | <b>4</b> | <b>0</b> | <b>17</b> |

AM Intersection Peak Hour : **8:00 AM - 9:00 AM**

Intersection PHF : **0.63**

|              | Southbound |       |       | Westbound |      |       | Northbound |      |       | Eastbound |      |       | TOTAL |
|--------------|------------|-------|-------|-----------|------|-------|------------|------|-------|-----------|------|-------|-------|
|              | Right      | Thru  | Left  | Right     | Thru | Left  | Right      | Thru | Left  | Right     | Thru | Left  |       |
| Volume       | 0          | 0     | 0     | 0         | 5    | 0     | 1          | 2    | 0     | 0         | 2    | 0     | 10    |
| PHF          | #####      | ##### | ##### | #####     | 0.63 | ##### | 0.25       | 0.50 | ##### | #####     | 0.50 | ##### | 0.63  |
| Movement PHF | #DIV/0!    |       |       | 0.63      |      |       | 0.75       |      |       | 0.50      |      |       | 0.63  |

| PM Period (4:00 PM - 6:00 PM) |            |          |          |           |           |          |            |          |          |           |           |          |           |
|-------------------------------|------------|----------|----------|-----------|-----------|----------|------------|----------|----------|-----------|-----------|----------|-----------|
|                               | Southbound |          |          | Westbound |           |          | Northbound |          |          | Eastbound |           |          | TOTAL     |
|                               | Right      | Thru     | Left     | Right     | Thru      | Left     | Right      | Thru     | Left     | Right     | Thru      | Left     |           |
| 4:00 PM                       | 0          | 0        | 0        | 0         | 1         | 0        | 0          | 0        | 0        | 0         | 1         | 0        | 2         |
| 4:15 PM                       | 0          | 0        | 1        | 1         | 1         | 0        | 1          | 0        | 0        | 0         | 1         | 0        | 5         |
| 4:30 PM                       | 0          | 0        | 0        | 0         | 2         | 0        | 0          | 0        | 0        | 0         | 3         | 0        | 5         |
| 4:45 PM                       | 0          | 0        | 0        | 0         | 0         | 0        | 0          | 0        | 0        | 0         | 2         | 0        | 2         |
| 5:00 PM                       | 0          | 0        | 0        | 0         | 2         | 1        | 0          | 0        | 0        | 0         | 3         | 0        | 6         |
| 5:15 PM                       | 1          | 0        | 0        | 0         | 2         | 0        | 0          | 0        | 0        | 0         | 2         | 0        | 5         |
| 5:30 PM                       | 0          | 0        | 0        | 0         | 5         | 0        | 0          | 0        | 0        | 0         | 2         | 0        | 7         |
| 5:45 PM                       | 0          | 0        | 0        | 0         | 3         | 0        | 0          | 0        | 0        | 0         | 1         | 0        | 4         |
| <b>Total</b>                  | <b>1</b>   | <b>0</b> | <b>1</b> | <b>1</b>  | <b>16</b> | <b>1</b> | <b>1</b>   | <b>0</b> | <b>0</b> | <b>0</b>  | <b>15</b> | <b>0</b> | <b>36</b> |

PM Intersection Peak Hour : **5:00 PM - 6:00 PM**

Intersection PHF : **0.79**

|              | Southbound |       |       | Westbound |      |      | Northbound |       |       | Eastbound |       |       | TOTAL |
|--------------|------------|-------|-------|-----------|------|------|------------|-------|-------|-----------|-------|-------|-------|
|              | Right      | Thru  | Left  | Right     | Thru | Left | Right      | Thru  | Left  | Right     | Thru  | Left  |       |
| Volume       | 1          | 0     | 0     | 0         | 12   | 1    | 0          | 0     | 0     | 0         | 8     | 0     | 22    |
| PHF          | 0.25       | ##### | ##### | #####     | 0.6  | 0.25 | #####      | ##### | ##### | #####     | 0.667 | ##### | 0.79  |
| Movement PHF | 0.25       |       |       | 0.65      |      |      | #DIV/0!    |       |       | 0.67      |       |       | 0.79  |

# Pedestrian Count

Accurate Video Counts Inc  
 info@accuratevideocounts.com  
 (619) 987-1536



**Location:** Howard Ave 32nd St

| AM Period (7:00 AM - 9:00 AM) |                    |                   |                    |                   |           |
|-------------------------------|--------------------|-------------------|--------------------|-------------------|-----------|
|                               | North Leg<br>Total | East Leg<br>Total | South Leg<br>Total | West Leg<br>Total | TOTAL     |
| 7:00 AM                       | 1                  | 0                 | 3                  | 0                 | 4         |
| 7:15 AM                       | 3                  | 0                 | 4                  | 1                 | 8         |
| 7:30 AM                       | 2                  | 0                 | 2                  | 0                 | 4         |
| 7:45 AM                       | 2                  | 0                 | 1                  | 0                 | 3         |
| 8:00 AM                       | 3                  | 0                 | 3                  | 0                 | 6         |
| 8:15 AM                       | 1                  | 0                 | 2                  | 1                 | 4         |
| 8:30 AM                       | 2                  | 0                 | 4                  | 0                 | 6         |
| 8:45 AM                       | 3                  | 0                 | 5                  | 0                 | 8         |
| <b>Total</b>                  | <b>17</b>          | <b>0</b>          | <b>24</b>          | <b>2</b>          | <b>43</b> |

AM Intersection Peak Hour : **7:30 AM - 8:30 AM** **0.71**

|              | North Leg<br>Total | East Leg<br>Total | South Leg<br>Total | West Leg<br>Total | TOTAL |
|--------------|--------------------|-------------------|--------------------|-------------------|-------|
| Volume       | 8                  | 0                 | 8                  | 1                 | 34    |
| PHF          | 0.67               | #DIV/0!           | 0.67               | 0.25              | 0.71  |
| Movement PHF | 0.67               | #DIV/0!           | 0.67               | 0.25              | 0.71  |

| PM Period (4:00 PM - 6:00 PM) |                    |                   |                    |                   |           |
|-------------------------------|--------------------|-------------------|--------------------|-------------------|-----------|
|                               | North Leg<br>Total | East Leg<br>Total | South Leg<br>Total | West Leg<br>Total | TOTAL     |
| 4:00 PM                       | 0                  | 0                 | 2                  | 0                 | 2         |
| 4:15 PM                       | 0                  | 0                 | 1                  | 0                 | 1         |
| 4:30 PM                       | 1                  | 1                 | 1                  | 0                 | 3         |
| 4:45 PM                       | 0                  | 1                 | 3                  | 0                 | 4         |
| 5:00 PM                       | 4                  | 0                 | 3                  | 0                 | 7         |
| 5:15 PM                       | 1                  | 0                 | 18                 | 1                 | 20        |
| 5:30 PM                       | 2                  | 0                 | 5                  | 0                 | 7         |
| 5:45 PM                       | 1                  | 0                 | 3                  | 0                 | 4         |
| <b>Total</b>                  | <b>9</b>           | <b>2</b>          | <b>36</b>          | <b>1</b>          | <b>48</b> |

PM Intersection Peak Hour : **4:15 PM - 5:15 PM** **0.54**

|              | North Leg<br>Total | East Leg<br>Total | South Leg<br>Total | West Leg<br>Total | TOTAL |
|--------------|--------------------|-------------------|--------------------|-------------------|-------|
| Volume       | 5                  | 2                 | 8                  | 0                 | 30    |
| PHF          | 0.3125             | 0.5               | 0.666666667        | #DIV/0!           | 0.54  |
| Movement PHF | 0.31               | 0.50              | 0.67               | #DIV/0!           | 0.54  |

# ITM Peak Hour Summary

Prepared by:



National Data & Surveying Services

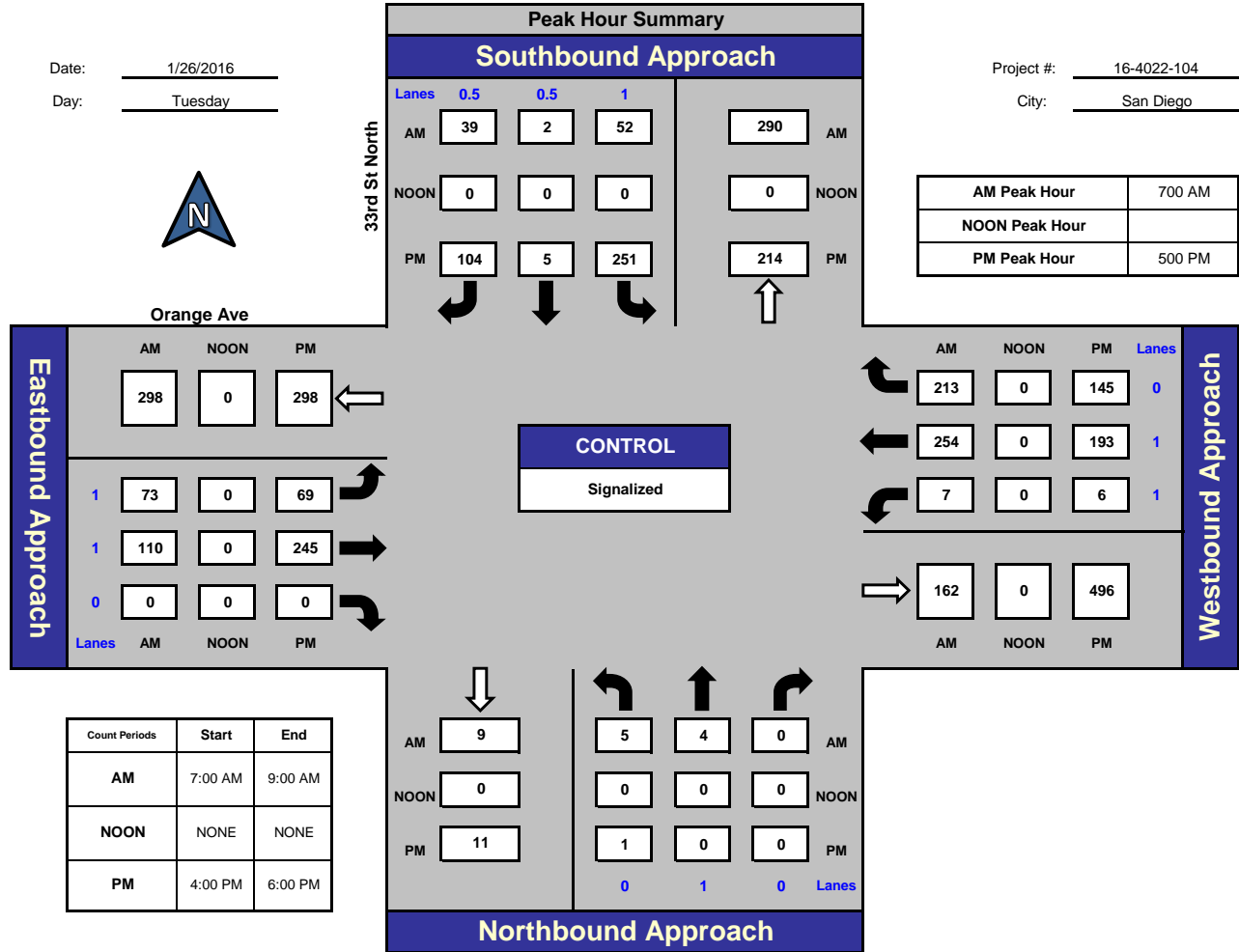
## 33rd St North and Orange Ave., San Diego

Date: 1/26/2016

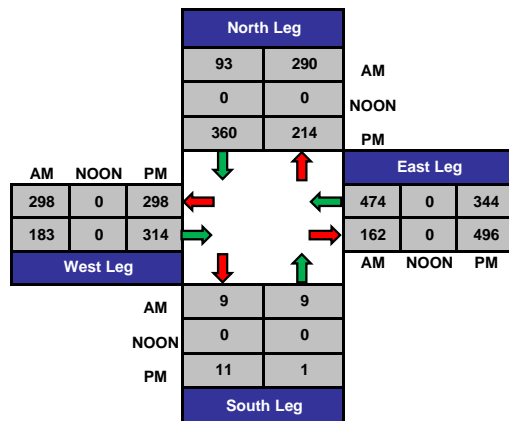
Day: Tuesday

Project #: 16-4022-104

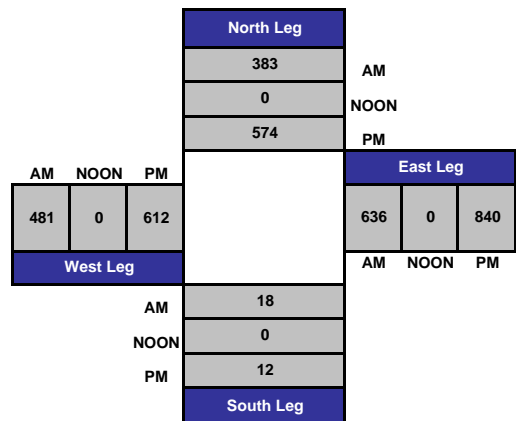
City: San Diego



### Total Ins & Outs



### Total Volume Per Leg



# Turn Count Summary

Accurate Video Counts Inc  
 info@accuratevideocounts.com  
 (619) 987-5136



**Location:** Orange Ave @ 35th St

**Date of Count:** Tuesday, March 21, 2017

**Analysts:** LV/CD

**Weather:** Sunny

**AVC Proj No:** 17-0643



# Vehicular Count

Accurate Video Counts Inc  
 info@accuratevideocounts.com  
 (619) 987-5136



**Location:** Orange Ave @ 35th St

| AM Period (7:00 AM - 9:00 AM) |            |            |           |            |            |           |            |            |           |           |            |           |              |
|-------------------------------|------------|------------|-----------|------------|------------|-----------|------------|------------|-----------|-----------|------------|-----------|--------------|
|                               | Southbound |            |           | Westbound  |            |           | Northbound |            |           | Eastbound |            |           | TOTAL        |
|                               | Right      | Thru       | Left      | Right      | Thru       | Left      | Right      | Thru       | Left      | Right     | Thru       | Left      |              |
| 7:00 AM                       | 0          | 10         | 3         | 21         | 81         | 4         | 9          | 9          | 10        | 5         | 33         | 9         | 194          |
| 7:15 AM                       | 2          | 20         | 11        | 22         | 90         | 4         | 14         | 24         | 15        | 4         | 36         | 8         | 250          |
| 7:30 AM                       | 4          | 18         | 16        | 23         | 86         | 8         | 16         | 26         | 16        | 0         | 36         | 9         | 258          |
| 7:45 AM                       | 8          | 8          | 11        | 24         | 86         | 6         | 11         | 37         | 20        | 6         | 42         | 15        | 274          |
| 8:00 AM                       | 5          | 22         | 5         | 26         | 77         | 6         | 4          | 18         | 8         | 6         | 42         | 6         | 225          |
| 8:15 AM                       | 2          | 13         | 6         | 24         | 82         | 5         | 6          | 25         | 6         | 7         | 34         | 7         | 217          |
| 8:30 AM                       | 7          | 12         | 6         | 17         | 60         | 4         | 3          | 20         | 4         | 2         | 51         | 9         | 195          |
| 8:45 AM                       | 5          | 9          | 5         | 15         | 61         | 6         | 4          | 14         | 3         | 3         | 31         | 10        | 166          |
| <b>Total</b>                  | <b>33</b>  | <b>112</b> | <b>63</b> | <b>172</b> | <b>623</b> | <b>43</b> | <b>67</b>  | <b>173</b> | <b>82</b> | <b>33</b> | <b>305</b> | <b>73</b> | <b>1,779</b> |

AM Intersection Peak Hour : **7:15 AM - 8:15 AM**

Intersection PHF : **0.92**

|              | Southbound |      |      | Westbound |      |      | Northbound |      |      | Eastbound |      |      | TOTAL |
|--------------|------------|------|------|-----------|------|------|------------|------|------|-----------|------|------|-------|
|              | Right      | Thru | Left | Right     | Thru | Left | Right      | Thru | Left | Right     | Thru | Left |       |
| Volume       | 19         | 68   | 43   | 95        | 339  | 24   | 45         | 105  | 59   | 16        | 156  | 38   | 1,007 |
| PHF          | 0.59       | 0.77 | 0.67 | 0.91      | 0.94 | 0.75 | 0.70       | 0.71 | 0.74 | 0.67      | 0.93 | 0.63 | 0.92  |
| Movement PHF | 0.86       |      |      | 0.98      |      |      | 0.77       |      |      | 0.83      |      |      | 0.92  |

| PM Period (4:00 PM - 6:00 PM) |            |            |            |            |            |           |            |            |           |            |            |           |              |
|-------------------------------|------------|------------|------------|------------|------------|-----------|------------|------------|-----------|------------|------------|-----------|--------------|
|                               | Southbound |            |            | Westbound  |            |           | Northbound |            |           | Eastbound  |            |           | TOTAL        |
|                               | Right      | Thru       | Left       | Right      | Thru       | Left      | Right      | Thru       | Left      | Right      | Thru       | Left      |              |
| 4:00 PM                       | 10         | 18         | 8          | 23         | 47         | 3         | 9          | 16         | 3         | 16         | 80         | 10        | 243          |
| 4:15 PM                       | 14         | 22         | 14         | 12         | 58         | 9         | 8          | 16         | 8         | 9          | 83         | 12        | 265          |
| 4:30 PM                       | 12         | 23         | 17         | 10         | 55         | 4         | 11         | 13         | 4         | 13         | 92         | 9         | 263          |
| 4:45 PM                       | 8          | 22         | 10         | 11         | 75         | 8         | 3          | 15         | 7         | 14         | 109        | 7         | 289          |
| 5:00 PM                       | 10         | 19         | 13         | 19         | 69         | 5         | 8          | 20         | 10        | 5          | 78         | 6         | 262          |
| 5:15 PM                       | 14         | 20         | 13         | 9          | 66         | 10        | 10         | 15         | 6         | 9          | 82         | 7         | 261          |
| 5:30 PM                       | 7          | 32         | 10         | 9          | 63         | 5         | 9          | 15         | 4         | 18         | 88         | 17        | 277          |
| 5:45 PM                       | 8          | 10         | 16         | 15         | 52         | 2         | 7          | 11         | 5         | 16         | 86         | 14        | 242          |
| <b>Total</b>                  | <b>83</b>  | <b>166</b> | <b>101</b> | <b>108</b> | <b>485</b> | <b>46</b> | <b>65</b>  | <b>121</b> | <b>47</b> | <b>100</b> | <b>698</b> | <b>82</b> | <b>2,102</b> |

PM Intersection Peak Hour : **4:45 PM - 5:45 PM**

Intersection PHF : **0.94**

|              | Southbound |       |       | Westbound |      |      | Northbound |       |       | Eastbound |       |       | TOTAL |
|--------------|------------|-------|-------|-----------|------|------|------------|-------|-------|-----------|-------|-------|-------|
|              | Right      | Thru  | Left  | Right     | Thru | Left | Right      | Thru  | Left  | Right     | Thru  | Left  |       |
| Volume       | 39         | 93    | 46    | 48        | 273  | 28   | 30         | 65    | 27    | 46        | 357   | 37    | 1089  |
| PHF          | 0.70       | 0.727 | 0.885 | 0.632     | 0.91 | 0.7  | 0.75       | 0.813 | 0.675 | 0.639     | 0.819 | 0.544 | 0.94  |
| Movement PHF | 0.91       |       |       | 0.93      |      |      | 0.80       |       |       | 0.85      |       |       | 0.94  |

# U-Turn Count Summary

Accurate Video Counts Inc  
 info@accuratevideocounts.com  
 (619) 987-1536



**Location:** Orange Ave @ 35th St

| AM Period (7:00 AM - 9:00 AM) |                      |                     |                      |                     |       |
|-------------------------------|----------------------|---------------------|----------------------|---------------------|-------|
|                               | Southbound<br>U-Turn | Westbound<br>U-Turn | Northbound<br>U-Turn | Eastbound<br>U-Turn | TOTAL |
| 7:00 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 7:15 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 7:30 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 7:45 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 8:00 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 8:15 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 8:30 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 8:45 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| Total                         | 0                    | 0                   | 0                    | 0                   | 0     |

AM Intersection Peak Hour : **7:15 AM - 8:15 AM** Intersection PHF : **#DIV/0!**

|              | North Leg<br>EB | East Leg<br>SB | South Leg<br>EB | West Leg<br>SB | TOTAL   |
|--------------|-----------------|----------------|-----------------|----------------|---------|
| Volume       | 0               | 0              | 0               | 0              | 0       |
| PHF          | #DIV/0!         | #DIV/0!        | #DIV/0!         | #DIV/0!        | #DIV/0! |
| Movement PHF | #DIV/0!         | #DIV/0!        | #DIV/0!         | #DIV/0!        | #DIV/0! |

| PM Period (4:00 PM - 6:00 PM) |                      |                     |                      |                     |       |
|-------------------------------|----------------------|---------------------|----------------------|---------------------|-------|
|                               | Southbound<br>U-Turn | Westbound<br>U-Turn | Northbound<br>U-Turn | Eastbound<br>U-Turn | TOTAL |
| 4:00 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 4:15 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 4:30 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 4:45 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 5:00 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 5:15 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 5:30 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 5:45 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| Total                         | 0                    | 0                   | 0                    | 0                   | 0     |

PM Intersection Peak Hour : **4:45 PM - 5:45 PM** Intersection PHF : **#DIV/0!**

|              | North Leg<br>EB | East Leg<br>SB | South Leg<br>EB | West Leg<br>SB | TOTAL   |
|--------------|-----------------|----------------|-----------------|----------------|---------|
| Volume       | 0               | 0              | 0               | 0              | 0       |
| PHF          | #DIV/0!         | #DIV/0!        | #DIV/0!         | #DIV/0!        | #DIV/0! |
| Movement PHF | #DIV/0!         | #DIV/0!        | #DIV/0!         | #DIV/0!        | #DIV/0! |





# Bike Count

Accurate Video Counts Inc  
 info@accuratevideocounts.com  
 (619) 987-5136



**Location:** Orange Ave @ 35th St

| AM Period (7:00 AM - 9:00 AM) |            |          |          |           |          |          |            |          |          |           |          |          |           |
|-------------------------------|------------|----------|----------|-----------|----------|----------|------------|----------|----------|-----------|----------|----------|-----------|
|                               | Southbound |          |          | Westbound |          |          | Northbound |          |          | Eastbound |          |          | TOTAL     |
|                               | Right      | Thru     | Left     | Right     | Thru     | Left     | Right      | Thru     | Left     | Right     | Thru     | Left     |           |
| 7:00 AM                       | 0          | 0        | 0        | 0         | 0        | 0        | 0          | 0        | 0        | 0         | 1        | 0        | 1         |
| 7:15 AM                       | 0          | 0        | 0        | 0         | 0        | 0        | 0          | 0        | 0        | 0         | 1        | 0        | 1         |
| 7:30 AM                       | 0          | 0        | 0        | 0         | 2        | 0        | 0          | 0        | 0        | 0         | 0        | 0        | 2         |
| 7:45 AM                       | 0          | 0        | 0        | 0         | 0        | 0        | 0          | 0        | 0        | 0         | 0        | 0        | 0         |
| 8:00 AM                       | 0          | 0        | 0        | 0         | 1        | 0        | 0          | 0        | 0        | 0         | 0        | 0        | 1         |
| 8:15 AM                       | 3          | 1        | 0        | 1         | 1        | 0        | 0          | 0        | 0        | 0         | 0        | 1        | 7         |
| 8:30 AM                       | 0          | 0        | 0        | 0         | 0        | 0        | 0          | 0        | 0        | 0         | 0        | 0        | 0         |
| 8:45 AM                       | 0          | 0        | 0        | 0         | 2        | 0        | 0          | 0        | 0        | 0         | 1        | 1        | 4         |
| <b>Total</b>                  | <b>3</b>   | <b>1</b> | <b>0</b> | <b>1</b>  | <b>6</b> | <b>0</b> | <b>0</b>   | <b>0</b> | <b>0</b> | <b>0</b>  | <b>3</b> | <b>2</b> | <b>16</b> |

AM Intersection Peak Hour : **8:00 AM - 9:00 AM**

Intersection PHF : **0.43**

|              | Southbound |      |       | Westbound |      |       | Northbound |       |       | Eastbound |      |      | TOTAL |
|--------------|------------|------|-------|-----------|------|-------|------------|-------|-------|-----------|------|------|-------|
|              | Right      | Thru | Left  | Right     | Thru | Left  | Right      | Thru  | Left  | Right     | Thru | Left |       |
| Volume       | 3          | 1    | 0     | 1         | 4    | 0     | 0          | 0     | 0     | 0         | 1    | 2    | 12    |
| PHF          | 0.25       | 0.25 | ##### | 0.25      | 0.50 | ##### | #####      | ##### | ##### | #####     | 0.25 | 0.50 | 0.43  |
| Movement PHF |            | 0.25 |       |           | 0.63 |       | #DIV/0!    |       |       |           | 0.38 |      | 0.43  |

| PM Period (4:00 PM - 6:00 PM) |            |          |          |           |           |          |            |          |          |           |           |          |           |
|-------------------------------|------------|----------|----------|-----------|-----------|----------|------------|----------|----------|-----------|-----------|----------|-----------|
|                               | Southbound |          |          | Westbound |           |          | Northbound |          |          | Eastbound |           |          | TOTAL     |
|                               | Right      | Thru     | Left     | Right     | Thru      | Left     | Right      | Thru     | Left     | Right     | Thru      | Left     |           |
| 4:00 PM                       | 1          | 1        | 0        | 0         | 0         | 0        | 0          | 0        | 0        | 0         | 1         | 0        | 3         |
| 4:15 PM                       | 0          | 0        | 0        | 0         | 1         | 0        | 0          | 0        | 0        | 0         | 0         | 0        | 1         |
| 4:30 PM                       | 0          | 0        | 0        | 0         | 1         | 0        | 0          | 0        | 0        | 0         | 1         | 0        | 2         |
| 4:45 PM                       | 1          | 0        | 0        | 0         | 1         | 0        | 1          | 0        | 0        | 0         | 2         | 0        | 5         |
| 5:00 PM                       | 0          | 0        | 0        | 0         | 2         | 0        | 0          | 0        | 0        | 0         | 6         | 0        | 8         |
| 5:15 PM                       | 0          | 0        | 0        | 0         | 2         | 1        | 0          | 0        | 0        | 0         | 1         | 0        | 4         |
| 5:30 PM                       | 0          | 1        | 0        | 0         | 3         | 0        | 0          | 0        | 0        | 0         | 3         | 0        | 7         |
| 5:45 PM                       | 0          | 0        | 2        | 0         | 3         | 0        | 0          | 0        | 0        | 0         | 0         | 0        | 5         |
| <b>Total</b>                  | <b>2</b>   | <b>2</b> | <b>2</b> | <b>0</b>  | <b>13</b> | <b>1</b> | <b>1</b>   | <b>0</b> | <b>0</b> | <b>0</b>  | <b>14</b> | <b>0</b> | <b>35</b> |

PM Intersection Peak Hour : **4:45 PM - 5:45 PM**

Intersection PHF : **0.75**

|              | Southbound |      |       | Westbound |       |      | Northbound |       |       | Eastbound |      |       | TOTAL |
|--------------|------------|------|-------|-----------|-------|------|------------|-------|-------|-----------|------|-------|-------|
|              | Right      | Thru | Left  | Right     | Thru  | Left | Right      | Thru  | Left  | Right     | Thru | Left  |       |
| Volume       | 1          | 1    | 0     | 0         | 8     | 1    | 1          | 0     | 0     | 0         | 12   | 0     | 24    |
| PHF          | 0.25       | 0.25 | ##### | #####     | 0.667 | 0.25 | 0.25       | ##### | ##### | #####     | 0.5  | ##### | 0.75  |
| Movement PHF |            | 0.50 |       |           | 0.75  |      | 0.25       |       |       |           | 0.50 |       | 0.75  |

# Pedestrian Count

Accurate Video Counts Inc  
 info@accuratevideocounts.com  
 (619) 987-1536



**Location:** Orange Ave 35th St

| AM Period (7:00 AM - 9:00 AM) |                    |                   |                    |                   |            |
|-------------------------------|--------------------|-------------------|--------------------|-------------------|------------|
|                               | North Leg<br>Total | East Leg<br>Total | South Leg<br>Total | West Leg<br>Total | TOTAL      |
| 7:00 AM                       | 4                  | 3                 | 3                  | 0                 | 10         |
| 7:15 AM                       | 3                  | 0                 | 3                  | 2                 | 8          |
| 7:30 AM                       | 4                  | 5                 | 5                  | 14                | 28         |
| 7:45 AM                       | 3                  | 7                 | 7                  | 4                 | 21         |
| 8:00 AM                       | 2                  | 5                 | 9                  | 2                 | 18         |
| 8:15 AM                       | 2                  | 2                 | 1                  | 2                 | 7          |
| 8:30 AM                       | 2                  | 0                 | 3                  | 5                 | 10         |
| 8:45 AM                       | 0                  | 2                 | 1                  | 3                 | 6          |
| <b>Total</b>                  | <b>20</b>          | <b>24</b>         | <b>32</b>          | <b>32</b>         | <b>108</b> |

AM Intersection Peak Hour : **7:15 AM - 8:15 AM** **0.67**

|              | North Leg<br>Total | East Leg<br>Total | South Leg<br>Total | West Leg<br>Total | TOTAL |
|--------------|--------------------|-------------------|--------------------|-------------------|-------|
| Volume       | 12                 | 17                | 24                 | 22                | 150   |
| PHF          | 0.75               | 0.61              | 0.67               | 0.39              | 0.67  |
| Movement PHF | 0.75               | 0.61              | 0.67               | 0.39              | 0.67  |

| PM Period (4:00 PM - 6:00 PM) |                    |                   |                    |                   |            |
|-------------------------------|--------------------|-------------------|--------------------|-------------------|------------|
|                               | North Leg<br>Total | East Leg<br>Total | South Leg<br>Total | West Leg<br>Total | TOTAL      |
| 4:00 PM                       | 7                  | 4                 | 9                  | 2                 | 22         |
| 4:15 PM                       | 3                  | 2                 | 3                  | 3                 | 11         |
| 4:30 PM                       | 4                  | 10                | 8                  | 6                 | 28         |
| 4:45 PM                       | 3                  | 1                 | 6                  | 4                 | 14         |
| 5:00 PM                       | 2                  | 0                 | 8                  | 4                 | 14         |
| 5:15 PM                       | 4                  | 2                 | 5                  | 3                 | 14         |
| 5:30 PM                       | 4                  | 2                 | 6                  | 3                 | 15         |
| 5:45 PM                       | 3                  | 0                 | 0                  | 0                 | 3          |
| <b>Total</b>                  | <b>30</b>          | <b>21</b>         | <b>45</b>          | <b>25</b>         | <b>121</b> |

PM Intersection Peak Hour : **4:45 PM - 5:45 PM** **0.95**

|              | North Leg<br>Total | East Leg<br>Total | South Leg<br>Total | West Leg<br>Total | TOTAL |
|--------------|--------------------|-------------------|--------------------|-------------------|-------|
| Volume       | 13                 | 5                 | 25                 | 14                | 114   |
| PHF          | 0.8125             | 0.625             | 0.78125            | 0.875             | 0.95  |
| Movement PHF | 0.81               | 0.63              | 0.78               | 0.88              | 0.95  |

# ITM Peak Hour Summary

Prepared by:



National Data & Surveying Services

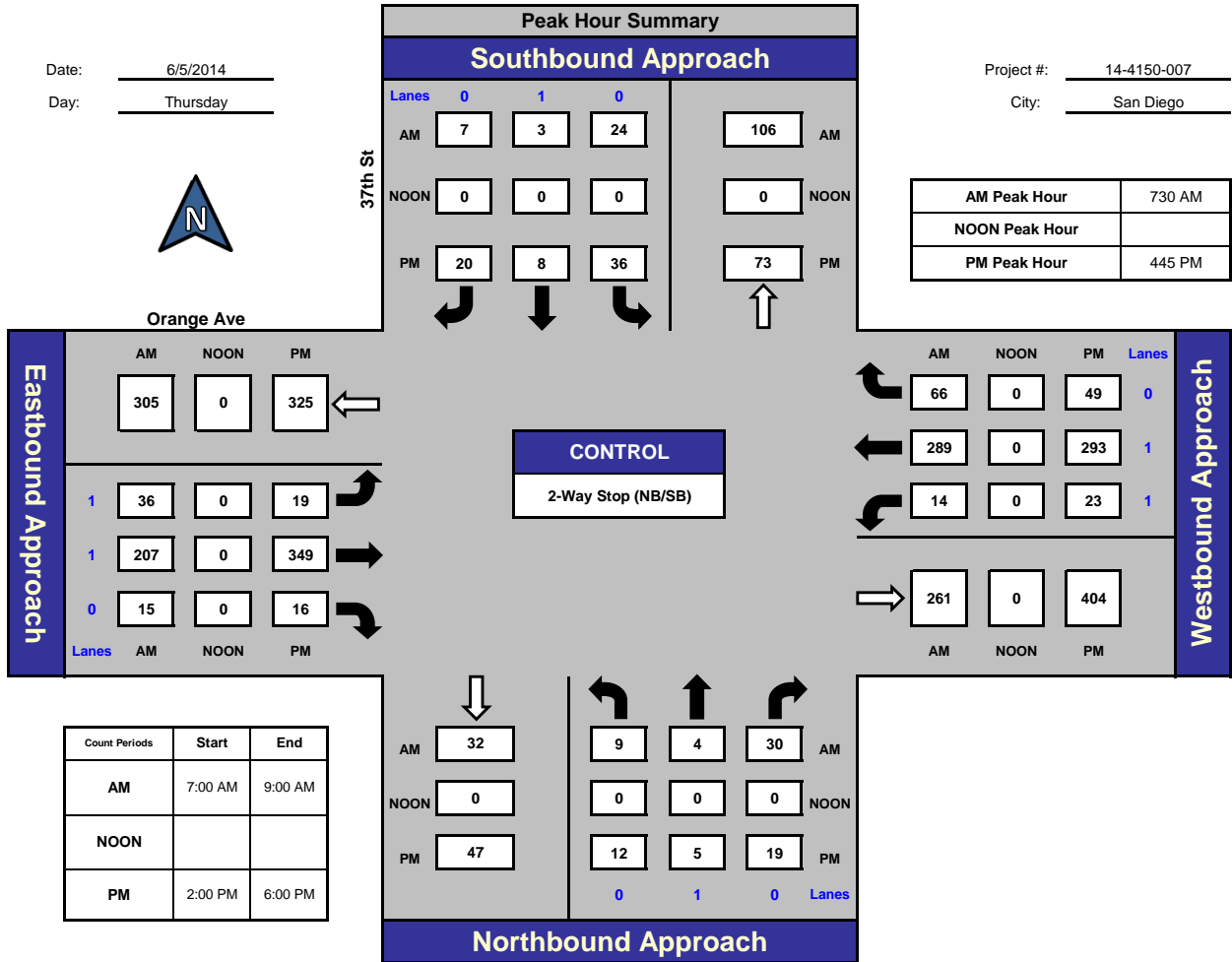
## 37th St and Orange Ave., San Diego

Date: 6/5/2014

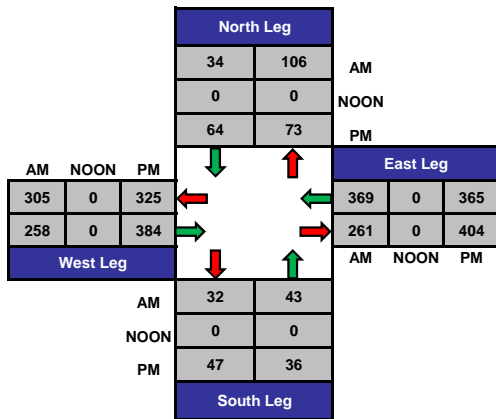
Day: Thursday

Project #: 14-4150-007

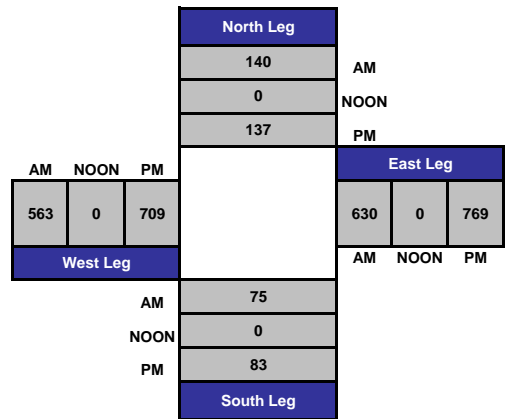
City: San Diego



### Total Ins & Outs



### Total Volume Per Leg



# ITM Peak Hour Summary

Prepared by:



National Data & Surveying Services

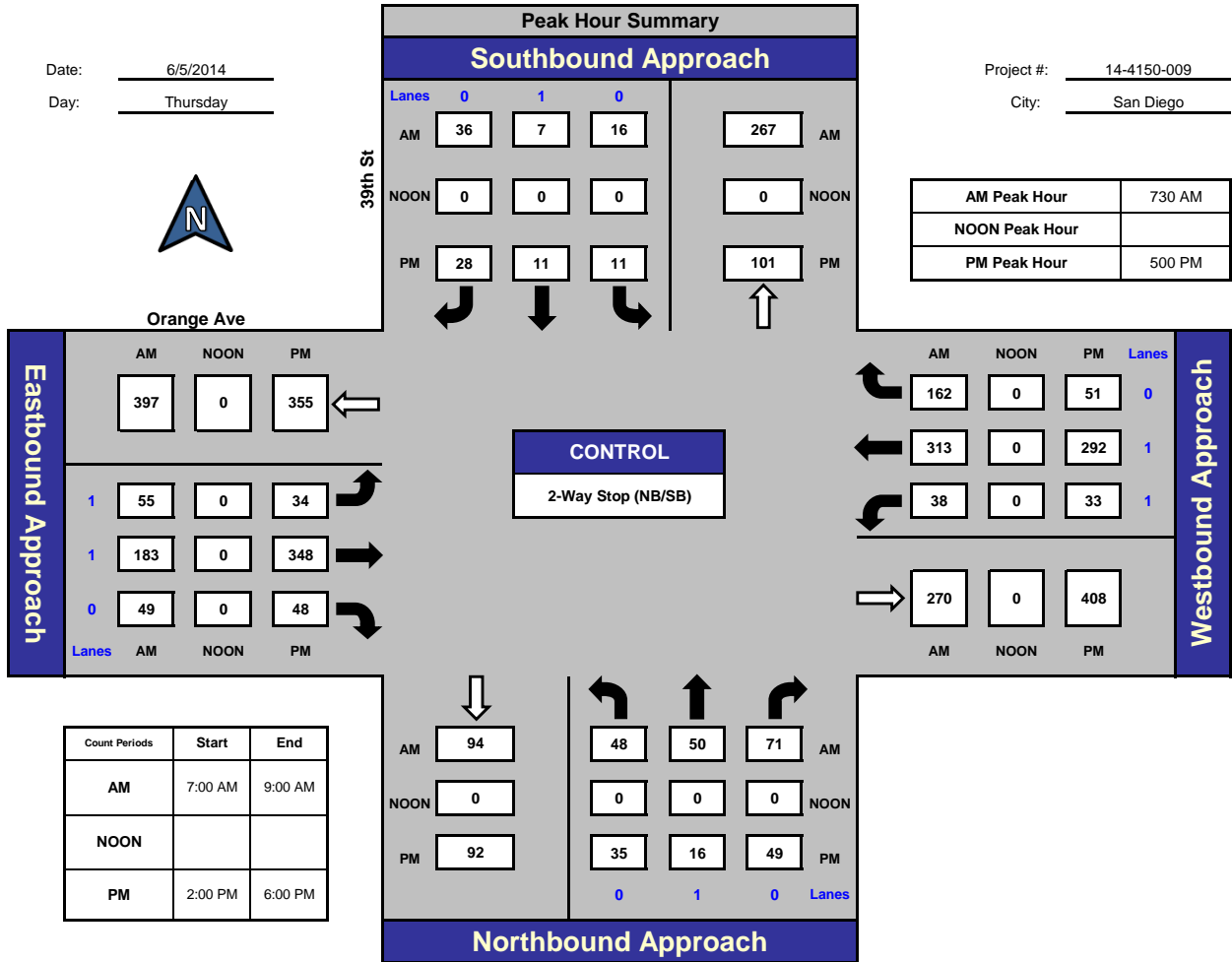
## 39th St and Orange Ave., San Diego

Date: 6/5/2014

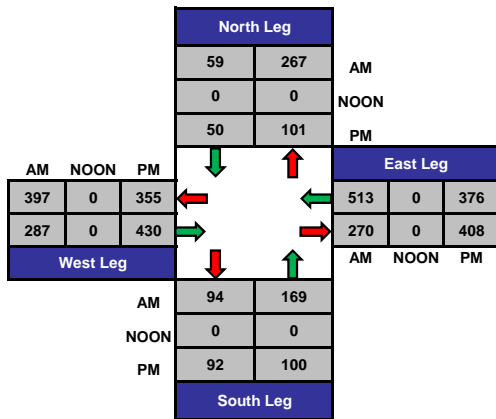
Day: Thursday

Project #: 14-4150-009

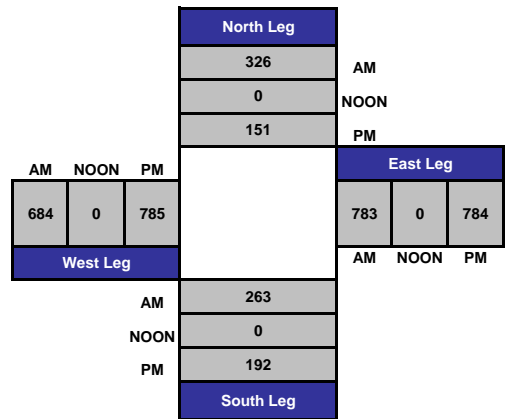
City: San Diego



### Total Ins & Outs



### Total Volume Per Leg



# ITM Peak Hour Summary

Prepared by:

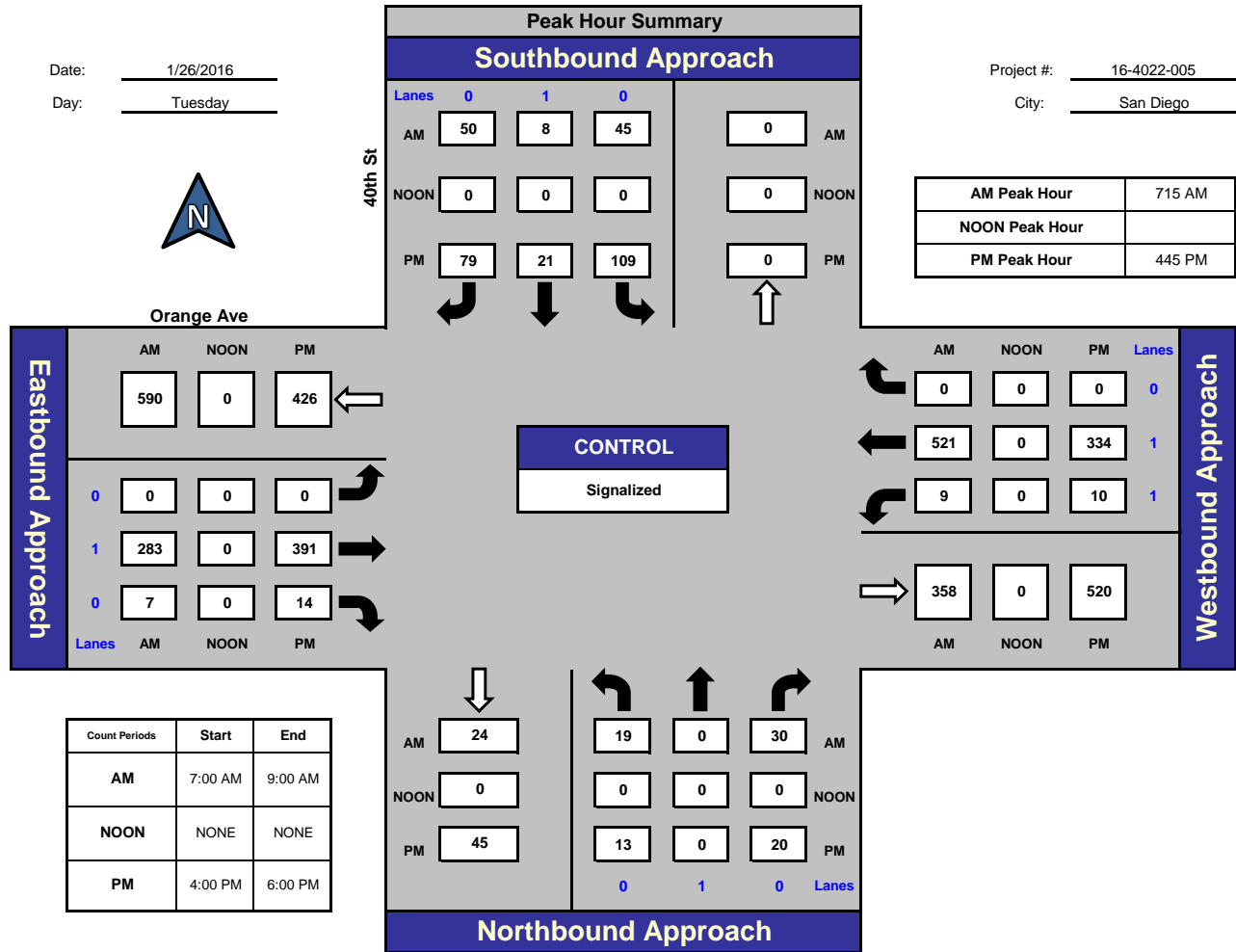


National Data & Surveying Services

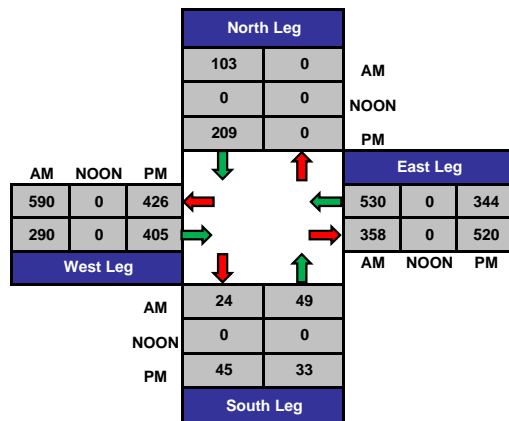
## 40th St and Orange Ave., San Diego

Date: 1/26/2016  
Day: Tuesday

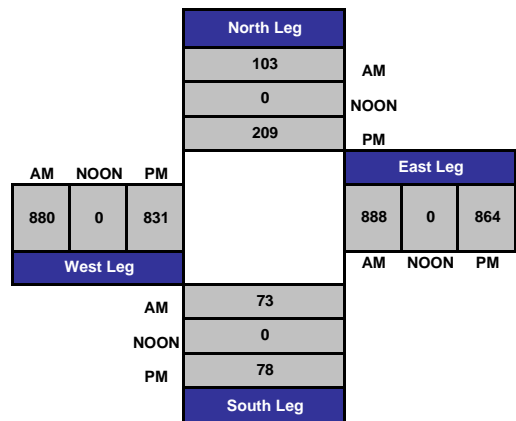
Project #: 16-4022-005  
City: San Diego



### Total Ins & Outs



### Total Volume Per Leg



# ITM Peak Hour Summary

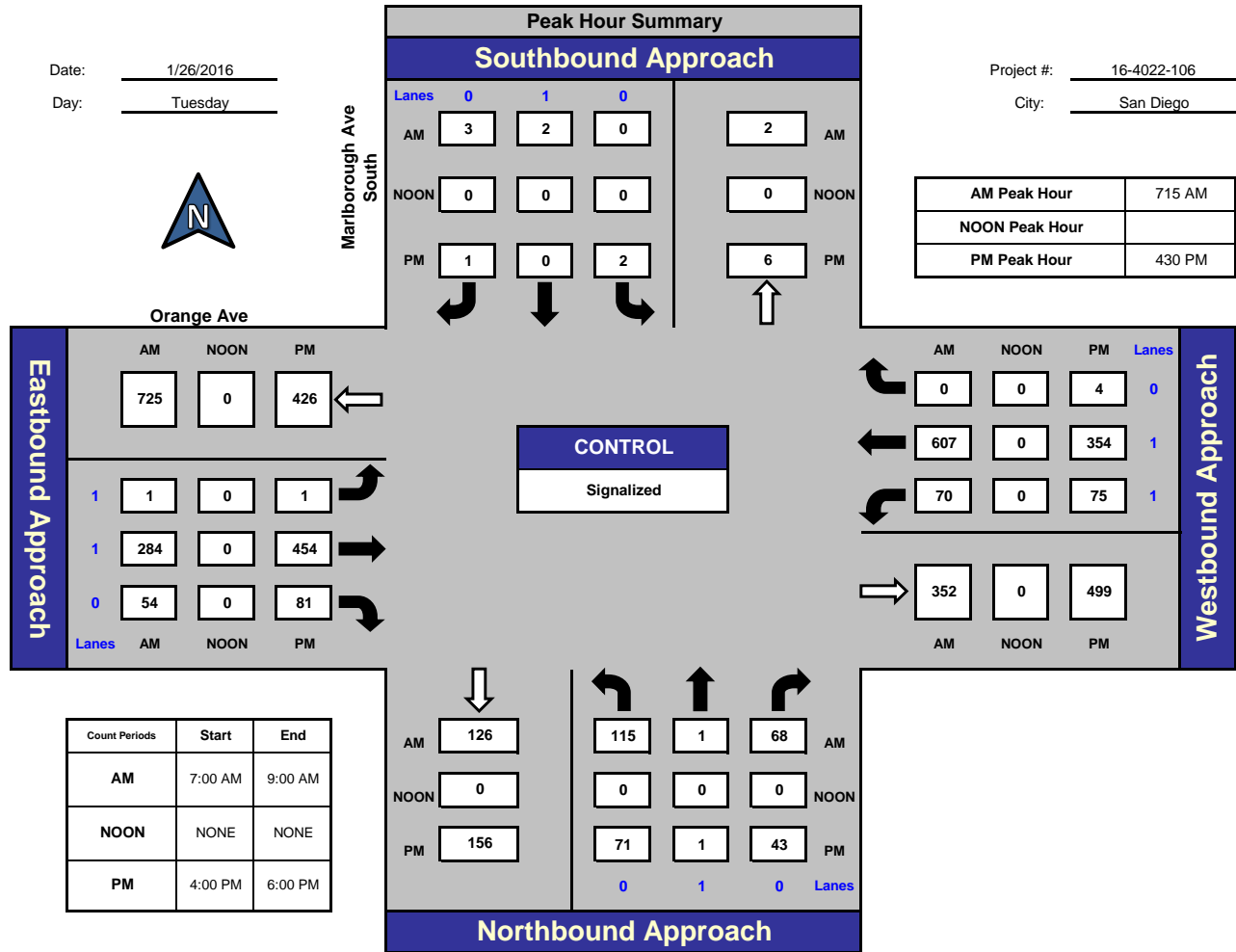


Prepared by:  
National Data & Surveying Services

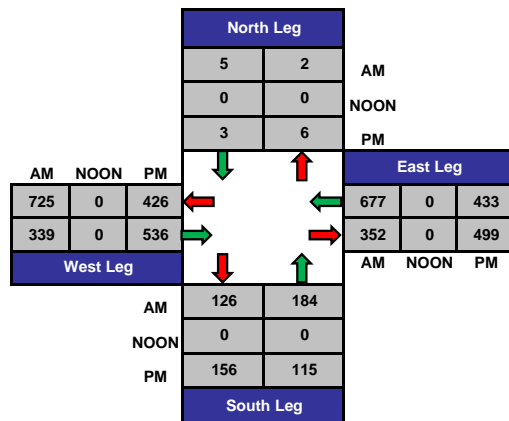
## Marlborough Ave South and Orange Ave, San Diego

Date: 1/26/2016  
Day: Tuesday

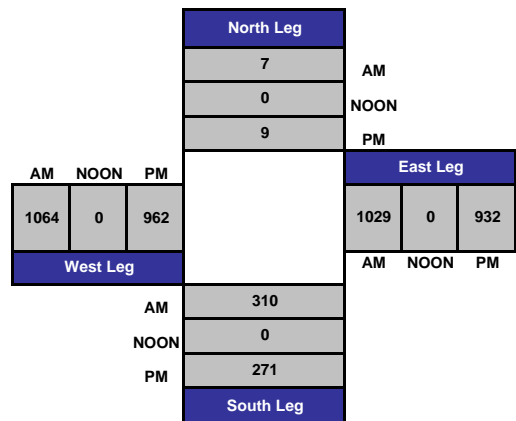
Project #: 16-4022-106  
City: San Diego



### Total Ins & Outs



### Total Volume Per Leg



# Turn Count Summary

Accurate Video Counts Inc  
 info@accuratevideocounts.com  
 (619) 987-5136



**Location:** Orange Ave @ 43rd St

**Date of Count:** Tuesday, March 21, 2017

**Analysts:** LV/CD

**Weather:** Sunny

**AVC Proj No:** 17-0643





# Vehicular Count

Accurate Video Counts Inc  
 info@accuratevideocounts.com  
 (619) 987-5136



**Location:** Orange Ave @ 43rd St

| AM Period (7:00 AM - 9:00 AM) |            |            |           |           |            |           |            |          |          |           |            |          |              |
|-------------------------------|------------|------------|-----------|-----------|------------|-----------|------------|----------|----------|-----------|------------|----------|--------------|
|                               | Southbound |            |           | Westbound |            |           | Northbound |          |          | Eastbound |            |          | TOTAL        |
|                               | Right      | Thru       | Left      | Right     | Thru       | Left      | Right      | Thru     | Left     | Right     | Thru       | Left     |              |
| 7:00 AM                       | 10         | 53         | 4         | 0         | 94         | 5         | 0          | 0        | 0        | 7         | 51         | 0        | 224          |
| 7:15 AM                       | 18         | 73         | 8         | 0         | 136        | 6         | 0          | 0        | 0        | 7         | 89         | 0        | 337          |
| 7:30 AM                       | 21         | 49         | 4         | 0         | 145        | 4         | 0          | 0        | 0        | 5         | 74         | 0        | 302          |
| 7:45 AM                       | 24         | 63         | 21        | 0         | 118        | 3         | 0          | 0        | 0        | 12        | 85         | 0        | 326          |
| 8:00 AM                       | 13         | 68         | 15        | 0         | 102        | 5         | 0          | 0        | 0        | 13        | 74         | 0        | 290          |
| 8:15 AM                       | 13         | 88         | 5         | 0         | 94         | 10        | 0          | 0        | 0        | 11        | 66         | 0        | 287          |
| 8:30 AM                       | 9          | 65         | 19        | 0         | 88         | 9         | 0          | 0        | 0        | 10        | 67         | 0        | 267          |
| 8:45 AM                       | 9          | 54         | 17        | 0         | 82         | 6         | 0          | 0        | 0        | 8         | 52         | 2        | 230          |
| <b>Total</b>                  | <b>117</b> | <b>513</b> | <b>93</b> | <b>0</b>  | <b>859</b> | <b>48</b> | <b>0</b>   | <b>0</b> | <b>0</b> | <b>73</b> | <b>558</b> | <b>2</b> | <b>2,263</b> |

AM Intersection Peak Hour : **7:15 AM - 8:15 AM**

Intersection PHF : **0.93**

|              | Southbound |      |      | Westbound |      |      | Northbound |         |       | Eastbound |      |       | TOTAL |
|--------------|------------|------|------|-----------|------|------|------------|---------|-------|-----------|------|-------|-------|
|              | Right      | Thru | Left | Right     | Thru | Left | Right      | Thru    | Left  | Right     | Thru | Left  |       |
| Volume       | 76         | 253  | 48   | 0         | 501  | 18   | 0          | 0       | 0     | 37        | 322  | 0     | 1,255 |
| PHF          | 0.79       | 0.87 | 0.57 | #####     | 0.86 | 0.75 | #####      | #####   | ##### | 0.71      | 0.90 | ##### | 0.93  |
| Movement PHF |            | 0.87 |      |           | 0.87 |      |            | #DIV/0! |       |           | 0.93 |       | 0.93  |

| PM Period (4:00 PM - 6:00 PM) |            |            |            |           |            |           |            |          |          |            |            |          |              |
|-------------------------------|------------|------------|------------|-----------|------------|-----------|------------|----------|----------|------------|------------|----------|--------------|
|                               | Southbound |            |            | Westbound |            |           | Northbound |          |          | Eastbound  |            |          | TOTAL        |
|                               | Right      | Thru       | Left       | Right     | Thru       | Left      | Right      | Thru     | Left     | Right      | Thru       | Left     |              |
| 4:00 PM                       | 14         | 139        | 33         | 0         | 77         | 6         | 0          | 0        | 0        | 13         | 94         | 0        | 376          |
| 4:15 PM                       | 16         | 99         | 36         | 0         | 70         | 7         | 0          | 0        | 0        | 14         | 96         | 0        | 338          |
| 4:30 PM                       | 16         | 124        | 38         | 0         | 89         | 7         | 0          | 0        | 0        | 16         | 102        | 1        | 393          |
| 4:45 PM                       | 15         | 107        | 46         | 0         | 74         | 6         | 0          | 1        | 0        | 20         | 97         | 0        | 366          |
| 5:00 PM                       | 16         | 107        | 27         | 0         | 83         | 8         | 0          | 0        | 0        | 12         | 95         | 0        | 348          |
| 5:15 PM                       | 14         | 119        | 35         | 0         | 85         | 5         | 0          | 0        | 0        | 13         | 102        | 0        | 373          |
| 5:30 PM                       | 22         | 126        | 38         | 0         | 67         | 6         | 0          | 0        | 0        | 17         | 91         | 0        | 367          |
| 5:45 PM                       | 11         | 118        | 41         | 0         | 77         | 12        | 0          | 0        | 0        | 20         | 106        | 0        | 385          |
| <b>Total</b>                  | <b>124</b> | <b>939</b> | <b>294</b> | <b>0</b>  | <b>622</b> | <b>57</b> | <b>0</b>   | <b>1</b> | <b>0</b> | <b>125</b> | <b>783</b> | <b>1</b> | <b>2,946</b> |

PM Intersection Peak Hour : **4:30 PM - 5:30 PM**

Intersection PHF : **0.94**

|              | Southbound |       |       | Westbound |      |       | Northbound |      |       | Eastbound |       |      | TOTAL |
|--------------|------------|-------|-------|-----------|------|-------|------------|------|-------|-----------|-------|------|-------|
|              | Right      | Thru  | Left  | Right     | Thru | Left  | Right      | Thru | Left  | Right     | Thru  | Left |       |
| Volume       | 61         | 457   | 146   | 0         | 331  | 26    | 0          | 1    | 0     | 61        | 396   | 1    | 1480  |
| PHF          | 0.95       | 0.921 | 0.793 | #####     | 0.93 | 0.813 | #####      | 0.25 | ##### | 0.763     | 0.971 | 0.25 | 0.94  |
| Movement PHF |            | 0.93  |       |           | 0.93 |       |            | 0.25 |       |           | 0.96  |      | 0.94  |

# U-Turn Count Summary

Accurate Video Counts Inc  
 info@accuratevideocounts.com  
 (619) 987-1536



**Location:** Orange Ave @ 43rd St

| AM Period (7:00 AM - 9:00 AM) |                      |                     |                      |                     |       |
|-------------------------------|----------------------|---------------------|----------------------|---------------------|-------|
|                               | Southbound<br>U-Turn | Westbound<br>U-Turn | Northbound<br>U-Turn | Eastbound<br>U-Turn | TOTAL |
| 7:00 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 7:15 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 7:30 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 7:45 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 8:00 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 8:15 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 8:30 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 8:45 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| Total                         | 0                    | 0                   | 0                    | 0                   | 0     |

AM Intersection Peak Hour : **7:15 AM - 8:15 AM** Intersection PHF : **#DIV/0!**

|              | North Leg<br>EB | East Leg<br>SB | South Leg<br>EB | West Leg<br>SB | TOTAL   |
|--------------|-----------------|----------------|-----------------|----------------|---------|
| Volume       | 0               | 0              | 0               | 0              | 0       |
| PHF          | #DIV/0!         | #DIV/0!        | #DIV/0!         | #DIV/0!        | #DIV/0! |
| Movement PHF | #DIV/0!         | #DIV/0!        | #DIV/0!         | #DIV/0!        | #DIV/0! |

| PM Period (4:00 PM - 6:00 PM) |                      |                     |                      |                     |       |
|-------------------------------|----------------------|---------------------|----------------------|---------------------|-------|
|                               | Southbound<br>U-Turn | Westbound<br>U-Turn | Northbound<br>U-Turn | Eastbound<br>U-Turn | TOTAL |
| 4:00 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 4:15 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 4:30 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 4:45 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 5:00 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 5:15 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 5:30 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 5:45 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| Total                         | 0                    | 0                   | 0                    | 0                   | 0     |

PM Intersection Peak Hour : **4:30 PM - 5:30 PM** Intersection PHF : **#DIV/0!**

|              | North Leg<br>EB | East Leg<br>SB | South Leg<br>EB | West Leg<br>SB | TOTAL   |
|--------------|-----------------|----------------|-----------------|----------------|---------|
| Volume       | 0               | 0              | 0               | 0              | 0       |
| PHF          | #DIV/0!         | #DIV/0!        | #DIV/0!         | #DIV/0!        | #DIV/0! |
| Movement PHF | #DIV/0!         | #DIV/0!        | #DIV/0!         | #DIV/0!        | #DIV/0! |

# Bike Turn Count Summary

Accurate Video Counts Inc  
info@accuratevideocounts.com  
(619) 987-5136



**Location:** Orange Ave @ 43rd St

**Date of Count:** Tuesday, March 21, 2017

**Analysts:** LV/CD

**Weather:** Sunny

**AVC Proj No:** 17-0643



# Bike Count

Accurate Video Counts Inc  
 info@accuratevideocounts.com  
 (619) 987-5136



**Location:** Orange Ave @ 43rd St

| AM Period (7:00 AM - 9:00 AM) |            |          |          |           |           |          |            |          |          |           |           |          |           |
|-------------------------------|------------|----------|----------|-----------|-----------|----------|------------|----------|----------|-----------|-----------|----------|-----------|
|                               | Southbound |          |          | Westbound |           |          | Northbound |          |          | Eastbound |           |          | TOTAL     |
|                               | Right      | Thru     | Left     | Right     | Thru      | Left     | Right      | Thru     | Left     | Right     | Thru      | Left     |           |
| 7:00 AM                       | 0          | 0        | 0        | 0         | 0         | 0        | 0          | 0        | 0        | 0         | 7         | 0        | 7         |
| 7:15 AM                       | 0          | 0        | 0        | 0         | 2         | 0        | 0          | 0        | 0        | 0         | 3         | 0        | 5         |
| 7:30 AM                       | 0          | 0        | 0        | 0         | 1         | 0        | 0          | 0        | 0        | 0         | 1         | 0        | 2         |
| 7:45 AM                       | 0          | 0        | 0        | 0         | 0         | 0        | 0          | 0        | 0        | 0         | 2         | 0        | 2         |
| 8:00 AM                       | 0          | 0        | 0        | 0         | 1         | 0        | 0          | 0        | 0        | 0         | 1         | 0        | 2         |
| 8:15 AM                       | 0          | 0        | 0        | 0         | 2         | 0        | 0          | 0        | 0        | 0         | 0         | 0        | 2         |
| 8:30 AM                       | 0          | 0        | 0        | 0         | 1         | 0        | 0          | 0        | 0        | 0         | 2         | 0        | 3         |
| 8:45 AM                       | 0          | 0        | 0        | 0         | 3         | 0        | 0          | 0        | 0        | 1         | 1         | 1        | 6         |
| <b>Total</b>                  | <b>0</b>   | <b>0</b> | <b>0</b> | <b>0</b>  | <b>10</b> | <b>0</b> | <b>0</b>   | <b>0</b> | <b>0</b> | <b>1</b>  | <b>17</b> | <b>1</b> | <b>29</b> |

AM Intersection Peak Hour : **7:00 AM - 8:00 AM**

Intersection PHF : **0.57**

|              | Southbound |       |       | Westbound |      |       | Northbound |       |       | Eastbound |      |       | TOTAL |
|--------------|------------|-------|-------|-----------|------|-------|------------|-------|-------|-----------|------|-------|-------|
|              | Right      | Thru  | Left  | Right     | Thru | Left  | Right      | Thru  | Left  | Right     | Thru | Left  |       |
| Volume       | 0          | 0     | 0     | 0         | 3    | 0     | 0          | 0     | 0     | 0         | 13   | 0     | 16    |
| PHF          | #####      | ##### | ##### | #####     | 0.38 | ##### | #####      | ##### | ##### | #####     | 0.46 | ##### | 0.57  |
| Movement PHF | #DIV/0!    |       |       | 0.38      |      |       | #DIV/0!    |       |       | 0.46      |      |       | 0.57  |

| PM Period (4:00 PM - 6:00 PM) |            |          |          |           |          |          |            |          |          |           |          |          |           |
|-------------------------------|------------|----------|----------|-----------|----------|----------|------------|----------|----------|-----------|----------|----------|-----------|
|                               | Southbound |          |          | Westbound |          |          | Northbound |          |          | Eastbound |          |          | TOTAL     |
|                               | Right      | Thru     | Left     | Right     | Thru     | Left     | Right      | Thru     | Left     | Right     | Thru     | Left     |           |
| 4:00 PM                       | 0          | 0        | 0        | 0         | 0        | 0        | 0          | 0        | 0        | 0         | 1        | 0        | 1         |
| 4:15 PM                       | 0          | 1        | 0        | 0         | 1        | 0        | 0          | 0        | 0        | 0         | 0        | 0        | 2         |
| 4:30 PM                       | 0          | 0        | 0        | 0         | 1        | 0        | 0          | 1        | 0        | 0         | 0        | 0        | 2         |
| 4:45 PM                       | 0          | 1        | 0        | 0         | 1        | 0        | 0          | 0        | 0        | 0         | 1        | 0        | 3         |
| 5:00 PM                       | 1          | 1        | 0        | 0         | 1        | 0        | 0          | 0        | 0        | 1         | 0        | 0        | 4         |
| 5:15 PM                       | 0          | 0        | 1        | 0         | 2        | 0        | 0          | 0        | 0        | 0         | 1        | 0        | 4         |
| 5:30 PM                       | 1          | 0        | 0        | 0         | 3        | 0        | 0          | 0        | 0        | 1         | 0        | 0        | 5         |
| 5:45 PM                       | 0          | 0        | 0        | 0         | 0        | 0        | 0          | 0        | 0        | 0         | 2        | 0        | 2         |
| <b>Total</b>                  | <b>2</b>   | <b>3</b> | <b>1</b> | <b>0</b>  | <b>9</b> | <b>0</b> | <b>0</b>   | <b>1</b> | <b>0</b> | <b>2</b>  | <b>5</b> | <b>0</b> | <b>23</b> |

PM Intersection Peak Hour : **4:45 PM - 5:45 PM**

Intersection PHF : **0.80**

|              | Southbound |      |      | Westbound |       |       | Northbound |       |       | Eastbound |      |       | TOTAL |
|--------------|------------|------|------|-----------|-------|-------|------------|-------|-------|-----------|------|-------|-------|
|              | Right      | Thru | Left | Right     | Thru  | Left  | Right      | Thru  | Left  | Right     | Thru | Left  |       |
| Volume       | 2          | 2    | 1    | 0         | 7     | 0     | 0          | 0     | 0     | 2         | 2    | 0     | 16    |
| PHF          | 0.50       | 0.5  | 0.25 | #####     | 0.583 | ##### | #####      | ##### | ##### | 0.5       | 0.5  | ##### | 0.80  |
| Movement PHF | 0.63       |      |      | 0.58      |       |       | #DIV/0!    |       |       | 1.00      |      |       | 0.80  |

# Pedestrian Count

Accurate Video Counts Inc  
 info@accuratevideocounts.com  
 (619) 987-1536



**Location:** Orange Ave 43rd St

| AM Period (7:00 AM - 9:00 AM) |                    |                   |                    |                   |            |
|-------------------------------|--------------------|-------------------|--------------------|-------------------|------------|
|                               | North Leg<br>Total | East Leg<br>Total | South Leg<br>Total | West Leg<br>Total | TOTAL      |
| 7:00 AM                       | 16                 | 13                | 22                 | 10                | 61         |
| 7:15 AM                       | 21                 | 15                | 40                 | 11                | 87         |
| 7:30 AM                       | 5                  | 8                 | 5                  | 5                 | 23         |
| 7:45 AM                       | 5                  | 4                 | 12                 | 0                 | 21         |
| 8:00 AM                       | 12                 | 4                 | 5                  | 6                 | 27         |
| 8:15 AM                       | 5                  | 3                 | 10                 | 4                 | 22         |
| 8:30 AM                       | 3                  | 6                 | 4                  | 2                 | 15         |
| 8:45 AM                       | 6                  | 8                 | 2                  | 5                 | 21         |
| <b>Total</b>                  | <b>73</b>          | <b>61</b>         | <b>100</b>         | <b>43</b>         | <b>277</b> |

AM Intersection Peak Hour : **7:15 AM - 8:15 AM** **0.45**

|              | North Leg<br>Total | East Leg<br>Total | South Leg<br>Total | West Leg<br>Total | TOTAL |
|--------------|--------------------|-------------------|--------------------|-------------------|-------|
| Volume       | 43                 | 31                | 62                 | 22                | 316   |
| PHF          | 0.51               | 0.52              | 0.39               | 0.50              | 0.45  |
| Movement PHF | 0.51               | 0.52              | 0.39               | 0.50              | 0.45  |

| PM Period (4:00 PM - 6:00 PM) |                    |                   |                    |                   |            |
|-------------------------------|--------------------|-------------------|--------------------|-------------------|------------|
|                               | North Leg<br>Total | East Leg<br>Total | South Leg<br>Total | West Leg<br>Total | TOTAL      |
| 4:00 PM                       | 10                 | 5                 | 3                  | 6                 | 24         |
| 4:15 PM                       | 8                  | 8                 | 21                 | 9                 | 46         |
| 4:30 PM                       | 9                  | 9                 | 14                 | 5                 | 37         |
| 4:45 PM                       | 10                 | 7                 | 10                 | 2                 | 29         |
| 5:00 PM                       | 8                  | 4                 | 8                  | 6                 | 26         |
| 5:15 PM                       | 4                  | 6                 | 9                  | 5                 | 24         |
| 5:30 PM                       | 9                  | 5                 | 12                 | 4                 | 30         |
| 5:45 PM                       | 12                 | 5                 | 3                  | 2                 | 22         |
| <b>Total</b>                  | <b>70</b>          | <b>49</b>         | <b>80</b>          | <b>39</b>         | <b>238</b> |

PM Intersection Peak Hour : **4:30 PM - 5:30 PM** **0.78**

|              | North Leg<br>Total | East Leg<br>Total | South Leg<br>Total | West Leg<br>Total | TOTAL |
|--------------|--------------------|-------------------|--------------------|-------------------|-------|
| Volume       | 31                 | 26                | 41                 | 18                | 232   |
| PHF          | 0.775              | 0.722222222       | 0.732142857        | 0.75              | 0.78  |
| Movement PHF | 0.78               | 0.72              | 0.73               | 0.75              | 0.78  |

# ITM Peak Hour Summary

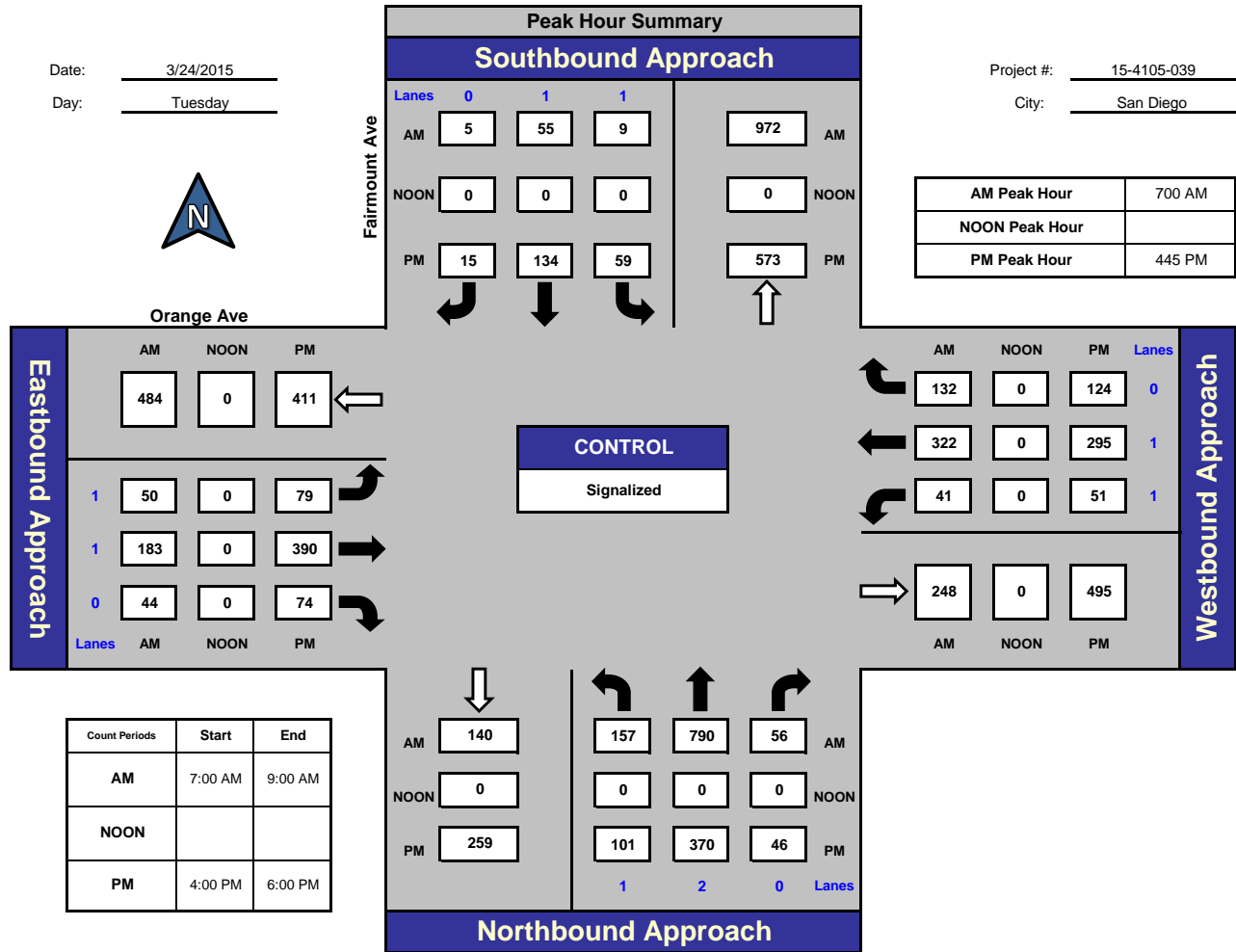


Prepared by:  
National Data & Surveying Services

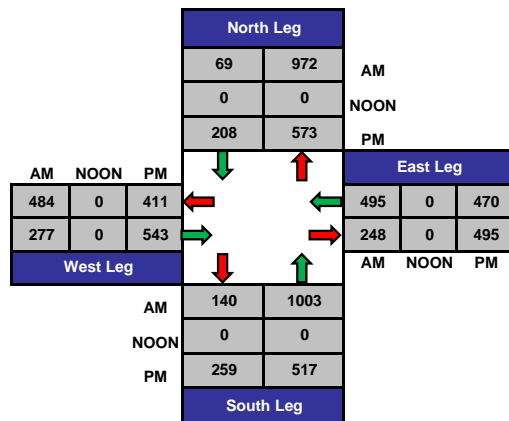
## Fairmount Ave and Orange Ave, San Diego

Date: 3/24/2015  
Day: Tuesday

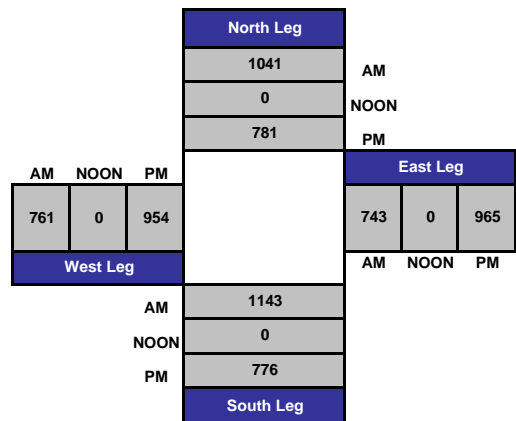
Project #: 15-4105-039  
City: San Diego



### Total Ins & Outs



### Total Volume Per Leg



# Turn Count Summary

Accurate Video Counts Inc  
 info@accuratevideocounts.com  
 (619) 987-5136



**Location:** Orange Ave @ Chamoune Ave

**Date of Count:** Tuesday, March 21, 2017

**Analysts:** LV/CD

**Weather:** Sunny

**AVC Proj No:** 17-0643



# Vehicular Count

Accurate Video Counts Inc  
 info@accuratevideocounts.com  
 (619) 987-5136



**Location:** Orange Ave @ Chamoune Ave

| AM Period (7:00 AM - 9:00 AM) |            |            |           |           |            |           |            |            |           |           |            |           |              |
|-------------------------------|------------|------------|-----------|-----------|------------|-----------|------------|------------|-----------|-----------|------------|-----------|--------------|
|                               | Southbound |            |           | Westbound |            |           | Northbound |            |           | Eastbound |            |           | TOTAL        |
|                               | Right      | Thru       | Left      | Right     | Thru       | Left      | Right      | Thru       | Left      | Right     | Thru       | Left      |              |
| 7:00 AM                       | 6          | 25         | 1         | 10        | 80         | 11        | 7          | 63         | 7         | 4         | 30         | 11        | 255          |
| 7:15 AM                       | 6          | 47         | 15        | 23        | 65         | 14        | 10         | 60         | 7         | 6         | 32         | 7         | 292          |
| 7:30 AM                       | 5          | 19         | 5         | 11        | 96         | 13        | 3          | 29         | 4         | 8         | 47         | 5         | 245          |
| 7:45 AM                       | 7          | 7          | 2         | 13        | 86         | 5         | 8          | 18         | 8         | 4         | 55         | 7         | 220          |
| 8:00 AM                       | 3          | 6          | 1         | 12        | 82         | 4         | 5          | 25         | 11        | 2         | 50         | 5         | 206          |
| 8:15 AM                       | 3          | 8          | 4         | 14        | 85         | 9         | 9          | 18         | 11        | 6         | 38         | 5         | 210          |
| 8:30 AM                       | 1          | 7          | 3         | 6         | 65         | 11        | 12         | 23         | 10        | 4         | 57         | 2         | 201          |
| 8:45 AM                       | 4          | 2          | 4         | 9         | 82         | 8         | 9          | 14         | 5         | 4         | 51         | 8         | 200          |
| <b>Total</b>                  | <b>35</b>  | <b>121</b> | <b>35</b> | <b>98</b> | <b>641</b> | <b>75</b> | <b>63</b>  | <b>250</b> | <b>63</b> | <b>38</b> | <b>360</b> | <b>50</b> | <b>1,829</b> |

AM Intersection Peak Hour : **7:00 AM - 8:00 AM**

Intersection PHF : **0.87**

|              | Southbound |      |      | Westbound |      |      | Northbound |      |      | Eastbound |      |      | TOTAL |
|--------------|------------|------|------|-----------|------|------|------------|------|------|-----------|------|------|-------|
|              | Right      | Thru | Left | Right     | Thru | Left | Right      | Thru | Left | Right     | Thru | Left |       |
| Volume       | 24         | 98   | 23   | 57        | 327  | 43   | 28         | 170  | 26   | 22        | 164  | 30   | 1,012 |
| PHF          | 0.86       | 0.52 | 0.38 | 0.62      | 0.85 | 0.77 | 0.70       | 0.67 | 0.81 | 0.69      | 0.75 | 0.68 | 0.87  |
| Movement PHF | 0.53       |      |      | 0.89      |      |      | 0.73       |      |      | 0.82      |      |      | 0.87  |

| PM Period (4:00 PM - 6:00 PM) |            |            |           |           |            |           |            |           |           |           |            |           |              |
|-------------------------------|------------|------------|-----------|-----------|------------|-----------|------------|-----------|-----------|-----------|------------|-----------|--------------|
|                               | Southbound |            |           | Westbound |            |           | Northbound |           |           | Eastbound |            |           | TOTAL        |
|                               | Right      | Thru       | Left      | Right     | Thru       | Left      | Right      | Thru      | Left      | Right     | Thru       | Left      |              |
| 4:00 PM                       | 4          | 16         | 4         | 9         | 60         | 8         | 7          | 13        | 3         | 12        | 69         | 8         | 213          |
| 4:15 PM                       | 13         | 10         | 9         | 9         | 52         | 8         | 6          | 11        | 7         | 4         | 74         | 12        | 215          |
| 4:30 PM                       | 9          | 17         | 9         | 7         | 67         | 10        | 5          | 15        | 8         | 12        | 92         | 8         | 259          |
| 4:45 PM                       | 7          | 14         | 2         | 9         | 57         | 7         | 5          | 16        | 13        | 8         | 97         | 6         | 241          |
| 5:00 PM                       | 5          | 22         | 2         | 10        | 87         | 10        | 5          | 12        | 4         | 7         | 110        | 3         | 277          |
| 5:15 PM                       | 9          | 10         | 9         | 5         | 71         | 7         | 5          | 10        | 4         | 9         | 81         | 5         | 225          |
| 5:30 PM                       | 2          | 11         | 12        | 5         | 62         | 4         | 9          | 13        | 7         | 7         | 81         | 8         | 221          |
| 5:45 PM                       | 5          | 16         | 3         | 7         | 61         | 11        | 4          | 7         | 3         | 7         | 83         | 5         | 212          |
| <b>Total</b>                  | <b>54</b>  | <b>116</b> | <b>50</b> | <b>61</b> | <b>517</b> | <b>65</b> | <b>46</b>  | <b>97</b> | <b>49</b> | <b>66</b> | <b>687</b> | <b>55</b> | <b>1,863</b> |

PM Intersection Peak Hour : **4:30 PM - 5:30 PM**

Intersection PHF : **0.90**

|              | Southbound |       |       | Westbound |      |      | Northbound |       |       | Eastbound |       |       | TOTAL |
|--------------|------------|-------|-------|-----------|------|------|------------|-------|-------|-----------|-------|-------|-------|
|              | Right      | Thru  | Left  | Right     | Thru | Left | Right      | Thru  | Left  | Right     | Thru  | Left  |       |
| Volume       | 30         | 63    | 22    | 31        | 282  | 34   | 20         | 53    | 29    | 36        | 380   | 22    | 1002  |
| PHF          | 0.83       | 0.716 | 0.611 | 0.775     | 0.81 | 0.85 | 1          | 0.828 | 0.558 | 0.75      | 0.864 | 0.688 | 0.90  |
| Movement PHF | 0.82       |       |       | 0.81      |      |      | 0.75       |       |       | 0.91      |       |       | 0.90  |



# U-Turn Count Summary

Accurate Video Counts Inc  
 info@accuratevideocounts.com  
 (619) 987-1536



**Location:** Orange Ave @ Chamoune Ave

| AM Period (7:00 AM - 9:00 AM) |                      |                     |                      |                     |          |
|-------------------------------|----------------------|---------------------|----------------------|---------------------|----------|
|                               | Southbound<br>U-Turn | Westbound<br>U-Turn | Northbound<br>U-Turn | Eastbound<br>U-Turn | TOTAL    |
| 7:00 AM                       | 0                    | 0                   | 0                    | 0                   | 0        |
| 7:15 AM                       | 0                    | 0                   | 0                    | 0                   | 0        |
| 7:30 AM                       | 0                    | 0                   | 0                    | 0                   | 0        |
| 7:45 AM                       | 0                    | 0                   | 0                    | 0                   | 0        |
| 8:00 AM                       | 0                    | 0                   | 0                    | 0                   | 0        |
| 8:15 AM                       | 0                    | 0                   | 0                    | 1                   | 1        |
| 8:30 AM                       | 0                    | 0                   | 0                    | 0                   | 0        |
| 8:45 AM                       | 0                    | 0                   | 0                    | 0                   | 0        |
| <b>Total</b>                  | <b>0</b>             | <b>0</b>            | <b>0</b>             | <b>1</b>            | <b>1</b> |

AM Intersection Peak Hour : **7:00 AM - 8:00 AM** Intersection PHF : **#DIV/0!**

|              | North Leg<br>EB | East Leg<br>SB | South Leg<br>EB | West Leg<br>SB | TOTAL   |
|--------------|-----------------|----------------|-----------------|----------------|---------|
| Volume       | 0               | 0              | 0               | 0              | 0       |
| PHF          | #DIV/0!         | #DIV/0!        | #DIV/0!         | #DIV/0!        | #DIV/0! |
| Movement PHF | #DIV/0!         | #DIV/0!        | #DIV/0!         | #DIV/0!        | #DIV/0! |

| PM Period (4:00 PM - 6:00 PM) |                      |                     |                      |                     |          |
|-------------------------------|----------------------|---------------------|----------------------|---------------------|----------|
|                               | Southbound<br>U-Turn | Westbound<br>U-Turn | Northbound<br>U-Turn | Eastbound<br>U-Turn | TOTAL    |
| 4:00 PM                       | 0                    | 0                   | 0                    | 0                   | 0        |
| 4:15 PM                       | 0                    | 0                   | 0                    | 0                   | 0        |
| 4:30 PM                       | 0                    | 1                   | 0                    | 0                   | 1        |
| 4:45 PM                       | 0                    | 0                   | 0                    | 0                   | 0        |
| 5:00 PM                       | 0                    | 0                   | 0                    | 0                   | 0        |
| 5:15 PM                       | 0                    | 0                   | 0                    | 0                   | 0        |
| 5:30 PM                       | 0                    | 0                   | 0                    | 0                   | 0        |
| 5:45 PM                       | 0                    | 0                   | 0                    | 0                   | 0        |
| <b>Total</b>                  | <b>0</b>             | <b>1</b>            | <b>0</b>             | <b>0</b>            | <b>1</b> |

PM Intersection Peak Hour : **4:30 PM - 5:30 PM** Intersection PHF : **0.25**

|              | North Leg<br>EB | East Leg<br>SB | South Leg<br>EB | West Leg<br>SB | TOTAL |
|--------------|-----------------|----------------|-----------------|----------------|-------|
| Volume       | 0               | 1              | 0               | 0              | 1     |
| PHF          | #DIV/0!         | 0.25           | #DIV/0!         | #DIV/0!        | 0.25  |
| Movement PHF | #DIV/0!         | 0.25           | #DIV/0!         | #DIV/0!        | 0.25  |

# Bike Turn Count Summary

Accurate Video Counts Inc  
info@accuratevideocounts.com  
(619) 987-5136



**Location:** Orange Ave @ Chamoune Ave

**Date of Count:** Tuesday, March 21, 2017

**Analysts:** LV/CD

**Weather:** Sunny

**AVC Proj No:** 17-0643



# Bike Count

Accurate Video Counts Inc  
 info@accuratevideocounts.com  
 (619) 987-5136



**Location:** Orange Ave @ Chamoune Ave

| AM Period (7:00 AM - 9:00 AM) |            |          |          |           |          |          |            |          |          |           |          |          |           |
|-------------------------------|------------|----------|----------|-----------|----------|----------|------------|----------|----------|-----------|----------|----------|-----------|
|                               | Southbound |          |          | Westbound |          |          | Northbound |          |          | Eastbound |          |          | TOTAL     |
|                               | Right      | Thru     | Left     | Right     | Thru     | Left     | Right      | Thru     | Left     | Right     | Thru     | Left     |           |
| 7:00 AM                       | 0          | 0        | 0        | 0         | 0        | 0        | 0          | 1        | 0        | 0         | 0        | 0        | 1         |
| 7:15 AM                       | 0          | 0        | 0        | 0         | 0        | 0        | 0          | 0        | 0        | 0         | 2        | 0        | 2         |
| 7:30 AM                       | 0          | 0        | 0        | 0         | 1        | 0        | 0          | 0        | 0        | 0         | 0        | 0        | 1         |
| 7:45 AM                       | 0          | 0        | 0        | 0         | 0        | 0        | 0          | 0        | 1        | 0         | 0        | 0        | 1         |
| 8:00 AM                       | 0          | 0        | 0        | 0         | 1        | 0        | 0          | 0        | 0        | 0         | 0        | 0        | 1         |
| 8:15 AM                       | 0          | 0        | 0        | 0         | 1        | 0        | 0          | 0        | 0        | 0         | 1        | 0        | 2         |
| 8:30 AM                       | 0          | 0        | 0        | 0         | 1        | 0        | 0          | 0        | 0        | 0         | 0        | 0        | 1         |
| 8:45 AM                       | 0          | 0        | 0        | 0         | 2        | 0        | 0          | 0        | 0        | 0         | 1        | 0        | 3         |
| <b>Total</b>                  | <b>0</b>   | <b>0</b> | <b>0</b> | <b>0</b>  | <b>6</b> | <b>0</b> | <b>0</b>   | <b>1</b> | <b>1</b> | <b>0</b>  | <b>4</b> | <b>0</b> | <b>12</b> |

AM Intersection Peak Hour : **8:00 AM - 9:00 AM**

Intersection PHF : **0.58**

|              | Southbound |       |       | Westbound |      |       | Northbound |       |       | Eastbound |      |       | TOTAL |
|--------------|------------|-------|-------|-----------|------|-------|------------|-------|-------|-----------|------|-------|-------|
|              | Right      | Thru  | Left  | Right     | Thru | Left  | Right      | Thru  | Left  | Right     | Thru | Left  |       |
| Volume       | 0          | 0     | 0     | 0         | 5    | 0     | 0          | 0     | 0     | 0         | 2    | 0     | 7     |
| PHF          | #####      | ##### | ##### | #####     | 0.63 | ##### | #####      | ##### | ##### | #####     | 0.50 | ##### | 0.58  |
| Movement PHF | #DIV/0!    |       |       | 0.63      |      |       | #DIV/0!    |       |       | 0.50      |      |       | 0.58  |

| PM Period (4:00 PM - 6:00 PM) |            |          |          |           |           |          |            |          |          |           |          |          |           |
|-------------------------------|------------|----------|----------|-----------|-----------|----------|------------|----------|----------|-----------|----------|----------|-----------|
|                               | Southbound |          |          | Westbound |           |          | Northbound |          |          | Eastbound |          |          | TOTAL     |
|                               | Right      | Thru     | Left     | Right     | Thru      | Left     | Right      | Thru     | Left     | Right     | Thru     | Left     |           |
| 4:00 PM                       | 0          | 0        | 0        | 0         | 2         | 0        | 0          | 0        | 0        | 0         | 0        | 0        | 2         |
| 4:15 PM                       | 0          | 1        | 0        | 0         | 2         | 0        | 0          | 0        | 0        | 0         | 0        | 0        | 3         |
| 4:30 PM                       | 0          | 1        | 0        | 0         | 3         | 0        | 0          | 0        | 0        | 0         | 0        | 1        | 5         |
| 4:45 PM                       | 1          | 0        | 0        | 0         | 1         | 0        | 0          | 1        | 0        | 0         | 1        | 1        | 5         |
| 5:00 PM                       | 0          | 0        | 0        | 0         | 2         | 0        | 0          | 0        | 0        | 0         | 0        | 0        | 2         |
| 5:15 PM                       | 0          | 0        | 0        | 0         | 1         | 0        | 0          | 0        | 0        | 0         | 2        | 0        | 3         |
| 5:30 PM                       | 0          | 0        | 0        | 0         | 3         | 0        | 0          | 0        | 0        | 0         | 1        | 0        | 4         |
| 5:45 PM                       | 0          | 1        | 0        | 0         | 0         | 0        | 0          | 0        | 0        | 0         | 1        | 0        | 2         |
| <b>Total</b>                  | <b>1</b>   | <b>3</b> | <b>0</b> | <b>0</b>  | <b>14</b> | <b>0</b> | <b>0</b>   | <b>1</b> | <b>0</b> | <b>0</b>  | <b>5</b> | <b>2</b> | <b>26</b> |

PM Intersection Peak Hour : **4:00 PM - 5:00 PM**

Intersection PHF : **0.75**

|              | Southbound |      |       | Westbound |       |       | Northbound |      |       | Eastbound |      |      | TOTAL |
|--------------|------------|------|-------|-----------|-------|-------|------------|------|-------|-----------|------|------|-------|
|              | Right      | Thru | Left  | Right     | Thru  | Left  | Right      | Thru | Left  | Right     | Thru | Left |       |
| Volume       | 1          | 2    | 0     | 0         | 8     | 0     | 0          | 1    | 0     | 0         | 1    | 2    | 15    |
| PHF          | 0.25       | 0.5  | ##### | #####     | 0.667 | ##### | #####      | 0.25 | ##### | #####     | 0.25 | 0.5  | 0.75  |
| Movement PHF | 0.75       |      |       | 0.67      |       |       | 0.25       |      |       | 0.38      |      |      | 0.75  |

# Pedestrian Count

Accurate Video Counts Inc  
 info@accuratevideocounts.com  
 (619) 987-1536



**Location:** Orange Ave Chamoune Ave

| AM Period (7:00 AM - 9:00 AM) |                    |                   |                    |                   |            |
|-------------------------------|--------------------|-------------------|--------------------|-------------------|------------|
|                               | North Leg<br>Total | East Leg<br>Total | South Leg<br>Total | West Leg<br>Total | TOTAL      |
| 7:00 AM                       | 4                  | 17                | 13                 | 5                 | 39         |
| 7:15 AM                       | 1                  | 37                | 4                  | 3                 | 45         |
| 7:30 AM                       | 5                  | 7                 | 14                 | 2                 | 28         |
| 7:45 AM                       | 2                  | 4                 | 4                  | 2                 | 12         |
| 8:00 AM                       | 5                  | 6                 | 13                 | 6                 | 30         |
| 8:15 AM                       | 0                  | 8                 | 14                 | 2                 | 24         |
| 8:30 AM                       | 2                  | 5                 | 24                 | 0                 | 31         |
| 8:45 AM                       | 2                  | 4                 | 25                 | 2                 | 33         |
| <b>Total</b>                  | <b>21</b>          | <b>88</b>         | <b>111</b>         | <b>22</b>         | <b>242</b> |

AM Intersection Peak Hour : **7:00 AM - 8:00 AM** **0.69**

|              | North Leg<br>Total | East Leg<br>Total | South Leg<br>Total | West Leg<br>Total | TOTAL |
|--------------|--------------------|-------------------|--------------------|-------------------|-------|
| Volume       | 12                 | 65                | 35                 | 12                | 248   |
| PHF          | 0.60               | 0.44              | 0.63               | 0.60              | 0.69  |
| Movement PHF | 0.60               | 0.44              | 0.63               | 0.60              | 0.69  |

| PM Period (4:00 PM - 6:00 PM) |                    |                   |                    |                   |            |
|-------------------------------|--------------------|-------------------|--------------------|-------------------|------------|
|                               | North Leg<br>Total | East Leg<br>Total | South Leg<br>Total | West Leg<br>Total | TOTAL      |
| 4:00 PM                       | 3                  | 12                | 8                  | 1                 | 24         |
| 4:15 PM                       | 2                  | 3                 | 11                 | 2                 | 18         |
| 4:30 PM                       | 0                  | 6                 | 8                  | 3                 | 17         |
| 4:45 PM                       | 1                  | 8                 | 17                 | 3                 | 29         |
| 5:00 PM                       | 0                  | 2                 | 8                  | 0                 | 10         |
| 5:15 PM                       | 7                  | 6                 | 7                  | 3                 | 23         |
| 5:30 PM                       | 2                  | 13                | 12                 | 1                 | 28         |
| 5:45 PM                       | 4                  | 3                 | 8                  | 0                 | 15         |
| <b>Total</b>                  | <b>19</b>          | <b>53</b>         | <b>79</b>          | <b>13</b>         | <b>164</b> |

PM Intersection Peak Hour : **4:30 PM - 5:30 PM** **0.68**

|              | North Leg<br>Total | East Leg<br>Total | South Leg<br>Total | West Leg<br>Total | TOTAL |
|--------------|--------------------|-------------------|--------------------|-------------------|-------|
| Volume       | 8                  | 22                | 40                 | 9                 | 158   |
| PHF          | 0.285714286        | 0.6875            | 0.588235294        | 0.75              | 0.68  |
| Movement PHF | 0.29               | 0.69              | 0.59               | 0.75              | 0.68  |

# ITM Peak Hour Summary

Prepared by:

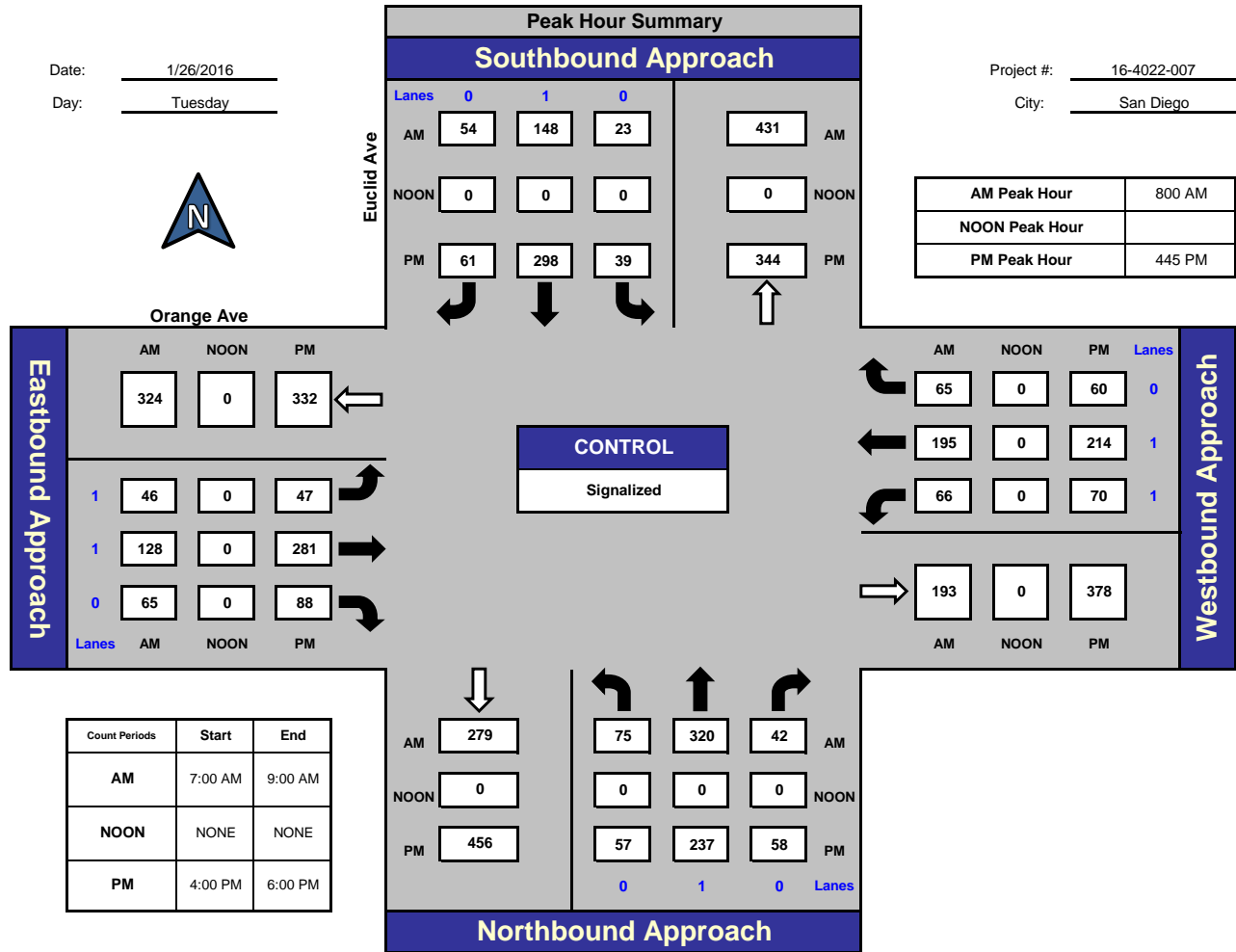


National Data & Surveying Services

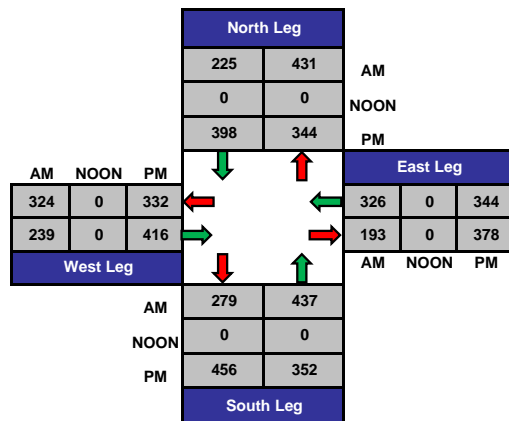
## Euclid Ave and Orange Ave, San Diego

Date: 1/26/2016  
Day: Tuesday

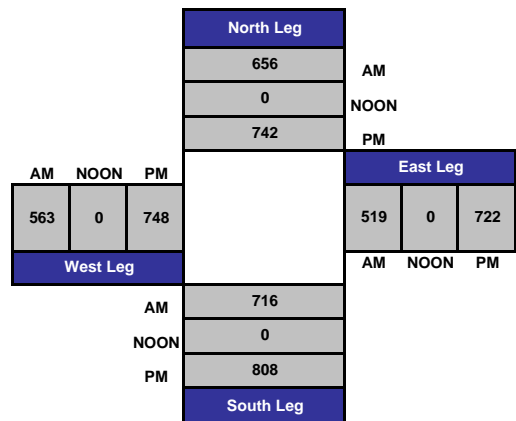
Project #: 16-4022-007  
City: San Diego



### Total Ins & Outs



### Total Volume Per Leg



# Turn Count Summary

Accurate Video Counts Inc  
 info@accuratevideocounts.com  
 (619) 987-5136



**Location:** Orange Ave @ Estrella Ave

**Date of Count:** Tuesday, March 21, 2017

**Analysts:** LV/CD

**Weather:** Sunny

**AVC Proj No:** 17-0643



# Vehicular Count

Accurate Video Counts Inc  
 info@accuratevideocounts.com  
 (619) 987-5136



**Location:** Orange Ave @ Estrella Ave

| AM Period (7:00 AM - 9:00 AM) |            |           |           |           |            |           |            |           |           |           |            |           |              |
|-------------------------------|------------|-----------|-----------|-----------|------------|-----------|------------|-----------|-----------|-----------|------------|-----------|--------------|
|                               | Southbound |           |           | Westbound |            |           | Northbound |           |           | Eastbound |            |           | TOTAL        |
|                               | Right      | Thru      | Left      | Right     | Thru       | Left      | Right      | Thru      | Left      | Right     | Thru       | Left      |              |
| 7:00 AM                       | 8          | 7         | 4         | 4         | 79         | 4         | 7          | 11        | 3         | 1         | 34         | 2         | 164          |
| 7:15 AM                       | 8          | 3         | 2         | 2         | 74         | 7         | 4          | 5         | 9         | 3         | 33         | 4         | 154          |
| 7:30 AM                       | 10         | 6         | 1         | 0         | 85         | 2         | 3          | 6         | 6         | 2         | 38         | 5         | 164          |
| 7:45 AM                       | 7          | 10        | 4         | 0         | 72         | 0         | 5          | 6         | 2         | 2         | 41         | 9         | 158          |
| 8:00 AM                       | 9          | 3         | 3         | 2         | 56         | 4         | 1          | 12        | 9         | 4         | 38         | 6         | 147          |
| 8:15 AM                       | 5          | 12        | 1         | 1         | 72         | 8         | 16         | 11        | 6         | 2         | 44         | 7         | 185          |
| 8:30 AM                       | 8          | 9         | 6         | 0         | 73         | 9         | 7          | 5         | 8         | 1         | 44         | 6         | 176          |
| 8:45 AM                       | 7          | 6         | 0         | 0         | 53         | 2         | 7          | 6         | 9         | 2         | 34         | 5         | 131          |
| <b>Total</b>                  | <b>62</b>  | <b>56</b> | <b>21</b> | <b>9</b>  | <b>564</b> | <b>36</b> | <b>50</b>  | <b>62</b> | <b>52</b> | <b>17</b> | <b>306</b> | <b>44</b> | <b>1,279</b> |

AM Intersection Peak Hour : **7:45 AM - 8:45 AM**

Intersection PHF : **0.90**

|              | Southbound |      |      | Westbound |      |      | Northbound |      |      | Eastbound |      |      | TOTAL |
|--------------|------------|------|------|-----------|------|------|------------|------|------|-----------|------|------|-------|
|              | Right      | Thru | Left | Right     | Thru | Left | Right      | Thru | Left | Right     | Thru | Left |       |
| Volume       | 29         | 34   | 14   | 3         | 273  | 21   | 29         | 34   | 25   | 9         | 167  | 28   | 666   |
| PHF          | 0.81       | 0.71 | 0.58 | 0.38      | 0.93 | 0.58 | 0.45       | 0.71 | 0.69 | 0.56      | 0.95 | 0.78 | 0.90  |
| Movement PHF | 0.84       |      |      | 0.91      |      |      | 0.67       |      |      | 0.96      |      |      | 0.90  |

| PM Period (4:00 PM - 6:00 PM) |            |           |           |           |            |           |            |           |           |           |            |           |              |
|-------------------------------|------------|-----------|-----------|-----------|------------|-----------|------------|-----------|-----------|-----------|------------|-----------|--------------|
|                               | Southbound |           |           | Westbound |            |           | Northbound |           |           | Eastbound |            |           | TOTAL        |
|                               | Right      | Thru      | Left      | Right     | Thru       | Left      | Right      | Thru      | Left      | Right     | Thru       | Left      |              |
| 4:00 PM                       | 4          | 7         | 3         | 2         | 53         | 1         | 4          | 6         | 2         | 4         | 51         | 5         | 142          |
| 4:15 PM                       | 3          | 10        | 4         | 4         | 56         | 3         | 1          | 8         | 5         | 2         | 54         | 4         | 154          |
| 4:30 PM                       | 3          | 7         | 5         | 4         | 58         | 1         | 2          | 7         | 5         | 5         | 70         | 6         | 173          |
| 4:45 PM                       | 6          | 7         | 3         | 2         | 49         | 3         | 3          | 3         | 2         | 4         | 78         | 7         | 167          |
| 5:00 PM                       | 6          | 8         | 3         | 1         | 75         | 5         | 4          | 7         | 6         | 4         | 104        | 8         | 231          |
| 5:15 PM                       | 14         | 9         | 3         | 2         | 56         | 7         | 2          | 5         | 6         | 3         | 65         | 5         | 177          |
| 5:30 PM                       | 3          | 7         | 6         | 1         | 52         | 5         | 3          | 7         | 5         | 5         | 67         | 5         | 166          |
| 5:45 PM                       | 8          | 8         | 0         | 1         | 60         | 9         | 5          | 4         | 5         | 3         | 65         | 10        | 178          |
| <b>Total</b>                  | <b>47</b>  | <b>63</b> | <b>27</b> | <b>17</b> | <b>459</b> | <b>34</b> | <b>24</b>  | <b>47</b> | <b>36</b> | <b>30</b> | <b>554</b> | <b>50</b> | <b>1,388</b> |

PM Intersection Peak Hour : **5:00 PM - 6:00 PM**

Intersection PHF : **0.81**

|              | Southbound |       |      | Westbound |      |       | Northbound |       |       | Eastbound |       |      | TOTAL |
|--------------|------------|-------|------|-----------|------|-------|------------|-------|-------|-----------|-------|------|-------|
|              | Right      | Thru  | Left | Right     | Thru | Left  | Right      | Thru  | Left  | Right     | Thru  | Left |       |
| Volume       | 31         | 32    | 12   | 5         | 243  | 26    | 14         | 23    | 22    | 15        | 301   | 28   | 752   |
| PHF          | 0.55       | 0.889 | 0.5  | 0.625     | 0.81 | 0.722 | 0.7        | 0.821 | 0.917 | 0.75      | 0.724 | 0.7  | 0.81  |
| Movement PHF | 0.72       |       |      | 0.85      |      |       | 0.87       |       |       | 0.74      |       |      | 0.81  |

# U-Turn Count Summary

Accurate Video Counts Inc  
 info@accuratevideocounts.com  
 (619) 987-1536



**Location:** Orange Ave @ Estrella Ave

| AM Period (7:00 AM - 9:00 AM) |                      |                     |                      |                     |       |
|-------------------------------|----------------------|---------------------|----------------------|---------------------|-------|
|                               | Southbound<br>U-Turn | Westbound<br>U-Turn | Northbound<br>U-Turn | Eastbound<br>U-Turn | TOTAL |
| 7:00 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 7:15 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 7:30 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 7:45 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 8:00 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 8:15 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 8:30 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 8:45 AM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| Total                         | 0                    | 0                   | 0                    | 0                   | 0     |

AM Intersection Peak Hour : **7:45 AM - 8:45 AM** Intersection PHF : **#DIV/0!**

|              | North Leg<br>EB | East Leg<br>SB | South Leg<br>EB | West Leg<br>SB | TOTAL   |
|--------------|-----------------|----------------|-----------------|----------------|---------|
| Volume       | 0               | 0              | 0               | 0              | 0       |
| PHF          | #DIV/0!         | #DIV/0!        | #DIV/0!         | #DIV/0!        | #DIV/0! |
| Movement PHF | #DIV/0!         | #DIV/0!        | #DIV/0!         | #DIV/0!        | #DIV/0! |

| PM Period (4:00 PM - 6:00 PM) |                      |                     |                      |                     |       |
|-------------------------------|----------------------|---------------------|----------------------|---------------------|-------|
|                               | Southbound<br>U-Turn | Westbound<br>U-Turn | Northbound<br>U-Turn | Eastbound<br>U-Turn | TOTAL |
| 4:00 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 4:15 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 4:30 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 4:45 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 5:00 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 5:15 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 5:30 PM                       | 0                    | 0                   | 0                    | 0                   | 0     |
| 5:45 PM                       | 0                    | 0                   | 0                    | 1                   | 1     |
| Total                         | 0                    | 0                   | 0                    | 1                   | 1     |

PM Intersection Peak Hour : **5:00 PM - 6:00 PM** Intersection PHF : **0.25**

|              | North Leg<br>EB | East Leg<br>SB | South Leg<br>EB | West Leg<br>SB | TOTAL |
|--------------|-----------------|----------------|-----------------|----------------|-------|
| Volume       | 0               | 0              | 0               | 1              | 1     |
| PHF          | #DIV/0!         | #DIV/0!        | #DIV/0!         | 0.25           | 0.25  |
| Movement PHF | #DIV/0!         | #DIV/0!        | #DIV/0!         | 0.25           | 0.25  |



# Bike Turn Count Summary

Accurate Video Counts Inc  
 info@accuratevideocounts.com  
 (619) 987-5136



**Location:** Orange Ave @ Estrella Ave

**Date of Count:** Tuesday, March 21, 2017

**Analysts:** LV/CD

**Weather:** Sunny

**AVC Proj No:** 17-0643



# Bike Count

Accurate Video Counts Inc  
 info@accuratevideocounts.com  
 (619) 987-5136



**Location:** Orange Ave @ Estrella Ave

| AM Period (7:00 AM - 9:00 AM) |            |          |          |           |          |          |            |          |          |           |          |          |           |
|-------------------------------|------------|----------|----------|-----------|----------|----------|------------|----------|----------|-----------|----------|----------|-----------|
|                               | Southbound |          |          | Westbound |          |          | Northbound |          |          | Eastbound |          |          | TOTAL     |
|                               | Right      | Thru     | Left     | Right     | Thru     | Left     | Right      | Thru     | Left     | Right     | Thru     | Left     |           |
| 7:00 AM                       | 0          | 0        | 0        | 0         | 0        | 0        | 0          | 1        | 0        | 0         | 0        | 0        | 1         |
| 7:15 AM                       | 0          | 0        | 0        | 0         | 0        | 0        | 0          | 0        | 0        | 0         | 1        | 1        | 2         |
| 7:30 AM                       | 0          | 0        | 0        | 0         | 1        | 0        | 0          | 0        | 0        | 0         | 0        | 0        | 1         |
| 7:45 AM                       | 0          | 0        | 0        | 0         | 0        | 0        | 0          | 0        | 0        | 0         | 0        | 0        | 0         |
| 8:00 AM                       | 0          | 0        | 0        | 0         | 1        | 0        | 0          | 0        | 0        | 0         | 0        | 0        | 1         |
| 8:15 AM                       | 0          | 1        | 0        | 0         | 0        | 0        | 0          | 1        | 0        | 0         | 1        | 0        | 3         |
| 8:30 AM                       | 0          | 0        | 0        | 0         | 1        | 0        | 0          | 0        | 0        | 0         | 0        | 0        | 1         |
| 8:45 AM                       | 0          | 0        | 0        | 0         | 2        | 0        | 0          | 0        | 1        | 1         | 1        | 0        | 5         |
| <b>Total</b>                  | <b>0</b>   | <b>1</b> | <b>0</b> | <b>0</b>  | <b>5</b> | <b>0</b> | <b>0</b>   | <b>2</b> | <b>1</b> | <b>1</b>  | <b>3</b> | <b>1</b> | <b>14</b> |

AM Intersection Peak Hour : **8:00 AM - 9:00 AM**

Intersection PHF : **0.50**

|              | Southbound |      |       | Westbound |      |       | Northbound |      |      | Eastbound |      |       | TOTAL |
|--------------|------------|------|-------|-----------|------|-------|------------|------|------|-----------|------|-------|-------|
|              | Right      | Thru | Left  | Right     | Thru | Left  | Right      | Thru | Left | Right     | Thru | Left  |       |
| Volume       | 0          | 1    | 0     | 0         | 4    | 0     | 0          | 1    | 1    | 1         | 2    | 0     | 10    |
| PHF          | #####      | 0.25 | ##### | #####     | 0.50 | ##### | #####      | 0.25 | 0.25 | 0.25      | 0.50 | ##### | 0.50  |
| Movement PHF |            | 0.25 |       |           | 0.50 |       |            | 0.50 |      |           | 0.38 |       | 0.50  |

| PM Period (4:00 PM - 6:00 PM) |            |          |          |           |          |          |            |          |          |           |          |          |           |
|-------------------------------|------------|----------|----------|-----------|----------|----------|------------|----------|----------|-----------|----------|----------|-----------|
|                               | Southbound |          |          | Westbound |          |          | Northbound |          |          | Eastbound |          |          | TOTAL     |
|                               | Right      | Thru     | Left     | Right     | Thru     | Left     | Right      | Thru     | Left     | Right     | Thru     | Left     |           |
| 4:00 PM                       | 0          | 1        | 0        | 0         | 3        | 0        | 0          | 2        | 0        | 0         | 0        | 0        | 6         |
| 4:15 PM                       | 0          | 0        | 1        | 0         | 1        | 0        | 0          | 2        | 0        | 0         | 0        | 0        | 4         |
| 4:30 PM                       | 0          | 2        | 0        | 0         | 0        | 0        | 0          | 0        | 0        | 0         | 1        | 0        | 3         |
| 4:45 PM                       | 0          | 1        | 0        | 0         | 1        | 0        | 0          | 0        | 0        | 0         | 2        | 0        | 4         |
| 5:00 PM                       | 0          | 0        | 0        | 0         | 1        | 0        | 0          | 0        | 0        | 0         | 0        | 0        | 1         |
| 5:15 PM                       | 0          | 0        | 0        | 0         | 0        | 0        | 0          | 0        | 0        | 0         | 4        | 1        | 5         |
| 5:30 PM                       | 0          | 0        | 0        | 0         | 1        | 0        | 0          | 1        | 0        | 0         | 0        | 0        | 2         |
| 5:45 PM                       | 0          | 0        | 0        | 0         | 0        | 0        | 0          | 1        | 0        | 0         | 1        | 0        | 2         |
| <b>Total</b>                  | <b>0</b>   | <b>4</b> | <b>1</b> | <b>0</b>  | <b>7</b> | <b>0</b> | <b>0</b>   | <b>6</b> | <b>0</b> | <b>0</b>  | <b>8</b> | <b>1</b> | <b>27</b> |

PM Intersection Peak Hour : **4:00 PM - 5:00 PM**

Intersection PHF : **0.71**

|              | Southbound |      |      | Westbound |       |       | Northbound |      |       | Eastbound |       |       | TOTAL |
|--------------|------------|------|------|-----------|-------|-------|------------|------|-------|-----------|-------|-------|-------|
|              | Right      | Thru | Left | Right     | Thru  | Left  | Right      | Thru | Left  | Right     | Thru  | Left  |       |
| Volume       | 0          | 4    | 1    | 0         | 5     | 0     | 0          | 4    | 0     | 0         | 3     | 0     | 17    |
| PHF          | #####      | 0.5  | 0.25 | #####     | 0.417 | ##### | #####      | 0.5  | ##### | #####     | 0.375 | ##### | 0.71  |
| Movement PHF |            | 0.63 |      |           | 0.42  |       |            | 0.50 |       |           | 0.38  |       | 0.71  |

# Pedestrian Count

Accurate Video Counts Inc  
 info@accuratevideocounts.com  
 (619) 987-1536



**Location:** Orange Ave Estrella Ave

| AM Period (7:00 AM - 9:00 AM) |                    |                   |                    |                   |            |
|-------------------------------|--------------------|-------------------|--------------------|-------------------|------------|
|                               | North Leg<br>Total | East Leg<br>Total | South Leg<br>Total | West Leg<br>Total | TOTAL      |
| 7:00 AM                       | 5                  | 5                 | 6                  | 0                 | 16         |
| 7:15 AM                       | 3                  | 2                 | 6                  | 1                 | 12         |
| 7:30 AM                       | 10                 | 7                 | 5                  | 0                 | 22         |
| 7:45 AM                       | 5                  | 5                 | 9                  | 1                 | 20         |
| 8:00 AM                       | 1                  | 8                 | 11                 | 14                | 34         |
| 8:15 AM                       | 9                  | 34                | 31                 | 10                | 84         |
| 8:30 AM                       | 19                 | 29                | 48                 | 6                 | 102        |
| 8:45 AM                       | 7                  | 8                 | 5                  | 6                 | 26         |
| <b>Total</b>                  | <b>59</b>          | <b>98</b>         | <b>121</b>         | <b>38</b>         | <b>316</b> |

AM Intersection Peak Hour : **7:45 AM - 8:45 AM** **0.59**

|              | North Leg<br>Total | East Leg<br>Total | South Leg<br>Total | West Leg<br>Total | TOTAL |
|--------------|--------------------|-------------------|--------------------|-------------------|-------|
| Volume       | 34                 | 76                | 99                 | 31                | 480   |
| PHF          | 0.45               | 0.56              | 0.52               | 0.55              | 0.59  |
| Movement PHF | 0.45               | 0.56              | 0.52               | 0.55              | 0.59  |

| PM Period (4:00 PM - 6:00 PM) |                    |                   |                    |                   |            |
|-------------------------------|--------------------|-------------------|--------------------|-------------------|------------|
|                               | North Leg<br>Total | East Leg<br>Total | South Leg<br>Total | West Leg<br>Total | TOTAL      |
| 4:00 PM                       | 5                  | 7                 | 7                  | 4                 | 23         |
| 4:15 PM                       | 4                  | 7                 | 3                  | 3                 | 17         |
| 4:30 PM                       | 3                  | 3                 | 10                 | 0                 | 16         |
| 4:45 PM                       | 5                  | 16                | 19                 | 5                 | 45         |
| 5:00 PM                       | 8                  | 9                 | 10                 | 6                 | 33         |
| 5:15 PM                       | 8                  | 4                 | 13                 | 0                 | 25         |
| 5:30 PM                       | 3                  | 9                 | 6                  | 2                 | 20         |
| 5:45 PM                       | 4                  | 3                 | 4                  | 2                 | 13         |
| <b>Total</b>                  | <b>40</b>          | <b>58</b>         | <b>72</b>          | <b>22</b>         | <b>192</b> |

PM Intersection Peak Hour : **5:00 PM - 6:00 PM** **0.69**

|              | North Leg<br>Total | East Leg<br>Total | South Leg<br>Total | West Leg<br>Total | TOTAL |
|--------------|--------------------|-------------------|--------------------|-------------------|-------|
| Volume       | 23                 | 25                | 33                 | 10                | 182   |
| PHF          | 0.71875            | 0.694444444       | 0.634615385        | 0.416666667       | 0.69  |
| Movement PHF | 0.72               | 0.69              | 0.63               | 0.42              | 0.69  |

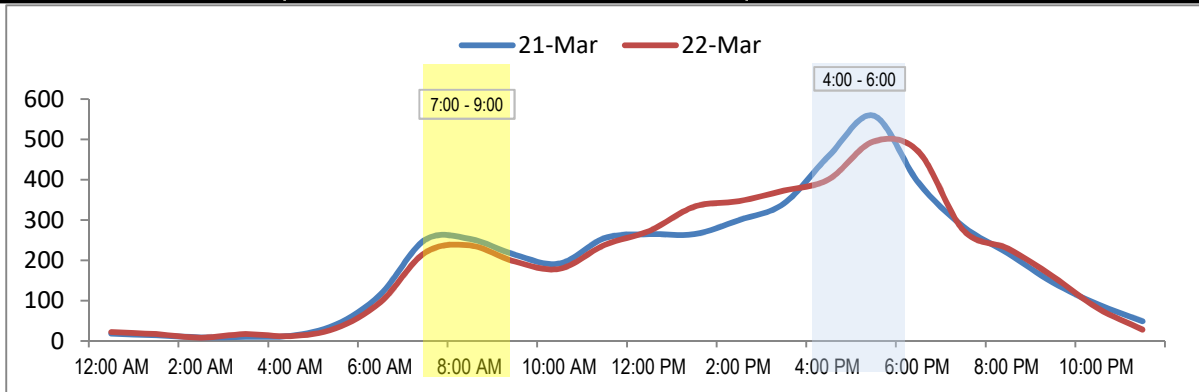
# 3-Day Segment Counts Summary

Accurate Video Counts Inc  
 info@accuratevideocounts.com  
 (619) 987-5136



**Location:** Howard Ave btwn Georgia St & Florida St (East of Alley)  
**Orientation:** East-West  
**Day 1** Tuesday, March 21, 2017  
**Day 2** Wednesday, March 22, 2017  
**AVC Proj. No:** 17-0643

|                     |                      | <b>Average Daily Traffic</b> | <b>4,745</b> |
|---------------------|----------------------|------------------------------|--------------|
|                     |                      | <b>Highest Daily Traffic</b> | <b>4,752</b> |
| <b>Time</b>         | <b>Hourly Volume</b> |                              |              |
|                     | <b>21-Mar</b>        | <b>22-Mar</b>                |              |
| 12:00 AM - 1:00 AM  | 18                   | 22                           |              |
| 1:00 AM - 2:00 AM   | 14                   | 17                           |              |
| 2:00 AM - 3:00 AM   | 9                    | 8                            |              |
| 3:00 AM - 4:00 AM   | 10                   | 17                           |              |
| 4:00 AM - 5:00 AM   | 13                   | 12                           |              |
| 5:00 AM - 6:00 AM   | 40                   | 31                           |              |
| 6:00 AM - 7:00 AM   | 115                  | 96                           |              |
| 7:00 AM - 8:00 AM   | 251                  | 219                          |              |
| 8:00 AM - 9:00 AM   | 253                  | 237                          |              |
| 9:00 AM - 10:00 AM  | 214                  | 197                          |              |
| 10:00 AM - 11:00 AM | 192                  | 179                          |              |
| 11:00 AM - 12:00 PM | 255                  | 238                          |              |
| 12:00 PM - 1:00 PM  | 265                  | 273                          |              |
| 1:00 PM - 2:00 PM   | 265                  | 333                          |              |
| 2:00 PM - 3:00 PM   | 300                  | 347                          |              |
| 3:00 PM - 4:00 PM   | 341                  | 373                          |              |
| 4:00 PM - 5:00 PM   | 459                  | 401                          |              |
| 5:00 PM - 6:00 PM   | 559                  | 495                          |              |
| 6:00 PM - 7:00 PM   | 393                  | 470                          |              |
| 7:00 PM - 8:00 PM   | 284                  | 275                          |              |
| 8:00 PM - 9:00 PM   | 217                  | 229                          |              |
| 9:00 PM - 10:00 PM  | 145                  | 160                          |              |
| 10:00 PM - 11:00 PM | 91                   | 81                           |              |
| 11:00 PM - 12:00 AM | 49                   | 28                           |              |
| <b>Total</b>        | <b>4,752</b>         | <b>4,738</b>                 |              |



# 24 Hour Segment Count

Accurate Video Counts Inc  
 info@accuratevideocounts.com  
 (619) 987-5136



**Location:** Howard Ave btwn Georgia St & Florida St (East of Alley)

**Orientation:** East-West

**Date of Count:** Tuesday, March 21, 2017

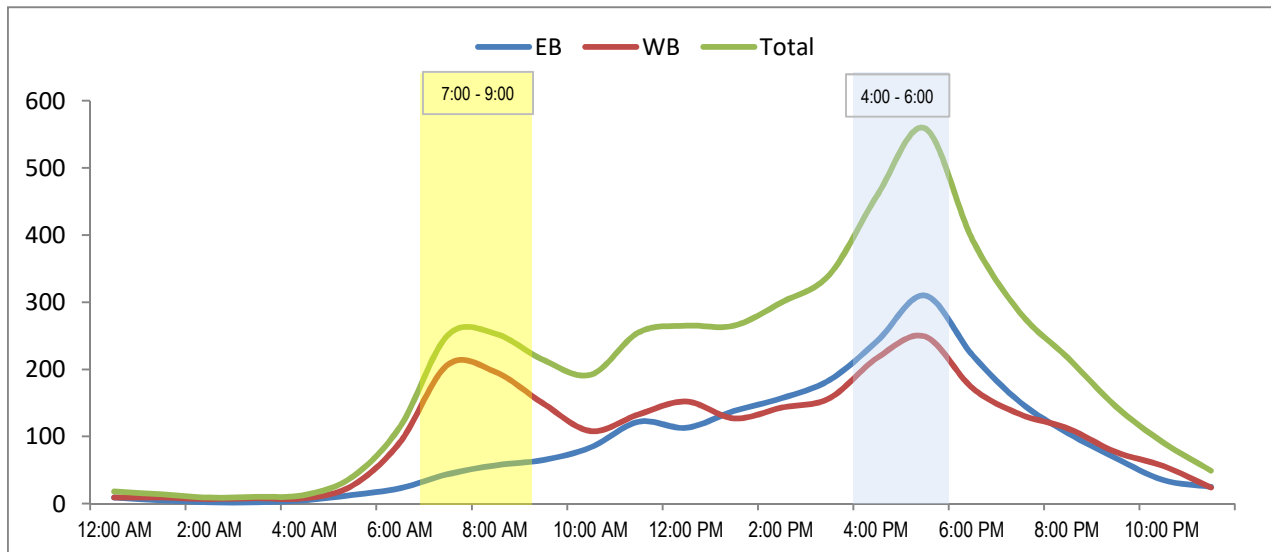
**Analysts:** DASH

**Weather:** Sunny

**AVC Proj. No:** 17-0643

| 24 Hour Segment Volume |               |            |              |                     | 4,752         |              |              |  |
|------------------------|---------------|------------|--------------|---------------------|---------------|--------------|--------------|--|
| Time                   | Hourly Volume |            |              | Time                | Hourly Volume |              |              |  |
|                        | EB            | WB         | Total        |                     | EB            | WB           | Total        |  |
| 12:00 AM - 1:00 AM     | 9             | 9          | 18           | 12:00 PM - 1:00 PM  | 113           | 152          | 265          |  |
| 1:00 AM - 2:00 AM      | 5             | 9          | 14           | 1:00 PM - 2:00 PM   | 138           | 127          | 265          |  |
| 2:00 AM - 3:00 AM      | 2             | 7          | 9            | 2:00 PM - 3:00 PM   | 157           | 143          | 300          |  |
| 3:00 AM - 4:00 AM      | 2             | 8          | 10           | 3:00 PM - 4:00 PM   | 184           | 157          | 341          |  |
| 4:00 AM - 5:00 AM      | 5             | 8          | 13           | 4:00 PM - 5:00 PM   | 242           | 217          | 459          |  |
| 5:00 AM - 6:00 AM      | 13            | 27         | 40           | 5:00 PM - 6:00 PM   | 310           | 249          | 559          |  |
| 6:00 AM - 7:00 AM      | 23            | 92         | 115          | 6:00 PM - 7:00 PM   | 221           | 172          | 393          |  |
| 7:00 AM - 8:00 AM      | 44            | 207        | 251          | 7:00 PM - 8:00 PM   | 151           | 133          | 284          |  |
| 8:00 AM - 9:00 AM      | 57            | 196        | 253          | 8:00 PM - 9:00 PM   | 105           | 112          | 217          |  |
| 9:00 AM - 10:00 AM     | 65            | 149        | 214          | 9:00 PM - 10:00 PM  | 68            | 77           | 145          |  |
| 10:00 AM - 11:00 AM    | 84            | 108        | 192          | 10:00 PM - 11:00 PM | 35            | 56           | 91           |  |
| 11:00 AM - 12:00 PM    | 122           | 133        | 255          | 11:00 PM - 12:00 AM | 25            | 24           | 49           |  |
| <b>Total</b>           | <b>431</b>    | <b>953</b> | <b>1,384</b> | <b>Total</b>        | <b>1,749</b>  | <b>1,619</b> | <b>3,368</b> |  |

**24-Hour EB Volume 2,180**      **24-Hour WB Volume 2,572**



# 24 Hour Segment Count

Accurate Video Counts Inc  
 info@accuratevideocounts.com  
 (619) 987-5136



**Location:** Howard Ave btwn Georgia St & Florida St (East of Alley)

**Orientation:** East-West

**Date of Count:** Wednesday, March 22, 2017

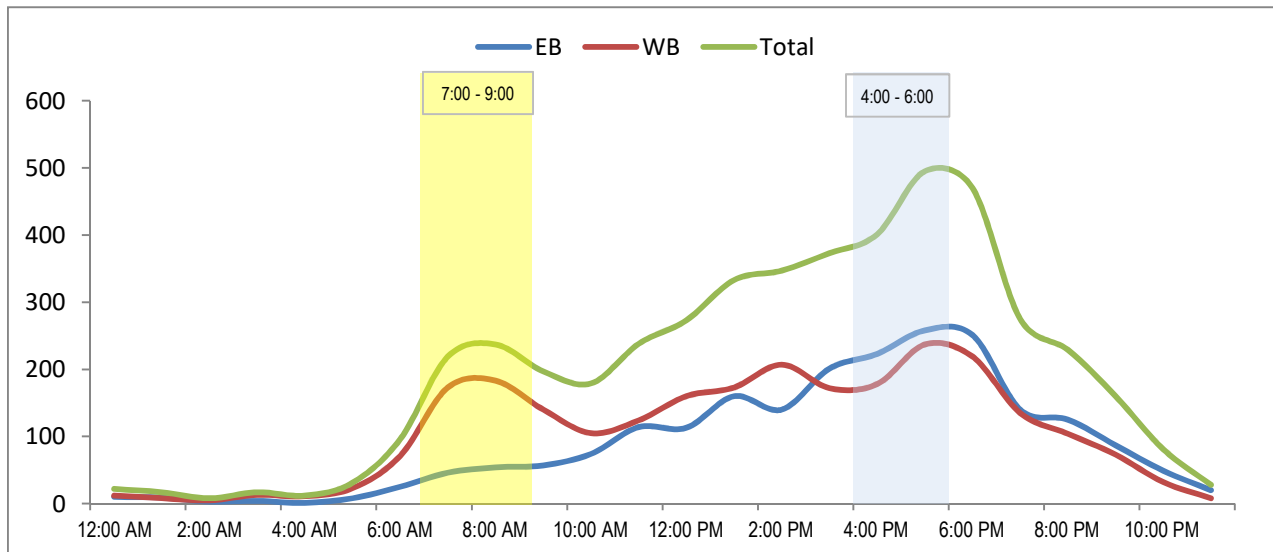
**Analysts:** DASH

**Weather:** Sunny

**AVC Proj. No:** 17-0643

| 24 Hour Segment Volume |               |            |              |                     | 4,738         |              |              |
|------------------------|---------------|------------|--------------|---------------------|---------------|--------------|--------------|
| Time                   | Hourly Volume |            |              | Time                | Hourly Volume |              |              |
|                        | EB            | WB         | Total        |                     | EB            | WB           | Total        |
| 12:00 AM - 1:00 AM     | 10            | 12         | 22           | 12:00 PM - 1:00 PM  | 113           | 160          | 273          |
| 1:00 AM - 2:00 AM      | 9             | 8          | 17           | 1:00 PM - 2:00 PM   | 160           | 173          | 333          |
| 2:00 AM - 3:00 AM      | 3             | 5          | 8            | 2:00 PM - 3:00 PM   | 140           | 207          | 347          |
| 3:00 AM - 4:00 AM      | 4             | 13         | 17           | 3:00 PM - 4:00 PM   | 201           | 172          | 373          |
| 4:00 AM - 5:00 AM      | 1             | 11         | 12           | 4:00 PM - 5:00 PM   | 223           | 178          | 401          |
| 5:00 AM - 6:00 AM      | 8             | 23         | 31           | 5:00 PM - 6:00 PM   | 258           | 237          | 495          |
| 6:00 AM - 7:00 AM      | 25            | 71         | 96           | 6:00 PM - 7:00 PM   | 251           | 219          | 470          |
| 7:00 AM - 8:00 AM      | 46            | 173        | 219          | 7:00 PM - 8:00 PM   | 140           | 135          | 275          |
| 8:00 AM - 9:00 AM      | 54            | 183        | 237          | 8:00 PM - 9:00 PM   | 125           | 104          | 229          |
| 9:00 AM - 10:00 AM     | 57            | 140        | 197          | 9:00 PM - 10:00 PM  | 87            | 73           | 160          |
| 10:00 AM - 11:00 AM    | 74            | 105        | 179          | 10:00 PM - 11:00 PM | 49            | 32           | 81           |
| 11:00 AM - 12:00 PM    | 114           | 124        | 238          | 11:00 PM - 12:00 AM | 20            | 8            | 28           |
| <b>Total</b>           | <b>405</b>    | <b>868</b> | <b>1,273</b> | <b>Total</b>        | <b>1,767</b>  | <b>1,698</b> | <b>3,465</b> |

**24-Hour EB Volume 2,172**      **24-Hour WB Volume 2,566**



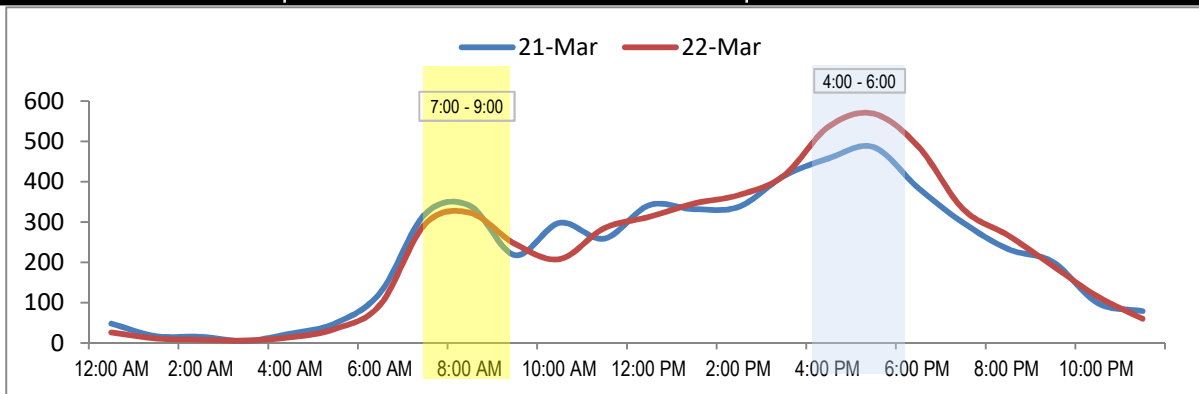
# 3-Day Segment Counts Summary

Accurate Video Counts Inc  
 info@accuratevideocounts.com  
 (619) 987-5136



**Location:** Howard Ave btwn Utah St & Kansas St (West of Alley)  
**Orientation:** East-West  
**Day 1** Tuesday, March 21, 2017  
**Day 2** Wednesday, March 22, 2017  
**AVC Proj. No:** 17-0643

|                     |                      | <b>Average Daily Traffic</b> | <b>5,466</b> |
|---------------------|----------------------|------------------------------|--------------|
|                     |                      | <b>Highest Daily Traffic</b> | <b>5,551</b> |
| <b>Time</b>         | <b>Hourly Volume</b> |                              |              |
|                     | <b>21-Mar</b>        | <b>22-Mar</b>                |              |
| 12:00 AM - 1:00 AM  | 48                   | 26                           |              |
| 1:00 AM - 2:00 AM   | 17                   | 11                           |              |
| 2:00 AM - 3:00 AM   | 15                   | 8                            |              |
| 3:00 AM - 4:00 AM   | 5                    | 6                            |              |
| 4:00 AM - 5:00 AM   | 23                   | 14                           |              |
| 5:00 AM - 6:00 AM   | 49                   | 35                           |              |
| 6:00 AM - 7:00 AM   | 125                  | 95                           |              |
| 7:00 AM - 8:00 AM   | 320                  | 295                          |              |
| 8:00 AM - 9:00 AM   | 340                  | 323                          |              |
| 9:00 AM - 10:00 AM  | 218                  | 246                          |              |
| 10:00 AM - 11:00 AM | 298                  | 208                          |              |
| 11:00 AM - 12:00 PM | 259                  | 285                          |              |
| 12:00 PM - 1:00 PM  | 342                  | 313                          |              |
| 1:00 PM - 2:00 PM   | 332                  | 346                          |              |
| 2:00 PM - 3:00 PM   | 338                  | 367                          |              |
| 3:00 PM - 4:00 PM   | 414                  | 415                          |              |
| 4:00 PM - 5:00 PM   | 458                  | 537                          |              |
| 5:00 PM - 6:00 PM   | 486                  | 569                          |              |
| 6:00 PM - 7:00 PM   | 384                  | 487                          |              |
| 7:00 PM - 8:00 PM   | 298                  | 332                          |              |
| 8:00 PM - 9:00 PM   | 233                  | 267                          |              |
| 9:00 PM - 10:00 PM  | 201                  | 191                          |              |
| 10:00 PM - 11:00 PM | 99                   | 115                          |              |
| 11:00 PM - 12:00 AM | 79                   | 60                           |              |
| <b>Total</b>        | <b>5,381</b>         | <b>5,551</b>                 |              |



# 24 Hour Segment Count

Accurate Video Counts Inc  
 info@accuratevideocounts.com  
 (619) 987-5136



**Location:** Howard Ave btwn Utah St & Kansas St (West of Alley)

**Orientation:** East-West

**Date of Count:** Tuesday, March 21, 2017

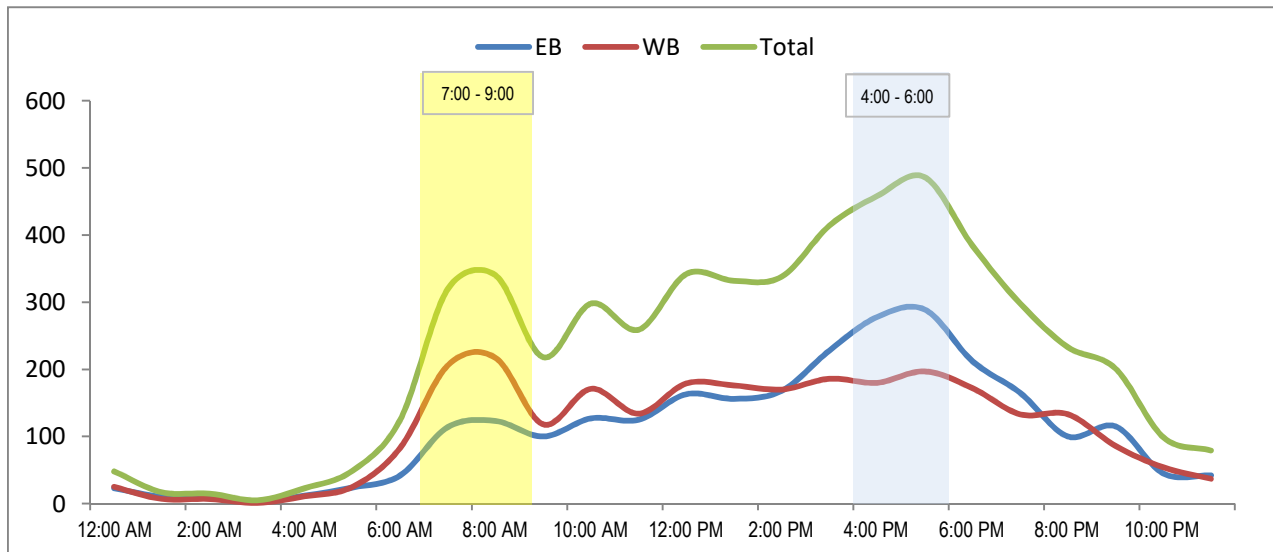
**Analysts:** DASH

**Weather:** Sunny

**AVC Proj. No:** 17-0643

| 24 Hour Segment Volume |               |              |              |                     | 5,381         |              |              |
|------------------------|---------------|--------------|--------------|---------------------|---------------|--------------|--------------|
| Time                   | Hourly Volume |              |              | Time                | Hourly Volume |              |              |
|                        | EB            | WB           | Total        |                     | EB            | WB           | Total        |
| 12:00 AM - 1:00 AM     | 23            | 25           | 48           | 12:00 PM - 1:00 PM  | 163           | 179          | 342          |
| 1:00 AM - 2:00 AM      | 10            | 7            | 17           | 1:00 PM - 2:00 PM   | 156           | 176          | 332          |
| 2:00 AM - 3:00 AM      | 8             | 7            | 15           | 2:00 PM - 3:00 PM   | 168           | 170          | 338          |
| 3:00 AM - 4:00 AM      | 4             | 1            | 5            | 3:00 PM - 4:00 PM   | 228           | 186          | 414          |
| 4:00 AM - 5:00 AM      | 12            | 11           | 23           | 4:00 PM - 5:00 PM   | 278           | 180          | 458          |
| 5:00 AM - 6:00 AM      | 24            | 25           | 49           | 5:00 PM - 6:00 PM   | 289           | 197          | 486          |
| 6:00 AM - 7:00 AM      | 42            | 83           | 125          | 6:00 PM - 7:00 PM   | 212           | 172          | 384          |
| 7:00 AM - 8:00 AM      | 114           | 206          | 320          | 7:00 PM - 8:00 PM   | 165           | 133          | 298          |
| 8:00 AM - 9:00 AM      | 123           | 217          | 340          | 8:00 PM - 9:00 PM   | 100           | 133          | 233          |
| 9:00 AM - 10:00 AM     | 100           | 118          | 218          | 9:00 PM - 10:00 PM  | 115           | 86           | 201          |
| 10:00 AM - 11:00 AM    | 127           | 171          | 298          | 10:00 PM - 11:00 PM | 45            | 54           | 99           |
| 11:00 AM - 12:00 PM    | 125           | 134          | 259          | 11:00 PM - 12:00 AM | 42            | 37           | 79           |
| <b>Total</b>           | <b>712</b>    | <b>1,005</b> | <b>1,717</b> | <b>Total</b>        | <b>1,961</b>  | <b>1,703</b> | <b>3,664</b> |

**24-Hour EB Volume 2,673**      **24-Hour WB Volume 2,708**





# 24 Hour Segment Count

Accurate Video Counts Inc  
 info@accuratevideocounts.com  
 (619) 987-5136



**Location:** Howard Ave btwn Utah St & Kansas St (West of Alley)

**Orientation:** East-West

**Date of Count:** Wednesday, March 22, 2017

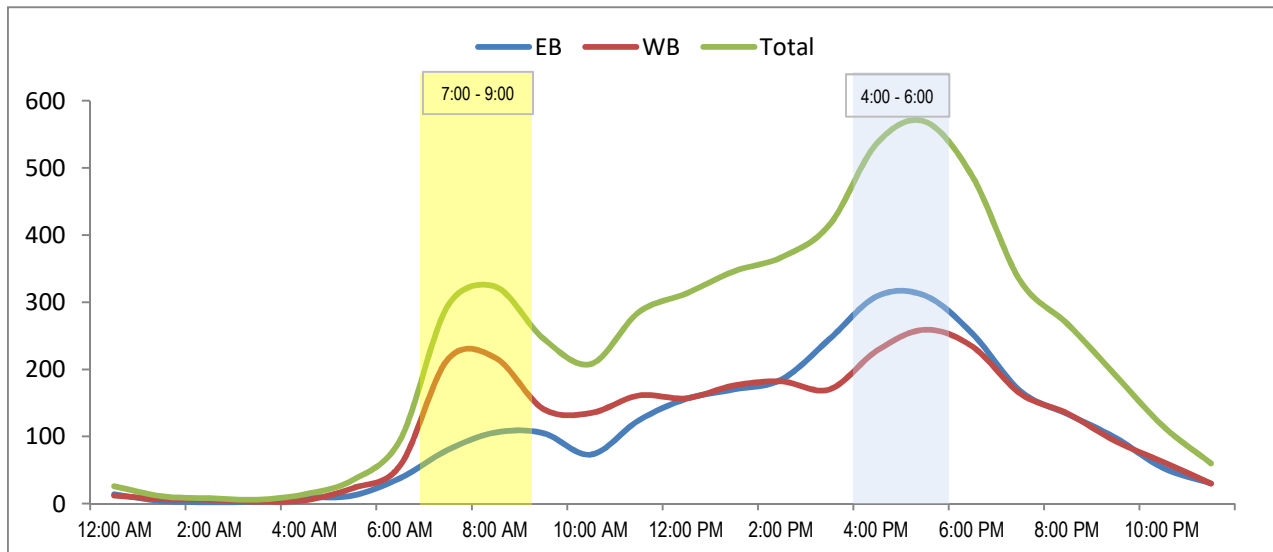
**Analysts:** DASH

**Weather:** Sunny

**AVC Proj. No:** 17-0643

| 24 Hour Segment Volume |               |            |              |                     | 5,551         |              |              |
|------------------------|---------------|------------|--------------|---------------------|---------------|--------------|--------------|
| Time                   | Hourly Volume |            |              | Time                | Hourly Volume |              |              |
|                        | EB            | WB         | Total        |                     | EB            | WB           | Total        |
| 12:00 AM - 1:00 AM     | 14            | 12         | 26           | 12:00 PM - 1:00 PM  | 156           | 157          | 313          |
| 1:00 AM - 2:00 AM      | 4             | 7          | 11           | 1:00 PM - 2:00 PM   | 170           | 176          | 346          |
| 2:00 AM - 3:00 AM      | 2             | 6          | 8            | 2:00 PM - 3:00 PM   | 185           | 182          | 367          |
| 3:00 AM - 4:00 AM      | 3             | 3          | 6            | 3:00 PM - 4:00 PM   | 245           | 170          | 415          |
| 4:00 AM - 5:00 AM      | 9             | 5          | 14           | 4:00 PM - 5:00 PM   | 309           | 228          | 537          |
| 5:00 AM - 6:00 AM      | 12            | 23         | 35           | 5:00 PM - 6:00 PM   | 310           | 259          | 569          |
| 6:00 AM - 7:00 AM      | 38            | 57         | 95           | 6:00 PM - 7:00 PM   | 253           | 234          | 487          |
| 7:00 AM - 8:00 AM      | 80            | 215        | 295          | 7:00 PM - 8:00 PM   | 168           | 164          | 332          |
| 8:00 AM - 9:00 AM      | 106           | 217        | 323          | 8:00 PM - 9:00 PM   | 133           | 134          | 267          |
| 9:00 AM - 10:00 AM     | 105           | 141        | 246          | 9:00 PM - 10:00 PM  | 98            | 93           | 191          |
| 10:00 AM - 11:00 AM    | 73            | 135        | 208          | 10:00 PM - 11:00 PM | 53            | 62           | 115          |
| 11:00 AM - 12:00 PM    | 124           | 161        | 285          | 11:00 PM - 12:00 AM | 30            | 30           | 60           |
| <b>Total</b>           | <b>570</b>    | <b>982</b> | <b>1,552</b> | <b>Total</b>        | <b>2,110</b>  | <b>1,889</b> | <b>3,999</b> |

**24-Hour EB Volume 2,680**      **24-Hour WB Volume 2,871**



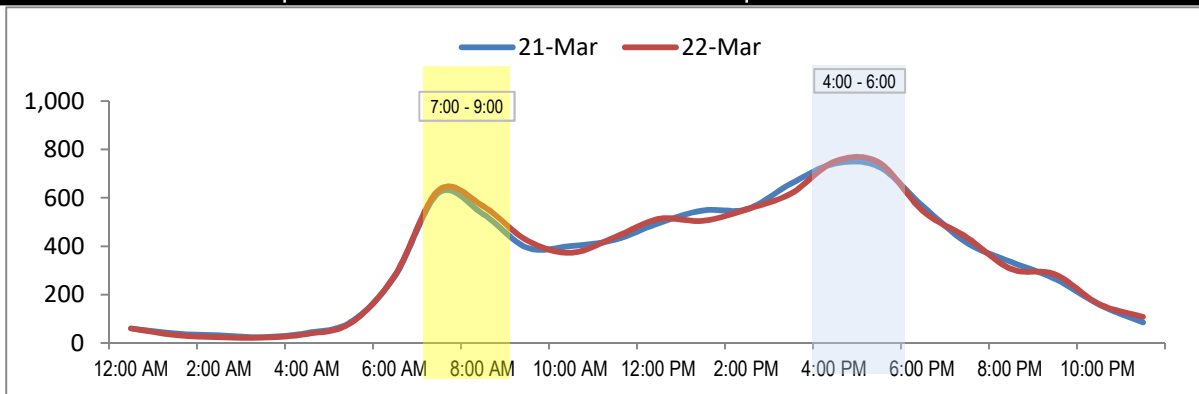
# 3-Day Segment Counts Summary

Accurate Video Counts Inc  
 info@accuratevideocounts.com  
 (619) 987-5136



**Location:** Orange Ave btwn Swift Ave & 35th St (West of Alley)  
**Orientation:** East-West  
**Day 1** Tuesday, March 21, 2017  
**Day 2** Wednesday, March 22, 2017  
**AVC Proj. No:** 17-0643

|                     |                      | <b>Average Daily Traffic</b> | <b>8,492</b> |
|---------------------|----------------------|------------------------------|--------------|
|                     |                      | <b>Highest Daily Traffic</b> | <b>8,499</b> |
| <b>Time</b>         | <b>Hourly Volume</b> |                              |              |
|                     | <b>21-Mar</b>        | <b>22-Mar</b>                |              |
| 12:00 AM - 1:00 AM  | 60                   | 60                           |              |
| 1:00 AM - 2:00 AM   | 39                   | 33                           |              |
| 2:00 AM - 3:00 AM   | 31                   | 23                           |              |
| 3:00 AM - 4:00 AM   | 24                   | 22                           |              |
| 4:00 AM - 5:00 AM   | 41                   | 37                           |              |
| 5:00 AM - 6:00 AM   | 87                   | 83                           |              |
| 6:00 AM - 7:00 AM   | 277                  | 281                          |              |
| 7:00 AM - 8:00 AM   | 622                  | 633                          |              |
| 8:00 AM - 9:00 AM   | 533                  | 566                          |              |
| 9:00 AM - 10:00 AM  | 394                  | 424                          |              |
| 10:00 AM - 11:00 AM | 401                  | 373                          |              |
| 11:00 AM - 12:00 PM | 427                  | 438                          |              |
| 12:00 PM - 1:00 PM  | 496                  | 513                          |              |
| 1:00 PM - 2:00 PM   | 548                  | 505                          |              |
| 2:00 PM - 3:00 PM   | 553                  | 553                          |              |
| 3:00 PM - 4:00 PM   | 659                  | 618                          |              |
| 4:00 PM - 5:00 PM   | 742                  | 751                          |              |
| 5:00 PM - 6:00 PM   | 728                  | 746                          |              |
| 6:00 PM - 7:00 PM   | 565                  | 545                          |              |
| 7:00 PM - 8:00 PM   | 414                  | 436                          |              |
| 8:00 PM - 9:00 PM   | 335                  | 306                          |              |
| 9:00 PM - 10:00 PM  | 265                  | 284                          |              |
| 10:00 PM - 11:00 PM | 159                  | 161                          |              |
| 11:00 PM - 12:00 AM | 85                   | 108                          |              |
| <b>Total</b>        | <b>8,485</b>         | <b>8,499</b>                 |              |



# 24 Hour Segment Count

Accurate Video Counts Inc  
 info@accuratevideocounts.com  
 (619) 987-5136



**Location:** Orange Ave btwn Swift Ave & 35th St (West of Alley)

**Orientation:** East-West

**Date of Count:** Tuesday, March 21, 2017

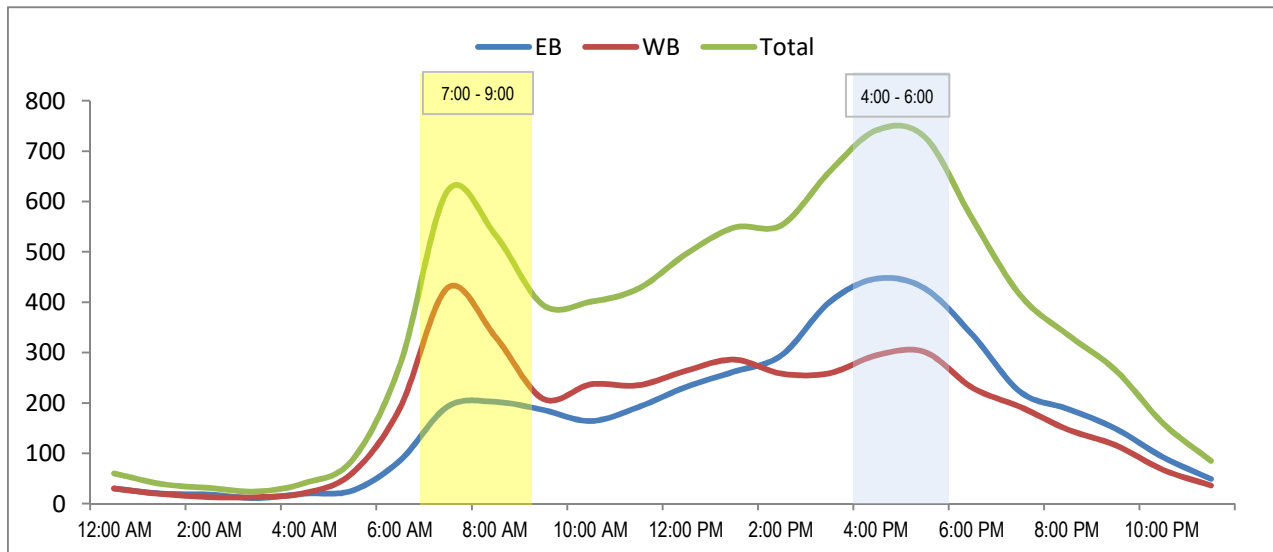
**Analysts:** DASH

**Weather:** Sunny

**AVC Proj. No:** 17-0643

| 24 Hour Segment Volume |               |              |              |                     | 8,485         |              |              |
|------------------------|---------------|--------------|--------------|---------------------|---------------|--------------|--------------|
| Time                   | Hourly Volume |              |              | Time                | Hourly Volume |              |              |
|                        | EB            | WB           | Total        |                     | EB            | WB           | Total        |
| 12:00 AM - 1:00 AM     | 30            | 30           | 60           | 12:00 PM - 1:00 PM  | 232           | 264          | 496          |
| 1:00 AM - 2:00 AM      | 20            | 19           | 39           | 1:00 PM - 2:00 PM   | 262           | 286          | 548          |
| 2:00 AM - 3:00 AM      | 18            | 13           | 31           | 2:00 PM - 3:00 PM   | 295           | 258          | 553          |
| 3:00 AM - 4:00 AM      | 11            | 13           | 24           | 3:00 PM - 4:00 PM   | 400           | 259          | 659          |
| 4:00 AM - 5:00 AM      | 20            | 21           | 41           | 4:00 PM - 5:00 PM   | 447           | 295          | 742          |
| 5:00 AM - 6:00 AM      | 26            | 61           | 87           | 5:00 PM - 6:00 PM   | 427           | 301          | 728          |
| 6:00 AM - 7:00 AM      | 86            | 191          | 277          | 6:00 PM - 7:00 PM   | 335           | 230          | 565          |
| 7:00 AM - 8:00 AM      | 193           | 429          | 622          | 7:00 PM - 8:00 PM   | 222           | 192          | 414          |
| 8:00 AM - 9:00 AM      | 202           | 331          | 533          | 8:00 PM - 9:00 PM   | 188           | 147          | 335          |
| 9:00 AM - 10:00 AM     | 186           | 208          | 394          | 9:00 PM - 10:00 PM  | 149           | 116          | 265          |
| 10:00 AM - 11:00 AM    | 164           | 237          | 401          | 10:00 PM - 11:00 PM | 92            | 67           | 159          |
| 11:00 AM - 12:00 PM    | 192           | 235          | 427          | 11:00 PM - 12:00 AM | 49            | 36           | 85           |
| <b>Total</b>           | <b>1,148</b>  | <b>1,788</b> | <b>2,936</b> | <b>Total</b>        | <b>3,098</b>  | <b>2,451</b> | <b>5,549</b> |

**24-Hour EB Volume 4,246**      **24-Hour WB Volume 4,239**



# 24 Hour Segment Count

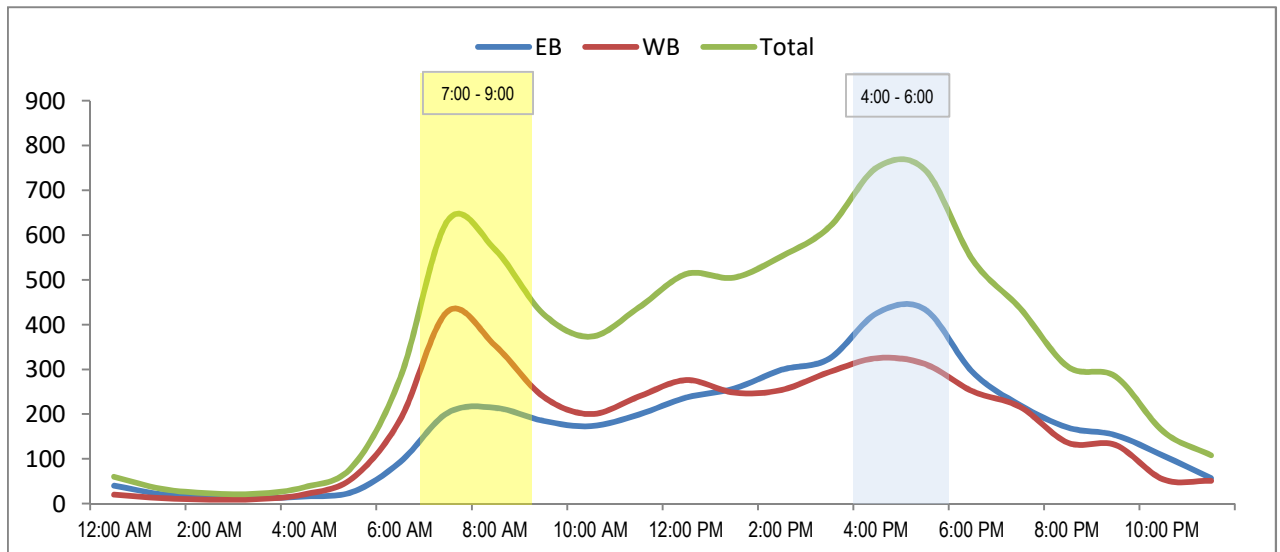
Accurate Video Counts Inc  
 info@accuratevideocounts.com  
 (619) 987-5136



**Location:** Orange Ave btwn Swift Ave & 35th St (West of Alley)  
**Orientation:** East-West  
**Date of Count:** Wednesday, March 22, 2017  
**Analysts:** DASH  
**Weather:** Sunny  
**AVC Proj. No:** 17-0643

| 24 Hour Segment Volume |               |              |              |                     | 8,499         |              |              |
|------------------------|---------------|--------------|--------------|---------------------|---------------|--------------|--------------|
| Time                   | Hourly Volume |              |              | Time                | Hourly Volume |              |              |
|                        | EB            | WB           | Total        |                     | EB            | WB           | Total        |
| 12:00 AM - 1:00 AM     | 40            | 20           | 60           | 12:00 PM - 1:00 PM  | 237           | 276          | 513          |
| 1:00 AM - 2:00 AM      | 21            | 12           | 33           | 1:00 PM - 2:00 PM   | 257           | 248          | 505          |
| 2:00 AM - 3:00 AM      | 14            | 9            | 23           | 2:00 PM - 3:00 PM   | 299           | 254          | 553          |
| 3:00 AM - 4:00 AM      | 12            | 10           | 22           | 3:00 PM - 4:00 PM   | 324           | 294          | 618          |
| 4:00 AM - 5:00 AM      | 16            | 21           | 37           | 4:00 PM - 5:00 PM   | 426           | 325          | 751          |
| 5:00 AM - 6:00 AM      | 26            | 57           | 83           | 5:00 PM - 6:00 PM   | 434           | 312          | 746          |
| 6:00 AM - 7:00 AM      | 93            | 188          | 281          | 6:00 PM - 7:00 PM   | 294           | 251          | 545          |
| 7:00 AM - 8:00 AM      | 203           | 430          | 633          | 7:00 PM - 8:00 PM   | 220           | 216          | 436          |
| 8:00 AM - 9:00 AM      | 214           | 352          | 566          | 8:00 PM - 9:00 PM   | 170           | 136          | 306          |
| 9:00 AM - 10:00 AM     | 185           | 239          | 424          | 9:00 PM - 10:00 PM  | 153           | 131          | 284          |
| 10:00 AM - 11:00 AM    | 173           | 200          | 373          | 10:00 PM - 11:00 PM | 107           | 54           | 161          |
| 11:00 AM - 12:00 PM    | 199           | 239          | 438          | 11:00 PM - 12:00 AM | 57            | 51           | 108          |
| <b>Total</b>           | <b>1,196</b>  | <b>1,777</b> | <b>2,973</b> | <b>Total</b>        | <b>2,978</b>  | <b>2,548</b> | <b>5,526</b> |

**24-Hour EB Volume 4,174**      **24-Hour WB Volume 4,325**



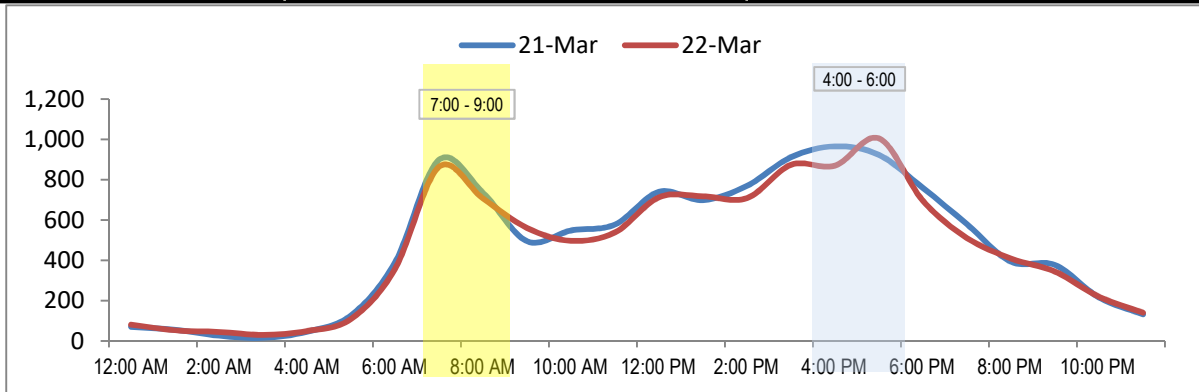
# 3-Day Segment Counts Summary

Accurate Video Counts Inc  
 info@accuratevideocounts.com  
 (619) 987-5136



**Location:** Orange Ave btwn 43rd St & Fairmount Ave (West of Alley)  
**Orientation:** East-West  
**Day 1** Tuesday, March 21, 2017  
**Day 2** Wednesday, March 22, 2017  
**AVC Proj. No:** 17-0643

|                     |                      | <b>Average Daily Traffic</b> | <b>11,275</b> |
|---------------------|----------------------|------------------------------|---------------|
|                     |                      | <b>Highest Daily Traffic</b> | <b>11,450</b> |
| <b>Time</b>         | <b>Hourly Volume</b> |                              |               |
|                     | <b>21-Mar</b>        | <b>22-Mar</b>                |               |
| 12:00 AM - 1:00 AM  | 70                   | 81                           |               |
| 1:00 AM - 2:00 AM   | 55                   | 53                           |               |
| 2:00 AM - 3:00 AM   | 26                   | 45                           |               |
| 3:00 AM - 4:00 AM   | 15                   | 30                           |               |
| 4:00 AM - 5:00 AM   | 46                   | 49                           |               |
| 5:00 AM - 6:00 AM   | 127                  | 109                          |               |
| 6:00 AM - 7:00 AM   | 390                  | 358                          |               |
| 7:00 AM - 8:00 AM   | 899                  | 864                          |               |
| 8:00 AM - 9:00 AM   | 735                  | 707                          |               |
| 9:00 AM - 10:00 AM  | 495                  | 561                          |               |
| 10:00 AM - 11:00 AM | 548                  | 497                          |               |
| 11:00 AM - 12:00 PM | 578                  | 539                          |               |
| 12:00 PM - 1:00 PM  | 740                  | 713                          |               |
| 1:00 PM - 2:00 PM   | 699                  | 718                          |               |
| 2:00 PM - 3:00 PM   | 770                  | 709                          |               |
| 3:00 PM - 4:00 PM   | 912                  | 874                          |               |
| 4:00 PM - 5:00 PM   | 966                  | 870                          |               |
| 5:00 PM - 6:00 PM   | 923                  | 1,005                        |               |
| 6:00 PM - 7:00 PM   | 759                  | 695                          |               |
| 7:00 PM - 8:00 PM   | 579                  | 511                          |               |
| 8:00 PM - 9:00 PM   | 393                  | 409                          |               |
| 9:00 PM - 10:00 PM  | 377                  | 344                          |               |
| 10:00 PM - 11:00 PM | 216                  | 219                          |               |
| 11:00 PM - 12:00 AM | 132                  | 140                          |               |
| <b>Total</b>        | <b>11,450</b>        | <b>11,100</b>                |               |



# 24 Hour Segment Count

Accurate Video Counts Inc  
 info@accuratevideocounts.com  
 (619) 987-5136



**Location:** Orange Ave btwn 43rd St & Fairmount Ave (West of Alley)

**Orientation:** East-West

**Date of Count:** Tuesday, March 21, 2017

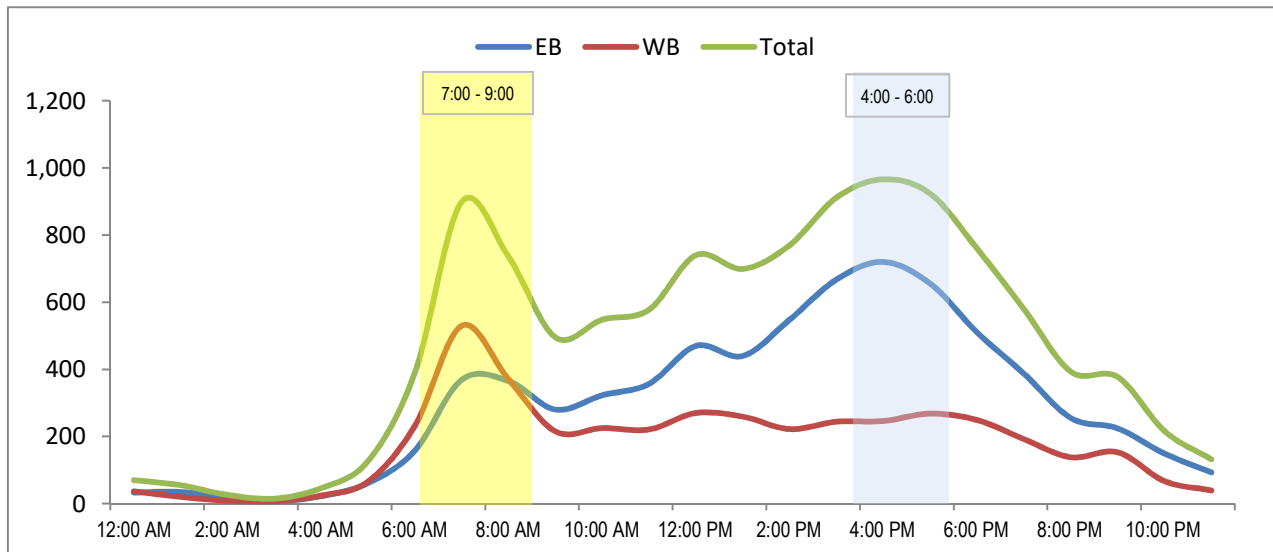
**Analysts:** DASH

**Weather:** Sunny

**AVC Proj. No:** 17-0643

| 24 Hour Segment Volume |               |              |              |                     | 11,450        |              |              |
|------------------------|---------------|--------------|--------------|---------------------|---------------|--------------|--------------|
| Time                   | Hourly Volume |              |              | Time                | Hourly Volume |              |              |
|                        | EB            | WB           | Total        |                     | EB            | WB           | Total        |
| 12:00 AM - 1:00 AM     | 33            | 37           | 70           | 12:00 PM - 1:00 PM  | 470           | 270          | 740          |
| 1:00 AM - 2:00 AM      | 35            | 20           | 55           | 1:00 PM - 2:00 PM   | 440           | 259          | 699          |
| 2:00 AM - 3:00 AM      | 17            | 9            | 26           | 2:00 PM - 3:00 PM   | 548           | 222          | 770          |
| 3:00 AM - 4:00 AM      | 7             | 8            | 15           | 3:00 PM - 4:00 PM   | 668           | 244          | 912          |
| 4:00 AM - 5:00 AM      | 22            | 24           | 46           | 4:00 PM - 5:00 PM   | 720           | 246          | 966          |
| 5:00 AM - 6:00 AM      | 61            | 66           | 127          | 5:00 PM - 6:00 PM   | 655           | 268          | 923          |
| 6:00 AM - 7:00 AM      | 158           | 232          | 390          | 6:00 PM - 7:00 PM   | 510           | 249          | 759          |
| 7:00 AM - 8:00 AM      | 369           | 530          | 899          | 7:00 PM - 8:00 PM   | 387           | 192          | 579          |
| 8:00 AM - 9:00 AM      | 365           | 370          | 735          | 8:00 PM - 9:00 PM   | 255           | 138          | 393          |
| 9:00 AM - 10:00 AM     | 280           | 215          | 495          | 9:00 PM - 10:00 PM  | 224           | 153          | 377          |
| 10:00 AM - 11:00 AM    | 323           | 225          | 548          | 10:00 PM - 11:00 PM | 149           | 67           | 216          |
| 11:00 AM - 12:00 PM    | 357           | 221          | 578          | 11:00 PM - 12:00 AM | 93            | 39           | 132          |
| <b>Total</b>           | <b>2,027</b>  | <b>1,957</b> | <b>3,984</b> | <b>Total</b>        | <b>5,119</b>  | <b>2,347</b> | <b>7,466</b> |

**24-Hour EB Volume 7,146**      **24-Hour WB Volume 4,304**



# 24 Hour Segment Count

Accurate Video Counts Inc  
 info@accuratevideocounts.com  
 (619) 987-5136



**Location:** Orange Ave btwn 43rd St & Fairmount Ave (West of Alley)

**Orientation:** East-West

**Date of Count:** Wednesday, March 22, 2017

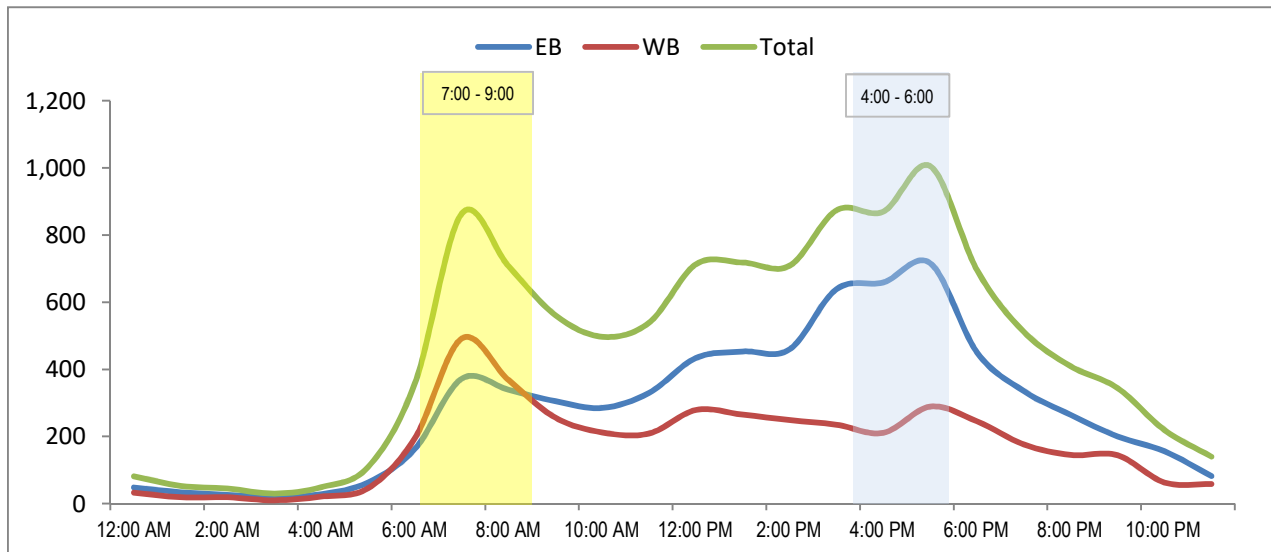
**Analysts:** DASH

**Weather:** Sunny

**AVC Proj. No:** 17-0643

| 24 Hour Segment Volume |               |              |              |                     | 11,100        |              |              |  |  |
|------------------------|---------------|--------------|--------------|---------------------|---------------|--------------|--------------|--|--|
| Time                   | Hourly Volume |              |              | Time                | Hourly Volume |              |              |  |  |
|                        | EB            | WB           | Total        |                     | EB            | WB           | Total        |  |  |
| 12:00 AM - 1:00 AM     | 48            | 33           | 81           | 12:00 PM - 1:00 PM  | 434           | 279          | 713          |  |  |
| 1:00 AM - 2:00 AM      | 34            | 19           | 53           | 1:00 PM - 2:00 PM   | 453           | 265          | 718          |  |  |
| 2:00 AM - 3:00 AM      | 26            | 19           | 45           | 2:00 PM - 3:00 PM   | 460           | 249          | 709          |  |  |
| 3:00 AM - 4:00 AM      | 20            | 10           | 30           | 3:00 PM - 4:00 PM   | 639           | 235          | 874          |  |  |
| 4:00 AM - 5:00 AM      | 28            | 21           | 49           | 4:00 PM - 5:00 PM   | 659           | 211          | 870          |  |  |
| 5:00 AM - 6:00 AM      | 63            | 46           | 109          | 5:00 PM - 6:00 PM   | 716           | 289          | 1,005        |  |  |
| 6:00 AM - 7:00 AM      | 163           | 195          | 358          | 6:00 PM - 7:00 PM   | 450           | 245          | 695          |  |  |
| 7:00 AM - 8:00 AM      | 372           | 492          | 864          | 7:00 PM - 8:00 PM   | 335           | 176          | 511          |  |  |
| 8:00 AM - 9:00 AM      | 339           | 368          | 707          | 8:00 PM - 9:00 PM   | 264           | 145          | 409          |  |  |
| 9:00 AM - 10:00 AM     | 305           | 256          | 561          | 9:00 PM - 10:00 PM  | 200           | 144          | 344          |  |  |
| 10:00 AM - 11:00 AM    | 285           | 212          | 497          | 10:00 PM - 11:00 PM | 156           | 63           | 219          |  |  |
| 11:00 AM - 12:00 PM    | 330           | 209          | 539          | 11:00 PM - 12:00 AM | 82            | 58           | 140          |  |  |
| <b>Total</b>           | <b>2,013</b>  | <b>1,880</b> | <b>3,893</b> | <b>Total</b>        | <b>4,848</b>  | <b>2,359</b> | <b>7,207</b> |  |  |

**24-Hour EB Volume 6,861**      **24-Hour WB Volume 4,239**



**APPENDIX C: CITY OF SAN DIEGO ROADWAY SEGMENT ANALYSIS  
CRITERIA**



**TABLE 2**  
**Roadway Classifications, Levels of Service (LOS)**  
**and Average Daily Traffic (ADT)**

| STREET CLASSIFICATION                                    | LANES              | CROSS SECTIONS | LEVEL OF SERVICE |        |         |         |         |
|--|--------------------|----------------|------------------|--------|---------|---------|---------|
|  |                    |                | A                | B      | C       | D       | E       |
| Freeway  | 8 lanes            |                | 60,000           | 84,000 | 120,000 | 140,000 | 150,000 |
| Freeway  | 6 lanes            |                | 45,000           | 63,000 | 90,000  | 110,000 | 120,000 |
| Freeway  | 4 lanes            |                | 30,000           | 42,000 | 60,000  | 70,000  | 80,000  |
| Expressway   | 6 lanes            | 102/122        | 30,000           | 42,000 | 60,000  | 70,000  | 80,000  |
| Primary Arterial   | 6 lanes            | 102/122        | 25,000           | 35,000 | 50,000  | 55,000  | 60,000  |
| Major Arterial   | 6 lanes            | 102/122        | 20,000           | 28,000 | 40,000  | 45,000  | 50,000  |
| Major Arterial   | 4 lanes            | 78/98          | 15,000           | 21,000 | 30,000  | 35,000  | 40,000  |
| Collector  | 4 lanes            | 72/92          | 10,000           | 14,000 | 20,000  | 25,000  | 30,000  |
| Collector (no center lane)<br>continuous left-turn lane) | 4 lanes<br>2 lanes | 64/84<br>50/70 | 5,000            | 7,000  | 10,000  | 13,000  | 15,000  |
| Collector<br>(no fronting property)                      | 2 lanes            | 40/60          | 4,000            | 5,500  | 7,500   | 9,000   | 10,000  |
| Collector<br>(commercial-industrial fronting)            | 2 lanes            | 50/70          | 2,500            | 3,500  | 5,000   | 6,500   | 8,000   |
| Collector<br>(multifamily)                               | 2 lanes            | 40/60          | 2,500            | 3,500  | 5,000   | 6,500   | 8,000   |
| Sub-Collector<br>(single-family)                         | 2 lanes            | 36/56          | —                | —      | 2,200   | —       | —       |

**LEGEND:**

XXX/XXX = Curb to curb width (feet)/right-of-way width (feet): based on the City of San Diego Street Design Manual

XX/XXX= Approximate recommended ADT based on the City of San Diego Street Design Manual.




















**NOTES:**

1. The volumes and the average daily level of service listed above are only intended as a general planning guideline.
2. Levels of service are not applied to residential streets since their primary purpose is to serve abutting lots, not carry through traffic. Levels of service normally apply to roads carrying through traffic between major trip generators and attractors.

## **APPENDIX D: LEVEL OF SERVICE CALCULATION SHEETS**

HCM Unsignalized Intersection Capacity Analysis  
1: Florida St & Howard Ave

Existing AM Peak Hour  
04/04/2017




















|                        |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement               | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations    |  |  |   |  |  |   |  |  |   |   |  |  |
| Sign Control           | Stop  |   |   | Stop  |   |   | Stop   |   |   | Stop  |   |   |
| Traffic Volume (vph)   | 3   | 26  | 12  | 23  | 144   | 34  | 39   | 149   | 9   | 14  | 107   | 31  |
| Future Volume (vph)    | 3   | 26  | 12  | 23  | 144   | 34  | 39   | 149   | 9   | 14  | 107   | 31  |
| Peak Hour Factor       | 0.85  | 0.85  | 0.85  | 0.85  | 0.85  | 0.85  | 0.85   | 0.85  | 0.85  | 0.85  | 0.85  | 0.85  |
| Hourly flow rate (vph) | 4   | 31  | 14  | 27  | 169   | 40  | 46   | 175   | 11  | 16  | 126   | 36  |
| Direction, Lane #      | EB 1  | EB 2  | WB 1  | WB 2  | NB 1  | SB 1  |  |   |   |   |   |   |
| Volume Total (vph)     | 4   | 45  | 27  | 209   | 232   | 178   |  |   |   |   |   |   |
| Volume Left (vph)      | 4   | 0   | 27  | 0   | 46  | 16  |  |   |   |   |   |   |
| Volume Right (vph)     | 0   | 14  | 0   | 40  | 11  | 36  |  |   |   |   |   |   |
| Hadj (s)               | 0.53  | -0.18   | 0.53  | -0.10   | 0.05  | -0.07   |  |   |   |   |   |   |
| Departure Headway (s)  | 6.4   | 5.7   | 6.2   | 5.5   | 5.0   | 4.9   |  |   |   |   |   |   |
| Degree Utilization, x  | 0.01  | 0.07  | 0.05  | 0.32  | 0.32  | 0.24  |  |   |   |   |   |   |
| Capacity (veh/h)       | 508   | 571   | 548   | 616   | 690   | 684   |  |   |   |   |   |   |
| Control Delay (s)      | 8.3   | 8.0   | 8.3   | 9.9   | 10.3  | 9.5   |  |   |   |   |   |   |
| Approach Delay (s)     | 8.0   |   | 9.7   |   | 10.3  | 9.5   |  |   |   |   |   |   |
| Approach LOS           | A   |   | A   |   | B   | A   |  |   |   |   |   |   |

Intersection Summary

|                                   |       |                      |   |  |  |  |  |  |  |  |  |  |
|-----------------------------------|-------|----------------------|---|--|--|--|--|--|--|--|--|--|
| Delay                             | 9.7   |                      |   |  |  |  |  |  |  |  |  |  |
| Level of Service                  | A     |                      |   |  |  |  |  |  |  |  |  |  |
| Intersection Capacity Utilization | 35.8% | ICU Level of Service | A |  |  |  |  |  |  |  |  |  |
| Analysis Period (min)             | 15    |                      |   |  |  |  |  |  |  |  |  |  |

HCM Unsignalized Intersection Capacity Analysis  
 2: Mississippi St & Howard Ave

Existing AM Peak Hour  
 04/04/2017





















|                        |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement               | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations    |  |  |   |  |  |   |  |  |   |   |  |  |
| Sign Control           | Stop  |   |   | Stop  |   |   |  | Stop  |   |   | Stop  |   |
| Traffic Volume (vph)   | 8   | 33  | 7   | 5   | 82  | 20  | 35   | 71  | 4   | 18  | 37  | 13  |
| Future Volume (vph)    | 8   | 33  | 7   | 5   | 82  | 20  | 35   | 71  | 4   | 18  | 37  | 13  |
| Peak Hour Factor       | 0.91  | 0.91  | 0.91  | 0.91  | 0.91  | 0.91  | 0.91   | 0.91  | 0.91  | 0.91  | 0.91  | 0.91  |
| Hourly flow rate (vph) | 9   | 36  | 8   | 5   | 90  | 22  | 38   | 78  | 4   | 20  | 41  | 14  |
| Direction, Lane #      | EB 1  | EB 2  | WB 1  | WB 2  | NB 1  | SB 1  |  |   |   |   |   |   |
| Volume Total (vph)     | 9   | 44  | 5   | 112   | 120   | 75  |  |   |   |   |   |   |
| Volume Left (vph)      | 9   | 0   | 5   | 0   | 38  | 20  |  |   |   |   |   |   |
| Volume Right (vph)     | 0   | 8   | 0   | 22  | 4   | 14  |  |   |   |   |   |   |
| Hadj (s)               | 0.53  | -0.09   | 0.53  | -0.10   | 0.08  | -0.02   |  |   |   |   |   |   |
| Departure Headway (s)  | 5.6   | 5.0   | 5.6   | 4.9   | 4.5   | 4.4   |  |   |   |   |   |   |
| Degree Utilization, x  | 0.01  | 0.06  | 0.01  | 0.15  | 0.15  | 0.09  |  |   |   |   |   |   |
| Capacity (veh/h)       | 605   | 686   | 617   | 700   | 768   | 767   |  |   |   |   |   |   |
| Control Delay (s)      | 7.5   | 7.1   | 7.4   | 7.6   | 8.3   | 7.9   |  |   |   |   |   |   |
| Approach Delay (s)     | 7.2   |   | 7.6   |   | 8.3   | 7.9   |  |   |   |   |   |   |
| Approach LOS           | A   |   | A   |   | A   | A   |  |   |   |   |   |   |

Intersection Summary

|                                   |       |                      |   |
|-----------------------------------|-------|----------------------|---|
| Delay                             | 7.8   |                      |   |
| Level of Service                  | A     |                      |   |
| Intersection Capacity Utilization | 27.0% | ICU Level of Service | A |
| Analysis Period (min)             | 15    |                      |   |

HCM Signalized Intersection Capacity Analysis  
3: Texas St & Howard Ave




















Existing AM Peak Hour  
04/04/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |  |  |   |  |  |   |  |  |   |  |  |   |
| Traffic Volume (vph)              | 9   | 29  | 7   | 4   | 41  | 31  | 11   | 268   | 14  | 12  | 133   | 23  |
| Future Volume (vph)               | 9   | 29  | 7   | 4   | 41  | 31  | 11   | 268   | 14  | 12  | 133   | 23  |
| Ideal Flow (vphpl)                | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900   | 1900  | 1900  | 1900  | 1900  | 1900  |
| Total Lost time (s)               | 4.9   | 4.9   |   | 4.9   | 4.9   |   | 4.9  | 4.9   |   | 4.9   | 4.9   |   |
| Lane Util. Factor                 | 1.00  | 1.00  |   | 1.00  | 1.00  |   | 1.00   | 1.00  |   | 1.00  | 1.00  |   |
| Frbp, ped/bikes                   | 1.00  | 0.99  |   | 1.00  | 0.99  |   | 1.00   | 1.00  |   | 1.00  | 1.00  |   |
| Flpb, ped/bikes                   | 1.00  | 1.00  |   | 1.00  | 1.00  |   | 0.99   | 1.00  |   | 0.99  | 1.00  |   |
| Frt                               | 1.00  | 0.97  |   | 1.00  | 0.94  |   | 1.00   | 0.99  |   | 1.00  | 0.98  |   |
| Flt Protected                     | 0.95  | 1.00  |   | 0.95  | 1.00  |   | 0.95   | 1.00  |   | 0.95  | 1.00  |   |
| Satd. Flow (prot)                 | 1767  | 1797  |   | 1764  | 1721  |   | 1753   | 1846  |   | 1758  | 1813  |   |
| Flt Permitted                     | 0.71  | 1.00  |   | 0.73  | 1.00  |   | 0.65   | 1.00  |   | 0.57  | 1.00  |   |
| Satd. Flow (perm)                 | 1312  | 1797  |   | 1357  | 1721  |   | 1198   | 1846  |   | 1058  | 1813  |   |
| Peak-hour factor, PHF             | 0.91  | 0.91  | 0.91  | 0.91  | 0.91  | 0.91  | 0.91   | 0.91  | 0.91  | 0.91  | 0.91  | 0.91  |
| Adj. Flow (vph)                   | 10  | 32  | 8   | 4   | 45  | 34  | 12   | 295   | 15  | 13  | 146   | 25  |
| RTOR Reduction (vph)              | 0   | 7   | 0   | 0   | 30  | 0   | 0  | 2   | 0   | 0   | 5   | 0   |
| Lane Group Flow (vph)             | 10  | 33  | 0   | 4   | 49  | 0   | 12   | 308   | 0   | 13  | 166   | 0   |
| Confl. Peds. (#/hr)               | 1   |   | 2   | 2   |   | 1   | 7  |   | 6   | 6   |   | 7   |
| Confl. Bikes (#/hr)               |   |   | 1   |   |   | 2   |  |   | 2   |   |   | 2   |
| Turn Type                         | Perm  | NA  |   | Perm  | NA  |   | Perm   | NA  |   | Perm  | NA  |   |
| Protected Phases                  |   | 2   |   |   | 2   |   |  | 4   |   |   |   | 4   |
| Permitted Phases                  | 2   |   |   | 2   |   |   | 4  |   |   | 4   |   |   |
| Actuated Green, G (s)             | 7.5   | 7.5   |   | 7.5   | 7.5   |   | 47.7   | 47.7  |   | 47.7  | 47.7  |   |
| Effective Green, g (s)            | 7.5   | 7.5   |   | 7.5   | 7.5   |   | 47.7   | 47.7  |   | 47.7  | 47.7  |   |
| Actuated g/C Ratio                | 0.12  | 0.12  |   | 0.12  | 0.12  |   | 0.73   | 0.73  |   | 0.73  | 0.73  |   |
| Clearance Time (s)                | 4.9   | 4.9   |   | 4.9   | 4.9   |   | 4.9  | 4.9   |   | 4.9   | 4.9   |   |
| Vehicle Extension (s)             | 2.0   | 2.0   |   | 2.0   | 2.0   |   | 2.0  | 2.0   |   | 2.0   | 2.0   |   |
| Lane Grp Cap (vph)                | 151   | 207   |   | 156   | 198   |   | 879  | 1354  |   | 776   | 1330  |   |
| v/s Ratio Prot                    |   | 0.02  |   |   | c0.03   |   |  | c0.17   |   |   |   | 0.09  |
| v/s Ratio Perm                    | 0.01  |   |   | 0.00  |   |   | 0.01   |   |   | 0.01  |   |   |
| v/c Ratio                         | 0.07  | 0.16  |   | 0.03  | 0.25  |   | 0.01   | 0.23  |   | 0.02  | 0.12  |   |
| Uniform Delay, d1                 | 25.6  | 25.9  |   | 25.5  | 26.2  |   | 2.3  | 2.8   |   | 2.3   | 2.5   |   |
| Progression Factor                | 1.00  | 1.00  |   | 1.00  | 1.00  |   | 1.00   | 1.00  |   | 1.00  | 1.00  |   |
| Incremental Delay, d2             | 0.1   | 0.1   |   | 0.0   | 0.2   |   | 0.0  | 0.4   |   | 0.0   | 0.2   |   |
| Delay (s)                         | 25.7  | 26.0  |   | 25.5  | 26.4  |   | 2.4  | 3.2   |   | 2.4   | 2.7   |   |
| Level of Service                  | C   | C   |   | C   | C   |   | A  | A   |   | A   | A   |   |
| Approach Delay (s)                |   | 26.0  |   |   | 26.4  |   |  | 3.1   |   |   | 2.7   |   |
| Approach LOS                      |   | C   |   |   | C   |   |  | A   |   |   | A   |   |
| <b>Intersection Summary</b>       |   |   |   |   |   |   |  |   |   |   |   |   |
| HCM 2000 Control Delay            |   |   | 7.8   |   |   |   | HCM 2000 Level of Service  |   |   |   | A   |   |
| HCM 2000 Volume to Capacity ratio |   |   | 0.23  |   |   |   |  |   |   |   |   |   |
| Actuated Cycle Length (s)         |   |   | 65.0  |   |   |   | Sum of lost time (s)   |   |   |   | 9.8   |   |
| Intersection Capacity Utilization |   |   | 31.7%   |   |   |   | ICU Level of Service   |   |   |   | A   |   |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis  
4: Oregon St & Howard Ave

Existing AM Peak Hour  
04/04/2017




















|                        |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement               | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations    |  |  |   |  |  |   |  |  |   |   |  |  |
| Sign Control           | Stop  |   |   | Stop  |   |   |  | Stop  |   |   | Stop  |   |
| Traffic Volume (vph)   | 23  | 54  | 5   | 26  | 122   | 76  | 12   | 87  | 24  | 28  | 49  | 7   |
| Future Volume (vph)    | 23  | 54  | 5   | 26  | 122   | 76  | 12   | 87  | 24  | 28  | 49  | 7   |
| Peak Hour Factor       | 0.96  | 0.96  | 0.96  | 0.96  | 0.96  | 0.96  | 0.96   | 0.96  | 0.96  | 0.96  | 0.96  | 0.96  |
| Hourly flow rate (vph) | 24  | 56  | 5   | 27  | 127   | 79  | 13   | 91  | 25  | 29  | 51  | 7   |
| Direction, Lane #      | EB 1  | EB 2  | WB 1  | WB 2  | NB 1  | SB 1  |  |   |   |   |   |   |
| Volume Total (vph)     | 24  | 61  | 27  | 206   | 129   | 87  |  |   |   |   |   |   |
| Volume Left (vph)      | 24  | 0   | 27  | 0   | 13  | 29  |  |   |   |   |   |   |
| Volume Right (vph)     | 0   | 5   | 0   | 79  | 25  | 7   |  |   |   |   |   |   |
| Hadj (s)               | 0.53  | -0.02   | 0.53  | -0.23   | -0.06   | 0.05  |  |   |   |   |   |   |
| Departure Headway (s)  | 5.8   | 5.3   | 5.7   | 4.9   | 4.7   | 4.9   |  |   |   |   |   |   |
| Degree Utilization, x  | 0.04  | 0.09  | 0.04  | 0.28  | 0.17  | 0.12  |  |   |   |   |   |   |
| Capacity (veh/h)       | 581   | 646   | 604   | 703   | 713   | 681   |  |   |   |   |   |   |
| Control Delay (s)      | 7.9   | 7.6   | 7.7   | 8.6   | 8.7   | 8.5   |  |   |   |   |   |   |
| Approach Delay (s)     | 7.7   |   | 8.5   |   | 8.7   | 8.5   |  |   |   |   |   |   |
| Approach LOS           | A   |   | A   |   | A   | A   |  |   |   |   |   |   |

Intersection Summary

|                                   |       |                      |   |
|-----------------------------------|-------|----------------------|---|
| Delay                             | 8.4   |                      |   |
| Level of Service                  | A     |                      |   |
| Intersection Capacity Utilization | 37.1% | ICU Level of Service | A |
| Analysis Period (min)             | 15    |                      |   |

HCM Unsignalized Intersection Capacity Analysis  
5: Utah St & Howard Ave

Existing AM Peak Hour  
04/04/2017






















|                        |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement               | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations    |  |  |   |  |  |   |  |  |   |   |  |  |
| Sign Control           | Stop  |   |   | Stop  |   |   |  | Stop  |   |   | Stop  |   |
| Traffic Volume (vph)   | 14  | 98  | 9   | 30  | 180   | 35  | 12   | 94  | 12  | 15  | 89  | 4   |
| Future Volume (vph)    | 14  | 98  | 9   | 30  | 180   | 35  | 12   | 94  | 12  | 15  | 89  | 4   |
| Peak Hour Factor       | 0.87  | 0.87  | 0.87  | 0.87  | 0.87  | 0.87  | 0.87   | 0.87  | 0.87  | 0.87  | 0.87  | 0.87  |
| Hourly flow rate (vph) | 16  | 113   | 10  | 34  | 207   | 40  | 14   | 108   | 14  | 17  | 102   | 5   |
| Direction, Lane #      | EB 1  | EB 2  | WB 1  | WB 2  | NB 1  | SB 1  |  |   |   |   |   |   |
| Volume Total (vph)     | 16  | 123   | 34  | 247   | 136   | 124   |  |   |   |   |   |   |
| Volume Left (vph)      | 16  | 0   | 34  | 0   | 14  | 17  |  |   |   |   |   |   |
| Volume Right (vph)     | 0   | 10  | 0   | 40  | 14  | 5   |  |   |   |   |   |   |
| Hadj (s)               | 0.53  | -0.02   | 0.53  | -0.08   | -0.01   | 0.04  |  |   |   |   |   |   |
| Departure Headway (s)  | 6.1   | 5.5   | 5.9   | 5.3   | 5.1   | 5.2   |  |   |   |   |   |   |
| Degree Utilization, x  | 0.03  | 0.19  | 0.06  | 0.36  | 0.19  | 0.18  |  |   |   |   |   |   |
| Capacity (veh/h)       | 554   | 615   | 578   | 651   | 644   | 632   |  |   |   |   |   |   |
| Control Delay (s)      | 8.0   | 8.6   | 8.1   | 10.1  | 9.4   | 9.3   |  |   |   |   |   |   |
| Approach Delay (s)     | 8.5   |   | 9.8   |   | 9.4   |   |  |   |   |   |   |   |
| Approach LOS           | A   |   | A   |   | A   |   |  |   |   |   |   |   |

Intersection Summary

|                                   |       |  |                      |  |  |  |   |  |  |  |  |  |
|-----------------------------------|-------|--|----------------------|--|--|--|---|--|--|--|--|--|
| Delay                             | 9.4   |  |                      |  |  |  |   |  |  |  |  |  |
| Level of Service                  | A     |  |                      |  |  |  |   |  |  |  |  |  |
| Intersection Capacity Utilization | 30.0% |  | ICU Level of Service |  |  |  | A |  |  |  |  |  |
| Analysis Period (min)             | 15    |  |                      |  |  |  |   |  |  |  |  |  |

HCM Signalized Intersection Capacity Analysis  
6: 30th St & Howard Ave

Existing AM Peak Hour  
04/04/2017




















|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |  |  |   |  |  |   |  |  |   |  |  |  |
| Traffic Volume (vph)              | 14  | 111   | 21  | 31  | 186   | 58  | 32   | 293   | 24  | 22  | 206   | 15  |
| Future Volume (vph)               | 14  | 111   | 21  | 31  | 186   | 58  | 32   | 293   | 24  | 22  | 206   | 15  |
| Ideal Flow (vphpl)                | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900   | 1900  | 1900  | 1900  | 1900  | 1900  |
| Total Lost time (s)               | 4.9   | 4.9   |   | 4.9   | 4.9   |   | 4.9  | 4.9   |   | 4.9   | 4.9   |   |
| Lane Util. Factor                 | 1.00  | 1.00  |   | 1.00  | 1.00  |   | 1.00   | 1.00  |   | 1.00  | 1.00  |   |
| Frbp, ped/bikes                   | 1.00  | 0.99  |   | 1.00  | 0.99  |   | 1.00   | 1.00  |   | 1.00  | 1.00  |   |
| Flpb, ped/bikes                   | 0.99  | 1.00  |   | 0.97  | 1.00  |   | 0.98   | 1.00  |   | 0.98  | 1.00  |   |
| Frt                               | 1.00  | 0.98  |   | 1.00  | 0.96  |   | 1.00   | 0.99  |   | 1.00  | 0.99  |   |
| Flt Protected                     | 0.95  | 1.00  |   | 0.95  | 1.00  |   | 0.95   | 1.00  |   | 0.95  | 1.00  |   |
| Satd. Flow (prot)                 | 1748  | 1801  |   | 1723  | 1776  |   | 1726   | 1835  |   | 1739  | 1837  |   |
| Flt Permitted                     | 0.49  | 1.00  |   | 0.67  | 1.00  |   | 0.62   | 1.00  |   | 0.56  | 1.00  |   |
| Satd. Flow (perm)                 | 910   | 1801  |   | 1215  | 1776  |   | 1121   | 1835  |   | 1030  | 1837  |   |
| Peak-hour factor, PHF             | 0.97  | 0.97  | 0.97  | 0.97  | 0.97  | 0.97  | 0.97   | 0.97  | 0.97  | 0.97  | 0.97  | 0.97  |
| Adj. Flow (vph)                   | 14  | 114   | 22  | 32  | 192   | 60  | 33   | 302   | 25  | 23  | 212   | 15  |
| RTOR Reduction (vph)              | 0   | 15  | 0   | 0   | 24  | 0   | 0  | 4   | 0   | 0   | 4   | 0   |
| Lane Group Flow (vph)             | 14  | 121   | 0   | 32  | 228   | 0   | 33   | 323   | 0   | 23  | 223   | 0   |
| Confl. Peds. (#/hr)               | 12  |   | 21  | 21  |   | 12  | 22   |   | 18  | 18  |   | 22  |
| Confl. Bikes (#/hr)               |   |   | 2   |   |   | 5   |  |   | 2   |   |   | 5   |
| Turn Type                         | Perm  | NA  |   | Perm  | NA  |   | Perm   | NA  |   | Perm  | NA  |   |
| Protected Phases                  |   | 2   |   |   | 2   |   |  | 4   |   |   |   | 4   |
| Permitted Phases                  | 2   |   |   | 2   |   |   | 4  |   |   | 4   |   |   |
| Actuated Green, G (s)             | 11.8  | 11.8  |   | 11.8  | 11.8  |   | 33.3   | 33.3  |   | 33.3  | 33.3  |   |
| Effective Green, g (s)            | 11.8  | 11.8  |   | 11.8  | 11.8  |   | 33.3   | 33.3  |   | 33.3  | 33.3  |   |
| Actuated g/C Ratio                | 0.21  | 0.21  |   | 0.21  | 0.21  |   | 0.61   | 0.61  |   | 0.61  | 0.61  |   |
| Clearance Time (s)                | 4.9   | 4.9   |   | 4.9   | 4.9   |   | 4.9  | 4.9   |   | 4.9   | 4.9   |   |
| Vehicle Extension (s)             | 2.0   | 2.0   |   | 2.0   | 2.0   |   | 3.3  | 3.3   |   | 3.3   | 3.3   |   |
| Lane Grp Cap (vph)                | 195   | 387   |   | 261   | 381   |   | 679  | 1113  |   | 624   | 1114  |   |
| v/s Ratio Prot                    |   | 0.07  |   |   | c0.13   |   |  | c0.18   |   |   |   | 0.12  |
| v/s Ratio Perm                    | 0.02  |   |   | 0.03  |   |   | 0.03   |   |   | 0.02  |   |   |
| v/c Ratio                         | 0.07  | 0.31  |   | 0.12  | 0.60  |   | 0.05   | 0.29  |   | 0.04  | 0.20  |   |
| Uniform Delay, d1                 | 17.2  | 18.1  |   | 17.4  | 19.4  |   | 4.4  | 5.2   |   | 4.3   | 4.8   |   |
| Progression Factor                | 1.00  | 1.00  |   | 1.00  | 1.00  |   | 1.00   | 1.00  |   | 1.00  | 1.00  |   |
| Incremental Delay, d2             | 0.1   | 0.2   |   | 0.1   | 1.7   |   | 0.1  | 0.7   |   | 0.1   | 0.4   |   |
| Delay (s)                         | 17.2  | 18.3  |   | 17.5  | 21.1  |   | 4.5  | 5.8   |   | 4.5   | 5.2   |   |
| Level of Service                  | B   | B   |   | B   | C   |   | A  | A   |   | A   | A   |   |
| Approach Delay (s)                |   | 18.2  |   |   | 20.7  |   |  | 5.7   |   |   | 5.2   |   |
| Approach LOS                      |   | B   |   |   | C   |   |  | A   |   |   | A   |   |
| <b>Intersection Summary</b>       |   |   |   |   |   |   |  |   |   |   |   |   |
| HCM 2000 Control Delay            |   |   | 11.5  |   |   |   | HCM 2000 Level of Service  |   |   |   | B   |   |
| HCM 2000 Volume to Capacity ratio |   |   | 0.37  |   |   |   |  |   |   |   |   |   |
| Actuated Cycle Length (s)         |   |   | 54.9  |   |   |   | Sum of lost time (s)   |   |   | 9.8   |   |   |
| Intersection Capacity Utilization |   |   | 56.2%   |   |   |   | ICU Level of Service   |   |   | B   |   |   |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |

c Critical Lane Group



HCM Unsignalized Intersection Capacity Analysis  
7: Illinois St & Howard Ave

Existing AM Peak Hour  
04/04/2017





















|                        |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement               | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations    |  |  |   |  |  |   |  |  |   |   |  |  |
| Sign Control           | Stop  |   |   | Stop  |   |   |  | Stop  |   |   | Stop  |   |
| Traffic Volume (vph)   | 40  | 84  | 8   | 3   | 248   | 50  | 6  | 121   | 7   | 12  | 47  | 16  |
| Future Volume (vph)    | 40  | 84  | 8   | 3   | 248   | 50  | 6  | 121   | 7   | 12  | 47  | 16  |
| Peak Hour Factor       | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95   | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  |
| Hourly flow rate (vph) | 42  | 88  | 8   | 3   | 261   | 53  | 6  | 127   | 7   | 13  | 49  | 17  |
| Direction, Lane #      | EB 1  | EB 2  | WB 1  | WB 2  | NB 1  | SB 1  |  |   |   |   |   |   |
| Volume Total (vph)     | 42  | 96  | 3   | 314   | 140   | 79  |  |   |   |   |   |   |
| Volume Left (vph)      | 42  | 0   | 3   | 0   | 6   | 13  |  |   |   |   |   |   |
| Volume Right (vph)     | 0   | 8   | 0   | 53  | 7   | 17  |  |   |   |   |   |   |
| Hadj (s)               | 0.53  | -0.02   | 0.53  | -0.08   | 0.01  | -0.06   |  |   |   |   |   |   |
| Departure Headway (s)  | 6.0   | 5.4   | 5.8   | 5.2   | 5.2   | 5.2   |  |   |   |   |   |   |
| Degree Utilization, x  | 0.07  | 0.14  | 0.00  | 0.45  | 0.20  | 0.11  |  |   |   |   |   |   |
| Capacity (veh/h)       | 565   | 628   | 593   | 672   | 638   | 622   |  |   |   |   |   |   |
| Control Delay (s)      | 8.2   | 8.1   | 7.6   | 11.2  | 9.5   | 8.9   |  |   |   |   |   |   |
| Approach Delay (s)     | 8.1   |   | 11.1  |   | 9.5   |   | 8.9  |   |   |   |   |   |
| Approach LOS           | A   |   | B   |   | A   |   | A  |   |   |   |   |   |

Intersection Summary

|                                   |       |  |                      |  |  |  |   |  |  |  |  |  |
|-----------------------------------|-------|--|----------------------|--|--|--|---|--|--|--|--|--|
| Delay                             | 9.9   |  |                      |  |  |  |   |  |  |  |  |  |
| Level of Service                  | A     |  |                      |  |  |  |   |  |  |  |  |  |
| Intersection Capacity Utilization | 39.7% |  | ICU Level of Service |  |  |  | A |  |  |  |  |  |
| Analysis Period (min)             | 15    |  |                      |  |  |  |   |  |  |  |  |  |




















HCM Unsignalized Intersection Capacity Analysis  
8: Boundary St & Howard Ave/Orange Ave

Existing AM Peak Hour  
04/04/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |  |  |   |  |  |   |  |  |  |   |  |  |
| Traffic Volume (veh/h)            | 1   | 83  | 14  | 28  | 271   | 0   | 26   | 1   | 27  | 0   | 0   | 3   |
| Future Volume (Veh/h)             | 1   | 83  | 14  | 28  | 271   | 0   | 26   | 1   | 27  | 0   | 0   | 3   |
| Sign Control                      |   | Free  |   |   | Free  |   |  | Stop  |   |   | Stop  |   |
| Grade                             |   | 0%  |   |   | 0%  |   |  | 0%  |   |   | 0%  |   |
| Peak Hour Factor                  | 0.89  | 0.89  | 0.89  | 0.89  | 0.89  | 0.89  | 0.89   | 0.89  | 0.89  | 0.89  | 0.89  | 0.89  |
| Hourly flow rate (vph)            | 1   | 93  | 16  | 31  | 304   | 0   | 29   | 1   | 30  | 0   | 0   | 3   |
| Pedestrians                       |   | 9   |   |   | 8   |   |  | 9   |   |   | 9   |   |
| Lane Width (ft)                   |   | 12.0  |   |   | 12.0  |   |  | 12.0  |   |   | 12.0  |   |
| Walking Speed (ft/s)              |   | 3.5   |   |   | 3.5   |   |  | 3.5   |   |   | 3.5   |   |
| Percent Blockage                  |   | 1   |   |   | 1   |   |  | 1   |   |   | 1   |   |
| Right turn flare (veh)            |   |   |   |   |   |   |  |   | 2   |   |   |   |
| Median type                       |   | TWLTL   |   |   | TWLTL   |   |  |   |   |   |   |   |
| Median storage (veh)              |   | 2   |   |   | 2   |   |  |   |   |   |   |   |
| Upstream signal (ft)              |   |   |   |   | 985   |   |  |   |   |   |   |   |
| pX, platoon unblocked             |   |   |   |   |   |   |  |   |   |   |   |   |
| vC, conflicting volume            | 313   |   |   | 118   |   |   | 490  | 487   | 118   | 494   | 495   | 322   |
| vC1, stage 1 conf vol             |   |   |   |   |   |   | 112  | 112   |   | 375   | 375   |   |
| vC2, stage 2 conf vol             |   |   |   |   |   |   | 378  | 375   |   | 118   | 120   |   |
| vCu, unblocked vol                | 313   |   |   | 118   |   |   | 490  | 487   | 118   | 494   | 495   | 322   |
| tC, single (s)                    | 4.1   |   |   | 4.1   |   |   | 7.1  | 6.5   | 6.2   | 7.1   | 6.5   | 6.2   |
| tC, 2 stage (s)                   |   |   |   |   |   |   | 6.1  | 5.5   |   | 6.1   | 5.5   |   |
| tF (s)                            | 2.2   |   |   | 2.2   |   |   | 3.5  | 4.0   | 3.3   | 3.5   | 4.0   | 3.3   |
| p0 queue free %                   | 100   |   |   | 98  |   |   | 95   | 100   | 97  | 100   | 100   | 100   |
| cM capacity (veh/h)               | 1237  |   |   | 1458  |   |   | 592  | 570   | 919   | 588   | 566   | 707   |
| <b>Direction, Lane #</b>          | <b>EB 1</b>   | <b>EB 2</b>   | <b>WB 1</b>   | <b>WB 2</b>   | <b>NB 1</b>   | <b>SB 1</b>   |  |   |   |   |   |   |
| Volume Total                      | 1   | 109   | 31  | 304   | 60  | 3   |  |   |   |   |   |   |
| Volume Left                       | 1   | 0   | 31  | 0   | 29  | 0   |  |   |   |   |   |   |
| Volume Right                      | 0   | 16  | 0   | 0   | 30  | 3   |  |   |   |   |   |   |
| cSH                               | 1237  | 1700  | 1458  | 1700  | 1183  | 707   |  |   |   |   |   |   |
| Volume to Capacity                | 0.00  | 0.06  | 0.02  | 0.18  | 0.05  | 0.00  |  |   |   |   |   |   |
| Queue Length 95th (ft)            | 0   | 0   | 2   | 0   | 4   | 0   |  |   |   |   |   |   |
| Control Delay (s)                 | 7.9   | 0.0   | 7.5   | 0.0   | 10.2  | 10.1  |  |   |   |   |   |   |
| Lane LOS                          | A   |   | A   |   | B   | B   |  |   |   |   |   |   |
| Approach Delay (s)                | 0.1   |   | 0.7   |   | 10.2  | 10.1  |  |   |   |   |   |   |
| Approach LOS                      |   |   |   |   | B   | B   |  |   |   |   |   |   |
| <b>Intersection Summary</b>       |   |   |   |   |   |   |  |   |   |   |   |   |
| Average Delay                     |   |   | 1.7   |   |   |   |  |   |   |   |   |   |
| Intersection Capacity Utilization |   |   | 30.3%   |   | ICU Level of Service  |   |  |   | A   |   |   |   |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |

HCM Signalized Intersection Capacity Analysis  
 9: Alley/33rd St & Orange Ave




















Existing AM Peak Hour  
 04/04/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |      |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|------|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |      |
| Lane Configurations               |  |  |   |  |  |   |  |  |   |  |  |   |      |
| Traffic Volume (vph)              | 74  | 112   | 0   | 7   | 259   | 217   | 5  | 4   | 0   | 53  | 2   | 40  |      |
| Future Volume (vph)               | 74  | 112   | 0   | 7   | 259   | 217   | 5  | 4   | 0   | 53  | 2   | 40  |      |
| Ideal Flow (vphpl)                | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900   | 1900  | 1900  | 1900  | 1900  | 1900  |      |
| Total Lost time (s)               | 4.0   | 4.0   |   | 5.0   | 4.0   |   |  | 4.0   |   | 4.0   | 4.0   |   |      |
| Lane Util. Factor                 | 1.00  | 1.00  |   | 1.00  | 1.00  |   |  | 1.00  |   | 1.00  | 1.00  |   |      |
| Fr <sub>t</sub>                   | 1.00  | 1.00  |   | 1.00  | 0.93  |   |  | 1.00  |   | 1.00  | 0.86  |   |      |
| Fl <sub>t</sub> Protected         | 0.95  | 1.00  |   | 0.95  | 1.00  |   |  | 0.97  |   | 0.95  | 1.00  |   |      |
| Satd. Flow (prot)                 | 1770  | 1863  |   | 1770  | 1735  |   |  | 1812  |   | 1770  | 1596  |   |      |
| Fl <sub>t</sub> Permitted         | 0.95  | 1.00  |   | 0.95  | 1.00  |   |  | 0.97  |   | 0.95  | 1.00  |   |      |
| Satd. Flow (perm)                 | 1770  | 1863  |   | 1770  | 1735  |   |  | 1812  |   | 1770  | 1596  |   |      |
| Peak-hour factor, PHF             | 0.96  | 0.96  | 0.96  | 0.96  | 0.96  | 0.96  | 0.96   | 0.96  | 0.96  | 0.96  | 0.96  | 0.96  |      |
| Adj. Flow (vph)                   | 77  | 117   | 0   | 7   | 270   | 226   | 5  | 4   | 0   | 55  | 2   | 42  |      |
| RTOR Reduction (vph)              | 0   | 0   | 0   | 0   | 10  | 0   | 0  | 0   | 0   | 0   | 37  | 0   |      |
| Lane Group Flow (vph)             | 77  | 117   | 0   | 7   | 486   | 0   | 0  | 9   | 0   | 55  | 7   | 0   |      |
| Turn Type                         | Prot  | NA  |   | Prot  | NA  |   | Split  | NA  |   | Split   | NA  |   |      |
| Protected Phases                  | 5   | 2   |   | 1   | 6   |   | 3  | 3   |   | 4   | 4   |   |      |
| Permitted Phases                  |   |   |   |   |   |   |  |   |   |   |   |   |      |
| Actuated Green, G (s)             | 7.2   | 33.7  |   | 3.7   | 31.2  |   |  | 0.7   |   | 7.1   | 7.1   |   |      |
| Effective Green, g (s)            | 7.2   | 33.7  |   | 3.7   | 31.2  |   |  | 0.7   |   | 7.1   | 7.1   |   |      |
| Actuated g/C Ratio                | 0.12  | 0.54  |   | 0.06  | 0.50  |   |  | 0.01  |   | 0.11  | 0.11  |   |      |
| Clearance Time (s)                | 4.0   | 4.0   |   | 5.0   | 4.0   |   |  | 4.0   |   | 4.0   | 4.0   |   |      |
| Vehicle Extension (s)             | 2.0   | 2.1   |   | 2.0   | 2.3   |   |  | 2.0   |   | 2.0   | 2.0   |   |      |
| Lane Grp Cap (vph)                | 204   | 1009  |   | 105   | 870   |   |  | 20  |   | 202   | 182   |   |      |
| v/s Ratio Prot                    | c0.04   | 0.06  |   | 0.00  | c0.28   |   |  | c0.00   |   | c0.03   | 0.00  |   |      |
| v/s Ratio Perm                    |   |   |   |   |   |   |  |   |   |   |   |   |      |
| v/c Ratio                         | 0.38  | 0.12  |   | 0.07  | 0.56  |   |  | 0.45  |   | 0.27  | 0.04  |   |      |
| Uniform Delay, d <sub>1</sub>     | 25.4  | 7.0   |   | 27.6  | 10.7  |   |  | 30.6  |   | 25.2  | 24.5  |   |      |
| Progression Factor                | 1.00  | 1.00  |   | 1.00  | 1.00  |   |  | 1.00  |   | 1.00  | 1.00  |   |      |
| Incremental Delay, d <sub>2</sub> | 0.4   | 0.0   |   | 0.1   | 0.6   |   |  | 5.8   |   | 0.3   | 0.0   |   |      |
| Delay (s)                         | 25.9  | 7.0   |   | 27.7  | 11.3  |   |  | 36.3  |   | 25.5  | 24.5  |   |      |
| Level of Service                  | C   | A   |   | C   | B   |   |  | D   |   | C   | C   |   |      |
| Approach Delay (s)                |   | 14.5  |   |   | 11.5  |   |  | 36.3  |   |   | 25.0  |   |      |
| Approach LOS                      |   | B   |   |   | B   |   |  | D   |   |   | C   |   |      |
| <b>Intersection Summary</b>       |   |   |   |   |   |   |  |   |   |   |   |   |      |
| HCM 2000 Control Delay            |   |   | 14.2  |   |   |   |  |   |   |   |   | HCM 2000 Level of Service   | B    |
| HCM 2000 Volume to Capacity ratio |   |   | 0.49  |   |   |   |  |   |   |   |   |   |      |
| Actuated Cycle Length (s)         |   |   | 62.2  |   |   |   |  |   |   |   |   | Sum of lost time (s)  | 17.0 |
| Intersection Capacity Utilization |   |   | 46.0%   |   |   |   |  |   |   |   |   | ICU Level of Service  | A    |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |      |

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis  
10: 35th St & Orange Ave


















Existing AM Peak Hour  
04/04/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |  |  |   |  |  |   |  |  |   |   |  |  |
| Traffic Volume (vph)              | 38  | 156   | 16  | 24  | 339   | 95  | 59   | 105   | 45  | 43  | 68  | 19  |
| Future Volume (vph)               | 38  | 156   | 16  | 24  | 339   | 95  | 59   | 105   | 45  | 43  | 68  | 19  |
| Ideal Flow (vphpl)                | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900   | 1900  | 1900  | 1900  | 1900  | 1900  |
| Total Lost time (s)               | 4.9   | 4.9   |   | 4.9   | 4.9   |   |  | 4.9   |   |   | 4.9   |   |
| Lane Util. Factor                 | 1.00  | 1.00  |   | 1.00  | 1.00  |   |  | 1.00  |   |   | 1.00  |   |
| Frbp, ped/bikes                   | 1.00  | 1.00  |   | 1.00  | 0.99  |   |  | 0.99  |   |   | 0.99  |   |
| Flpb, ped/bikes                   | 0.99  | 1.00  |   | 0.97  | 1.00  |   |  | 0.99  |   |   | 0.99  |   |
| Frt                               | 1.00  | 0.99  |   | 1.00  | 0.97  |   |  | 0.97  |   |   | 0.98  |   |
| Flt Protected                     | 0.95  | 1.00  |   | 0.95  | 1.00  |   |  | 0.99  |   |   | 0.98  |   |
| Satd. Flow (prot)                 | 1756  | 1829  |   | 1725  | 1787  |   |  | 1754  |   |   | 1772  |   |
| Flt Permitted                     | 0.45  | 1.00  |   | 0.64  | 1.00  |   |  | 0.88  |   |   | 0.82  |   |
| Satd. Flow (perm)                 | 836   | 1829  |   | 1162  | 1787  |   |  | 1570  |   |   | 1473  |   |
| Peak-hour factor, PHF             | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92   | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  |
| Adj. Flow (vph)                   | 41  | 170   | 17  | 26  | 368   | 103   | 64   | 114   | 49  | 47  | 74  | 21  |
| RTOR Reduction (vph)              | 0   | 4   | 0   | 0   | 11  | 0   | 0  | 25  | 0   | 0   | 16  | 0   |
| Lane Group Flow (vph)             | 41  | 183   | 0   | 26  | 460   | 0   | 0  | 202   | 0   | 0   | 126   | 0   |
| Confl. Peds. (#/hr)               | 12  |   | 24  | 24  |   | 12  | 22   |   | 17  | 17  |   | 22  |
| Confl. Bikes (#/hr)               |   |   | 1   |   |   | 4   |  |   |   |   |   | 4   |
| Turn Type                         | Perm  | NA  |   | Perm  | NA  |   | Perm   | NA  |   | Perm  | NA  |   |
| Protected Phases                  |   | 2   |   |   | 2   |   |  | 4   |   |   |   | 4   |
| Permitted Phases                  | 2   |   |   | 2   |   |   | 4  |   |   | 4   |   |   |
| Actuated Green, G (s)             | 34.9  | 34.9  |   | 34.9  | 34.9  |   |  | 12.2  |   |   | 12.2  |   |
| Effective Green, g (s)            | 34.9  | 34.9  |   | 34.9  | 34.9  |   |  | 12.2  |   |   | 12.2  |   |
| Actuated g/C Ratio                | 0.61  | 0.61  |   | 0.61  | 0.61  |   |  | 0.21  |   |   | 0.21  |   |
| Clearance Time (s)                | 4.9   | 4.9   |   | 4.9   | 4.9   |   |  | 4.9   |   |   | 4.9   |   |
| Vehicle Extension (s)             | 3.1   | 3.1   |   | 3.1   | 3.1   |   |  | 2.0   |   |   | 2.0   |   |
| Lane Grp Cap (vph)                | 512   | 1121  |   | 712   | 1096  |   |  | 336   |   |   | 315   |   |
| v/s Ratio Prot                    |   | 0.10  |   |   | c0.26   |   |  |   |   |   |   |   |
| v/s Ratio Perm                    | 0.05  |   |   | 0.02  |   |   |  | c0.13   |   |   | 0.09  |   |
| v/c Ratio                         | 0.08  | 0.16  |   | 0.04  | 0.42  |   |  | 0.60  |   |   | 0.40  |   |
| Uniform Delay, d1                 | 4.5   | 4.7   |   | 4.4   | 5.7   |   |  | 20.2  |   |   | 19.2  |   |
| Progression Factor                | 1.00  | 1.00  |   | 1.00  | 1.00  |   |  | 1.00  |   |   | 1.00  |   |
| Incremental Delay, d2             | 0.3   | 0.3   |   | 0.1   | 1.2   |   |  | 2.1   |   |   | 0.3   |   |
| Delay (s)                         | 4.8   | 5.0   |   | 4.4   | 6.9   |   |  | 22.2  |   |   | 19.5  |   |
| Level of Service                  | A   | A   |   | A   | A   |   |  | C   |   |   | B   |   |
| Approach Delay (s)                |   | 5.0   |   |   | 6.8   |   |  | 22.2  |   |   | 19.5  |   |
| Approach LOS                      |   | A   |   |   | A   |   |  | C   |   |   | B   |   |
| <b>Intersection Summary</b>       |   |   |   |   |   |   |  |   |   |   |   |   |
| HCM 2000 Control Delay            |   |   | 11.3  |   |   | HCM 2000 Level of Service   |  |   | B   |   |   |   |
| HCM 2000 Volume to Capacity ratio |   |   | 0.47  |   |   |   |  |   |   |   |   |   |
| Actuated Cycle Length (s)         |   |   | 56.9  |   |   | Sum of lost time (s)  |  | 9.8   |   |   |   |   |
| Intersection Capacity Utilization |   |   | 55.3%   |   |   | ICU Level of Service  |  |   | B   |   |   |   |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |

c Critical Lane Group


















HCM Unsignalized Intersection Capacity Analysis  
 11: 37th St & Orange Ave

Existing AM Peak Hour  
 04/04/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |  |  |   |   |  |   |  |  |   |   |   |  |
| Traffic Volume (veh/h)            | 38  | 219   | 16  | 15  | 306   | 70  | 10   | 4   | 32  | 25  | 3   | 7   |
| Future Volume (Veh/h)             | 38  | 219   | 16  | 15  | 306   | 70  | 10   | 4   | 32  | 25  | 3   | 7   |
| Sign Control                      |   | Free  |   |   | Free  |   |  | Stop  |   |   | Stop  |   |
| Grade                             |   | 0%  |   |   | 0%  |   |  | 0%  |   |   | 0%  |   |
| Peak Hour Factor                  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92   | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  |
| Hourly flow rate (vph)            | 41  | 238   | 17  | 16  | 333   | 76  | 11   | 4   | 35  | 27  | 3   | 8   |
| Pedestrians                       |   |   |   |   |   |   |  |   |   |   |   |   |
| Lane Width (ft)                   |   |   |   |   |   |   |  |   |   |   |   |   |
| Walking Speed (ft/s)              |   |   |   |   |   |   |  |   |   |   |   |   |
| Percent Blockage                  |   |   |   |   |   |   |  |   |   |   |   |   |
| Right turn flare (veh)            |   |   |   |   |   |   |  |   |   |   |   |   |
| Median type                       | TWLTL   |   |   |   | TWLTL   |   |  |   |   |   |   |   |
| Median storage (veh)              | 2   |   |   |   | 2   |   |  |   |   |   |   |   |
| Upstream signal (ft)              |   |   |   |   | 1317  |   |  |   |   |   |   |   |
| pX, platoon unblocked             |   |   |   |   |   |   |  |   |   |   |   |   |
| vC, conflicting volume            | 409   |   |   | 255   |   |   | 741  | 770   | 246   | 760   | 740   | 371   |
| vC1, stage 1 conf vol             |   |   |   |   |   |   | 328  | 328   |   | 403   | 403   |   |
| vC2, stage 2 conf vol             |   |   |   |   |   |   | 412  | 441   |   | 357   | 337   |   |
| vCu, unblocked vol                | 409   |   |   | 255   |   |   | 741  | 770   | 246   | 760   | 740   | 371   |
| tC, single (s)                    | 4.1   |   |   | 4.1   |   |   | 7.1  | 6.5   | 6.2   | 7.1   | 6.5   | 6.2   |
| tC, 2 stage (s)                   |   |   |   |   |   |   | 6.1  | 5.5   |   | 6.1   | 5.5   |   |
| tF (s)                            | 2.2   |   |   | 2.2   |   |   | 3.5  | 4.0   | 3.3   | 3.5   | 4.0   | 3.3   |
| p0 queue free %                   | 96  |   |   | 99  |   |   | 98   | 99  | 96  | 94  | 99  | 99  |
| cM capacity (veh/h)               | 1150  |   |   | 1310  |   |   | 491  | 470   | 792   | 488   | 496   | 675   |
| Direction, Lane #                 | EB 1  | EB 2  | WB 1  | NB 1  | SB 1  |   |  |   |   |   |   |   |
| Volume Total                      | 41  | 255   | 425   | 50  | 38  |   |  |   |   |   |   |   |
| Volume Left                       | 41  | 0   | 16  | 11  | 27  |   |  |   |   |   |   |   |
| Volume Right                      | 0   | 17  | 76  | 35  | 8   |   |  |   |   |   |   |   |
| cSH                               | 1150  | 1700  | 1310  | 666   | 519   |   |  |   |   |   |   |   |
| Volume to Capacity                | 0.04  | 0.15  | 0.01  | 0.08  | 0.07  |   |  |   |   |   |   |   |
| Queue Length 95th (ft)            | 3   | 0   | 1   | 6   | 6   |   |  |   |   |   |   |   |
| Control Delay (s)                 | 8.2   | 0.0   | 0.4   | 10.8  | 12.5  |   |  |   |   |   |   |   |
| Lane LOS                          | A   |   | A   | B   | B   |   |  |   |   |   |   |   |
| Approach Delay (s)                | 1.1   |   | 0.4   | 10.8  | 12.5  |   |  |   |   |   |   |   |
| Approach LOS                      |   |   |   | B   | B   |   |  |   |   |   |   |   |
| Intersection Summary              |   |   |   |   |   |   |  |   |   |   |   |   |
| Average Delay                     |   |   | 1.9   |   |   |   |  |   |   |   |   |   |
| Intersection Capacity Utilization |   |   | 44.8%   |   | ICU Level of Service  |   | A  |   |   |   |   |   |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |


















HCM Unsignalized Intersection Capacity Analysis  
 12: 39th St & Orange Ave

Existing AM Peak Hour  
 04/04/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |   |  |   |  |  |   |  |  |   |   |  |   |
| Traffic Volume (veh/h)            | 58  | 194   | 52  | 47  | 382   | 197   | 51   | 53  | 75  | 17  | 7   | 38  |
| Future Volume (Veh/h)             | 58  | 194   | 52  | 47  | 382   | 197   | 51   | 53  | 75  | 17  | 7   | 38  |
| Sign Control                      |   | Free  |   |   | Free  |   |  | Stop  |   |   | Stop  |   |
| Grade                             |   | 0%  |   |   | 0%  |   |  | 0%  |   |   | 0%  |   |
| Peak Hour Factor                  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92   | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  |
| Hourly flow rate (vph)            | 63  | 211   | 57  | 51  | 415   | 214   | 55   | 58  | 82  | 18  | 8   | 41  |
| Pedestrians                       |   |   |   |   |   |   |  |   |   |   |   |   |
| Lane Width (ft)                   |   |   |   |   |   |   |  |   |   |   |   |   |
| Walking Speed (ft/s)              |   |   |   |   |   |   |  |   |   |   |   |   |
| Percent Blockage                  |   |   |   |   |   |   |  |   |   |   |   |   |
| Right turn flare (veh)            |   |   |   |   |   |   |  |   |   |   |   |   |
| Median type                       |   | TWLTL   |   |   | TWLTL   |   |  |   |   |   |   |   |
| Median storage veh                |   | 2   |   |   | 2   |   |  |   |   |   |   |   |
| Upstream signal (ft)              |   |   |   |   | 347   |   |  |   |   |   |   |   |
| pX, platoon unblocked             | 0.71  |   |   |   |   |   | 0.71   | 0.71  |   | 0.71  | 0.71  | 0.71  |
| vC, conflicting volume            | 629   |   |   | 268   |   |   | 928  | 1096  | 240   | 1100  | 1018  | 522   |
| vC1, stage 1 conf vol             |   |   |   |   |   |   | 366  | 366   |   | 624   | 624   |   |
| vC2, stage 2 conf vol             |   |   |   |   |   |   | 562  | 731   |   | 476   | 394   |   |
| vCu, unblocked vol                | 276   |   |   | 268   |   |   | 696  | 933   | 240   | 939   | 823   | 126   |
| tC, single (s)                    | 4.1   |   |   | 4.1   |   |   | 7.1  | 6.5   | 6.2   | 7.1   | 6.5   | 6.2   |
| tC, 2 stage (s)                   |   |   |   |   |   |   | 6.1  | 5.5   |   | 6.1   | 5.5   |   |
| tF (s)                            | 2.2   |   |   | 2.2   |   |   | 3.5  | 4.0   | 3.3   | 3.5   | 4.0   | 3.3   |
| p0 queue free %                   | 93  |   |   | 96  |   |   | 86   | 82  | 90  | 94  | 98  | 94  |
| cM capacity (veh/h)               | 916   |   |   | 1296  |   |   | 400  | 314   | 799   | 316   | 382   | 658   |
| Direction, Lane #                 |   |   |   |   |   |   |  |   |   |   |   |   |
|                                   | EB 1  | WB 1  | WB 2  | NB 1  | SB 1  |   |  |   |   |   |   |   |
| Volume Total                      | 331   | 51  | 629   | 195   | 67  |   |  |   |   |   |   |   |
| Volume Left                       | 63  | 51  | 0   | 55  | 18  |   |  |   |   |   |   |   |
| Volume Right                      | 57  | 0   | 214   | 82  | 41  |   |  |   |   |   |   |   |
| cSH                               | 916   | 1296  | 1700  | 459   | 478   |   |  |   |   |   |   |   |
| Volume to Capacity                | 0.07  | 0.04  | 0.37  | 0.42  | 0.14  |   |  |   |   |   |   |   |
| Queue Length 95th (ft)            | 6   | 3   | 0   | 52  | 12  |   |  |   |   |   |   |   |
| Control Delay (s)                 | 2.4   | 7.9   | 0.0   | 18.5  | 13.8  |   |  |   |   |   |   |   |
| Lane LOS                          | A   | A   |   | C   | B   |   |  |   |   |   |   |   |
| Approach Delay (s)                | 2.4   | 0.6   |   | 18.5  | 13.8  |   |  |   |   |   |   |   |
| Approach LOS                      |   |   |   | C   | B   |   |  |   |   |   |   |   |
| Intersection Summary              |   |   |   |   |   |   |  |   |   |   |   |   |
| Average Delay                     |   |   | 4.5   |   |   |   |  |   |   |   |   |   |
| Intersection Capacity Utilization |   |   | 72.4%   |   | ICU Level of Service  |   |  |   |   | C   |   |   |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |

HCM Signalized Intersection Capacity Analysis  
13: 40th St & Orange Ave




















Existing AM Peak Hour  
04/04/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |   |  |   |  |  |   |  |  |   |   |  |   |
| Traffic Volume (vph)              | 0   | 268   | 7   | 9   | 531   | 0   | 19   | 0   | 31  | 46  | 8   | 51  |
| Future Volume (vph)               | 0   | 268   | 7   | 9   | 531   | 0   | 19   | 0   | 31  | 46  | 8   | 51  |
| Ideal Flow (vphpl)                | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900   | 1900  | 1900  | 1900  | 1900  | 1900  |
| Total Lost time (s)               |   | 4.3   |   | 4.0   | 4.3   |   |  | 4.0   |   |   | 4.0   |   |
| Lane Util. Factor                 |   | 1.00  |   | 1.00  | 1.00  |   |  | 1.00  |   |   | 1.00  |   |
| Fr <sub>t</sub>                   |   | 1.00  |   | 1.00  | 1.00  |   |  | 0.92  |   |   | 0.93  |   |
| Fl <sub>t</sub> Protected         |   | 1.00  |   | 0.95  | 1.00  |   |  | 0.98  |   |   | 0.98  |   |
| Satd. Flow (prot)                 |   | 1856  |   | 1770  | 1863  |   |  | 1676  |   |   | 1703  |   |
| Fl <sub>t</sub> Permitted         |   | 1.00  |   | 0.95  | 1.00  |   |  | 0.98  |   |   | 0.88  |   |
| Satd. Flow (perm)                 |   | 1856  |   | 1770  | 1863  |   |  | 1676  |   |   | 1525  |   |
| Peak-hour factor, PHF             | 0.88  | 0.88  | 0.88  | 0.88  | 0.88  | 0.88  | 0.88   | 0.88  | 0.88  | 0.88  | 0.88  | 0.88  |
| Adj. Flow (vph)                   | 0   | 305   | 8   | 10  | 603   | 0   | 22   | 0   | 35  | 52  | 9   | 58  |
| RTOR Reduction (vph)              | 0   | 1   | 0   | 0   | 0   | 0   | 0  | 54  | 0   | 0   | 18  | 0   |
| Lane Group Flow (vph)             | 0   | 312   | 0   | 10  | 603   | 0   | 0  | 3   | 0   | 0   | 101   | 0   |
| Turn Type                         |   | NA  |   | Prot  | NA  |   | Split  | NA  |   | Perm  | NA  |   |
| Protected Phases                  |   | 2   |   | 1   | 6   |   | 3  | 3   |   |   | 4   |   |
| Permitted Phases                  |   |   |   |   |   |   |  |   |   | 4   |   |   |
| Actuated Green, G (s)             |   | 26.8  |   | 1.0   | 31.8  |   |  | 3.8   |   |   | 30.7  |   |
| Effective Green, g (s)            |   | 26.8  |   | 1.0   | 31.8  |   |  | 3.8   |   |   | 30.7  |   |
| Actuated g/C Ratio                |   | 0.34  |   | 0.01  | 0.40  |   |  | 0.05  |   |   | 0.39  |   |
| Clearance Time (s)                |   | 4.3   |   | 4.0   | 4.3   |   |  | 4.0   |   |   | 4.0   |   |
| Vehicle Extension (s)             |   | 2.0   |   | 2.0   | 2.0   |   |  | 2.0   |   |   | 2.0   |   |
| Lane Grp Cap (vph)                |   | 632   |   | 22  | 753   |   |  | 81  |   |   | 595   |   |
| v/s Ratio Prot                    |   | 0.17  |   | 0.01  | c0.32   |   |  | c0.00   |   |   |   |   |
| v/s Ratio Perm                    |   |   |   |   |   |   |  |   |   |   | c0.07   |   |
| v/c Ratio                         |   | 0.49  |   | 0.45  | 0.80  |   |  | 0.03  |   |   | 0.17  |   |
| Uniform Delay, d <sub>1</sub>     |   | 20.5  |   | 38.5  | 20.6  |   |  | 35.7  |   |   | 15.6  |   |
| Progression Factor                |   | 1.00  |   | 1.00  | 1.00  |   |  | 1.00  |   |   | 1.00  |   |
| Incremental Delay, d <sub>2</sub> |   | 0.2   |   | 5.3   | 5.8   |   |  | 0.1   |   |   | 0.6   |   |
| Delay (s)                         |   | 20.8  |   | 43.9  | 26.4  |   |  | 35.7  |   |   | 16.3  |   |
| Level of Service                  |   | C   |   | D   | C   |   |  | D   |   |   | B   |   |
| Approach Delay (s)                |   | 20.8  |   |   | 26.7  |   |  | 35.7  |   |   | 16.3  |   |
| Approach LOS                      |   | C   |   |   | C   |   |  | D   |   |   | B   |   |
| <b>Intersection Summary</b>       |   |   |   |   |   |   |  |   |   |   |   |   |
| HCM 2000 Control Delay            |   |   | 24.3  |   |   | HCM 2000 Level of Service   |  |   |   | C   |   |   |
| HCM 2000 Volume to Capacity ratio |   |   | 0.49  |   |   |   |  |   |   |   |   |   |
| Actuated Cycle Length (s)         |   |   | 78.6  |   |   | Sum of lost time (s)  |  |   | 16.3  |   |   |   |
| Intersection Capacity Utilization |   |   | 43.2%   |   |   | ICU Level of Service  |  |   | A   |   |   |   |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis  
 14: Marlborough Ave S/Alley & Orange Ave

Existing AM Peak Hour  
 04/04/2017


















|                                   |  |  |  |  |  |  |  |  |  |  |  |  |     |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|-----|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |     |
| Lane Configurations               |  |  |   |  |  |   |  |  |   |   |  |  |     |
| Traffic Volume (vph)              | 1   | 290   | 55  | 71  | 619   | 0   | 117  | 1   | 69  | 0   | 2   | 3   |     |
| Future Volume (vph)               | 1   | 290   | 55  | 71  | 619   | 0   | 117  | 1   | 69  | 0   | 2   | 3   |     |
| Ideal Flow (vphpl)                | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900   | 1900  | 1900  | 1900  | 1900  | 1900  |     |
| Total Lost time (s)               | 4.9   | 4.9   |   | 4.9   | 4.9   |   |  | 4.9   |   |   | 4.9   |   |     |
| Lane Util. Factor                 | 1.00  | 1.00  |   | 1.00  | 1.00  |   |  | 1.00  |   |   | 1.00  |   |     |
| Fr <sub>t</sub>                   | 1.00  | 0.98  |   | 1.00  | 1.00  |   |  | 0.95  |   |   | 0.92  |   |     |
| Fl <sub>t</sub> Protected         | 0.95  | 1.00  |   | 0.95  | 1.00  |   |  | 0.97  |   |   | 1.00  |   |     |
| Satd. Flow (prot)                 | 1770  | 1818  |   | 1770  | 1863  |   |  | 1716  |   |   | 1712  |   |     |
| Fl <sub>t</sub> Permitted         | 0.26  | 1.00  |   | 0.50  | 1.00  |   |  | 0.81  |   |   | 1.00  |   |     |
| Satd. Flow (perm)                 | 485   | 1818  |   | 928   | 1863  |   |  | 1428  |   |   | 1712  |   |     |
| Peak-hour factor, PHF             | 0.87  | 0.87  | 0.87  | 0.87  | 0.87  | 0.87  | 0.87   | 0.87  | 0.87  | 0.87  | 0.87  | 0.87  |     |
| Adj. Flow (vph)                   | 1   | 333   | 63  | 82  | 711   | 0   | 134  | 1   | 79  | 0   | 2   | 3   |     |
| RTOR Reduction (vph)              | 0   | 6   | 0   | 0   | 0   | 0   | 0  | 22  | 0   | 0   | 2   | 0   |     |
| Lane Group Flow (vph)             | 1   | 390   | 0   | 82  | 711   | 0   | 0  | 192   | 0   | 0   | 3   | 0   |     |
| Turn Type                         | Perm  | NA  |   | Perm  | NA  |   | Perm   | NA  |   |   | NA  |   |     |
| Protected Phases                  |   | 2   |   |   | 6   |   |  | 8   |   |   | 4   |   |     |
| Permitted Phases                  | 2   |   |   | 6   |   |   | 8  |   |   | 4   |   |   |     |
| Actuated Green, G (s)             | 30.9  | 30.9  |   | 30.9  | 30.9  |   |  | 13.8  |   |   | 13.8  |   |     |
| Effective Green, g (s)            | 30.9  | 30.9  |   | 30.9  | 30.9  |   |  | 13.8  |   |   | 13.8  |   |     |
| Actuated g/C Ratio                | 0.57  | 0.57  |   | 0.57  | 0.57  |   |  | 0.25  |   |   | 0.25  |   |     |
| Clearance Time (s)                | 4.9   | 4.9   |   | 4.9   | 4.9   |   |  | 4.9   |   |   | 4.9   |   |     |
| Vehicle Extension (s)             | 2.2   | 2.2   |   | 2.2   | 2.2   |   |  | 2.0   |   |   | 2.0   |   |     |
| Lane Grp Cap (vph)                | 274   | 1030  |   | 526   | 1056  |   |  | 361   |   |   | 433   |   |     |
| v/s Ratio Prot                    |   | 0.21  |   |   | c0.38   |   |  |   |   |   | 0.00  |   |     |
| v/s Ratio Perm                    | 0.00  |   |   | 0.09  |   |   |  | c0.13   |   |   |   |   |     |
| v/c Ratio                         | 0.00  | 0.38  |   | 0.16  | 0.67  |   |  | 0.53  |   |   | 0.01  |   |     |
| Uniform Delay, d <sub>1</sub>     | 5.1   | 6.5   |   | 5.6   | 8.3   |   |  | 17.6  |   |   | 15.2  |   |     |
| Progression Factor                | 1.00  | 1.00  |   | 1.00  | 1.00  |   |  | 1.00  |   |   | 1.00  |   |     |
| Incremental Delay, d <sub>2</sub> | 0.0   | 0.1   |   | 0.1   | 1.4   |   |  | 0.8   |   |   | 0.0   |   |     |
| Delay (s)                         | 5.1   | 6.6   |   | 5.7   | 9.7   |   |  | 18.3  |   |   | 15.2  |   |     |
| Level of Service                  | A   | A   |   | A   | A   |   |  | B   |   |   | B   |   |     |
| Approach Delay (s)                |   | 6.6   |   |   | 9.3   |   |  | 18.3  |   |   | 15.2  |   |     |
| Approach LOS                      |   | A   |   |   | A   |   |  | B   |   |   | B   |   |     |
| <b>Intersection Summary</b>       |   |   |   |   |   |   |  |   |   |   |   |   |     |
| HCM 2000 Control Delay            |   |   | 9.9   |   |   |   |  |   |   |   |   | HCM 2000 Level of Service   | A   |
| HCM 2000 Volume to Capacity ratio |   |   | 0.63  |   |   |   |  |   |   |   |   |   |     |
| Actuated Cycle Length (s)         |   |   | 54.5  |   |   |   |  |   |   |   |   | Sum of lost time (s)  | 9.8 |
| Intersection Capacity Utilization |   |   | 65.6%   |   |   |   |  |   |   |   |   | ICU Level of Service  | C   |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |     |

c Critical Lane Group



HCM Signalized Intersection Capacity Analysis  
15: 43rd St & Orange Ave

Existing AM Peak Hour  
04/04/2017






















|                        |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement               | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations    |   |  |   |  |  |   |  |   |   |   |  |  |
| Traffic Volume (vph)   | 0   | 322   | 37  | 18  | 501   | 0   | 0  | 0   | 0   | 48  | 253   | 76  |
| Future Volume (vph)    | 0   | 322   | 37  | 18  | 501   | 0   | 0  | 0   | 0   | 48  | 253   | 76  |
| Ideal Flow (vphpl)     | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900   | 1900  | 1900  | 1900  | 1900  | 1900  |
| Total Lost time (s)    |   | 4.9   |   | 4.9   | 4.9   |   |  |   |   |   | 4.9   |   |
| Lane Util. Factor      |   | 1.00  |   | 1.00  | 1.00  |   |  |   |   |   | 0.95  |   |
| Frbp, ped/bikes        |   | 0.99  |   | 1.00  | 1.00  |   |  |   |   |   | 0.99  |   |
| Flpb, ped/bikes        |   | 1.00  |   | 0.96  | 1.00  |   |  |   |   |   | 0.99  |   |
| Frt                    |   | 0.99  |   | 1.00  | 1.00  |   |  |   |   |   | 0.97  |   |
| Flt Protected          |   | 1.00  |   | 0.95  | 1.00  |   |  |   |   |   | 0.99  |   |
| Satd. Flow (prot)      |   | 1821  |   | 1702  | 1863  |   |  |   |   |   | 3341  |   |
| Flt Permitted          |   | 1.00  |   | 0.51  | 1.00  |   |  |   |   |   | 0.99  |   |
| Satd. Flow (perm)      |   | 1821  |   | 915   | 1863  |   |  |   |   |   | 3341  |   |
| Peak-hour factor, PHF  | 0.94  | 0.94  | 0.94  | 0.94  | 0.94  | 0.94  | 0.94   | 0.94  | 0.94  | 0.94  | 0.94  | 0.94  |
| Adj. Flow (vph)        | 0   | 343   | 39  | 19  | 533   | 0   | 0  | 0   | 0   | 51  | 269   | 81  |
| RTOR Reduction (vph)   | 0   | 3   | 0   | 0   | 0   | 0   | 0  | 0   | 0   | 0   | 40  | 0   |
| Lane Group Flow (vph)  | 0   | 379   | 0   | 19  | 533   | 0   | 0  | 0   | 0   | 0   | 361   | 0   |
| Confl. Peds. (#/hr)    | 43  |   | 62  | 62  |   | 43  | 22   |   | 31  | 31  |   | 22  |
| Confl. Bikes (#/hr)    |   |   | 13  |   |   | 3   |  |   |   |   |   | 3   |
| Turn Type              |   | NA  |   | Perm  | NA  |   |  |   |   |   | Perm  | NA  |
| Protected Phases       |   | 2   |   |   | 6   |   |  |   |   |   |   | 4   |
| Permitted Phases       |   |   |   | 6   |   |   |  |   |   | 4   |   |   |
| Actuated Green, G (s)  |   | 44.2  |   | 44.2  | 44.2  |   |  |   |   |   | 16.0  |   |
| Effective Green, g (s) |   | 44.2  |   | 44.2  | 44.2  |   |  |   |   |   | 16.0  |   |
| Actuated g/C Ratio     |   | 0.63  |   | 0.63  | 0.63  |   |  |   |   |   | 0.23  |   |
| Clearance Time (s)     |   | 4.9   |   | 4.9   | 4.9   |   |  |   |   |   | 4.9   |   |
| Vehicle Extension (s)  |   | 5.5   |   | 5.5   | 5.5   |   |  |   |   |   | 5.1   |   |
| Lane Grp Cap (vph)     |   | 1149  |   | 577   | 1176  |   |  |   |   |   | 763   |   |
| v/s Ratio Prot         |   | 0.21  |   |   | c0.29   |   |  |   |   |   |   |   |
| v/s Ratio Perm         |   |   |   | 0.02  |   |   |  |   |   |   | 0.11  |   |
| v/c Ratio              |   | 0.33  |   | 0.03  | 0.45  |   |  |   |   |   | 0.47  |   |
| Uniform Delay, d1      |   | 6.0   |   | 4.9   | 6.7   |   |  |   |   |   | 23.4  |   |
| Progression Factor     |   | 1.00  |   | 1.80  | 1.68  |   |  |   |   |   | 1.00  |   |
| Incremental Delay, d2  |   | 0.8   |   | 0.1   | 1.1   |   |  |   |   |   | 1.0   |   |
| Delay (s)              |   | 6.8   |   | 8.8   | 12.3  |   |  |   |   |   | 24.4  |   |
| Level of Service       |   | A   |   | A   | B   |   |  |   |   |   | C   |   |
| Approach Delay (s)     |   | 6.8   |   |   | 12.2  |   |  | 0.0   |   |   | 24.4  |   |
| Approach LOS           |   | A   |   |   | B   |   |  | A   |   |   | C   |   |

| Intersection Summary              |       |                           |     |
|-----------------------------------|-------|---------------------------|-----|
| HCM 2000 Control Delay            | 14.3  | HCM 2000 Level of Service | B   |
| HCM 2000 Volume to Capacity ratio | 0.46  |                           |     |
| Actuated Cycle Length (s)         | 70.0  | Sum of lost time (s)      | 9.8 |
| Intersection Capacity Utilization | 49.8% | ICU Level of Service      | A   |
| Analysis Period (min)             | 15    |                           |     |

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis  
 16: Fairmount Ave & Orange Ave

Existing AM Peak Hour  
 04/04/2017

|                        |  |  |  |  |  |  |   |   |  |  |  |  |
|------------------------|---|---|---|---|---|---|---|--|---|---|---|---|
| Movement               | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL   | NBT  | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations    |  |  |   |  |  |   |  | <br> |   |  |  |   |
| Traffic Volume (vph)   | 70  | 258   | 57  | 43  | 356   | 137   | 174   | 822  | 58  | 9   | 57  | 10  |
| Future Volume (vph)    | 70  | 258   | 57  | 43  | 356   | 137   | 174   | 822  | 58  | 9   | 57  | 10  |
| Ideal Flow (vphpl)     | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900   | 1900  | 1900  | 1900  | 1900  |
| Total Lost time (s)    | 4.9   | 4.9   |   | 4.9   | 4.9   |   | 4.9   | 4.9  |   | 4.9   | 4.9   |   |
| Lane Util. Factor      | 1.00  | 1.00  |   | 1.00  | 1.00  |   | 1.00  | 0.95   |   | 1.00  | 1.00  |   |
| Frbp, ped/bikes        | 1.00  | 0.97  |   | 1.00  | 0.98  |   | 1.00  | 0.99   |   | 1.00  | 0.99  |   |
| Flpb, ped/bikes        | 0.98  | 1.00  |   | 0.91  | 1.00  |   | 0.94  | 1.00   |   | 0.98  | 1.00  |   |
| Frt                    | 1.00  | 0.97  |   | 1.00  | 0.96  |   | 1.00  | 0.99   |   | 1.00  | 0.98  |   |
| Flt Protected          | 0.95  | 1.00  |   | 0.95  | 1.00  |   | 0.95  | 1.00   |   | 0.95  | 1.00  |   |
| Satd. Flow (prot)      | 1727  | 1752  |   | 1608  | 1743  |   | 1660  | 3476   |   | 1732  | 1793  |   |
| Flt Permitted          | 0.30  | 1.00  |   | 0.48  | 1.00  |   | 0.71  | 1.00   |   | 0.21  | 1.00  |   |
| Satd. Flow (perm)      | 539   | 1752  |   | 820   | 1743  |   | 1242  | 3476   |   | 376   | 1793  |   |
| Peak-hour factor, PHF  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95   | 0.95  | 0.95  | 0.95  | 0.95  |
| Adj. Flow (vph)        | 74  | 272   | 60  | 45  | 375   | 144   | 183   | 865  | 61  | 9   | 60  | 11  |
| RTOR Reduction (vph)   | 0   | 9   | 0   | 0   | 16  | 0   | 0   | 10   | 0   | 0   | 6   | 0   |
| Lane Group Flow (vph)  | 74  | 323   | 0   | 45  | 503   | 0   | 183   | 916  | 0   | 9   | 65  | 0   |
| Confl. Peds. (#/hr)    | 63  |   | 84  | 84  |   | 63  | 39  |  | 58  | 58  |   | 39  |
| Confl. Bikes (#/hr)    |   |   | 4   |   |   | 9   |   |  | 5   |   |   | 9   |
| Turn Type              | Perm  | NA  |   | Perm  | NA  |   | Perm  | NA   |   | Perm  | NA  |   |
| Protected Phases       |   | 2   |   |   | 6   |   |   | 8  |   |   |   | 8   |
| Permitted Phases       | 2   |   |   | 6   |   |   | 8   |  |   | 8   |   |   |
| Actuated Green, G (s)  | 30.2  | 30.2  |   | 30.2  | 30.2  |   | 30.0  | 30.0   |   | 30.0  | 30.0  |   |
| Effective Green, g (s) | 30.2  | 30.2  |   | 30.2  | 30.2  |   | 30.0  | 30.0   |   | 30.0  | 30.0  |   |
| Actuated g/C Ratio     | 0.43  | 0.43  |   | 0.43  | 0.43  |   | 0.43  | 0.43   |   | 0.43  | 0.43  |   |
| Clearance Time (s)     | 4.9   | 4.9   |   | 4.9   | 4.9   |   | 4.9   | 4.9  |   | 4.9   | 4.9   |   |
| Vehicle Extension (s)  | 5.5   | 5.5   |   | 5.5   | 5.5   |   | 6.3   | 6.3  |   | 6.3   | 6.3   |   |
| Lane Grp Cap (vph)     | 232   | 755   |   | 353   | 751   |   | 532   | 1489   |   | 161   | 768   |   |
| v/s Ratio Prot         |   | 0.18  |   |   | c0.29   |   |   | c0.26  |   |   |   | 0.04  |
| v/s Ratio Perm         | 0.14  |   |   | 0.05  |   |   | 0.15  |  |   | 0.02  |   |   |
| v/c Ratio              | 0.32  | 0.43  |   | 0.13  | 0.67  |   | 0.34  | 0.62   |   | 0.06  | 0.08  |   |
| Uniform Delay, d1      | 13.1  | 13.9  |   | 12.0  | 15.9  |   | 13.4  | 15.5   |   | 11.7  | 11.9  |   |
| Progression Factor     | 1.06  | 1.06  |   | 1.00  | 1.00  |   | 1.00  | 1.00   |   | 1.00  | 1.00  |   |
| Incremental Delay, d2  | 3.5   | 1.7   |   | 0.7   | 4.7   |   | 1.2   | 1.4  |   | 0.4   | 0.1   |   |
| Delay (s)              | 17.4  | 16.5  |   | 12.7  | 20.6  |   | 14.6  | 16.9   |   | 12.2  | 12.0  |   |
| Level of Service       | B   | B   |   | B   | C   |   | B   | B  |   | B   | B   |   |
| Approach Delay (s)     |   | 16.6  |   |   | 20.0  |   |   | 16.5   |   |   | 12.0  |   |
| Approach LOS           |   | B   |   |   | B   |   |   | B  |   |   | B   |   |




















Intersection Summary

|                                   |       |                           |     |
|-----------------------------------|-------|---------------------------|-----|
| HCM 2000 Control Delay            | 17.3  | HCM 2000 Level of Service | B   |
| HCM 2000 Volume to Capacity ratio | 0.64  |                           |     |
| Actuated Cycle Length (s)         | 70.0  | Sum of lost time (s)      | 9.8 |
| Intersection Capacity Utilization | 73.8% | ICU Level of Service      | D   |
| Analysis Period (min)             | 15    |                           |     |

c Critical Lane Group




















HCM Unsignalized Intersection Capacity Analysis  
17: Chamoune Ave & Orange Ave

Existing AM Peak Hour  
04/04/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |  |  |   |  |  |   |  |  |   |   |  |  |
| Sign Control                      | Stop  |   |   | Stop  |   |   | Stop   |   |   | Stop  |   |   |
| Traffic Volume (vph)              | 30  | 164   | 22  | 43  | 327   | 57  | 26   | 170   | 28  | 23  | 98  | 24  |
| Future Volume (vph)               | 30  | 164   | 22  | 43  | 327   | 57  | 26   | 170   | 28  | 23  | 98  | 24  |
| Peak Hour Factor                  | 0.87  | 0.87  | 0.87  | 0.87  | 0.87  | 0.87  | 0.87   | 0.87  | 0.87  | 0.87  | 0.87  | 0.87  |
| Hourly flow rate (vph)            | 34  | 189   | 25  | 49  | 376   | 66  | 30   | 195   | 32  | 26  | 113   | 28  |
| Direction, Lane #                 | EB 1  | EB 2  | WB 1  | WB 2  | NB 1  | SB 1  |  |   |   |   |   |   |
| Volume Total (vph)                | 34  | 214   | 49  | 442   | 257   | 167   |  |   |   |   |   |   |
| Volume Left (vph)                 | 34  | 0   | 49  | 0   | 30  | 26  |  |   |   |   |   |   |
| Volume Right (vph)                | 0   | 25  | 0   | 66  | 32  | 28  |  |   |   |   |   |   |
| Hadj (s)                          | 0.53  | -0.05   | 0.53  | -0.07   | -0.02   | -0.04   |  |   |   |   |   |   |
| Departure Headway (s)             | 7.4   | 6.8   | 7.0   | 6.4   | 6.5   | 6.7   |  |   |   |   |   |   |
| Degree Utilization, x             | 0.07  | 0.40  | 0.09  | 0.78  | 0.46  | 0.31  |  |   |   |   |   |   |
| Capacity (veh/h)                  | 446   | 481   | 495   | 550   | 507   | 464   |  |   |   |   |   |   |
| Control Delay (s)                 | 9.7   | 13.1  | 9.5   | 27.1  | 14.9  | 12.7  |  |   |   |   |   |   |
| Approach Delay (s)                | 12.7  |   | 25.3  |   | 14.9  | 12.7  |  |   |   |   |   |   |
| Approach LOS                      | B   |   | D   |   | B   | B   |  |   |   |   |   |   |
| Intersection Summary              |   |   |   |   |   |   |  |   |   |   |   |   |
| Delay                             |   |   | 18.5  |   |   |   |  |   |   |   |   |   |
| Level of Service                  |   |   | C   |   |   |   |  |   |   |   |   |   |
| Intersection Capacity Utilization |   |   | 50.4%   |   | ICU Level of Service  |   |  |   | A   |   |   |   |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |

HCM Signalized Intersection Capacity Analysis  
 18: Euclid Ave & Orange Ave




















Existing AM Peak Hour  
 04/04/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |  |  |   |  |  |   |  |  |   |   |  |  |
| Traffic Volume (vph)              | 47  | 131   | 66  | 67  | 199   | 66  | 77   | 326   | 43  | 23  | 151   | 55  |
| Future Volume (vph)               | 47  | 131   | 66  | 67  | 199   | 66  | 77   | 326   | 43  | 23  | 151   | 55  |
| Ideal Flow (vphpl)                | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900   | 1900  | 1900  | 1900  | 1900  | 1900  |
| Total Lost time (s)               | 4.4   | 4.9   |   | 4.4   | 4.9   |   |  | 4.9   |   |   | 4.9   |   |
| Lane Util. Factor                 | 1.00  | 1.00  |   | 1.00  | 1.00  |   |  | 1.00  |   |   | 1.00  |   |
| Fr <sub>t</sub>                   | 1.00  | 0.95  |   | 1.00  | 0.96  |   |  | 0.99  |   |   | 0.97  |   |
| Fl <sub>t</sub> Protected         | 0.95  | 1.00  |   | 0.95  | 1.00  |   |  | 0.99  |   |   | 1.00  |   |
| Satd. Flow (prot)                 | 1770  | 1769  |   | 1770  | 1793  |   |  | 1823  |   |   | 1793  |   |
| Fl <sub>t</sub> Permitted         | 0.95  | 1.00  |   | 0.95  | 1.00  |   |  | 0.90  |   |   | 0.93  |   |
| Satd. Flow (perm)                 | 1770  | 1769  |   | 1770  | 1793  |   |  | 1650  |   |   | 1683  |   |
| Peak-hour factor, PHF             | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92   | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  |
| Adj. Flow (vph)                   | 51  | 142   | 72  | 73  | 216   | 72  | 84   | 354   | 47  | 25  | 164   | 60  |
| RTOR Reduction (vph)              | 0   | 13  | 0   | 0   | 8   | 0   | 0  | 3   | 0   | 0   | 8   | 0   |
| Lane Group Flow (vph)             | 51  | 201   | 0   | 73  | 280   | 0   | 0  | 482   | 0   | 0   | 241   | 0   |
| Turn Type                         | Prot  | NA  |   | Prot  | NA  |   | Perm   | NA  |   | Perm  | NA  |   |
| Protected Phases                  | 5   | 2   |   | 1   | 6   |   |  | 8   |   |   | 4   |   |
| Permitted Phases                  |   |   |   |   |   |   | 8  |   |   | 4   |   |   |
| Actuated Green, G (s)             | 4.2   | 18.2  |   | 6.6   | 20.6  |   |  | 28.1  |   |   | 28.1  |   |
| Effective Green, g (s)            | 4.2   | 18.2  |   | 6.6   | 20.6  |   |  | 28.1  |   |   | 28.1  |   |
| Actuated g/C Ratio                | 0.06  | 0.27  |   | 0.10  | 0.31  |   |  | 0.42  |   |   | 0.42  |   |
| Clearance Time (s)                | 4.4   | 4.9   |   | 4.4   | 4.9   |   |  | 4.9   |   |   | 4.9   |   |
| Vehicle Extension (s)             | 2.0   | 2.8   |   | 2.0   | 2.8   |   |  | 3.0   |   |   | 3.0   |   |
| Lane Grp Cap (vph)                | 110   | 479   |   | 174   | 550   |   |  | 690   |   |   | 704   |   |
| v/s Ratio Prot                    | 0.03  | 0.11  |   | c0.04   | c0.16   |   |  |   |   |   |   |   |
| v/s Ratio Perm                    |   |   |   |   |   |   |  | c0.29   |   |   | 0.14  |   |
| v/c Ratio                         | 0.46  | 0.42  |   | 0.42  | 0.51  |   |  | 0.70  |   |   | 0.34  |   |
| Uniform Delay, d <sub>1</sub>     | 30.4  | 20.1  |   | 28.4  | 19.1  |   |  | 16.0  |   |   | 13.2  |   |
| Progression Factor                | 1.00  | 1.00  |   | 1.00  | 1.00  |   |  | 1.00  |   |   | 1.00  |   |
| Incremental Delay, d <sub>2</sub> | 1.1   | 0.5   |   | 0.6   | 0.7   |   |  | 3.1   |   |   | 0.3   |   |
| Delay (s)                         | 31.5  | 20.6  |   | 29.0  | 19.8  |   |  | 19.1  |   |   | 13.5  |   |
| Level of Service                  | C   | C   |   | C   | B   |   |  | B   |   |   | B   |   |
| Approach Delay (s)                |   | 22.7  |   |   | 21.6  |   |  | 19.1  |   |   | 13.5  |   |
| Approach LOS                      |   | C   |   |   | C   |   |  | B   |   |   | B   |   |
| <b>Intersection Summary</b>       |   |   |   |   |   |   |  |   |   |   |   |   |
| HCM 2000 Control Delay            |   |   | 19.5  |   |   |   |  |   |   |   | HCM 2000 Level of Service   | B   |
| HCM 2000 Volume to Capacity ratio |   |   | 0.62  |   |   |   |  |   |   |   |   |   |
| Actuated Cycle Length (s)         |   |   | 67.1  |   |   |   |  |   |   |   | Sum of lost time (s)  | 14.2  |
| Intersection Capacity Utilization |   |   | 68.2%   |   |   |   |  |   |   |   | ICU Level of Service  | C   |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |

c Critical Lane Group




















HCM Unsignalized Intersection Capacity Analysis  
19: Estrella Ave & Orange Ave

Existing AM Peak Hour  
04/04/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |  |  |   |  |  |   |  |  |   |   |  |  |
| Sign Control                      | Stop  |   |   | Stop  |   |   |  | Stop  |   |   | Stop  |   |
| Traffic Volume (vph)              | 28  | 167   | 9   | 21  | 273   | 3   | 25   | 34  | 29  | 14  | 34  | 29  |
| Future Volume (vph)               | 28  | 167   | 9   | 21  | 273   | 3   | 25   | 34  | 29  | 14  | 34  | 29  |
| Peak Hour Factor                  | 0.90  | 0.90  | 0.90  | 0.90  | 0.90  | 0.90  | 0.90   | 0.90  | 0.90  | 0.90  | 0.90  | 0.90  |
| Hourly flow rate (vph)            | 31  | 186   | 10  | 23  | 303   | 3   | 28   | 38  | 32  | 16  | 38  | 32  |
| Direction, Lane #                 | EB 1  | EB 2  | WB 1  | WB 2  | NB 1  | SB 1  |  |   |   |   |   |   |
| Volume Total (vph)                | 31  | 196   | 23  | 306   | 98  | 86  |  |   |   |   |   |   |
| Volume Left (vph)                 | 31  | 0   | 23  | 0   | 28  | 16  |  |   |   |   |   |   |
| Volume Right (vph)                | 0   | 10  | 0   | 3   | 32  | 32  |  |   |   |   |   |   |
| Hadj (s)                          | 0.53  | 0.00  | 0.53  | 0.03  | -0.10   | -0.15   |  |   |   |   |   |   |
| Departure Headway (s)             | 5.9   | 5.4   | 5.8   | 5.3   | 5.3   | 5.3   |  |   |   |   |   |   |
| Degree Utilization, x             | 0.05  | 0.29  | 0.04  | 0.45  | 0.14  | 0.13  |  |   |   |   |   |   |
| Capacity (veh/h)                  | 577   | 644   | 595   | 660   | 610   | 607   |  |   |   |   |   |   |
| Control Delay (s)                 | 8.0   | 9.3   | 7.8   | 11.3  | 9.2   | 9.0   |  |   |   |   |   |   |
| Approach Delay (s)                | 9.2   |   | 11.1  |   | 9.2   |   | 9.0  |   |   |   |   |   |
| Approach LOS                      | A   |   | B   |   | A   |   | A  |   |   |   |   |   |
| Intersection Summary              |   |   |   |   |   |   |  |   |   |   |   |   |
| Delay                             |   |   | 10.0  |   |   |   |  |   |   |   |   |   |
| Level of Service                  |   |   | B   |   |   |   |  |   |   |   |   |   |
| Intersection Capacity Utilization |   |   | 41.3%   |   | ICU Level of Service  |   |  |   | A   |   |   |   |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |




















HCM Unsignalized Intersection Capacity Analysis  
 1: Florida St & Howard Ave

Existing PM Peak Hour  
 04/04/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |  |  |   |  |  |   |  |  |   |   |  |  |
| Sign Control                      | Stop  |   |   | Stop  |   |   |  | Stop  |   |   | Stop  |   |
| Traffic Volume (vph)              | 29  | 201   | 51  | 24  | 116   | 22  | 18   | 146   | 17  | 14  | 160   | 62  |
| Future Volume (vph)               | 29  | 201   | 51  | 24  | 116   | 22  | 18   | 146   | 17  | 14  | 160   | 62  |
| Peak Hour Factor                  | 0.90  | 0.90  | 0.90  | 0.90  | 0.90  | 0.90  | 0.90   | 0.90  | 0.90  | 0.90  | 0.90  | 0.90  |
| Hourly flow rate (vph)            | 32  | 223   | 57  | 27  | 129   | 24  | 20   | 162   | 19  | 16  | 178   | 69  |
| Direction, Lane #                 | EB 1  | EB 2  | WB 1  | WB 2  | NB 1  | SB 1  |  |   |   |   |   |   |
| Volume Total (vph)                | 32  | 280   | 27  | 153   | 201   | 263   |  |   |   |   |   |   |
| Volume Left (vph)                 | 32  | 0   | 27  | 0   | 20  | 16  |  |   |   |   |   |   |
| Volume Right (vph)                | 0   | 57  | 0   | 24  | 19  | 69  |  |   |   |   |   |   |
| Hadj (s)                          | 0.53  | -0.11   | 0.53  | -0.08   | 0.00  | -0.11   |  |   |   |   |   |   |
| Departure Headway (s)             | 6.7   | 6.1   | 6.9   | 6.3   | 5.8   | 5.6   |  |   |   |   |   |   |
| Degree Utilization, x             | 0.06  | 0.47  | 0.05  | 0.27  | 0.32  | 0.41  |  |   |   |   |   |   |
| Capacity (veh/h)                  | 500   | 560   | 474   | 519   | 561   | 596   |  |   |   |   |   |   |
| Control Delay (s)                 | 8.9   | 13.2  | 9.1   | 10.4  | 11.6  | 12.4  |  |   |   |   |   |   |
| Approach Delay (s)                | 12.7  |   | 10.2  |   | 11.6  |   |  |   |   |   |   |   |
| Approach LOS                      | B   |   | B   |   | B   |   |  |   |   |   |   |   |
| Intersection Summary              |   |   |   |   |   |   |  |   |   |   |   |   |
| Delay                             |   |   | 11.9  |   |   |   |  |   |   |   |   |   |
| Level of Service                  |   |   | B   |   |   |   |  |   |   |   |   |   |
| Intersection Capacity Utilization |   |   | 43.4%   |   | ICU Level of Service  |   |  |   | A   |   |   |   |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |

HCM Unsignalized Intersection Capacity Analysis  
 2: Mississippi St & Howard Ave

Existing PM Peak Hour  
 04/04/2017





















|                        |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement               | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations    |  |  |   |  |  |   |  |  |   |   |  |  |
| Sign Control           | Stop  |   |   | Stop  |   |   | Stop   |   |   | Stop  |   |   |
| Traffic Volume (vph)   | 12  | 169   | 27  | 8   | 98  | 10  | 18   | 48  | 9   | 15  | 65  | 14  |
| Future Volume (vph)    | 12  | 169   | 27  | 8   | 98  | 10  | 18   | 48  | 9   | 15  | 65  | 14  |
| Peak Hour Factor       | 0.87  | 0.87  | 0.87  | 0.87  | 0.87  | 0.87  | 0.87   | 0.87  | 0.87  | 0.87  | 0.87  | 0.87  |
| Hourly flow rate (vph) | 14  | 194   | 31  | 9   | 113   | 11  | 21   | 55  | 10  | 17  | 75  | 16  |
| Direction, Lane #      | EB 1  | EB 2  | WB 1  | WB 2  | NB 1  | SB 1  |  |   |   |   |   |   |
| Volume Total (vph)     | 14  | 225   | 9   | 124   | 86  | 108   |  |   |   |   |   |   |
| Volume Left (vph)      | 14  | 0   | 9   | 0   | 21  | 17  |  |   |   |   |   |   |
| Volume Right (vph)     | 0   | 31  | 0   | 11  | 10  | 16  |  |   |   |   |   |   |
| Hadj (s)               | 0.53  | -0.06   | 0.53  | -0.03   | 0.01  | -0.02   |  |   |   |   |   |   |
| Departure Headway (s)  | 5.7   | 5.1   | 5.8   | 5.2   | 5.0   | 4.9   |  |   |   |   |   |   |
| Degree Utilization, x  | 0.02  | 0.32  | 0.01  | 0.18  | 0.12  | 0.15  |  |   |   |   |   |   |
| Capacity (veh/h)       | 612   | 681   | 590   | 656   | 664   | 674   |  |   |   |   |   |   |
| Control Delay (s)      | 7.6   | 9.2   | 7.7   | 8.2   | 8.7   | 8.8   |  |   |   |   |   |   |
| Approach Delay (s)     | 9.1   |   | 8.1   |   | 8.7   | 8.8   |  |   |   |   |   |   |
| Approach LOS           | A   |   | A   |   | A   | A   |  |   |   |   |   |   |

**Intersection Summary**

|                                   |       |                      |   |  |  |  |  |  |  |  |  |  |
|-----------------------------------|-------|----------------------|---|--|--|--|--|--|--|--|--|--|
| Delay                             | 8.8   |                      |   |  |  |  |  |  |  |  |  |  |
| Level of Service                  | A     |                      |   |  |  |  |  |  |  |  |  |  |
| Intersection Capacity Utilization | 28.6% | ICU Level of Service | A |  |  |  |  |  |  |  |  |  |
| Analysis Period (min)             | 15    |                      |   |  |  |  |  |  |  |  |  |  |

HCM Signalized Intersection Capacity Analysis  
3: Texas St & Howard Ave

Existing PM Peak Hour  
04/04/2017




















|                                   |  |  |  |  |  |  |   |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL   | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |  |  |   |  |  |   |  |  |   |  |  |   |
| Traffic Volume (vph)              | 14  | 158   | 15  | 18  | 100   | 37  | 4   | 229   | 14  | 63  | 397   | 32  |
| Future Volume (vph)               | 14  | 158   | 15  | 18  | 100   | 37  | 4   | 229   | 14  | 63  | 397   | 32  |
| Ideal Flow (vphpl)                | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  |
| Total Lost time (s)               | 4.9   | 4.9   |   | 4.9   | 4.9   |   | 4.9   | 4.9   |   | 4.9   | 4.9   |   |
| Lane Util. Factor                 | 1.00  | 1.00  |   | 1.00  | 1.00  |   | 1.00  | 1.00  |   | 1.00  | 1.00  |   |
| Frbp, ped/bikes                   | 1.00  | 1.00  |   | 1.00  | 0.99  |   | 1.00  | 1.00  |   | 1.00  | 1.00  |   |
| Flpb, ped/bikes                   | 0.99  | 1.00  |   | 1.00  | 1.00  |   | 0.99  | 1.00  |   | 0.98  | 1.00  |   |
| Frt                               | 1.00  | 0.99  |   | 1.00  | 0.96  |   | 1.00  | 0.99  |   | 1.00  | 0.99  |   |
| Flt Protected                     | 0.95  | 1.00  |   | 0.95  | 1.00  |   | 0.95  | 1.00  |   | 0.95  | 1.00  |   |
| Satd. Flow (prot)                 | 1753  | 1833  |   | 1770  | 1769  |   | 1753  | 1841  |   | 1731  | 1836  |   |
| Flt Permitted                     | 0.64  | 1.00  |   | 0.53  | 1.00  |   | 0.48  | 1.00  |   | 0.60  | 1.00  |   |
| Satd. Flow (perm)                 | 1173  | 1833  |   | 983   | 1769  |   | 878   | 1841  |   | 1092  | 1836  |   |
| Peak-hour factor, PHF             | 0.94  | 0.94  | 0.94  | 0.94  | 0.94  | 0.94  | 0.94  | 0.94  | 0.94  | 0.94  | 0.94  | 0.94  |
| Adj. Flow (vph)                   | 15  | 168   | 16  | 19  | 106   | 39  | 4   | 244   | 15  | 67  | 422   | 34  |
| RTOR Reduction (vph)              | 0   | 6   | 0   | 0   | 22  | 0   | 0   | 2   | 0   | 0   | 3   | 0   |
| Lane Group Flow (vph)             | 15  | 178   | 0   | 19  | 123   | 0   | 4   | 257   | 0   | 67  | 453   | 0   |
| Confl. Peds. (#/hr)               | 6   |   |   |   |   | 6   | 10  |   | 16  | 16  |   | 10  |
| Confl. Bikes (#/hr)               |   |   | 5   |   |   | 3   |   |   |   |   |   | 3   |
| Turn Type                         | Perm  | NA  |   | Perm  | NA  |   | Perm  | NA  |   | Perm  | NA  |   |
| Protected Phases                  |   | 2   |   |   | 2   |   |   | 4   |   |   | 4   |   |
| Permitted Phases                  | 2   |   |   | 2   |   |   | 4   |   |   | 4   |   |   |
| Actuated Green, G (s)             | 12.1  | 12.1  |   | 12.1  | 12.1  |   | 52.1  | 52.1  |   | 52.1  | 52.1  |   |
| Effective Green, g (s)            | 12.1  | 12.1  |   | 12.1  | 12.1  |   | 52.1  | 52.1  |   | 52.1  | 52.1  |   |
| Actuated g/C Ratio                | 0.16  | 0.16  |   | 0.16  | 0.16  |   | 0.70  | 0.70  |   | 0.70  | 0.70  |   |
| Clearance Time (s)                | 4.9   | 4.9   |   | 4.9   | 4.9   |   | 4.9   | 4.9   |   | 4.9   | 4.9   |   |
| Vehicle Extension (s)             | 2.0   | 2.0   |   | 2.0   | 2.0   |   | 2.0   | 2.0   |   | 2.0   | 2.0   |   |
| Lane Grp Cap (vph)                | 191   | 299   |   | 160   | 289   |   | 618   | 1296  |   | 768   | 1292  |   |
| v/s Ratio Prot                    |   | c0.10   |   |   | 0.07  |   |   | 0.14  |   |   | c0.25   |   |
| v/s Ratio Perm                    | 0.01  |   |   | 0.02  |   |   | 0.00  |   |   | 0.06  |   |   |
| v/c Ratio                         | 0.08  | 0.60  |   | 0.12  | 0.43  |   | 0.01  | 0.20  |   | 0.09  | 0.35  |   |
| Uniform Delay, d1                 | 26.2  | 28.7  |   | 26.4  | 27.8  |   | 3.3   | 3.8   |   | 3.5   | 4.3   |   |
| Progression Factor                | 1.00  | 1.00  |   | 1.00  | 1.00  |   | 1.00  | 1.00  |   | 1.00  | 1.00  |   |
| Incremental Delay, d2             | 0.1   | 2.1   |   | 0.1   | 0.4   |   | 0.0   | 0.3   |   | 0.2   | 0.8   |   |
| Delay (s)                         | 26.3  | 30.8  |   | 26.5  | 28.2  |   | 3.3   | 4.1   |   | 3.7   | 5.1   |   |
| Level of Service                  | C   | C   |   | C   | C   |   | A   | A   |   | A   | A   |   |
| Approach Delay (s)                |   | 30.5  |   |   | 28.0  |   |   | 4.1   |   |   | 4.9   |   |
| Approach LOS                      |   | C   |   |   | C   |   |   | A   |   |   | A   |   |
| <b>Intersection Summary</b>       |   |   |   |   |   |   |   |   |   |   |   |   |
| HCM 2000 Control Delay            |   |   | 12.4  |   |   |   | HCM 2000 Level of Service   |   |   |   | B   |   |
| HCM 2000 Volume to Capacity ratio |   |   | 0.40  |   |   |   |   |   |   |   |   |   |
| Actuated Cycle Length (s)         |   |   | 74.0  |   |   |   | Sum of lost time (s)  |   |   | 9.8   |   |   |
| Intersection Capacity Utilization |   |   | 58.6%   |   |   |   | ICU Level of Service  |   |   | B   |   |   |
| Analysis Period (min)             |   |   | 15  |   |   |   |   |   |   |   |   |   |

c Critical Lane Group



HCM Unsignalized Intersection Capacity Analysis  
4: Oregon St & Howard Ave

Existing PM Peak Hour  
04/04/2017




















|                        |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement               | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations    |  |  |   |  |  |   |  |  |   |   |  |  |
| Sign Control           | Stop  |   |   | Stop  |   |   | Stop   |   |   | Stop  |   |   |
| Traffic Volume (vph)   | 23  | 184   | 16  | 31  | 136   | 41  | 7  | 77  | 55  | 42  | 91  | 11  |
| Future Volume (vph)    | 23  | 184   | 16  | 31  | 136   | 41  | 7  | 77  | 55  | 42  | 91  | 11  |
| Peak Hour Factor       | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92   | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  |
| Hourly flow rate (vph) | 25  | 200   | 17  | 34  | 148   | 45  | 8  | 84  | 60  | 46  | 99  | 12  |
| Direction, Lane #      | EB 1  | EB 2  | WB 1  | WB 2  | NB 1  | SB 1  |  |   |   |   |   |   |
| Volume Total (vph)     | 25  | 217   | 34  | 193   | 152   | 157   |  |   |   |   |   |   |
| Volume Left (vph)      | 25  | 0   | 34  | 0   | 8   | 46  |  |   |   |   |   |   |
| Volume Right (vph)     | 0   | 17  | 0   | 45  | 60  | 12  |  |   |   |   |   |   |
| Hadj (s)               | 0.53  | -0.02   | 0.53  | -0.13   | -0.19   | 0.05  |  |   |   |   |   |   |
| Departure Headway (s)  | 6.2   | 5.6   | 6.2   | 5.6   | 5.2   | 5.4   |  |   |   |   |   |   |
| Degree Utilization, x  | 0.04  | 0.34  | 0.06  | 0.30  | 0.22  | 0.24  |  |   |   |   |   |   |
| Capacity (veh/h)       | 545   | 604   | 544   | 611   | 631   | 606   |  |   |   |   |   |   |
| Control Delay (s)      | 8.3   | 10.3  | 8.4   | 9.7   | 9.7   | 10.1  |  |   |   |   |   |   |
| Approach Delay (s)     | 10.1  |   | 9.5   |   | 9.7   | 10.1  |  |   |   |   |   |   |
| Approach LOS           | B   |   | A   |   | A   | B   |  |   |   |   |   |   |

Intersection Summary

|                                   |       |                      |   |
|-----------------------------------|-------|----------------------|---|
| Delay                             | 9.9   |                      |   |
| Level of Service                  | A     |                      |   |
| Intersection Capacity Utilization | 48.7% | ICU Level of Service | A |
| Analysis Period (min)             | 15    |                      |   |

HCM Unsignalized Intersection Capacity Analysis  
5: Utah St & Howard Ave

Existing PM Peak Hour  
04/04/2017






















|                        |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement               | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations    |  |  |   |  |  |   |  |  |   |   |  |  |
| Sign Control           | Stop  |   |   | Stop  |   |   | Stop   |   |   | Stop  |   |   |
| Traffic Volume (vph)   | 13  | 237   | 19  | 30  | 166   | 21  | 14   | 116   | 21  | 41  | 148   | 20  |
| Future Volume (vph)    | 13  | 237   | 19  | 30  | 166   | 21  | 14   | 116   | 21  | 41  | 148   | 20  |
| Peak Hour Factor       | 0.90  | 0.90  | 0.90  | 0.90  | 0.90  | 0.90  | 0.90   | 0.90  | 0.90  | 0.90  | 0.90  | 0.90  |
| Hourly flow rate (vph) | 14  | 263   | 21  | 33  | 184   | 23  | 16   | 129   | 23  | 46  | 164   | 22  |
| Direction, Lane #      | EB 1  | EB 2  | WB 1  | WB 2  | NB 1  | SB 1  |  |   |   |   |   |   |
| Volume Total (vph)     | 14  | 284   | 33  | 207   | 168   | 232   |  |   |   |   |   |   |
| Volume Left (vph)      | 14  | 0   | 33  | 0   | 16  | 46  |  |   |   |   |   |   |
| Volume Right (vph)     | 0   | 21  | 0   | 23  | 23  | 22  |  |   |   |   |   |   |
| Hadj (s)               | 0.53  | -0.02   | 0.53  | -0.04   | -0.03   | 0.02  |  |   |   |   |   |   |
| Departure Headway (s)  | 6.6   | 6.1   | 6.7   | 6.2   | 5.9   | 5.8   |  |   |   |   |   |   |
| Degree Utilization, x  | 0.03  | 0.48  | 0.06  | 0.35  | 0.27  | 0.37  |  |   |   |   |   |   |
| Capacity (veh/h)       | 506   | 560   | 495   | 546   | 545   | 571   |  |   |   |   |   |   |
| Control Delay (s)      | 8.6   | 13.4  | 9.0   | 11.3  | 11.1  | 12.2  |  |   |   |   |   |   |
| Approach Delay (s)     | 13.1  |   | 11.0  |   | 11.1  | 12.2  |  |   |   |   |   |   |
| Approach LOS           | B   |   | B   |   | B   | B   |  |   |   |   |   |   |

Intersection Summary

|                                   |      |       |  |                      |  |   |  |  |  |  |  |  |
|-----------------------------------|------|-------|--|----------------------|--|---|--|--|--|--|--|--|
| Delay                             | 12.0 |       |  |                      |  |   |  |  |  |  |  |  |
| Level of Service                  |      | B     |  |                      |  |   |  |  |  |  |  |  |
| Intersection Capacity Utilization |      | 47.1% |  | ICU Level of Service |  | A |  |  |  |  |  |  |
| Analysis Period (min)             |      | 15    |  |                      |  |   |  |  |  |  |  |  |

HCM Signalized Intersection Capacity Analysis  
6: 30th St & Howard Ave

Existing PM Peak Hour  
04/04/2017




















|                        |  |  |  |  |  |  |   |  |  |  |  |  |  |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement               | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL   | NBT   | NBR   | SBL   | SBT   | SBR   |   |
| Lane Configurations    |  |  |   |  |  |   |  |  |   |  |  |   |   |
| Traffic Volume (vph)   | 27  | 284   | 55  | 41  | 174   | 47  | 44  | 306   | 33  | 68  | 293   | 21  |   |
| Future Volume (vph)    | 27  | 284   | 55  | 41  | 174   | 47  | 44  | 306   | 33  | 68  | 293   | 21  |   |
| Ideal Flow (vphpl)     | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  |   |
| Total Lost time (s)    | 4.9   | 4.9   |   | 4.9   | 4.9   |   | 4.9   | 4.9   |   | 4.9   | 4.9   |   |   |
| Lane Util. Factor      | 1.00  | 1.00  |   | 1.00  | 1.00  |   | 1.00  | 1.00  |   | 1.00  | 1.00  |   |   |
| Frbp, ped/bikes        | 1.00  | 0.99  |   | 1.00  | 0.98  |   | 1.00  | 0.99  |   | 1.00  | 0.99  |   |   |
| Flpb, ped/bikes        | 0.97  | 1.00  |   | 0.97  | 1.00  |   | 0.96  | 1.00  |   | 0.94  | 1.00  |   |   |
| Frt                    | 1.00  | 0.98  |   | 1.00  | 0.97  |   | 1.00  | 0.99  |   | 1.00  | 0.99  |   |   |
| Flt Protected          | 0.95  | 1.00  |   | 0.95  | 1.00  |   | 0.95  | 1.00  |   | 0.95  | 1.00  |   |   |
| Satd. Flow (prot)      | 1713  | 1790  |   | 1711  | 1776  |   | 1697  | 1814  |   | 1662  | 1834  |   |   |
| Flt Permitted          | 0.55  | 1.00  |   | 0.33  | 1.00  |   | 0.56  | 1.00  |   | 0.54  | 1.00  |   |   |
| Satd. Flow (perm)      | 996   | 1790  |   | 601   | 1776  |   | 1004  | 1814  |   | 948   | 1834  |   |   |
| Peak-hour factor, PHF  | 0.99  | 0.99  | 0.99  | 0.99  | 0.99  | 0.99  | 0.99  | 0.99  | 0.99  | 0.99  | 0.99  | 0.99  |   |
| Adj. Flow (vph)        | 27  | 287   | 56  | 41  | 176   | 47  | 44  | 309   | 33  | 69  | 296   | 21  |   |
| RTOR Reduction (vph)   | 0   | 12  | 0   | 0   | 17  | 0   | 0   | 6   | 0   | 0   | 4   | 0   |   |
| Lane Group Flow (vph)  | 27  | 331   | 0   | 41  | 206   | 0   | 44  | 336   | 0   | 69  | 313   | 0   |   |
| Confl. Peds. (#/hr)    | 27  |   | 38  | 38  |   | 27  | 38  |   | 59  | 59  |   | 38  |   |
| Confl. Bikes (#/hr)    |   |   | 5   |   |   | 6   |   |   | 8   |   |   | 6   |   |
| Turn Type              | Perm  | NA  |   | Perm  | NA  |   | Perm  | NA  |   | Perm  | NA  |   |   |
| Protected Phases       |   | 2   |   |   | 2   |   |   | 4   |   |   |   | 4   |   |
| Permitted Phases       | 2   |   |   | 2   |   |   | 4   |   |   | 4   |   |   |   |
| Actuated Green, G (s)  | 14.9  | 14.9  |   | 14.9  | 14.9  |   | 36.2  | 36.2  |   | 36.2  | 36.2  |   |   |
| Effective Green, g (s) | 14.9  | 14.9  |   | 14.9  | 14.9  |   | 36.2  | 36.2  |   | 36.2  | 36.2  |   |   |
| Actuated g/C Ratio     | 0.24  | 0.24  |   | 0.24  | 0.24  |   | 0.59  | 0.59  |   | 0.59  | 0.59  |   |   |
| Clearance Time (s)     | 4.9   | 4.9   |   | 4.9   | 4.9   |   | 4.9   | 4.9   |   | 4.9   | 4.9   |   |   |
| Vehicle Extension (s)  | 2.0   | 2.0   |   | 2.0   | 2.0   |   | 3.3   | 3.3   |   | 3.3   | 3.3   |   |   |
| Lane Grp Cap (vph)     | 243   | 437   |   | 147   | 434   |   | 596   | 1078  |   | 563   | 1090  |   |   |
| v/s Ratio Prot         |   | c0.18   |   |   | 0.12  |   |   | c0.19   |   |   |   | 0.17  |   |
| v/s Ratio Perm         | 0.03  |   |   | 0.07  |   |   | 0.04  |   |   | 0.07  |   |   |   |
| v/c Ratio              | 0.11  | 0.76  |   | 0.28  | 0.48  |   | 0.07  | 0.31  |   | 0.12  | 0.29  |   |   |
| Uniform Delay, d1      | 17.9  | 21.3  |   | 18.6  | 19.7  |   | 5.2   | 6.1   |   | 5.4   | 6.0   |   |   |
| Progression Factor     | 1.00  | 1.00  |   | 1.00  | 1.00  |   | 1.00  | 1.00  |   | 1.00  | 1.00  |   |   |
| Incremental Delay, d2  | 0.1   | 6.5   |   | 0.4   | 0.3   |   | 0.2   | 0.8   |   | 0.4   | 0.7   |   |   |
| Delay (s)              | 17.9  | 27.9  |   | 19.0  | 20.0  |   | 5.5   | 6.9   |   | 5.8   | 6.7   |   |   |
| Level of Service       | B   | C   |   | B   | B   |   | A   | A   |   | A   | A   |   |   |
| Approach Delay (s)     |   | 27.1  |   |   | 19.8  |   |   | 6.7   |   |   | 6.6   |   |   |
| Approach LOS           |   | C   |   |   | B   |   |   | A   |   |   | A   |   |   |

| Intersection Summary              |       |                           |     |
|-----------------------------------|-------|---------------------------|-----|
| HCM 2000 Control Delay            | 14.5  | HCM 2000 Level of Service | B   |
| HCM 2000 Volume to Capacity ratio | 0.44  |                           |     |
| Actuated Cycle Length (s)         | 60.9  | Sum of lost time (s)      | 9.8 |
| Intersection Capacity Utilization | 65.4% | ICU Level of Service      | C   |
| Analysis Period (min)             | 15    |                           |     |

c Critical Lane Group





















HCM Unsignalized Intersection Capacity Analysis  
7: Illinois St & Howard Ave

Existing PM Peak Hour  
04/04/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|--|--|--|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |  |  |  |
| Lane Configurations               |  |  |   |  |  |   |  |  |   |   |  |  |  |  |  |
| Sign Control                      | Stop  |   |   | Stop  |   |   |  | Stop  |   |   | Stop  |   |  |  |  |
| Traffic Volume (vph)              | 43  | 270   | 14  | 12  | 186   | 15  | 8  | 93  | 21  | 53  | 142   | 31  |  |  |  |
| Future Volume (vph)               | 43  | 270   | 14  | 12  | 186   | 15  | 8  | 93  | 21  | 53  | 142   | 31  |  |  |  |
| Peak Hour Factor                  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95   | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  |  |  |  |
| Hourly flow rate (vph)            | 45  | 284   | 15  | 13  | 196   | 16  | 8  | 98  | 22  | 56  | 149   | 33  |  |  |  |
| Direction, Lane #                 | EB 1  | EB 2  | WB 1  | WB 2  | NB 1  | SB 1  |  |   |   |   |   |   |  |  |  |
| Volume Total (vph)                | 45  | 299   | 13  | 212   | 128   | 238   |  |   |   |   |   |   |  |  |  |
| Volume Left (vph)                 | 45  | 0   | 13  | 0   | 8   | 56  |  |   |   |   |   |   |  |  |  |
| Volume Right (vph)                | 0   | 15  | 0   | 16  | 22  | 33  |  |   |   |   |   |   |  |  |  |
| Hadj (s)                          | 0.53  | 0.00  | 0.53  | -0.02   | -0.06   | 0.00  |  |   |   |   |   |   |  |  |  |
| Departure Headway (s)             | 6.5   | 6.0   | 6.7   | 6.1   | 5.9   | 5.7   |  |   |   |   |   |   |  |  |  |
| Degree Utilization, x             | 0.08  | 0.49  | 0.02  | 0.36  | 0.21  | 0.38  |  |   |   |   |   |   |  |  |  |
| Capacity (veh/h)                  | 522   | 576   | 501   | 551   | 535   | 579   |  |   |   |   |   |   |  |  |  |
| Control Delay (s)                 | 8.9   | 13.5  | 8.6   | 11.3  | 10.5  | 12.2  |  |   |   |   |   |   |  |  |  |
| Approach Delay (s)                | 12.9  |   | 11.2  |   | 10.5  |   | 12.2   |   |   |   |   |   |  |  |  |
| Approach LOS                      | B   |   | B   |   | B   |   | B  |   |   |   |   |   |  |  |  |
| Intersection Summary              |   |   |   |   |   |   |  |   |   |   |   |   |  |  |  |
| Delay                             |   |   | 11.9  |   |   |   |  |   |   |   |   |   |  |  |  |
| Level of Service                  |   |   | B   |   |   |   |  |   |   |   |   |   |  |  |  |
| Intersection Capacity Utilization |   |   | 47.6%   |   |   |   | ICU Level of Service   |   |   |   | A   |   |  |  |  |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |  |  |  |

HCM Unsignalized Intersection Capacity Analysis  
8: Boundary St & Howard Ave/Orange Ave

Existing PM Peak Hour  
04/04/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |  |  |   |  |  |   |  |  |  |   |  |  |
| Traffic Volume (veh/h)            | 1   | 273   | 39  | 42  | 218   | 3   | 18   | 1   | 52  | 0   | 0   | 1   |
| Future Volume (Veh/h)             | 1   | 273   | 39  | 42  | 218   | 3   | 18   | 1   | 52  | 0   | 0   | 1   |
| Sign Control                      |   | Free  |   |   | Free  |   |  | Stop  |   |   | Stop  |   |
| Grade                             |   | 0%  |   |   | 0%  |   |  | 0%  |   |   | 0%  |   |
| Peak Hour Factor                  | 0.91  | 0.91  | 0.91  | 0.91  | 0.91  | 0.91  | 0.91   | 0.91  | 0.91  | 0.91  | 0.91  | 0.91  |
| Hourly flow rate (vph)            | 1   | 300   | 43  | 46  | 240   | 3   | 20   | 1   | 57  | 0   | 0   | 1   |
| Pedestrians                       |   | 8   |   |   | 10  |   |  | 10  |   |   | 7   |   |
| Lane Width (ft)                   |   | 12.0  |   |   | 12.0  |   |  | 12.0  |   |   | 12.0  |   |
| Walking Speed (ft/s)              |   | 3.5   |   |   | 3.5   |   |  | 3.5   |   |   | 3.5   |   |
| Percent Blockage                  |   | 1   |   |   | 1   |   |  | 1   |   |   | 1   |   |
| Right turn flare (veh)            |   |   |   |   |   |   |  |   | 2   |   |   |   |
| Median type                       |   | TWLTL   |   |   | TWLTL   |   |  |   |   |   |   |   |
| Median storage (veh)              |   | 2   |   |   | 2   |   |  |   |   |   |   |   |
| Upstream signal (ft)              |   |   |   |   | 985   |   |  |   |   |   |   |   |
| pX, platoon unblocked             |   |   |   |   |   |   |  |   |   |   |   |   |
| vC, conflicting volume            | 250   |   |   | 353   |   |   | 674  | 676   | 342   | 682   | 696   | 256   |
| vC1, stage 1 conf vol             |   |   |   |   |   |   | 334  | 334   |   | 340   | 340   |   |
| vC2, stage 2 conf vol             |   |   |   |   |   |   | 341  | 342   |   | 341   | 355   |   |
| vCu, unblocked vol                | 250   |   |   | 353   |   |   | 674  | 676   | 342   | 682   | 696   | 256   |
| tC, single (s)                    | 4.1   |   |   | 4.1   |   |   | 7.1  | 6.5   | 6.2   | 7.1   | 6.5   | 6.2   |
| tC, 2 stage (s)                   |   |   |   |   |   |   | 6.1  | 5.5   |   | 6.1   | 5.5   |   |
| tF (s)                            | 2.2   |   |   | 2.2   |   |   | 3.5  | 4.0   | 3.3   | 3.5   | 4.0   | 3.3   |
| p0 queue free %                   | 100   |   |   | 96  |   |   | 96   | 100   | 92  | 100   | 100   | 100   |
| cM capacity (veh/h)               | 1307  |   |   | 1194  |   |   | 540  | 520   | 688   | 491   | 498   | 771   |
| <b>Direction, Lane #</b>          | <b>EB 1</b>   | <b>EB 2</b>   | <b>WB 1</b>   | <b>WB 2</b>   | <b>NB 1</b>   | <b>SB 1</b>   |  |   |   |   |   |   |
| Volume Total                      | 1   | 343   | 46  | 243   | 78  | 1   |  |   |   |   |   |   |
| Volume Left                       | 1   | 0   | 46  | 0   | 20  | 0   |  |   |   |   |   |   |
| Volume Right                      | 0   | 43  | 0   | 3   | 57  | 1   |  |   |   |   |   |   |
| cSH                               | 1307  | 1700  | 1194  | 1700  | 941   | 771   |  |   |   |   |   |   |
| Volume to Capacity                | 0.00  | 0.20  | 0.04  | 0.14  | 0.08  | 0.00  |  |   |   |   |   |   |
| Queue Length 95th (ft)            | 0   | 0   | 3   | 0   | 7   | 0   |  |   |   |   |   |   |
| Control Delay (s)                 | 7.8   | 0.0   | 8.1   | 0.0   | 11.0  | 9.7   |  |   |   |   |   |   |
| Lane LOS                          | A   |   | A   |   | B   | A   |  |   |   |   |   |   |
| Approach Delay (s)                | 0.0   |   | 1.3   |   | 11.0  | 9.7   |  |   |   |   |   |   |
| Approach LOS                      |   |   |   |   | B   | A   |  |   |   |   |   |   |
| <b>Intersection Summary</b>       |   |   |   |   |   |   |  |   |   |   |   |   |
| Average Delay                     |   |   | 1.8   |   |   |   |  |   |   |   |   |   |
| Intersection Capacity Utilization |   |   | 39.5%   |   | ICU Level of Service  |   |  |   | A   |   |   |   |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |

HCM Signalized Intersection Capacity Analysis  
 9: Alley/33rd St & Orange Ave

Existing PM Peak Hour  
 04/04/2017

| Movement                          | EBL  | EBT   | EBR  | WBL  | WBT   | WBR  | NBL   | NBT   | NBR  | SBL   | SBT  | SBR  |
|-----------------------------------|------|-------|------|------|-------|------|-------|-------|------|-------|------|------|
| Lane Configurations               |      |       |      |      |       |      |       |       |      |       |      |      |
| Traffic Volume (vph)              | 70   | 250   | 0    | 6    | 197   | 148  | 1     | 0     | 0    | 256   | 5    | 106  |
| Future Volume (vph)               | 70   | 250   | 0    | 6    | 197   | 148  | 1     | 0     | 0    | 256   | 5    | 106  |
| Ideal Flow (vphpl)                | 1900 | 1900  | 1900 | 1900 | 1900  | 1900 | 1900  | 1900  | 1900 | 1900  | 1900 | 1900 |
| Total Lost time (s)               | 4.0  | 4.0   |      | 5.0  | 4.0   |      |       | 4.0   |      | 4.0   | 4.0  |      |
| Lane Util. Factor                 | 1.00 | 1.00  |      | 1.00 | 1.00  |      |       | 1.00  |      | 1.00  | 1.00 |      |
| Fr <sub>t</sub>                   | 1.00 | 1.00  |      | 1.00 | 0.94  |      |       | 1.00  |      | 1.00  | 0.86 |      |
| Fl <sub>t</sub> Protected         | 0.95 | 1.00  |      | 0.95 | 1.00  |      |       | 0.95  |      | 0.95  | 1.00 |      |
| Satd. Flow (prot)                 | 1770 | 1863  |      | 1770 | 1743  |      |       | 1770  |      | 1770  | 1596 |      |
| Fl <sub>t</sub> Permitted         | 0.95 | 1.00  |      | 0.95 | 1.00  |      |       | 0.95  |      | 0.95  | 1.00 |      |
| Satd. Flow (perm)                 | 1770 | 1863  |      | 1770 | 1743  |      |       | 1770  |      | 1770  | 1596 |      |
| Peak-hour factor, PHF             | 0.98 | 0.98  | 0.98 | 0.98 | 0.98  | 0.98 | 0.98  | 0.98  | 0.98 | 0.98  | 0.98 | 0.98 |
| Adj. Flow (vph)                   | 71   | 255   | 0    | 6    | 201   | 151  | 1     | 0     | 0    | 261   | 5    | 108  |
| RTOR Reduction (vph)              | 0    | 0     | 0    | 0    | 12    | 0    | 0     | 0     | 0    | 0     | 79   | 0    |
| Lane Group Flow (vph)             | 71   | 255   | 0    | 6    | 340   | 0    | 0     | 1     | 0    | 261   | 34   | 0    |
| Turn Type                         | Prot | NA    |      | Prot | NA    |      | Split | NA    |      | Split | NA   |      |
| Protected Phases                  | 5    | 2     |      | 1    | 6     |      | 3     | 3     |      | 4     | 4    |      |
| Permitted Phases                  |      |       |      |      |       |      |       |       |      |       |      |      |
| Actuated Green, G (s)             | 6.8  | 28.1  |      | 2.2  | 24.5  |      |       | 0.7   |      | 17.5  | 17.5 |      |
| Effective Green, g (s)            | 6.8  | 28.1  |      | 2.2  | 24.5  |      |       | 0.7   |      | 17.5  | 17.5 |      |
| Actuated g/C Ratio                | 0.10 | 0.43  |      | 0.03 | 0.37  |      |       | 0.01  |      | 0.27  | 0.27 |      |
| Clearance Time (s)                | 4.0  | 4.0   |      | 5.0  | 4.0   |      |       | 4.0   |      | 4.0   | 4.0  |      |
| Vehicle Extension (s)             | 2.0  | 2.1   |      | 2.0  | 2.3   |      |       | 2.0   |      | 2.0   | 2.0  |      |
| Lane Grp Cap (vph)                | 183  | 799   |      | 59   | 651   |      |       | 18    |      | 472   | 426  |      |
| v/s Ratio Prot                    | 0.04 | c0.14 |      | 0.00 | c0.20 |      |       | c0.00 |      | c0.15 | 0.02 |      |
| v/s Ratio Perm                    |      |       |      |      |       |      |       |       |      |       |      |      |
| v/c Ratio                         | 0.39 | 0.32  |      | 0.10 | 0.52  |      |       | 0.06  |      | 0.55  | 0.08 |      |
| Uniform Delay, d <sub>1</sub>     | 27.4 | 12.4  |      | 30.7 | 15.9  |      |       | 32.1  |      | 20.6  | 18.0 |      |
| Progression Factor                | 1.00 | 1.00  |      | 1.00 | 1.00  |      |       | 1.00  |      | 1.00  | 1.00 |      |
| Incremental Delay, d <sub>2</sub> | 0.5  | 0.1   |      | 0.3  | 0.5   |      |       | 0.5   |      | 0.8   | 0.0  |      |
| Delay (s)                         | 27.9 | 12.5  |      | 31.0 | 16.4  |      |       | 32.5  |      | 21.4  | 18.0 |      |
| Level of Service                  | C    | B     |      | C    | B     |      |       | C     |      | C     | B    |      |
| Approach Delay (s)                |      | 15.8  |      |      | 16.7  |      |       | 32.5  |      |       | 20.4 |      |
| Approach LOS                      |      | B     |      |      | B     |      |       | C     |      |       | C    |      |




















Intersection Summary

|                                   |       |                           |      |
|-----------------------------------|-------|---------------------------|------|
| HCM 2000 Control Delay            | 17.7  | HCM 2000 Level of Service | B    |
| HCM 2000 Volume to Capacity ratio | 0.52  |                           |      |
| Actuated Cycle Length (s)         | 65.5  | Sum of lost time (s)      | 17.0 |
| Intersection Capacity Utilization | 46.6% | ICU Level of Service      | A    |
| Analysis Period (min)             | 15    |                           |      |

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis  
 10: 35th St & Orange Ave

Existing PM Peak Hour  
 04/04/2017

|                        |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement               | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations    |  |  |   |  |  |   |  |  |   |   |  |  |
| Traffic Volume (vph)   | 37  | 357   | 46  | 28  | 273   | 48  | 27   | 65  | 30  | 46  | 93  | 39  |
| Future Volume (vph)    | 37  | 357   | 46  | 28  | 273   | 48  | 27   | 65  | 30  | 46  | 93  | 39  |
| Ideal Flow (vphpl)     | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900   | 1900  | 1900  | 1900  | 1900  | 1900  |
| Total Lost time (s)    | 4.9   | 4.9   |   | 4.9   | 4.9   |   |  | 4.9   |   |   | 4.9   |   |
| Lane Util. Factor      | 1.00  | 1.00  |   | 1.00  | 1.00  |   |  | 1.00  |   |   | 1.00  |   |
| Frbp, ped/bikes        | 1.00  | 0.99  |   | 1.00  | 0.99  |   |  | 0.99  |   |   | 0.99  |   |
| Flpb, ped/bikes        | 0.99  | 1.00  |   | 0.98  | 1.00  |   |  | 1.00  |   |   | 1.00  |   |
| Frt                    | 1.00  | 0.98  |   | 1.00  | 0.98  |   |  | 0.97  |   |   | 0.97  |   |
| Flt Protected          | 0.95  | 1.00  |   | 0.95  | 1.00  |   |  | 0.99  |   |   | 0.99  |   |
| Satd. Flow (prot)      | 1749  | 1818  |   | 1735  | 1809  |   |  | 1763  |   |   | 1760  |   |
| Flt Permitted          | 0.55  | 1.00  |   | 0.49  | 1.00  |   |  | 0.90  |   |   | 0.90  |   |
| Satd. Flow (perm)      | 1020  | 1818  |   | 895   | 1809  |   |  | 1605  |   |   | 1600  |   |
| Peak-hour factor, PHF  | 0.94  | 0.94  | 0.94  | 0.94  | 0.94  | 0.94  | 0.94   | 0.94  | 0.94  | 0.94  | 0.94  | 0.94  |
| Adj. Flow (vph)        | 39  | 380   | 49  | 30  | 290   | 51  | 29   | 69  | 32  | 49  | 99  | 41  |
| RTOR Reduction (vph)   | 0   | 4   | 0   | 0   | 5   | 0   | 0  | 26  | 0   | 0   | 26  | 0   |
| Lane Group Flow (vph)  | 39  | 425   | 0   | 30  | 336   | 0   | 0  | 104   | 0   | 0   | 163   | 0   |
| Confl. Peds. (#/hr)    | 13  |   | 25  | 25  |   | 13  | 14   |   | 5   | 5   |   | 14  |
| Confl. Bikes (#/hr)    |   |   | 12  |   |   | 8   |  |   |   |   |   | 8   |
| Turn Type              | Perm  | NA  |   | Perm  | NA  |   | Perm   | NA  |   | Perm  | NA  |   |
| Protected Phases       |   | 2   |   |   | 2   |   |  | 4   |   |   | 4   |   |
| Permitted Phases       | 2   |   |   | 2   |   |   | 4  |   |   | 4   |   |   |
| Actuated Green, G (s)  | 40.5  | 40.5  |   | 40.5  | 40.5  |   |  | 11.6  |   |   | 11.6  |   |
| Effective Green, g (s) | 40.5  | 40.5  |   | 40.5  | 40.5  |   |  | 11.6  |   |   | 11.6  |   |
| Actuated g/C Ratio     | 0.65  | 0.65  |   | 0.65  | 0.65  |   |  | 0.19  |   |   | 0.19  |   |
| Clearance Time (s)     | 4.9   | 4.9   |   | 4.9   | 4.9   |   |  | 4.9   |   |   | 4.9   |   |
| Vehicle Extension (s)  | 3.1   | 3.1   |   | 3.1   | 3.1   |   |  | 2.0   |   |   | 2.0   |   |
| Lane Grp Cap (vph)     | 667   | 1189  |   | 585   | 1183  |   |  | 300   |   |   | 299   |   |
| v/s Ratio Prot         |   | c0.23   |   |   | 0.19  |   |  |   |   |   |   |   |
| v/s Ratio Perm         | 0.04  |   |   | 0.03  |   |   |  | 0.06  |   |   | c0.10   |   |
| v/c Ratio              | 0.06  | 0.36  |   | 0.05  | 0.28  |   |  | 0.35  |   |   | 0.55  |   |
| Uniform Delay, d1      | 3.8   | 4.8   |   | 3.8   | 4.5   |   |  | 21.9  |   |   | 22.8  |   |
| Progression Factor     | 1.00  | 1.00  |   | 1.00  | 1.00  |   |  | 1.00  |   |   | 1.00  |   |
| Incremental Delay, d2  | 0.2   | 0.8   |   | 0.2   | 0.6   |   |  | 0.3   |   |   | 1.1   |   |
| Delay (s)              | 4.0   | 5.7   |   | 4.0   | 5.1   |   |  | 22.1  |   |   | 23.9  |   |
| Level of Service       | A   | A   |   | A   | A   |   |  | C   |   |   | C   |   |
| Approach Delay (s)     |   | 5.5   |   |   | 5.1   |   |  | 22.1  |   |   | 23.9  |   |
| Approach LOS           |   | A   |   |   | A   |   |  | C   |   |   | C   |   |


















Intersection Summary

|                                   |       |                           |     |
|-----------------------------------|-------|---------------------------|-----|
| HCM 2000 Control Delay            | 10.2  | HCM 2000 Level of Service | B   |
| HCM 2000 Volume to Capacity ratio | 0.40  |                           |     |
| Actuated Cycle Length (s)         | 61.9  | Sum of lost time (s)      | 9.8 |
| Intersection Capacity Utilization | 54.0% | ICU Level of Service      | A   |
| Analysis Period (min)             | 15    |                           |     |

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis  
 11: 37th St & Orange Ave


















Existing PM Peak Hour  
 04/04/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |  |  |   |   |  |   |  |  |   |   |   |  |
| Traffic Volume (veh/h)            | 20  | 370   | 17  | 15  | 306   | 70  | 13   | 5   | 20  | 38  | 8   | 21  |
| Future Volume (Veh/h)             | 20  | 370   | 17  | 15  | 306   | 70  | 13   | 5   | 20  | 38  | 8   | 21  |
| Sign Control                      |   | Free  |   |   | Free  |   |  | Stop  |   |   | Stop  |   |
| Grade                             |   | 0%  |   |   | 0%  |   |  | 0%  |   |   | 0%  |   |
| Peak Hour Factor                  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92   | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  |
| Hourly flow rate (vph)            | 22  | 402   | 18  | 16  | 333   | 76  | 14   | 5   | 22  | 41  | 9   | 23  |
| Pedestrians                       |   |   |   |   |   |   |  |   |   |   |   |   |
| Lane Width (ft)                   |   |   |   |   |   |   |  |   |   |   |   |   |
| Walking Speed (ft/s)              |   |   |   |   |   |   |  |   |   |   |   |   |
| Percent Blockage                  |   |   |   |   |   |   |  |   |   |   |   |   |
| Right turn flare (veh)            |   |   |   |   |   |   |  |   |   |   |   |   |
| Median type                       |   | TWLTL   |   |   | TWLTL   |   |  |   |   |   |   |   |
| Median storage veh                |   | 2   |   |   | 2   |   |  |   |   |   |   |   |
| Upstream signal (ft)              |   |   |   |   | 1317  |   |  |   |   |   |   |   |
| pX, platoon unblocked             |   |   |   |   |   |   |  |   |   |   |   |   |
| vC, conflicting volume            | 409   |   |   | 420   |   |   | 886  | 896   | 411   | 874   | 867   | 371   |
| vC1, stage 1 conf vol             |   |   |   |   |   |   | 455  | 455   |   | 403   | 403   |   |
| vC2, stage 2 conf vol             |   |   |   |   |   |   | 430  | 441   |   | 470   | 464   |   |
| vCu, unblocked vol                | 409   |   |   | 420   |   |   | 886  | 896   | 411   | 874   | 867   | 371   |
| tC, single (s)                    | 4.1   |   |   | 4.1   |   |   | 7.1  | 6.5   | 6.2   | 7.1   | 6.5   | 6.2   |
| tC, 2 stage (s)                   |   |   |   |   |   |   | 6.1  | 5.5   |   | 6.1   | 5.5   |   |
| tF (s)                            | 2.2   |   |   | 2.2   |   |   | 3.5  | 4.0   | 3.3   | 3.5   | 4.0   | 3.3   |
| p0 queue free %                   | 98  |   |   | 99  |   |   | 97   | 99  | 97  | 91  | 98  | 97  |
| cM capacity (veh/h)               | 1150  |   |   | 1139  |   |   | 443  | 447   | 641   | 447   | 456   | 675   |
| Direction, Lane #                 | EB 1  | EB 2  | WB 1  | NB 1  | SB 1  |   |  |   |   |   |   |   |
| Volume Total                      | 22  | 420   | 425   | 41  | 73  |   |  |   |   |   |   |   |
| Volume Left                       | 22  | 0   | 16  | 14  | 41  |   |  |   |   |   |   |   |
| Volume Right                      | 0   | 18  | 76  | 22  | 23  |   |  |   |   |   |   |   |
| cSH                               | 1150  | 1700  | 1139  | 532   | 501   |   |  |   |   |   |   |   |
| Volume to Capacity                | 0.02  | 0.25  | 0.01  | 0.08  | 0.15  |   |  |   |   |   |   |   |
| Queue Length 95th (ft)            | 1   | 0   | 1   | 6   | 13  |   |  |   |   |   |   |   |
| Control Delay (s)                 | 8.2   | 0.0   | 0.5   | 12.3  | 13.4  |   |  |   |   |   |   |   |
| Lane LOS                          | A   |   | A   | B   | B   |   |  |   |   |   |   |   |
| Approach Delay (s)                | 0.4   |   | 0.5   | 12.3  | 13.4  |   |  |   |   |   |   |   |
| Approach LOS                      |   |   |   | B   | B   |   |  |   |   |   |   |   |
| Intersection Summary              |   |   |   |   |   |   |  |   |   |   |   |   |
| Average Delay                     |   |   | 1.9   |   |   |   |  |   |   |   |   |   |
| Intersection Capacity Utilization |   |   | 45.8%   |   | ICU Level of Service  |   |  |   | A   |   |   |   |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |




















HCM Unsignalized Intersection Capacity Analysis  
12: 39th St & Orange Ave

Existing PM Peak Hour  
04/04/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |   |  |   |  |  |   |  |  |   |   |  |   |
| Traffic Volume (veh/h)            | 36  | 369   | 51  | 39  | 351   | 61  | 37   | 17  | 52  | 12  | 12  | 30  |
| Future Volume (Veh/h)             | 36  | 369   | 51  | 39  | 351   | 61  | 37   | 17  | 52  | 12  | 12  | 30  |
| Sign Control                      |   | Free  |   |   | Free  |   |  | Stop  |   |   | Stop  |   |
| Grade                             |   | 0%  |   |   | 0%  |   |  | 0%  |   |   | 0%  |   |
| Peak Hour Factor                  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92   | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  |
| Hourly flow rate (vph)            | 39  | 401   | 55  | 42  | 382   | 66  | 40   | 18  | 57  | 13  | 13  | 33  |
| Pedestrians                       |   |   |   |   |   |   |  |   |   |   |   |   |
| Lane Width (ft)                   |   |   |   |   |   |   |  |   |   |   |   |   |
| Walking Speed (ft/s)              |   |   |   |   |   |   |  |   |   |   |   |   |
| Percent Blockage                  |   |   |   |   |   |   |  |   |   |   |   |   |
| Right turn flare (veh)            |   |   |   |   |   |   |  |   |   |   |   |   |
| Median type                       |   | TWLTL   |   |   | TWLTL   |   |  |   |   |   |   |   |
| Median storage veh                |   | 2   |   |   | 2   |   |  |   |   |   |   |   |
| Upstream signal (ft)              |   |   |   |   | 347   |   |  |   |   |   |   |   |
| pX, platoon unblocked             | 0.86  |   |   |   |   |   | 0.86   | 0.86  |   | 0.86  | 0.86  | 0.86  |
| vC, conflicting volume            | 448   |   |   | 456   |   |   | 1012   | 1038  | 428   | 1072  | 1033  | 415   |
| vC1, stage 1 conf vol             |   |   |   |   |   |   | 506  | 506   |   | 499   | 499   |   |
| vC2, stage 2 conf vol             |   |   |   |   |   |   | 506  | 532   |   | 572   | 534   |   |
| vCu, unblocked vol                | 272   |   |   | 456   |   |   | 930  | 961   | 428   | 1000  | 955   | 234   |
| tC, single (s)                    | 4.1   |   |   | 4.1   |   |   | 7.1  | 6.5   | 6.2   | 7.1   | 6.5   | 6.2   |
| tC, 2 stage (s)                   |   |   |   |   |   |   | 6.1  | 5.5   |   | 6.1   | 5.5   |   |
| tF (s)                            | 2.2   |   |   | 2.2   |   |   | 3.5  | 4.0   | 3.3   | 3.5   | 4.0   | 3.3   |
| p0 queue free %                   | 96  |   |   | 96  |   |   | 90   | 95  | 91  | 96  | 97  | 95  |
| cM capacity (veh/h)               | 1106  |   |   | 1105  |   |   | 386  | 388   | 626   | 339   | 387   | 690   |
| Direction, Lane #                 | EB 1  | WB 1  | WB 2  | NB 1  | SB 1  |   |  |   |   |   |   |   |
| Volume Total                      | 495   | 42  | 448   | 115   | 59  |   |  |   |   |   |   |   |
| Volume Left                       | 39  | 42  | 0   | 40  | 13  |   |  |   |   |   |   |   |
| Volume Right                      | 55  | 0   | 66  | 57  | 33  |   |  |   |   |   |   |   |
| cSH                               | 1106  | 1105  | 1700  | 477   | 493   |   |  |   |   |   |   |   |
| Volume to Capacity                | 0.04  | 0.04  | 0.26  | 0.24  | 0.12  |   |  |   |   |   |   |   |
| Queue Length 95th (ft)            | 3   | 3   | 0   | 23  | 10  |   |  |   |   |   |   |   |
| Control Delay (s)                 | 1.0   | 8.4   | 0.0   | 14.9  | 13.3  |   |  |   |   |   |   |   |
| Lane LOS                          | A   | A   |   | B   | B   |   |  |   |   |   |   |   |
| Approach Delay (s)                | 1.0   | 0.7   |   | 14.9  | 13.3  |   |  |   |   |   |   |   |
| Approach LOS                      |   |   |   | B   | B   |   |  |   |   |   |   |   |
| Intersection Summary              |   |   |   |   |   |   |  |   |   |   |   |   |
| Average Delay                     |   |   | 2.9   |   |   |   |  |   |   |   |   |   |
| Intersection Capacity Utilization |   |   | 66.6%   |   | ICU Level of Service  |   |  |   | C   |   |   |   |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |

HCM Signalized Intersection Capacity Analysis  
13: 40th St & Orange Ave




















Existing PM Peak Hour  
04/04/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |   |  |   |  |  |   |  |  |   |   |  |   |
| Traffic Volume (vph)              | 0   | 399   | 14  | 10  | 341   | 0   | 13   | 0   | 20  | 111   | 21  | 81  |
| Future Volume (vph)               | 0   | 399   | 14  | 10  | 341   | 0   | 13   | 0   | 20  | 111   | 21  | 81  |
| Ideal Flow (vphpl)                | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900   | 1900  | 1900  | 1900  | 1900  | 1900  |
| Total Lost time (s)               |   | 4.3   |   | 4.0   | 4.3   |   |  | 4.0   |   |   | 4.0   |   |
| Lane Util. Factor                 |   | 1.00  |   | 1.00  | 1.00  |   |  | 1.00  |   |   | 1.00  |   |
| Fr <sub>t</sub>                   |   | 1.00  |   | 1.00  | 1.00  |   |  | 0.92  |   |   | 0.95  |   |
| Fl <sub>t</sub> Protected         |   | 1.00  |   | 0.95  | 1.00  |   |  | 0.98  |   |   | 0.97  |   |
| Satd. Flow (prot)                 |   | 1854  |   | 1770  | 1863  |   |  | 1678  |   |   | 1722  |   |
| Fl <sub>t</sub> Permitted         |   | 1.00  |   | 0.95  | 1.00  |   |  | 0.98  |   |   | 0.84  |   |
| Satd. Flow (perm)                 |   | 1854  |   | 1770  | 1863  |   |  | 1678  |   |   | 1478  |   |
| Peak-hour factor, PHF             | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95   | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  |
| Adj. Flow (vph)                   | 0   | 420   | 15  | 11  | 359   | 0   | 14   | 0   | 21  | 117   | 22  | 85  |
| RTOR Reduction (vph)              | 0   | 1   | 0   | 0   | 0   | 0   | 0  | 34  | 0   | 0   | 11  | 0   |
| Lane Group Flow (vph)             | 0   | 434   | 0   | 11  | 359   | 0   | 0  | 1   | 0   | 0   | 213   | 0   |
| Turn Type                         |   | NA  |   | Prot  | NA  |   | Split  | NA  |   | Perm  | NA  |   |
| Protected Phases                  |   | 2   |   | 1   | 6   |   | 3  | 3   |   |   |   | 4   |
| Permitted Phases                  |   |   |   |   |   |   |  |   |   | 4   |   |   |
| Actuated Green, G (s)             |   | 21.0  |   | 0.9   | 25.9  |   |  | 2.4   |   |   | 31.1  |   |
| Effective Green, g (s)            |   | 21.0  |   | 0.9   | 25.9  |   |  | 2.4   |   |   | 31.1  |   |
| Actuated g/C Ratio                |   | 0.29  |   | 0.01  | 0.36  |   |  | 0.03  |   |   | 0.43  |   |
| Clearance Time (s)                |   | 4.3   |   | 4.0   | 4.3   |   |  | 4.0   |   |   | 4.0   |   |
| Vehicle Extension (s)             |   | 2.0   |   | 2.0   | 2.0   |   |  | 2.0   |   |   | 2.0   |   |
| Lane Grp Cap (vph)                |   | 543   |   | 22  | 672   |   |  | 56  |   |   | 641   |   |
| v/s Ratio Prot                    |   | c0.23   |   | 0.01  | c0.19   |   |  | c0.00   |   |   |   |   |
| v/s Ratio Perm                    |   |   |   |   |   |   |  |   |   |   | c0.14   |   |
| v/c Ratio                         |   | 0.80  |   | 0.50  | 0.53  |   |  | 0.02  |   |   | 0.33  |   |
| Uniform Delay, d <sub>1</sub>     |   | 23.4  |   | 35.2  | 18.1  |   |  | 33.5  |   |   | 13.4  |   |
| Progression Factor                |   | 1.00  |   | 1.00  | 1.00  |   |  | 1.00  |   |   | 1.00  |   |
| Incremental Delay, d <sub>2</sub> |   | 7.6   |   | 6.4   | 0.4   |   |  | 0.1   |   |   | 1.4   |   |
| Delay (s)                         |   | 31.0  |   | 41.5  | 18.5  |   |  | 33.6  |   |   | 14.8  |   |
| Level of Service                  |   | C   |   | D   | B   |   |  | C   |   |   | B   |   |
| Approach Delay (s)                |   | 31.0  |   |   | 19.2  |   |  | 33.6  |   |   | 14.8  |   |
| Approach LOS                      |   | C   |   |   | B   |   |  | C   |   |   | B   |   |
| <b>Intersection Summary</b>       |   |   |   |   |   |   |  |   |   |   |   |   |
| HCM 2000 Control Delay            |   |   | 23.6  |   |   | HCM 2000 Level of Service   |  |   | C   |   |   |   |
| HCM 2000 Volume to Capacity ratio |   |   | 0.51  |   |   |   |  |   |   |   |   |   |
| Actuated Cycle Length (s)         |   |   | 71.7  |   |   | Sum of lost time (s)  |  | 16.3  |   |   |   |   |
| Intersection Capacity Utilization |   |   | 46.6%   |   |   | ICU Level of Service  |  | A   |   |   |   |   |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis  
 14: Marlborough Ave S/Alley & Orange Ave


















Existing PM Peak Hour  
 04/04/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL   | NBT   | NBR   | SBL   | SBT   | SBR   |   |
| Lane Configurations               |  |  |   |  |  |   |   |  |   |   |   |  |   |
| Traffic Volume (vph)              | 1   | 463   | 83  | 77  | 361   | 4   | 72  | 1   | 44  | 2   | 0   | 1   |   |
| Future Volume (vph)               | 1   | 463   | 83  | 77  | 361   | 4   | 72  | 1   | 44  | 2   | 0   | 1   |   |
| Ideal Flow (vphpl)                | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  |   |
| Total Lost time (s)               | 4.9   | 4.9   |   | 4.9   | 4.9   |   |   | 4.9   |   |   |   | 4.9   |   |
| Lane Util. Factor                 | 1.00  | 1.00  |   | 1.00  | 1.00  |   |   | 1.00  |   |   |   | 1.00  |   |
| Fr <sub>t</sub>                   | 1.00  | 0.98  |   | 1.00  | 1.00  |   |   | 0.95  |   |   |   | 0.95  |   |
| Fl <sub>t</sub> Protected         | 0.95  | 1.00  |   | 0.95  | 1.00  |   |   | 0.97  |   |   |   | 0.97  |   |
| Satd. Flow (prot)                 | 1770  | 1820  |   | 1770  | 1860  |   |   | 1715  |   |   |   | 1722  |   |
| Fl <sub>t</sub> Permitted         | 0.54  | 1.00  |   | 0.41  | 1.00  |   |   | 0.81  |   |   |   | 0.80  |   |
| Satd. Flow (perm)                 | 1006  | 1820  |   | 755   | 1860  |   |   | 1434  |   |   |   | 1424  |   |
| Peak-hour factor, PHF             | 0.98  | 0.98  | 0.98  | 0.98  | 0.98  | 0.98  | 0.98  | 0.98  | 0.98  | 0.98  | 0.98  | 0.98  |   |
| Adj. Flow (vph)                   | 1   | 472   | 85  | 79  | 368   | 4   | 73  | 1   | 45  | 2   | 0   | 1   |   |
| RTOR Reduction (vph)              | 0   | 5   | 0   | 0   | 0   | 0   | 0   | 25  | 0   | 0   | 2   | 0   |   |
| Lane Group Flow (vph)             | 1   | 552   | 0   | 79  | 372   | 0   | 0   | 94  | 0   | 0   | 1   | 0   |   |
| Turn Type                         | Perm  | NA  |   | Perm  | NA  |   | Perm  | NA  |   | Perm  | NA  |   |   |
| Protected Phases                  |   | 2   |   |   | 6   |   |   | 8   |   |   |   | 4   |   |
| Permitted Phases                  | 2   |   |   | 6   |   |   | 8   |   |   | 4   |   |   |   |
| Actuated Green, G (s)             | 26.0  | 26.0  |   | 26.0  | 26.0  |   |   | 7.5   |   |   |   | 7.5   |   |
| Effective Green, g (s)            | 26.0  | 26.0  |   | 26.0  | 26.0  |   |   | 7.5   |   |   |   | 7.5   |   |
| Actuated g/C Ratio                | 0.60  | 0.60  |   | 0.60  | 0.60  |   |   | 0.17  |   |   |   | 0.17  |   |
| Clearance Time (s)                | 4.9   | 4.9   |   | 4.9   | 4.9   |   |   | 4.9   |   |   |   | 4.9   |   |
| Vehicle Extension (s)             | 2.2   | 2.2   |   | 2.2   | 2.2   |   |   | 2.0   |   |   |   | 2.0   |   |
| Lane Grp Cap (vph)                | 604   | 1092  |   | 453   | 1116  |   |   | 248   |   |   |   | 246   |   |
| v/s Ratio Prot                    |   | c0.30   |   |   | 0.20  |   |   |   |   |   |   |   |   |
| v/s Ratio Perm                    | 0.00  |   |   | 0.10  |   |   |   | c0.07   |   |   |   | 0.00  |   |
| v/c Ratio                         | 0.00  | 0.51  |   | 0.17  | 0.33  |   |   | 0.38  |   |   |   | 0.00  |   |
| Uniform Delay, d <sub>1</sub>     | 3.5   | 5.0   |   | 3.9   | 4.3   |   |   | 15.8  |   |   |   | 14.8  |   |
| Progression Factor                | 1.00  | 1.00  |   | 1.00  | 1.00  |   |   | 1.00  |   |   |   | 1.00  |   |
| Incremental Delay, d <sub>2</sub> | 0.0   | 0.2   |   | 0.1   | 0.1   |   |   | 0.4   |   |   |   | 0.0   |   |
| Delay (s)                         | 3.5   | 5.2   |   | 4.0   | 4.4   |   |   | 16.2  |   |   |   | 14.8  |   |
| Level of Service                  | A   | A   |   | A   | A   |   |   | B   |   |   |   | B   |   |
| Approach Delay (s)                |   | 5.1   |   |   | 4.3   |   |   | 16.2  |   |   |   | 14.8  |   |
| Approach LOS                      |   | A   |   |   | A   |   |   | B   |   |   |   | B   |   |
| <b>Intersection Summary</b>       |   |   |   |   |   |   |   |   |   |   |   |   |   |
| HCM 2000 Control Delay            |   |   | 6.0   |   |   |   |   | HCM 2000 Level of Service   |   |   | A   |   |   |
| HCM 2000 Volume to Capacity ratio |   |   | 0.48  |   |   |   |   |   |   |   |   |   |   |
| Actuated Cycle Length (s)         |   |   | 43.3  |   |   |   |   | Sum of lost time (s)  |   |   | 9.8   |   |   |
| Intersection Capacity Utilization |   |   | 53.6%   |   |   |   |   | ICU Level of Service  |   |   | A   |   |   |
| Analysis Period (min)             |   |   | 15  |   |   |   |   |   |   |   |   |   |   |

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis  
15: 43rd St & Orange Ave






















Existing PM Peak Hour  
04/04/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |   |  |   |  |  |   |  |   |   |   |  |  |
| Traffic Volume (vph)              | 0   | 396   | 61  | 30  | 381   | 0   | 0  | 0   | 0   | 146   | 457   | 61  |
| Future Volume (vph)               | 0   | 396   | 61  | 30  | 381   | 0   | 0  | 0   | 0   | 146   | 457   | 61  |
| Ideal Flow (vphpl)                | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900   | 1900  | 1900  | 1900  | 1900  | 1900  |
| Total Lost time (s)               |   | 4.9   |   | 4.9   | 4.9   |   |  |   |   |   | 4.9   |   |
| Lane Util. Factor                 |   | 1.00  |   | 1.00  | 1.00  |   |  |   |   |   | 0.95  |   |
| Frbp, ped/bikes                   |   | 0.99  |   | 1.00  | 1.00  |   |  |   |   |   | 0.99  |   |
| Flpb, ped/bikes                   |   | 1.00  |   | 0.98  | 1.00  |   |  |   |   |   | 0.99  |   |
| Frt                               |   | 0.98  |   | 1.00  | 1.00  |   |  |   |   |   | 0.99  |   |
| Flt Protected                     |   | 1.00  |   | 0.95  | 1.00  |   |  |   |   |   | 0.99  |   |
| Satd. Flow (prot)                 |   | 1817  |   | 1740  | 1863  |   |  |   |   |   | 3403  |   |
| Flt Permitted                     |   | 1.00  |   | 0.39  | 1.00  |   |  |   |   |   | 0.99  |   |
| Satd. Flow (perm)                 |   | 1817  |   | 710   | 1863  |   |  |   |   |   | 3403  |   |
| Peak-hour factor, PHF             | 0.93  | 0.93  | 0.93  | 0.93  | 0.93  | 0.93  | 0.93   | 0.93  | 0.93  | 0.93  | 0.93  | 0.93  |
| Adj. Flow (vph)                   | 0   | 426   | 66  | 32  | 410   | 0   | 0  | 0   | 0   | 157   | 491   | 66  |
| RTOR Reduction (vph)              | 0   | 7   | 0   | 0   | 0   | 0   | 0  | 0   | 0   | 0   | 18  | 0   |
| Lane Group Flow (vph)             | 0   | 485   | 0   | 32  | 410   | 0   | 0  | 0   | 0   | 0   | 696   | 0   |
| Confl. Peds. (#/hr)               | 31  |   | 41  | 41  |   | 31  | 18   |   | 26  | 26  |   | 18  |
| Confl. Bikes (#/hr)               |   |   | 2   |   |   | 7   |  |   |   |   |   | 7   |
| Turn Type                         |   | NA  |   | Perm  | NA  |   |  |   |   |   | Perm  | NA  |
| Protected Phases                  |   | 2   |   |   | 6   |   |  |   |   |   |   | 4   |
| Permitted Phases                  |   |   |   | 6   |   |   |  |   |   | 4   |   |   |
| Actuated Green, G (s)             |   | 30.7  |   | 30.7  | 30.7  |   |  |   |   |   |   | 19.5  |
| Effective Green, g (s)            |   | 30.7  |   | 30.7  | 30.7  |   |  |   |   |   |   | 19.5  |
| Actuated g/C Ratio                |   | 0.51  |   | 0.51  | 0.51  |   |  |   |   |   |   | 0.32  |
| Clearance Time (s)                |   | 4.9   |   | 4.9   | 4.9   |   |  |   |   |   |   | 4.9   |
| Vehicle Extension (s)             |   | 5.5   |   | 5.5   | 5.5   |   |  |   |   |   |   | 5.1   |
| Lane Grp Cap (vph)                |   | 929   |   | 363   | 953   |   |  |   |   |   |   | 1105  |
| v/s Ratio Prot                    |   | c0.27   |   |   | 0.22  |   |  |   |   |   |   |   |
| v/s Ratio Perm                    |   |   |   | 0.05  |   |   |  |   |   |   |   | 0.20  |
| v/c Ratio                         |   | 0.52  |   | 0.09  | 0.43  |   |  |   |   |   |   | 0.63  |
| Uniform Delay, d1                 |   | 9.8   |   | 7.5   | 9.2   |   |  |   |   |   |   | 17.2  |
| Progression Factor                |   | 1.00  |   | 0.70  | 0.82  |   |  |   |   |   |   | 1.00  |
| Incremental Delay, d2             |   | 2.1   |   | 0.4   | 1.3   |   |  |   |   |   |   | 1.6   |
| Delay (s)                         |   | 11.9  |   | 5.7   | 8.9   |   |  |   |   |   |   | 18.8  |
| Level of Service                  |   | B   |   | A   | A   |   |  |   |   |   |   | B   |
| Approach Delay (s)                |   | 11.9  |   |   | 8.6   |   |  | 0.0   |   |   |   | 18.8  |
| Approach LOS                      |   | B   |   |   | A   |   |  | A   |   |   |   | B   |
| <b>Intersection Summary</b>       |   |   |   |   |   |   |  |   |   |   |   |   |
| HCM 2000 Control Delay            |   |   | 14.0  |   |   | HCM 2000 Level of Service   |  |   |   | B   |   |   |
| HCM 2000 Volume to Capacity ratio |   |   | 0.56  |   |   |   |  |   |   |   |   |   |
| Actuated Cycle Length (s)         |   |   | 60.0  |   |   | Sum of lost time (s)  |  |   | 9.8   |   |   |   |
| Intersection Capacity Utilization |   |   | 55.5%   |   |   | ICU Level of Service  |  |   |   | B   |   |   |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis  
16: Fairmount Ave & Orange Ave

Existing PM Peak Hour  
04/04/2017

|                        |  |  |  |  |  |  |   |   |  |  |  |  |
|------------------------|---|---|---|---|---|---|---|--|---|---|---|---|
| Movement               | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL   | NBT  | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations    |  |  |   |  |  |   |  | <br> |   |  |  |   |
| Traffic Volume (vph)   | 82  | 406   | 77  | 53  | 307   | 129   | 105   | 385  | 48  | 61  | 139   | 16  |
| Future Volume (vph)    | 82  | 406   | 77  | 53  | 307   | 129   | 105   | 385  | 48  | 61  | 139   | 16  |
| Ideal Flow (vphpl)     | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900   | 1900  | 1900  | 1900  | 1900  |
| Total Lost time (s)    | 4.9   | 4.9   |   | 4.9   | 4.9   |   | 4.9   | 4.9  |   | 4.9   | 4.9   |   |
| Lane Util. Factor      | 1.00  | 1.00  |   | 1.00  | 1.00  |   | 1.00  | 0.95   |   | 1.00  | 1.00  |   |
| Frb, ped/bikes         | 1.00  | 0.98  |   | 1.00  | 0.99  |   | 1.00  | 0.99   |   | 1.00  | 0.99  |   |
| Flpb, ped/bikes        | 0.99  | 1.00  |   | 0.96  | 1.00  |   | 0.94  | 1.00   |   | 0.96  | 1.00  |   |
| Frt                    | 1.00  | 0.98  |   | 1.00  | 0.96  |   | 1.00  | 0.98   |   | 1.00  | 0.98  |   |
| Flt Protected          | 0.95  | 1.00  |   | 0.95  | 1.00  |   | 0.95  | 1.00   |   | 0.95  | 1.00  |   |
| Satd. Flow (prot)      | 1751  | 1783  |   | 1700  | 1761  |   | 1664  | 3443   |   | 1706  | 1815  |   |
| Flt Permitted          | 0.42  | 1.00  |   | 0.38  | 1.00  |   | 0.65  | 1.00   |   | 0.44  | 1.00  |   |
| Satd. Flow (perm)      | 777   | 1783  |   | 681   | 1761  |   | 1142  | 3443   |   | 783   | 1815  |   |
| Peak-hour factor, PHF  | 0.93  | 0.93  | 0.93  | 0.93  | 0.93  | 0.93  | 0.93  | 0.93   | 0.93  | 0.93  | 0.93  | 0.93  |
| Adj. Flow (vph)        | 88  | 437   | 83  | 57  | 330   | 139   | 113   | 414  | 52  | 66  | 149   | 17  |
| RTOR Reduction (vph)   | 0   | 8   | 0   | 0   | 17  | 0   | 0   | 23   | 0   | 0   | 10  | 0   |
| Lane Group Flow (vph)  | 88  | 512   | 0   | 57  | 452   | 0   | 113   | 443  | 0   | 66  | 156   | 0   |
| Confl. Peds. (#/hr)    | 24  |   | 59  | 59  |   | 24  | 50  |  | 48  | 48  |   | 50  |
| Confl. Bikes (#/hr)    |   |   | 9   |   |   | 6   |   |  | 5   |   |   | 6   |
| Turn Type              | Perm  | NA  |   | Perm  | NA  |   | Perm  | NA   |   | Perm  | NA  |   |
| Protected Phases       |   | 2   |   |   | 6   |   |   | 8  |   |   |   | 8   |
| Permitted Phases       | 2   |   |   | 6   |   |   | 8   |  |   | 8   |   |   |
| Actuated Green, G (s)  | 32.5  | 32.5  |   | 32.5  | 32.5  |   | 17.7  | 17.7   |   | 17.7  | 17.7  |   |
| Effective Green, g (s) | 32.5  | 32.5  |   | 32.5  | 32.5  |   | 17.7  | 17.7   |   | 17.7  | 17.7  |   |
| Actuated g/C Ratio     | 0.54  | 0.54  |   | 0.54  | 0.54  |   | 0.29  | 0.29   |   | 0.29  | 0.29  |   |
| Clearance Time (s)     | 4.9   | 4.9   |   | 4.9   | 4.9   |   | 4.9   | 4.9  |   | 4.9   | 4.9   |   |
| Vehicle Extension (s)  | 5.5   | 5.5   |   | 5.5   | 5.5   |   | 6.3   | 6.3  |   | 6.3   | 6.3   |   |
| Lane Grp Cap (vph)     | 420   | 965   |   | 368   | 953   |   | 336   | 1015   |   | 230   | 535   |   |
| v/s Ratio Prot         |   | c0.29   |   |   | 0.26  |   |   | c0.13  |   |   |   | 0.09  |
| v/s Ratio Perm         | 0.11  |   |   | 0.08  |   |   | 0.10  |  |   | 0.08  |   |   |
| v/c Ratio              | 0.21  | 0.53  |   | 0.15  | 0.47  |   | 0.34  | 0.44   |   | 0.29  | 0.29  |   |
| Uniform Delay, d1      | 7.1   | 8.8   |   | 6.9   | 8.5   |   | 16.6  | 17.1   |   | 16.3  | 16.3  |   |
| Progression Factor     | 1.55  | 1.53  |   | 1.00  | 1.00  |   | 1.00  | 1.00   |   | 1.00  | 1.00  |   |
| Incremental Delay, d2  | 1.0   | 1.9   |   | 0.9   | 1.7   |   | 1.8   | 0.9  |   | 2.1   | 0.9   |   |
| Delay (s)              | 12.0  | 15.4  |   | 7.8   | 10.2  |   | 18.4  | 18.0   |   | 18.4  | 17.2  |   |
| Level of Service       | B   | B   |   | A   | B   |   | B   | B  |   | B   | B   |   |
| Approach Delay (s)     |   | 15.0  |   |   | 9.9   |   |   | 18.1   |   |   | 17.6  |   |
| Approach LOS           |   | B   |   |   | A   |   |   | B  |   |   | B   |   |




















Intersection Summary

|                                   |       |                           |     |
|-----------------------------------|-------|---------------------------|-----|
| HCM 2000 Control Delay            | 14.8  | HCM 2000 Level of Service | B   |
| HCM 2000 Volume to Capacity ratio | 0.50  |                           |     |
| Actuated Cycle Length (s)         | 60.0  | Sum of lost time (s)      | 9.8 |
| Intersection Capacity Utilization | 75.6% | ICU Level of Service      | D   |
| Analysis Period (min)             | 15    |                           |     |

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis  
 17: Chamoune Ave & Orange Ave

Existing PM Peak Hour  
 04/04/2017




















|                        |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement               | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations    |  |  |   |  |  |   |  |  |   |   |  |  |
| Sign Control           | Stop  |   |   | Stop  |   |   | Stop   |   |   | Stop  |   |   |
| Traffic Volume (vph)   | 22  | 380   | 36  | 34  | 282   | 31  | 29   | 53  | 20  | 22  | 63  | 30  |
| Future Volume (vph)    | 22  | 380   | 36  | 34  | 282   | 31  | 29   | 53  | 20  | 22  | 63  | 30  |
| Peak Hour Factor       | 0.90  | 0.90  | 0.90  | 0.90  | 0.90  | 0.90  | 0.90   | 0.90  | 0.90  | 0.90  | 0.90  | 0.90  |
| Hourly flow rate (vph) | 24  | 422   | 40  | 38  | 313   | 34  | 32   | 59  | 22  | 24  | 70  | 33  |
| Direction, Lane #      | EB 1  | EB 2  | WB 1  | WB 2  | NB 1  | SB 1  |  |   |   |   |   |   |
| Volume Total (vph)     | 24  | 462   | 38  | 347   | 113   | 127   |  |   |   |   |   |   |
| Volume Left (vph)      | 24  | 0   | 38  | 0   | 32  | 24  |  |   |   |   |   |   |
| Volume Right (vph)     | 0   | 40  | 0   | 34  | 22  | 33  |  |   |   |   |   |   |
| Hadj (s)               | 0.53  | -0.03   | 0.53  | -0.03   | -0.03   | -0.08   |  |   |   |   |   |   |
| Departure Headway (s)  | 6.4   | 5.8   | 6.5   | 5.9   | 6.5   | 6.4   |  |   |   |   |   |   |
| Degree Utilization, x  | 0.04  | 0.74  | 0.07  | 0.57  | 0.20  | 0.22  |  |   |   |   |   |   |
| Capacity (veh/h)       | 538   | 601   | 527   | 586   | 480   | 493   |  |   |   |   |   |   |
| Control Delay (s)      | 8.5   | 22.6  | 8.8   | 15.3  | 11.1  | 11.2  |  |   |   |   |   |   |
| Approach Delay (s)     | 21.9  |   | 14.6  |   | 11.1  | 11.2  |  |   |   |   |   |   |
| Approach LOS           | C   |   | B   |   | B   | B   |  |   |   |   |   |   |

**Intersection Summary**

|                                   |       |
|-----------------------------------|-------|
| Delay                             | 17.1  |
| Level of Service                  | C     |
| Intersection Capacity Utilization | 47.8% |
| ICU Level of Service              | A     |
| Analysis Period (min)             | 15    |

HCM Signalized Intersection Capacity Analysis  
 18: Euclid Ave & Orange Ave

Existing PM Peak Hour  
 04/04/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |  |  |   |  |  |   |  |  |   |   |  |  |
| Traffic Volume (vph)              | 48  | 287   | 90  | 71  | 218   | 61  | 58   | 242   | 59  | 40  | 304   | 62  |
| Future Volume (vph)               | 48  | 287   | 90  | 71  | 218   | 61  | 58   | 242   | 59  | 40  | 304   | 62  |
| Ideal Flow (vphpl)                | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900   | 1900  | 1900  | 1900  | 1900  | 1900  |
| Total Lost time (s)               | 4.4   | 4.9   |   | 4.4   | 4.9   |   |  | 4.9   |   |   | 4.9   |   |
| Lane Util. Factor                 | 1.00  | 1.00  |   | 1.00  | 1.00  |   |  | 1.00  |   |   | 1.00  |   |
| Fr <sub>t</sub>                   | 1.00  | 0.96  |   | 1.00  | 0.97  |   |  | 0.98  |   |   | 0.98  |   |
| Fl <sub>t</sub> Protected         | 0.95  | 1.00  |   | 0.95  | 1.00  |   |  | 0.99  |   |   | 1.00  |   |
| Satd. Flow (prot)                 | 1770  | 1796  |   | 1770  | 1802  |   |  | 1807  |   |   | 1816  |   |
| Fl <sub>t</sub> Permitted         | 0.95  | 1.00  |   | 0.95  | 1.00  |   |  | 0.87  |   |   | 0.94  |   |
| Satd. Flow (perm)                 | 1770  | 1796  |   | 1770  | 1802  |   |  | 1576  |   |   | 1715  |   |
| Peak-hour factor, PHF             | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95   | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  |
| Adj. Flow (vph)                   | 51  | 302   | 95  | 75  | 229   | 64  | 61   | 255   | 62  | 42  | 320   | 65  |
| RTOR Reduction (vph)              | 0   | 7   | 0   | 0   | 6   | 0   | 0  | 5   | 0   | 0   | 5   | 0   |
| Lane Group Flow (vph)             | 51  | 390   | 0   | 75  | 287   | 0   | 0  | 373   | 0   | 0   | 422   | 0   |
| Turn Type                         | Prot  | NA  |   | Prot  | NA  |   | Perm   | NA  |   | Perm  | NA  |   |
| Protected Phases                  | 5   | 2   |   | 1   | 6   |   |  | 8   |   |   | 4   |   |
| Permitted Phases                  |   |   |   |   |   |   | 8  |   |   | 4   |   |   |
| Actuated Green, G (s)             | 4.3   | 24.5  |   | 6.7   | 26.9  |   |  | 26.4  |   |   | 26.4  |   |
| Effective Green, g (s)            | 4.3   | 24.5  |   | 6.7   | 26.9  |   |  | 26.4  |   |   | 26.4  |   |
| Actuated g/C Ratio                | 0.06  | 0.34  |   | 0.09  | 0.37  |   |  | 0.37  |   |   | 0.37  |   |
| Clearance Time (s)                | 4.4   | 4.9   |   | 4.4   | 4.9   |   |  | 4.9   |   |   | 4.9   |   |
| Vehicle Extension (s)             | 2.0   | 2.8   |   | 2.0   | 2.8   |   |  | 3.0   |   |   | 3.0   |   |
| Lane Grp Cap (vph)                | 106   | 612   |   | 165   | 675   |   |  | 579   |   |   | 630   |   |
| v/s Ratio Prot                    | 0.03  | c0.22   |   | c0.04   | 0.16  |   |  |   |   |   |   |   |
| v/s Ratio Perm                    |   |   |   |   |   |   |  | 0.24  |   |   | c0.25   |   |
| v/c Ratio                         | 0.48  | 0.64  |   | 0.45  | 0.42  |   |  | 0.64  |   |   | 0.67  |   |
| Uniform Delay, d <sub>1</sub>     | 32.7  | 19.9  |   | 30.8  | 16.7  |   |  | 18.8  |   |   | 19.0  |   |
| Progression Factor                | 1.00  | 1.00  |   | 1.00  | 1.00  |   |  | 1.00  |   |   | 1.00  |   |
| Incremental Delay, d <sub>2</sub> | 1.3   | 2.1   |   | 0.7   | 0.4   |   |  | 2.5   |   |   | 2.7   |   |
| Delay (s)                         | 33.9  | 22.0  |   | 31.5  | 17.1  |   |  | 21.3  |   |   | 21.8  |   |
| Level of Service                  | C   | C   |   | C   | B   |   |  | C   |   |   | C   |   |
| Approach Delay (s)                |   | 23.3  |   |   | 20.0  |   |  | 21.3  |   |   | 21.8  |   |
| Approach LOS                      |   | C   |   |   | C   |   |  | C   |   |   | C   |   |




















Intersection Summary

|                                   |       |                           |      |
|-----------------------------------|-------|---------------------------|------|
| HCM 2000 Control Delay            | 21.7  | HCM 2000 Level of Service | C    |
| HCM 2000 Volume to Capacity ratio | 0.63  |                           |      |
| Actuated Cycle Length (s)         | 71.8  | Sum of lost time (s)      | 14.2 |
| Intersection Capacity Utilization | 67.0% | ICU Level of Service      | C    |
| Analysis Period (min)             | 15    |                           |      |

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis  
19: Estrella Ave & Orange Ave

Existing PM Peak Hour  
04/04/2017

|                        |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement               | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations    |  |  |   |  |  |   |  |  |   |   |  |  |
| Sign Control           | Stop  |   |   | Stop  |   |   |  | Stop  |   |   | Stop  |   |
| Traffic Volume (vph)   | 28  | 301   | 15  | 26  | 243   | 5   | 22   | 23  | 14  | 12  | 32  | 31  |
| Future Volume (vph)    | 28  | 301   | 15  | 26  | 243   | 5   | 22   | 23  | 14  | 12  | 32  | 31  |
| Peak Hour Factor       | 0.81  | 0.81  | 0.81  | 0.81  | 0.81  | 0.81  | 0.81   | 0.81  | 0.81  | 0.81  | 0.81  | 0.81  |
| Hourly flow rate (vph) | 35  | 372   | 19  | 32  | 300   | 6   | 27   | 28  | 17  | 15  | 40  | 38  |
| Direction, Lane #      | EB 1  | EB 2  | WB 1  | WB 2  | NB 1  | SB 1  |  |   |   |   |   |   |
| Volume Total (vph)     | 35  | 391   | 32  | 306   | 72  | 93  |  |   |   |   |   |   |
| Volume Left (vph)      | 35  | 0   | 32  | 0   | 27  | 15  |  |   |   |   |   |   |
| Volume Right (vph)     | 0   | 19  | 0   | 6   | 17  | 38  |  |   |   |   |   |   |
| Hadj (s)               | 0.53  | 0.00  | 0.53  | 0.02  | -0.03   | -0.18   |  |   |   |   |   |   |
| Departure Headway (s)  | 5.9   | 5.4   | 6.0   | 5.5   | 5.9   | 5.7   |  |   |   |   |   |   |
| Degree Utilization, x  | 0.06  | 0.58  | 0.05  | 0.47  | 0.12  | 0.15  |  |   |   |   |   |   |
| Capacity (veh/h)       | 591   | 654   | 574   | 636   | 523   | 549   |  |   |   |   |   |   |
| Control Delay (s)      | 8.1   | 14.5  | 8.1   | 12.0  | 9.7   | 9.7   |  |   |   |   |   |   |
| Approach Delay (s)     | 13.9  |   | 11.6  |   | 9.7   |   |  |   |   |   |   |   |
| Approach LOS           | B   |   | B   |   | A   |   |  |   |   |   |   |   |

















Intersection Summary

|                                   |       |                      |   |  |  |  |  |  |  |  |  |  |
|-----------------------------------|-------|----------------------|---|--|--|--|--|--|--|--|--|--|
| Delay                             | 12.4  |                      |   |  |  |  |  |  |  |  |  |  |
| Level of Service                  | B     |                      |   |  |  |  |  |  |  |  |  |  |
| Intersection Capacity Utilization | 42.4% | ICU Level of Service | A |  |  |  |  |  |  |  |  |  |
| Analysis Period (min)             | 15    |                      |   |  |  |  |  |  |  |  |  |  |



HCM Unsignalized Intersection Capacity Analysis  
1: Florida St & Howard Ave



















Existing plus Project AM Peak Hour  
04/24/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL   | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |   |  |   |   |  |   |   |  |   |   |  |   |
| Sign Control                      |   | Stop  |   |   | Stop  |   |   | Stop  |   |   | Stop  |   |
| Traffic Volume (vph)              | 3   | 26  | 12  | 23  | 144   | 34  | 39  | 149   | 9   | 14  | 107   | 31  |
| Future Volume (vph)               | 3   | 26  | 12  | 23  | 144   | 34  | 39  | 149   | 9   | 14  | 107   | 31  |
| Peak Hour Factor                  | 0.85  | 0.85  | 0.85  | 0.85  | 0.85  | 0.85  | 0.85  | 0.85  | 0.85  | 0.85  | 0.85  | 0.85  |
| Hourly flow rate (vph)            | 4   | 31  | 14  | 27  | 169   | 40  | 46  | 175   | 11  | 16  | 126   | 36  |
| Direction, Lane #                 | EB 1  | WB 1  | NB 1  | SB 1  |   |   |   |   |   |   |   |   |
| Volume Total (vph)                | 49  | 236   | 232   | 178   |   |   |   |   |   |   |   |   |
| Volume Left (vph)                 | 4   | 27  | 46  | 16  |   |   |   |   |   |   |   |   |
| Volume Right (vph)                | 14  | 40  | 11  | 36  |   |   |   |   |   |   |   |   |
| Hadj (s)                          | -0.12   | -0.04   | 0.05  | -0.07   |   |   |   |   |   |   |   |   |
| Departure Headway (s)             | 5.2   | 5.0   | 4.9   | 4.9   |   |   |   |   |   |   |   |   |
| Degree Utilization, x             | 0.07  | 0.32  | 0.32  | 0.24  |   |   |   |   |   |   |   |   |
| Capacity (veh/h)                  | 616   | 674   | 689   | 683   |   |   |   |   |   |   |   |   |
| Control Delay (s)                 | 8.6   | 10.3  | 10.2  | 9.4   |   |   |   |   |   |   |   |   |
| Approach Delay (s)                | 8.6   | 10.3  | 10.2  | 9.4   |   |   |   |   |   |   |   |   |
| Approach LOS                      | A   | B   | B   | A   |   |   |   |   |   |   |   |   |
| Intersection Summary              |   |   |   |   |   |   |   |   |   |   |   |   |
| Delay                             |   |   | 9.9   |   |   |   |   |   |   |   |   |   |
| Level of Service                  |   |   | A   |   |   |   |   |   |   |   |   |   |
| Intersection Capacity Utilization |   |   | 41.9%   | ICU Level of Service  | A   |   |   |   |   |   |   |   |
| Analysis Period (min)             |   |   | 15  |   |   |   |   |   |   |   |   |   |

| Intersection                |       |       |       |       |
|-----------------------------|-------|-------|-------|-------|
| Intersection Delay, s/veh   | 4.5   |       |       |       |
| Intersection LOS            | A     |       |       |       |
| Approach                    | EB    | WB    | NB    | SB    |
| Entry Lanes                 | 1     | 1     | 1     | 1     |
| Conflicting Circle Lanes    | 1     | 1     | 1     | 1     |
| Adj Approach Flow, veh/h    | 53    | 117   | 120   | 75    |
| Demand Flow Rate, veh/h     | 54    | 119   | 123   | 76    |
| Vehicles Circulating, veh/h | 67    | 128   | 66    | 136   |
| Vehicles Exiting, veh/h     | 145   | 61    | 55    | 111   |
| Follow-Up Headway, s        | 3.186 | 3.186 | 3.186 | 3.186 |
| Ped Vol Crossing Leg, #/h   | 21    | 14    | 21    | 18    |
| Ped Cap Adj                 | 0.997 | 0.998 | 0.997 | 0.998 |
| Approach Delay, s/veh       | 3.9   | 4.8   | 4.5   | 4.4   |
| Approach LOS                | A     | A     | A     | A     |
| Lane                        | Left  | Left  | Left  | Left  |
| Designated Moves            | LTR   | LTR   | LTR   | LTR   |
| Assumed Moves               | LTR   | LTR   | LTR   | LTR   |
| RT Channelized              |       |       |       |       |
| Lane Util                   | 1.000 | 1.000 | 1.000 | 1.000 |
| Critical Headway, s         | 5.193 | 5.193 | 5.193 | 5.193 |
| Entry Flow, veh/h           | 54    | 119   | 123   | 76    |
| Cap Entry Lane, veh/h       | 1057  | 994   | 1058  | 986   |
| Entry HV Adj Factor         | 0.987 | 0.985 | 0.979 | 0.989 |
| Flow Entry, veh/h           | 53    | 117   | 120   | 75    |
| Cap Entry, veh/h            | 1040  | 977   | 1033  | 973   |
| V/C Ratio                   | 0.051 | 0.120 | 0.117 | 0.077 |
| Control Delay, s/veh        | 3.9   | 4.8   | 4.5   | 4.4   |
| LOS                         | A     | A     | A     | A     |
| 95th %tile Queue, veh       | 0     | 0     | 0     | 0     |

HCM Signalized Intersection Capacity Analysis  
3: Texas St & Howard Ave

Existing plus Project AM Peak Hour  
04/24/2017

|                        |  |  |  |  |  |  |   |  |  |  |  |  |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement               | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL   | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations    |   |  |   |   |  |   |  |  |   |  |  |   |
| Traffic Volume (vph)   | 9   | 29  | 7   | 4   | 41  | 31  | 11  | 268   | 14  | 12  | 133   | 23  |
| Future Volume (vph)    | 9   | 29  | 7   | 4   | 41  | 31  | 11  | 268   | 14  | 12  | 133   | 23  |
| Ideal Flow (vphpl)     | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  |
| Total Lost time (s)    |   | 4.9   |   |   | 4.9   |   | 4.9   | 4.9   |   | 4.9   | 4.9   |   |
| Lane Util. Factor      |   | 1.00  |   |   | 1.00  |   | 1.00  | 1.00  |   | 1.00  | 1.00  |   |
| Frb, ped/bikes         |   | 1.00  |   |   | 0.99  |   | 1.00  | 1.00  |   | 1.00  | 1.00  |   |
| Flpb, ped/bikes        |   | 1.00  |   |   | 1.00  |   | 0.99  | 1.00  |   | 0.99  | 1.00  |   |
| Frt                    |   | 0.98  |   |   | 0.94  |   | 1.00  | 0.99  |   | 1.00  | 0.98  |   |
| Flt Protected          |   | 0.99  |   |   | 1.00  |   | 0.95  | 1.00  |   | 0.95  | 1.00  |   |
| Satd. Flow (prot)      |   | 1796  |   |   | 1735  |   | 1753  | 1846  |   | 1758  | 1813  |   |
| Flt Permitted          |   | 0.93  |   |   | 0.98  |   | 0.65  | 1.00  |   | 0.57  | 1.00  |   |
| Satd. Flow (perm)      |   | 1682  |   |   | 1710  |   | 1198  | 1846  |   | 1058  | 1813  |   |
| Peak-hour factor, PHF  | 0.91  | 0.91  | 0.91  | 0.91  | 0.91  | 0.91  | 0.91  | 0.91  | 0.91  | 0.91  | 0.91  | 0.91  |
| Adj. Flow (vph)        | 10  | 32  | 8   | 4   | 45  | 34  | 12  | 295   | 15  | 13  | 146   | 25  |
| RTOR Reduction (vph)   | 0   | 7   | 0   | 0   | 30  | 0   | 0   | 2   | 0   | 0   | 5   | 0   |
| Lane Group Flow (vph)  | 0   | 43  | 0   | 0   | 53  | 0   | 12  | 308   | 0   | 13  | 166   | 0   |
| Confl. Peds. (#/hr)    | 1   |   | 2   | 2   |   | 1   | 7   |   | 6   | 6   |   | 7   |
| Confl. Bikes (#/hr)    |   |   | 1   |   |   | 2   |   |   | 2   |   |   | 2   |
| Turn Type              | Perm  | NA  |   | Perm  | NA  |   | Perm  | NA  |   | Perm  | NA  |   |
| Protected Phases       |   | 2   |   |   | 2   |   |   | 4   |   |   |   | 4   |
| Permitted Phases       | 2   |   |   | 2   |   |   | 4   |   |   | 4   |   |   |
| Actuated Green, G (s)  |   | 7.6   |   |   | 7.6   |   | 47.6  | 47.6  |   | 47.6  | 47.6  |   |
| Effective Green, g (s) |   | 7.6   |   |   | 7.6   |   | 47.6  | 47.6  |   | 47.6  | 47.6  |   |
| Actuated g/C Ratio     |   | 0.12  |   |   | 0.12  |   | 0.73  | 0.73  |   | 0.73  | 0.73  |   |
| Clearance Time (s)     |   | 4.9   |   |   | 4.9   |   | 4.9   | 4.9   |   | 4.9   | 4.9   |   |
| Vehicle Extension (s)  |   | 2.0   |   |   | 2.0   |   | 2.0   | 2.0   |   | 2.0   | 2.0   |   |
| Lane Grp Cap (vph)     |   | 196   |   |   | 199   |   | 877   | 1351  |   | 774   | 1327  |   |
| v/s Ratio Prot         |   |   |   |   |   |   |   | c0.17   |   |   |   | 0.09  |
| v/s Ratio Perm         |   | 0.03  |   |   | c0.03   |   | 0.01  |   |   | 0.01  |   |   |
| v/c Ratio              |   | 0.22  |   |   | 0.27  |   | 0.01  | 0.23  |   | 0.02  | 0.12  |   |
| Uniform Delay, d1      |   | 26.0  |   |   | 26.2  |   | 2.4   | 2.8   |   | 2.4   | 2.6   |   |
| Progression Factor     |   | 1.00  |   |   | 1.00  |   | 1.00  | 1.00  |   | 1.00  | 1.00  |   |
| Incremental Delay, d2  |   | 0.2   |   |   | 0.3   |   | 0.0   | 0.4   |   | 0.0   | 0.2   |   |
| Delay (s)              |   | 26.2  |   |   | 26.4  |   | 2.4   | 3.2   |   | 2.4   | 2.8   |   |
| Level of Service       |   | C   |   |   | C   |   | A   | A   |   | A   | A   |   |
| Approach Delay (s)     |   | 26.2  |   |   | 26.4  |   |   | 3.2   |   |   | 2.7   |   |
| Approach LOS           |   | C   |   |   | C   |   |   | A   |   |   | A   |   |

| Intersection Summary              |       |                           |     |
|-----------------------------------|-------|---------------------------|-----|
| HCM 2000 Control Delay            | 7.9   | HCM 2000 Level of Service | A   |
| HCM 2000 Volume to Capacity ratio | 0.23  |                           |     |
| Actuated Cycle Length (s)         | 65.0  | Sum of lost time (s)      | 9.8 |
| Intersection Capacity Utilization | 30.1% | ICU Level of Service      | A   |
| Analysis Period (min)             | 15    |                           |     |



















c Critical Lane Group

| Intersection                |       |       |       |       |
|-----------------------------|-------|-------|-------|-------|
| Intersection Delay, s/veh   | 5.3   |       |       |       |
| Intersection LOS            | A     |       |       |       |
| Approach                    | EB    | WB    | NB    | SB    |
| Entry Lanes                 | 1     | 1     | 1     | 1     |
| Conflicting Circle Lanes    | 1     | 1     | 1     | 1     |
| Adj Approach Flow, veh/h    | 85    | 233   | 129   | 87    |
| Demand Flow Rate, veh/h     | 86    | 239   | 132   | 89    |
| Vehicles Circulating, veh/h | 110   | 130   | 111   | 171   |
| Vehicles Exiting, veh/h     | 150   | 112   | 85    | 198   |
| Follow-Up Headway, s        | 3.186 | 3.186 | 3.186 | 3.186 |
| Ped Vol Crossing Leg, #/h   | 14    | 13    | 14    | 12    |
| Ped Cap Adj                 | 0.998 | 0.998 | 0.998 | 0.998 |
| Approach Delay, s/veh       | 4.4   | 6.1   | 4.8   | 4.7   |
| Approach LOS                | A     | A     | A     | A     |
| Lane                        | Left  | Left  | Left  | Left  |
| Designated Moves            | LTR   | LTR   | LTR   | LTR   |
| Assumed Moves               | LTR   | LTR   | LTR   | LTR   |
| RT Channelized              |       |       |       |       |
| Lane Util                   | 1.000 | 1.000 | 1.000 | 1.000 |
| Critical Headway, s         | 5.193 | 5.193 | 5.193 | 5.193 |
| Entry Flow, veh/h           | 86    | 239   | 132   | 89    |
| Cap Entry Lane, veh/h       | 1012  | 992   | 1011  | 952   |
| Entry HV Adj Factor         | 0.987 | 0.977 | 0.979 | 0.977 |
| Flow Entry, veh/h           | 85    | 233   | 129   | 87    |
| Cap Entry, veh/h            | 997   | 967   | 988   | 929   |
| V/C Ratio                   | 0.085 | 0.241 | 0.131 | 0.094 |
| Control Delay, s/veh        | 4.4   | 6.1   | 4.8   | 4.7   |
| LOS                         | A     | A     | A     | A     |
| 95th %tile Queue, veh       | 0     | 1     | 0     | 0     |

| Intersection                |       |       |       |       |
|-----------------------------|-------|-------|-------|-------|
| Intersection Delay, s/veh   | 5.9   |       |       |       |
| Intersection LOS            | A     |       |       |       |
| Approach                    | EB    | WB    | NB    | SB    |
| Entry Lanes                 | 1     | 1     | 1     | 1     |
| Conflicting Circle Lanes    | 1     | 1     | 1     | 1     |
| Adj Approach Flow, veh/h    | 139   | 281   | 136   | 124   |
| Demand Flow Rate, veh/h     | 141   | 287   | 138   | 126   |
| Vehicles Circulating, veh/h | 156   | 140   | 148   | 260   |
| Vehicles Exiting, veh/h     | 230   | 146   | 149   | 167   |
| Follow-Up Headway, s        | 3.186 | 3.186 | 3.186 | 3.186 |
| Ped Vol Crossing Leg, #/h   | 19    | 19    | 16    | 19    |
| Ped Cap Adj                 | 0.997 | 0.997 | 0.998 | 0.997 |
| Approach Delay, s/veh       | 5.2   | 6.8   | 5.1   | 5.6   |
| Approach LOS                | A     | A     | A     | A     |
| Lane                        | Left  | Left  | Left  | Left  |
| Designated Moves            | LTR   | LTR   | LTR   | LTR   |
| Assumed Moves               | LTR   | LTR   | LTR   | LTR   |
| RT Channelized              |       |       |       |       |
| Lane Util                   | 1.000 | 1.000 | 1.000 | 1.000 |
| Critical Headway, s         | 5.193 | 5.193 | 5.193 | 5.193 |
| Entry Flow, veh/h           | 141   | 287   | 138   | 126   |
| Cap Entry Lane, veh/h       | 967   | 982   | 974   | 871   |
| Entry HV Adj Factor         | 0.984 | 0.979 | 0.984 | 0.984 |
| Flow Entry, veh/h           | 139   | 281   | 136   | 124   |
| Cap Entry, veh/h            | 949   | 959   | 957   | 855   |
| V/C Ratio                   | 0.146 | 0.293 | 0.142 | 0.145 |
| Control Delay, s/veh        | 5.2   | 6.8   | 5.1   | 5.6   |
| LOS                         | A     | A     | A     | A     |
| 95th %tile Queue, veh       | 1     | 1     | 0     | 1     |

HCM Signalized Intersection Capacity Analysis  
6: 30th St & Howard Ave

Existing plus Project AM Peak Hour  
04/24/2017













|                        |  |  |  |  |  |  |   |  |  |  |  |  |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement               | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL   | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations    |   |  |   |   |  |   |  |  |   |  |  |   |
| Traffic Volume (vph)   | 14  | 111   | 21  | 31  | 186   | 58  | 32  | 293   | 24  | 22  | 206   | 15  |
| Future Volume (vph)    | 14  | 111   | 21  | 31  | 186   | 58  | 32  | 293   | 24  | 22  | 206   | 15  |
| Ideal Flow (vphpl)     | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  |
| Total Lost time (s)    |   | 4.9   |   |   | 4.9   |   | 4.9   | 4.9   |   | 4.9   | 4.9   |   |
| Lane Util. Factor      |   | 1.00  |   |   | 1.00  |   | 1.00  | 1.00  |   | 1.00  | 1.00  |   |
| Frbp, ped/bikes        |   | 0.99  |   |   | 0.99  |   | 1.00  | 1.00  |   | 1.00  | 1.00  |   |
| Flpb, ped/bikes        |   | 1.00  |   |   | 1.00  |   | 0.98  | 1.00  |   | 0.98  | 1.00  |   |
| Frt                    |   | 0.98  |   |   | 0.97  |   | 1.00  | 0.99  |   | 1.00  | 0.99  |   |
| Flt Protected          |   | 1.00  |   |   | 0.99  |   | 0.95  | 1.00  |   | 0.95  | 1.00  |   |
| Satd. Flow (prot)      |   | 1801  |   |   | 1777  |   | 1726  | 1835  |   | 1739  | 1837  |   |
| Flt Permitted          |   | 0.96  |   |   | 0.95  |   | 0.62  | 1.00  |   | 0.56  | 1.00  |   |
| Satd. Flow (perm)      |   | 1742  |   |   | 1694  |   | 1121  | 1835  |   | 1027  | 1837  |   |
| Peak-hour factor, PHF  | 0.97  | 0.97  | 0.97  | 0.97  | 0.97  | 0.97  | 0.97  | 0.97  | 0.97  | 0.97  | 0.97  | 0.97  |
| Adj. Flow (vph)        | 14  | 114   | 22  | 32  | 192   | 60  | 33  | 302   | 25  | 23  | 212   | 15  |
| RTOR Reduction (vph)   | 0   | 13  | 0   | 0   | 20  | 0   | 0   | 5   | 0   | 0   | 4   | 0   |
| Lane Group Flow (vph)  | 0   | 137   | 0   | 0   | 264   | 0   | 33  | 322   | 0   | 23  | 223   | 0   |
| Confl. Peds. (#/hr)    | 12  |   | 21  | 21  |   | 12  | 22  |   | 18  | 18  |   | 22  |
| Confl. Bikes (#/hr)    |   |   | 2   |   |   | 5   |   |   | 2   |   |   | 5   |
| Turn Type              | Perm  | NA  |   | Perm  | NA  |   | Perm  | NA  |   | Perm  | NA  |   |
| Protected Phases       |   | 2   |   |   | 2   |   |   | 4   |   |   |   | 4   |
| Permitted Phases       | 2   |   |   | 2   |   |   | 4   |   |   | 4   |   |   |
| Actuated Green, G (s)  |   | 12.8  |   |   | 12.8  |   | 32.3  | 32.3  |   | 32.3  | 32.3  |   |
| Effective Green, g (s) |   | 12.8  |   |   | 12.8  |   | 32.3  | 32.3  |   | 32.3  | 32.3  |   |
| Actuated g/C Ratio     |   | 0.23  |   |   | 0.23  |   | 0.59  | 0.59  |   | 0.59  | 0.59  |   |
| Clearance Time (s)     |   | 4.9   |   |   | 4.9   |   | 4.9   | 4.9   |   | 4.9   | 4.9   |   |
| Vehicle Extension (s)  |   | 2.0   |   |   | 2.0   |   | 3.3   | 3.3   |   | 3.3   | 3.3   |   |
| Lane Grp Cap (vph)     |   | 406   |   |   | 394   |   | 659   | 1079  |   | 604   | 1080  |   |
| v/s Ratio Prot         |   |   |   |   |   |   |   | c0.18   |   |   |   | 0.12  |
| v/s Ratio Perm         |   | 0.08  |   |   | c0.16   |   | 0.03  |   |   | 0.02  |   |   |
| v/c Ratio              |   | 0.34  |   |   | 0.67  |   | 0.05  | 0.30  |   | 0.04  | 0.21  |   |
| Uniform Delay, d1      |   | 17.5  |   |   | 19.1  |   | 4.8   | 5.6   |   | 4.8   | 5.3   |   |
| Progression Factor     |   | 1.00  |   |   | 1.00  |   | 1.00  | 1.00  |   | 1.00  | 1.00  |   |
| Incremental Delay, d2  |   | 0.2   |   |   | 3.5   |   | 0.1   | 0.7   |   | 0.1   | 0.4   |   |
| Delay (s)              |   | 17.7  |   |   | 22.6  |   | 4.9   | 6.4   |   | 4.9   | 5.7   |   |
| Level of Service       |   | B   |   |   | C   |   | A   | A   |   | A   | A   |   |
| Approach Delay (s)     |   | 17.7  |   |   | 22.6  |   |   | 6.2   |   |   | 5.7   |   |
| Approach LOS           |   | B   |   |   | C   |   |   | A   |   |   | A   |   |

| Intersection Summary              |       |                           |     |
|-----------------------------------|-------|---------------------------|-----|
| HCM 2000 Control Delay            | 12.2  | HCM 2000 Level of Service | B   |
| HCM 2000 Volume to Capacity ratio | 0.40  |                           |     |
| Actuated Cycle Length (s)         | 54.9  | Sum of lost time (s)      | 9.8 |
| Intersection Capacity Utilization | 55.8% | ICU Level of Service      | B   |
| Analysis Period (min)             | 15    |                           |     |

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis  
7: Illinois St & Howard Ave

Existing plus Project AM Peak Hour  
04/24/2017













|                        |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement               | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations    |   | ↕   |   |   | ↕   |   |  | ↕   |   |   | ↕   |   |
| Sign Control           |   | Stop  |   |   | Stop  |   |  | Stop  |   |   | Stop  |   |
| Traffic Volume (vph)   | 40  | 84  | 8   | 3   | 248   | 50  | 6  | 121   | 7   | 12  | 47  | 16  |
| Future Volume (vph)    | 40  | 84  | 8   | 3   | 248   | 50  | 6  | 121   | 7   | 12  | 47  | 16  |
| Peak Hour Factor       | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95   | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  |
| Hourly flow rate (vph) | 42  | 88  | 8   | 3   | 261   | 53  | 6  | 127   | 7   | 13  | 49  | 17  |
| Direction, Lane #      | EB 1  | WB 1  | NB 1  | SB 1  |   |   |  |   |   |   |   |   |
| Volume Total (vph)     | 138   | 317   | 140   | 79  |   |   |  |   |   |   |   |   |
| Volume Left (vph)      | 42  | 3   | 6   | 13  |   |   |  |   |   |   |   |   |
| Volume Right (vph)     | 8   | 53  | 7   | 17  |   |   |  |   |   |   |   |   |
| Hadj (s)               | 0.06  | -0.06   | 0.01  | -0.06   |   |   |  |   |   |   |   |   |
| Departure Headway (s)  | 4.9   | 4.6   | 5.1   | 5.2   |   |   |  |   |   |   |   |   |
| Degree Utilization, x  | 0.19  | 0.41  | 0.20  | 0.11  |   |   |  |   |   |   |   |   |
| Capacity (veh/h)       | 677   | 745   | 641   | 624   |   |   |  |   |   |   |   |   |
| Control Delay (s)      | 9.1   | 10.7  | 9.4   | 8.8   |   |   |  |   |   |   |   |   |
| Approach Delay (s)     | 9.1   | 10.7  | 9.4   | 8.8   |   |   |  |   |   |   |   |   |
| Approach LOS           | A   | B   | A   | A   |   |   |  |   |   |   |   |   |

Intersection Summary

|                                   |       |                      |   |
|-----------------------------------|-------|----------------------|---|
| Delay                             | 9.9   |                      |   |
| Level of Service                  | A     |                      |   |
| Intersection Capacity Utilization | 46.7% | ICU Level of Service | A |
| Analysis Period (min)             | 15    |                      |   |

HCM Unsignalized Intersection Capacity Analysis  
8: Boundary St & Howard Ave/Orange Ave



















Existing plus Project AM Peak Hour  
04/24/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |   | ↕   |   |   | ↕   |   |  | ↕   |   |   | ↕   |   |
| Traffic Volume (veh/h)            | 1   | 83  | 14  | 28  | 271   | 0   | 26   | 1   | 27  | 0   | 0   | 3   |
| Future Volume (Veh/h)             | 1   | 83  | 14  | 28  | 271   | 0   | 26   | 1   | 27  | 0   | 0   | 3   |
| Sign Control                      |   | Free  |   |   | Free  |   |  | Stop  |   |   | Stop  |   |
| Grade                             |   | 0%  |   |   | 0%  |   |  | 0%  |   |   | 0%  |   |
| Peak Hour Factor                  | 0.89  | 0.89  | 0.89  | 0.89  | 0.89  | 0.89  | 0.89   | 0.89  | 0.89  | 0.89  | 0.89  | 0.89  |
| Hourly flow rate (vph)            | 1   | 93  | 16  | 31  | 304   | 0   | 29   | 1   | 30  | 0   | 0   | 3   |
| Pedestrians                       |   | 9   |   |   | 8   |   |  | 9   |   |   | 9   |   |
| Lane Width (ft)                   |   | 12.0  |   |   | 12.0  |   |  | 12.0  |   |   | 12.0  |   |
| Walking Speed (ft/s)              |   | 3.5   |   |   | 3.5   |   |  | 3.5   |   |   | 3.5   |   |
| Percent Blockage                  |   | 1   |   |   | 1   |   |  | 1   |   |   | 1   |   |
| Right turn flare (veh)            |   |   |   |   |   |   |  |   |   |   |   |   |
| Median type                       |   | None  |   |   | None  |   |  |   |   |   |   |   |
| Median storage (veh)              |   |   |   |   |   |   |  |   |   |   |   |   |
| Upstream signal (ft)              |   |   |   |   | 985   |   |  |   |   |   |   |   |
| pX, platoon unblocked             |   |   |   |   |   |   |  |   |   |   |   |   |
| vC, conflicting volume            | 313   |   |   | 118   |   |   | 490  | 487   | 118   | 516   | 495   | 322   |
| vC1, stage 1 conf vol             |   |   |   |   |   |   |  |   |   |   |   |   |
| vC2, stage 2 conf vol             |   |   |   |   |   |   |  |   |   |   |   |   |
| vCu, unblocked vol                | 313   |   |   | 118   |   |   | 490  | 487   | 118   | 516   | 495   | 322   |
| tC, single (s)                    | 4.1   |   |   | 4.1   |   |   | 7.1  | 6.5   | 6.2   | 7.1   | 6.5   | 6.2   |
| tC, 2 stage (s)                   |   |   |   |   |   |   |  |   |   |   |   |   |
| tF (s)                            | 2.2   |   |   | 2.2   |   |   | 3.5  | 4.0   | 3.3   | 3.5   | 4.0   | 3.3   |
| p0 queue free %                   | 100   |   |   | 98  |   |   | 94   | 100   | 97  | 100   | 100   | 100   |
| cM capacity (veh/h)               | 1237  |   |   | 1458  |   |   | 464  | 462   | 919   | 433   | 457   | 707   |
| Direction, Lane #                 | EB 1  | WB 1  | NB 1  | SB 1  |   |   |  |   |   |   |   |   |
| Volume Total                      | 110   | 335   | 60  | 3   |   |   |  |   |   |   |   |   |
| Volume Left                       | 1   | 31  | 29  | 0   |   |   |  |   |   |   |   |   |
| Volume Right                      | 16  | 0   | 30  | 3   |   |   |  |   |   |   |   |   |
| cSH                               | 1237  | 1458  | 617   | 707   |   |   |  |   |   |   |   |   |
| Volume to Capacity                | 0.00  | 0.02  | 0.10  | 0.00  |   |   |  |   |   |   |   |   |
| Queue Length 95th (ft)            | 0   | 2   | 8   | 0   |   |   |  |   |   |   |   |   |
| Control Delay (s)                 | 0.1   | 0.9   | 11.5  | 10.1  |   |   |  |   |   |   |   |   |
| Lane LOS                          | A   | A   | B   | B   |   |   |  |   |   |   |   |   |
| Approach Delay (s)                | 0.1   | 0.9   | 11.5  | 10.1  |   |   |  |   |   |   |   |   |
| Approach LOS                      |   |   | B   | B   |   |   |  |   |   |   |   |   |
| <b>Intersection Summary</b>       |   |   |   |   |   |   |  |   |   |   |   |   |
| Average Delay                     |   |   | 2.0   |   |   |   |  |   |   |   |   |   |
| Intersection Capacity Utilization |   |   | 40.1%   |   | ICU Level of Service  |   |  |   | A   |   |   |   |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |



HCM Signalized Intersection Capacity Analysis  
9: Alley/33rd St & Orange Ave



















Existing plus Project AM Peak Hour  
04/24/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |      |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|------|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |      |
| Lane Configurations               |   |  |   |   |  |   |  |  |   |  |  |  |      |
| Traffic Volume (vph)              | 74  | 112   | 0   | 7   | 259   | 217   | 5  | 4   | 0   | 53  | 2   | 40  |      |
| Future Volume (vph)               | 74  | 112   | 0   | 7   | 259   | 217   | 5  | 4   | 0   | 53  | 2   | 40  |      |
| Ideal Flow (vphpl)                | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900   | 1900  | 1900  | 1900  | 1900  | 1900  |      |
| Total Lost time (s)               |   | 4.0   |   |   | 4.0   |   |  | 4.0   |   | 4.0   | 4.0   |   |      |
| Lane Util. Factor                 |   | 1.00  |   |   | 1.00  |   |  | 1.00  |   | 1.00  | 1.00  |   |      |
| Fr <sub>t</sub>                   |   | 1.00  |   |   | 0.94  |   |  | 1.00  |   | 1.00  | 0.86  |   |      |
| Fl <sub>t</sub> Protected         |   | 0.98  |   |   | 1.00  |   |  | 0.97  |   | 0.95  | 1.00  |   |      |
| Satd. Flow (prot)                 |   | 1826  |   |   | 1749  |   |  | 1812  |   | 1770  | 1596  |   |      |
| Fl <sub>t</sub> Permitted         |   | 0.75  |   |   | 1.00  |   |  | 0.97  |   | 0.95  | 1.00  |   |      |
| Satd. Flow (perm)                 |   | 1402  |   |   | 1744  |   |  | 1812  |   | 1770  | 1596  |   |      |
| Peak-hour factor, PHF             | 0.96  | 0.96  | 0.96  | 0.96  | 0.96  | 0.96  | 0.96   | 0.96  | 0.96  | 0.96  | 0.96  | 0.96  |      |
| Adj. Flow (vph)                   | 77  | 117   | 0   | 7   | 270   | 226   | 5  | 4   | 0   | 55  | 2   | 42  |      |
| RTOR Reduction (vph)              | 0   | 0   | 0   | 0   | 26  | 0   | 0  | 0   | 0   | 0   | 36  | 0   |      |
| Lane Group Flow (vph)             | 0   | 194   | 0   | 0   | 477   | 0   | 0  | 9   | 0   | 55  | 8   | 0   |      |
| Turn Type                         | Perm  | NA  |   | Perm  | NA  |   | Split  | NA  |   | Split   | NA  |   |      |
| Protected Phases                  |   | 2   |   |   | 6   |   | 3  | 3   |   | 4   | 4   |   |      |
| Permitted Phases                  | 2   |   |   | 6   |   |   |  |   |   |   |   |   |      |
| Actuated Green, G (s)             |   | 24.2  |   |   | 24.2  |   |  | 0.8   |   | 6.4   | 6.4   |   |      |
| Effective Green, g (s)            |   | 24.2  |   |   | 24.2  |   |  | 0.8   |   | 6.4   | 6.4   |   |      |
| Actuated g/C Ratio                |   | 0.56  |   |   | 0.56  |   |  | 0.02  |   | 0.15  | 0.15  |   |      |
| Clearance Time (s)                |   | 4.0   |   |   | 4.0   |   |  | 4.0   |   | 4.0   | 4.0   |   |      |
| Vehicle Extension (s)             |   | 2.1   |   |   | 2.3   |   |  | 2.0   |   | 2.0   | 2.0   |   |      |
| Lane Grp Cap (vph)                |   | 781   |   |   | 972   |   |  | 33  |   | 261   | 235   |   |      |
| v/s Ratio Prot                    |   |   |   |   |   |   |  | c0.00   |   | c0.03   | 0.01  |   |      |
| v/s Ratio Perm                    |   | 0.14  |   |   | c0.27   |   |  |   |   |   |   |   |      |
| v/c Ratio                         |   | 0.25  |   |   | 0.49  |   |  | 0.27  |   | 0.21  | 0.03  |   |      |
| Uniform Delay, d <sub>1</sub>     |   | 4.9   |   |   | 5.8   |   |  | 21.0  |   | 16.3  | 15.9  |   |      |
| Progression Factor                |   | 1.00  |   |   | 1.00  |   |  | 1.00  |   | 1.00  | 1.00  |   |      |
| Incremental Delay, d <sub>2</sub> |   | 0.1   |   |   | 0.2   |   |  | 1.6   |   | 0.1   | 0.0   |   |      |
| Delay (s)                         |   | 5.0   |   |   | 6.1   |   |  | 22.6  |   | 16.4  | 15.9  |   |      |
| Level of Service                  |   | A   |   |   | A   |   |  | C   |   | B   | B   |   |      |
| Approach Delay (s)                |   | 5.0   |   |   | 6.1   |   |  | 22.6  |   |   | 16.2  |   |      |
| Approach LOS                      |   | A   |   |   | A   |   |  | C   |   |   | B   |   |      |
| <b>Intersection Summary</b>       |   |   |   |   |   |   |  |   |   |   |   |   |      |
| HCM 2000 Control Delay            |   |   | 7.2   |   |   |   |  |   |   |   |   | HCM 2000 Level of Service   | A    |
| HCM 2000 Volume to Capacity ratio |   |   | 0.43  |   |   |   |  |   |   |   |   |   |      |
| Actuated Cycle Length (s)         |   |   | 43.4  |   |   |   |  |   |   |   |   | Sum of lost time (s)  | 12.0 |
| Intersection Capacity Utilization |   |   | 52.3%   |   |   |   |  |   |   |   |   | ICU Level of Service  | A    |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |      |

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis  
10: 35th St & Orange Ave

















Existing plus Project AM Peak Hour  
04/24/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |     |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|-----|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |     |
| Lane Configurations               |   |  |  |   |  |   |  |  |   |   |  |  |     |
| Traffic Volume (vph)              | 38  | 156   | 16  | 24  | 339   | 95  | 59   | 105   | 45  | 43  | 68  | 19  |     |
| Future Volume (vph)               | 38  | 156   | 16  | 24  | 339   | 95  | 59   | 105   | 45  | 43  | 68  | 19  |     |
| Ideal Flow (vphpl)                | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900   | 1900  | 1900  | 1900  | 1900  | 1900  |     |
| Total Lost time (s)               |   | 4.9   | 4.9   |   | 4.9   |   |  | 4.9   |   |   | 4.9   |   |     |
| Lane Util. Factor                 |   | 1.00  | 1.00  |   | 1.00  |   |  | 1.00  |   |   | 1.00  |   |     |
| Frbp, ped/bikes                   |   | 1.00  | 0.95  |   | 0.99  |   |  | 0.99  |   |   | 0.99  |   |     |
| Flpb, ped/bikes                   |   | 1.00  | 1.00  |   | 1.00  |   |  | 0.99  |   |   | 0.99  |   |     |
| Frt                               |   | 1.00  | 0.85  |   | 0.97  |   |  | 0.97  |   |   | 0.98  |   |     |
| Flt Protected                     |   | 0.99  | 1.00  |   | 1.00  |   |  | 0.99  |   |   | 0.98  |   |     |
| Satd. Flow (prot)                 |   | 1842  | 1500  |   | 1789  |   |  | 1754  |   |   | 1772  |   |     |
| Flt Permitted                     |   | 0.88  | 1.00  |   | 0.98  |   |  | 0.88  |   |   | 0.82  |   |     |
| Satd. Flow (perm)                 |   | 1628  | 1500  |   | 1760  |   |  | 1570  |   |   | 1473  |   |     |
| Peak-hour factor, PHF             | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92   | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  |     |
| Adj. Flow (vph)                   | 41  | 170   | 17  | 26  | 368   | 103   | 64   | 114   | 49  | 47  | 74  | 21  |     |
| RTOR Reduction (vph)              | 0   | 0   | 7   | 0   | 10  | 0   | 0  | 25  | 0   | 0   | 16  | 0   |     |
| Lane Group Flow (vph)             | 0   | 211   | 10  | 0   | 487   | 0   | 0  | 202   | 0   | 0   | 126   | 0   |     |
| Confl. Peds. (#/hr)               | 12  |   | 24  | 24  |   | 12  | 22   |   | 17  | 17  |   | 22  |     |
| Confl. Bikes (#/hr)               |   |   | 1   |   |   | 4   |  |   |   |   |   | 4   |     |
| Turn Type                         | Perm  | NA  | Perm  | Perm  | NA  |   | Perm   | NA  |   | Perm  | NA  |   |     |
| Protected Phases                  |   | 2   |   |   | 2   |   |  | 4   |   |   |   | 4   |     |
| Permitted Phases                  | 2   |   | 2   | 2   |   |   | 4  |   |   | 4   |   |   |     |
| Actuated Green, G (s)             |   | 34.9  | 34.9  |   | 34.9  |   |  | 12.2  |   |   | 12.2  |   |     |
| Effective Green, g (s)            |   | 34.9  | 34.9  |   | 34.9  |   |  | 12.2  |   |   | 12.2  |   |     |
| Actuated g/C Ratio                |   | 0.61  | 0.61  |   | 0.61  |   |  | 0.21  |   |   | 0.21  |   |     |
| Clearance Time (s)                |   | 4.9   | 4.9   |   | 4.9   |   |  | 4.9   |   |   | 4.9   |   |     |
| Vehicle Extension (s)             |   | 3.1   | 3.1   |   | 3.1   |   |  | 2.0   |   |   | 2.0   |   |     |
| Lane Grp Cap (vph)                |   | 998   | 920   |   | 1079  |   |  | 336   |   |   | 315   |   |     |
| v/s Ratio Prot                    |   |   |   |   |   |   |  |   |   |   |   |   |     |
| v/s Ratio Perm                    |   | 0.13  | 0.01  |   | c0.28   |   |  | c0.13   |   |   | 0.09  |   |     |
| v/c Ratio                         |   | 0.21  | 0.01  |   | 0.45  |   |  | 0.60  |   |   | 0.40  |   |     |
| Uniform Delay, d1                 |   | 4.9   | 4.3   |   | 5.9   |   |  | 20.2  |   |   | 19.2  |   |     |
| Progression Factor                |   | 1.00  | 1.00  |   | 1.00  |   |  | 1.00  |   |   | 1.00  |   |     |
| Incremental Delay, d2             |   | 0.5   | 0.0   |   | 1.4   |   |  | 2.1   |   |   | 0.3   |   |     |
| Delay (s)                         |   | 5.4   | 4.3   |   | 7.2   |   |  | 22.2  |   |   | 19.5  |   |     |
| Level of Service                  |   | A   | A   |   | A   |   |  | C   |   |   | B   |   |     |
| Approach Delay (s)                |   | 5.3   |   |   | 7.2   |   |  | 22.2  |   |   | 19.5  |   |     |
| Approach LOS                      |   | A   |   |   | A   |   |  | C   |   |   | B   |   |     |
| <b>Intersection Summary</b>       |   |   |   |   |   |   |  |   |   |   |   |   |     |
| HCM 2000 Control Delay            |   |   | 11.5  |   |   |   |  |   |   |   |   | HCM 2000 Level of Service   | B   |
| HCM 2000 Volume to Capacity ratio |   |   | 0.49  |   |   |   |  |   |   |   |   |   |     |
| Actuated Cycle Length (s)         |   |   | 56.9  |   |   |   |  |   |   |   |   | Sum of lost time (s)  | 9.8 |
| Intersection Capacity Utilization |   |   | 67.8%   |   |   |   |  |   |   |   |   | ICU Level of Service  | C   |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |     |

c Critical Lane Group


















HCM Unsignalized Intersection Capacity Analysis  
 11: 37th St & Orange Ave

Existing plus Project AM Peak Hour  
 04/24/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |   |  |   |   |  |   |  |  |   |   |  |   |
| Traffic Volume (veh/h)            | 38  | 219   | 16  | 15  | 306   | 70  | 10   | 4   | 32  | 25  | 3   | 7   |
| Future Volume (Veh/h)             | 38  | 219   | 16  | 15  | 306   | 70  | 10   | 4   | 32  | 25  | 3   | 7   |
| Sign Control                      |   | Free  |   |   | Free  |   |  | Stop  |   |   | Stop  |   |
| Grade                             |   | 0%  |   |   | 0%  |   |  | 0%  |   |   | 0%  |   |
| Peak Hour Factor                  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92   | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  |
| Hourly flow rate (vph)            | 41  | 238   | 17  | 16  | 333   | 76  | 11   | 4   | 35  | 27  | 3   | 8   |
| Pedestrians                       |   |   |   |   |   |   |  |   |   |   |   |   |
| Lane Width (ft)                   |   |   |   |   |   |   |  |   |   |   |   |   |
| Walking Speed (ft/s)              |   |   |   |   |   |   |  |   |   |   |   |   |
| Percent Blockage                  |   |   |   |   |   |   |  |   |   |   |   |   |
| Right turn flare (veh)            |   |   |   |   |   |   |  |   |   |   |   |   |
| Median type                       | None  |   |   |   | None  |   |  |   |   |   |   |   |
| Median storage (veh)              |   |   |   |   |   |   |  |   |   |   |   |   |
| Upstream signal (ft)              | 1317  |   |   |   |   |   |  |   |   |   |   |   |
| pX, platoon unblocked             |   |   |   |   |   |   |  |   |   |   |   |   |
| vC, conflicting volume            | 409   |   |   | 255   |   |   | 741  | 770   | 246   | 768   | 740   | 371   |
| vC1, stage 1 conf vol             |   |   |   |   |   |   |  |   |   |   |   |   |
| vC2, stage 2 conf vol             |   |   |   |   |   |   |  |   |   |   |   |   |
| vCu, unblocked vol                | 409   |   |   | 255   |   |   | 741  | 770   | 246   | 768   | 740   | 371   |
| tC, single (s)                    | 4.1   |   |   | 4.1   |   |   | 7.1  | 6.5   | 6.2   | 7.1   | 6.5   | 6.2   |
| tC, 2 stage (s)                   |   |   |   |   |   |   |  |   |   |   |   |   |
| tF (s)                            | 2.2   |   |   | 2.2   |   |   | 3.5  | 4.0   | 3.3   | 3.5   | 4.0   | 3.3   |
| p0 queue free %                   | 96  |   |   | 99  |   |   | 96   | 99  | 96  | 91  | 99  | 99  |
| cM capacity (veh/h)               | 1150  |   |   | 1310  |   |   | 314  | 316   | 792   | 290   | 328   | 675   |
| Direction, Lane #                 | EB 1  | WB 1  | NB 1  | SB 1  |   |   |  |   |   |   |   |   |
| Volume Total                      | 296   | 425   | 50  | 38  |   |   |  |   |   |   |   |   |
| Volume Left                       | 41  | 16  | 11  | 27  |   |   |  |   |   |   |   |   |
| Volume Right                      | 17  | 76  | 35  | 8   |   |   |  |   |   |   |   |   |
| cSH                               | 1150  | 1310  | 544   | 333   |   |   |  |   |   |   |   |   |
| Volume to Capacity                | 0.04  | 0.01  | 0.09  | 0.11  |   |   |  |   |   |   |   |   |
| Queue Length 95th (ft)            | 3   | 1   | 8   | 10  |   |   |  |   |   |   |   |   |
| Control Delay (s)                 | 1.4   | 0.4   | 12.3  | 17.2  |   |   |  |   |   |   |   |   |
| Lane LOS                          | A   | A   | B   | C   |   |   |  |   |   |   |   |   |
| Approach Delay (s)                | 1.4   | 0.4   | 12.3  | 17.2  |   |   |  |   |   |   |   |   |
| Approach LOS                      |   |   | B   | C   |   |   |  |   |   |   |   |   |
| Intersection Summary              |   |   |   |   |   |   |  |   |   |   |   |   |
| Average Delay                     |   |   |   | 2.3   |   |   |  |   |   |   |   |   |
| Intersection Capacity Utilization |   |   |   | 40.6%   | ICU Level of Service  | A   |  |   |   |   |   |   |
| Analysis Period (min)             |   |   |   | 15  |   |   |  |   |   |   |   |   |

















HCM Unsignalized Intersection Capacity Analysis  
12: 39th St & Orange Ave

Existing plus Project AM Peak Hour  
04/24/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |   |
| Lane Configurations               |   |  |   |   |  |   |  |  |   |   |   |  |   |
| Traffic Volume (veh/h)            | 58  | 194   | 52  | 47  | 382   | 197   | 0  | 53  | 75  | 17  | 7   | 38  |   |
| Future Volume (Veh/h)             | 58  | 194   | 52  | 47  | 382   | 197   | 0  | 53  | 75  | 17  | 7   | 38  |   |
| Sign Control                      |   | Free  |   |   | Free  |   |  | Stop  |   |   | Stop  |   |   |
| Grade                             |   | 0%  |   |   | 0%  |   |  | 0%  |   |   | 0%  |   |   |
| Peak Hour Factor                  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92   | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  |   |
| Hourly flow rate (vph)            | 63  | 211   | 57  | 51  | 415   | 214   | 0  | 58  | 82  | 18  | 8   | 41  |   |
| Pedestrians                       |   |   |   |   |   |   |  |   |   |   |   |   |   |
| Lane Width (ft)                   |   |   |   |   |   |   |  |   |   |   |   |   |   |
| Walking Speed (ft/s)              |   |   |   |   |   |   |  |   |   |   |   |   |   |
| Percent Blockage                  |   |   |   |   |   |   |  |   |   |   |   |   |   |
| Right turn flare (veh)            |   |   |   |   |   |   |  |   |   |   |   |   |   |
| Median type                       |   | None  |   |   | None  |   |  |   |   |   |   |   |   |
| Median storage (veh)              |   |   |   |   |   |   |  |   |   |   |   |   |   |
| Upstream signal (ft)              |   |   |   |   | 347   |   |  |   |   |   |   |   |   |
| pX, platoon unblocked             | 0.69  |   |   |   |   |   | 0.69   | 0.69  |   | 0.69  | 0.69  | 0.69  |   |
| vC, conflicting volume            | 629   |   |   | 268   |   |   | 1034   | 1096  | 240   | 1100  | 1018  | 522   |   |
| vC1, stage 1 conf vol             |   |   |   |   |   |   |  |   |   |   |   |   |   |
| vC2, stage 2 conf vol             |   |   |   |   |   |   |  |   |   |   |   |   |   |
| vCu, unblocked vol                | 241   |   |   | 268   |   |   | 827  | 917   | 240   | 923   | 803   | 86  |   |
| tC, single (s)                    | 4.1   |   |   | 4.1   |   |   | 7.1  | 6.5   | 6.2   | 7.1   | 6.5   | 6.2   |   |
| tC, 2 stage (s)                   |   |   |   |   |   |   |  |   |   |   |   |   |   |
| tF (s)                            | 2.2   |   |   | 2.2   |   |   | 3.5  | 4.0   | 3.3   | 3.5   | 4.0   | 3.3   |   |
| p0 queue free %                   | 93  |   |   | 96  |   |   | 100  | 66  | 90  | 83  | 96  | 94  |   |
| cM capacity (veh/h)               | 917   |   |   | 1296  |   |   | 168  | 168   | 799   | 105   | 196   | 673   |   |
| Direction, Lane #                 |   |   |   |   |   |   |  |   |   |   |   |   |   |
|                                   | EB 1  | WB 1  | NB 1  | SB 1  |   |   |  |   |   |   |   |   |   |
| Volume Total                      | 331   | 680   | 140   | 67  |   |   |  |   |   |   |   |   |   |
| Volume Left                       | 63  | 51  | 0   | 18  |   |   |  |   |   |   |   |   |   |
| Volume Right                      | 57  | 214   | 82  | 41  |   |   |  |   |   |   |   |   |   |
| cSH                               | 917   | 1296  | 313   | 246   |   |   |  |   |   |   |   |   |   |
| Volume to Capacity                | 0.07  | 0.04  | 0.45  | 0.27  |   |   |  |   |   |   |   |   |   |
| Queue Length 95th (ft)            | 6   | 3   | 55  | 27  |   |   |  |   |   |   |   |   |   |
| Control Delay (s)                 | 2.4   | 1.0   | 25.5  | 25.1  |   |   |  |   |   |   |   |   |   |
| Lane LOS                          | A   | A   | D   | D   |   |   |  |   |   |   |   |   |   |
| Approach Delay (s)                | 2.4   | 1.0   | 25.5  | 25.1  |   |   |  |   |   |   |   |   |   |
| Approach LOS                      |   |   | D   | D   |   |   |  |   |   |   |   |   |   |
| Intersection Summary              |   |   |   |   |   |   |  |   |   |   |   |   |   |
| Average Delay                     |   |   | 5.5   |   |   |   |  |   |   |   |   |   |   |
| Intersection Capacity Utilization |   |   | 59.6%   |   | ICU Level of Service  |   |  |   |   | B   |   |   |   |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |   |

HCM Signalized Intersection Capacity Analysis  
13: 40th St & Orange Ave













Existing plus Project AM Peak Hour  
04/24/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |   |  |   |   |  |   |  |  |   |   |  |   |
| Traffic Volume (vph)              | 0   | 268   | 7   | 9   | 531   | 0   | 19   | 0   | 31  | 46  | 8   | 51  |
| Future Volume (vph)               | 0   | 268   | 7   | 9   | 531   | 0   | 19   | 0   | 31  | 46  | 8   | 51  |
| Ideal Flow (vphpl)                | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900   | 1900  | 1900  | 1900  | 1900  | 1900  |
| Total Lost time (s)               |   | 4.3   |   |   | 4.3   |   |  | 4.0   |   |   | 4.0   |   |
| Lane Util. Factor                 |   | 1.00  |   |   | 1.00  |   |  | 1.00  |   |   | 1.00  |   |
| Flt                               |   | 1.00  |   |   | 1.00  |   |  | 0.92  |   |   | 0.93  |   |
| Flt Protected                     |   | 1.00  |   |   | 1.00  |   |  | 0.98  |   |   | 0.98  |   |
| Satd. Flow (prot)                 |   | 1856  |   |   | 1861  |   |  | 1676  |   |   | 1703  |   |
| Flt Permitted                     |   | 1.00  |   |   | 0.99  |   |  | 0.98  |   |   | 0.88  |   |
| Satd. Flow (perm)                 |   | 1856  |   |   | 1851  |   |  | 1676  |   |   | 1526  |   |
| Peak-hour factor, PHF             | 0.88  | 0.88  | 0.88  | 0.88  | 0.88  | 0.88  | 0.88   | 0.88  | 0.88  | 0.88  | 0.88  | 0.88  |
| Adj. Flow (vph)                   | 0   | 305   | 8   | 10  | 603   | 0   | 22   | 0   | 35  | 52  | 9   | 58  |
| RTOR Reduction (vph)              | 0   | 1   | 0   | 0   | 0   | 0   | 0  | 49  | 0   | 0   | 24  | 0   |
| Lane Group Flow (vph)             | 0   | 312   | 0   | 0   | 613   | 0   | 0  | 8   | 0   | 0   | 95  | 0   |
| Turn Type                         |   | NA  |   | Perm  | NA  |   | Split  | NA  |   | Perm  | NA  |   |
| Protected Phases                  |   | 2   |   |   | 6   |   | 3  | 3   |   |   |   | 4   |
| Permitted Phases                  |   |   |   | 6   |   |   |  |   |   | 4   |   |   |
| Actuated Green, G (s)             |   | 26.1  |   |   | 26.1  |   |  | 3.1   |   |   | 23.0  |   |
| Effective Green, g (s)            |   | 26.1  |   |   | 26.1  |   |  | 3.1   |   |   | 23.0  |   |
| Actuated g/C Ratio                |   | 0.40  |   |   | 0.40  |   |  | 0.05  |   |   | 0.36  |   |
| Clearance Time (s)                |   | 4.3   |   |   | 4.3   |   |  | 4.0   |   |   | 4.0   |   |
| Vehicle Extension (s)             |   | 2.0   |   |   | 2.0   |   |  | 2.0   |   |   | 2.0   |   |
| Lane Grp Cap (vph)                |   | 751   |   |   | 749   |   |  | 80  |   |   | 544   |   |
| v/s Ratio Prot                    |   | 0.17  |   |   |   |   |  | c0.01   |   |   |   |   |
| v/s Ratio Perm                    |   |   |   |   | c0.33   |   |  |   |   |   | c0.06   |   |
| v/c Ratio                         |   | 0.42  |   |   | 0.82  |   |  | 0.11  |   |   | 0.17  |   |
| Uniform Delay, d1                 |   | 13.7  |   |   | 17.1  |   |  | 29.4  |   |   | 14.2  |   |
| Progression Factor                |   | 1.00  |   |   | 1.00  |   |  | 1.00  |   |   | 1.00  |   |
| Incremental Delay, d2             |   | 0.1   |   |   | 6.6   |   |  | 0.2   |   |   | 0.7   |   |
| Delay (s)                         |   | 13.9  |   |   | 23.7  |   |  | 29.6  |   |   | 14.9  |   |
| Level of Service                  |   | B   |   |   | C   |   |  | C   |   |   | B   |   |
| Approach Delay (s)                |   | 13.9  |   |   | 23.7  |   |  | 29.6  |   |   | 14.9  |   |
| Approach LOS                      |   | B   |   |   | C   |   |  | C   |   |   | B   |   |
| <b>Intersection Summary</b>       |   |   |   |   |   |   |  |   |   |   |   |   |
| HCM 2000 Control Delay            |   |   | 20.3  |   |   |   | HCM 2000 Level of Service  |   |   | C   |   |   |
| HCM 2000 Volume to Capacity ratio |   |   | 0.49  |   |   |   |  |   |   |   |   |   |
| Actuated Cycle Length (s)         |   |   | 64.5  |   |   |   | Sum of lost time (s)   |   | 12.3  |   |   |   |
| Intersection Capacity Utilization |   |   | 50.4%   |   |   |   | ICU Level of Service   |   | A   |   |   |   |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis  
 14: Marlborough Ave S/Alley & Orange Ave

Existing plus Project AM Peak Hour  
 04/24/2017

|                        |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement               | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations    |   | ↕   |   |   | ↕   |   |  | ↕   |   |   | ↕   |   |
| Traffic Volume (vph)   | 1   | 290   | 55  | 71  | 619   | 0   | 117  | 1   | 69  | 0   | 2   | 3   |
| Future Volume (vph)    | 1   | 290   | 55  | 71  | 619   | 0   | 117  | 1   | 69  | 0   | 2   | 3   |
| Ideal Flow (vphpl)     | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900   | 1900  | 1900  | 1900  | 1900  | 1900  |
| Total Lost time (s)    |   | 4.9   |   |   | 4.9   |   |  | 4.9   |   |   | 4.9   |   |
| Lane Util. Factor      |   | 1.00  |   |   | 1.00  |   |  | 1.00  |   |   | 1.00  |   |
| Flt                    |   | 0.98  |   |   | 1.00  |   |  | 0.95  |   |   | 0.92  |   |
| Flt Protected          |   | 1.00  |   |   | 0.99  |   |  | 0.97  |   |   | 1.00  |   |
| Satd. Flow (prot)      |   | 1823  |   |   | 1853  |   |  | 1716  |   |   | 1712  |   |
| Flt Permitted          |   | 1.00  |   |   | 0.92  |   |  | 0.81  |   |   | 1.00  |   |
| Satd. Flow (perm)      |   | 1821  |   |   | 1715  |   |  | 1428  |   |   | 1712  |   |
| Peak-hour factor, PHF  | 0.87  | 0.87  | 0.87  | 0.87  | 0.87  | 0.87  | 0.87   | 0.87  | 0.87  | 0.87  | 0.87  | 0.87  |
| Adj. Flow (vph)        | 1   | 333   | 63  | 82  | 711   | 0   | 134  | 1   | 79  | 0   | 2   | 3   |
| RTOR Reduction (vph)   | 0   | 5   | 0   | 0   | 0   | 0   | 0  | 22  | 0   | 0   | 2   | 0   |
| Lane Group Flow (vph)  | 0   | 392   | 0   | 0   | 793   | 0   | 0  | 192   | 0   | 0   | 3   | 0   |
| Turn Type              | Perm  | NA  |   | Perm  | NA  |   | Perm   | NA  |   |   | NA  |   |
| Protected Phases       |   | 2   |   |   | 6   |   |  | 8   |   |   | 4   |   |
| Permitted Phases       | 2   |   |   | 6   |   |   | 8  |   |   | 4   |   |   |
| Actuated Green, G (s)  |   | 41.2  |   |   | 41.2  |   |  | 15.4  |   |   | 15.4  |   |
| Effective Green, g (s) |   | 41.2  |   |   | 41.2  |   |  | 15.4  |   |   | 15.4  |   |
| Actuated g/C Ratio     |   | 0.62  |   |   | 0.62  |   |  | 0.23  |   |   | 0.23  |   |
| Clearance Time (s)     |   | 4.9   |   |   | 4.9   |   |  | 4.9   |   |   | 4.9   |   |
| Vehicle Extension (s)  |   | 2.2   |   |   | 2.2   |   |  | 2.0   |   |   | 2.0   |   |
| Lane Grp Cap (vph)     |   | 1129  |   |   | 1064  |   |  | 331   |   |   | 397   |   |
| v/s Ratio Prot         |   |   |   |   |   |   |  |   |   |   | 0.00  |   |
| v/s Ratio Perm         |   | 0.22  |   |   | c0.46   |   |  | c0.13   |   |   |   |   |
| v/c Ratio              |   | 0.35  |   |   | 0.75  |   |  | 0.58  |   |   | 0.01  |   |
| Uniform Delay, d1      |   | 6.1   |   |   | 8.9   |   |  | 22.6  |   |   | 19.6  |   |
| Progression Factor     |   | 1.00  |   |   | 1.00  |   |  | 1.00  |   |   | 1.00  |   |
| Incremental Delay, d2  |   | 0.1   |   |   | 2.6   |   |  | 1.5   |   |   | 0.0   |   |
| Delay (s)              |   | 6.2   |   |   | 11.5  |   |  | 24.2  |   |   | 19.6  |   |
| Level of Service       |   | A   |   |   | B   |   |  | C   |   |   | B   |   |
| Approach Delay (s)     |   | 6.2   |   |   | 11.5  |   |  | 24.2  |   |   | 19.6  |   |
| Approach LOS           |   | A   |   |   | B   |   |  | C   |   |   | B   |   |

















| Intersection Summary              |       |                           |     |
|-----------------------------------|-------|---------------------------|-----|
| HCM 2000 Control Delay            | 12.0  | HCM 2000 Level of Service | B   |
| HCM 2000 Volume to Capacity ratio | 0.70  |                           |     |
| Actuated Cycle Length (s)         | 66.4  | Sum of lost time (s)      | 9.8 |
| Intersection Capacity Utilization | 84.8% | ICU Level of Service      | E   |
| Analysis Period (min)             | 15    |                           |     |

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis  
15: 43rd St & Orange Ave

Existing plus Project AM Peak Hour

04/24/2017




















|                                   |  |  |  |  |  |  |  |  |  |  |   |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|--|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT  | SBR   |
| Lane Configurations               |   |  |   |   |  |   |  |   |   |   | <br> |   |
| Traffic Volume (vph)              | 0   | 322   | 37  | 18  | 501   | 0   | 0  | 0   | 0   | 48  | 253  | 76  |
| Future Volume (vph)               | 0   | 322   | 37  | 18  | 501   | 0   | 0  | 0   | 0   | 48  | 253  | 76  |
| Ideal Flow (vphpl)                | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900   | 1900  | 1900  | 1900  | 1900   | 1900  |
| Total Lost time (s)               |   | 4.9   |   |   | 4.9   |   |  |   |   |   | 4.9  |   |
| Lane Util. Factor                 |   | 1.00  |   |   | 1.00  |   |  |   |   |   | 0.95   |   |
| Frbp, ped/bikes                   |   | 0.99  |   |   | 1.00  |   |  |   |   |   | 0.98   |   |
| Flpb, ped/bikes                   |   | 1.00  |   |   | 1.00  |   |  |   |   |   | 0.99   |   |
| Frt                               |   | 0.99  |   |   | 1.00  |   |  |   |   |   | 0.97   |   |
| Flt Protected                     |   | 1.00  |   |   | 1.00  |   |  |   |   |   | 0.99   |   |
| Satd. Flow (prot)                 |   | 1821  |   |   | 1857  |   |  |   |   |   | 3323   |   |
| Flt Permitted                     |   | 1.00  |   |   | 0.98  |   |  |   |   |   | 0.99   |   |
| Satd. Flow (perm)                 |   | 1821  |   |   | 1829  |   |  |   |   |   | 3323   |   |
| Peak-hour factor, PHF             | 0.94  | 0.94  | 0.94  | 0.94  | 0.94  | 0.94  | 0.94   | 0.94  | 0.94  | 0.94  | 0.94   | 0.94  |
| Adj. Flow (vph)                   | 0   | 343   | 39  | 19  | 533   | 0   | 0  | 0   | 0   | 51  | 269  | 81  |
| RTOR Reduction (vph)              | 0   | 5   | 0   | 0   | 0   | 0   | 0  | 0   | 0   | 0   | 35   | 0   |
| Lane Group Flow (vph)             | 0   | 377   | 0   | 0   | 552   | 0   | 0  | 0   | 0   | 0   | 366  | 0   |
| Confl. Peds. (#/hr)               | 43  |   | 62  | 62  |   | 43  | 22   |   |   | 31  | 31   | 22  |
| Confl. Bikes (#/hr)               |   |   | 13  |   |   | 3   |  |   |   |   |  | 3   |
| Turn Type                         |   | NA  |   | Perm  | NA  |   |  |   |   |   | Perm   | NA  |
| Protected Phases                  |   | 2   |   |   | 6   |   |  |   |   |   |  | 4   |
| Permitted Phases                  |   |   |   | 6   |   |   |  |   |   | 4   |  |   |
| Actuated Green, G (s)             |   | 44.3  |   |   | 44.3  |   |  |   |   |   |  | 15.9  |
| Effective Green, g (s)            |   | 44.3  |   |   | 44.3  |   |  |   |   |   |  | 15.9  |
| Actuated g/C Ratio                |   | 0.63  |   |   | 0.63  |   |  |   |   |   |  | 0.23  |
| Clearance Time (s)                |   | 4.9   |   |   | 4.9   |   |  |   |   |   |  | 4.9   |
| Vehicle Extension (s)             |   | 5.5   |   |   | 5.5   |   |  |   |   |   |  | 5.1   |
| Lane Grp Cap (vph)                |   | 1152  |   |   | 1157  |   |  |   |   |   |  | 754   |
| v/s Ratio Prot                    |   | 0.21  |   |   |   |   |  |   |   |   |  |   |
| v/s Ratio Perm                    |   |   |   |   | c0.30   |   |  |   |   |   |  | 0.11  |
| v/c Ratio                         |   | 0.33  |   |   | 0.48  |   |  |   |   |   |  | 0.49  |
| Uniform Delay, d1                 |   | 5.9   |   |   | 6.8   |   |  |   |   |   |  | 23.5  |
| Progression Factor                |   | 1.00  |   |   | 0.84  |   |  |   |   |   |  | 1.00  |
| Incremental Delay, d2             |   | 0.8   |   |   | 1.2   |   |  |   |   |   |  | 1.1   |
| Delay (s)                         |   | 6.7   |   |   | 6.8   |   |  |   |   |   |  | 24.6  |
| Level of Service                  |   | A   |   |   | A   |   |  |   |   |   |  | C   |
| Approach Delay (s)                |   | 6.7   |   |   | 6.8   |   |  | 0.0   |   |   |  | 24.6  |
| Approach LOS                      |   | A   |   |   | A   |   |  | A   |   |   |  | C   |
| <b>Intersection Summary</b>       |   |   |   |   |   |   |  |   |   |   |  |   |
| HCM 2000 Control Delay            |   |   | 12.1  |   |   | HCM 2000 Level of Service   |  |   |   | B   |  |   |
| HCM 2000 Volume to Capacity ratio |   |   | 0.48  |   |   |   |  |   |   |   |  |   |
| Actuated Cycle Length (s)         |   |   | 70.0  |   |   | Sum of lost time (s)  |  |   |   | 9.8   |  |   |
| Intersection Capacity Utilization |   |   | 63.7%   |   |   | ICU Level of Service  |  |   |   | B   |  |   |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |  |   |

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis  
16: Fairmount Ave & Orange Ave

Existing plus Project AM Peak Hour

04/24/2017













|                                   |  |  |  |  |  |  |   |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL   | NBT   | NBR   | SBL   | SBT   | SBR   |   |
| Lane Configurations               |   |  |   |   |  |   |  |  |   |  |  |   |   |
| Traffic Volume (vph)              | 70  | 258   | 57  | 43  | 356   | 137   | 174   | 822   | 58  | 9   | 57  | 10  |   |
| Future Volume (vph)               | 70  | 258   | 57  | 43  | 356   | 137   | 174   | 822   | 58  | 9   | 57  | 10  |   |
| Ideal Flow (vphpl)                | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  |   |
| Total Lost time (s)               |   | 4.9   |   |   | 4.9   |   | 4.9   | 4.9   |   | 4.9   | 4.9   |   |   |
| Lane Util. Factor                 |   | 1.00  |   |   | 1.00  |   | 1.00  | 0.95  |   | 1.00  | 1.00  |   |   |
| Frb, ped/bikes                    |   | 0.97  |   |   | 0.98  |   | 1.00  | 0.99  |   | 1.00  | 0.99  |   |   |
| Flpb, ped/bikes                   |   | 1.00  |   |   | 0.99  |   | 0.94  | 1.00  |   | 0.98  | 1.00  |   |   |
| Frt                               |   | 0.98  |   |   | 0.97  |   | 1.00  | 0.99  |   | 1.00  | 0.98  |   |   |
| Flt Protected                     |   | 0.99  |   |   | 1.00  |   | 0.95  | 1.00  |   | 0.95  | 1.00  |   |   |
| Satd. Flow (prot)                 |   | 1753  |   |   | 1742  |   | 1660  | 3476  |   | 1735  | 1792  |   |   |
| Flt Permitted                     |   | 0.84  |   |   | 0.95  |   | 0.71  | 1.00  |   | 0.17  | 1.00  |   |   |
| Satd. Flow (perm)                 |   | 1494  |   |   | 1654  |   | 1242  | 3476  |   | 310   | 1792  |   |   |
| Peak-hour factor, PHF             | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  |   |
| Adj. Flow (vph)                   | 74  | 272   | 60  | 45  | 375   | 144   | 183   | 865   | 61  | 9   | 60  | 11  |   |
| RTOR Reduction (vph)              | 0   | 9   | 0   | 0   | 11  | 0   | 0   | 7   | 0   | 0   | 7   | 0   |   |
| Lane Group Flow (vph)             | 0   | 397   | 0   | 0   | 553   | 0   | 183   | 919   | 0   | 9   | 64  | 0   |   |
| Confl. Peds. (#/hr)               | 63  |   | 84  | 84  |   | 63  | 39  |   | 58  | 58  |   | 39  |   |
| Confl. Bikes (#/hr)               |   |   | 4   |   |   | 9   |   |   | 5   |   |   | 9   |   |
| Turn Type                         | Perm  | NA  |   | Perm  | NA  |   | Perm  | NA  |   | Perm  | NA  |   |   |
| Protected Phases                  |   | 2   |   |   | 6   |   |   | 8   |   |   |   | 8   |   |
| Permitted Phases                  | 2   |   |   | 6   |   |   | 8   |   |   | 8   |   |   |   |
| Actuated Green, G (s)             |   | 36.6  |   |   | 36.6  |   | 23.6  | 23.6  |   | 23.6  | 23.6  |   |   |
| Effective Green, g (s)            |   | 36.6  |   |   | 36.6  |   | 23.6  | 23.6  |   | 23.6  | 23.6  |   |   |
| Actuated g/C Ratio                |   | 0.52  |   |   | 0.52  |   | 0.34  | 0.34  |   | 0.34  | 0.34  |   |   |
| Clearance Time (s)                |   | 4.9   |   |   | 4.9   |   | 4.9   | 4.9   |   | 4.9   | 4.9   |   |   |
| Vehicle Extension (s)             |   | 5.5   |   |   | 5.5   |   | 6.3   | 6.3   |   | 6.3   | 6.3   |   |   |
| Lane Grp Cap (vph)                |   | 781   |   |   | 864   |   | 418   | 1171  |   | 104   | 604   |   |   |
| v/s Ratio Prot                    |   |   |   |   |   |   |   | c0.26   |   |   |   | 0.04  |   |
| v/s Ratio Perm                    |   | 0.27  |   |   | c0.33   |   | 0.15  |   |   | 0.03  |   |   |   |
| v/c Ratio                         |   | 0.51  |   |   | 0.64  |   | 0.44  | 0.78  |   | 0.09  | 0.11  |   |   |
| Uniform Delay, d1                 |   | 10.9  |   |   | 12.0  |   | 18.0  | 20.9  |   | 15.8  | 15.9  |   |   |
| Progression Factor                |   | 0.63  |   |   | 1.00  |   | 1.00  | 1.00  |   | 1.00  | 1.00  |   |   |
| Incremental Delay, d2             |   | 2.3   |   |   | 3.6   |   | 2.2   | 4.5   |   | 1.1   | 0.2   |   |   |
| Delay (s)                         |   | 9.1   |   |   | 15.6  |   | 20.3  | 25.4  |   | 16.9  | 16.2  |   |   |
| Level of Service                  |   | A   |   |   | B   |   | C   | C   |   | B   | B   |   |   |
| Approach Delay (s)                |   | 9.1   |   |   | 15.6  |   |   | 24.5  |   |   | 16.3  |   |   |
| Approach LOS                      |   | A   |   |   | B   |   |   | C   |   |   | B   |   |   |
| <b>Intersection Summary</b>       |   |   |   |   |   |   |   |   |   |   |   |   |   |
| HCM 2000 Control Delay            |   |   | 19.0  |   |   |   | HCM 2000 Level of Service   |   |   | B   |   |   |   |
| HCM 2000 Volume to Capacity ratio |   |   | 0.70  |   |   |   |   |   |   |   |   |   |   |
| Actuated Cycle Length (s)         |   |   | 70.0  |   |   |   | Sum of lost time (s)  |   |   | 9.8   |   |   |   |
| Intersection Capacity Utilization |   |   | 71.1%   |   |   |   | ICU Level of Service  |   |   | C   |   |   |   |
| Analysis Period (min)             |   |   | 15  |   |   |   |   |   |   |   |   |   |   |

c Critical Lane Group



















HCM Unsignalized Intersection Capacity Analysis  
 17: Chamoune Ave & Orange Ave

Existing plus Project AM Peak Hour  
 04/24/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |   | ↕   |   |   | ↕   |   |  | ↕   |   |   | ↕   |   |
| Sign Control                      |   | Stop  |   |   | Stop  |   |  | Stop  |   |   | Stop  |   |
| Traffic Volume (vph)              | 30  | 164   | 22  | 43  | 327   | 57  | 26   | 170   | 28  | 23  | 98  | 24  |
| Future Volume (vph)               | 30  | 164   | 22  | 43  | 327   | 57  | 26   | 170   | 28  | 23  | 98  | 24  |
| Peak Hour Factor                  | 0.87  | 0.87  | 0.87  | 0.87  | 0.87  | 0.87  | 0.87   | 0.87  | 0.87  | 0.87  | 0.87  | 0.87  |
| Hourly flow rate (vph)            | 34  | 189   | 25  | 49  | 376   | 66  | 30   | 195   | 32  | 26  | 113   | 28  |
| Direction, Lane #                 | EB 1  | WB 1  | NB 1  | SB 1  |   |   |  |   |   |   |   |   |
| Volume Total (vph)                | 248   | 491   | 257   | 167   |   |   |  |   |   |   |   |   |
| Volume Left (vph)                 | 34  | 49  | 30  | 26  |   |   |  |   |   |   |   |   |
| Volume Right (vph)                | 25  | 66  | 32  | 28  |   |   |  |   |   |   |   |   |
| Hadj (s)                          | 0.00  | -0.03   | -0.02   | -0.04   |   |   |  |   |   |   |   |   |
| Departure Headway (s)             | 6.4   | 5.9   | 6.6   | 6.8   |   |   |  |   |   |   |   |   |
| Degree Utilization, x             | 0.44  | 0.80  | 0.47  | 0.32  |   |   |  |   |   |   |   |   |
| Capacity (veh/h)                  | 511   | 598   | 490   | 466   |   |   |  |   |   |   |   |   |
| Control Delay (s)                 | 14.2  | 28.0  | 15.2  | 12.9  |   |   |  |   |   |   |   |   |
| Approach Delay (s)                | 14.2  | 28.0  | 15.2  | 12.9  |   |   |  |   |   |   |   |   |
| Approach LOS                      | B   | D   | C   | B   |   |   |  |   |   |   |   |   |
| Intersection Summary              |   |   |   |   |   |   |  |   |   |   |   |   |
| Delay                             |   |   | 20.1  |   |   |   |  |   |   |   |   |   |
| Level of Service                  |   |   | C   |   |   |   |  |   |   |   |   |   |
| Intersection Capacity Utilization |   |   | 51.4%   |   | ICU Level of Service  |   |  |   | A   |   |   |   |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |

HCM Signalized Intersection Capacity Analysis  
18: Euclid Ave & Orange Ave


















Existing plus Project AM Peak Hour  
04/24/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |     |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|-----|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |     |
| Lane Configurations               |   |  |   |   |  |   |  |  |   |   |  |   |     |
| Traffic Volume (vph)              | 47  | 131   | 66  | 67  | 199   | 66  | 77   | 326   | 43  | 23  | 151   | 55  |     |
| Future Volume (vph)               | 47  | 131   | 66  | 67  | 199   | 66  | 77   | 326   | 43  | 23  | 151   | 55  |     |
| Ideal Flow (vphpl)                | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900   | 1900  | 1900  | 1900  | 1900  | 1900  |     |
| Total Lost time (s)               |   | 4.9   |   |   | 4.9   |   |  | 4.9   |   |   | 4.9   |   |     |
| Lane Util. Factor                 |   | 1.00  |   |   | 1.00  |   |  | 1.00  |   |   | 1.00  |   |     |
| Flt                               |   | 0.96  |   |   | 0.97  |   |  | 0.99  |   |   | 0.97  |   |     |
| Flt Protected                     |   | 0.99  |   |   | 0.99  |   |  | 0.99  |   |   | 1.00  |   |     |
| Satd. Flow (prot)                 |   | 1777  |   |   | 1794  |   |  | 1823  |   |   | 1793  |   |     |
| Flt Permitted                     |   | 0.89  |   |   | 0.89  |   |  | 0.90  |   |   | 0.94  |   |     |
| Satd. Flow (perm)                 |   | 1602  |   |   | 1616  |   |  | 1655  |   |   | 1685  |   |     |
| Peak-hour factor, PHF             | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92   | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  |     |
| Adj. Flow (vph)                   | 51  | 142   | 72  | 73  | 216   | 72  | 84   | 354   | 47  | 25  | 164   | 60  |     |
| RTOR Reduction (vph)              | 0   | 13  | 0   | 0   | 9   | 0   | 0  | 4   | 0   | 0   | 12  | 0   |     |
| Lane Group Flow (vph)             | 0   | 252   | 0   | 0   | 352   | 0   | 0  | 481   | 0   | 0   | 237   | 0   |     |
| Turn Type                         | Perm  | NA  |   | Perm  | NA  |   | Perm   | NA  |   | Perm  | NA  |   |     |
| Protected Phases                  |   | 2   |   |   | 6   |   |  | 8   |   |   | 4   |   |     |
| Permitted Phases                  | 2   |   |   | 6   |   |   | 8  |   |   | 4   |   |   |     |
| Actuated Green, G (s)             |   | 18.0  |   |   | 18.0  |   |  | 22.5  |   |   | 22.5  |   |     |
| Effective Green, g (s)            |   | 18.0  |   |   | 18.0  |   |  | 22.5  |   |   | 22.5  |   |     |
| Actuated g/C Ratio                |   | 0.36  |   |   | 0.36  |   |  | 0.45  |   |   | 0.45  |   |     |
| Clearance Time (s)                |   | 4.9   |   |   | 4.9   |   |  | 4.9   |   |   | 4.9   |   |     |
| Vehicle Extension (s)             |   | 2.8   |   |   | 2.8   |   |  | 3.0   |   |   | 3.0   |   |     |
| Lane Grp Cap (vph)                |   | 573   |   |   | 578   |   |  | 740   |   |   | 753   |   |     |
| v/s Ratio Prot                    |   |   |   |   |   |   |  |   |   |   |   |   |     |
| v/s Ratio Perm                    |   | 0.16  |   |   | c0.22   |   |  | c0.29   |   |   | 0.14  |   |     |
| v/c Ratio                         |   | 0.44  |   |   | 0.61  |   |  | 0.65  |   |   | 0.32  |   |     |
| Uniform Delay, d1                 |   | 12.3  |   |   | 13.3  |   |  | 10.8  |   |   | 8.9   |   |     |
| Progression Factor                |   | 1.00  |   |   | 1.00  |   |  | 1.00  |   |   | 1.00  |   |     |
| Incremental Delay, d2             |   | 0.5   |   |   | 1.7   |   |  | 2.1   |   |   | 0.2   |   |     |
| Delay (s)                         |   | 12.8  |   |   | 15.0  |   |  | 12.9  |   |   | 9.2   |   |     |
| Level of Service                  |   | B   |   |   | B   |   |  | B   |   |   | A   |   |     |
| Approach Delay (s)                |   | 12.8  |   |   | 15.0  |   |  | 12.9  |   |   | 9.2   |   |     |
| Approach LOS                      |   | B   |   |   | B   |   |  | B   |   |   | A   |   |     |
| <b>Intersection Summary</b>       |   |   |   |   |   |   |  |   |   |   |   |   |     |
| HCM 2000 Control Delay            |   |   | 12.7  |   |   |   |  |   |   |   |   | HCM 2000 Level of Service   | B   |
| HCM 2000 Volume to Capacity ratio |   |   | 0.63  |   |   |   |  |   |   |   |   |   |     |
| Actuated Cycle Length (s)         |   |   | 50.3  |   |   |   |  |   |   |   |   | Sum of lost time (s)  | 9.8 |
| Intersection Capacity Utilization |   |   | 71.5%   |   |   |   |  |   |   |   |   | ICU Level of Service  | C   |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |     |

c Critical Lane Group













HCM Unsignalized Intersection Capacity Analysis  
 19: Estrella Ave & Orange Ave

Existing plus Project AM Peak Hour  
 04/24/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |   |  |   |  |  |   |  |  |   |   |  |   |
| Sign Control                      |   | Stop  |   |   | Stop  |   |  | Stop  |   |   | Stop  |   |
| Traffic Volume (vph)              | 28  | 167   | 9   | 21  | 273   | 3   | 25   | 34  | 29  | 14  | 34  | 29  |
| Future Volume (vph)               | 28  | 167   | 9   | 21  | 273   | 3   | 25   | 34  | 29  | 14  | 34  | 29  |
| Peak Hour Factor                  | 0.90  | 0.90  | 0.90  | 0.90  | 0.90  | 0.90  | 0.90   | 0.90  | 0.90  | 0.90  | 0.90  | 0.90  |
| Hourly flow rate (vph)            | 31  | 186   | 10  | 23  | 303   | 3   | 28   | 38  | 32  | 16  | 38  | 32  |
| Direction, Lane #                 | EB 1  | WB 1  | WB 2  | NB 1  | SB 1  |   |  |   |   |   |   |   |
| Volume Total (vph)                | 227   | 23  | 306   | 98  | 86  |   |  |   |   |   |   |   |
| Volume Left (vph)                 | 31  | 23  | 0   | 28  | 16  |   |  |   |   |   |   |   |
| Volume Right (vph)                | 10  | 0   | 3   | 32  | 32  |   |  |   |   |   |   |   |
| Hadj (s)                          | 0.03  | 0.53  | 0.03  | -0.10   | -0.15   |   |  |   |   |   |   |   |
| Departure Headway (s)             | 5.0   | 5.8   | 5.3   | 5.3   | 5.3   |   |  |   |   |   |   |   |
| Degree Utilization, x             | 0.31  | 0.04  | 0.45  | 0.14  | 0.13  |   |  |   |   |   |   |   |
| Capacity (veh/h)                  | 683   | 598   | 661   | 595   | 602   |   |  |   |   |   |   |   |
| Control Delay (s)                 | 10.2  | 7.8   | 11.3  | 9.2   | 9.1   |   |  |   |   |   |   |   |
| Approach Delay (s)                | 10.2  | 11.0  |   | 9.2   | 9.1   |   |  |   |   |   |   |   |
| Approach LOS                      | B   | B   |   | A   | A   |   |  |   |   |   |   |   |
| Intersection Summary              |   |   |   |   |   |   |  |   |   |   |   |   |
| Delay                             |   |   | 10.3  |   |   |   |  |   |   |   |   |   |
| Level of Service                  |   |   | B   |   |   |   |  |   |   |   |   |   |
| Intersection Capacity Utilization |   |   | 51.2%   | ICU Level of Service  | A   |   |  |   |   |   |   |   |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |

HCM Unsignalized Intersection Capacity Analysis  
 1: Florida St & Howard Ave

Existing plus Project PM Peak Hour  
 04/24/2017

|                        |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement               | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations    |   | ↕   |   |   | ↕   |   |  | ↕   |   |   | ↕   |   |
| Sign Control           |   | Stop  |   |   | Stop  |   |  | Stop  |   |   | Stop  |   |
| Traffic Volume (vph)   | 29  | 201   | 51  | 24  | 116   | 22  | 18   | 146   | 17  | 14  | 160   | 62  |
| Future Volume (vph)    | 29  | 201   | 51  | 24  | 116   | 22  | 18   | 146   | 17  | 14  | 160   | 62  |
| Peak Hour Factor       | 0.90  | 0.90  | 0.90  | 0.90  | 0.90  | 0.90  | 0.90   | 0.90  | 0.90  | 0.90  | 0.90  | 0.90  |
| Hourly flow rate (vph) | 32  | 223   | 57  | 27  | 129   | 24  | 20   | 162   | 19  | 16  | 178   | 69  |
| Direction, Lane #      | EB 1  | WB 1  | NB 1  | SB 1  |   |   |  |   |   |   |   |   |
| Volume Total (vph)     | 312   | 180   | 201   | 263   |   |   |  |   |   |   |   |   |
| Volume Left (vph)      | 32  | 27  | 20  | 16  |   |   |  |   |   |   |   |   |
| Volume Right (vph)     | 57  | 24  | 19  | 69  |   |   |  |   |   |   |   |   |
| Hadj (s)               | -0.06   | -0.02   | 0.00  | -0.11   |   |   |  |   |   |   |   |   |
| Departure Headway (s)  | 5.5   | 5.8   | 5.8   | 5.6   |   |   |  |   |   |   |   |   |
| Degree Utilization, x  | 0.48  | 0.29  | 0.32  | 0.41  |   |   |  |   |   |   |   |   |
| Capacity (veh/h)       | 606   | 553   | 553   | 588   |   |   |  |   |   |   |   |   |
| Control Delay (s)      | 13.5  | 11.2  | 11.6  | 12.4  |   |   |  |   |   |   |   |   |
| Approach Delay (s)     | 13.5  | 11.2  | 11.6  | 12.4  |   |   |  |   |   |   |   |   |
| Approach LOS           | B   | B   | B   | B   |   |   |  |   |   |   |   |   |

Intersection Summary




















|                                   |       |                      |   |
|-----------------------------------|-------|----------------------|---|
| Delay                             | 12.4  |                      |   |
| Level of Service                  | B     |                      |   |
| Intersection Capacity Utilization | 41.7% | ICU Level of Service | A |
| Analysis Period (min)             | 15    |                      |   |

| Intersection                |       |       |       |       |
|-----------------------------|-------|-------|-------|-------|
| Intersection Delay, s/veh   | 5.3   |       |       |       |
| Intersection LOS            | A     |       |       |       |
| Approach                    | EB    | WB    | NB    | SB    |
| Entry Lanes                 | 1     | 1     | 1     | 1     |
| Conflicting Circle Lanes    | 1     | 1     | 1     | 1     |
| Adj Approach Flow, veh/h    | 239   | 133   | 86    | 108   |
| Demand Flow Rate, veh/h     | 244   | 135   | 87    | 109   |
| Vehicles Circulating, veh/h | 102   | 91    | 229   | 145   |
| Vehicles Exiting, veh/h     | 152   | 225   | 117   | 81    |
| Follow-Up Headway, s        | 3.186 | 3.186 | 3.186 | 3.186 |
| Ped Vol Crossing Leg, #/h   | 27    | 18    | 27    | 17    |
| Ped Cap Adj                 | 0.996 | 0.998 | 0.996 | 0.998 |
| Approach Delay, s/veh       | 6.0   | 4.7   | 5.0   | 4.8   |
| Approach LOS                | A     | A     | A     | A     |
| Lane                        | Left  | Left  | Left  | Left  |
| Designated Moves            | LTR   | LTR   | LTR   | LTR   |
| Assumed Moves               | LTR   | LTR   | LTR   | LTR   |
| RT Channelized              |       |       |       |       |
| Lane Util                   | 1.000 | 1.000 | 1.000 | 1.000 |
| Critical Headway, s         | 5.193 | 5.193 | 5.193 | 5.193 |
| Entry Flow, veh/h           | 244   | 135   | 87    | 109   |
| Cap Entry Lane, veh/h       | 1020  | 1032  | 899   | 977   |
| Entry HV Adj Factor         | 0.980 | 0.983 | 0.987 | 0.986 |
| Flow Entry, veh/h           | 239   | 133   | 86    | 108   |
| Cap Entry, veh/h            | 996   | 1012  | 884   | 962   |
| V/C Ratio                   | 0.240 | 0.131 | 0.097 | 0.112 |
| Control Delay, s/veh        | 6.0   | 4.7   | 5.0   | 4.8   |
| LOS                         | A     | A     | A     | A     |
| 95th %tile Queue, veh       | 1     | 0     | 0     | 0     |

HCM Signalized Intersection Capacity Analysis  
3: Texas St & Howard Ave

Existing plus Project PM Peak Hour

04/24/2017

|                        |  |  |  |  |  |  |   |  |  |  |  |  |  |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement               | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL   | NBT   | NBR   | SBL   | SBT   | SBR   |   |
| Lane Configurations    |   |  |   |   |  |   |  |  |   |  |  |   |   |
| Traffic Volume (vph)   | 14  | 158   | 15  | 18  | 100   | 37  | 4   | 229   | 14  | 63  | 397   | 32  |   |
| Future Volume (vph)    | 14  | 158   | 15  | 18  | 100   | 37  | 4   | 229   | 14  | 63  | 397   | 32  |   |
| Ideal Flow (vphpl)     | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  |   |
| Total Lost time (s)    |   | 4.9   |   |   | 4.9   |   | 4.9   | 4.9   |   | 4.9   | 4.9   |   |   |
| Lane Util. Factor      |   | 1.00  |   |   | 1.00  |   | 1.00  | 1.00  |   | 1.00  | 1.00  |   |   |
| Frb, ped/bikes         |   | 1.00  |   |   | 0.99  |   | 1.00  | 1.00  |   | 1.00  | 1.00  |   |   |
| Flpb, ped/bikes        |   | 1.00  |   |   | 1.00  |   | 0.99  | 1.00  |   | 0.98  | 1.00  |   |   |
| Frt                    |   | 0.99  |   |   | 0.97  |   | 1.00  | 0.99  |   | 1.00  | 0.99  |   |   |
| Flt Protected          |   | 1.00  |   |   | 0.99  |   | 0.95  | 1.00  |   | 0.95  | 1.00  |   |   |
| Satd. Flow (prot)      |   | 1830  |   |   | 1776  |   | 1753  | 1841  |   | 1731  | 1836  |   |   |
| Flt Permitted          |   | 0.97  |   |   | 0.94  |   | 0.47  | 1.00  |   | 0.60  | 1.00  |   |   |
| Satd. Flow (perm)      |   | 1790  |   |   | 1674  |   | 874   | 1841  |   | 1092  | 1836  |   |   |
| Peak-hour factor, PHF  | 0.94  | 0.94  | 0.94  | 0.94  | 0.94  | 0.94  | 0.94  | 0.94  | 0.94  | 0.94  | 0.94  | 0.94  |   |
| Adj. Flow (vph)        | 15  | 168   | 16  | 19  | 106   | 39  | 4   | 244   | 15  | 67  | 422   | 34  |   |
| RTOR Reduction (vph)   | 0   | 5   | 0   | 0   | 18  | 0   | 0   | 2   | 0   | 0   | 3   | 0   |   |
| Lane Group Flow (vph)  | 0   | 194   | 0   | 0   | 146   | 0   | 4   | 257   | 0   | 67  | 453   | 0   |   |
| Confl. Peds. (#/hr)    | 6   |   |   |   |   |   | 6   | 10  |   | 16  | 16  | 10  |   |
| Confl. Bikes (#/hr)    |   |   | 5   |   |   | 3   |   |   |   |   |   | 3   |   |
| Turn Type              | Perm  | NA  |   | Perm  | NA  |   | Perm  | NA  |   | Perm  | NA  |   |   |
| Protected Phases       |   | 2   |   |   | 2   |   |   | 4   |   |   |   | 4   |   |
| Permitted Phases       | 2   |   |   | 2   |   |   | 4   |   |   | 4   |   |   |   |
| Actuated Green, G (s)  |   | 12.7  |   |   | 12.7  |   | 51.5  | 51.5  |   | 51.5  | 51.5  |   |   |
| Effective Green, g (s) |   | 12.7  |   |   | 12.7  |   | 51.5  | 51.5  |   | 51.5  | 51.5  |   |   |
| Actuated g/C Ratio     |   | 0.17  |   |   | 0.17  |   | 0.70  | 0.70  |   | 0.70  | 0.70  |   |   |
| Clearance Time (s)     |   | 4.9   |   |   | 4.9   |   | 4.9   | 4.9   |   | 4.9   | 4.9   |   |   |
| Vehicle Extension (s)  |   | 2.0   |   |   | 2.0   |   | 2.0   | 2.0   |   | 2.0   | 2.0   |   |   |
| Lane Grp Cap (vph)     |   | 307   |   |   | 287   |   | 608   | 1281  |   | 759   | 1277  |   |   |
| v/s Ratio Prot         |   |   |   |   |   |   |   | 0.14  |   |   |   | c0.25   |   |
| v/s Ratio Perm         |   | c0.11   |   |   | 0.09  |   | 0.00  |   |   | 0.06  |   |   |   |
| v/c Ratio              |   | 0.63  |   |   | 0.51  |   | 0.01  | 0.20  |   | 0.09  | 0.35  |   |   |
| Uniform Delay, d1      |   | 28.5  |   |   | 27.8  |   | 3.4   | 4.0   |   | 3.6   | 4.5   |   |   |
| Progression Factor     |   | 1.00  |   |   | 1.00  |   | 1.00  | 1.00  |   | 1.00  | 1.00  |   |   |
| Incremental Delay, d2  |   | 3.1   |   |   | 0.5   |   | 0.0   | 0.4   |   | 0.2   | 0.8   |   |   |
| Delay (s)              |   | 31.6  |   |   | 28.3  |   | 3.5   | 4.3   |   | 3.9   | 5.3   |   |   |
| Level of Service       |   | C   |   |   | C   |   | A   | A   |   | A   | A   |   |   |
| Approach Delay (s)     |   | 31.6  |   |   | 28.3  |   |   | 4.3   |   |   | 5.1   |   |   |
| Approach LOS           |   | C   |   |   | C   |   |   | A   |   |   | A   |   |   |

Intersection Summary

|                                   |       |                           |     |
|-----------------------------------|-------|---------------------------|-----|
| HCM 2000 Control Delay            | 12.8  | HCM 2000 Level of Service | B   |
| HCM 2000 Volume to Capacity ratio | 0.41  |                           |     |
| Actuated Cycle Length (s)         | 74.0  | Sum of lost time (s)      | 9.8 |
| Intersection Capacity Utilization | 56.9% | ICU Level of Service      | B   |
| Analysis Period (min)             | 15    |                           |     |

c Critical Lane Group



















| Intersection                |       |       |       |       |
|-----------------------------|-------|-------|-------|-------|
| Intersection Delay, s/veh   | 6.2   |       |       |       |
| Intersection LOS            | A     |       |       |       |
| Approach                    | EB    | WB    | NB    | SB    |
| Entry Lanes                 | 1     | 1     | 1     | 1     |
| Conflicting Circle Lanes    | 1     | 1     | 1     | 1     |
| Adj Approach Flow, veh/h    | 242   | 227   | 152   | 157   |
| Demand Flow Rate, veh/h     | 247   | 232   | 155   | 160   |
| Vehicles Circulating, veh/h | 183   | 119   | 276   | 194   |
| Vehicles Exiting, veh/h     | 171   | 312   | 153   | 157   |
| Follow-Up Headway, s        | 3.186 | 3.186 | 3.186 | 3.186 |
| Ped Vol Crossing Leg, #/h   | 33    | 44    | 44    | 34    |
| Ped Cap Adj                 | 0.995 | 0.994 | 0.994 | 0.995 |
| Approach Delay, s/veh       | 6.6   | 6.0   | 6.2   | 5.6   |
| Approach LOS                | A     | A     | A     | A     |
| Lane                        | Left  | Left  | Left  | Left  |
| Designated Moves            | LTR   | LTR   | LTR   | LTR   |
| Assumed Moves               | LTR   | LTR   | LTR   | LTR   |
| RT Channelized              |       |       |       |       |
| Lane Util                   | 1.000 | 1.000 | 1.000 | 1.000 |
| Critical Headway, s         | 5.193 | 5.193 | 5.193 | 5.193 |
| Entry Flow, veh/h           | 247   | 232   | 155   | 160   |
| Cap Entry Lane, veh/h       | 941   | 1003  | 857   | 931   |
| Entry HV Adj Factor         | 0.980 | 0.979 | 0.983 | 0.981 |
| Flow Entry, veh/h           | 242   | 227   | 152   | 157   |
| Cap Entry, veh/h            | 918   | 976   | 837   | 909   |
| V/C Ratio                   | 0.264 | 0.233 | 0.182 | 0.173 |
| Control Delay, s/veh        | 6.6   | 6.0   | 6.2   | 5.6   |
| LOS                         | A     | A     | A     | A     |
| 95th %tile Queue, veh       | 1     | 1     | 1     | 1     |

| Intersection                |       |       |       |       |
|-----------------------------|-------|-------|-------|-------|
| Intersection Delay, s/veh   | 7.1   |       |       |       |
| Intersection LOS            | A     |       |       |       |
| Approach                    | EB    | WB    | NB    | SB    |
| Entry Lanes                 | 1     | 1     | 1     | 1     |
| Conflicting Circle Lanes    | 1     | 1     | 1     | 1     |
| Adj Approach Flow, veh/h    | 298   | 240   | 168   | 232   |
| Demand Flow Rate, veh/h     | 303   | 245   | 171   | 236   |
| Vehicles Circulating, veh/h | 248   | 162   | 329   | 238   |
| Vehicles Exiting, veh/h     | 226   | 338   | 222   | 169   |
| Follow-Up Headway, s        | 3.186 | 3.186 | 3.186 | 3.186 |
| Ped Vol Crossing Leg, #/h   | 25    | 25    | 25    | 19    |
| Ped Cap Adj                 | 0.997 | 0.997 | 0.997 | 0.997 |
| Approach Delay, s/veh       | 8.1   | 6.4   | 6.8   | 6.9   |
| Approach LOS                | A     | A     | A     | A     |
| Lane                        | Left  | Left  | Left  | Left  |
| Designated Moves            | LTR   | LTR   | LTR   | LTR   |
| Assumed Moves               | LTR   | LTR   | LTR   | LTR   |
| RT Channelized              |       |       |       |       |
| Lane Util                   | 1.000 | 1.000 | 1.000 | 1.000 |
| Critical Headway, s         | 5.193 | 5.193 | 5.193 | 5.193 |
| Entry Flow, veh/h           | 303   | 245   | 171   | 236   |
| Cap Entry Lane, veh/h       | 882   | 961   | 813   | 891   |
| Entry HV Adj Factor         | 0.983 | 0.981 | 0.985 | 0.982 |
| Flow Entry, veh/h           | 298   | 240   | 168   | 232   |
| Cap Entry, veh/h            | 864   | 939   | 798   | 872   |
| V/C Ratio                   | 0.345 | 0.256 | 0.211 | 0.266 |
| Control Delay, s/veh        | 8.1   | 6.4   | 6.8   | 6.9   |
| LOS                         | A     | A     | A     | A     |
| 95th %tile Queue, veh       | 2     | 1     | 1     | 1     |



HCM Signalized Intersection Capacity Analysis  
6: 30th St & Howard Ave

Existing plus Project PM Peak Hour  
04/24/2017

















|                        |  |  |  |  |  |  |   |  |  |  |  |  |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement               | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL   | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations    |   |  |   |   |  |   |  |  |   |  |  |   |
| Traffic Volume (vph)   | 27  | 284   | 55  | 41  | 174   | 47  | 44  | 306   | 33  | 68  | 293   | 21  |
| Future Volume (vph)    | 27  | 284   | 55  | 41  | 174   | 47  | 44  | 306   | 33  | 68  | 293   | 21  |
| Ideal Flow (vphpl)     | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  |
| Total Lost time (s)    |   | 4.9   |   |   | 4.9   |   | 4.9   | 4.9   |   | 4.9   | 4.9   |   |
| Lane Util. Factor      |   | 1.00  |   |   | 1.00  |   | 1.00  | 1.00  |   | 1.00  | 1.00  |   |
| Frbp, ped/bikes        |   | 0.99  |   |   | 0.99  |   | 1.00  | 0.99  |   | 1.00  | 0.99  |   |
| Flpb, ped/bikes        |   | 1.00  |   |   | 1.00  |   | 0.96  | 1.00  |   | 0.94  | 1.00  |   |
| Frt                    |   | 0.98  |   |   | 0.98  |   | 1.00  | 0.99  |   | 1.00  | 0.99  |   |
| Flt Protected          |   | 1.00  |   |   | 0.99  |   | 0.95  | 1.00  |   | 0.95  | 1.00  |   |
| Satd. Flow (prot)      |   | 1790  |   |   | 1773  |   | 1698  | 1814  |   | 1663  | 1834  |   |
| Flt Permitted          |   | 0.97  |   |   | 0.85  |   | 0.56  | 1.00  |   | 0.54  | 1.00  |   |
| Satd. Flow (perm)      |   | 1737  |   |   | 1514  |   | 999   | 1814  |   | 942   | 1834  |   |
| Peak-hour factor, PHF  | 0.99  | 0.99  | 0.99  | 0.99  | 0.99  | 0.99  | 0.99  | 0.99  | 0.99  | 0.99  | 0.99  | 0.99  |
| Adj. Flow (vph)        | 27  | 287   | 56  | 41  | 176   | 47  | 44  | 309   | 33  | 69  | 296   | 21  |
| RTOR Reduction (vph)   | 0   | 11  | 0   | 0   | 13  | 0   | 0   | 6   | 0   | 0   | 4   | 0   |
| Lane Group Flow (vph)  | 0   | 359   | 0   | 0   | 251   | 0   | 44  | 336   | 0   | 69  | 313   | 0   |
| Confl. Peds. (#/hr)    | 27  |   | 38  | 38  |   | 27  | 38  |   | 59  | 59  |   | 38  |
| Confl. Bikes (#/hr)    |   |   | 5   |   |   | 6   |   |   | 8   |   |   | 6   |
| Turn Type              | Perm  | NA  |   | Perm  | NA  |   | Perm  | NA  |   | Perm  | NA  |   |
| Protected Phases       |   | 2   |   |   | 2   |   |   | 4   |   |   |   | 4   |
| Permitted Phases       | 2   |   |   | 2   |   |   | 4   |   |   | 4   |   |   |
| Actuated Green, G (s)  |   | 15.8  |   |   | 15.8  |   | 35.3  | 35.3  |   | 35.3  | 35.3  |   |
| Effective Green, g (s) |   | 15.8  |   |   | 15.8  |   | 35.3  | 35.3  |   | 35.3  | 35.3  |   |
| Actuated g/C Ratio     |   | 0.26  |   |   | 0.26  |   | 0.58  | 0.58  |   | 0.58  | 0.58  |   |
| Clearance Time (s)     |   | 4.9   |   |   | 4.9   |   | 4.9   | 4.9   |   | 4.9   | 4.9   |   |
| Vehicle Extension (s)  |   | 2.0   |   |   | 2.0   |   | 3.3   | 3.3   |   | 3.3   | 3.3   |   |
| Lane Grp Cap (vph)     |   | 450   |   |   | 392   |   | 579   | 1051  |   | 546   | 1063  |   |
| v/s Ratio Prot         |   |   |   |   |   |   |   | c0.19   |   |   |   | 0.17  |
| v/s Ratio Perm         |   | c0.21   |   |   | 0.17  |   | 0.04  |   |   | 0.07  |   |   |
| v/c Ratio              |   | 0.80  |   |   | 0.64  |   | 0.08  | 0.32  |   | 0.13  | 0.29  |   |
| Uniform Delay, d1      |   | 21.1  |   |   | 20.0  |   | 5.6   | 6.6   |   | 5.8   | 6.5   |   |
| Progression Factor     |   | 1.00  |   |   | 1.00  |   | 1.00  | 1.00  |   | 1.00  | 1.00  |   |
| Incremental Delay, d2  |   | 8.9   |   |   | 2.5   |   | 0.3   | 0.8   |   | 0.5   | 0.7   |   |
| Delay (s)              |   | 30.0  |   |   | 22.5  |   | 5.9   | 7.4   |   | 6.3   | 7.2   |   |
| Level of Service       |   | C   |   |   | C   |   | A   | A   |   | A   | A   |   |
| Approach Delay (s)     |   | 30.0  |   |   | 22.5  |   |   | 7.2   |   |   | 7.0   |   |
| Approach LOS           |   | C   |   |   | C   |   |   | A   |   |   | A   |   |

| Intersection Summary              |       |                           |     |
|-----------------------------------|-------|---------------------------|-----|
| HCM 2000 Control Delay            | 16.0  | HCM 2000 Level of Service | B   |
| HCM 2000 Volume to Capacity ratio | 0.47  |                           |     |
| Actuated Cycle Length (s)         | 60.9  | Sum of lost time (s)      | 9.8 |
| Intersection Capacity Utilization | 63.9% | ICU Level of Service      | B   |
| Analysis Period (min)             | 15    |                           |     |

c Critical Lane Group

















HCM Unsignalized Intersection Capacity Analysis  
7: Illinois St & Howard Ave

Existing plus Project PM Peak Hour  
04/24/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |   |  |   |   |  |   |  |  |   |   |  |   |
| Sign Control                      |   | Stop  |   |   | Stop  |   |  | Stop  |   |   | Stop  |   |
| Traffic Volume (vph)              | 43  | 270   | 14  | 12  | 186   | 15  | 8  | 93  | 21  | 53  | 142   | 31  |
| Future Volume (vph)               | 43  | 270   | 14  | 12  | 186   | 15  | 8  | 93  | 21  | 53  | 142   | 31  |
| Peak Hour Factor                  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95   | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  |
| Hourly flow rate (vph)            | 45  | 284   | 15  | 13  | 196   | 16  | 8  | 98  | 22  | 56  | 149   | 33  |
| Direction, Lane #                 | EB 1  | WB 1  | NB 1  | SB 1  |   |   |  |   |   |   |   |   |
| Volume Total (vph)                | 344   | 225   | 128   | 238   |   |   |  |   |   |   |   |   |
| Volume Left (vph)                 | 45  | 13  | 8   | 56  |   |   |  |   |   |   |   |   |
| Volume Right (vph)                | 15  | 16  | 22  | 33  |   |   |  |   |   |   |   |   |
| Hadj (s)                          | 0.03  | 0.00  | -0.06   | 0.00  |   |   |  |   |   |   |   |   |
| Departure Headway (s)             | 5.4   | 5.6   | 5.9   | 5.7   |   |   |  |   |   |   |   |   |
| Degree Utilization, x             | 0.52  | 0.35  | 0.21  | 0.38  |   |   |  |   |   |   |   |   |
| Capacity (veh/h)                  | 627   | 594   | 527   | 571   |   |   |  |   |   |   |   |   |
| Control Delay (s)                 | 14.1  | 11.5  | 10.5  | 12.2  |   |   |  |   |   |   |   |   |
| Approach Delay (s)                | 14.1  | 11.5  | 10.5  | 12.2  |   |   |  |   |   |   |   |   |
| Approach LOS                      | B   | B   | B   | B   |   |   |  |   |   |   |   |   |
| Intersection Summary              |   |   |   |   |   |   |  |   |   |   |   |   |
| Delay                             |   |   | 12.5  |   |   |   |  |   |   |   |   |   |
| Level of Service                  |   |   | B   |   |   |   |  |   |   |   |   |   |
| Intersection Capacity Utilization |   |   | 55.6%   | ICU Level of Service  | B   |   |  |   |   |   |   |   |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |

HCM Unsignalized Intersection Capacity Analysis  
8: Boundary St & Howard Ave/Orange Ave



















Existing plus Project PM Peak Hour  
04/24/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |   |  |   |   |  |   |  |  |   |   |  |   |
| Traffic Volume (veh/h)            | 1   | 273   | 39  | 42  | 218   | 3   | 18   | 1   | 52  | 0   | 0   | 1   |
| Future Volume (Veh/h)             | 1   | 273   | 39  | 42  | 218   | 3   | 18   | 1   | 52  | 0   | 0   | 1   |
| Sign Control                      |   | Free  |   |   | Free  |   |  | Stop  |   |   | Stop  |   |
| Grade                             |   | 0%  |   |   | 0%  |   |  | 0%  |   |   | 0%  |   |
| Peak Hour Factor                  | 0.91  | 0.91  | 0.91  | 0.91  | 0.91  | 0.91  | 0.91   | 0.91  | 0.91  | 0.91  | 0.91  | 0.91  |
| Hourly flow rate (vph)            | 1   | 300   | 43  | 46  | 240   | 3   | 20   | 1   | 57  | 0   | 0   | 1   |
| Pedestrians                       |   | 8   |   |   | 10  |   |  | 10  |   |   | 7   |   |
| Lane Width (ft)                   |   | 12.0  |   |   | 12.0  |   |  | 12.0  |   |   | 12.0  |   |
| Walking Speed (ft/s)              |   | 3.5   |   |   | 3.5   |   |  | 3.5   |   |   | 3.5   |   |
| Percent Blockage                  |   | 1   |   |   | 1   |   |  | 1   |   |   | 1   |   |
| Right turn flare (veh)            |   |   |   |   |   |   |  |   |   |   |   |   |
| Median type                       |   | None  |   |   | None  |   |  |   |   |   |   |   |
| Median storage (veh)              |   |   |   |   |   |   |  |   |   |   |   |   |
| Upstream signal (ft)              |   |   |   |   | 985   |   |  |   |   |   |   |   |
| pX, platoon unblocked             |   |   |   |   |   |   |  |   |   |   |   |   |
| vC, conflicting volume            | 250   |   |   | 353   |   |   | 676  | 676   | 342   | 732   | 696   | 256   |
| vC1, stage 1 conf vol             |   |   |   |   |   |   |  |   |   |   |   |   |
| vC2, stage 2 conf vol             |   |   |   |   |   |   |  |   |   |   |   |   |
| vCu, unblocked vol                | 250   |   |   | 353   |   |   | 676  | 676   | 342   | 732   | 696   | 256   |
| tC, single (s)                    | 4.1   |   |   | 4.1   |   |   | 7.1  | 6.5   | 6.2   | 7.1   | 6.5   | 6.2   |
| tC, 2 stage (s)                   |   |   |   |   |   |   |  |   |   |   |   |   |
| tF (s)                            | 2.2   |   |   | 2.2   |   |   | 3.5  | 4.0   | 3.3   | 3.5   | 4.0   | 3.3   |
| p0 queue free %                   | 100   |   |   | 96  |   |   | 94   | 100   | 92  | 100   | 100   | 100   |
| cM capacity (veh/h)               | 1307  |   |   | 1194  |   |   | 345  | 355   | 688   | 291   | 346   | 771   |
| <b>Direction, Lane #</b>          | <b>EB 1</b>   | <b>WB 1</b>   | <b>NB 1</b>   | <b>SB 1</b>   |   |   |  |   |   |   |   |   |
| Volume Total                      | 344   | 289   | 78  | 1   |   |   |  |   |   |   |   |   |
| Volume Left                       | 1   | 46  | 20  | 0   |   |   |  |   |   |   |   |   |
| Volume Right                      | 43  | 3   | 57  | 1   |   |   |  |   |   |   |   |   |
| cSH                               | 1307  | 1194  | 543   | 771   |   |   |  |   |   |   |   |   |
| Volume to Capacity                | 0.00  | 0.04  | 0.14  | 0.00  |   |   |  |   |   |   |   |   |
| Queue Length 95th (ft)            | 0   | 3   | 12  | 0   |   |   |  |   |   |   |   |   |
| Control Delay (s)                 | 0.0   | 1.6   | 12.7  | 9.7   |   |   |  |   |   |   |   |   |
| Lane LOS                          | A   | A   | B   | A   |   |   |  |   |   |   |   |   |
| Approach Delay (s)                | 0.0   | 1.6   | 12.7  | 9.7   |   |   |  |   |   |   |   |   |
| Approach LOS                      |   |   | B   | A   |   |   |  |   |   |   |   |   |
| <b>Intersection Summary</b>       |   |   |   |   |   |   |  |   |   |   |   |   |
| Average Delay                     |   |   | 2.1   |   |   |   |  |   |   |   |   |   |
| Intersection Capacity Utilization |   |   | 53.0%   |   | ICU Level of Service  |   |  |   | A   |   |   |   |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |

HCM Signalized Intersection Capacity Analysis  
 9: Alley/33rd St & Orange Ave

Existing plus Project PM Peak Hour

04/24/2017


















|                                   |  |  |  |  |  |  |  |  |  |  |  |  |      |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|------|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |      |
| Lane Configurations               |   |  |   |   |  |   |  |  |   |  |  |  |      |
| Traffic Volume (vph)              | 70  | 250   | 0   | 6   | 197   | 148   | 1  | 0   | 0   | 256   | 5   | 106   |      |
| Future Volume (vph)               | 70  | 250   | 0   | 6   | 197   | 148   | 1  | 0   | 0   | 256   | 5   | 106   |      |
| Ideal Flow (vphpl)                | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900   | 1900  | 1900  | 1900  | 1900  | 1900  |      |
| Total Lost time (s)               |   | 4.0   |   |   | 4.0   |   |  | 4.0   |   | 4.0   | 4.0   |   |      |
| Lane Util. Factor                 |   | 1.00  |   |   | 1.00  |   |  | 1.00  |   | 1.00  | 1.00  |   |      |
| Flt                               |   | 1.00  |   |   | 0.94  |   |  | 1.00  |   | 1.00  | 0.86  |   |      |
| Flt Protected                     |   | 0.99  |   |   | 1.00  |   |  | 0.95  |   | 0.95  | 1.00  |   |      |
| Satd. Flow (prot)                 |   | 1843  |   |   | 1755  |   |  | 1770  |   | 1770  | 1596  |   |      |
| Flt Permitted                     |   | 0.88  |   |   | 0.99  |   |  | 0.95  |   | 0.95  | 1.00  |   |      |
| Satd. Flow (perm)                 |   | 1642  |   |   | 1746  |   |  | 1770  |   | 1770  | 1596  |   |      |
| Peak-hour factor, PHF             | 0.98  | 0.98  | 0.98  | 0.98  | 0.98  | 0.98  | 0.98   | 0.98  | 0.98  | 0.98  | 0.98  | 0.98  |      |
| Adj. Flow (vph)                   | 71  | 255   | 0   | 6   | 201   | 151   | 1  | 0   | 0   | 261   | 5   | 108   |      |
| RTOR Reduction (vph)              | 0   | 0   | 0   | 0   | 20  | 0   | 0  | 0   | 0   | 0   | 75  | 0   |      |
| Lane Group Flow (vph)             | 0   | 326   | 0   | 0   | 338   | 0   | 0  | 1   | 0   | 261   | 38  | 0   |      |
| Turn Type                         | Perm  | NA  |   | Perm  | NA  |   | Split  | NA  |   | Split   | NA  |   |      |
| Protected Phases                  |   | 2   |   |   | 6   |   | 3  | 3   |   | 4   | 4   |   |      |
| Permitted Phases                  | 2   |   |   | 6   |   |   |  |   |   |   |   |   |      |
| Actuated Green, G (s)             |   | 15.4  |   |   | 15.4  |   |  | 0.7   |   | 12.1  | 12.1  |   |      |
| Effective Green, g (s)            |   | 15.4  |   |   | 15.4  |   |  | 0.7   |   | 12.1  | 12.1  |   |      |
| Actuated g/C Ratio                |   | 0.38  |   |   | 0.38  |   |  | 0.02  |   | 0.30  | 0.30  |   |      |
| Clearance Time (s)                |   | 4.0   |   |   | 4.0   |   |  | 4.0   |   | 4.0   | 4.0   |   |      |
| Vehicle Extension (s)             |   | 2.1   |   |   | 2.3   |   |  | 2.0   |   | 2.0   | 2.0   |   |      |
| Lane Grp Cap (vph)                |   | 629   |   |   | 668   |   |  | 30  |   | 532   | 480   |   |      |
| v/s Ratio Prot                    |   |   |   |   |   |   |  | c0.00   |   | c0.15   | 0.02  |   |      |
| v/s Ratio Perm                    |   | c0.20   |   |   | 0.19  |   |  |   |   |   |   |   |      |
| v/c Ratio                         |   | 0.52  |   |   | 0.51  |   |  | 0.03  |   | 0.49  | 0.08  |   |      |
| Uniform Delay, d1                 |   | 9.5   |   |   | 9.5   |   |  | 19.4  |   | 11.5  | 10.1  |   |      |
| Progression Factor                |   | 1.00  |   |   | 1.00  |   |  | 1.00  |   | 1.00  | 1.00  |   |      |
| Incremental Delay, d2             |   | 0.3   |   |   | 0.4   |   |  | 0.2   |   | 0.3   | 0.0   |   |      |
| Delay (s)                         |   | 9.9   |   |   | 9.8   |   |  | 19.6  |   | 11.8  | 10.1  |   |      |
| Level of Service                  |   | A   |   |   | A   |   |  | B   |   | B   | B   |   |      |
| Approach Delay (s)                |   | 9.9   |   |   | 9.8   |   |  | 19.6  |   |   | 11.3  |   |      |
| Approach LOS                      |   | A   |   |   | A   |   |  | B   |   |   | B   |   |      |
| <b>Intersection Summary</b>       |   |   |   |   |   |   |  |   |   |   |   |   |      |
| HCM 2000 Control Delay            |   |   | 10.4  |   |   |   |  |   |   |   |   | HCM 2000 Level of Service   | B    |
| HCM 2000 Volume to Capacity ratio |   |   | 0.49  |   |   |   |  |   |   |   |   |   |      |
| Actuated Cycle Length (s)         |   |   | 40.2  |   |   |   |  |   |   |   |   | Sum of lost time (s)  | 12.0 |
| Intersection Capacity Utilization |   |   | 60.1%   |   |   |   |  |   |   |   |   | ICU Level of Service  | B    |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |      |

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis  
10: 35th St & Orange Ave

Existing plus Project PM Peak Hour













04/24/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |     |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|-----|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |     |
| Lane Configurations               |   |  |  |   |  |   |  |  |   |   |  |   |     |
| Traffic Volume (vph)              | 37  | 357   | 46  | 28  | 273   | 48  | 27   | 65  | 30  | 46  | 93  | 39  |     |
| Future Volume (vph)               | 37  | 357   | 46  | 28  | 273   | 48  | 27   | 65  | 30  | 46  | 93  | 39  |     |
| Ideal Flow (vphpl)                | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900   | 1900  | 1900  | 1900  | 1900  | 1900  |     |
| Total Lost time (s)               |   | 4.9   | 4.9   |   | 4.9   |   |  | 4.9   |   |   | 4.9   |   |     |
| Lane Util. Factor                 |   | 1.00  | 1.00  |   | 1.00  |   |  | 1.00  |   |   | 1.00  |   |     |
| Frbp, ped/bikes                   |   | 1.00  | 0.94  |   | 0.99  |   |  | 0.99  |   |   | 0.99  |   |     |
| Flpb, ped/bikes                   |   | 1.00  | 1.00  |   | 1.00  |   |  | 1.00  |   |   | 1.00  |   |     |
| Frt                               |   | 1.00  | 0.85  |   | 0.98  |   |  | 0.97  |   |   | 0.97  |   |     |
| Flt Protected                     |   | 1.00  | 1.00  |   | 1.00  |   |  | 0.99  |   |   | 0.99  |   |     |
| Satd. Flow (prot)                 |   | 1852  | 1484  |   | 1807  |   |  | 1763  |   |   | 1760  |   |     |
| Flt Permitted                     |   | 0.95  | 1.00  |   | 0.95  |   |  | 0.90  |   |   | 0.90  |   |     |
| Satd. Flow (perm)                 |   | 1762  | 1484  |   | 1731  |   |  | 1605  |   |   | 1600  |   |     |
| Peak-hour factor, PHF             | 0.94  | 0.94  | 0.94  | 0.94  | 0.94  | 0.94  | 0.94   | 0.94  | 0.94  | 0.94  | 0.94  | 0.94  |     |
| Adj. Flow (vph)                   | 39  | 380   | 49  | 30  | 290   | 51  | 29   | 69  | 32  | 49  | 99  | 41  |     |
| RTOR Reduction (vph)              | 0   | 0   | 12  | 0   | 5   | 0   | 0  | 26  | 0   | 0   | 26  | 0   |     |
| Lane Group Flow (vph)             | 0   | 419   | 37  | 0   | 366   | 0   | 0  | 104   | 0   | 0   | 163   | 0   |     |
| Confl. Peds. (#/hr)               | 13  |   | 25  | 25  |   | 13  | 14   |   | 5   | 5   |   | 14  |     |
| Confl. Bikes (#/hr)               |   |   | 12  |   |   | 8   |  |   |   |   |   | 8   |     |
| Turn Type                         | Perm  | NA  | Perm  | Perm  | NA  |   | Perm   | NA  |   | Perm  | NA  |   |     |
| Protected Phases                  |   | 2   |   |   | 2   |   |  | 4   |   |   |   | 4   |     |
| Permitted Phases                  | 2   |   | 2   | 2   |   |   | 4  |   |   | 4   |   |   |     |
| Actuated Green, G (s)             |   | 40.5  | 40.5  |   | 40.5  |   |  | 11.6  |   |   | 11.6  |   |     |
| Effective Green, g (s)            |   | 40.5  | 40.5  |   | 40.5  |   |  | 11.6  |   |   | 11.6  |   |     |
| Actuated g/C Ratio                |   | 0.65  | 0.65  |   | 0.65  |   |  | 0.19  |   |   | 0.19  |   |     |
| Clearance Time (s)                |   | 4.9   | 4.9   |   | 4.9   |   |  | 4.9   |   |   | 4.9   |   |     |
| Vehicle Extension (s)             |   | 3.1   | 3.1   |   | 3.1   |   |  | 2.0   |   |   | 2.0   |   |     |
| Lane Grp Cap (vph)                |   | 1152  | 970   |   | 1132  |   |  | 300   |   |   | 299   |   |     |
| v/s Ratio Prot                    |   |   |   |   |   |   |  |   |   |   |   |   |     |
| v/s Ratio Perm                    |   | c0.24   | 0.02  |   | 0.21  |   |  | 0.06  |   |   | c0.10   |   |     |
| v/c Ratio                         |   | 0.36  | 0.04  |   | 0.32  |   |  | 0.35  |   |   | 0.55  |   |     |
| Uniform Delay, d1                 |   | 4.9   | 3.8   |   | 4.7   |   |  | 21.9  |   |   | 22.8  |   |     |
| Progression Factor                |   | 1.00  | 1.00  |   | 1.00  |   |  | 1.00  |   |   | 1.00  |   |     |
| Incremental Delay, d2             |   | 0.9   | 0.1   |   | 0.8   |   |  | 0.3   |   |   | 1.1   |   |     |
| Delay (s)                         |   | 5.7   | 3.9   |   | 5.5   |   |  | 22.1  |   |   | 23.9  |   |     |
| Level of Service                  |   | A   | A   |   | A   |   |  | C   |   |   | C   |   |     |
| Approach Delay (s)                |   | 5.5   |   |   | 5.5   |   |  | 22.1  |   |   | 23.9  |   |     |
| Approach LOS                      |   | A   |   |   | A   |   |  | C   |   |   | C   |   |     |
| <b>Intersection Summary</b>       |   |   |   |   |   |   |  |   |   |   |   |   |     |
| HCM 2000 Control Delay            |   |   | 10.4  |   |   |   |  |   |   |   |   | HCM 2000 Level of Service   | B   |
| HCM 2000 Volume to Capacity ratio |   |   | 0.40  |   |   |   |  |   |   |   |   |   |     |
| Actuated Cycle Length (s)         |   |   | 61.9  |   |   |   |  |   |   |   |   | Sum of lost time (s)  | 9.8 |
| Intersection Capacity Utilization |   |   | 64.4%   |   |   |   |  |   |   |   |   | ICU Level of Service  | C   |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |     |

c Critical Lane Group

















HCM Unsignalized Intersection Capacity Analysis  
11: 37th St & Orange Ave

Existing plus Project PM Peak Hour  
04/24/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |   | ↕   |   |   | ↕   |   |  | ↕   |   |   | ↕   |   |
| Traffic Volume (veh/h)            | 20  | 370   | 17  | 15  | 306   | 70  | 13   | 5   | 20  | 38  | 8   | 21  |
| Future Volume (Veh/h)             | 20  | 370   | 17  | 15  | 306   | 70  | 13   | 5   | 20  | 38  | 8   | 21  |
| Sign Control                      |   | Free  |   |   | Free  |   |  | Stop  |   |   | Stop  |   |
| Grade                             |   | 0%  |   |   | 0%  |   |  | 0%  |   |   | 0%  |   |
| Peak Hour Factor                  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92   | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  |
| Hourly flow rate (vph)            | 22  | 402   | 18  | 16  | 333   | 76  | 14   | 5   | 22  | 41  | 9   | 23  |
| Pedestrians                       |   |   |   |   |   |   |  |   |   |   |   |   |
| Lane Width (ft)                   |   |   |   |   |   |   |  |   |   |   |   |   |
| Walking Speed (ft/s)              |   |   |   |   |   |   |  |   |   |   |   |   |
| Percent Blockage                  |   |   |   |   |   |   |  |   |   |   |   |   |
| Right turn flare (veh)            |   |   |   |   |   |   |  |   |   |   |   |   |
| Median type                       | None  |   |   |   | None  |   |  |   |   |   |   |   |
| Median storage (veh)              |   |   |   |   |   |   |  |   |   |   |   |   |
| Upstream signal (ft)              | 1317  |   |   |   |   |   |  |   |   |   |   |   |
| pX, platoon unblocked             |   |   |   |   |   |   |  |   |   |   |   |   |
| vC, conflicting volume            | 409   |   |   | 420   |   |   | 886  | 896   | 411   | 882   | 867   | 371   |
| vC1, stage 1 conf vol             |   |   |   |   |   |   |  |   |   |   |   |   |
| vC2, stage 2 conf vol             |   |   |   |   |   |   |  |   |   |   |   |   |
| vCu, unblocked vol                | 409   |   |   | 420   |   |   | 886  | 896   | 411   | 882   | 867   | 371   |
| tC, single (s)                    | 4.1   |   |   | 4.1   |   |   | 7.1  | 6.5   | 6.2   | 7.1   | 6.5   | 6.2   |
| tC, 2 stage (s)                   |   |   |   |   |   |   |  |   |   |   |   |   |
| tF (s)                            | 2.2   |   |   | 2.2   |   |   | 3.5  | 4.0   | 3.3   | 3.5   | 4.0   | 3.3   |
| p0 queue free %                   | 98  |   |   | 99  |   |   | 94   | 98  | 97  | 83  | 97  | 97  |
| cM capacity (veh/h)               | 1150  |   |   | 1139  |   |   | 244  | 271   | 641   | 247   | 281   | 675   |
| Direction, Lane #                 | EB 1  | WB 1  | NB 1  | SB 1  |   |   |  |   |   |   |   |   |
| Volume Total                      | 442   | 425   | 41  | 73  |   |   |  |   |   |   |   |   |
| Volume Left                       | 22  | 16  | 14  | 41  |   |   |  |   |   |   |   |   |
| Volume Right                      | 18  | 76  | 22  | 23  |   |   |  |   |   |   |   |   |
| cSH                               | 1150  | 1139  | 372   | 315   |   |   |  |   |   |   |   |   |
| Volume to Capacity                | 0.02  | 0.01  | 0.11  | 0.23  |   |   |  |   |   |   |   |   |
| Queue Length 95th (ft)            | 1   | 1   | 9   | 22  |   |   |  |   |   |   |   |   |
| Control Delay (s)                 | 0.6   | 0.5   | 15.9  | 19.8  |   |   |  |   |   |   |   |   |
| Lane LOS                          | A   | A   | C   | C   |   |   |  |   |   |   |   |   |
| Approach Delay (s)                | 0.6   | 0.5   | 15.9  | 19.8  |   |   |  |   |   |   |   |   |
| Approach LOS                      |   |   | C   | C   |   |   |  |   |   |   |   |   |
| Intersection Summary              |   |   |   |   |   |   |  |   |   |   |   |   |
| Average Delay                     |   |   |   | 2.6   |   |   |  |   |   |   |   |   |
| Intersection Capacity Utilization |   |   |   | 41.4%   | ICU Level of Service  | A   |  |   |   |   |   |   |
| Analysis Period (min)             |   |   |   | 15  |   |   |  |   |   |   |   |   |

HCM Unsignalized Intersection Capacity Analysis  
12: 39th St & Orange Ave

















Existing plus Project PM Peak Hour  
04/24/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |   |  |   |   |  |   |  |  |   |   |  |   |
| Traffic Volume (veh/h)            | 36  | 369   | 51  | 39  | 351   | 61  | 0  | 17  | 52  | 12  | 12  | 30  |
| Future Volume (Veh/h)             | 36  | 369   | 51  | 39  | 351   | 61  | 0  | 17  | 52  | 12  | 12  | 30  |
| Sign Control                      |   | Free  |   |   | Free  |   |  | Stop  |   |   | Stop  |   |
| Grade                             |   | 0%  |   |   | 0%  |   |  | 0%  |   |   | 0%  |   |
| Peak Hour Factor                  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92   | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  |
| Hourly flow rate (vph)            | 39  | 401   | 55  | 42  | 382   | 66  | 0  | 18  | 57  | 13  | 13  | 33  |
| Pedestrians                       |   |   |   |   |   |   |  |   |   |   |   |   |
| Lane Width (ft)                   |   |   |   |   |   |   |  |   |   |   |   |   |
| Walking Speed (ft/s)              |   |   |   |   |   |   |  |   |   |   |   |   |
| Percent Blockage                  |   |   |   |   |   |   |  |   |   |   |   |   |
| Right turn flare (veh)            |   |   |   |   |   |   |  |   |   |   |   |   |
| Median type                       | None  |   |   |   |   | None  |  |   |   |   |   |   |
| Median storage (veh)              |   |   |   |   |   |   |  |   |   |   |   |   |
| Upstream signal (ft)              | 347   |   |   |   |   |   |  |   |   |   |   |   |
| pX, platoon unblocked             | 0.82  |   |   |   |   |   | 0.82   | 0.82  |   | 0.82  | 0.82  | 0.82  |
| vC, conflicting volume            | 448   |   |   | 456   |   |   | 1045   | 1038  | 428   | 1072  | 1033  | 415   |
| vC1, stage 1 conf vol             |   |   |   |   |   |   |  |   |   |   |   |   |
| vC2, stage 2 conf vol             |   |   |   |   |   |   |  |   |   |   |   |   |
| vCu, unblocked vol                | 223   |   |   | 456   |   |   | 948  | 940   | 428   | 980   | 933   | 183   |
| tC, single (s)                    | 4.1   |   |   | 4.1   |   |   | 7.1  | 6.5   | 6.2   | 7.1   | 6.5   | 6.2   |
| tC, 2 stage (s)                   |   |   |   |   |   |   |  |   |   |   |   |   |
| tF (s)                            | 2.2   |   |   | 2.2   |   |   | 3.5  | 4.0   | 3.3   | 3.5   | 4.0   | 3.3   |
| p0 queue free %                   | 96  |   |   | 96  |   |   | 100  | 91  | 91  | 91  | 94  | 95  |
| cM capacity (veh/h)               | 1109  |   |   | 1105  |   |   | 170  | 202   | 626   | 151   | 203   | 708   |
| Direction, Lane #                 | EB 1  | WB 1  | NB 1  | SB 1  |   |   |  |   |   |   |   |   |
| Volume Total                      | 495   | 490   | 75  | 59  |   |   |  |   |   |   |   |   |
| Volume Left                       | 39  | 42  | 0   | 13  |   |   |  |   |   |   |   |   |
| Volume Right                      | 55  | 66  | 57  | 33  |   |   |  |   |   |   |   |   |
| cSH                               | 1109  | 1105  | 416   | 300   |   |   |  |   |   |   |   |   |
| Volume to Capacity                | 0.04  | 0.04  | 0.18  | 0.20  |   |   |  |   |   |   |   |   |
| Queue Length 95th (ft)            | 3   | 3   | 16  | 18  |   |   |  |   |   |   |   |   |
| Control Delay (s)                 | 1.0   | 1.1   | 15.5  | 19.9  |   |   |  |   |   |   |   |   |
| Lane LOS                          | A   | A   | C   | C   |   |   |  |   |   |   |   |   |
| Approach Delay (s)                | 1.0   | 1.1   | 15.5  | 19.9  |   |   |  |   |   |   |   |   |
| Approach LOS                      |   |   | C   | C   |   |   |  |   |   |   |   |   |
| Intersection Summary              |   |   |   |   |   |   |  |   |   |   |   |   |
| Average Delay                     |   |   | 3.0   |   |   |   |  |   |   |   |   |   |
| Intersection Capacity Utilization |   |   | 49.1%   | ICU Level of Service  | A   |   |  |   |   |   |   |   |
| Analysis Period (min)             | 15  |   |   |   |   |   |  |   |   |   |   |   |

HCM Signalized Intersection Capacity Analysis  
13: 40th St & Orange Ave

Existing plus Project PM Peak Hour

04/24/2017

















|                                   |  |  |  |  |  |  |  |  |  |  |  |  |      |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|------|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |      |
| Lane Configurations               |   |  |   |   |  |   |  |  |   |   |  |   |      |
| Traffic Volume (vph)              | 0   | 399   | 14  | 10  | 341   | 0   | 13   | 0   | 20  | 111   | 21  | 81  |      |
| Future Volume (vph)               | 0   | 399   | 14  | 10  | 341   | 0   | 13   | 0   | 20  | 111   | 21  | 81  |      |
| Ideal Flow (vphpl)                | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900   | 1900  | 1900  | 1900  | 1900  | 1900  |      |
| Total Lost time (s)               |   | 4.3   |   |   | 4.3   |   |  | 4.0   |   |   | 4.0   |   |      |
| Lane Util. Factor                 |   | 1.00  |   |   | 1.00  |   |  | 1.00  |   |   | 1.00  |   |      |
| Flt                               |   | 1.00  |   |   | 1.00  |   |  | 0.92  |   |   | 0.95  |   |      |
| Flt Protected                     |   | 1.00  |   |   | 1.00  |   |  | 0.98  |   |   | 0.97  |   |      |
| Satd. Flow (prot)                 |   | 1854  |   |   | 1860  |   |  | 1678  |   |   | 1722  |   |      |
| Flt Permitted                     |   | 1.00  |   |   | 0.91  |   |  | 0.98  |   |   | 0.84  |   |      |
| Satd. Flow (perm)                 |   | 1854  |   |   | 1697  |   |  | 1678  |   |   | 1483  |   |      |
| Peak-hour factor, PHF             | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95   | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  |      |
| Adj. Flow (vph)                   | 0   | 420   | 15  | 11  | 359   | 0   | 14   | 0   | 21  | 117   | 22  | 85  |      |
| RTOR Reduction (vph)              | 0   | 1   | 0   | 0   | 0   | 0   | 0  | 34  | 0   | 0   | 14  | 0   |      |
| Lane Group Flow (vph)             | 0   | 434   | 0   | 0   | 370   | 0   | 0  | 1   | 0   | 0   | 210   | 0   |      |
| Turn Type                         |   | NA  |   | Perm  | NA  |   | Split  | NA  |   | Perm  | NA  |   |      |
| Protected Phases                  |   | 2   |   |   | 6   |   | 3  | 3   |   |   |   | 4   |      |
| Permitted Phases                  |   |   |   | 6   |   |   |  |   |   | 4   |   |   |      |
| Actuated Green, G (s)             |   | 20.9  |   |   | 20.9  |   |  | 2.7   |   |   |   | 36.9  |      |
| Effective Green, g (s)            |   | 20.9  |   |   | 20.9  |   |  | 2.7   |   |   |   | 36.9  |      |
| Actuated g/C Ratio                |   | 0.29  |   |   | 0.29  |   |  | 0.04  |   |   |   | 0.51  |      |
| Clearance Time (s)                |   | 4.3   |   |   | 4.3   |   |  | 4.0   |   |   |   | 4.0   |      |
| Vehicle Extension (s)             |   | 2.0   |   |   | 2.0   |   |  | 2.0   |   |   |   | 2.0   |      |
| Lane Grp Cap (vph)                |   | 532   |   |   | 487   |   |  | 62  |   |   |   | 751   |      |
| v/s Ratio Prot                    |   | c0.23   |   |   |   |   |  | c0.00   |   |   |   |   |      |
| v/s Ratio Perm                    |   |   |   |   | 0.22  |   |  |   |   |   |   | c0.14   |      |
| v/c Ratio                         |   | 0.81  |   |   | 0.76  |   |  | 0.02  |   |   |   | 0.28  |      |
| Uniform Delay, d1                 |   | 24.2  |   |   | 23.7  |   |  | 33.8  |   |   |   | 10.3  |      |
| Progression Factor                |   | 1.00  |   |   | 1.00  |   |  | 1.00  |   |   |   | 1.00  |      |
| Incremental Delay, d2             |   | 8.9   |   |   | 6.0   |   |  | 0.0   |   |   |   | 0.9   |      |
| Delay (s)                         |   | 33.0  |   |   | 29.6  |   |  | 33.8  |   |   |   | 11.2  |      |
| Level of Service                  |   | C   |   |   | C   |   |  | C   |   |   |   | B   |      |
| Approach Delay (s)                |   | 33.0  |   |   | 29.6  |   |  | 33.8  |   |   |   | 11.2  |      |
| Approach LOS                      |   | C   |   |   | C   |   |  | C   |   |   |   | B   |      |
| <b>Intersection Summary</b>       |   |   |   |   |   |   |  |   |   |   |   |   |      |
| HCM 2000 Control Delay            |   |   | 27.3  |   |   |   |  |   |   |   |   | HCM 2000 Level of Service   | C    |
| HCM 2000 Volume to Capacity ratio |   |   | 0.45  |   |   |   |  |   |   |   |   |   |      |
| Actuated Cycle Length (s)         |   |   | 72.8  |   |   |   |  |   |   |   |   | Sum of lost time (s)  | 12.3 |
| Intersection Capacity Utilization |   |   | 50.7%   |   |   |   |  |   |   |   |   | ICU Level of Service  | A    |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |      |

c Critical Lane Group



HCM Signalized Intersection Capacity Analysis  
 14: Marlborough Ave S/Alley & Orange Ave

Existing plus Project PM Peak Hour  
 04/24/2017

















|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |   |  |   |   |  |   |  |  |   |   |  |   |
| Traffic Volume (vph)              | 1   | 463   | 83  | 77  | 361   | 4   | 72   | 1   | 44  | 2   | 0   | 1   |
| Future Volume (vph)               | 1   | 463   | 83  | 77  | 361   | 4   | 72   | 1   | 44  | 2   | 0   | 1   |
| Ideal Flow (vphpl)                | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900   | 1900  | 1900  | 1900  | 1900  | 1900  |
| Total Lost time (s)               |   | 4.9   |   |   | 4.9   |   |  | 4.9   |   |   | 4.9   |   |
| Lane Util. Factor                 |   | 1.00  |   |   | 1.00  |   |  | 1.00  |   |   | 1.00  |   |
| Flt                               |   | 0.98  |   |   | 1.00  |   |  | 0.95  |   |   | 0.95  |   |
| Flt Protected                     |   | 1.00  |   |   | 0.99  |   |  | 0.97  |   |   | 0.97  |   |
| Satd. Flow (prot)                 |   | 1824  |   |   | 1844  |   |  | 1715  |   |   | 1722  |   |
| Flt Permitted                     |   | 1.00  |   |   | 0.85  |   |  | 0.81  |   |   | 0.80  |   |
| Satd. Flow (perm)                 |   | 1824  |   |   | 1579  |   |  | 1434  |   |   | 1424  |   |
| Peak-hour factor, PHF             | 0.98  | 0.98  | 0.98  | 0.98  | 0.98  | 0.98  | 0.98   | 0.98  | 0.98  | 0.98  | 0.98  | 0.98  |
| Adj. Flow (vph)                   | 1   | 472   | 85  | 79  | 368   | 4   | 73   | 1   | 45  | 2   | 0   | 1   |
| RTOR Reduction (vph)              | 0   | 5   | 0   | 0   | 0   | 0   | 0  | 25  | 0   | 0   | 2   | 0   |
| Lane Group Flow (vph)             | 0   | 553   | 0   | 0   | 451   | 0   | 0  | 94  | 0   | 0   | 1   | 0   |
| Turn Type                         | Perm  | NA  |   | Perm  | NA  |   | Perm   | NA  |   | Perm  | NA  |   |
| Protected Phases                  |   | 2   |   |   | 6   |   |  | 8   |   |   | 4   |   |
| Permitted Phases                  | 2   |   |   | 6   |   |   | 8  |   |   | 4   |   |   |
| Actuated Green, G (s)             |   | 26.0  |   |   | 26.0  |   |  | 7.5   |   |   | 7.5   |   |
| Effective Green, g (s)            |   | 26.0  |   |   | 26.0  |   |  | 7.5   |   |   | 7.5   |   |
| Actuated g/C Ratio                |   | 0.60  |   |   | 0.60  |   |  | 0.17  |   |   | 0.17  |   |
| Clearance Time (s)                |   | 4.9   |   |   | 4.9   |   |  | 4.9   |   |   | 4.9   |   |
| Vehicle Extension (s)             |   | 2.2   |   |   | 2.2   |   |  | 2.0   |   |   | 2.0   |   |
| Lane Grp Cap (vph)                |   | 1095  |   |   | 948   |   |  | 248   |   |   | 246   |   |
| v/s Ratio Prot                    |   |   |   |   |   |   |  |   |   |   |   |   |
| v/s Ratio Perm                    |   | 0.30  |   |   | 0.29  |   |  | c0.07   |   |   | 0.00  |   |
| v/c Ratio                         |   | 0.51  |   |   | 0.48  |   |  | 0.38  |   |   | 0.00  |   |
| Uniform Delay, d1                 |   | 5.0   |   |   | 4.8   |   |  | 15.8  |   |   | 14.8  |   |
| Progression Factor                |   | 1.00  |   |   | 1.00  |   |  | 1.00  |   |   | 1.00  |   |
| Incremental Delay, d2             |   | 0.2   |   |   | 0.2   |   |  | 0.4   |   |   | 0.0   |   |
| Delay (s)                         |   | 5.1   |   |   | 5.0   |   |  | 16.2  |   |   | 14.8  |   |
| Level of Service                  |   | A   |   |   | A   |   |  | B   |   |   | B   |   |
| Approach Delay (s)                |   | 5.1   |   |   | 5.0   |   |  | 16.2  |   |   | 14.8  |   |
| Approach LOS                      |   | A   |   |   | A   |   |  | B   |   |   | B   |   |
| <b>Intersection Summary</b>       |   |   |   |   |   |   |  |   |   |   |   |   |
| HCM 2000 Control Delay            |   |   | 6.3   |   |   |   |  | HCM 2000 Level of Service   |   | A   |   |   |
| HCM 2000 Volume to Capacity ratio |   |   | 0.48  |   |   |   |  |   |   |   |   |   |
| Actuated Cycle Length (s)         |   |   | 43.3  |   |   |   |  | Sum of lost time (s)  |   | 9.8   |   |   |
| Intersection Capacity Utilization |   |   | 72.9%   |   |   |   |  | ICU Level of Service  |   | C   |   |   |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis  
15: 43rd St & Orange Ave

Existing plus Project PM Peak Hour

04/24/2017

|                        |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement               | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations    |   |  |   |   |  |   |  |   |   |   |  |  |
| Traffic Volume (vph)   | 0   | 396   | 61  | 30  | 381   | 0   | 0  | 0   | 0   | 146   | 457   | 61  |
| Future Volume (vph)    | 0   | 396   | 61  | 30  | 381   | 0   | 0  | 0   | 0   | 146   | 457   | 61  |
| Ideal Flow (vphpl)     | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900   | 1900  | 1900  | 1900  | 1900  | 1900  |
| Total Lost time (s)    |   | 4.9   |   |   | 4.9   |   |  |   |   |   | 4.9   |   |
| Lane Util. Factor      |   | 1.00  |   |   | 1.00  |   |  |   |   |   | 0.95  |   |
| Frb, ped/bikes         |   | 0.99  |   |   | 1.00  |   |  |   |   |   | 0.99  |   |
| Flpb, ped/bikes        |   | 1.00  |   |   | 1.00  |   |  |   |   |   | 0.99  |   |
| Frt                    |   | 0.98  |   |   | 1.00  |   |  |   |   |   | 0.99  |   |
| Flt Protected          |   | 1.00  |   |   | 1.00  |   |  |   |   |   | 0.99  |   |
| Satd. Flow (prot)      |   | 1817  |   |   | 1854  |   |  |   |   |   | 3389  |   |
| Flt Permitted          |   | 1.00  |   |   | 0.95  |   |  |   |   |   | 0.99  |   |
| Satd. Flow (perm)      |   | 1817  |   |   | 1767  |   |  |   |   |   | 3389  |   |
| Peak-hour factor, PHF  | 0.93  | 0.93  | 0.93  | 0.93  | 0.93  | 0.93  | 0.93   | 0.93  | 0.93  | 0.93  | 0.93  | 0.93  |
| Adj. Flow (vph)        | 0   | 426   | 66  | 32  | 410   | 0   | 0  | 0   | 0   | 157   | 491   | 66  |
| RTOR Reduction (vph)   | 0   | 9   | 0   | 0   | 0   | 0   | 0  | 0   | 0   | 0   | 13  | 0   |
| Lane Group Flow (vph)  | 0   | 483   | 0   | 0   | 442   | 0   | 0  | 0   | 0   | 0   | 701   | 0   |
| Confl. Peds. (#/hr)    | 31  |   | 41  | 41  |   | 31  | 18   |   | 26  | 26  |   | 18  |
| Confl. Bikes (#/hr)    |   |   | 2   |   |   | 7   |  |   |   |   |   | 7   |
| Turn Type              |   | NA  |   | Perm  | NA  |   |  |   |   |   | Perm  | NA  |
| Protected Phases       |   | 2   |   |   | 6   |   |  |   |   |   |   | 4   |
| Permitted Phases       |   |   |   | 6   |   |   |  |   |   | 4   |   |   |
| Actuated Green, G (s)  |   | 31.9  |   |   | 31.9  |   |  |   |   |   |   | 18.3  |
| Effective Green, g (s) |   | 31.9  |   |   | 31.9  |   |  |   |   |   |   | 18.3  |
| Actuated g/C Ratio     |   | 0.53  |   |   | 0.53  |   |  |   |   |   |   | 0.31  |
| Clearance Time (s)     |   | 4.9   |   |   | 4.9   |   |  |   |   |   |   | 4.9   |
| Vehicle Extension (s)  |   | 5.5   |   |   | 5.5   |   |  |   |   |   |   | 5.1   |
| Lane Grp Cap (vph)     |   | 966   |   |   | 939   |   |  |   |   |   |   | 1033  |
| v/s Ratio Prot         |   | c0.27   |   |   |   |   |  |   |   |   |   |   |
| v/s Ratio Perm         |   |   |   |   | 0.25  |   |  |   |   |   |   | 0.21  |
| v/c Ratio              |   | 0.50  |   |   | 0.47  |   |  |   |   |   |   | 0.68  |
| Uniform Delay, d1      |   | 9.0   |   |   | 8.8   |   |  |   |   |   |   | 18.3  |
| Progression Factor     |   | 1.00  |   |   | 0.75  |   |  |   |   |   |   | 1.00  |
| Incremental Delay, d2  |   | 1.8   |   |   | 1.5   |   |  |   |   |   |   | 2.4   |
| Delay (s)              |   | 10.8  |   |   | 8.1   |   |  |   |   |   |   | 20.6  |
| Level of Service       |   | B   |   |   | A   |   |  |   |   |   |   | C   |
| Approach Delay (s)     |   | 10.8  |   |   | 8.1   |   |  | 0.0   |   |   |   | 20.6  |
| Approach LOS           |   | B   |   |   | A   |   |  | A   |   |   |   | C   |



















Intersection Summary

|                                   |       |                           |     |
|-----------------------------------|-------|---------------------------|-----|
| HCM 2000 Control Delay            | 14.3  | HCM 2000 Level of Service | B   |
| HCM 2000 Volume to Capacity ratio | 0.56  |                           |     |
| Actuated Cycle Length (s)         | 60.0  | Sum of lost time (s)      | 9.8 |
| Intersection Capacity Utilization | 75.3% | ICU Level of Service      | D   |
| Analysis Period (min)             | 15    |                           |     |

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis  
 16: Fairmount Ave & Orange Ave

















Existing plus Project PM Peak Hour  
 04/24/2017

|                                   |  |  |  |  |  |  |   |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL   | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |   |  |   |   |  |   |  |  |   |  |  |   |
| Traffic Volume (vph)              | 82  | 406   | 77  | 53  | 307   | 129   | 105   | 385   | 48  | 61  | 139   | 16  |
| Future Volume (vph)               | 82  | 406   | 77  | 53  | 307   | 129   | 105   | 385   | 48  | 61  | 139   | 16  |
| Ideal Flow (vphpl)                | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  |
| Total Lost time (s)               |   | 4.9   |   |   | 4.9   |   | 4.9   | 4.9   |   | 4.9   | 4.9   |   |
| Lane Util. Factor                 |   | 1.00  |   |   | 1.00  |   | 1.00  | 0.95  |   | 1.00  | 1.00  |   |
| Frbp, ped/bikes                   |   | 0.98  |   |   | 0.99  |   | 1.00  | 0.99  |   | 1.00  | 0.99  |   |
| Flpb, ped/bikes                   |   | 1.00  |   |   | 1.00  |   | 0.94  | 1.00  |   | 0.96  | 1.00  |   |
| Frt                               |   | 0.98  |   |   | 0.96  |   | 1.00  | 0.98  |   | 1.00  | 0.98  |   |
| Flt Protected                     |   | 0.99  |   |   | 0.99  |   | 0.95  | 1.00  |   | 0.95  | 1.00  |   |
| Satd. Flow (prot)                 |   | 1783  |   |   | 1763  |   | 1664  | 3442  |   | 1706  | 1815  |   |
| Flt Permitted                     |   | 0.87  |   |   | 0.90  |   | 0.65  | 1.00  |   | 0.43  | 1.00  |   |
| Satd. Flow (perm)                 |   | 1556  |   |   | 1590  |   | 1142  | 3442  |   | 774   | 1815  |   |
| Peak-hour factor, PHF             | 0.93  | 0.93  | 0.93  | 0.93  | 0.93  | 0.93  | 0.93  | 0.93  | 0.93  | 0.93  | 0.93  | 0.93  |
| Adj. Flow (vph)                   | 88  | 437   | 83  | 57  | 330   | 139   | 113   | 414   | 52  | 66  | 149   | 17  |
| RTOR Reduction (vph)              | 0   | 8   | 0   | 0   | 19  | 0   | 0   | 17  | 0   | 0   | 7   | 0   |
| Lane Group Flow (vph)             | 0   | 600   | 0   | 0   | 507   | 0   | 113   | 449   | 0   | 66  | 159   | 0   |
| Confl. Peds. (#/hr)               | 24  |   | 59  | 59  |   | 24  | 50  |   | 48  | 48  |   | 50  |
| Confl. Bikes (#/hr)               |   |   | 9   |   |   | 6   |   |   | 5   |   |   | 6   |
| Turn Type                         | Perm  | NA  |   | Perm  | NA  |   | Perm  | NA  |   | Perm  | NA  |   |
| Protected Phases                  |   | 2   |   |   | 6   |   |   | 8   |   |   |   | 8   |
| Permitted Phases                  | 2   |   |   | 6   |   |   | 8   |   |   | 8   |   |   |
| Actuated Green, G (s)             |   | 33.2  |   |   | 33.2  |   | 17.0  | 17.0  |   | 17.0  | 17.0  |   |
| Effective Green, g (s)            |   | 33.2  |   |   | 33.2  |   | 17.0  | 17.0  |   | 17.0  | 17.0  |   |
| Actuated g/C Ratio                |   | 0.55  |   |   | 0.55  |   | 0.28  | 0.28  |   | 0.28  | 0.28  |   |
| Clearance Time (s)                |   | 4.9   |   |   | 4.9   |   | 4.9   | 4.9   |   | 4.9   | 4.9   |   |
| Vehicle Extension (s)             |   | 5.5   |   |   | 5.5   |   | 6.3   | 6.3   |   | 6.3   | 6.3   |   |
| Lane Grp Cap (vph)                |   | 860   |   |   | 879   |   | 323   | 975   |   | 219   | 514   |   |
| v/s Ratio Prot                    |   |   |   |   |   |   |   | c0.13   |   |   |   | 0.09  |
| v/s Ratio Perm                    |   | c0.39   |   |   | 0.32  |   | 0.10  |   |   | 0.09  |   |   |
| v/c Ratio                         |   | 0.70  |   |   | 0.58  |   | 0.35  | 0.46  |   | 0.30  | 0.31  |   |
| Uniform Delay, d1                 |   | 9.7   |   |   | 8.8   |   | 17.1  | 17.7  |   | 16.8  | 16.9  |   |
| Progression Factor                |   | 0.61  |   |   | 1.00  |   | 1.00  | 1.00  |   | 1.00  | 1.00  |   |
| Incremental Delay, d2             |   | 4.1   |   |   | 2.7   |   | 2.0   | 1.0   |   | 2.4   | 1.0   |   |
| Delay (s)                         |   | 10.0  |   |   | 11.5  |   | 19.1  | 18.8  |   | 19.2  | 17.9  |   |
| Level of Service                  |   | A   |   |   | B   |   | B   | B   |   | B   | B   |   |
| Approach Delay (s)                |   | 10.0  |   |   | 11.5  |   |   | 18.8  |   |   | 18.3  |   |
| Approach LOS                      |   | A   |   |   | B   |   |   | B   |   |   | B   |   |
| <b>Intersection Summary</b>       |   |   |   |   |   |   |   |   |   |   |   |   |
| HCM 2000 Control Delay            |   |   | 14.0  |   |   |   | HCM 2000 Level of Service   |   |   | B   |   |   |
| HCM 2000 Volume to Capacity ratio |   |   | 0.62  |   |   |   |   |   |   |   |   |   |
| Actuated Cycle Length (s)         |   |   | 60.0  |   |   |   | Sum of lost time (s)  |   |   | 9.8   |   |   |
| Intersection Capacity Utilization |   |   | 81.6%   |   |   |   | ICU Level of Service  |   |   | D   |   |   |
| Analysis Period (min)             |   |   | 15  |   |   |   |   |   |   |   |   |   |

c Critical Lane Group

















HCM Unsignalized Intersection Capacity Analysis  
17: Chamoune Ave & Orange Ave

Existing plus Project PM Peak Hour  
04/24/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |   |  |   |   |  |   |  |  |   |   |  |   |
| Sign Control                      |   | Stop  |   |   | Stop  |   |  | Stop  |   |   | Stop  |   |
| Traffic Volume (vph)              | 22  | 380   | 36  | 34  | 282   | 31  | 29   | 53  | 20  | 22  | 63  | 30  |
| Future Volume (vph)               | 22  | 380   | 36  | 34  | 282   | 31  | 29   | 53  | 20  | 22  | 63  | 30  |
| Peak Hour Factor                  | 0.90  | 0.90  | 0.90  | 0.90  | 0.90  | 0.90  | 0.90   | 0.90  | 0.90  | 0.90  | 0.90  | 0.90  |
| Hourly flow rate (vph)            | 24  | 422   | 40  | 38  | 313   | 34  | 32   | 59  | 22  | 24  | 70  | 33  |
| Direction, Lane #                 | EB 1  | WB 1  | NB 1  | SB 1  |   |   |  |   |   |   |   |   |
| Volume Total (vph)                | 486   | 385   | 113   | 127   |   |   |  |   |   |   |   |   |
| Volume Left (vph)                 | 24  | 38  | 32  | 24  |   |   |  |   |   |   |   |   |
| Volume Right (vph)                | 40  | 34  | 22  | 33  |   |   |  |   |   |   |   |   |
| Hadj (s)                          | -0.01   | 0.00  | -0.03   | -0.08   |   |   |  |   |   |   |   |   |
| Departure Headway (s)             | 5.3   | 5.4   | 6.5   | 6.4   |   |   |  |   |   |   |   |   |
| Degree Utilization, x             | 0.72  | 0.58  | 0.20  | 0.23  |   |   |  |   |   |   |   |   |
| Capacity (veh/h)                  | 486   | 629   | 472   | 484   |   |   |  |   |   |   |   |   |
| Control Delay (s)                 | 20.4  | 15.7  | 11.1  | 11.2  |   |   |  |   |   |   |   |   |
| Approach Delay (s)                | 20.4  | 15.7  | 11.1  | 11.2  |   |   |  |   |   |   |   |   |
| Approach LOS                      | C   | C   | B   | B   |   |   |  |   |   |   |   |   |
| Intersection Summary              |   |   |   |   |   |   |  |   |   |   |   |   |
| Delay                             |   |   | 16.8  |   |   |   |  |   |   |   |   |   |
| Level of Service                  |   |   | C   |   |   |   |  |   |   |   |   |   |
| Intersection Capacity Utilization |   |   | 48.6%   | ICU Level of Service  | A   |   |  |   |   |   |   |   |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |

HCM Signalized Intersection Capacity Analysis  
 18: Euclid Ave & Orange Ave


















Existing plus Project PM Peak Hour  
 04/24/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |   |  |   |   |  |   |  |  |   |   |  |   |
| Traffic Volume (vph)              | 48  | 287   | 90  | 71  | 218   | 61  | 58   | 242   | 59  | 40  | 304   | 62  |
| Future Volume (vph)               | 48  | 287   | 90  | 71  | 218   | 61  | 58   | 242   | 59  | 40  | 304   | 62  |
| Ideal Flow (vphpl)                | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900   | 1900  | 1900  | 1900  | 1900  | 1900  |
| Total Lost time (s)               |   | 4.9   |   |   | 4.9   |   |  | 4.9   |   |   | 4.9   |   |
| Lane Util. Factor                 |   | 1.00  |   |   | 1.00  |   |  | 1.00  |   |   | 1.00  |   |
| Flt                               |   | 0.97  |   |   | 0.98  |   |  | 0.98  |   |   | 0.98  |   |
| Flt Protected                     |   | 0.99  |   |   | 0.99  |   |  | 0.99  |   |   | 1.00  |   |
| Satd. Flow (prot)                 |   | 1799  |   |   | 1801  |   |  | 1807  |   |   | 1816  |   |
| Flt Permitted                     |   | 0.92  |   |   | 0.85  |   |  | 0.89  |   |   | 0.93  |   |
| Satd. Flow (perm)                 |   | 1670  |   |   | 1555  |   |  | 1628  |   |   | 1706  |   |
| Peak-hour factor, PHF             | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95   | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  |
| Adj. Flow (vph)                   | 51  | 302   | 95  | 75  | 229   | 64  | 61   | 255   | 62  | 42  | 320   | 65  |
| RTOR Reduction (vph)              | 0   | 10  | 0   | 0   | 8   | 0   | 0  | 7   | 0   | 0   | 7   | 0   |
| Lane Group Flow (vph)             | 0   | 438   | 0   | 0   | 360   | 0   | 0  | 371   | 0   | 0   | 420   | 0   |
| Turn Type                         | Perm  | NA  |   | Perm  | NA  |   | Perm   | NA  |   | Perm  | NA  |   |
| Protected Phases                  |   | 2   |   |   | 6   |   |  | 8   |   |   | 4   |   |
| Permitted Phases                  | 2   |   |   | 6   |   |   | 8  |   |   | 4   |   |   |
| Actuated Green, G (s)             |   | 20.0  |   |   | 20.0  |   |  | 19.7  |   |   | 19.7  |   |
| Effective Green, g (s)            |   | 20.0  |   |   | 20.0  |   |  | 19.7  |   |   | 19.7  |   |
| Actuated g/C Ratio                |   | 0.40  |   |   | 0.40  |   |  | 0.40  |   |   | 0.40  |   |
| Clearance Time (s)                |   | 4.9   |   |   | 4.9   |   |  | 4.9   |   |   | 4.9   |   |
| Vehicle Extension (s)             |   | 2.8   |   |   | 2.8   |   |  | 3.0   |   |   | 3.0   |   |
| Lane Grp Cap (vph)                |   | 674   |   |   | 628   |   |  | 647   |   |   | 678   |   |
| v/s Ratio Prot                    |   |   |   |   |   |   |  |   |   |   |   |   |
| v/s Ratio Perm                    |   | c0.26   |   |   | 0.23  |   |  | 0.23  |   |   | c0.25   |   |
| v/c Ratio                         |   | 0.65  |   |   | 0.57  |   |  | 0.57  |   |   | 0.62  |   |
| Uniform Delay, d1                 |   | 11.9  |   |   | 11.4  |   |  | 11.6  |   |   | 11.9  |   |
| Progression Factor                |   | 1.00  |   |   | 1.00  |   |  | 1.00  |   |   | 1.00  |   |
| Incremental Delay, d2             |   | 2.2   |   |   | 1.2   |   |  | 1.2   |   |   | 1.8   |   |
| Delay (s)                         |   | 14.1  |   |   | 12.6  |   |  | 12.9  |   |   | 13.7  |   |
| Level of Service                  |   | B   |   |   | B   |   |  | B   |   |   | B   |   |
| Approach Delay (s)                |   | 14.1  |   |   | 12.6  |   |  | 12.9  |   |   | 13.7  |   |
| Approach LOS                      |   | B   |   |   | B   |   |  | B   |   |   | B   |   |
| <b>Intersection Summary</b>       |   |   |   |   |   |   |  |   |   |   |   |   |
| HCM 2000 Control Delay            |   |   | 13.4  |   |   |   |  |   |   |   | HCM 2000 Level of Service   | B   |
| HCM 2000 Volume to Capacity ratio |   |   | 0.63  |   |   |   |  |   |   |   |   |   |
| Actuated Cycle Length (s)         |   |   | 49.5  |   |   |   |  |   |   |   | Sum of lost time (s)  | 9.8   |
| Intersection Capacity Utilization |   |   | 70.5%   |   |   |   |  |   |   |   | ICU Level of Service  | C   |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |

c Critical Lane Group




















HCM Unsignalized Intersection Capacity Analysis  
19: Estrella Ave & Orange Ave

Existing plus Project PM Peak Hour  
04/24/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |   |  |   |  |  |   |  |  |   |   |  |   |
| Sign Control                      |   | Stop  |   |   | Stop  |   |  | Stop  |   |   | Stop  |   |
| Traffic Volume (vph)              | 28  | 301   | 15  | 26  | 243   | 5   | 22   | 23  | 14  | 12  | 32  | 31  |
| Future Volume (vph)               | 28  | 301   | 15  | 26  | 243   | 5   | 22   | 23  | 14  | 12  | 32  | 31  |
| Peak Hour Factor                  | 0.81  | 0.81  | 0.81  | 0.81  | 0.81  | 0.81  | 0.81   | 0.81  | 0.81  | 0.81  | 0.81  | 0.81  |
| Hourly flow rate (vph)            | 35  | 372   | 19  | 32  | 300   | 6   | 27   | 28  | 17  | 15  | 40  | 38  |
| Direction, Lane #                 | EB 1  | WB 1  | WB 2  | NB 1  | SB 1  |   |  |   |   |   |   |   |
| Volume Total (vph)                | 426   | 32  | 306   | 72  | 93  |   |  |   |   |   |   |   |
| Volume Left (vph)                 | 35  | 32  | 0   | 27  | 15  |   |  |   |   |   |   |   |
| Volume Right (vph)                | 19  | 0   | 6   | 17  | 38  |   |  |   |   |   |   |   |
| Hadj (s)                          | 0.02  | 0.53  | 0.02  | -0.03   | -0.18   |   |  |   |   |   |   |   |
| Departure Headway (s)             | 5.0   | 6.0   | 5.5   | 6.0   | 5.8   |   |  |   |   |   |   |   |
| Degree Utilization, x             | 0.59  | 0.05  | 0.46  | 0.12  | 0.15  |   |  |   |   |   |   |   |
| Capacity (veh/h)                  | 696   | 579   | 638   | 516   | 541   |   |  |   |   |   |   |   |
| Control Delay (s)                 | 15.0  | 8.1   | 11.9  | 9.8   | 9.8   |   |  |   |   |   |   |   |
| Approach Delay (s)                | 15.0  | 11.5  |   | 9.8   | 9.8   |   |  |   |   |   |   |   |
| Approach LOS                      | B   | B   |   | A   | A   |   |  |   |   |   |   |   |
| Intersection Summary              |   |   |   |   |   |   |  |   |   |   |   |   |
| Delay                             |   |   | 12.8  |   |   |   |  |   |   |   |   |   |
| Level of Service                  |   |   | B   |   |   |   |  |   |   |   |   |   |
| Intersection Capacity Utilization |   |   | 54.3%   | ICU Level of Service  | A   |   |  |   |   |   |   |   |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |




















HCM Unsignalized Intersection Capacity Analysis  
1: Florida St & Howard Ave

Future AM Peak Hour  
03/30/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |  |  |   |  |  |   |  |  |   |   |  |  |
| Sign Control                      | Stop  |   |   | Stop  |   |   |  | Stop  |   |   | Stop  |   |
| Traffic Volume (vph)              | 3   | 28  | 13  | 24  | 153   | 36  | 41   | 158   | 10  | 15  | 113   | 33  |
| Future Volume (vph)               | 3   | 28  | 13  | 24  | 153   | 36  | 41   | 158   | 10  | 15  | 113   | 33  |
| Peak Hour Factor                  | 0.85  | 0.85  | 0.85  | 0.85  | 0.85  | 0.85  | 0.85   | 0.85  | 0.85  | 0.85  | 0.85  | 0.85  |
| Hourly flow rate (vph)            | 4   | 33  | 15  | 28  | 180   | 42  | 48   | 186   | 12  | 18  | 133   | 39  |
| Direction, Lane #                 | EB 1  | EB 2  | WB 1  | WB 2  | NB 1  | SB 1  |  |   |   |   |   |   |
| Volume Total (vph)                | 4   | 48  | 28  | 222   | 246   | 190   |  |   |   |   |   |   |
| Volume Left (vph)                 | 4   | 0   | 28  | 0   | 48  | 18  |  |   |   |   |   |   |
| Volume Right (vph)                | 0   | 15  | 0   | 42  | 12  | 39  |  |   |   |   |   |   |
| Hadj (s)                          | 0.53  | -0.18   | 0.53  | -0.10   | 0.04  | -0.07   |  |   |   |   |   |   |
| Departure Headway (s)             | 6.6   | 5.8   | 6.3   | 5.6   | 5.0   | 5.0   |  |   |   |   |   |   |
| Degree Utilization, x             | 0.01  | 0.08  | 0.05  | 0.35  | 0.34  | 0.26  |  |   |   |   |   |   |
| Capacity (veh/h)                  | 496   | 556   | 540   | 605   | 677   | 671   |  |   |   |   |   |   |
| Control Delay (s)                 | 8.4   | 8.1   | 8.4   | 10.4  | 10.7  | 9.8   |  |   |   |   |   |   |
| Approach Delay (s)                | 8.1   |   | 10.1  |   | 10.7  |   | 9.8  |   |   |   |   |   |
| Approach LOS                      | A   |   | B   |   | B   |   | A  |   |   |   |   |   |
| Intersection Summary              |   |   |   |   |   |   |  |   |   |   |   |   |
| Delay                             |   |   | 10.1  |   |   |   |  |   |   |   |   |   |
| Level of Service                  |   |   | B   |   |   |   |  |   |   |   |   |   |
| Intersection Capacity Utilization |   |   | 37.3%   |   | ICU Level of Service  |   | A  |   |   |   |   |   |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |

HCM Unsignalized Intersection Capacity Analysis  
 2: Mississippi St & Howard Ave

Future AM Peak Hour  
 03/30/2017

|                        |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement               | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations    |  |  |   |  |  |   |  |  |   |   |  |  |
| Sign Control           | Stop  |   |   | Stop  |   |   |  | Stop  |   |   | Stop  |   |
| Traffic Volume (vph)   | 8   | 35  | 7   | 5   | 87  | 21  | 37   | 75  | 4   | 19  | 39  | 14  |
| Future Volume (vph)    | 8   | 35  | 7   | 5   | 87  | 21  | 37   | 75  | 4   | 19  | 39  | 14  |
| Peak Hour Factor       | 0.91  | 0.91  | 0.91  | 0.91  | 0.91  | 0.91  | 0.91   | 0.91  | 0.91  | 0.91  | 0.91  | 0.91  |
| Hourly flow rate (vph) | 9   | 38  | 8   | 5   | 96  | 23  | 41   | 82  | 4   | 21  | 43  | 15  |
| Direction, Lane #      | EB 1  | EB 2  | WB 1  | WB 2  | NB 1  | SB 1  |  |   |   |   |   |   |
| Volume Total (vph)     | 9   | 46  | 5   | 119   | 127   | 79  |  |   |   |   |   |   |
| Volume Left (vph)      | 9   | 0   | 5   | 0   | 41  | 21  |  |   |   |   |   |   |
| Volume Right (vph)     | 0   | 8   | 0   | 23  | 4   | 15  |  |   |   |   |   |   |
| Hadj (s)               | 0.53  | -0.09   | 0.53  | -0.10   | 0.08  | -0.03   |  |   |   |   |   |   |
| Departure Headway (s)  | 5.7   | 5.0   | 5.6   | 4.9   | 4.5   | 4.5   |  |   |   |   |   |   |
| Degree Utilization, x  | 0.01  | 0.06  | 0.01  | 0.16  | 0.16  | 0.10  |  |   |   |   |   |   |
| Capacity (veh/h)       | 600   | 678   | 613   | 695   | 762   | 760   |  |   |   |   |   |   |
| Control Delay (s)      | 7.5   | 7.2   | 7.4   | 7.7   | 8.4   | 7.9   |  |   |   |   |   |   |
| Approach Delay (s)     | 7.2   |   | 7.7   |   | 8.4   | 7.9   |  |   |   |   |   |   |
| Approach LOS           | A   |   | A   |   | A   | A   |  |   |   |   |   |   |

Intersection Summary





















|                                   |       |                      |   |
|-----------------------------------|-------|----------------------|---|
| Delay                             | 7.9   |                      |   |
| Level of Service                  | A     |                      |   |
| Intersection Capacity Utilization | 27.3% | ICU Level of Service | A |
| Analysis Period (min)             | 15    |                      |   |



# HCM Signalized Intersection Capacity Analysis

## 3: Texas St & Howard Ave

Future AM Peak Hour  
03/30/2017

|                        |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement               | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations    |  |  |   |  |  |   |  |  |   |  |  |   |
| Traffic Volume (vph)   | 10  | 31  | 7   | 4   | 43  | 33  | 12   | 284   | 15  | 13  | 141   | 24  |
| Future Volume (vph)    | 10  | 31  | 7   | 4   | 43  | 33  | 12   | 284   | 15  | 13  | 141   | 24  |
| Ideal Flow (vphpl)     | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900   | 1900  | 1900  | 1900  | 1900  | 1900  |
| Total Lost time (s)    | 4.9   | 4.9   |   | 4.9   | 4.9   |   | 4.9  | 4.9   |   | 4.9   | 4.9   |   |
| Lane Util. Factor      | 1.00  | 1.00  |   | 1.00  | 1.00  |   | 1.00   | 1.00  |   | 1.00  | 1.00  |   |
| Frbp, ped/bikes        | 1.00  | 0.99  |   | 1.00  | 0.99  |   | 1.00   | 1.00  |   | 1.00  | 1.00  |   |
| Flpb, ped/bikes        | 1.00  | 1.00  |   | 1.00  | 1.00  |   | 0.99   | 1.00  |   | 0.99  | 1.00  |   |
| Frt                    | 1.00  | 0.97  |   | 1.00  | 0.93  |   | 1.00   | 0.99  |   | 1.00  | 0.98  |   |
| Flt Protected          | 0.95  | 1.00  |   | 0.95  | 1.00  |   | 0.95   | 1.00  |   | 0.95  | 1.00  |   |
| Satd. Flow (prot)      | 1767  | 1800  |   | 1764  | 1720  |   | 1753   | 1846  |   | 1758  | 1814  |   |
| Flt Permitted          | 0.70  | 1.00  |   | 0.73  | 1.00  |   | 0.64   | 1.00  |   | 0.56  | 1.00  |   |
| Satd. Flow (perm)      | 1308  | 1800  |   | 1355  | 1720  |   | 1187   | 1846  |   | 1041  | 1814  |   |
| Peak-hour factor, PHF  | 0.91  | 0.91  | 0.91  | 0.91  | 0.91  | 0.91  | 0.91   | 0.91  | 0.91  | 0.91  | 0.91  | 0.91  |
| Adj. Flow (vph)        | 11  | 34  | 8   | 4   | 47  | 36  | 13   | 312   | 16  | 14  | 155   | 26  |
| RTOR Reduction (vph)   | 0   | 7   | 0   | 0   | 32  | 0   | 0  | 2   | 0   | 0   | 5   | 0   |
| Lane Group Flow (vph)  | 11  | 35  | 0   | 4   | 51  | 0   | 13   | 326   | 0   | 14  | 176   | 0   |
| Confl. Peds. (#/hr)    | 1   |   | 2   | 2   |   | 1   | 7  |   | 6   | 6   |   | 7   |
| Confl. Bikes (#/hr)    |   |   | 1   |   |   | 2   |  |   | 2   |   |   | 2   |
| Turn Type              | Perm  | NA  |   | Perm  | NA  |   | Perm   | NA  |   | Perm  | NA  |   |
| Protected Phases       |   | 2   |   |   | 2   |   |  | 4   |   |   |   | 4   |
| Permitted Phases       | 2   |   |   | 2   |   |   | 4  |   |   | 4   |   |   |
| Actuated Green, G (s)  | 7.5   | 7.5   |   | 7.5   | 7.5   |   | 47.7   | 47.7  |   | 47.7  | 47.7  |   |
| Effective Green, g (s) | 7.5   | 7.5   |   | 7.5   | 7.5   |   | 47.7   | 47.7  |   | 47.7  | 47.7  |   |
| Actuated g/C Ratio     | 0.12  | 0.12  |   | 0.12  | 0.12  |   | 0.73   | 0.73  |   | 0.73  | 0.73  |   |
| Clearance Time (s)     | 4.9   | 4.9   |   | 4.9   | 4.9   |   | 4.9  | 4.9   |   | 4.9   | 4.9   |   |
| Vehicle Extension (s)  | 2.0   | 2.0   |   | 2.0   | 2.0   |   | 2.0  | 2.0   |   | 2.0   | 2.0   |   |
| Lane Grp Cap (vph)     | 150   | 207   |   | 156   | 198   |   | 871  | 1354  |   | 763   | 1331  |   |
| v/s Ratio Prot         |   | 0.02  |   |   | c0.03   |   |  | c0.18   |   |   |   | 0.10  |
| v/s Ratio Perm         | 0.01  |   |   | 0.00  |   |   | 0.01   |   |   | 0.01  |   |   |
| v/c Ratio              | 0.07  | 0.17  |   | 0.03  | 0.26  |   | 0.01   | 0.24  |   | 0.02  | 0.13  |   |
| Uniform Delay, d1      | 25.6  | 25.9  |   | 25.5  | 26.2  |   | 2.3  | 2.8   |   | 2.3   | 2.5   |   |
| Progression Factor     | 1.00  | 1.00  |   | 1.00  | 1.00  |   | 1.00   | 1.00  |   | 1.00  | 1.00  |   |
| Incremental Delay, d2  | 0.1   | 0.1   |   | 0.0   | 0.3   |   | 0.0  | 0.4   |   | 0.0   | 0.2   |   |
| Delay (s)              | 25.7  | 26.1  |   | 25.5  | 26.5  |   | 2.4  | 3.2   |   | 2.4   | 2.8   |   |
| Level of Service       | C   | C   |   | C   | C   |   | A  | A   |   | A   | A   |   |
| Approach Delay (s)     |   | 26.0  |   |   | 26.4  |   |  | 3.2   |   |   | 2.7   |   |
| Approach LOS           |   | C   |   |   | C   |   |  | A   |   |   | A   |   |




















### Intersection Summary

|                                   |       |                           |     |
|-----------------------------------|-------|---------------------------|-----|
| HCM 2000 Control Delay            | 7.8   | HCM 2000 Level of Service | A   |
| HCM 2000 Volume to Capacity ratio | 0.24  |                           |     |
| Actuated Cycle Length (s)         | 65.0  | Sum of lost time (s)      | 9.8 |
| Intersection Capacity Utilization | 31.8% | ICU Level of Service      | A   |
| Analysis Period (min)             | 15    |                           |     |

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis  
4: Oregon St & Howard Ave

Future AM Peak Hour  
03/30/2017




















|                        |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement               | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations    |  |  |   |  |  |   |  |  |   |   |  |  |
| Sign Control           | Stop  |   |   | Stop  |   |   | Stop   |   |   | Stop  |   |   |
| Traffic Volume (vph)   | 24  | 57  | 5   | 28  | 129   | 81  | 13   | 92  | 25  | 30  | 52  | 7   |
| Future Volume (vph)    | 24  | 57  | 5   | 28  | 129   | 81  | 13   | 92  | 25  | 30  | 52  | 7   |
| Peak Hour Factor       | 0.96  | 0.96  | 0.96  | 0.96  | 0.96  | 0.96  | 0.96   | 0.96  | 0.96  | 0.96  | 0.96  | 0.96  |
| Hourly flow rate (vph) | 25  | 59  | 5   | 29  | 134   | 84  | 14   | 96  | 26  | 31  | 54  | 7   |
| Direction, Lane #      | EB 1  | EB 2  | WB 1  | WB 2  | NB 1  | SB 1  |  |   |   |   |   |   |
| Volume Total (vph)     | 25  | 64  | 29  | 218   | 136   | 92  |  |   |   |   |   |   |
| Volume Left (vph)      | 25  | 0   | 29  | 0   | 14  | 31  |  |   |   |   |   |   |
| Volume Right (vph)     | 0   | 5   | 0   | 84  | 26  | 7   |  |   |   |   |   |   |
| Hadj (s)               | 0.53  | -0.02   | 0.53  | -0.24   | -0.06   | 0.06  |  |   |   |   |   |   |
| Departure Headway (s)  | 5.9   | 5.3   | 5.7   | 4.9   | 4.8   | 5.0   |  |   |   |   |   |   |
| Degree Utilization, x  | 0.04  | 0.09  | 0.05  | 0.30  | 0.18  | 0.13  |  |   |   |   |   |   |
| Capacity (veh/h)       | 574   | 637   | 599   | 697   | 704   | 671   |  |   |   |   |   |   |
| Control Delay (s)      | 7.9   | 7.7   | 7.8   | 8.9   | 8.8   | 8.7   |  |   |   |   |   |   |
| Approach Delay (s)     | 7.7   |   | 8.7   |   | 8.8   | 8.7   |  |   |   |   |   |   |
| Approach LOS           | A   |   | A   |   | A   | A   |  |   |   |   |   |   |

Intersection Summary

|                                   |       |                      |   |
|-----------------------------------|-------|----------------------|---|
| Delay                             | 8.6   |                      |   |
| Level of Service                  | A     |                      |   |
| Intersection Capacity Utilization | 38.0% | ICU Level of Service | A |
| Analysis Period (min)             | 15    |                      |   |

HCM Unsignalized Intersection Capacity Analysis  
5: Utah St & Howard Ave

Future AM Peak Hour  
03/30/2017





















|                        |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement               | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations    |  |  |   |  |  |   |  |  |   |   |  |  |
| Sign Control           | Stop  |   |   | Stop  |   |   | Stop   |   |   | Stop  |   |   |
| Traffic Volume (vph)   | 15  | 104   | 10  | 32  | 191   | 37  | 13   | 100   | 13  | 16  | 94  | 4   |
| Future Volume (vph)    | 15  | 104   | 10  | 32  | 191   | 37  | 13   | 100   | 13  | 16  | 94  | 4   |
| Peak Hour Factor       | 0.87  | 0.87  | 0.87  | 0.87  | 0.87  | 0.87  | 0.87   | 0.87  | 0.87  | 0.87  | 0.87  | 0.87  |
| Hourly flow rate (vph) | 17  | 120   | 11  | 37  | 220   | 43  | 15   | 115   | 15  | 18  | 108   | 5   |
| Direction, Lane #      | EB 1  | EB 2  | WB 1  | WB 2  | NB 1  | SB 1  |  |   |   |   |   |   |
| Volume Total (vph)     | 17  | 131   | 37  | 263   | 145   | 131   |  |   |   |   |   |   |
| Volume Left (vph)      | 17  | 0   | 37  | 0   | 15  | 18  |  |   |   |   |   |   |
| Volume Right (vph)     | 0   | 11  | 0   | 43  | 15  | 5   |  |   |   |   |   |   |
| Hadj (s)               | 0.53  | -0.02   | 0.53  | -0.08   | -0.01   | 0.04  |  |   |   |   |   |   |
| Departure Headway (s)  | 6.2   | 5.6   | 6.0   | 5.4   | 5.2   | 5.3   |  |   |   |   |   |   |
| Degree Utilization, x  | 0.03  | 0.20  | 0.06  | 0.39  | 0.21  | 0.19  |  |   |   |   |   |   |
| Capacity (veh/h)       | 544   | 602   | 571   | 642   | 630   | 618   |  |   |   |   |   |   |
| Control Delay (s)      | 8.1   | 8.8   | 8.2   | 10.6  | 9.6   | 9.6   |  |   |   |   |   |   |
| Approach Delay (s)     | 8.7   |   | 10.3  |   | 9.6   | 9.6   |  |   |   |   |   |   |
| Approach LOS           | A   |   | B   |   | A   | A   |  |   |   |   |   |   |

Intersection Summary

|                                   |       |                      |   |
|-----------------------------------|-------|----------------------|---|
| Delay                             | 9.7   |                      |   |
| Level of Service                  | A     |                      |   |
| Intersection Capacity Utilization | 30.6% | ICU Level of Service | A |
| Analysis Period (min)             | 15    |                      |   |

HCM Signalized Intersection Capacity Analysis  
6: 30th St & Howard Ave




















Future AM Peak Hour  
03/30/2017

|                                   |  |  |  |  |  |  |   |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL   | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |  |  |   |  |  |   |  |  |   |  |  |   |
| Traffic Volume (vph)              | 15  | 118   | 22  | 33  | 197   | 61  | 34  | 311   | 25  | 23  | 218   | 16  |
| Future Volume (vph)               | 15  | 118   | 22  | 33  | 197   | 61  | 34  | 311   | 25  | 23  | 218   | 16  |
| Ideal Flow (vphpl)                | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  |
| Total Lost time (s)               | 4.9   | 4.9   |   | 4.9   | 4.9   |   | 4.9   | 4.9   |   | 4.9   | 4.9   |   |
| Lane Util. Factor                 | 1.00  | 1.00  |   | 1.00  | 1.00  |   | 1.00  | 1.00  |   | 1.00  | 1.00  |   |
| Frbp, ped/bikes                   | 1.00  | 0.99  |   | 1.00  | 0.99  |   | 1.00  | 1.00  |   | 1.00  | 1.00  |   |
| Flpb, ped/bikes                   | 0.99  | 1.00  |   | 0.97  | 1.00  |   | 0.98  | 1.00  |   | 0.98  | 1.00  |   |
| Frt                               | 1.00  | 0.98  |   | 1.00  | 0.96  |   | 1.00  | 0.99  |   | 1.00  | 0.99  |   |
| Flt Protected                     | 0.95  | 1.00  |   | 0.95  | 1.00  |   | 0.95  | 1.00  |   | 0.95  | 1.00  |   |
| Satd. Flow (prot)                 | 1749  | 1803  |   | 1723  | 1777  |   | 1727  | 1835  |   | 1740  | 1837  |   |
| Flt Permitted                     | 0.47  | 1.00  |   | 0.66  | 1.00  |   | 0.61  | 1.00  |   | 0.55  | 1.00  |   |
| Satd. Flow (perm)                 | 867   | 1803  |   | 1206  | 1777  |   | 1107  | 1835  |   | 1002  | 1837  |   |
| Peak-hour factor, PHF             | 0.97  | 0.97  | 0.97  | 0.97  | 0.97  | 0.97  | 0.97  | 0.97  | 0.97  | 0.97  | 0.97  | 0.97  |
| Adj. Flow (vph)                   | 15  | 122   | 23  | 34  | 203   | 63  | 35  | 321   | 26  | 24  | 225   | 16  |
| RTOR Reduction (vph)              | 0   | 14  | 0   | 0   | 23  | 0   | 0   | 4   | 0   | 0   | 4   | 0   |
| Lane Group Flow (vph)             | 15  | 131   | 0   | 34  | 243   | 0   | 35  | 343   | 0   | 24  | 237   | 0   |
| Confl. Peds. (#/hr)               | 12  |   | 21  | 21  |   | 12  | 22  |   | 18  | 18  |   | 22  |
| Confl. Bikes (#/hr)               |   |   | 2   |   |   | 5   |   |   | 2   |   |   | 5   |
| Turn Type                         | Perm  | NA  |   | Perm  | NA  |   | Perm  | NA  |   | Perm  | NA  |   |
| Protected Phases                  |   | 2   |   |   | 2   |   |   | 4   |   |   |   | 4   |
| Permitted Phases                  | 2   |   |   | 2   |   |   | 4   |   |   | 4   |   |   |
| Actuated Green, G (s)             | 12.1  | 12.1  |   | 12.1  | 12.1  |   | 33.0  | 33.0  |   | 33.0  | 33.0  |   |
| Effective Green, g (s)            | 12.1  | 12.1  |   | 12.1  | 12.1  |   | 33.0  | 33.0  |   | 33.0  | 33.0  |   |
| Actuated g/C Ratio                | 0.22  | 0.22  |   | 0.22  | 0.22  |   | 0.60  | 0.60  |   | 0.60  | 0.60  |   |
| Clearance Time (s)                | 4.9   | 4.9   |   | 4.9   | 4.9   |   | 4.9   | 4.9   |   | 4.9   | 4.9   |   |
| Vehicle Extension (s)             | 2.0   | 2.0   |   | 2.0   | 2.0   |   | 3.3   | 3.3   |   | 3.3   | 3.3   |   |
| Lane Grp Cap (vph)                | 191   | 397   |   | 265   | 391   |   | 665   | 1103  |   | 602   | 1104  |   |
| v/s Ratio Prot                    |   | 0.07  |   |   | c0.14   |   |   | c0.19   |   |   |   | 0.13  |
| v/s Ratio Perm                    | 0.02  |   |   | 0.03  |   |   | 0.03  |   |   | 0.02  |   |   |
| v/c Ratio                         | 0.08  | 0.33  |   | 0.13  | 0.62  |   | 0.05  | 0.31  |   | 0.04  | 0.22  |   |
| Uniform Delay, d1                 | 17.0  | 18.0  |   | 17.2  | 19.3  |   | 4.5   | 5.4   |   | 4.5   | 5.0   |   |
| Progression Factor                | 1.00  | 1.00  |   | 1.00  | 1.00  |   | 1.00  | 1.00  |   | 1.00  | 1.00  |   |
| Incremental Delay, d2             | 0.1   | 0.2   |   | 0.1   | 2.2   |   | 0.2   | 0.7   |   | 0.1   | 0.4   |   |
| Delay (s)                         | 17.0  | 18.2  |   | 17.2  | 21.5  |   | 4.7   | 6.1   |   | 4.6   | 5.5   |   |
| Level of Service                  | B   | B   |   | B   | C   |   | A   | A   |   | A   | A   |   |
| Approach Delay (s)                |   | 18.1  |   |   | 21.0  |   |   | 6.0   |   |   | 5.4   |   |
| Approach LOS                      |   | B   |   |   | C   |   |   | A   |   |   | A   |   |
| <b>Intersection Summary</b>       |   |   |   |   |   |   |   |   |   |   |   |   |
| HCM 2000 Control Delay            |   |   | 11.7  |   |   |   | HCM 2000 Level of Service   |   |   |   | B   |   |
| HCM 2000 Volume to Capacity ratio |   |   | 0.39  |   |   |   |   |   |   |   |   |   |
| Actuated Cycle Length (s)         |   |   | 54.9  |   |   |   | Sum of lost time (s)  |   |   |   | 9.8   |   |
| Intersection Capacity Utilization |   |   | 58.4%   |   |   |   | ICU Level of Service  |   |   |   | B   |   |
| Analysis Period (min)             |   |   | 15  |   |   |   |   |   |   |   |   |   |

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis  
7: Illinois St & Howard Ave

Future AM Peak Hour  
03/30/2017





















|                        |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement               | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations    |  |  |   |  |  |   |  |  |   |   |  |  |
| Sign Control           | Stop  |   |   | Stop  |   |   |  | Stop  |   |   | Stop  |   |
| Traffic Volume (vph)   | 42  | 89  | 8   | 3   | 263   | 53  | 6  | 128   | 7   | 13  | 50  | 17  |
| Future Volume (vph)    | 42  | 89  | 8   | 3   | 263   | 53  | 6  | 128   | 7   | 13  | 50  | 17  |
| Peak Hour Factor       | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95   | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  |
| Hourly flow rate (vph) | 44  | 94  | 8   | 3   | 277   | 56  | 6  | 135   | 7   | 14  | 53  | 18  |
| Direction, Lane #      | EB 1  | EB 2  | WB 1  | WB 2  | NB 1  | SB 1  |  |   |   |   |   |   |
| Volume Total (vph)     | 44  | 102   | 3   | 333   | 148   | 85  |  |   |   |   |   |   |
| Volume Left (vph)      | 44  | 0   | 3   | 0   | 6   | 14  |  |   |   |   |   |   |
| Volume Right (vph)     | 0   | 8   | 0   | 56  | 7   | 18  |  |   |   |   |   |   |
| Hadj (s)               | 0.53  | -0.02   | 0.53  | -0.08   | 0.01  | -0.06   |  |   |   |   |   |   |
| Departure Headway (s)  | 6.1   | 5.5   | 5.9   | 5.2   | 5.3   | 5.3   |  |   |   |   |   |   |
| Degree Utilization, x  | 0.07  | 0.16  | 0.00  | 0.48  | 0.22  | 0.13  |  |   |   |   |   |   |
| Capacity (veh/h)       | 556   | 616   | 586   | 664   | 625   | 607   |  |   |   |   |   |   |
| Control Delay (s)      | 8.3   | 8.3   | 7.7   | 11.9  | 9.7   | 9.1   |  |   |   |   |   |   |
| Approach Delay (s)     | 8.3   |   | 11.8  |   | 9.7   |   |  |   |   |   |   |   |
| Approach LOS           | A   |   | B   |   | A   |   |  |   |   |   |   |   |

Intersection Summary

|                                   |       |
|-----------------------------------|-------|
| Delay                             | 10.3  |
| Level of Service                  | B     |
| Intersection Capacity Utilization | 41.0% |
| ICU Level of Service              | A     |
| Analysis Period (min)             | 15    |





















HCM Unsignalized Intersection Capacity Analysis  
8: Boundary St & Howard Ave/Orange Ave

Future AM Peak Hour  
03/30/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |  |  |   |  |  |   |  |  |  |   |  |  |
| Traffic Volume (veh/h)            | 1   | 88  | 15  | 30  | 287   | 0   | 28   | 1   | 29  | 0   | 0   | 3   |
| Future Volume (Veh/h)             | 1   | 88  | 15  | 30  | 287   | 0   | 28   | 1   | 29  | 0   | 0   | 3   |
| Sign Control                      |   | Free  |   |   | Free  |   |  | Stop  |   |   | Stop  |   |
| Grade                             |   | 0%  |   |   | 0%  |   |  | 0%  |   |   | 0%  |   |
| Peak Hour Factor                  | 0.89  | 0.89  | 0.89  | 0.89  | 0.89  | 0.89  | 0.89   | 0.89  | 0.89  | 0.89  | 0.89  | 0.89  |
| Hourly flow rate (vph)            | 1   | 99  | 17  | 34  | 322   | 0   | 31   | 1   | 33  | 0   | 0   | 3   |
| Pedestrians                       |   | 9   |   |   | 8   |   |  | 9   |   |   | 9   |   |
| Lane Width (ft)                   |   | 12.0  |   |   | 12.0  |   |  | 12.0  |   |   | 12.0  |   |
| Walking Speed (ft/s)              |   | 3.5   |   |   | 3.5   |   |  | 3.5   |   |   | 3.5   |   |
| Percent Blockage                  |   | 1   |   |   | 1   |   |  | 1   |   |   | 1   |   |
| Right turn flare (veh)            |   |   |   |   |   |   |  |   | 2   |   |   |   |
| Median type                       |   | TWLTL   |   |   | TWLTL   |   |  |   |   |   |   |   |
| Median storage (veh)              |   | 2   |   |   | 2   |   |  |   |   |   |   |   |
| Upstream signal (ft)              |   |   |   |   | 985   |   |  |   |   |   |   |   |
| pX, platoon unblocked             |   |   |   |   |   |   |  |   |   |   |   |   |
| vC, conflicting volume            | 331   |   |   | 125   |   |   | 520  | 518   | 124   | 525   | 526   | 340   |
| vC1, stage 1 conf vol             |   |   |   |   |   |   | 118  | 118   |   | 399   | 399   |   |
| vC2, stage 2 conf vol             |   |   |   |   |   |   | 402  | 399   |   | 126   | 127   |   |
| vCu, unblocked vol                | 331   |   |   | 125   |   |   | 520  | 518   | 124   | 525   | 526   | 340   |
| tC, single (s)                    | 4.1   |   |   | 4.1   |   |   | 7.1  | 6.5   | 6.2   | 7.1   | 6.5   | 6.2   |
| tC, 2 stage (s)                   |   |   |   |   |   |   | 6.1  | 5.5   |   | 6.1   | 5.5   |   |
| tF (s)                            | 2.2   |   |   | 2.2   |   |   | 3.5  | 4.0   | 3.3   | 3.5   | 4.0   | 3.3   |
| p0 queue free %                   | 100   |   |   | 98  |   |   | 95   | 100   | 96  | 100   | 100   | 100   |
| cM capacity (veh/h)               | 1218  |   |   | 1449  |   |   | 573  | 554   | 911   | 569   | 551   | 690   |
| Direction, Lane #                 | EB 1  | EB 2  | WB 1  | WB 2  | NB 1  | SB 1  |  |   |   |   |   |   |
| Volume Total                      | 1   | 116   | 34  | 322   | 65  | 3   |  |   |   |   |   |   |
| Volume Left                       | 1   | 0   | 34  | 0   | 31  | 0   |  |   |   |   |   |   |
| Volume Right                      | 0   | 17  | 0   | 0   | 33  | 3   |  |   |   |   |   |   |
| cSH                               | 1218  | 1700  | 1449  | 1700  | 1163  | 690   |  |   |   |   |   |   |
| Volume to Capacity                | 0.00  | 0.07  | 0.02  | 0.19  | 0.06  | 0.00  |  |   |   |   |   |   |
| Queue Length 95th (ft)            | 0   | 0   | 2   | 0   | 4   | 0   |  |   |   |   |   |   |
| Control Delay (s)                 | 8.0   | 0.0   | 7.5   | 0.0   | 10.4  | 10.2  |  |   |   |   |   |   |
| Lane LOS                          | A   |   | A   |   | B   | B   |  |   |   |   |   |   |
| Approach Delay (s)                | 0.1   |   | 0.7   |   | 10.4  | 10.2  |  |   |   |   |   |   |
| Approach LOS                      |   |   |   |   | B   | B   |  |   |   |   |   |   |
| <b>Intersection Summary</b>       |   |   |   |   |   |   |  |   |   |   |   |   |
| Average Delay                     |   |   | 1.8   |   |   |   |  |   |   |   |   |   |
| Intersection Capacity Utilization |   |   | 31.2%   |   | ICU Level of Service  |   |  |   | A   |   |   |   |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |

HCM Signalized Intersection Capacity Analysis  
9: Alley/33rd St & Orange Ave




















Future AM Peak Hour  
03/30/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |      |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|------|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |      |
| Lane Configurations               |  |  |   |  |  |   |  |  |   |  |  |  |      |
| Traffic Volume (vph)              | 79  | 119   | 0   | 8   | 274   | 230   | 5  | 4   | 0   | 56  | 2   | 42  |      |
| Future Volume (vph)               | 79  | 119   | 0   | 8   | 274   | 230   | 5  | 4   | 0   | 56  | 2   | 42  |      |
| Ideal Flow (vphpl)                | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900   | 1900  | 1900  | 1900  | 1900  | 1900  |      |
| Total Lost time (s)               | 4.0   | 4.0   |   | 5.0   | 4.0   |   |  | 4.0   |   | 4.0   | 4.0   |   |      |
| Lane Util. Factor                 | 1.00  | 1.00  |   | 1.00  | 1.00  |   |  | 1.00  |   | 1.00  | 1.00  |   |      |
| Fr <sub>t</sub>                   | 1.00  | 1.00  |   | 1.00  | 0.93  |   |  | 1.00  |   | 1.00  | 0.86  |   |      |
| Fl <sub>t</sub> Protected         | 0.95  | 1.00  |   | 0.95  | 1.00  |   |  | 0.97  |   | 0.95  | 1.00  |   |      |
| Satd. Flow (prot)                 | 1770  | 1863  |   | 1770  | 1735  |   |  | 1812  |   | 1770  | 1595  |   |      |
| Fl <sub>t</sub> Permitted         | 0.95  | 1.00  |   | 0.95  | 1.00  |   |  | 0.97  |   | 0.95  | 1.00  |   |      |
| Satd. Flow (perm)                 | 1770  | 1863  |   | 1770  | 1735  |   |  | 1812  |   | 1770  | 1595  |   |      |
| Peak-hour factor, PHF             | 0.96  | 0.96  | 0.96  | 0.96  | 0.96  | 0.96  | 0.96   | 0.96  | 0.96  | 0.96  | 0.96  | 0.96  |      |
| Adj. Flow (vph)                   | 82  | 124   | 0   | 8   | 285   | 240   | 5  | 4   | 0   | 58  | 2   | 44  |      |
| RTOR Reduction (vph)              | 0   | 0   | 0   | 0   | 10  | 0   | 0  | 0   | 0   | 0   | 39  | 0   |      |
| Lane Group Flow (vph)             | 82  | 124   | 0   | 8   | 515   | 0   | 0  | 9   | 0   | 58  | 7   | 0   |      |
| Turn Type                         | Prot  | NA  |   | Prot  | NA  |   | Split  | NA  |   | Split   | NA  |   |      |
| Protected Phases                  | 5   | 2   |   | 1   | 6   |   | 3  | 3   |   | 4   | 4   |   |      |
| Permitted Phases                  |   |   |   |   |   |   |  |   |   |   |   |   |      |
| Actuated Green, G (s)             | 9.5   | 38.1  |   | 4.4   | 34.0  |   |  | 0.8   |   | 7.5   | 7.5   |   |      |
| Effective Green, g (s)            | 9.5   | 38.1  |   | 4.4   | 34.0  |   |  | 0.8   |   | 7.5   | 7.5   |   |      |
| Actuated g/C Ratio                | 0.14  | 0.56  |   | 0.06  | 0.50  |   |  | 0.01  |   | 0.11  | 0.11  |   |      |
| Clearance Time (s)                | 4.0   | 4.0   |   | 5.0   | 4.0   |   |  | 4.0   |   | 4.0   | 4.0   |   |      |
| Vehicle Extension (s)             | 2.0   | 2.1   |   | 2.0   | 2.3   |   |  | 2.0   |   | 2.0   | 2.0   |   |      |
| Lane Grp Cap (vph)                | 248   | 1046  |   | 114   | 870   |   |  | 21  |   | 195   | 176   |   |      |
| v/s Ratio Prot                    | c0.05   | 0.07  |   | 0.00  | c0.30   |   |  | c0.00   |   | c0.03   | 0.00  |   |      |
| v/s Ratio Perm                    |   |   |   |   |   |   |  |   |   |   |   |   |      |
| v/c Ratio                         | 0.33  | 0.12  |   | 0.07  | 0.59  |   |  | 0.43  |   | 0.30  | 0.04  |   |      |
| Uniform Delay, d <sub>1</sub>     | 26.3  | 7.0   |   | 29.8  | 12.0  |   |  | 33.3  |   | 27.7  | 26.9  |   |      |
| Progression Factor                | 1.00  | 1.00  |   | 1.00  | 1.00  |   |  | 1.00  |   | 1.00  | 1.00  |   |      |
| Incremental Delay, d <sub>2</sub> | 0.3   | 0.0   |   | 0.1   | 0.8   |   |  | 5.0   |   | 0.3   | 0.0   |   |      |
| Delay (s)                         | 26.6  | 7.0   |   | 29.9  | 12.8  |   |  | 38.3  |   | 28.0  | 27.0  |   |      |
| Level of Service                  | C   | A   |   | C   | B   |   |  | D   |   | C   | C   |   |      |
| Approach Delay (s)                |   | 14.8  |   |   | 13.1  |   |  | 38.3  |   |   | 27.6  |   |      |
| Approach LOS                      |   | B   |   |   | B   |   |  | D   |   |   | C   |   |      |
| <b>Intersection Summary</b>       |   |   |   |   |   |   |  |   |   |   |   |   |      |
| HCM 2000 Control Delay            |   |   | 15.5  |   |   |   |  |   |   |   |   | HCM 2000 Level of Service   | B    |
| HCM 2000 Volume to Capacity ratio |   |   | 0.51  |   |   |   |  |   |   |   |   |   |      |
| Actuated Cycle Length (s)         |   |   | 67.8  |   |   |   |  |   |   |   |   | Sum of lost time (s)  | 17.0 |
| Intersection Capacity Utilization |   |   | 47.9%   |   |   |   |  |   |   |   |   | ICU Level of Service  | A    |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |      |

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis  
10: 35th St & Orange Ave

Future AM Peak Hour  
03/30/2017


















|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL   | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |  |  |   |  |  |   |   |  |   |   |  |  |
| Traffic Volume (vph)              | 40  | 165   | 17  | 25  | 359   | 101   | 63  | 111   | 48  | 46  | 72  | 20  |
| Future Volume (vph)               | 40  | 165   | 17  | 25  | 359   | 101   | 63  | 111   | 48  | 46  | 72  | 20  |
| Ideal Flow (vphpl)                | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  |
| Total Lost time (s)               | 4.9   | 4.9   |   | 4.9   | 4.9   |   |   | 4.9   |   |   | 4.9   |   |
| Lane Util. Factor                 | 1.00  | 1.00  |   | 1.00  | 1.00  |   |   | 1.00  |   |   | 1.00  |   |
| Frbp, ped/bikes                   | 1.00  | 1.00  |   | 1.00  | 0.99  |   |   | 0.99  |   |   | 0.99  |   |
| Flpb, ped/bikes                   | 0.99  | 1.00  |   | 0.98  | 1.00  |   |   | 0.99  |   |   | 1.00  |   |
| Frt                               | 1.00  | 0.99  |   | 1.00  | 0.97  |   |   | 0.97  |   |   | 0.98  |   |
| Flt Protected                     | 0.95  | 1.00  |   | 0.95  | 1.00  |   |   | 0.99  |   |   | 0.98  |   |
| Satd. Flow (prot)                 | 1757  | 1828  |   | 1726  | 1786  |   |   | 1755  |   |   | 1772  |   |
| Flt Permitted                     | 0.43  | 1.00  |   | 0.63  | 1.00  |   |   | 0.88  |   |   | 0.81  |   |
| Satd. Flow (perm)                 | 792   | 1828  |   | 1152  | 1786  |   |   | 1561  |   |   | 1453  |   |
| Peak-hour factor, PHF             | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  |
| Adj. Flow (vph)                   | 43  | 179   | 18  | 27  | 390   | 110   | 68  | 121   | 52  | 50  | 78  | 22  |
| RTOR Reduction (vph)              | 0   | 4   | 0   | 0   | 11  | 0   | 0   | 25  | 0   | 0   | 16  | 0   |
| Lane Group Flow (vph)             | 43  | 193   | 0   | 27  | 489   | 0   | 0   | 216   | 0   | 0   | 134   | 0   |
| Confl. Peds. (#/hr)               | 12  |   | 24  | 24  |   | 12  | 22  |   | 17  | 17  |   | 22  |
| Confl. Bikes (#/hr)               |   |   | 1   |   |   | 4   |   |   |   |   |   | 4   |
| Turn Type                         | Perm  | NA  |   | Perm  | NA  |   | Perm  | NA  |   | Perm  | NA  |   |
| Protected Phases                  |   | 2   |   |   | 2   |   |   | 4   |   |   |   | 4   |
| Permitted Phases                  | 2   |   |   | 2   |   |   | 4   |   |   | 4   |   |   |
| Actuated Green, G (s)             | 34.5  | 34.5  |   | 34.5  | 34.5  |   |   | 12.6  |   |   | 12.6  |   |
| Effective Green, g (s)            | 34.5  | 34.5  |   | 34.5  | 34.5  |   |   | 12.6  |   |   | 12.6  |   |
| Actuated g/C Ratio                | 0.61  | 0.61  |   | 0.61  | 0.61  |   |   | 0.22  |   |   | 0.22  |   |
| Clearance Time (s)                | 4.9   | 4.9   |   | 4.9   | 4.9   |   |   | 4.9   |   |   | 4.9   |   |
| Vehicle Extension (s)             | 3.1   | 3.1   |   | 3.1   | 3.1   |   |   | 2.0   |   |   | 2.0   |   |
| Lane Grp Cap (vph)                | 480   | 1108  |   | 698   | 1082  |   |   | 345   |   |   | 321   |   |
| v/s Ratio Prot                    |   | 0.11  |   |   | c0.27   |   |   |   |   |   |   |   |
| v/s Ratio Perm                    | 0.05  |   |   | 0.02  |   |   |   | c0.14   |   |   | 0.09  |   |
| v/c Ratio                         | 0.09  | 0.17  |   | 0.04  | 0.45  |   |   | 0.63  |   |   | 0.42  |   |
| Uniform Delay, d1                 | 4.7   | 4.9   |   | 4.5   | 6.1   |   |   | 20.0  |   |   | 19.0  |   |
| Progression Factor                | 1.00  | 1.00  |   | 1.00  | 1.00  |   |   | 1.00  |   |   | 1.00  |   |
| Incremental Delay, d2             | 0.4   | 0.3   |   | 0.1   | 1.4   |   |   | 2.5   |   |   | 0.3   |   |
| Delay (s)                         | 5.0   | 5.3   |   | 4.6   | 7.4   |   |   | 22.6  |   |   | 19.3  |   |
| Level of Service                  | A   | A   |   | A   | A   |   |   | C   |   |   | B   |   |
| Approach Delay (s)                |   | 5.2   |   |   | 7.3   |   |   | 22.6  |   |   | 19.3  |   |
| Approach LOS                      |   | A   |   |   | A   |   |   | C   |   |   | B   |   |
| <b>Intersection Summary</b>       |   |   |   |   |   |   |   |   |   |   |   |   |
| HCM 2000 Control Delay            |   |   | 11.6  |   |   | HCM 2000 Level of Service   |   |   | B   |   |   |   |
| HCM 2000 Volume to Capacity ratio |   |   | 0.50  |   |   |   |   |   |   |   |   |   |
| Actuated Cycle Length (s)         |   |   | 56.9  |   |   | Sum of lost time (s)  |   | 9.8   |   |   |   |   |
| Intersection Capacity Utilization |   |   | 57.5%   |   |   | ICU Level of Service  |   |   | B   |   |   |   |
| Analysis Period (min)             |   |   | 15  |   |   |   |   |   |   |   |   |   |

c Critical Lane Group




















HCM Unsignalized Intersection Capacity Analysis  
11: 37th St & Orange Ave

Future AM Peak Hour  
03/30/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |  |  |   |   |  |   |  |  |   |   |   |  |
| Traffic Volume (veh/h)            | 40  | 232   | 17  | 16  | 324   | 74  | 10   | 4   | 34  | 27  | 3   | 8   |
| Future Volume (Veh/h)             | 40  | 232   | 17  | 16  | 324   | 74  | 10   | 4   | 34  | 27  | 3   | 8   |
| Sign Control                      |   | Free  |   |   | Free  |   |  | Stop  |   |   | Stop  |   |
| Grade                             |   | 0%  |   |   | 0%  |   |  | 0%  |   |   | 0%  |   |
| Peak Hour Factor                  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92   | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  |
| Hourly flow rate (vph)            | 43  | 252   | 18  | 17  | 352   | 80  | 11   | 4   | 37  | 29  | 3   | 9   |
| Pedestrians                       |   |   |   |   |   |   |  |   |   |   |   |   |
| Lane Width (ft)                   |   |   |   |   |   |   |  |   |   |   |   |   |
| Walking Speed (ft/s)              |   |   |   |   |   |   |  |   |   |   |   |   |
| Percent Blockage                  |   |   |   |   |   |   |  |   |   |   |   |   |
| Right turn flare (veh)            |   |   |   |   |   |   |  |   |   |   |   |   |
| Median type                       |   | TWLTL   |   |   | TWLTL   |   |  |   |   |   |   |   |
| Median storage (veh)              |   | 2   |   |   | 2   |   |  |   |   |   |   |   |
| Upstream signal (ft)              |   |   |   |   | 1317  |   |  |   |   |   |   |   |
| pX, platoon unblocked             |   |   |   |   |   |   |  |   |   |   |   |   |
| vC, conflicting volume            | 432   |   |   | 270   |   |   | 784  | 813   | 261   | 803   | 782   | 392   |
| vC1, stage 1 conf vol             |   |   |   |   |   |   | 347  | 347   |   | 426   | 426   |   |
| vC2, stage 2 conf vol             |   |   |   |   |   |   | 436  | 466   |   | 377   | 356   |   |
| vCu, unblocked vol                | 432   |   |   | 270   |   |   | 784  | 813   | 261   | 803   | 782   | 392   |
| tC, single (s)                    | 4.1   |   |   | 4.1   |   |   | 7.1  | 6.5   | 6.2   | 7.1   | 6.5   | 6.2   |
| tC, 2 stage (s)                   |   |   |   |   |   |   | 6.1  | 5.5   |   | 6.1   | 5.5   |   |
| tF (s)                            | 2.2   |   |   | 2.2   |   |   | 3.5  | 4.0   | 3.3   | 3.5   | 4.0   | 3.3   |
| p0 queue free %                   | 96  |   |   | 99  |   |   | 98   | 99  | 95  | 94  | 99  | 99  |
| cM capacity (veh/h)               | 1128  |   |   | 1293  |   |   | 471  | 454   | 778   | 469   | 480   | 657   |
| Direction, Lane #                 | EB 1  | EB 2  | WB 1  | NB 1  | SB 1  |   |  |   |   |   |   |   |
| Volume Total                      | 43  | 270   | 449   | 52  | 41  |   |  |   |   |   |   |   |
| Volume Left                       | 43  | 0   | 17  | 11  | 29  |   |  |   |   |   |   |   |
| Volume Right                      | 0   | 18  | 80  | 37  | 9   |   |  |   |   |   |   |   |
| cSH                               | 1128  | 1700  | 1293  | 652   | 501   |   |  |   |   |   |   |   |
| Volume to Capacity                | 0.04  | 0.16  | 0.01  | 0.08  | 0.08  |   |  |   |   |   |   |   |
| Queue Length 95th (ft)            | 3   | 0   | 1   | 6   | 7   |   |  |   |   |   |   |   |
| Control Delay (s)                 | 8.3   | 0.0   | 0.4   | 11.0  | 12.8  |   |  |   |   |   |   |   |
| Lane LOS                          | A   |   | A   | B   | B   |   |  |   |   |   |   |   |
| Approach Delay (s)                | 1.1   |   | 0.4   | 11.0  | 12.8  |   |  |   |   |   |   |   |
| Approach LOS                      |   |   |   | B   | B   |   |  |   |   |   |   |   |
| Intersection Summary              |   |   |   |   |   |   |  |   |   |   |   |   |
| Average Delay                     |   |   | 1.9   |   |   |   |  |   |   |   |   |   |
| Intersection Capacity Utilization |   |   | 47.4%   |   | ICU Level of Service  |   |  |   | A   |   |   |   |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |


















HCM Unsignalized Intersection Capacity Analysis  
 12: 39th St & Orange Ave

Future AM Peak Hour  
 03/30/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |   |  |   |  |  |   |  |  |   |   |  |   |
| Traffic Volume (veh/h)            | 62  | 205   | 55  | 49  | 403   | 208   | 54   | 56  | 80  | 18  | 8   | 40  |
| Future Volume (Veh/h)             | 62  | 205   | 55  | 49  | 403   | 208   | 54   | 56  | 80  | 18  | 8   | 40  |
| Sign Control                      |   | Free  |   |   | Free  |   |  | Stop  |   |   | Stop  |   |
| Grade                             |   | 0%  |   |   | 0%  |   |  | 0%  |   |   | 0%  |   |
| Peak Hour Factor                  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92   | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  |
| Hourly flow rate (vph)            | 67  | 223   | 60  | 53  | 438   | 226   | 59   | 61  | 87  | 20  | 9   | 43  |
| Pedestrians                       |   |   |   |   |   |   |  |   |   |   |   |   |
| Lane Width (ft)                   |   |   |   |   |   |   |  |   |   |   |   |   |
| Walking Speed (ft/s)              |   |   |   |   |   |   |  |   |   |   |   |   |
| Percent Blockage                  |   |   |   |   |   |   |  |   |   |   |   |   |
| Right turn flare (veh)            |   |   |   |   |   |   |  |   |   |   |   |   |
| Median type                       |   | TWLTL   |   |   | TWLTL   |   |  |   |   |   |   |   |
| Median storage veh                |   | 2   |   |   | 2   |   |  |   |   |   |   |   |
| Upstream signal (ft)              |   |   |   |   |   |   |  | 347   |   |   |   |   |
| pX, platoon unblocked             | 0.69  |   |   |   |   |   | 0.69   | 0.69  |   | 0.69  | 0.69  | 0.69  |
| vC, conflicting volume            | 664   |   |   | 283   |   |   | 978  | 1157  | 253   | 1162  | 1074  | 551   |
| vC1, stage 1 conf vol             |   |   |   |   |   |   | 387  | 387   |   | 657   | 657   |   |
| vC2, stage 2 conf vol             |   |   |   |   |   |   | 592  | 770   |   | 504   | 417   |   |
| vCu, unblocked vol                | 289   |   |   | 283   |   |   | 744  | 1003  | 253   | 1010  | 883   | 125   |
| tC, single (s)                    | 4.1   |   |   | 4.1   |   |   | 7.1  | 6.5   | 6.2   | 7.1   | 6.5   | 6.2   |
| tC, 2 stage (s)                   |   |   |   |   |   |   | 6.1  | 5.5   |   | 6.1   | 5.5   |   |
| tF (s)                            | 2.2   |   |   | 2.2   |   |   | 3.5  | 4.0   | 3.3   | 3.5   | 4.0   | 3.3   |
| p0 queue free %                   | 92  |   |   | 96  |   |   | 84   | 79  | 89  | 93  | 98  | 93  |
| cM capacity (veh/h)               | 879   |   |   | 1279  |   |   | 375  | 290   | 786   | 292   | 362   | 639   |
| Direction, Lane #                 |   |   |   |   |   |   |  |   |   |   |   |   |
|                                   | EB 1  | WB 1  | WB 2  | NB 1  | SB 1  |   |  |   |   |   |   |   |
| Volume Total                      | 350   | 53  | 664   | 207   | 72  |   |  |   |   |   |   |   |
| Volume Left                       | 67  | 53  | 0   | 59  | 20  |   |  |   |   |   |   |   |
| Volume Right                      | 60  | 0   | 226   | 87  | 43  |   |  |   |   |   |   |   |
| cSH                               | 879   | 1279  | 1700  | 433   | 448   |   |  |   |   |   |   |   |
| Volume to Capacity                | 0.08  | 0.04  | 0.39  | 0.48  | 0.16  |   |  |   |   |   |   |   |
| Queue Length 95th (ft)            | 6   | 3   | 0   | 63  | 14  |   |  |   |   |   |   |   |
| Control Delay (s)                 | 2.5   | 7.9   | 0.0   | 20.7  | 14.6  |   |  |   |   |   |   |   |
| Lane LOS                          | A   | A   |   | C   | B   |   |  |   |   |   |   |   |
| Approach Delay (s)                | 2.5   | 0.6   |   | 20.7  | 14.6  |   |  |   |   |   |   |   |
| Approach LOS                      |   |   |   | C   | B   |   |  |   |   |   |   |   |
| Intersection Summary              |   |   |   |   |   |   |  |   |   |   |   |   |
| Average Delay                     |   |   | 4.9   |   |   |   |  |   |   |   |   |   |
| Intersection Capacity Utilization |   |   | 76.1%   |   | ICU Level of Service  |   |  |   |   | D   |   |   |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |

HCM Signalized Intersection Capacity Analysis  
13: 40th St & Orange Ave




















Future AM Peak Hour  
03/30/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |   |  |   |  |  |   |  |  |   |   |  |   |
| Traffic Volume (vph)              | 0   | 284   | 8   | 10  | 563   | 0   | 21   | 0   | 32  | 49  | 9   | 54  |
| Future Volume (vph)               | 0   | 284   | 8   | 10  | 563   | 0   | 21   | 0   | 32  | 49  | 9   | 54  |
| Ideal Flow (vphpl)                | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900   | 1900  | 1900  | 1900  | 1900  | 1900  |
| Total Lost time (s)               |   | 4.3   |   | 4.0   | 4.3   |   |  | 4.0   |   |   | 4.0   |   |
| Lane Util. Factor                 |   | 1.00  |   | 1.00  | 1.00  |   |  | 1.00  |   |   | 1.00  |   |
| Fr <sub>t</sub>                   |   | 1.00  |   | 1.00  | 1.00  |   |  | 0.92  |   |   | 0.94  |   |
| Fl <sub>t</sub> Protected         |   | 1.00  |   | 0.95  | 1.00  |   |  | 0.98  |   |   | 0.98  |   |
| Satd. Flow (prot)                 |   | 1856  |   | 1770  | 1863  |   |  | 1678  |   |   | 1704  |   |
| Fl <sub>t</sub> Permitted         |   | 1.00  |   | 0.95  | 1.00  |   |  | 0.98  |   |   | 0.87  |   |
| Satd. Flow (perm)                 |   | 1856  |   | 1770  | 1863  |   |  | 1678  |   |   | 1517  |   |
| Peak-hour factor, PHF             | 0.88  | 0.88  | 0.88  | 0.88  | 0.88  | 0.88  | 0.88   | 0.88  | 0.88  | 0.88  | 0.88  | 0.88  |
| Adj. Flow (vph)                   | 0   | 323   | 9   | 11  | 640   | 0   | 24   | 0   | 36  | 56  | 10  | 61  |
| RTOR Reduction (vph)              | 0   | 1   | 0   | 0   | 0   | 0   | 0  | 57  | 0   | 0   | 18  | 0   |
| Lane Group Flow (vph)             | 0   | 331   | 0   | 11  | 640   | 0   | 0  | 3   | 0   | 0   | 109   | 0   |
| Turn Type                         |   | NA  |   | Prot  | NA  |   | Split  | NA  |   | Perm  | NA  |   |
| Protected Phases                  |   | 2   |   | 1   | 6   |   | 3  | 3   |   |   |   | 4   |
| Permitted Phases                  |   |   |   |   |   |   |  |   |   | 4   |   |   |
| Actuated Green, G (s)             |   | 28.4  |   | 1.1   | 33.5  |   |  | 3.9   |   |   | 30.7  |   |
| Effective Green, g (s)            |   | 28.4  |   | 1.1   | 33.5  |   |  | 3.9   |   |   | 30.7  |   |
| Actuated g/C Ratio                |   | 0.35  |   | 0.01  | 0.42  |   |  | 0.05  |   |   | 0.38  |   |
| Clearance Time (s)                |   | 4.3   |   | 4.0   | 4.3   |   |  | 4.0   |   |   | 4.0   |   |
| Vehicle Extension (s)             |   | 2.0   |   | 2.0   | 2.0   |   |  | 2.0   |   |   | 2.0   |   |
| Lane Grp Cap (vph)                |   | 655   |   | 24  | 776   |   |  | 81  |   |   | 579   |   |
| v/s Ratio Prot                    |   | 0.18  |   | 0.01  | c0.34   |   |  | c0.00   |   |   |   |   |
| v/s Ratio Perm                    |   |   |   |   |   |   |  |   |   |   | c0.07   |   |
| v/c Ratio                         |   | 0.51  |   | 0.46  | 0.82  |   |  | 0.04  |   |   | 0.19  |   |
| Uniform Delay, d <sub>1</sub>     |   | 20.5  |   | 39.4  | 20.8  |   |  | 36.5  |   |   | 16.6  |   |
| Progression Factor                |   | 1.00  |   | 1.00  | 1.00  |   |  | 1.00  |   |   | 1.00  |   |
| Incremental Delay, d <sub>2</sub> |   | 0.2   |   | 5.0   | 6.8   |   |  | 0.1   |   |   | 0.7   |   |
| Delay (s)                         |   | 20.7  |   | 44.3  | 27.6  |   |  | 36.5  |   |   | 17.3  |   |
| Level of Service                  |   | C   |   | D   | C   |   |  | D   |   |   | B   |   |
| Approach Delay (s)                |   | 20.7  |   |   | 27.9  |   |  | 36.5  |   |   | 17.3  |   |
| Approach LOS                      |   | C   |   |   | C   |   |  | D   |   |   | B   |   |
| <b>Intersection Summary</b>       |   |   |   |   |   |   |  |   |   |   |   |   |
| HCM 2000 Control Delay            |   |   | 25.2  |   |   | HCM 2000 Level of Service   |  |   | C   |   |   |   |
| HCM 2000 Volume to Capacity ratio |   |   | 0.52  |   |   |   |  |   |   |   |   |   |
| Actuated Cycle Length (s)         |   |   | 80.4  |   |   | Sum of lost time (s)  |  | 16.3  |   |   |   |   |
| Intersection Capacity Utilization |   |   | 45.3%   |   |   | ICU Level of Service  |  |   | A   |   |   |   |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis  
 14: Marlborough Ave S/Alley & Orange Ave

Future AM Peak Hour  
 03/30/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |  |  |   |  |  |   |  |  |   |   |  |  |
| Traffic Volume (vph)              | 1   | 307   | 58  | 76  | 656   | 0   | 124  | 1   | 73  | 0   | 2   | 3   |
| Future Volume (vph)               | 1   | 307   | 58  | 76  | 656   | 0   | 124  | 1   | 73  | 0   | 2   | 3   |
| Ideal Flow (vphpl)                | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900   | 1900  | 1900  | 1900  | 1900  | 1900  |
| Total Lost time (s)               | 4.9   | 4.9   |   | 4.9   | 4.9   |   |  | 4.9   |   |   | 4.9   |   |
| Lane Util. Factor                 | 1.00  | 1.00  |   | 1.00  | 1.00  |   |  | 1.00  |   |   | 1.00  |   |
| Fr <sub>t</sub>                   | 1.00  | 0.98  |   | 1.00  | 1.00  |   |  | 0.95  |   |   | 0.92  |   |
| Fl <sub>t</sub> Protected         | 0.95  | 1.00  |   | 0.95  | 1.00  |   |  | 0.97  |   |   | 1.00  |   |
| Satd. Flow (prot)                 | 1770  | 1818  |   | 1770  | 1863  |   |  | 1716  |   |   | 1712  |   |
| Fl <sub>t</sub> Permitted         | 0.23  | 1.00  |   | 0.48  | 1.00  |   |  | 0.81  |   |   | 1.00  |   |
| Satd. Flow (perm)                 | 435   | 1818  |   | 886   | 1863  |   |  | 1428  |   |   | 1712  |   |
| Peak-hour factor, PHF             | 0.87  | 0.87  | 0.87  | 0.87  | 0.87  | 0.87  | 0.87   | 0.87  | 0.87  | 0.87  | 0.87  | 0.87  |
| Adj. Flow (vph)                   | 1   | 353   | 67  | 87  | 754   | 0   | 143  | 1   | 84  | 0   | 2   | 3   |
| RTOR Reduction (vph)              | 0   | 5   | 0   | 0   | 0   | 0   | 0  | 21  | 0   | 0   | 2   | 0   |
| Lane Group Flow (vph)             | 1   | 415   | 0   | 87  | 754   | 0   | 0  | 207   | 0   | 0   | 3   | 0   |
| Turn Type                         | Perm  | NA  |   | Perm  | NA  |   | Perm   | NA  |   |   | NA  |   |
| Protected Phases                  |   | 2   |   |   | 6   |   |  | 8   |   |   | 4   |   |
| Permitted Phases                  | 2   |   |   | 6   |   |   | 8  |   |   | 4   |   |   |
| Actuated Green, G (s)             | 34.1  | 34.1  |   | 34.1  | 34.1  |   |  | 15.2  |   |   | 15.2  |   |
| Effective Green, g (s)            | 34.1  | 34.1  |   | 34.1  | 34.1  |   |  | 15.2  |   |   | 15.2  |   |
| Actuated g/C Ratio                | 0.58  | 0.58  |   | 0.58  | 0.58  |   |  | 0.26  |   |   | 0.26  |   |
| Clearance Time (s)                | 4.9   | 4.9   |   | 4.9   | 4.9   |   |  | 4.9   |   |   | 4.9   |   |
| Vehicle Extension (s)             | 2.2   | 2.2   |   | 2.2   | 2.2   |   |  | 2.0   |   |   | 2.0   |   |
| Lane Grp Cap (vph)                | 250   | 1048  |   | 511   | 1074  |   |  | 367   |   |   | 440   |   |
| v/s Ratio Prot                    |   | 0.23  |   |   | c0.40   |   |  |   |   |   | 0.00  |   |
| v/s Ratio Perm                    | 0.00  |   |   | 0.10  |   |   |  | c0.15   |   |   |   |   |
| v/c Ratio                         | 0.00  | 0.40  |   | 0.17  | 0.70  |   |  | 0.56  |   |   | 0.01  |   |
| Uniform Delay, d <sub>1</sub>     | 5.3   | 6.9   |   | 5.9   | 8.9   |   |  | 19.1  |   |   | 16.3  |   |
| Progression Factor                | 1.00  | 1.00  |   | 1.00  | 1.00  |   |  | 1.00  |   |   | 1.00  |   |
| Incremental Delay, d <sub>2</sub> | 0.0   | 0.1   |   | 0.1   | 1.8   |   |  | 1.2   |   |   | 0.0   |   |
| Delay (s)                         | 5.3   | 7.0   |   | 5.9   | 10.7  |   |  | 20.3  |   |   | 16.3  |   |
| Level of Service                  | A   | A   |   | A   | B   |   |  | C   |   |   | B   |   |
| Approach Delay (s)                |   | 7.0   |   |   | 10.2  |   |  | 20.3  |   |   | 16.3  |   |
| Approach LOS                      |   | A   |   |   | B   |   |  | C   |   |   | B   |   |


















Intersection Summary

|                                   |       |                           |     |
|-----------------------------------|-------|---------------------------|-----|
| HCM 2000 Control Delay            | 10.8  | HCM 2000 Level of Service | B   |
| HCM 2000 Volume to Capacity ratio | 0.66  |                           |     |
| Actuated Cycle Length (s)         | 59.1  | Sum of lost time (s)      | 9.8 |
| Intersection Capacity Utilization | 68.2% | ICU Level of Service      | C   |
| Analysis Period (min)             | 15    |                           |     |

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis  
15: 43rd St & Orange Ave






















Future AM Peak Hour  
03/30/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL   | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |   |  |   |  |  |   |   |   |   |   |  |  |
| Traffic Volume (vph)              | 0   | 341   | 39  | 19  | 531   | 0   | 0   | 0   | 0   | 51  | 268   | 81  |
| Future Volume (vph)               | 0   | 341   | 39  | 19  | 531   | 0   | 0   | 0   | 0   | 51  | 268   | 81  |
| Ideal Flow (vphpl)                | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  |
| Total Lost time (s)               |   | 4.9   |   | 4.9   | 4.9   |   |   |   |   |   | 4.9   |   |
| Lane Util. Factor                 |   | 1.00  |   | 1.00  | 1.00  |   |   |   |   |   | 0.95  |   |
| Frbp, ped/bikes                   |   | 0.99  |   | 1.00  | 1.00  |   |   |   |   |   | 0.99  |   |
| Flpb, ped/bikes                   |   | 1.00  |   | 0.96  | 1.00  |   |   |   |   |   | 0.99  |   |
| Frt                               |   | 0.99  |   | 1.00  | 1.00  |   |   |   |   |   | 0.97  |   |
| Flt Protected                     |   | 1.00  |   | 0.95  | 1.00  |   |   |   |   |   | 0.99  |   |
| Satd. Flow (prot)                 |   | 1822  |   | 1705  | 1863  |   |   |   |   |   | 3341  |   |
| Flt Permitted                     |   | 1.00  |   | 0.49  | 1.00  |   |   |   |   |   | 0.99  |   |
| Satd. Flow (perm)                 |   | 1822  |   | 885   | 1863  |   |   |   |   |   | 3341  |   |
| Peak-hour factor, PHF             | 0.94  | 0.94  | 0.94  | 0.94  | 0.94  | 0.94  | 0.94  | 0.94  | 0.94  | 0.94  | 0.94  | 0.94  |
| Adj. Flow (vph)                   | 0   | 363   | 41  | 20  | 565   | 0   | 0   | 0   | 0   | 54  | 285   | 86  |
| RTOR Reduction (vph)              | 0   | 3   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 34  | 0   |
| Lane Group Flow (vph)             | 0   | 401   | 0   | 20  | 565   | 0   | 0   | 0   | 0   | 0   | 391   | 0   |
| Confl. Peds. (#/hr)               | 43  |   | 62  | 62  |   | 43  | 22  |   | 31  | 31  |   | 22  |
| Confl. Bikes (#/hr)               |   |   | 13  |   |   | 3   |   |   |   |   |   | 3   |
| Turn Type                         |   | NA  |   | Perm  | NA  |   |   |   |   |   | Perm  | NA  |
| Protected Phases                  |   | 2   |   |   | 6   |   |   |   |   |   |   | 4   |
| Permitted Phases                  |   |   |   | 6   |   |   |   |   |   | 4   |   |   |
| Actuated Green, G (s)             |   | 44.0  |   | 44.0  | 44.0  |   |   |   |   |   | 16.2  |   |
| Effective Green, g (s)            |   | 44.0  |   | 44.0  | 44.0  |   |   |   |   |   | 16.2  |   |
| Actuated g/C Ratio                |   | 0.63  |   | 0.63  | 0.63  |   |   |   |   |   | 0.23  |   |
| Clearance Time (s)                |   | 4.9   |   | 4.9   | 4.9   |   |   |   |   |   | 4.9   |   |
| Vehicle Extension (s)             |   | 5.5   |   | 5.5   | 5.5   |   |   |   |   |   | 5.1   |   |
| Lane Grp Cap (vph)                |   | 1145  |   | 556   | 1171  |   |   |   |   |   | 773   |   |
| v/s Ratio Prot                    |   | 0.22  |   |   | c0.30   |   |   |   |   |   |   |   |
| v/s Ratio Perm                    |   |   |   | 0.02  |   |   |   |   |   |   | 0.12  |   |
| v/c Ratio                         |   | 0.35  |   | 0.04  | 0.48  |   |   |   |   |   | 0.51  |   |
| Uniform Delay, d1                 |   | 6.2   |   | 4.9   | 6.9   |   |   |   |   |   | 23.4  |   |
| Progression Factor                |   | 1.00  |   | 1.78  | 1.75  |   |   |   |   |   | 1.00  |   |
| Incremental Delay, d2             |   | 0.8   |   | 0.1   | 1.2   |   |   |   |   |   | 1.1   |   |
| Delay (s)                         |   | 7.0   |   | 8.9   | 13.3  |   |   |   |   |   | 24.5  |   |
| Level of Service                  |   | A   |   | A   | B   |   |   |   |   |   | C   |   |
| Approach Delay (s)                |   | 7.0   |   |   | 13.2  |   |   | 0.0   |   |   | 24.5  |   |
| Approach LOS                      |   | A   |   |   | B   |   |   | A   |   |   | C   |   |
| <b>Intersection Summary</b>       |   |   |   |   |   |   |   |   |   |   |   |   |
| HCM 2000 Control Delay            |   |   | 14.8  |   |   | HCM 2000 Level of Service   |   |   |   | B   |   |   |
| HCM 2000 Volume to Capacity ratio |   |   | 0.49  |   |   |   |   |   |   |   |   |   |
| Actuated Cycle Length (s)         |   |   | 70.0  |   |   | Sum of lost time (s)  |   |   |   | 9.8   |   |   |
| Intersection Capacity Utilization |   |   | 51.7%   |   |   | ICU Level of Service  |   |   |   | A   |   |   |
| Analysis Period (min)             |   |   | 15  |   |   |   |   |   |   |   |   |   |

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis  
 16: Fairmount Ave & Orange Ave




















Future AM Peak Hour  
 03/30/2017

|                                   |  |  |  |  |  |  |  |   |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|--|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT  | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |  |  |   |  |  |   |  | <br> |   |  |  |   |
| Traffic Volume (vph)              | 74  | 273   | 61  | 45  | 376   | 145   | 184  | 869  | 62  | 10  | 61  | 11  |
| Future Volume (vph)               | 74  | 273   | 61  | 45  | 376   | 145   | 184  | 869  | 62  | 10  | 61  | 11  |
| Ideal Flow (vphpl)                | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900   | 1900   | 1900  | 1900  | 1900  | 1900  |
| Total Lost time (s)               | 4.9   | 4.9   |   | 4.9   | 4.9   |   | 4.9  | 4.9  |   | 4.9   | 4.9   |   |
| Lane Util. Factor                 | 1.00  | 1.00  |   | 1.00  | 1.00  |   | 1.00   | 0.95   |   | 1.00  | 1.00  |   |
| Frbp, ped/bikes                   | 1.00  | 0.97  |   | 1.00  | 0.98  |   | 1.00   | 0.99   |   | 1.00  | 0.99  |   |
| Flpb, ped/bikes                   | 0.98  | 1.00  |   | 0.91  | 1.00  |   | 0.94   | 1.00   |   | 0.98  | 1.00  |   |
| Frt                               | 1.00  | 0.97  |   | 1.00  | 0.96  |   | 1.00   | 0.99   |   | 1.00  | 0.98  |   |
| Flt Protected                     | 0.95  | 1.00  |   | 0.95  | 1.00  |   | 0.95   | 1.00   |   | 0.95  | 1.00  |   |
| Satd. Flow (prot)                 | 1732  | 1751  |   | 1617  | 1743  |   | 1661   | 3475   |   | 1736  | 1792  |   |
| Flt Permitted                     | 0.25  | 1.00  |   | 0.45  | 1.00  |   | 0.71   | 1.00   |   | 0.19  | 1.00  |   |
| Satd. Flow (perm)                 | 454   | 1751  |   | 772   | 1743  |   | 1237   | 3475   |   | 354   | 1792  |   |
| Peak-hour factor, PHF             | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95   | 0.95   | 0.95  | 0.95  | 0.95  | 0.95  |
| Adj. Flow (vph)                   | 78  | 287   | 64  | 47  | 396   | 153   | 194  | 915  | 65  | 11  | 64  | 12  |
| RTOR Reduction (vph)              | 0   | 9   | 0   | 0   | 16  | 0   | 0  | 9  | 0   | 0   | 7   | 0   |
| Lane Group Flow (vph)             | 78  | 342   | 0   | 47  | 533   | 0   | 194  | 971  | 0   | 11  | 69  | 0   |
| Confl. Peds. (#/hr)               | 63  |   | 84  | 84  |   | 63  | 39   |  | 58  | 58  |   | 39  |
| Confl. Bikes (#/hr)               |   |   | 4   |   |   | 9   |  |  | 5   |   |   | 9   |
| Turn Type                         | Perm  | NA  |   | Perm  | NA  |   | Perm   | NA   |   | Perm  | NA  |   |
| Protected Phases                  |   | 2   |   |   | 6   |   |  | 8  |   |   |   | 8   |
| Permitted Phases                  | 2   |   |   | 6   |   |   | 8  |  |   | 8   |   |   |
| Actuated Green, G (s)             | 28.8  | 28.8  |   | 28.8  | 28.8  |   | 31.4   | 31.4   |   | 31.4  | 31.4  |   |
| Effective Green, g (s)            | 28.8  | 28.8  |   | 28.8  | 28.8  |   | 31.4   | 31.4   |   | 31.4  | 31.4  |   |
| Actuated g/C Ratio                | 0.41  | 0.41  |   | 0.41  | 0.41  |   | 0.45   | 0.45   |   | 0.45  | 0.45  |   |
| Clearance Time (s)                | 4.9   | 4.9   |   | 4.9   | 4.9   |   | 4.9  | 4.9  |   | 4.9   | 4.9   |   |
| Vehicle Extension (s)             | 5.5   | 5.5   |   | 5.5   | 5.5   |   | 6.3  | 6.3  |   | 6.3   | 6.3   |   |
| Lane Grp Cap (vph)                | 186   | 720   |   | 317   | 717   |   | 554  | 1558   |   | 158   | 803   |   |
| v/s Ratio Prot                    |   | 0.20  |   |   | c0.31   |   |  | c0.28  |   |   |   | 0.04  |
| v/s Ratio Perm                    | 0.17  |   |   | 0.06  |   |   | 0.16   |  |   | 0.03  |   |   |
| v/c Ratio                         | 0.42  | 0.47  |   | 0.15  | 0.74  |   | 0.35   | 0.62   |   | 0.07  | 0.09  |   |
| Uniform Delay, d1                 | 14.7  | 15.1  |   | 12.9  | 17.5  |   | 12.6   | 14.8   |   | 11.0  | 11.1  |   |
| Progression Factor                | 1.07  | 1.06  |   | 1.00  | 1.00  |   | 1.00   | 1.00   |   | 1.00  | 1.00  |   |
| Incremental Delay, d2             | 6.6   | 2.2   |   | 1.0   | 6.8   |   | 1.2  | 1.4  |   | 0.6   | 0.1   |   |
| Delay (s)                         | 22.2  | 18.2  |   | 13.9  | 24.3  |   | 13.8   | 16.2   |   | 11.6  | 11.2  |   |
| Level of Service                  | C   | B   |   | B   | C   |   | B  | B  |   | B   | B   |   |
| Approach Delay (s)                |   | 18.9  |   |   | 23.5  |   |  | 15.8   |   |   | 11.3  |   |
| Approach LOS                      |   | B   |   |   | C   |   |  | B  |   |   | B   |   |
| <b>Intersection Summary</b>       |   |   |   |   |   |   |  |  |   |   |   |   |
| HCM 2000 Control Delay            |   |   | 18.2  |   |   |   | HCM 2000 Level of Service  |  |   |   | B   |   |
| HCM 2000 Volume to Capacity ratio |   |   | 0.68  |   |   |   |  |  |   |   |   |   |
| Actuated Cycle Length (s)         |   |   | 70.0  |   |   |   | Sum of lost time (s)   |  |   | 9.8   |   |   |
| Intersection Capacity Utilization |   |   | 76.8%   |   |   |   | ICU Level of Service   |  |   | D   |   |   |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |  |   |   |   |   |

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis  
17: Chamoune Ave & Orange Ave

Future AM Peak Hour  
03/30/2017




















|                        |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement               | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations    |  |  |   |  |  |   |  |  |   |   |  |  |
| Sign Control           | Stop  |   |   | Stop  |   |   |  | Stop  |   |   | Stop  |   |
| Traffic Volume (vph)   | 32  | 174   | 23  | 46  | 347   | 60  | 28   | 180   | 30  | 24  | 104   | 25  |
| Future Volume (vph)    | 32  | 174   | 23  | 46  | 347   | 60  | 28   | 180   | 30  | 24  | 104   | 25  |
| Peak Hour Factor       | 0.87  | 0.87  | 0.87  | 0.87  | 0.87  | 0.87  | 0.87   | 0.87  | 0.87  | 0.87  | 0.87  | 0.87  |
| Hourly flow rate (vph) | 37  | 200   | 26  | 53  | 399   | 69  | 32   | 207   | 34  | 28  | 120   | 29  |
| Direction, Lane #      | EB 1  | EB 2  | WB 1  | WB 2  | NB 1  | SB 1  |  |   |   |   |   |   |
| Volume Total (vph)     | 37  | 226   | 53  | 468   | 273   | 177   |  |   |   |   |   |   |
| Volume Left (vph)      | 37  | 0   | 53  | 0   | 32  | 28  |  |   |   |   |   |   |
| Volume Right (vph)     | 0   | 26  | 0   | 69  | 34  | 29  |  |   |   |   |   |   |
| Hadj (s)               | 0.53  | -0.05   | 0.53  | -0.07   | -0.02   | -0.03   |  |   |   |   |   |   |
| Departure Headway (s)  | 7.7   | 7.1   | 7.2   | 6.6   | 6.7   | 7.0   |  |   |   |   |   |   |
| Degree Utilization, x  | 0.08  | 0.44  | 0.11  | 0.85  | 0.51  | 0.34  |  |   |   |   |   |   |
| Capacity (veh/h)       | 441   | 463   | 482   | 537   | 490   | 466   |  |   |   |   |   |   |
| Control Delay (s)      | 10.1  | 14.4  | 9.8   | 35.5  | 16.5  | 13.6  |  |   |   |   |   |   |
| Approach Delay (s)     | 13.8  |   | 32.9  |   | 16.5  |   | 13.6   |   |   |   |   |   |
| Approach LOS           | B   |   | D   |   | C   |   | B  |   |   |   |   |   |

Intersection Summary

|                                   |       |  |                      |  |  |  |   |  |  |  |  |  |
|-----------------------------------|-------|--|----------------------|--|--|--|---|--|--|--|--|--|
| Delay                             | 22.4  |  |                      |  |  |  |   |  |  |  |  |  |
| Level of Service                  | C     |  |                      |  |  |  |   |  |  |  |  |  |
| Intersection Capacity Utilization | 52.7% |  | ICU Level of Service |  |  |  | A |  |  |  |  |  |
| Analysis Period (min)             | 15    |  |                      |  |  |  |   |  |  |  |  |  |

HCM Signalized Intersection Capacity Analysis  
 18: Euclid Ave & Orange Ave

Future AM Peak Hour  
 03/30/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |  |  |   |  |  |   |  |  |   |   |  |  |
| Traffic Volume (vph)              | 50  | 138   | 70  | 71  | 211   | 70  | 81   | 346   | 45  | 25  | 160   | 58  |
| Future Volume (vph)               | 50  | 138   | 70  | 71  | 211   | 70  | 81   | 346   | 45  | 25  | 160   | 58  |
| Ideal Flow (vphpl)                | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900   | 1900  | 1900  | 1900  | 1900  | 1900  |
| Total Lost time (s)               | 4.4   | 4.9   |   | 4.4   | 4.9   |   |  | 4.9   |   |   | 4.9   |   |
| Lane Util. Factor                 | 1.00  | 1.00  |   | 1.00  | 1.00  |   |  | 1.00  |   |   | 1.00  |   |
| Fr <sub>t</sub>                   | 1.00  | 0.95  |   | 1.00  | 0.96  |   |  | 0.99  |   |   | 0.97  |   |
| Fl <sub>t</sub> Protected         | 0.95  | 1.00  |   | 0.95  | 1.00  |   |  | 0.99  |   |   | 0.99  |   |
| Satd. Flow (prot)                 | 1770  | 1769  |   | 1770  | 1793  |   |  | 1823  |   |   | 1794  |   |
| Fl <sub>t</sub> Permitted         | 0.95  | 1.00  |   | 0.95  | 1.00  |   |  | 0.90  |   |   | 0.93  |   |
| Satd. Flow (perm)                 | 1770  | 1769  |   | 1770  | 1793  |   |  | 1650  |   |   | 1674  |   |
| Peak-hour factor, PHF             | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92   | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  |
| Adj. Flow (vph)                   | 54  | 150   | 76  | 77  | 229   | 76  | 88   | 376   | 49  | 27  | 174   | 63  |
| RTOR Reduction (vph)              | 0   | 13  | 0   | 0   | 8   | 0   | 0  | 3   | 0   | 0   | 7   | 0   |
| Lane Group Flow (vph)             | 54  | 213   | 0   | 77  | 297   | 0   | 0  | 510   | 0   | 0   | 257   | 0   |
| Turn Type                         | Prot  | NA  |   | Prot  | NA  |   | Perm   | NA  |   | Perm  | NA  |   |
| Protected Phases                  | 5   | 2   |   | 1   | 6   |   |  | 8   |   |   | 4   |   |
| Permitted Phases                  |   |   |   |   |   |   | 8  |   |   | 4   |   |   |
| Actuated Green, G (s)             | 5.9   | 19.1  |   | 6.9   | 20.1  |   |  | 31.1  |   |   | 31.1  |   |
| Effective Green, g (s)            | 5.9   | 19.1  |   | 6.9   | 20.1  |   |  | 31.1  |   |   | 31.1  |   |
| Actuated g/C Ratio                | 0.08  | 0.27  |   | 0.10  | 0.28  |   |  | 0.44  |   |   | 0.44  |   |
| Clearance Time (s)                | 4.4   | 4.9   |   | 4.4   | 4.9   |   |  | 4.9   |   |   | 4.9   |   |
| Vehicle Extension (s)             | 2.0   | 2.8   |   | 2.0   | 2.8   |   |  | 3.0   |   |   | 3.0   |   |
| Lane Grp Cap (vph)                | 146   | 473   |   | 171   | 505   |   |  | 719   |   |   | 730   |   |
| v/s Ratio Prot                    | 0.03  | 0.12  |   | c0.04   | c0.17   |   |  |   |   |   |   |   |
| v/s Ratio Perm                    |   |   |   |   |   |   |  | c0.31   |   |   | 0.15  |   |
| v/c Ratio                         | 0.37  | 0.45  |   | 0.45  | 0.59  |   |  | 0.71  |   |   | 0.35  |   |
| Uniform Delay, d <sub>1</sub>     | 30.9  | 21.7  |   | 30.4  | 22.0  |   |  | 16.4  |   |   | 13.4  |   |
| Progression Factor                | 1.00  | 1.00  |   | 1.00  | 1.00  |   |  | 1.00  |   |   | 1.00  |   |
| Incremental Delay, d <sub>2</sub> | 0.6   | 0.6   |   | 0.7   | 1.6   |   |  | 3.2   |   |   | 0.3   |   |
| Delay (s)                         | 31.5  | 22.3  |   | 31.1  | 23.7  |   |  | 19.6  |   |   | 13.7  |   |
| Level of Service                  | C   | C   |   | C   | C   |   |  | B   |   |   | B   |   |
| Approach Delay (s)                |   | 24.1  |   |   | 25.2  |   |  | 19.6  |   |   | 13.7  |   |
| Approach LOS                      |   | C   |   |   | C   |   |  | B   |   |   | B   |   |

Intersection Summary




















|                                   |       |                           |      |
|-----------------------------------|-------|---------------------------|------|
| HCM 2000 Control Delay            | 20.9  | HCM 2000 Level of Service | C    |
| HCM 2000 Volume to Capacity ratio | 0.65  |                           |      |
| Actuated Cycle Length (s)         | 71.3  | Sum of lost time (s)      | 14.2 |
| Intersection Capacity Utilization | 70.9% | ICU Level of Service      | C    |
| Analysis Period (min)             | 15    |                           |      |

c Critical Lane Group



HCM Unsignalized Intersection Capacity Analysis  
 19: Estrella Ave & Orange Ave

Future AM Peak Hour  
 03/30/2017




















|                        |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement               | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations    |  |  |   |  |  |   |  |  |   |   |  |  |
| Sign Control           | Stop  |   |   | Stop  |   |   |  | Stop  |   |   | Stop  |   |
| Traffic Volume (vph)   | 30  | 177   | 10  | 22  | 289   | 3   | 27   | 36  | 31  | 15  | 36  | 31  |
| Future Volume (vph)    | 30  | 177   | 10  | 22  | 289   | 3   | 27   | 36  | 31  | 15  | 36  | 31  |
| Peak Hour Factor       | 0.90  | 0.90  | 0.90  | 0.90  | 0.90  | 0.90  | 0.90   | 0.90  | 0.90  | 0.90  | 0.90  | 0.90  |
| Hourly flow rate (vph) | 33  | 197   | 11  | 24  | 321   | 3   | 30   | 40  | 34  | 17  | 40  | 34  |
| Direction, Lane #      | EB 1  | EB 2  | WB 1  | WB 2  | NB 1  | SB 1  |  |   |   |   |   |   |
| Volume Total (vph)     | 33  | 208   | 24  | 324   | 104   | 91  |  |   |   |   |   |   |
| Volume Left (vph)      | 33  | 0   | 24  | 0   | 30  | 17  |  |   |   |   |   |   |
| Volume Right (vph)     | 0   | 11  | 0   | 3   | 34  | 34  |  |   |   |   |   |   |
| Hadj (s)               | 0.53  | 0.00  | 0.53  | 0.03  | -0.10   | -0.15   |  |   |   |   |   |   |
| Departure Headway (s)  | 6.0   | 5.4   | 5.9   | 5.3   | 5.4   | 5.4   |  |   |   |   |   |   |
| Degree Utilization, x  | 0.05  | 0.31  | 0.04  | 0.48  | 0.16  | 0.14  |  |   |   |   |   |   |
| Capacity (veh/h)       | 569   | 635   | 588   | 652   | 587   | 593   |  |   |   |   |   |   |
| Control Delay (s)      | 8.1   | 9.7   | 7.9   | 12.0  | 9.4   | 9.2   |  |   |   |   |   |   |
| Approach Delay (s)     | 9.5   |   | 11.7  |   | 9.4   | 9.2   |  |   |   |   |   |   |
| Approach LOS           | A   |   | B   |   | A   | A   |  |   |   |   |   |   |

Intersection Summary

|                                   |       |                      |   |  |  |  |  |  |  |  |  |  |
|-----------------------------------|-------|----------------------|---|--|--|--|--|--|--|--|--|--|
| Delay                             | 10.4  |                      |   |  |  |  |  |  |  |  |  |  |
| Level of Service                  | B     |                      |   |  |  |  |  |  |  |  |  |  |
| Intersection Capacity Utilization | 42.1% | ICU Level of Service | A |  |  |  |  |  |  |  |  |  |
| Analysis Period (min)             | 15    |                      |   |  |  |  |  |  |  |  |  |  |




















HCM Unsignalized Intersection Capacity Analysis  
1: Florida St & Howard Ave

Future PM Peak Hour  
03/30/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |  |  |   |  |  |   |  |  |   |   |  |  |
| Sign Control                      | Stop  |   |   | Stop  |   |   |  | Stop  |   |   | Stop  |   |
| Traffic Volume (vph)              | 31  | 213   | 54  | 25  | 123   | 23  | 19   | 155   | 18  | 15  | 170   | 66  |
| Future Volume (vph)               | 31  | 213   | 54  | 25  | 123   | 23  | 19   | 155   | 18  | 15  | 170   | 66  |
| Peak Hour Factor                  | 0.90  | 0.90  | 0.90  | 0.90  | 0.90  | 0.90  | 0.90   | 0.90  | 0.90  | 0.90  | 0.90  | 0.90  |
| Hourly flow rate (vph)            | 34  | 237   | 60  | 28  | 137   | 26  | 21   | 172   | 20  | 17  | 189   | 73  |
| Direction, Lane #                 | EB 1  | EB 2  | WB 1  | WB 2  | NB 1  | SB 1  |  |   |   |   |   |   |
| Volume Total (vph)                | 34  | 297   | 28  | 163   | 213   | 279   |  |   |   |   |   |   |
| Volume Left (vph)                 | 34  | 0   | 28  | 0   | 21  | 17  |  |   |   |   |   |   |
| Volume Right (vph)                | 0   | 60  | 0   | 26  | 20  | 73  |  |   |   |   |   |   |
| Hadj (s)                          | 0.53  | -0.11   | 0.53  | -0.08   | 0.00  | -0.11   |  |   |   |   |   |   |
| Departure Headway (s)             | 6.9   | 6.2   | 7.1   | 6.5   | 6.0   | 5.7   |  |   |   |   |   |   |
| Degree Utilization, x             | 0.06  | 0.51  | 0.06  | 0.29  | 0.35  | 0.45  |  |   |   |   |   |   |
| Capacity (veh/h)                  | 489   | 537   | 458   | 493   | 542   | 578   |  |   |   |   |   |   |
| Control Delay (s)                 | 9.2   | 14.4  | 9.3   | 11.0  | 12.2  | 13.3  |  |   |   |   |   |   |
| Approach Delay (s)                | 13.9  |   | 10.7  |   | 12.2  |   | 13.3   |   |   |   |   |   |
| Approach LOS                      | B   |   | B   |   | B   |   | B  |   |   |   |   |   |
| Intersection Summary              |   |   |   |   |   |   |  |   |   |   |   |   |
| Delay                             |   |   | 12.8  |   |   |   |  |   |   |   |   |   |
| Level of Service                  |   |   | B   |   |   |   |  |   |   |   |   |   |
| Intersection Capacity Utilization |   |   | 45.2%   |   | ICU Level of Service  |   |  |   | A   |   |   |   |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |

HCM Unsignalized Intersection Capacity Analysis  
 2: Mississippi St & Howard Ave

Future PM Peak Hour  
 03/30/2017

|                        |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement               | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations    |  |  |   |  |  |   |  |  |   |   |  |  |
| Sign Control           | Stop  |   |   | Stop  |   |   |  | Stop  |   |   | Stop  |   |
| Traffic Volume (vph)   | 13  | 179   | 29  | 8   | 104   | 11  | 19   | 51  | 10  | 16  | 69  | 15  |
| Future Volume (vph)    | 13  | 179   | 29  | 8   | 104   | 11  | 19   | 51  | 10  | 16  | 69  | 15  |
| Peak Hour Factor       | 0.87  | 0.87  | 0.87  | 0.87  | 0.87  | 0.87  | 0.87   | 0.87  | 0.87  | 0.87  | 0.87  | 0.87  |
| Hourly flow rate (vph) | 15  | 206   | 33  | 9   | 120   | 13  | 22   | 59  | 11  | 18  | 79  | 17  |
| Direction, Lane #      | EB 1  | EB 2  | WB 1  | WB 2  | NB 1  | SB 1  |  |   |   |   |   |   |
| Volume Total (vph)     | 15  | 239   | 9   | 133   | 92  | 114   |  |   |   |   |   |   |
| Volume Left (vph)      | 15  | 0   | 9   | 0   | 22  | 18  |  |   |   |   |   |   |
| Volume Right (vph)     | 0   | 33  | 0   | 13  | 11  | 17  |  |   |   |   |   |   |
| Hadj (s)               | 0.53  | -0.06   | 0.53  | -0.03   | 0.01  | -0.02   |  |   |   |   |   |   |
| Departure Headway (s)  | 5.7   | 5.1   | 5.8   | 5.3   | 5.1   | 5.0   |  |   |   |   |   |   |
| Degree Utilization, x  | 0.02  | 0.34  | 0.01  | 0.19  | 0.13  | 0.16  |  |   |   |   |   |   |
| Capacity (veh/h)       | 596   | 674   | 583   | 648   | 652   | 660   |  |   |   |   |   |   |
| Control Delay (s)      | 7.7   | 9.6   | 7.7   | 8.3   | 8.8   | 8.9   |  |   |   |   |   |   |
| Approach Delay (s)     | 9.5   |   | 8.3   |   | 8.8   |   |  |   |   |   |   |   |
| Approach LOS           | A   |   | A   |   | A   |   |  |   |   |   |   |   |






















Intersection Summary

|                                   |       |  |                      |  |  |  |   |  |  |  |  |  |
|-----------------------------------|-------|--|----------------------|--|--|--|---|--|--|--|--|--|
| Delay                             | 9.0   |  |                      |  |  |  |   |  |  |  |  |  |
| Level of Service                  | A     |  |                      |  |  |  |   |  |  |  |  |  |
| Intersection Capacity Utilization | 29.1% |  | ICU Level of Service |  |  |  | A |  |  |  |  |  |
| Analysis Period (min)             | 15    |  |                      |  |  |  |   |  |  |  |  |  |

# HCM Signalized Intersection Capacity Analysis

## 3: Texas St & Howard Ave

Future PM Peak Hour  
03/30/2017

|                        |  |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------|---|---|---|---|---|---|--|---|---|---|---|---|---|
| Movement               | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |   |
| Lane Configurations    |  |  |   |  |  |   |  |  |   |  |  |   |   |
| Traffic Volume (vph)   | 15  | 167   | 16  | 19  | 106   | 39  | 4  | 243   | 15  | 67  | 421   | 34  |   |
| Future Volume (vph)    | 15  | 167   | 16  | 19  | 106   | 39  | 4  | 243   | 15  | 67  | 421   | 34  |   |
| Ideal Flow (vphpl)     | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900   | 1900  | 1900  | 1900  | 1900  | 1900  |   |
| Total Lost time (s)    | 4.9   | 4.9   |   | 4.9   | 4.9   |   | 4.9  | 4.9   |   | 4.9   | 4.9   |   |   |
| Lane Util. Factor      | 1.00  | 1.00  |   | 1.00  | 1.00  |   | 1.00   | 1.00  |   | 1.00  | 1.00  |   |   |
| Frbp, ped/bikes        | 1.00  | 1.00  |   | 1.00  | 0.99  |   | 1.00   | 1.00  |   | 1.00  | 1.00  |   |   |
| Flpb, ped/bikes        | 0.99  | 1.00  |   | 1.00  | 1.00  |   | 0.99   | 1.00  |   | 0.98  | 1.00  |   |   |
| Frt                    | 1.00  | 0.99  |   | 1.00  | 0.96  |   | 1.00   | 0.99  |   | 1.00  | 0.99  |   |   |
| Flt Protected          | 0.95  | 1.00  |   | 0.95  | 1.00  |   | 0.95   | 1.00  |   | 0.95  | 1.00  |   |   |
| Satd. Flow (prot)      | 1753  | 1833  |   | 1770  | 1770  |   | 1754   | 1841  |   | 1732  | 1836  |   |   |
| Flt Permitted          | 0.61  | 1.00  |   | 0.50  | 1.00  |   | 0.46   | 1.00  |   | 0.59  | 1.00  |   |   |
| Satd. Flow (perm)      | 1132  | 1833  |   | 936   | 1770  |   | 843  | 1841  |   | 1076  | 1836  |   |   |
| Peak-hour factor, PHF  | 0.94  | 0.94  | 0.94  | 0.94  | 0.94  | 0.94  | 0.94   | 0.94  | 0.94  | 0.94  | 0.94  | 0.94  |   |
| Adj. Flow (vph)        | 16  | 178   | 17  | 20  | 113   | 41  | 4  | 259   | 16  | 71  | 448   | 36  |   |
| RTOR Reduction (vph)   | 0   | 6   | 0   | 0   | 21  | 0   | 0  | 2   | 0   | 0   | 3   | 0   |   |
| Lane Group Flow (vph)  | 16  | 189   | 0   | 20  | 133   | 0   | 4  | 273   | 0   | 71  | 481   | 0   |   |
| Confl. Peds. (#/hr)    | 6   |   |   |   |   | 6   | 10   |   | 16  | 16  |   | 10  |   |
| Confl. Bikes (#/hr)    |   |   | 5   |   |   | 3   |  |   |   |   |   | 3   |   |
| Turn Type              | Perm  | NA  |   | Perm  | NA  |   | Perm   | NA  |   | Perm  | NA  |   |   |
| Protected Phases       |   | 2   |   |   | 2   |   |  | 4   |   |   |   | 4   |   |
| Permitted Phases       | 2   |   |   | 2   |   |   | 4  |   |   | 4   |   |   |   |
| Actuated Green, G (s)  | 12.4  | 12.4  |   | 12.4  | 12.4  |   | 51.8   | 51.8  |   | 51.8  | 51.8  |   |   |
| Effective Green, g (s) | 12.4  | 12.4  |   | 12.4  | 12.4  |   | 51.8   | 51.8  |   | 51.8  | 51.8  |   |   |
| Actuated g/C Ratio     | 0.17  | 0.17  |   | 0.17  | 0.17  |   | 0.70   | 0.70  |   | 0.70  | 0.70  |   |   |
| Clearance Time (s)     | 4.9   | 4.9   |   | 4.9   | 4.9   |   | 4.9  | 4.9   |   | 4.9   | 4.9   |   |   |
| Vehicle Extension (s)  | 2.0   | 2.0   |   | 2.0   | 2.0   |   | 2.0  | 2.0   |   | 2.0   | 2.0   |   |   |
| Lane Grp Cap (vph)     | 189   | 307   |   | 156   | 296   |   | 590  | 1288  |   | 753   | 1285  |   |   |
| v/s Ratio Prot         |   | c0.10   |   |   | 0.08  |   |  | 0.15  |   |   | c0.26   |   |   |
| v/s Ratio Perm         | 0.01  |   |   | 0.02  |   |   | 0.00   |   |   | 0.07  |   |   |   |
| v/c Ratio              | 0.08  | 0.62  |   | 0.13  | 0.45  |   | 0.01   | 0.21  |   | 0.09  | 0.37  |   |   |
| Uniform Delay, d1      | 26.0  | 28.6  |   | 26.2  | 27.7  |   | 3.3  | 3.9   |   | 3.6   | 4.5   |   |   |
| Progression Factor     | 1.00  | 1.00  |   | 1.00  | 1.00  |   | 1.00   | 1.00  |   | 1.00  | 1.00  |   |   |
| Incremental Delay, d2  | 0.1   | 2.6   |   | 0.1   | 0.4   |   | 0.0  | 0.4   |   | 0.2   | 0.8   |   |   |
| Delay (s)              | 26.1  | 31.2  |   | 26.3  | 28.1  |   | 3.4  | 4.3   |   | 3.8   | 5.3   |   |   |
| Level of Service       | C   | C   |   | C   | C   |   | A  | A   |   | A   | A   |   |   |
| Approach Delay (s)     |   | 30.8  |   |   | 27.9  |   |  | 4.3   |   |   | 5.2   |   |   |
| Approach LOS           |   | C   |   |   | C   |   |  | A   |   |   | A   |   |   |




















### Intersection Summary

|                                   |       |                           |     |
|-----------------------------------|-------|---------------------------|-----|
| HCM 2000 Control Delay            | 12.6  | HCM 2000 Level of Service | B   |
| HCM 2000 Volume to Capacity ratio | 0.42  |                           |     |
| Actuated Cycle Length (s)         | 74.0  | Sum of lost time (s)      | 9.8 |
| Intersection Capacity Utilization | 60.7% | ICU Level of Service      | B   |
| Analysis Period (min)             | 15    |                           |     |

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis  
4: Oregon St & Howard Ave

Future PM Peak Hour  
03/30/2017




















|                        |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement               | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations    |  |  |   |  |  |   |  |  |   |   |  |  |
| Sign Control           | Stop  |   |   | Stop  |   |   |  | Stop  |   |   | Stop  |   |
| Traffic Volume (vph)   | 24  | 195   | 17  | 33  | 144   | 43  | 7  | 82  | 58  | 45  | 96  | 12  |
| Future Volume (vph)    | 24  | 195   | 17  | 33  | 144   | 43  | 7  | 82  | 58  | 45  | 96  | 12  |
| Peak Hour Factor       | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92   | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  |
| Hourly flow rate (vph) | 26  | 212   | 18  | 36  | 157   | 47  | 8  | 89  | 63  | 49  | 104   | 13  |
| Direction, Lane #      | EB 1  | EB 2  | WB 1  | WB 2  | NB 1  | SB 1  |  |   |   |   |   |   |
| Volume Total (vph)     | 26  | 230   | 36  | 204   | 160   | 166   |  |   |   |   |   |   |
| Volume Left (vph)      | 26  | 0   | 36  | 0   | 8   | 49  |  |   |   |   |   |   |
| Volume Right (vph)     | 0   | 18  | 0   | 47  | 63  | 13  |  |   |   |   |   |   |
| Hadj (s)               | 0.53  | -0.02   | 0.53  | -0.13   | -0.19   | 0.05  |  |   |   |   |   |   |
| Departure Headway (s)  | 6.3   | 5.7   | 6.3   | 5.7   | 5.3   | 5.5   |  |   |   |   |   |   |
| Degree Utilization, x  | 0.05  | 0.37  | 0.06  | 0.32  | 0.24  | 0.26  |  |   |   |   |   |   |
| Capacity (veh/h)       | 536   | 594   | 535   | 600   | 606   | 593   |  |   |   |   |   |   |
| Control Delay (s)      | 8.4   | 10.8  | 8.6   | 10.1  | 10.0  | 10.4  |  |   |   |   |   |   |
| Approach Delay (s)     | 10.6  |   | 9.9   |   | 10.0  |   | 10.4   |   |   |   |   |   |
| Approach LOS           | B   |   | A   |   | A   |   | B  |   |   |   |   |   |

Intersection Summary

|                                   |       |  |                      |  |  |  |   |  |  |  |  |  |
|-----------------------------------|-------|--|----------------------|--|--|--|---|--|--|--|--|--|
| Delay                             | 10.2  |  |                      |  |  |  |   |  |  |  |  |  |
| Level of Service                  | B     |  |                      |  |  |  |   |  |  |  |  |  |
| Intersection Capacity Utilization | 51.1% |  | ICU Level of Service |  |  |  | A |  |  |  |  |  |
| Analysis Period (min)             | 15    |  |                      |  |  |  |   |  |  |  |  |  |





















HCM Unsignalized Intersection Capacity Analysis  
5: Utah St & Howard Ave

Future PM Peak Hour  
03/30/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |  |  |   |  |  |   |  |  |   |   |  |  |
| Sign Control                      | Stop  |   |   | Stop  |   |   |  | Stop  |   |   | Stop  |   |
| Traffic Volume (vph)              | 14  | 251   | 20  | 32  | 176   | 22  | 15   | 123   | 22  | 43  | 157   | 21  |
| Future Volume (vph)               | 14  | 251   | 20  | 32  | 176   | 22  | 15   | 123   | 22  | 43  | 157   | 21  |
| Peak Hour Factor                  | 0.90  | 0.90  | 0.90  | 0.90  | 0.90  | 0.90  | 0.90   | 0.90  | 0.90  | 0.90  | 0.90  | 0.90  |
| Hourly flow rate (vph)            | 16  | 279   | 22  | 36  | 196   | 24  | 17   | 137   | 24  | 48  | 174   | 23  |
| Direction, Lane #                 | EB 1  | EB 2  | WB 1  | WB 2  | NB 1  | SB 1  |  |   |   |   |   |   |
| Volume Total (vph)                | 16  | 301   | 36  | 220   | 178   | 245   |  |   |   |   |   |   |
| Volume Left (vph)                 | 16  | 0   | 36  | 0   | 17  | 48  |  |   |   |   |   |   |
| Volume Right (vph)                | 0   | 22  | 0   | 24  | 24  | 23  |  |   |   |   |   |   |
| Hadj (s)                          | 0.53  | -0.02   | 0.53  | -0.04   | -0.03   | 0.02  |  |   |   |   |   |   |
| Departure Headway (s)             | 6.8   | 6.2   | 6.9   | 6.3   | 6.1   | 6.0   |  |   |   |   |   |   |
| Degree Utilization, x             | 0.03  | 0.52  | 0.07  | 0.39  | 0.30  | 0.41  |  |   |   |   |   |   |
| Capacity (veh/h)                  | 494   | 538   | 482   | 531   | 526   | 552   |  |   |   |   |   |   |
| Control Delay (s)                 | 8.8   | 14.6  | 9.2   | 12.0  | 11.6  | 13.0  |  |   |   |   |   |   |
| Approach Delay (s)                | 14.3  |   | 11.6  |   | 11.6  |   | 13.0   |   |   |   |   |   |
| Approach LOS                      | B   |   | B   |   | B   |   | B  |   |   |   |   |   |
| Intersection Summary              |   |   |   |   |   |   |  |   |   |   |   |   |
| Delay                             |   |   | 12.8  |   |   |   |  |   |   |   |   |   |
| Level of Service                  |   |   | B   |   |   |   |  |   |   |   |   |   |
| Intersection Capacity Utilization |   |   | 48.9%   |   | ICU Level of Service  |   |  |   | A   |   |   |   |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |

HCM Signalized Intersection Capacity Analysis  
6: 30th St & Howard Ave

Future PM Peak Hour  
03/30/2017

|                        |  |  |  |  |  |  |   |  |  |  |  |  |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement               | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL   | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations    |  |  |   |  |  |   |  |  |   |  |  |   |
| Traffic Volume (vph)   | 29  | 301   | 58  | 43  | 184   | 50  | 47  | 324   | 35  | 72  | 311   | 22  |
| Future Volume (vph)    | 29  | 301   | 58  | 43  | 184   | 50  | 47  | 324   | 35  | 72  | 311   | 22  |
| Ideal Flow (vphpl)     | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  |
| Total Lost time (s)    | 4.9   | 4.9   |   | 4.9   | 4.9   |   | 4.9   | 4.9   |   | 4.9   | 4.9   |   |
| Lane Util. Factor      | 1.00  | 1.00  |   | 1.00  | 1.00  |   | 1.00  | 1.00  |   | 1.00  | 1.00  |   |
| Frbp, ped/bikes        | 1.00  | 0.99  |   | 1.00  | 0.98  |   | 1.00  | 0.99  |   | 1.00  | 0.99  |   |
| Flpb, ped/bikes        | 0.97  | 1.00  |   | 0.97  | 1.00  |   | 0.96  | 1.00  |   | 0.94  | 1.00  |   |
| Frt                    | 1.00  | 0.98  |   | 1.00  | 0.97  |   | 1.00  | 0.99  |   | 1.00  | 0.99  |   |
| Flt Protected          | 0.95  | 1.00  |   | 0.95  | 1.00  |   | 0.95  | 1.00  |   | 0.95  | 1.00  |   |
| Satd. Flow (prot)      | 1715  | 1791  |   | 1714  | 1774  |   | 1700  | 1814  |   | 1667  | 1834  |   |
| Flt Permitted          | 0.53  | 1.00  |   | 0.31  | 1.00  |   | 0.54  | 1.00  |   | 0.52  | 1.00  |   |
| Satd. Flow (perm)      | 958   | 1791  |   | 557   | 1774  |   | 975   | 1814  |   | 919   | 1834  |   |
| Peak-hour factor, PHF  | 0.99  | 0.99  | 0.99  | 0.99  | 0.99  | 0.99  | 0.99  | 0.99  | 0.99  | 0.99  | 0.99  | 0.99  |
| Adj. Flow (vph)        | 29  | 304   | 59  | 43  | 186   | 51  | 47  | 327   | 35  | 73  | 314   | 22  |
| RTOR Reduction (vph)   | 0   | 12  | 0   | 0   | 17  | 0   | 0   | 6   | 0   | 0   | 4   | 0   |
| Lane Group Flow (vph)  | 29  | 351   | 0   | 43  | 220   | 0   | 47  | 356   | 0   | 73  | 332   | 0   |
| Confl. Peds. (#/hr)    | 27  |   | 38  | 38  |   | 27  | 38  |   | 59  | 59  |   | 38  |
| Confl. Bikes (#/hr)    |   |   | 5   |   |   | 6   |   |   | 8   |   |   | 6   |
| Turn Type              | Perm  | NA  |   | Perm  | NA  |   | Perm  | NA  |   | Perm  | NA  |   |
| Protected Phases       |   | 2   |   |   | 2   |   |   | 4   |   |   |   | 4   |
| Permitted Phases       | 2   |   |   | 2   |   |   | 4   |   |   | 4   |   |   |
| Actuated Green, G (s)  | 15.3  | 15.3  |   | 15.3  | 15.3  |   | 35.8  | 35.8  |   | 35.8  | 35.8  |   |
| Effective Green, g (s) | 15.3  | 15.3  |   | 15.3  | 15.3  |   | 35.8  | 35.8  |   | 35.8  | 35.8  |   |
| Actuated g/C Ratio     | 0.25  | 0.25  |   | 0.25  | 0.25  |   | 0.59  | 0.59  |   | 0.59  | 0.59  |   |
| Clearance Time (s)     | 4.9   | 4.9   |   | 4.9   | 4.9   |   | 4.9   | 4.9   |   | 4.9   | 4.9   |   |
| Vehicle Extension (s)  | 2.0   | 2.0   |   | 2.0   | 2.0   |   | 3.3   | 3.3   |   | 3.3   | 3.3   |   |
| Lane Grp Cap (vph)     | 240   | 449   |   | 139   | 445   |   | 573   | 1066  |   | 540   | 1078  |   |
| v/s Ratio Prot         |   | c0.20   |   |   | 0.12  |   |   | c0.20   |   |   |   | 0.18  |
| v/s Ratio Perm         | 0.03  |   |   | 0.08  |   |   | 0.05  |   |   | 0.08  |   |   |
| v/c Ratio              | 0.12  | 0.78  |   | 0.31  | 0.49  |   | 0.08  | 0.33  |   | 0.14  | 0.31  |   |
| Uniform Delay, d1      | 17.6  | 21.2  |   | 18.5  | 19.5  |   | 5.4   | 6.4   |   | 5.6   | 6.3   |   |
| Progression Factor     | 1.00  | 1.00  |   | 1.00  | 1.00  |   | 1.00  | 1.00  |   | 1.00  | 1.00  |   |
| Incremental Delay, d2  | 0.1   | 8.0   |   | 0.5   | 0.3   |   | 0.3   | 0.8   |   | 0.5   | 0.7   |   |
| Delay (s)              | 17.7  | 29.2  |   | 19.0  | 19.8  |   | 5.7   | 7.3   |   | 6.1   | 7.1   |   |
| Level of Service       | B   | C   |   | B   | B   |   | A   | A   |   | A   | A   |   |
| Approach Delay (s)     |   | 28.4  |   |   | 19.7  |   |   | 7.1   |   |   | 6.9   |   |
| Approach LOS           |   | C   |   |   | B   |   |   | A   |   |   | A   |   |




















Intersection Summary

|                                   |       |                           |     |
|-----------------------------------|-------|---------------------------|-----|
| HCM 2000 Control Delay            | 15.0  | HCM 2000 Level of Service | B   |
| HCM 2000 Volume to Capacity ratio | 0.47  |                           |     |
| Actuated Cycle Length (s)         | 60.9  | Sum of lost time (s)      | 9.8 |
| Intersection Capacity Utilization | 67.5% | ICU Level of Service      | C   |
| Analysis Period (min)             | 15    |                           |     |

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis  
7: Illinois St & Howard Ave





















Future PM Peak Hour  
03/30/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL   | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |  |  |   |  |  |   |   |  |   |   |  |  |
| Sign Control                      | Stop  |   |   | Stop  |   |   |   | Stop  |   |   | Stop  |   |
| Traffic Volume (vph)              | 46  | 286   | 15  | 13  | 197   | 16  | 8   | 99  | 22  | 56  | 151   | 33  |
| Future Volume (vph)               | 46  | 286   | 15  | 13  | 197   | 16  | 8   | 99  | 22  | 56  | 151   | 33  |
| Peak Hour Factor                  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  |
| Hourly flow rate (vph)            | 48  | 301   | 16  | 14  | 207   | 17  | 8   | 104   | 23  | 59  | 159   | 35  |
| Direction, Lane #                 | EB 1  | EB 2  | WB 1  | WB 2  | NB 1  | SB 1  |   |   |   |   |   |   |
| Volume Total (vph)                | 48  | 317   | 14  | 224   | 135   | 253   |   |   |   |   |   |   |
| Volume Left (vph)                 | 48  | 0   | 14  | 0   | 8   | 59  |   |   |   |   |   |   |
| Volume Right (vph)                | 0   | 16  | 0   | 17  | 23  | 35  |   |   |   |   |   |   |
| Hadj (s)                          | 0.53  | 0.00  | 0.53  | -0.02   | -0.06   | 0.00  |   |   |   |   |   |   |
| Departure Headway (s)             | 6.6   | 6.1   | 6.8   | 6.3   | 6.1   | 5.9   |   |   |   |   |   |   |
| Degree Utilization, x             | 0.09  | 0.54  | 0.03  | 0.39  | 0.23  | 0.41  |   |   |   |   |   |   |
| Capacity (veh/h)                  | 510   | 554   | 488   | 537   | 517   | 563   |   |   |   |   |   |   |
| Control Delay (s)                 | 9.1   | 14.7  | 8.8   | 12.0  | 10.9  | 12.9  |   |   |   |   |   |   |
| Approach Delay (s)                | 14.0  |   | 11.8  |   | 10.9  |   | 12.9  |   |   |   |   |   |
| Approach LOS                      | B   |   | B   |   | B   |   | B   |   |   |   |   |   |
| Intersection Summary              |   |   |   |   |   |   |   |   |   |   |   |   |
| Delay                             |   |   | 12.8  |   |   |   |   |   |   |   |   |   |
| Level of Service                  |   |   | B   |   |   |   |   |   |   |   |   |   |
| Intersection Capacity Utilization |   |   | 55.7%   |   | ICU Level of Service  |   |   |   | B   |   |   |   |
| Analysis Period (min)             |   |   | 15  |   |   |   |   |   |   |   |   |   |






















HCM Unsignalized Intersection Capacity Analysis  
8: Boundary St & Howard Ave/Orange Ave

Future PM Peak Hour  
03/30/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |  |  |   |  |  |   |  |  |  |   |  |  |
| Traffic Volume (veh/h)            | 1   | 289   | 41  | 45  | 231   | 3   | 19   | 1   | 55  | 0   | 0   | 1   |
| Future Volume (Veh/h)             | 1   | 289   | 41  | 45  | 231   | 3   | 19   | 1   | 55  | 0   | 0   | 1   |
| Sign Control                      |   | Free  |   |   | Free  |   |  | Stop  |   |   | Stop  |   |
| Grade                             |   | 0%  |   |   | 0%  |   |  | 0%  |   |   | 0%  |   |
| Peak Hour Factor                  | 0.91  | 0.91  | 0.91  | 0.91  | 0.91  | 0.91  | 0.91   | 0.91  | 0.91  | 0.91  | 0.91  | 0.91  |
| Hourly flow rate (vph)            | 1   | 318   | 45  | 49  | 254   | 3   | 21   | 1   | 60  | 0   | 0   | 1   |
| Pedestrians                       |   | 8   |   |   | 10  |   |  | 10  |   |   | 7   |   |
| Lane Width (ft)                   |   | 12.0  |   |   | 12.0  |   |  | 12.0  |   |   | 12.0  |   |
| Walking Speed (ft/s)              |   | 3.5   |   |   | 3.5   |   |  | 3.5   |   |   | 3.5   |   |
| Percent Blockage                  |   | 1   |   |   | 1   |   |  | 1   |   |   | 1   |   |
| Right turn flare (veh)            |   |   |   |   |   |   |  |   | 2   |   |   |   |
| Median type                       |   | TWLTL   |   |   | TWLTL   |   |  |   |   |   |   |   |
| Median storage (veh)              |   | 2   |   |   | 2   |   |  |   |   |   |   |   |
| Upstream signal (ft)              |   |   |   |   | 985   |   |  |   |   |   |   |   |
| pX, platoon unblocked             |   |   |   |   |   |   |  |   |   |   |   |   |
| vC, conflicting volume            | 264   |   |   | 373   |   |   | 714  | 714   | 360   | 721   | 736   | 270   |
| vC1, stage 1 conf vol             |   |   |   |   |   |   | 352  | 352   |   | 360   | 360   |   |
| vC2, stage 2 conf vol             |   |   |   |   |   |   | 361  | 362   |   | 360   | 375   |   |
| vCu, unblocked vol                | 264   |   |   | 373   |   |   | 714  | 714   | 360   | 721   | 736   | 270   |
| tC, single (s)                    | 4.1   |   |   | 4.1   |   |   | 7.1  | 6.5   | 6.2   | 7.1   | 6.5   | 6.2   |
| tC, 2 stage (s)                   |   |   |   |   |   |   | 6.1  | 5.5   |   | 6.1   | 5.5   |   |
| tF (s)                            | 2.2   |   |   | 2.2   |   |   | 3.5  | 4.0   | 3.3   | 3.5   | 4.0   | 3.3   |
| p0 queue free %                   | 100   |   |   | 96  |   |   | 96   | 100   | 91  | 100   | 100   | 100   |
| cM capacity (veh/h)               | 1291  |   |   | 1174  |   |   | 522  | 505   | 671   | 471   | 482   | 757   |
| <b>Direction, Lane #</b>          | <b>EB 1</b>   | <b>EB 2</b>   | <b>WB 1</b>   | <b>WB 2</b>   | <b>NB 1</b>   | <b>SB 1</b>   |  |   |   |   |   |   |
| Volume Total                      | 1   | 363   | 49  | 257   | 82  | 1   |  |   |   |   |   |   |
| Volume Left                       | 1   | 0   | 49  | 0   | 21  | 0   |  |   |   |   |   |   |
| Volume Right                      | 0   | 45  | 0   | 3   | 60  | 1   |  |   |   |   |   |   |
| cSH                               | 1291  | 1700  | 1174  | 1700  | 917   | 757   |  |   |   |   |   |   |
| Volume to Capacity                | 0.00  | 0.21  | 0.04  | 0.15  | 0.09  | 0.00  |  |   |   |   |   |   |
| Queue Length 95th (ft)            | 0   | 0   | 3   | 0   | 7   | 0   |  |   |   |   |   |   |
| Control Delay (s)                 | 7.8   | 0.0   | 8.2   | 0.0   | 11.2  | 9.8   |  |   |   |   |   |   |
| Lane LOS                          | A   |   | A   |   | B   | A   |  |   |   |   |   |   |
| Approach Delay (s)                | 0.0   |   | 1.3   |   | 11.2  | 9.8   |  |   |   |   |   |   |
| Approach LOS                      |   |   |   |   | B   | A   |  |   |   |   |   |   |
| <b>Intersection Summary</b>       |   |   |   |   |   |   |  |   |   |   |   |   |
| Average Delay                     |   |   | 1.8   |   |   |   |  |   |   |   |   |   |
| Intersection Capacity Utilization |   |   | 40.5%   |   | ICU Level of Service  |   |  |   | A   |   |   |   |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |

HCM Signalized Intersection Capacity Analysis  
9: Alley/33rd St & Orange Ave




















Future PM Peak Hour  
03/30/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |      |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|------|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |      |
| Lane Configurations               |  |  |   |  |  |   |  |  |   |  |  |   |      |
| Traffic Volume (vph)              | 75  | 265   | 0   | 6   | 208   | 157   | 1  | 0   | 0   | 271   | 5   | 112   |      |
| Future Volume (vph)               | 75  | 265   | 0   | 6   | 208   | 157   | 1  | 0   | 0   | 271   | 5   | 112   |      |
| Ideal Flow (vphpl)                | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900   | 1900  | 1900  | 1900  | 1900  | 1900  |      |
| Total Lost time (s)               | 4.0   | 4.0   |   | 5.0   | 4.0   |   |  | 4.0   |   | 4.0   | 4.0   |   |      |
| Lane Util. Factor                 | 1.00  | 1.00  |   | 1.00  | 1.00  |   |  | 1.00  |   | 1.00  | 1.00  |   |      |
| Fr <sub>t</sub>                   | 1.00  | 1.00  |   | 1.00  | 0.94  |   |  | 1.00  |   | 1.00  | 0.86  |   |      |
| Fl <sub>t</sub> Protected         | 0.95  | 1.00  |   | 0.95  | 1.00  |   |  | 0.95  |   | 0.95  | 1.00  |   |      |
| Satd. Flow (prot)                 | 1770  | 1863  |   | 1770  | 1743  |   |  | 1770  |   | 1770  | 1595  |   |      |
| Fl <sub>t</sub> Permitted         | 0.95  | 1.00  |   | 0.95  | 1.00  |   |  | 0.95  |   | 0.95  | 1.00  |   |      |
| Satd. Flow (perm)                 | 1770  | 1863  |   | 1770  | 1743  |   |  | 1770  |   | 1770  | 1595  |   |      |
| Peak-hour factor, PHF             | 0.98  | 0.98  | 0.98  | 0.98  | 0.98  | 0.98  | 0.98   | 0.98  | 0.98  | 0.98  | 0.98  | 0.98  |      |
| Adj. Flow (vph)                   | 77  | 270   | 0   | 6   | 212   | 160   | 1  | 0   | 0   | 277   | 5   | 114   |      |
| RTOR Reduction (vph)              | 0   | 0   | 0   | 0   | 12  | 0   | 0  | 0   | 0   | 0   | 83  | 0   |      |
| Lane Group Flow (vph)             | 77  | 270   | 0   | 6   | 360   | 0   | 0  | 1   | 0   | 277   | 36  | 0   |      |
| Turn Type                         | Prot  | NA  |   | Prot  | NA  |   | Split  | NA  |   | Split   | NA  |   |      |
| Protected Phases                  | 5   | 2   |   | 1   | 6   |   | 3  | 3   |   | 4   | 4   |   |      |
| Permitted Phases                  |   |   |   |   |   |   |  |   |   |   |   |   |      |
| Actuated Green, G (s)             | 7.2   | 30.3  |   | 2.4   | 26.5  |   |  | 0.7   |   | 19.2  | 19.2  |   |      |
| Effective Green, g (s)            | 7.2   | 30.3  |   | 2.4   | 26.5  |   |  | 0.7   |   | 19.2  | 19.2  |   |      |
| Actuated g/C Ratio                | 0.10  | 0.44  |   | 0.03  | 0.38  |   |  | 0.01  |   | 0.28  | 0.28  |   |      |
| Clearance Time (s)                | 4.0   | 4.0   |   | 5.0   | 4.0   |   |  | 4.0   |   | 4.0   | 4.0   |   |      |
| Vehicle Extension (s)             | 2.0   | 2.1   |   | 2.0   | 2.3   |   |  | 2.0   |   | 2.0   | 2.0   |   |      |
| Lane Grp Cap (vph)                | 183   | 811   |   | 61  | 663   |   |  | 17  |   | 488   | 440   |   |      |
| v/s Ratio Prot                    | c0.04   | 0.14  |   | 0.00  | c0.21   |   |  | c0.00   |   | c0.16   | 0.02  |   |      |
| v/s Ratio Perm                    |   |   |   |   |   |   |  |   |   |   |   |   |      |
| v/c Ratio                         | 0.42  | 0.33  |   | 0.10  | 0.54  |   |  | 0.06  |   | 0.57  | 0.08  |   |      |
| Uniform Delay, d <sub>1</sub>     | 29.2  | 13.0  |   | 32.6  | 16.8  |   |  | 34.1  |   | 21.6  | 18.7  |   |      |
| Progression Factor                | 1.00  | 1.00  |   | 1.00  | 1.00  |   |  | 1.00  |   | 1.00  | 1.00  |   |      |
| Incremental Delay, d <sub>2</sub> | 0.6   | 0.1   |   | 0.3   | 0.6   |   |  | 0.5   |   | 0.9   | 0.0   |   |      |
| Delay (s)                         | 29.8  | 13.1  |   | 32.8  | 17.5  |   |  | 34.7  |   | 22.5  | 18.7  |   |      |
| Level of Service                  | C   | B   |   | C   | B   |   |  | C   |   | C   | B   |   |      |
| Approach Delay (s)                |   | 16.8  |   |   | 17.7  |   |  | 34.7  |   |   | 21.4  |   |      |
| Approach LOS                      |   | B   |   |   | B   |   |  | C   |   |   | C   |   |      |
| <b>Intersection Summary</b>       |   |   |   |   |   |   |  |   |   |   |   |   |      |
| HCM 2000 Control Delay            |   |   | 18.7  |   |   |   |  |   |   |   |   | HCM 2000 Level of Service   | B    |
| HCM 2000 Volume to Capacity ratio |   |   | 0.54  |   |   |   |  |   |   |   |   |   |      |
| Actuated Cycle Length (s)         |   |   | 69.6  |   |   |   |  |   |   |   |   | Sum of lost time (s)  | 17.0 |
| Intersection Capacity Utilization |   |   | 48.8%   |   |   |   |  |   |   |   |   | ICU Level of Service  | A    |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |      |

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis  
10: 35th St & Orange Ave


















Future PM Peak Hour  
03/30/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |  |  |   |  |  |   |  |  |   |   |  |  |
| Traffic Volume (vph)              | 39  | 378   | 49  | 30  | 289   | 51  | 29   | 69  | 32  | 49  | 99  | 41  |
| Future Volume (vph)               | 39  | 378   | 49  | 30  | 289   | 51  | 29   | 69  | 32  | 49  | 99  | 41  |
| Ideal Flow (vphpl)                | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900   | 1900  | 1900  | 1900  | 1900  | 1900  |
| Total Lost time (s)               | 4.9   | 4.9   |   | 4.9   | 4.9   |   |  | 4.9   |   |   | 4.9   |   |
| Lane Util. Factor                 | 1.00  | 1.00  |   | 1.00  | 1.00  |   |  | 1.00  |   |   | 1.00  |   |
| Frbp, ped/bikes                   | 1.00  | 0.99  |   | 1.00  | 0.99  |   |  | 0.99  |   |   | 0.99  |   |
| Flpb, ped/bikes                   | 0.99  | 1.00  |   | 0.98  | 1.00  |   |  | 1.00  |   |   | 1.00  |   |
| Frt                               | 1.00  | 0.98  |   | 1.00  | 0.98  |   |  | 0.97  |   |   | 0.97  |   |
| Flt Protected                     | 0.95  | 1.00  |   | 0.95  | 1.00  |   |  | 0.99  |   |   | 0.99  |   |
| Satd. Flow (prot)                 | 1749  | 1818  |   | 1737  | 1809  |   |  | 1763  |   |   | 1760  |   |
| Flt Permitted                     | 0.54  | 1.00  |   | 0.47  | 1.00  |   |  | 0.89  |   |   | 0.89  |   |
| Satd. Flow (perm)                 | 991   | 1818  |   | 861   | 1809  |   |  | 1589  |   |   | 1590  |   |
| Peak-hour factor, PHF             | 0.94  | 0.94  | 0.94  | 0.94  | 0.94  | 0.94  | 0.94   | 0.94  | 0.94  | 0.94  | 0.94  | 0.94  |
| Adj. Flow (vph)                   | 41  | 402   | 52  | 32  | 307   | 54  | 31   | 73  | 34  | 52  | 105   | 44  |
| RTOR Reduction (vph)              | 0   | 4   | 0   | 0   | 5   | 0   | 0  | 27  | 0   | 0   | 27  | 0   |
| Lane Group Flow (vph)             | 41  | 450   | 0   | 32  | 356   | 0   | 0  | 111   | 0   | 0   | 174   | 0   |
| Confl. Peds. (#/hr)               | 13  |   | 25  | 25  |   | 13  | 14   |   | 5   | 5   |   | 14  |
| Confl. Bikes (#/hr)               |   |   | 12  |   |   | 8   |  |   |   |   |   | 8   |
| Turn Type                         | Perm  | NA  |   | Perm  | NA  |   | Perm   | NA  |   | Perm  | NA  |   |
| Protected Phases                  |   | 2   |   |   | 2   |   |  | 4   |   |   |   | 4   |
| Permitted Phases                  | 2   |   |   | 2   |   |   | 4  |   |   | 4   |   |   |
| Actuated Green, G (s)             | 40.2  | 40.2  |   | 40.2  | 40.2  |   |  | 11.9  |   |   | 11.9  |   |
| Effective Green, g (s)            | 40.2  | 40.2  |   | 40.2  | 40.2  |   |  | 11.9  |   |   | 11.9  |   |
| Actuated g/C Ratio                | 0.65  | 0.65  |   | 0.65  | 0.65  |   |  | 0.19  |   |   | 0.19  |   |
| Clearance Time (s)                | 4.9   | 4.9   |   | 4.9   | 4.9   |   |  | 4.9   |   |   | 4.9   |   |
| Vehicle Extension (s)             | 3.1   | 3.1   |   | 3.1   | 3.1   |   |  | 2.0   |   |   | 2.0   |   |
| Lane Grp Cap (vph)                | 643   | 1180  |   | 559   | 1174  |   |  | 305   |   |   | 305   |   |
| v/s Ratio Prot                    |   | c0.25   |   |   | 0.20  |   |  |   |   |   |   |   |
| v/s Ratio Perm                    | 0.04  |   |   | 0.04  |   |   |  | 0.07  |   |   | c0.11   |   |
| v/c Ratio                         | 0.06  | 0.38  |   | 0.06  | 0.30  |   |  | 0.36  |   |   | 0.57  |   |
| Uniform Delay, d1                 | 4.0   | 5.1   |   | 4.0   | 4.7   |   |  | 21.7  |   |   | 22.7  |   |
| Progression Factor                | 1.00  | 1.00  |   | 1.00  | 1.00  |   |  | 1.00  |   |   | 1.00  |   |
| Incremental Delay, d2             | 0.2   | 0.9   |   | 0.2   | 0.7   |   |  | 0.3   |   |   | 1.6   |   |
| Delay (s)                         | 4.2   | 6.0   |   | 4.1   | 5.4   |   |  | 22.0  |   |   | 24.3  |   |
| Level of Service                  | A   | A   |   | A   | A   |   |  | C   |   |   | C   |   |
| Approach Delay (s)                |   | 5.8   |   |   | 5.3   |   |  | 22.0  |   |   | 24.3  |   |
| Approach LOS                      |   | A   |   |   | A   |   |  | C   |   |   | C   |   |
| <b>Intersection Summary</b>       |   |   |   |   |   |   |  |   |   |   |   |   |
| HCM 2000 Control Delay            |   |   | 10.5  |   |   | HCM 2000 Level of Service   |  |   | B   |   |   |   |
| HCM 2000 Volume to Capacity ratio |   |   | 0.42  |   |   |   |  |   |   |   |   |   |
| Actuated Cycle Length (s)         |   |   | 61.9  |   |   | Sum of lost time (s)  |  |   | 9.8   |   |   |   |
| Intersection Capacity Utilization |   |   | 56.2%   |   |   | ICU Level of Service  |  |   | B   |   |   |   |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |

c Critical Lane Group


















HCM Unsignalized Intersection Capacity Analysis  
11: 37th St & Orange Ave

Future PM Peak Hour  
03/30/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |  |  |   |   |  |   |  |  |   |   |   |  |
| Traffic Volume (veh/h)            | 21  | 391   | 18  | 16  | 324   | 74  | 13   | 6   | 21  | 40  | 9   | 22  |
| Future Volume (Veh/h)             | 21  | 391   | 18  | 16  | 324   | 74  | 13   | 6   | 21  | 40  | 9   | 22  |
| Sign Control                      |   | Free  |   |   | Free  |   |  | Stop  |   |   | Stop  |   |
| Grade                             |   | 0%  |   |   | 0%  |   |  | 0%  |   |   | 0%  |   |
| Peak Hour Factor                  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92   | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  |
| Hourly flow rate (vph)            | 23  | 425   | 20  | 17  | 352   | 80  | 14   | 7   | 23  | 43  | 10  | 24  |
| Pedestrians                       |   |   |   |   |   |   |  |   |   |   |   |   |
| Lane Width (ft)                   |   |   |   |   |   |   |  |   |   |   |   |   |
| Walking Speed (ft/s)              |   |   |   |   |   |   |  |   |   |   |   |   |
| Percent Blockage                  |   |   |   |   |   |   |  |   |   |   |   |   |
| Right turn flare (veh)            |   |   |   |   |   |   |  |   |   |   |   |   |
| Median type                       | TWLTL   |   |   |   | TWLTL   |   |  |   |   |   |   |   |
| Median storage (veh)              | 2   |   |   |   | 2   |   |  |   |   |   |   |   |
| Upstream signal (ft)              |   |   |   |   | 1317  |   |  |   |   |   |   |   |
| pX, platoon unblocked             |   |   |   |   |   |   |  |   |   |   |   |   |
| vC, conflicting volume            | 432   |   |   | 445   |   |   | 936  | 947   | 435   | 924   | 917   | 392   |
| vC1, stage 1 conf vol             |   |   |   |   |   |   | 481  | 481   |   | 426   | 426   |   |
| vC2, stage 2 conf vol             |   |   |   |   |   |   | 455  | 466   |   | 498   | 491   |   |
| vCu, unblocked vol                | 432   |   |   | 445   |   |   | 936  | 947   | 435   | 924   | 917   | 392   |
| tC, single (s)                    | 4.1   |   |   | 4.1   |   |   | 7.1  | 6.5   | 6.2   | 7.1   | 6.5   | 6.2   |
| tC, 2 stage (s)                   |   |   |   |   |   |   | 6.1  | 5.5   |   | 6.1   | 5.5   |   |
| tF (s)                            | 2.2   |   |   | 2.2   |   |   | 3.5  | 4.0   | 3.3   | 3.5   | 4.0   | 3.3   |
| p0 queue free %                   | 98  |   |   | 98  |   |   | 97   | 98  | 96  | 90  | 98  | 96  |
| cM capacity (veh/h)               | 1128  |   |   | 1115  |   |   | 423  | 431   | 621   | 426   | 440   | 657   |
| Direction, Lane #                 | EB 1  | EB 2  | WB 1  | NB 1  | SB 1  |   |  |   |   |   |   |   |
| Volume Total                      | 23  | 445   | 449   | 44  | 77  |   |  |   |   |   |   |   |
| Volume Left                       | 23  | 0   | 17  | 14  | 43  |   |  |   |   |   |   |   |
| Volume Right                      | 0   | 20  | 80  | 23  | 24  |   |  |   |   |   |   |   |
| cSH                               | 1128  | 1700  | 1115  | 510   | 480   |   |  |   |   |   |   |   |
| Volume to Capacity                | 0.02  | 0.26  | 0.02  | 0.09  | 0.16  |   |  |   |   |   |   |   |
| Queue Length 95th (ft)            | 2   | 0   | 1   | 7   | 14  |   |  |   |   |   |   |   |
| Control Delay (s)                 | 8.3   | 0.0   | 0.5   | 12.7  | 13.9  |   |  |   |   |   |   |   |
| Lane LOS                          | A   |   | A   | B   | B   |   |  |   |   |   |   |   |
| Approach Delay (s)                | 0.4   |   | 0.5   | 12.7  | 13.9  |   |  |   |   |   |   |   |
| Approach LOS                      |   |   |   | B   | B   |   |  |   |   |   |   |   |
| Intersection Summary              |   |   |   |   |   |   |  |   |   |   |   |   |
| Average Delay                     |   |   | 2.0   |   |   |   |  |   |   |   |   |   |
| Intersection Capacity Utilization |   |   | 48.4%   |   | ICU Level of Service  |   | A  |   |   |   |   |   |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |


















HCM Unsignalized Intersection Capacity Analysis  
12: 39th St & Orange Ave

Future PM Peak Hour  
03/30/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |   |  |   |  |  |   |  |  |   |   |  |   |
| Traffic Volume (veh/h)            | 38  | 390   | 54  | 41  | 371   | 65  | 39   | 18  | 55  | 12  | 12  | 31  |
| Future Volume (Veh/h)             | 38  | 390   | 54  | 41  | 371   | 65  | 39   | 18  | 55  | 12  | 12  | 31  |
| Sign Control                      |   | Free  |   |   | Free  |   |  | Stop  |   |   | Stop  |   |
| Grade                             |   | 0%  |   |   | 0%  |   |  | 0%  |   |   | 0%  |   |
| Peak Hour Factor                  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92   | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  |
| Hourly flow rate (vph)            | 41  | 424   | 59  | 45  | 403   | 71  | 42   | 20  | 60  | 13  | 13  | 34  |
| Pedestrians                       |   |   |   |   |   |   |  |   |   |   |   |   |
| Lane Width (ft)                   |   |   |   |   |   |   |  |   |   |   |   |   |
| Walking Speed (ft/s)              |   |   |   |   |   |   |  |   |   |   |   |   |
| Percent Blockage                  |   |   |   |   |   |   |  |   |   |   |   |   |
| Right turn flare (veh)            |   |   |   |   |   |   |  |   |   |   |   |   |
| Median type                       |   | TWLTL   |   |   | TWLTL   |   |  |   |   |   |   |   |
| Median storage veh                |   | 2   |   |   | 2   |   |  |   |   |   |   |   |
| Upstream signal (ft)              |   |   |   |   | 347   |   |  |   |   |   |   |   |
| pX, platoon unblocked             | 0.85  |   |   |   |   |   | 0.85   | 0.85  |   | 0.85  | 0.85  | 0.85  |
| vC, conflicting volume            | 474   |   |   | 483   |   |   | 1069   | 1100  | 454   | 1134  | 1094  | 438   |
| vC1, stage 1 conf vol             |   |   |   |   |   |   | 536  | 536   |   | 528   | 528   |   |
| vC2, stage 2 conf vol             |   |   |   |   |   |   | 534  | 564   |   | 606   | 565   |   |
| vCu, unblocked vol                | 295   |   |   | 483   |   |   | 994  | 1030  | 454   | 1070  | 1023  | 253   |
| tC, single (s)                    | 4.1   |   |   | 4.1   |   |   | 7.1  | 6.5   | 6.2   | 7.1   | 6.5   | 6.2   |
| tC, 2 stage (s)                   |   |   |   |   |   |   | 6.1  | 5.5   |   | 6.1   | 5.5   |   |
| tF (s)                            | 2.2   |   |   | 2.2   |   |   | 3.5  | 4.0   | 3.3   | 3.5   | 4.0   | 3.3   |
| p0 queue free %                   | 96  |   |   | 96  |   |   | 88   | 95  | 90  | 96  | 96  | 95  |
| cM capacity (veh/h)               | 1078  |   |   | 1080  |   |   | 365  | 368   | 606   | 314   | 368   | 669   |
| Direction, Lane #                 | EB 1  | WB 1  | WB 2  | NB 1  | SB 1  |   |  |   |   |   |   |   |
| Volume Total                      | 524   | 45  | 474   | 122   | 60  |   |  |   |   |   |   |   |
| Volume Left                       | 41  | 45  | 0   | 42  | 13  |   |  |   |   |   |   |   |
| Volume Right                      | 59  | 0   | 71  | 60  | 34  |   |  |   |   |   |   |   |
| cSH                               | 1078  | 1080  | 1700  | 454   | 470   |   |  |   |   |   |   |   |
| Volume to Capacity                | 0.04  | 0.04  | 0.28  | 0.27  | 0.13  |   |  |   |   |   |   |   |
| Queue Length 95th (ft)            | 3   | 3   | 0   | 27  | 11  |   |  |   |   |   |   |   |
| Control Delay (s)                 | 1.1   | 8.5   | 0.0   | 15.8  | 13.8  |   |  |   |   |   |   |   |
| Lane LOS                          | A   | A   |   | C   | B   |   |  |   |   |   |   |   |
| Approach Delay (s)                | 1.1   | 0.7   |   | 15.8  | 13.8  |   |  |   |   |   |   |   |
| Approach LOS                      |   |   |   | C   | B   |   |  |   |   |   |   |   |
| Intersection Summary              |   |   |   |   |   |   |  |   |   |   |   |   |
| Average Delay                     |   |   | 3.0   |   |   |   |  |   |   |   |   |   |
| Intersection Capacity Utilization |   |   | 70.0%   |   | ICU Level of Service  |   |  |   | C   |   |   |   |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |

HCM Signalized Intersection Capacity Analysis  
13: 40th St & Orange Ave




















Future PM Peak Hour  
03/30/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |   |  |   |  |  |   |  |  |   |   |  |   |
| Traffic Volume (vph)              | 0   | 422   | 15  | 11  | 361   | 0   | 14   | 0   | 22  | 118   | 23  | 85  |
| Future Volume (vph)               | 0   | 422   | 15  | 11  | 361   | 0   | 14   | 0   | 22  | 118   | 23  | 85  |
| Ideal Flow (vphpl)                | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900   | 1900  | 1900  | 1900  | 1900  | 1900  |
| Total Lost time (s)               |   | 4.3   |   | 4.0   | 4.3   |   |  | 4.0   |   |   | 4.0   |   |
| Lane Util. Factor                 |   | 1.00  |   | 1.00  | 1.00  |   |  | 1.00  |   |   | 1.00  |   |
| Fr <sub>t</sub>                   |   | 1.00  |   | 1.00  | 1.00  |   |  | 0.92  |   |   | 0.95  |   |
| Fl <sub>t</sub> Protected         |   | 1.00  |   | 0.95  | 1.00  |   |  | 0.98  |   |   | 0.97  |   |
| Satd. Flow (prot)                 |   | 1854  |   | 1770  | 1863  |   |  | 1677  |   |   | 1723  |   |
| Fl <sub>t</sub> Permitted         |   | 1.00  |   | 0.95  | 1.00  |   |  | 0.98  |   |   | 0.83  |   |
| Satd. Flow (perm)                 |   | 1854  |   | 1770  | 1863  |   |  | 1677  |   |   | 1469  |   |
| Peak-hour factor, PHF             | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95   | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  |
| Adj. Flow (vph)                   | 0   | 444   | 16  | 12  | 380   | 0   | 15   | 0   | 23  | 124   | 24  | 89  |
| RTOR Reduction (vph)              | 0   | 1   | 0   | 0   | 0   | 0   | 0  | 37  | 0   | 0   | 11  | 0   |
| Lane Group Flow (vph)             | 0   | 459   | 0   | 12  | 380   | 0   | 0  | 1   | 0   | 0   | 226   | 0   |
| Turn Type                         |   | NA  |   | Prot  | NA  |   | Split  | NA  |   | Perm  | NA  |   |
| Protected Phases                  |   | 2   |   | 1   | 6   |   | 3  | 3   |   |   |   | 4   |
| Permitted Phases                  |   |   |   |   |   |   |  |   |   | 4   |   |   |
| Actuated Green, G (s)             |   | 24.1  |   | 1.0   | 29.1  |   |  | 2.5   |   |   |   | 31.0  |
| Effective Green, g (s)            |   | 24.1  |   | 1.0   | 29.1  |   |  | 2.5   |   |   |   | 31.0  |
| Actuated g/C Ratio                |   | 0.32  |   | 0.01  | 0.39  |   |  | 0.03  |   |   |   | 0.41  |
| Clearance Time (s)                |   | 4.3   |   | 4.0   | 4.3   |   |  | 4.0   |   |   |   | 4.0   |
| Vehicle Extension (s)             |   | 2.0   |   | 2.0   | 2.0   |   |  | 2.0   |   |   |   | 2.0   |
| Lane Grp Cap (vph)                |   | 596   |   | 23  | 723   |   |  | 55  |   |   |   | 607   |
| v/s Ratio Prot                    |   | c0.25   |   | 0.01  | c0.20   |   |  | c0.00   |   |   |   |   |
| v/s Ratio Perm                    |   |   |   |   |   |   |  |   |   |   |   | c0.15   |
| v/c Ratio                         |   | 0.77  |   | 0.52  | 0.53  |   |  | 0.02  |   |   |   | 0.37  |
| Uniform Delay, d <sub>1</sub>     |   | 22.9  |   | 36.7  | 17.6  |   |  | 35.0  |   |   |   | 15.2  |
| Progression Factor                |   | 1.00  |   | 1.00  | 1.00  |   |  | 1.00  |   |   |   | 1.00  |
| Incremental Delay, d <sub>2</sub> |   | 5.6   |   | 9.5   | 0.3   |   |  | 0.1   |   |   |   | 1.7   |
| Delay (s)                         |   | 28.5  |   | 46.2  | 17.9  |   |  | 35.1  |   |   |   | 17.0  |
| Level of Service                  |   | C   |   | D   | B   |   |  | D   |   |   |   | B   |
| Approach Delay (s)                |   | 28.5  |   |   | 18.8  |   |  | 35.1  |   |   |   | 17.0  |
| Approach LOS                      |   | C   |   |   | B   |   |  | D   |   |   |   | B   |
| <b>Intersection Summary</b>       |   |   |   |   |   |   |  |   |   |   |   |   |
| HCM 2000 Control Delay            |   |   | 22.9  |   |   | HCM 2000 Level of Service   |  |   |   | C   |   |   |
| HCM 2000 Volume to Capacity ratio |   |   | 0.54  |   |   |   |  |   |   |   |   |   |
| Actuated Cycle Length (s)         |   |   | 74.9  |   |   | Sum of lost time (s)  |  |   | 16.3  |   |   |   |
| Intersection Capacity Utilization |   |   | 49.1%   |   |   | ICU Level of Service  |  |   | A   |   |   |   |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis  
 14: Marlborough Ave S/Alley & Orange Ave

Future PM Peak Hour  
 03/30/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |   |
| Lane Configurations               |  |  |   |  |  |   |  |  |   |   |   |  |   |
| Traffic Volume (vph)              | 1   | 490   | 87  | 81  | 382   | 4   | 77   | 1   | 46  | 2   | 0   | 1   |   |
| Future Volume (vph)               | 1   | 490   | 87  | 81  | 382   | 4   | 77   | 1   | 46  | 2   | 0   | 1   |   |
| Ideal Flow (vphpl)                | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900   | 1900  | 1900  | 1900  | 1900  | 1900  |   |
| Total Lost time (s)               | 4.9   | 4.9   |   | 4.9   | 4.9   |   |  | 4.9   |   |   | 4.9   |   |   |
| Lane Util. Factor                 | 1.00  | 1.00  |   | 1.00  | 1.00  |   |  | 1.00  |   |   | 1.00  |   |   |
| Fr <sub>t</sub>                   | 1.00  | 0.98  |   | 1.00  | 1.00  |   |  | 0.95  |   |   | 0.95  |   |   |
| Fl <sub>t</sub> Protected         | 0.95  | 1.00  |   | 0.95  | 1.00  |   |  | 0.97  |   |   | 0.97  |   |   |
| Satd. Flow (prot)                 | 1770  | 1821  |   | 1770  | 1860  |   |  | 1716  |   |   | 1722  |   |   |
| Fl <sub>t</sub> Permitted         | 0.53  | 1.00  |   | 0.38  | 1.00  |   |  | 0.81  |   |   | 0.80  |   |   |
| Satd. Flow (perm)                 | 985   | 1821  |   | 713   | 1860  |   |  | 1432  |   |   | 1430  |   |   |
| Peak-hour factor, PHF             | 0.98  | 0.98  | 0.98  | 0.98  | 0.98  | 0.98  | 0.98   | 0.98  | 0.98  | 0.98  | 0.98  | 0.98  |   |
| Adj. Flow (vph)                   | 1   | 500   | 89  | 83  | 390   | 4   | 79   | 1   | 47  | 2   | 0   | 1   |   |
| RTOR Reduction (vph)              | 0   | 5   | 0   | 0   | 0   | 0   | 0  | 24  | 0   | 0   | 2   | 0   |   |
| Lane Group Flow (vph)             | 1   | 584   | 0   | 83  | 394   | 0   | 0  | 103   | 0   | 0   | 1   | 0   |   |
| Turn Type                         | Perm  | NA  |   | Perm  | NA  |   | Perm   | NA  |   | Perm  | NA  |   |   |
| Protected Phases                  |   | 2   |   |   | 6   |   |  | 8   |   |   |   | 4   |   |
| Permitted Phases                  | 2   |   |   | 6   |   |   | 8  |   |   | 4   |   |   |   |
| Actuated Green, G (s)             | 27.2  | 27.2  |   | 27.2  | 27.2  |   |  | 7.8   |   |   | 7.8   |   |   |
| Effective Green, g (s)            | 27.2  | 27.2  |   | 27.2  | 27.2  |   |  | 7.8   |   |   | 7.8   |   |   |
| Actuated g/C Ratio                | 0.61  | 0.61  |   | 0.61  | 0.61  |   |  | 0.17  |   |   | 0.17  |   |   |
| Clearance Time (s)                | 4.9   | 4.9   |   | 4.9   | 4.9   |   |  | 4.9   |   |   | 4.9   |   |   |
| Vehicle Extension (s)             | 2.2   | 2.2   |   | 2.2   | 2.2   |   |  | 2.0   |   |   | 2.0   |   |   |
| Lane Grp Cap (vph)                | 598   | 1105  |   | 432   | 1129  |   |  | 249   |   |   | 248   |   |   |
| v/s Ratio Prot                    |   | c0.32   |   |   | 0.21  |   |  |   |   |   |   |   |   |
| v/s Ratio Perm                    | 0.00  |   |   | 0.12  |   |   |  | c0.07   |   |   | 0.00  |   |   |
| v/c Ratio                         | 0.00  | 0.53  |   | 0.19  | 0.35  |   |  | 0.41  |   |   | 0.00  |   |   |
| Uniform Delay, d <sub>1</sub>     | 3.5   | 5.1   |   | 3.9   | 4.4   |   |  | 16.5  |   |   | 15.3  |   |   |
| Progression Factor                | 1.00  | 1.00  |   | 1.00  | 1.00  |   |  | 1.00  |   |   | 1.00  |   |   |
| Incremental Delay, d <sub>2</sub> | 0.0   | 0.3   |   | 0.1   | 0.1   |   |  | 0.4   |   |   | 0.0   |   |   |
| Delay (s)                         | 3.5   | 5.4   |   | 4.0   | 4.5   |   |  | 16.9  |   |   | 15.3  |   |   |
| Level of Service                  | A   | A   |   | A   | A   |   |  | B   |   |   | B   |   |   |
| Approach Delay (s)                |   | 5.4   |   |   | 4.4   |   |  | 16.9  |   |   | 15.3  |   |   |
| Approach LOS                      |   | A   |   |   | A   |   |  | B   |   |   | B   |   |   |


















Intersection Summary

|                                   |       |                           |     |
|-----------------------------------|-------|---------------------------|-----|
| HCM 2000 Control Delay            | 6.2   | HCM 2000 Level of Service | A   |
| HCM 2000 Volume to Capacity ratio | 0.50  |                           |     |
| Actuated Cycle Length (s)         | 44.8  | Sum of lost time (s)      | 9.8 |
| Intersection Capacity Utilization | 55.9% | ICU Level of Service      | B   |
| Analysis Period (min)             | 15    |                           |     |

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis  
15: 43rd St & Orange Ave

Future PM Peak Hour  
03/30/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |   |  |   |  |  |   |  |   |   |   |  |  |
| Traffic Volume (vph)              | 0   | 420   | 65  | 32  | 404   | 0   | 0  | 0   | 0   | 155   | 484   | 65  |
| Future Volume (vph)               | 0   | 420   | 65  | 32  | 404   | 0   | 0  | 0   | 0   | 155   | 484   | 65  |
| Ideal Flow (vphpl)                | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900   | 1900  | 1900  | 1900  | 1900  | 1900  |
| Total Lost time (s)               |   | 4.9   |   | 4.9   | 4.9   |   |  |   |   |   | 4.9   |   |
| Lane Util. Factor                 |   | 1.00  |   | 1.00  | 1.00  |   |  |   |   |   | 0.95  |   |
| Frbp, ped/bikes                   |   | 0.99  |   | 1.00  | 1.00  |   |  |   |   |   | 0.99  |   |
| Flpb, ped/bikes                   |   | 1.00  |   | 0.98  | 1.00  |   |  |   |   |   | 0.99  |   |
| Frt                               |   | 0.98  |   | 1.00  | 1.00  |   |  |   |   |   | 0.99  |   |
| Flt Protected                     |   | 1.00  |   | 0.95  | 1.00  |   |  |   |   |   | 0.99  |   |
| Satd. Flow (prot)                 |   | 1817  |   | 1743  | 1863  |   |  |   |   |   | 3403  |   |
| Flt Permitted                     |   | 1.00  |   | 0.35  | 1.00  |   |  |   |   |   | 0.99  |   |
| Satd. Flow (perm)                 |   | 1817  |   | 650   | 1863  |   |  |   |   |   | 3403  |   |
| Peak-hour factor, PHF             | 0.93  | 0.93  | 0.93  | 0.93  | 0.93  | 0.93  | 0.93   | 0.93  | 0.93  | 0.93  | 0.93  | 0.93  |
| Adj. Flow (vph)                   | 0   | 452   | 70  | 34  | 434   | 0   | 0  | 0   | 0   | 167   | 520   | 70  |
| RTOR Reduction (vph)              | 0   | 7   | 0   | 0   | 0   | 0   | 0  | 0   | 0   | 0   | 18  | 0   |
| Lane Group Flow (vph)             | 0   | 515   | 0   | 34  | 434   | 0   | 0  | 0   | 0   | 0   | 739   | 0   |
| Confl. Peds. (#/hr)               | 31  |   | 41  | 41  |   | 31  | 18   |   | 26  | 26  |   | 18  |
| Confl. Bikes (#/hr)               |   |   | 2   |   |   | 7   |  |   |   |   |   | 7   |
| Turn Type                         |   | NA  |   | Perm  | NA  |   |  |   |   |   | Perm  | NA  |
| Protected Phases                  |   | 2   |   |   | 6   |   |  |   |   |   |   | 4   |
| Permitted Phases                  |   |   |   | 6   |   |   |  |   |   | 4   |   |   |
| Actuated Green, G (s)             |   | 29.9  |   | 29.9  | 29.9  |   |  |   |   |   | 20.3  |   |
| Effective Green, g (s)            |   | 29.9  |   | 29.9  | 29.9  |   |  |   |   |   | 20.3  |   |
| Actuated g/C Ratio                |   | 0.50  |   | 0.50  | 0.50  |   |  |   |   |   | 0.34  |   |
| Clearance Time (s)                |   | 4.9   |   | 4.9   | 4.9   |   |  |   |   |   | 4.9   |   |
| Vehicle Extension (s)             |   | 5.5   |   | 5.5   | 5.5   |   |  |   |   |   | 5.1   |   |
| Lane Grp Cap (vph)                |   | 905   |   | 323   | 928   |   |  |   |   |   | 1151  |   |
| v/s Ratio Prot                    |   | c0.28   |   |   | 0.23  |   |  |   |   |   |   |   |
| v/s Ratio Perm                    |   |   |   | 0.05  |   |   |  |   |   |   | 0.22  |   |
| v/c Ratio                         |   | 0.57  |   | 0.11  | 0.47  |   |  |   |   |   | 0.64  |   |
| Uniform Delay, d1                 |   | 10.5  |   | 8.0   | 9.8   |   |  |   |   |   | 16.8  |   |
| Progression Factor                |   | 1.00  |   | 0.68  | 0.80  |   |  |   |   |   | 1.00  |   |
| Incremental Delay, d2             |   | 2.6   |   | 0.6   | 1.6   |   |  |   |   |   | 1.7   |   |
| Delay (s)                         |   | 13.1  |   | 6.0   | 9.4   |   |  |   |   |   | 18.5  |   |
| Level of Service                  |   | B   |   | A   | A   |   |  |   |   |   | B   |   |
| Approach Delay (s)                |   | 13.1  |   |   | 9.2   |   |  | 0.0   |   |   | 18.5  |   |
| Approach LOS                      |   | B   |   |   | A   |   |  | A   |   |   | B   |   |
| <b>Intersection Summary</b>       |   |   |   |   |   |   |  |   |   |   |   |   |
| HCM 2000 Control Delay            |   |   | 14.4  |   |   | HCM 2000 Level of Service   |  |   |   | B   |   |   |
| HCM 2000 Volume to Capacity ratio |   |   | 0.60  |   |   |   |  |   |   |   |   |   |
| Actuated Cycle Length (s)         |   |   | 60.0  |   |   | Sum of lost time (s)  |  |   |   | 9.8   |   |   |
| Intersection Capacity Utilization |   |   | 58.2%   |   |   | ICU Level of Service  |  |   |   | B   |   |   |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |

c Critical Lane Group



HCM Signalized Intersection Capacity Analysis  
 16: Fairmount Ave & Orange Ave




















Future PM Peak Hour  
 03/30/2017

| Movement                          | EBL  | EBT   | EBR   | WBL  | WBT  | WBR  | NBL                       | NBT   | NBR  | SBL  | SBT  | SBR  |
|-----------------------------------|------|-------|-------|------|------|------|---------------------------|-------|------|------|------|------|
| Lane Configurations               |      |       |       |      |      |      |                           |       |      |      |      |      |
| Traffic Volume (vph)              | 87   | 429   | 81    | 56   | 325  | 136  | 111                       | 407   | 51   | 65   | 147  | 17   |
| Future Volume (vph)               | 87   | 429   | 81    | 56   | 325  | 136  | 111                       | 407   | 51   | 65   | 147  | 17   |
| Ideal Flow (vphpl)                | 1900 | 1900  | 1900  | 1900 | 1900 | 1900 | 1900                      | 1900  | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s)               | 4.9  | 4.9   |       | 4.9  | 4.9  |      | 4.9                       | 4.9   |      | 4.9  | 4.9  |      |
| Lane Util. Factor                 | 1.00 | 1.00  |       | 1.00 | 1.00 |      | 1.00                      | 0.95  |      | 1.00 | 1.00 |      |
| Frbp, ped/bikes                   | 1.00 | 0.98  |       | 1.00 | 0.99 |      | 1.00                      | 0.99  |      | 1.00 | 0.99 |      |
| Flpb, ped/bikes                   | 0.99 | 1.00  |       | 0.96 | 1.00 |      | 0.94                      | 1.00  |      | 0.97 | 1.00 |      |
| Frt                               | 1.00 | 0.98  |       | 1.00 | 0.96 |      | 1.00                      | 0.98  |      | 1.00 | 0.98 |      |
| Flt Protected                     | 0.95 | 1.00  |       | 0.95 | 1.00 |      | 0.95                      | 1.00  |      | 0.95 | 1.00 |      |
| Satd. Flow (prot)                 | 1752 | 1783  |       | 1705 | 1761 |      | 1666                      | 3443  |      | 1709 | 1815 |      |
| Flt Permitted                     | 0.40 | 1.00  |       | 0.35 | 1.00 |      | 0.65                      | 1.00  |      | 0.42 | 1.00 |      |
| Satd. Flow (perm)                 | 729  | 1783  |       | 633  | 1761 |      | 1133                      | 3443  |      | 750  | 1815 |      |
| Peak-hour factor, PHF             | 0.93 | 0.93  | 0.93  | 0.93 | 0.93 | 0.93 | 0.93                      | 0.93  | 0.93 | 0.93 | 0.93 | 0.93 |
| Adj. Flow (vph)                   | 94   | 461   | 87    | 60   | 349  | 146  | 119                       | 438   | 55   | 70   | 158  | 18   |
| RTOR Reduction (vph)              | 0    | 8     | 0     | 0    | 18   | 0    | 0                         | 22    | 0    | 0    | 10   | 0    |
| Lane Group Flow (vph)             | 94   | 540   | 0     | 60   | 477  | 0    | 119                       | 471   | 0    | 70   | 166  | 0    |
| Confl. Peds. (#/hr)               | 24   |       | 59    | 59   |      | 24   | 50                        |       | 48   | 48   |      | 50   |
| Confl. Bikes (#/hr)               |      |       | 9     |      |      | 6    |                           |       | 5    |      |      | 6    |
| Turn Type                         | Perm | NA    |       | Perm | NA   |      | Perm                      | NA    |      | Perm | NA   |      |
| Protected Phases                  |      | 2     |       |      | 6    |      |                           | 8     |      |      |      | 8    |
| Permitted Phases                  | 2    |       |       | 6    |      |      | 8                         |       |      | 8    |      |      |
| Actuated Green, G (s)             | 31.9 | 31.9  |       | 31.9 | 31.9 |      | 18.3                      | 18.3  |      | 18.3 | 18.3 |      |
| Effective Green, g (s)            | 31.9 | 31.9  |       | 31.9 | 31.9 |      | 18.3                      | 18.3  |      | 18.3 | 18.3 |      |
| Actuated g/C Ratio                | 0.53 | 0.53  |       | 0.53 | 0.53 |      | 0.31                      | 0.31  |      | 0.31 | 0.31 |      |
| Clearance Time (s)                | 4.9  | 4.9   |       | 4.9  | 4.9  |      | 4.9                       | 4.9   |      | 4.9  | 4.9  |      |
| Vehicle Extension (s)             | 5.5  | 5.5   |       | 5.5  | 5.5  |      | 6.3                       | 6.3   |      | 6.3  | 6.3  |      |
| Lane Grp Cap (vph)                | 387  | 947   |       | 336  | 936  |      | 345                       | 1050  |      | 228  | 553  |      |
| v/s Ratio Prot                    |      | c0.30 |       |      | 0.27 |      |                           | c0.14 |      |      |      | 0.09 |
| v/s Ratio Perm                    | 0.13 |       |       | 0.09 |      |      | 0.11                      |       |      | 0.09 |      |      |
| v/c Ratio                         | 0.24 | 0.57  |       | 0.18 | 0.51 |      | 0.34                      | 0.45  |      | 0.31 | 0.30 |      |
| Uniform Delay, d1                 | 7.6  | 9.4   |       | 7.3  | 9.0  |      | 16.2                      | 16.8  |      | 16.0 | 16.0 |      |
| Progression Factor                | 1.48 | 1.48  |       | 1.00 | 1.00 |      | 1.00                      | 1.00  |      | 1.00 | 1.00 |      |
| Incremental Delay, d2             | 1.3  | 2.2   |       | 1.2  | 2.0  |      | 1.8                       | 0.9   |      | 2.3  | 0.9  |      |
| Delay (s)                         | 12.4 | 16.2  |       | 8.4  | 11.0 |      | 18.0                      | 17.7  |      | 18.3 | 16.9 |      |
| Level of Service                  | B    | B     |       | A    | B    |      | B                         | B     |      | B    | B    |      |
| Approach Delay (s)                |      | 15.6  |       |      | 10.7 |      |                           | 17.8  |      |      | 17.3 |      |
| Approach LOS                      |      | B     |       |      | B    |      |                           | B     |      |      | B    |      |
| <b>Intersection Summary</b>       |      |       |       |      |      |      |                           |       |      |      |      |      |
| HCM 2000 Control Delay            |      |       | 15.1  |      |      |      | HCM 2000 Level of Service |       |      |      | B    |      |
| HCM 2000 Volume to Capacity ratio |      |       | 0.53  |      |      |      |                           |       |      |      |      |      |
| Actuated Cycle Length (s)         |      |       | 60.0  |      |      |      | Sum of lost time (s)      |       |      |      | 9.8  |      |
| Intersection Capacity Utilization |      |       | 77.2% |      |      |      | ICU Level of Service      |       |      |      | D    |      |
| Analysis Period (min)             |      |       | 15    |      |      |      |                           |       |      |      |      |      |

c Critical Lane Group




















HCM Unsignalized Intersection Capacity Analysis  
17: Chamoune Ave & Orange Ave

Future PM Peak Hour  
03/30/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL   | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |  |  |   |  |  |   |   |  |   |   |  |  |
| Sign Control                      | Stop  |   |   | Stop  |   |   |   | Stop  |   |   | Stop  |   |
| Traffic Volume (vph)              | 23  | 403   | 38  | 36  | 299   | 33  | 31  | 56  | 21  | 23  | 67  | 32  |
| Future Volume (vph)               | 23  | 403   | 38  | 36  | 299   | 33  | 31  | 56  | 21  | 23  | 67  | 32  |
| Peak Hour Factor                  | 0.90  | 0.90  | 0.90  | 0.90  | 0.90  | 0.90  | 0.90  | 0.90  | 0.90  | 0.90  | 0.90  | 0.90  |
| Hourly flow rate (vph)            | 26  | 448   | 42  | 40  | 332   | 37  | 34  | 62  | 23  | 26  | 74  | 36  |
| Direction, Lane #                 | EB 1  | EB 2  | WB 1  | WB 2  | NB 1  | SB 1  |   |   |   |   |   |   |
| Volume Total (vph)                | 26  | 490   | 40  | 369   | 119   | 136   |   |   |   |   |   |   |
| Volume Left (vph)                 | 26  | 0   | 40  | 0   | 34  | 26  |   |   |   |   |   |   |
| Volume Right (vph)                | 0   | 42  | 0   | 37  | 23  | 36  |   |   |   |   |   |   |
| Hadj (s)                          | 0.53  | -0.03   | 0.53  | -0.04   | -0.02   | -0.09   |   |   |   |   |   |   |
| Departure Headway (s)             | 6.5   | 6.0   | 6.7   | 6.1   | 6.7   | 6.6   |   |   |   |   |   |   |
| Degree Utilization, x             | 0.05  | 0.81  | 0.07  | 0.62  | 0.22  | 0.25  |   |   |   |   |   |   |
| Capacity (veh/h)                  | 528   | 590   | 514   | 564   | 471   | 485   |   |   |   |   |   |   |
| Control Delay (s)                 | 8.7   | 28.4  | 9.0   | 17.5  | 11.7  | 11.8  |   |   |   |   |   |   |
| Approach Delay (s)                | 27.5  |   | 16.7  |   | 11.7  |   |   |   |   |   |   |   |
| Approach LOS                      | D   |   | C   |   | B   |   |   |   |   |   |   |   |
| Intersection Summary              |   |   |   |   |   |   |   |   |   |   |   |   |
| Delay                             |   |   | 20.3  |   |   |   |   |   |   |   |   |   |
| Level of Service                  |   |   | C   |   |   |   |   |   |   |   |   |   |
| Intersection Capacity Utilization |   |   | 49.5%   |   | ICU Level of Service  |   |   |   | A   |   |   |   |
| Analysis Period (min)             |   |   | 15  |   |   |   |   |   |   |   |   |   |

HCM Signalized Intersection Capacity Analysis  
18: Euclid Ave & Orange Ave




















Future PM Peak Hour  
03/30/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |      |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|------|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |      |
| Lane Configurations               |  |  |   |  |  |   |  |  |   |   |  |  |      |
| Traffic Volume (vph)              | 51  | 303   | 95  | 76  | 231   | 65  | 62   | 256   | 63  | 42  | 322   | 66  |      |
| Future Volume (vph)               | 51  | 303   | 95  | 76  | 231   | 65  | 62   | 256   | 63  | 42  | 322   | 66  |      |
| Ideal Flow (vphpl)                | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900   | 1900  | 1900  | 1900  | 1900  | 1900  |      |
| Total Lost time (s)               | 4.4   | 4.9   |   | 4.4   | 4.9   |   |  | 4.9   |   |   | 4.9   |   |      |
| Lane Util. Factor                 | 1.00  | 1.00  |   | 1.00  | 1.00  |   |  | 1.00  |   |   | 1.00  |   |      |
| Fr <sub>t</sub>                   | 1.00  | 0.96  |   | 1.00  | 0.97  |   |  | 0.98  |   |   | 0.98  |   |      |
| Fl <sub>t</sub> Protected         | 0.95  | 1.00  |   | 0.95  | 1.00  |   |  | 0.99  |   |   | 1.00  |   |      |
| Satd. Flow (prot)                 | 1770  | 1796  |   | 1770  | 1802  |   |  | 1807  |   |   | 1816  |   |      |
| Fl <sub>t</sub> Permitted         | 0.95  | 1.00  |   | 0.95  | 1.00  |   |  | 0.85  |   |   | 0.94  |   |      |
| Satd. Flow (perm)                 | 1770  | 1796  |   | 1770  | 1802  |   |  | 1549  |   |   | 1709  |   |      |
| Peak-hour factor, PHF             | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95   | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  |      |
| Adj. Flow (vph)                   | 54  | 319   | 100   | 80  | 243   | 68  | 65   | 269   | 66  | 44  | 339   | 69  |      |
| RTOR Reduction (vph)              | 0   | 7   | 0   | 0   | 6   | 0   | 0  | 5   | 0   | 0   | 5   | 0   |      |
| Lane Group Flow (vph)             | 54  | 412   | 0   | 80  | 305   | 0   | 0  | 395   | 0   | 0   | 447   | 0   |      |
| Turn Type                         | Prot  | NA  |   | Prot  | NA  |   | Perm   | NA  |   | Perm  | NA  |   |      |
| Protected Phases                  | 5   | 2   |   | 1   | 6   |   |  | 8   |   |   | 4   |   |      |
| Permitted Phases                  |   |   |   |   |   |   | 8  |   |   | 4   |   |   |      |
| Actuated Green, G (s)             | 6.0   | 26.6  |   | 7.1   | 27.7  |   |  | 29.8  |   |   | 29.8  |   |      |
| Effective Green, g (s)            | 6.0   | 26.6  |   | 7.1   | 27.7  |   |  | 29.8  |   |   | 29.8  |   |      |
| Actuated g/C Ratio                | 0.08  | 0.34  |   | 0.09  | 0.36  |   |  | 0.38  |   |   | 0.38  |   |      |
| Clearance Time (s)                | 4.4   | 4.9   |   | 4.4   | 4.9   |   |  | 4.9   |   |   | 4.9   |   |      |
| Vehicle Extension (s)             | 2.0   | 2.8   |   | 2.0   | 2.8   |   |  | 3.0   |   |   | 3.0   |   |      |
| Lane Grp Cap (vph)                | 136   | 614   |   | 161   | 642   |   |  | 594   |   |   | 655   |   |      |
| v/s Ratio Prot                    | 0.03  | c0.23   |   | c0.05   | 0.17  |   |  |   |   |   |   |   |      |
| v/s Ratio Perm                    |   |   |   |   |   |   |  | 0.25  |   |   | c0.26   |   |      |
| v/c Ratio                         | 0.40  | 0.67  |   | 0.50  | 0.47  |   |  | 0.67  |   |   | 0.68  |   |      |
| Uniform Delay, d <sub>1</sub>     | 34.1  | 21.8  |   | 33.6  | 19.4  |   |  | 19.8  |   |   | 20.0  |   |      |
| Progression Factor                | 1.00  | 1.00  |   | 1.00  | 1.00  |   |  | 1.00  |   |   | 1.00  |   |      |
| Incremental Delay, d <sub>2</sub> | 0.7   | 2.8   |   | 0.9   | 0.5   |   |  | 2.8   |   |   | 2.9   |   |      |
| Delay (s)                         | 34.8  | 24.6  |   | 34.5  | 19.9  |   |  | 22.6  |   |   | 22.9  |   |      |
| Level of Service                  | C   | C   |   | C   | B   |   |  | C   |   |   | C   |   |      |
| Approach Delay (s)                |   | 25.8  |   |   | 22.8  |   |  | 22.6  |   |   | 22.9  |   |      |
| Approach LOS                      |   | C   |   |   | C   |   |  | C   |   |   | C   |   |      |
| <b>Intersection Summary</b>       |   |   |   |   |   |   |  |   |   |   |   |   |      |
| HCM 2000 Control Delay            |   |   | 23.6  |   |   |   |  |   |   |   |   | HCM 2000 Level of Service   | C    |
| HCM 2000 Volume to Capacity ratio |   |   | 0.66  |   |   |   |  |   |   |   |   |   |      |
| Actuated Cycle Length (s)         |   |   | 77.7  |   |   |   |  |   |   |   |   | Sum of lost time (s)  | 14.2 |
| Intersection Capacity Utilization |   |   | 70.5%   |   |   |   |  |   |   |   |   | ICU Level of Service  | C    |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |      |

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis  
19: Estrella Ave & Orange Ave

Future PM Peak Hour  
03/30/2017

















|                        |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement               | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations    |  |  |   |  |  |   |  |  |   |   |  |  |
| Sign Control           | Stop  |   |   | Stop  |   |   |  | Stop  |   |   | Stop  |   |
| Traffic Volume (vph)   | 30  | 319   | 16  | 28  | 258   | 5   | 23   | 24  | 15  | 13  | 34  | 33  |
| Future Volume (vph)    | 30  | 319   | 16  | 28  | 258   | 5   | 23   | 24  | 15  | 13  | 34  | 33  |
| Peak Hour Factor       | 0.81  | 0.81  | 0.81  | 0.81  | 0.81  | 0.81  | 0.81   | 0.81  | 0.81  | 0.81  | 0.81  | 0.81  |
| Hourly flow rate (vph) | 37  | 394   | 20  | 35  | 319   | 6   | 28   | 30  | 19  | 16  | 42  | 41  |
| Direction, Lane #      | EB 1  | EB 2  | WB 1  | WB 2  | NB 1  | SB 1  |  |   |   |   |   |   |
| Volume Total (vph)     | 37  | 414   | 35  | 325   | 77  | 99  |  |   |   |   |   |   |
| Volume Left (vph)      | 37  | 0   | 35  | 0   | 28  | 16  |  |   |   |   |   |   |
| Volume Right (vph)     | 0   | 20  | 0   | 6   | 19  | 41  |  |   |   |   |   |   |
| Hadj (s)               | 0.53  | 0.00  | 0.53  | 0.02  | -0.04   | -0.18   |  |   |   |   |   |   |
| Departure Headway (s)  | 6.0   | 5.5   | 6.1   | 5.6   | 6.1   | 5.9   |  |   |   |   |   |   |
| Degree Utilization, x  | 0.06  | 0.63  | 0.06  | 0.50  | 0.13  | 0.16  |  |   |   |   |   |   |
| Capacity (veh/h)       | 582   | 644   | 565   | 626   | 508   | 533   |  |   |   |   |   |   |
| Control Delay (s)      | 8.2   | 16.1  | 8.3   | 12.9  | 10.0  | 10.0  |  |   |   |   |   |   |
| Approach Delay (s)     | 15.4  |   | 12.5  |   | 10.0  |   |  |   |   |   |   |   |
| Approach LOS           | C   |   | B   |   | A   |   | B  |   |   |   |   |   |

Intersection Summary

|                                   |       |  |                      |  |  |  |   |  |  |  |  |  |
|-----------------------------------|-------|--|----------------------|--|--|--|---|--|--|--|--|--|
| Delay                             | 13.4  |  |                      |  |  |  |   |  |  |  |  |  |
| Level of Service                  | B     |  |                      |  |  |  |   |  |  |  |  |  |
| Intersection Capacity Utilization | 43.8% |  | ICU Level of Service |  |  |  | A |  |  |  |  |  |
| Analysis Period (min)             | 15    |  |                      |  |  |  |   |  |  |  |  |  |

HCM Unsignalized Intersection Capacity Analysis  
1: Florida St & Howard Ave




















Future plus Project AM Peak Hour  
04/24/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL   | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |   |  |   |   |  |   |   |  |   |   |  |   |
| Sign Control                      |   | Stop  |   |   | Stop  |   |   | Stop  |   |   | Stop  |   |
| Traffic Volume (vph)              | 3   | 28  | 13  | 24  | 153   | 36  | 41  | 158   | 10  | 15  | 113   | 33  |
| Future Volume (vph)               | 3   | 28  | 13  | 24  | 153   | 36  | 41  | 158   | 10  | 15  | 113   | 33  |
| Peak Hour Factor                  | 0.85  | 0.85  | 0.85  | 0.85  | 0.85  | 0.85  | 0.85  | 0.85  | 0.85  | 0.85  | 0.85  | 0.85  |
| Hourly flow rate (vph)            | 4   | 33  | 15  | 28  | 180   | 42  | 48  | 186   | 12  | 18  | 133   | 39  |
| Direction, Lane #                 | EB 1  | WB 1  | NB 1  | SB 1  |   |   |   |   |   |   |   |   |
| Volume Total (vph)                | 52  | 250   | 246   | 190   |   |   |   |   |   |   |   |   |
| Volume Left (vph)                 | 4   | 28  | 48  | 18  |   |   |   |   |   |   |   |   |
| Volume Right (vph)                | 15  | 42  | 12  | 39  |   |   |   |   |   |   |   |   |
| Hadj (s)                          | -0.12   | -0.04   | 0.04  | -0.07   |   |   |   |   |   |   |   |   |
| Departure Headway (s)             | 5.3   | 5.1   | 5.0   | 5.0   |   |   |   |   |   |   |   |   |
| Degree Utilization, x             | 0.08  | 0.35  | 0.34  | 0.26  |   |   |   |   |   |   |   |   |
| Capacity (veh/h)                  | 598   | 662   | 676   | 670   |   |   |   |   |   |   |   |   |
| Control Delay (s)                 | 8.7   | 10.8  | 10.6  | 9.8   |   |   |   |   |   |   |   |   |
| Approach Delay (s)                | 8.7   | 10.8  | 10.6  | 9.8   |   |   |   |   |   |   |   |   |
| Approach LOS                      | A   | B   | B   | A   |   |   |   |   |   |   |   |   |
| Intersection Summary              |   |   |   |   |   |   |   |   |   |   |   |   |
| Delay                             |   |   | 10.3  |   |   |   |   |   |   |   |   |   |
| Level of Service                  |   |   | B   |   |   |   |   |   |   |   |   |   |
| Intersection Capacity Utilization |   |   | 44.0%   | ICU Level of Service  | A   |   |   |   |   |   |   |   |
| Analysis Period (min)             |   |   | 15  |   |   |   |   |   |   |   |   |   |

| Intersection                |       |       |       |       |
|-----------------------------|-------|-------|-------|-------|
| Intersection Delay, s/veh   | 4.6   |       |       |       |
| Intersection LOS            | A     |       |       |       |
| Approach                    | EB    | WB    | NB    | SB    |
| Entry Lanes                 | 1     | 1     | 1     | 1     |
| Conflicting Circle Lanes    | 1     | 1     | 1     | 1     |
| Adj Approach Flow, veh/h    | 55    | 124   | 127   | 79    |
| Demand Flow Rate, veh/h     | 56    | 126   | 130   | 80    |
| Vehicles Circulating, veh/h | 70    | 135   | 69    | 145   |
| Vehicles Exiting, veh/h     | 155   | 64    | 57    | 116   |
| Follow-Up Headway, s        | 3.186 | 3.186 | 3.186 | 3.186 |
| Ped Vol Crossing Leg, #/h   | 21    | 14    | 21    | 18    |
| Ped Cap Adj                 | 0.997 | 0.998 | 0.997 | 0.998 |
| Approach Delay, s/veh       | 3.9   | 4.9   | 4.6   | 4.5   |
| Approach LOS                | A     | A     | A     | A     |
| Lane                        | Left  | Left  | Left  | Left  |
| Designated Moves            | LTR   | LTR   | LTR   | LTR   |
| Assumed Moves               | LTR   | LTR   | LTR   | LTR   |
| RT Channelized              |       |       |       |       |
| Lane Util                   | 1.000 | 1.000 | 1.000 | 1.000 |
| Critical Headway, s         | 5.193 | 5.193 | 5.193 | 5.193 |
| Entry Flow, veh/h           | 56    | 126   | 130   | 80    |
| Cap Entry Lane, veh/h       | 1054  | 987   | 1055  | 977   |
| Entry HV Adj Factor         | 0.986 | 0.985 | 0.980 | 0.989 |
| Flow Entry, veh/h           | 55    | 124   | 127   | 79    |
| Cap Entry, veh/h            | 1036  | 970   | 1030  | 965   |
| V/C Ratio                   | 0.053 | 0.128 | 0.124 | 0.082 |
| Control Delay, s/veh        | 3.9   | 4.9   | 4.6   | 4.5   |
| LOS                         | A     | A     | A     | A     |
| 95th %tile Queue, veh       | 0     | 0     | 0     | 0     |

HCM Signalized Intersection Capacity Analysis  
3: Texas St & Howard Ave

Future plus Project AM Peak Hour  
04/24/2017

|                        |  |  |  |  |  |  |   |  |  |  |  |  |  |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement               | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL   | NBT   | NBR   | SBL   | SBT   | SBR   |   |
| Lane Configurations    |   |  |   |   |  |   |  |  |   |  |  |   |   |
| Traffic Volume (vph)   | 10  | 31  | 7   | 4   | 43  | 33  | 12  | 284   | 15  | 13  | 141   | 24  |   |
| Future Volume (vph)    | 10  | 31  | 7   | 4   | 43  | 33  | 12  | 284   | 15  | 13  | 141   | 24  |   |
| Ideal Flow (vphpl)     | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  |   |
| Total Lost time (s)    |   | 4.9   |   |   | 4.9   |   | 4.9   | 4.9   |   | 4.9   | 4.9   |   |   |
| Lane Util. Factor      |   | 1.00  |   |   | 1.00  |   | 1.00  | 1.00  |   | 1.00  | 1.00  |   |   |
| Frb, ped/bikes         |   | 1.00  |   |   | 0.99  |   | 1.00  | 1.00  |   | 1.00  | 1.00  |   |   |
| Flpb, ped/bikes        |   | 1.00  |   |   | 1.00  |   | 0.99  | 1.00  |   | 0.99  | 1.00  |   |   |
| Frt                    |   | 0.98  |   |   | 0.94  |   | 1.00  | 0.99  |   | 1.00  | 0.98  |   |   |
| Flt Protected          |   | 0.99  |   |   | 1.00  |   | 0.95  | 1.00  |   | 0.95  | 1.00  |   |   |
| Satd. Flow (prot)      |   | 1798  |   |   | 1734  |   | 1753  | 1846  |   | 1758  | 1814  |   |   |
| Flt Permitted          |   | 0.93  |   |   | 0.98  |   | 0.64  | 1.00  |   | 0.56  | 1.00  |   |   |
| Satd. Flow (perm)      |   | 1694  |   |   | 1710  |   | 1187  | 1846  |   | 1041  | 1814  |   |   |
| Peak-hour factor, PHF  | 0.91  | 0.91  | 0.91  | 0.91  | 0.91  | 0.91  | 0.91  | 0.91  | 0.91  | 0.91  | 0.91  | 0.91  |   |
| Adj. Flow (vph)        | 11  | 34  | 8   | 4   | 47  | 36  | 13  | 312   | 16  | 14  | 155   | 26  |   |
| RTOR Reduction (vph)   | 0   | 7   | 0   | 0   | 32  | 0   | 0   | 2   | 0   | 0   | 5   | 0   |   |
| Lane Group Flow (vph)  | 0   | 46  | 0   | 0   | 55  | 0   | 13  | 326   | 0   | 14  | 176   | 0   |   |
| Confl. Peds. (#/hr)    | 1   |   | 2   | 2   |   | 1   | 7   |   | 6   | 6   |   | 7   |   |
| Confl. Bikes (#/hr)    |   |   | 1   |   |   | 2   |   |   | 2   |   |   | 2   |   |
| Turn Type              | Perm  | NA  |   | Perm  | NA  |   | Perm  | NA  |   | Perm  | NA  |   |   |
| Protected Phases       |   | 2   |   |   | 2   |   |   | 4   |   |   |   | 4   |   |
| Permitted Phases       | 2   |   |   | 2   |   |   | 4   |   |   | 4   |   |   |   |
| Actuated Green, G (s)  |   | 7.6   |   |   | 7.6   |   | 47.6  | 47.6  |   | 47.6  | 47.6  |   |   |
| Effective Green, g (s) |   | 7.6   |   |   | 7.6   |   | 47.6  | 47.6  |   | 47.6  | 47.6  |   |   |
| Actuated g/C Ratio     |   | 0.12  |   |   | 0.12  |   | 0.73  | 0.73  |   | 0.73  | 0.73  |   |   |
| Clearance Time (s)     |   | 4.9   |   |   | 4.9   |   | 4.9   | 4.9   |   | 4.9   | 4.9   |   |   |
| Vehicle Extension (s)  |   | 2.0   |   |   | 2.0   |   | 2.0   | 2.0   |   | 2.0   | 2.0   |   |   |
| Lane Grp Cap (vph)     |   | 198   |   |   | 199   |   | 869   | 1351  |   | 762   | 1328  |   |   |
| v/s Ratio Prot         |   |   |   |   |   |   |   | c0.18   |   |   |   | 0.10  |   |
| v/s Ratio Perm         |   | 0.03  |   |   | c0.03   |   | 0.01  |   |   | 0.01  |   |   |   |
| v/c Ratio              |   | 0.23  |   |   | 0.28  |   | 0.01  | 0.24  |   | 0.02  | 0.13  |   |   |
| Uniform Delay, d1      |   | 26.1  |   |   | 26.2  |   | 2.4   | 2.8   |   | 2.4   | 2.6   |   |   |
| Progression Factor     |   | 1.00  |   |   | 1.00  |   | 1.00  | 1.00  |   | 1.00  | 1.00  |   |   |
| Incremental Delay, d2  |   | 0.2   |   |   | 0.3   |   | 0.0   | 0.4   |   | 0.0   | 0.2   |   |   |
| Delay (s)              |   | 26.3  |   |   | 26.5  |   | 2.4   | 3.3   |   | 2.4   | 2.8   |   |   |
| Level of Service       |   | C   |   |   | C   |   | A   | A   |   | A   | A   |   |   |
| Approach Delay (s)     |   | 26.3  |   |   | 26.5  |   |   | 3.2   |   |   | 2.8   |   |   |
| Approach LOS           |   | C   |   |   | C   |   |   | A   |   |   | A   |   |   |

| Intersection Summary              |       |                           |     |
|-----------------------------------|-------|---------------------------|-----|
| HCM 2000 Control Delay            | 7.9   | HCM 2000 Level of Service | A   |
| HCM 2000 Volume to Capacity ratio | 0.25  |                           |     |
| Actuated Cycle Length (s)         | 65.0  | Sum of lost time (s)      | 9.8 |
| Intersection Capacity Utilization | 30.7% | ICU Level of Service      | A   |
| Analysis Period (min)             | 15    |                           |     |

c Critical Lane Group



















| Intersection                |       |       |       |       |
|-----------------------------|-------|-------|-------|-------|
| Intersection Delay, s/veh   | 5.5   |       |       |       |
| Intersection LOS            | A     |       |       |       |
| Approach                    | EB    | WB    | NB    | SB    |
| Entry Lanes                 | 1     | 1     | 1     | 1     |
| Conflicting Circle Lanes    | 1     | 1     | 1     | 1     |
| Adj Approach Flow, veh/h    | 89    | 247   | 136   | 92    |
| Demand Flow Rate, veh/h     | 91    | 253   | 139   | 94    |
| Vehicles Circulating, veh/h | 117   | 137   | 117   | 181   |
| Vehicles Exiting, veh/h     | 158   | 119   | 90    | 209   |
| Follow-Up Headway, s        | 3.186 | 3.186 | 3.186 | 3.186 |
| Ped Vol Crossing Leg, #/h   | 14    | 13    | 14    | 12    |
| Ped Cap Adj                 | 0.998 | 0.998 | 0.998 | 0.998 |
| Approach Delay, s/veh       | 4.5   | 6.3   | 4.9   | 4.8   |
| Approach LOS                | A     | A     | A     | A     |
| Lane                        | Left  | Left  | Left  | Left  |
| Designated Moves            | LTR   | LTR   | LTR   | LTR   |
| Assumed Moves               | LTR   | LTR   | LTR   | LTR   |
| RT Channelized              |       |       |       |       |
| Lane Util                   | 1.000 | 1.000 | 1.000 | 1.000 |
| Critical Headway, s         | 5.193 | 5.193 | 5.193 | 5.193 |
| Entry Flow, veh/h           | 91    | 253   | 139   | 94    |
| Cap Entry Lane, veh/h       | 1005  | 985   | 1005  | 943   |
| Entry HV Adj Factor         | 0.976 | 0.978 | 0.979 | 0.978 |
| Flow Entry, veh/h           | 89    | 247   | 136   | 92    |
| Cap Entry, veh/h            | 979   | 961   | 982   | 921   |
| V/C Ratio                   | 0.091 | 0.257 | 0.139 | 0.100 |
| Control Delay, s/veh        | 4.5   | 6.3   | 4.9   | 4.8   |
| LOS                         | A     | A     | A     | A     |
| 95th %tile Queue, veh       | 0     | 1     | 0     | 0     |



| Intersection                |       |       |       |       |
|-----------------------------|-------|-------|-------|-------|
| Intersection Delay, s/veh   | 6.1   |       |       |       |
| Intersection LOS            | A     |       |       |       |
| Approach                    | EB    | WB    | NB    | SB    |
| Entry Lanes                 | 1     | 1     | 1     | 1     |
| Conflicting Circle Lanes    | 1     | 1     | 1     | 1     |
| Adj Approach Flow, veh/h    | 148   | 300   | 145   | 131   |
| Demand Flow Rate, veh/h     | 150   | 306   | 147   | 133   |
| Vehicles Circulating, veh/h | 166   | 149   | 157   | 277   |
| Vehicles Exiting, veh/h     | 244   | 155   | 159   | 178   |
| Follow-Up Headway, s        | 3.186 | 3.186 | 3.186 | 3.186 |
| Ped Vol Crossing Leg, #/h   | 19    | 19    | 16    | 19    |
| Ped Cap Adj                 | 0.997 | 0.997 | 0.998 | 0.997 |
| Approach Delay, s/veh       | 5.3   | 7.1   | 5.2   | 5.8   |
| Approach LOS                | A     | A     | A     | A     |
| Lane                        | Left  | Left  | Left  | Left  |
| Designated Moves            | LTR   | LTR   | LTR   | LTR   |
| Assumed Moves               | LTR   | LTR   | LTR   | LTR   |
| RT Channelized              |       |       |       |       |
| Lane Util                   | 1.000 | 1.000 | 1.000 | 1.000 |
| Critical Headway, s         | 5.193 | 5.193 | 5.193 | 5.193 |
| Entry Flow, veh/h           | 150   | 306   | 147   | 133   |
| Cap Entry Lane, veh/h       | 957   | 974   | 966   | 857   |
| Entry HV Adj Factor         | 0.984 | 0.979 | 0.984 | 0.984 |
| Flow Entry, veh/h           | 148   | 300   | 145   | 131   |
| Cap Entry, veh/h            | 939   | 951   | 949   | 840   |
| V/C Ratio                   | 0.157 | 0.315 | 0.153 | 0.156 |
| Control Delay, s/veh        | 5.3   | 7.1   | 5.2   | 5.8   |
| LOS                         | A     | A     | A     | A     |
| 95th %tile Queue, veh       | 1     | 1     | 1     | 1     |

HCM Signalized Intersection Capacity Analysis  
6: 30th St & Howard Ave

Future plus Project AM Peak Hour  
04/24/2017

















|                        |  |  |  |  |  |  |   |  |  |  |  |  |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement               | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL   | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations    |   |  |   |   |  |   |  |  |   |  |  |   |
| Traffic Volume (vph)   | 15  | 118   | 22  | 33  | 197   | 61  | 34  | 311   | 25  | 23  | 218   | 16  |
| Future Volume (vph)    | 15  | 118   | 22  | 33  | 197   | 61  | 34  | 311   | 25  | 23  | 218   | 16  |
| Ideal Flow (vphpl)     | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  |
| Total Lost time (s)    |   | 4.9   |   |   | 4.9   |   | 4.9   | 4.9   |   | 4.9   | 4.9   |   |
| Lane Util. Factor      |   | 1.00  |   |   | 1.00  |   | 1.00  | 1.00  |   | 1.00  | 1.00  |   |
| Frbp, ped/bikes        |   | 0.99  |   |   | 0.99  |   | 1.00  | 1.00  |   | 1.00  | 1.00  |   |
| Flpb, ped/bikes        |   | 1.00  |   |   | 1.00  |   | 0.98  | 1.00  |   | 0.98  | 1.00  |   |
| Frt                    |   | 0.98  |   |   | 0.97  |   | 1.00  | 0.99  |   | 1.00  | 0.99  |   |
| Flt Protected          |   | 1.00  |   |   | 0.99  |   | 0.95  | 1.00  |   | 0.95  | 1.00  |   |
| Satd. Flow (prot)      |   | 1802  |   |   | 1778  |   | 1727  | 1835  |   | 1740  | 1837  |   |
| Flt Permitted          |   | 0.96  |   |   | 0.95  |   | 0.61  | 1.00  |   | 0.54  | 1.00  |   |
| Satd. Flow (perm)      |   | 1739  |   |   | 1692  |   | 1107  | 1835  |   | 994   | 1837  |   |
| Peak-hour factor, PHF  | 0.97  | 0.97  | 0.97  | 0.97  | 0.97  | 0.97  | 0.97  | 0.97  | 0.97  | 0.97  | 0.97  | 0.97  |
| Adj. Flow (vph)        | 15  | 122   | 23  | 34  | 203   | 63  | 35  | 321   | 26  | 24  | 225   | 16  |
| RTOR Reduction (vph)   | 0   | 12  | 0   | 0   | 20  | 0   | 0   | 4   | 0   | 0   | 4   | 0   |
| Lane Group Flow (vph)  | 0   | 148   | 0   | 0   | 280   | 0   | 35  | 343   | 0   | 24  | 237   | 0   |
| Confl. Peds. (#/hr)    | 12  |   | 21  | 21  |   | 12  | 22  |   | 18  | 18  |   | 22  |
| Confl. Bikes (#/hr)    |   |   | 2   |   |   | 5   |   |   | 2   |   |   | 5   |
| Turn Type              | Perm  | NA  |   | Perm  | NA  |   | Perm  | NA  |   | Perm  | NA  |   |
| Protected Phases       |   | 2   |   |   | 2   |   |   | 4   |   |   |   | 4   |
| Permitted Phases       | 2   |   |   | 2   |   |   | 4   |   |   | 4   |   |   |
| Actuated Green, G (s)  |   | 13.2  |   |   | 13.2  |   | 31.9  | 31.9  |   | 31.9  | 31.9  |   |
| Effective Green, g (s) |   | 13.2  |   |   | 13.2  |   | 31.9  | 31.9  |   | 31.9  | 31.9  |   |
| Actuated g/C Ratio     |   | 0.24  |   |   | 0.24  |   | 0.58  | 0.58  |   | 0.58  | 0.58  |   |
| Clearance Time (s)     |   | 4.9   |   |   | 4.9   |   | 4.9   | 4.9   |   | 4.9   | 4.9   |   |
| Vehicle Extension (s)  |   | 2.0   |   |   | 2.0   |   | 3.3   | 3.3   |   | 3.3   | 3.3   |   |
| Lane Grp Cap (vph)     |   | 418   |   |   | 406   |   | 643   | 1066  |   | 577   | 1067  |   |
| v/s Ratio Prot         |   |   |   |   |   |   |   | c0.19   |   |   |   | 0.13  |
| v/s Ratio Perm         |   | 0.09  |   |   | c0.17   |   | 0.03  |   |   | 0.02  |   |   |
| v/c Ratio              |   | 0.35  |   |   | 0.69  |   | 0.05  | 0.32  |   | 0.04  | 0.22  |   |
| Uniform Delay, d1      |   | 17.3  |   |   | 19.0  |   | 5.0   | 5.9   |   | 4.9   | 5.5   |   |
| Progression Factor     |   | 1.00  |   |   | 1.00  |   | 1.00  | 1.00  |   | 1.00  | 1.00  |   |
| Incremental Delay, d2  |   | 0.2   |   |   | 4.1   |   | 0.2   | 0.8   |   | 0.1   | 0.5   |   |
| Delay (s)              |   | 17.5  |   |   | 23.0  |   | 5.1   | 6.7   |   | 5.1   | 6.0   |   |
| Level of Service       |   | B   |   |   | C   |   | A   | A   |   | A   | A   |   |
| Approach Delay (s)     |   | 17.5  |   |   | 23.0  |   |   | 6.6   |   |   | 5.9   |   |
| Approach LOS           |   | B   |   |   | C   |   |   | A   |   |   | A   |   |

| Intersection Summary              |       |                           |     |
|-----------------------------------|-------|---------------------------|-----|
| HCM 2000 Control Delay            | 12.5  | HCM 2000 Level of Service | B   |
| HCM 2000 Volume to Capacity ratio | 0.43  |                           |     |
| Actuated Cycle Length (s)         | 54.9  | Sum of lost time (s)      | 9.8 |
| Intersection Capacity Utilization | 58.7% | ICU Level of Service      | B   |
| Analysis Period (min)             | 15    |                           |     |

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis  
7: Illinois St & Howard Ave

Future plus Project AM Peak Hour  
04/24/2017













|                        |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement               | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations    |   |  |   |   |  |   |  |  |   |   |  |   |
| Sign Control           |   | Stop  |   |   | Stop  |   |  | Stop  |   |   | Stop  |   |
| Traffic Volume (vph)   | 42  | 89  | 8   | 3   | 263   | 53  | 6  | 128   | 7   | 13  | 50  | 17  |
| Future Volume (vph)    | 42  | 89  | 8   | 3   | 263   | 53  | 6  | 128   | 7   | 13  | 50  | 17  |
| Peak Hour Factor       | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95   | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  |
| Hourly flow rate (vph) | 44  | 94  | 8   | 3   | 277   | 56  | 6  | 135   | 7   | 14  | 53  | 18  |
| Direction, Lane #      | EB 1  | WB 1  | NB 1  | SB 1  |   |   |  |   |   |   |   |   |
| Volume Total (vph)     | 146   | 336   | 148   | 85  |   |   |  |   |   |   |   |   |
| Volume Left (vph)      | 44  | 3   | 6   | 14  |   |   |  |   |   |   |   |   |
| Volume Right (vph)     | 8   | 56  | 7   | 18  |   |   |  |   |   |   |   |   |
| Hadj (s)               | 0.06  | -0.06   | 0.01  | -0.06   |   |   |  |   |   |   |   |   |
| Departure Headway (s)  | 5.0   | 4.7   | 5.2   | 5.3   |   |   |  |   |   |   |   |   |
| Degree Utilization, x  | 0.20  | 0.44  | 0.21  | 0.12  |   |   |  |   |   |   |   |   |
| Capacity (veh/h)       | 662   | 735   | 628   | 609   |   |   |  |   |   |   |   |   |
| Control Delay (s)      | 9.3   | 11.2  | 9.6   | 9.0   |   |   |  |   |   |   |   |   |
| Approach Delay (s)     | 9.3   | 11.2  | 9.6   | 9.0   |   |   |  |   |   |   |   |   |
| Approach LOS           | A   | B   | A   | A   |   |   |  |   |   |   |   |   |

Intersection Summary

|                                   |       |                      |   |
|-----------------------------------|-------|----------------------|---|
| Delay                             | 10.2  |                      |   |
| Level of Service                  | B     |                      |   |
| Intersection Capacity Utilization | 48.1% | ICU Level of Service | A |
| Analysis Period (min)             | 15    |                      |   |


















HCM Unsignalized Intersection Capacity Analysis  
8: Boundary St & Howard Ave/Orange Ave

Future plus Project AM Peak Hour  
04/24/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |   | ↕   |   |   | ↕   |   |  | ↕   |   |   | ↕   |   |
| Traffic Volume (veh/h)            | 1   | 88  | 15  | 30  | 287   | 0   | 28   | 1   | 29  | 0   | 0   | 3   |
| Future Volume (Veh/h)             | 1   | 88  | 15  | 30  | 287   | 0   | 28   | 1   | 29  | 0   | 0   | 3   |
| Sign Control                      |   | Free  |   |   | Free  |   |  | Stop  |   |   | Stop  |   |
| Grade                             |   | 0%  |   |   | 0%  |   |  | 0%  |   |   | 0%  |   |
| Peak Hour Factor                  | 0.89  | 0.89  | 0.89  | 0.89  | 0.89  | 0.89  | 0.89   | 0.89  | 0.89  | 0.89  | 0.89  | 0.89  |
| Hourly flow rate (vph)            | 1   | 99  | 17  | 34  | 322   | 0   | 31   | 1   | 33  | 0   | 0   | 3   |
| Pedestrians                       |   | 9   |   |   | 8   |   |  | 9   |   |   | 9   |   |
| Lane Width (ft)                   |   | 12.0  |   |   | 12.0  |   |  | 12.0  |   |   | 12.0  |   |
| Walking Speed (ft/s)              |   | 3.5   |   |   | 3.5   |   |  | 3.5   |   |   | 3.5   |   |
| Percent Blockage                  |   | 1   |   |   | 1   |   |  | 1   |   |   | 1   |   |
| Right turn flare (veh)            |   |   |   |   |   |   |  |   |   |   |   |   |
| Median type                       |   | None  |   |   | None  |   |  |   |   |   |   |   |
| Median storage (veh)              |   |   |   |   |   |   |  |   |   |   |   |   |
| Upstream signal (ft)              |   |   |   |   | 985   |   |  |   |   |   |   |   |
| pX, platoon unblocked             |   |   |   |   |   |   |  |   |   |   |   |   |
| vC, conflicting volume            | 331   |   |   | 125   |   |   | 520  | 518   | 124   | 550   | 526   | 340   |
| vC1, stage 1 conf vol             |   |   |   |   |   |   |  |   |   |   |   |   |
| vC2, stage 2 conf vol             |   |   |   |   |   |   |  |   |   |   |   |   |
| vCu, unblocked vol                | 331   |   |   | 125   |   |   | 520  | 518   | 124   | 550   | 526   | 340   |
| tC, single (s)                    | 4.1   |   |   | 4.1   |   |   | 7.1  | 6.5   | 6.2   | 7.1   | 6.5   | 6.2   |
| tC, 2 stage (s)                   |   |   |   |   |   |   |  |   |   |   |   |   |
| tF (s)                            | 2.2   |   |   | 2.2   |   |   | 3.5  | 4.0   | 3.3   | 3.5   | 4.0   | 3.3   |
| p0 queue free %                   | 100   |   |   | 98  |   |   | 93   | 100   | 96  | 100   | 100   | 100   |
| cM capacity (veh/h)               | 1218  |   |   | 1449  |   |   | 442  | 443   | 911   | 409   | 438   | 690   |
| Direction, Lane #                 | EB 1  | WB 1  | NB 1  | SB 1  |   |   |  |   |   |   |   |   |
| Volume Total                      | 117   | 356   | 65  | 3   |   |   |  |   |   |   |   |   |
| Volume Left                       | 1   | 34  | 31  | 0   |   |   |  |   |   |   |   |   |
| Volume Right                      | 17  | 0   | 33  | 3   |   |   |  |   |   |   |   |   |
| cSH                               | 1218  | 1449  | 599   | 690   |   |   |  |   |   |   |   |   |
| Volume to Capacity                | 0.00  | 0.02  | 0.11  | 0.00  |   |   |  |   |   |   |   |   |
| Queue Length 95th (ft)            | 0   | 2   | 9   | 0   |   |   |  |   |   |   |   |   |
| Control Delay (s)                 | 0.1   | 0.9   | 11.7  | 10.2  |   |   |  |   |   |   |   |   |
| Lane LOS                          | A   | A   | B   | B   |   |   |  |   |   |   |   |   |
| Approach Delay (s)                | 0.1   | 0.9   | 11.7  | 10.2  |   |   |  |   |   |   |   |   |
| Approach LOS                      |   |   | B   | B   |   |   |  |   |   |   |   |   |
| <b>Intersection Summary</b>       |   |   |   |   |   |   |  |   |   |   |   |   |
| Average Delay                     |   |   | 2.1   |   |   |   |  |   |   |   |   |   |
| Intersection Capacity Utilization |   |   | 41.2%   |   | ICU Level of Service  |   |  |   | A   |   |   |   |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |

HCM Signalized Intersection Capacity Analysis  
 9: Alley/33rd St & Orange Ave


















Future plus Project AM Peak Hour  
 04/24/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |      |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|------|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |      |
| Lane Configurations               |   |  |   |   |  |   |  |  |   |  |  |   |      |
| Traffic Volume (vph)              | 79  | 119   | 0   | 8   | 274   | 230   | 5  | 4   | 0   | 56  | 2   | 42  |      |
| Future Volume (vph)               | 79  | 119   | 0   | 8   | 274   | 230   | 5  | 4   | 0   | 56  | 2   | 42  |      |
| Ideal Flow (vphpl)                | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900   | 1900  | 1900  | 1900  | 1900  | 1900  |      |
| Total Lost time (s)               |   | 4.0   |   |   | 4.0   |   |  | 4.0   |   | 4.0   | 4.0   |   |      |
| Lane Util. Factor                 |   | 1.00  |   |   | 1.00  |   |  | 1.00  |   | 1.00  | 1.00  |   |      |
| Fr <sub>t</sub>                   |   | 1.00  |   |   | 0.94  |   |  | 1.00  |   | 1.00  | 0.86  |   |      |
| Fl <sub>t</sub> Protected         |   | 0.98  |   |   | 1.00  |   |  | 0.97  |   | 0.95  | 1.00  |   |      |
| Satd. Flow (prot)                 |   | 1826  |   |   | 1748  |   |  | 1812  |   | 1770  | 1595  |   |      |
| Fl <sub>t</sub> Permitted         |   | 0.74  |   |   | 1.00  |   |  | 0.97  |   | 0.95  | 1.00  |   |      |
| Satd. Flow (perm)                 |   | 1376  |   |   | 1743  |   |  | 1812  |   | 1770  | 1595  |   |      |
| Peak-hour factor, PHF             | 0.96  | 0.96  | 0.96  | 0.96  | 0.96  | 0.96  | 0.96   | 0.96  | 0.96  | 0.96  | 0.96  | 0.96  |      |
| Adj. Flow (vph)                   | 82  | 124   | 0   | 8   | 285   | 240   | 5  | 4   | 0   | 58  | 2   | 44  |      |
| RTOR Reduction (vph)              | 0   | 0   | 0   | 0   | 26  | 0   | 0  | 0   | 0   | 0   | 38  | 0   |      |
| Lane Group Flow (vph)             | 0   | 206   | 0   | 0   | 507   | 0   | 0  | 9   | 0   | 58  | 8   | 0   |      |
| Turn Type                         | Perm  | NA  |   | Perm  | NA  |   | Split  | NA  |   | Split   | NA  |   |      |
| Protected Phases                  |   | 2   |   |   | 6   |   | 3  | 3   |   | 4   | 4   |   |      |
| Permitted Phases                  | 2   |   |   | 6   |   |   |  |   |   |   |   |   |      |
| Actuated Green, G (s)             |   | 24.8  |   |   | 24.8  |   |  | 0.8   |   | 6.5   | 6.5   |   |      |
| Effective Green, g (s)            |   | 24.8  |   |   | 24.8  |   |  | 0.8   |   | 6.5   | 6.5   |   |      |
| Actuated g/C Ratio                |   | 0.56  |   |   | 0.56  |   |  | 0.02  |   | 0.15  | 0.15  |   |      |
| Clearance Time (s)                |   | 4.0   |   |   | 4.0   |   |  | 4.0   |   | 4.0   | 4.0   |   |      |
| Vehicle Extension (s)             |   | 2.1   |   |   | 2.3   |   |  | 2.0   |   | 2.0   | 2.0   |   |      |
| Lane Grp Cap (vph)                |   | 773   |   |   | 980   |   |  | 32  |   | 260   | 235   |   |      |
| v/s Ratio Prot                    |   |   |   |   |   |   |  | c0.00   |   | c0.03   | 0.01  |   |      |
| v/s Ratio Perm                    |   | 0.15  |   |   | c0.29   |   |  |   |   |   |   |   |      |
| v/c Ratio                         |   | 0.27  |   |   | 0.52  |   |  | 0.28  |   | 0.22  | 0.04  |   |      |
| Uniform Delay, d <sub>1</sub>     |   | 5.0   |   |   | 6.0   |   |  | 21.4  |   | 16.6  | 16.1  |   |      |
| Progression Factor                |   | 1.00  |   |   | 1.00  |   |  | 1.00  |   | 1.00  | 1.00  |   |      |
| Incremental Delay, d <sub>2</sub> |   | 0.1   |   |   | 0.3   |   |  | 1.8   |   | 0.2   | 0.0   |   |      |
| Delay (s)                         |   | 5.0   |   |   | 6.2   |   |  | 23.1  |   | 16.7  | 16.1  |   |      |
| Level of Service                  |   | A   |   |   | A   |   |  | C   |   | B   | B   |   |      |
| Approach Delay (s)                |   | 5.0   |   |   | 6.2   |   |  | 23.1  |   |   | 16.5  |   |      |
| Approach LOS                      |   | A   |   |   | A   |   |  | C   |   |   | B   |   |      |
| <b>Intersection Summary</b>       |   |   |   |   |   |   |  |   |   |   |   |   |      |
| HCM 2000 Control Delay            |   |   | 7.4   |   |   |   |  |   |   |   |   | HCM 2000 Level of Service   | A    |
| HCM 2000 Volume to Capacity ratio |   |   | 0.45  |   |   |   |  |   |   |   |   |   |      |
| Actuated Cycle Length (s)         |   |   | 44.1  |   |   |   |  |   |   |   |   | Sum of lost time (s)  | 12.0 |
| Intersection Capacity Utilization |   |   | 54.6%   |   |   |   |  |   |   |   |   | ICU Level of Service  | A    |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |      |

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis  
10: 35th St & Orange Ave

















Future plus Project AM Peak Hour  
04/24/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL   | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |   |  |  |   |  |   |   |  |   |   |  |   |
| Traffic Volume (vph)              | 40  | 165   | 17  | 25  | 359   | 101   | 63  | 111   | 48  | 46  | 72  | 20  |
| Future Volume (vph)               | 40  | 165   | 17  | 25  | 359   | 101   | 63  | 111   | 48  | 46  | 72  | 20  |
| Ideal Flow (vphpl)                | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  |
| Total Lost time (s)               |   | 4.9   | 4.9   |   | 4.9   |   |   | 4.9   |   |   | 4.9   |   |
| Lane Util. Factor                 |   | 1.00  | 1.00  |   | 1.00  |   |   | 1.00  |   |   | 1.00  |   |
| Frbp, ped/bikes                   |   | 1.00  | 0.95  |   | 0.99  |   |   | 0.99  |   |   | 0.99  |   |
| Flpb, ped/bikes                   |   | 1.00  | 1.00  |   | 1.00  |   |   | 0.99  |   |   | 1.00  |   |
| Frt                               |   | 1.00  | 0.85  |   | 0.97  |   |   | 0.97  |   |   | 0.98  |   |
| Flt Protected                     |   | 0.99  | 1.00  |   | 1.00  |   |   | 0.99  |   |   | 0.98  |   |
| Satd. Flow (prot)                 |   | 1842  | 1500  |   | 1789  |   |   | 1755  |   |   | 1772  |   |
| Flt Permitted                     |   | 0.87  | 1.00  |   | 0.98  |   |   | 0.88  |   |   | 0.81  |   |
| Satd. Flow (perm)                 |   | 1615  | 1500  |   | 1758  |   |   | 1561  |   |   | 1453  |   |
| Peak-hour factor, PHF             | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  |
| Adj. Flow (vph)                   | 43  | 179   | 18  | 27  | 390   | 110   | 68  | 121   | 52  | 50  | 78  | 22  |
| RTOR Reduction (vph)              | 0   | 0   | 7   | 0   | 10  | 0   | 0   | 25  | 0   | 0   | 16  | 0   |
| Lane Group Flow (vph)             | 0   | 222   | 11  | 0   | 517   | 0   | 0   | 216   | 0   | 0   | 134   | 0   |
| Confl. Peds. (#/hr)               | 12  |   | 24  | 24  |   | 12  | 22  |   | 17  | 17  |   | 22  |
| Confl. Bikes (#/hr)               |   |   | 1   |   |   | 4   |   |   |   |   |   | 4   |
| Turn Type                         | Perm  | NA  | Perm  | Perm  | NA  |   | Perm  | NA  |   | Perm  | NA  |   |
| Protected Phases                  |   | 2   |   |   | 2   |   |   | 4   |   |   |   | 4   |
| Permitted Phases                  | 2   |   | 2   | 2   |   |   | 4   |   |   | 4   |   |   |
| Actuated Green, G (s)             |   | 34.5  | 34.5  |   | 34.5  |   |   | 12.6  |   |   | 12.6  |   |
| Effective Green, g (s)            |   | 34.5  | 34.5  |   | 34.5  |   |   | 12.6  |   |   | 12.6  |   |
| Actuated g/C Ratio                |   | 0.61  | 0.61  |   | 0.61  |   |   | 0.22  |   |   | 0.22  |   |
| Clearance Time (s)                |   | 4.9   | 4.9   |   | 4.9   |   |   | 4.9   |   |   | 4.9   |   |
| Vehicle Extension (s)             |   | 3.1   | 3.1   |   | 3.1   |   |   | 2.0   |   |   | 2.0   |   |
| Lane Grp Cap (vph)                |   | 979   | 909   |   | 1065  |   |   | 345   |   |   | 321   |   |
| v/s Ratio Prot                    |   |   |   |   |   |   |   |   |   |   |   |   |
| v/s Ratio Perm                    |   | 0.14  | 0.01  |   | c0.29   |   |   | c0.14   |   |   | 0.09  |   |
| v/c Ratio                         |   | 0.23  | 0.01  |   | 0.49  |   |   | 0.63  |   |   | 0.42  |   |
| Uniform Delay, d1                 |   | 5.1   | 4.4   |   | 6.2   |   |   | 20.0  |   |   | 19.0  |   |
| Progression Factor                |   | 1.00  | 1.00  |   | 1.00  |   |   | 1.00  |   |   | 1.00  |   |
| Incremental Delay, d2             |   | 0.5   | 0.0   |   | 1.6   |   |   | 2.5   |   |   | 0.3   |   |
| Delay (s)                         |   | 5.7   | 4.5   |   | 7.8   |   |   | 22.6  |   |   | 19.3  |   |
| Level of Service                  |   | A   | A   |   | A   |   |   | C   |   |   | B   |   |
| Approach Delay (s)                |   | 5.6   |   |   | 7.8   |   |   | 22.6  |   |   | 19.3  |   |
| Approach LOS                      |   | A   |   |   | A   |   |   | C   |   |   | B   |   |
| <b>Intersection Summary</b>       |   |   |   |   |   |   |   |   |   |   |   |   |
| HCM 2000 Control Delay            |   |   | 11.9  |   |   |   |   |   |   |   | HCM 2000 Level of Service   | B   |
| HCM 2000 Volume to Capacity ratio |   |   | 0.52  |   |   |   |   |   |   |   |   |   |
| Actuated Cycle Length (s)         |   |   | 56.9  |   |   |   |   |   |   |   | Sum of lost time (s)  | 9.8   |
| Intersection Capacity Utilization |   |   | 70.6%   |   |   |   |   |   |   |   | ICU Level of Service  | C   |
| Analysis Period (min)             |   |   | 15  |   |   |   |   |   |   |   |   |   |

c Critical Lane Group

















HCM Unsignalized Intersection Capacity Analysis  
11: 37th St & Orange Ave

Future plus Project AM Peak Hour  
04/24/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |   |  |   |   |  |   |  |  |   |   |  |   |
| Traffic Volume (veh/h)            | 40  | 232   | 17  | 16  | 324   | 74  | 10   | 4   | 34  | 27  | 3   | 8   |
| Future Volume (Veh/h)             | 40  | 232   | 17  | 16  | 324   | 74  | 10   | 4   | 34  | 27  | 3   | 8   |
| Sign Control                      |   | Free  |   |   | Free  |   |  | Stop  |   |   | Stop  |   |
| Grade                             |   | 0%  |   |   | 0%  |   |  | 0%  |   |   | 0%  |   |
| Peak Hour Factor                  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92   | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  |
| Hourly flow rate (vph)            | 43  | 252   | 18  | 17  | 352   | 80  | 11   | 4   | 37  | 29  | 3   | 9   |
| Pedestrians                       |   |   |   |   |   |   |  |   |   |   |   |   |
| Lane Width (ft)                   |   |   |   |   |   |   |  |   |   |   |   |   |
| Walking Speed (ft/s)              |   |   |   |   |   |   |  |   |   |   |   |   |
| Percent Blockage                  |   |   |   |   |   |   |  |   |   |   |   |   |
| Right turn flare (veh)            |   |   |   |   |   |   |  |   |   |   |   |   |
| Median type                       | None  |   |   |   | None  |   |  |   |   |   |   |   |
| Median storage (veh)              |   |   |   |   |   |   |  |   |   |   |   |   |
| Upstream signal (ft)              | 1317  |   |   |   |   |   |  |   |   |   |   |   |
| pX, platoon unblocked             |   |   |   |   |   |   |  |   |   |   |   |   |
| vC, conflicting volume            | 432   |   |   | 270   |   |   | 784  | 813   | 261   | 812   | 782   | 392   |
| vC1, stage 1 conf vol             |   |   |   |   |   |   |  |   |   |   |   |   |
| vC2, stage 2 conf vol             |   |   |   |   |   |   |  |   |   |   |   |   |
| vCu, unblocked vol                | 432   |   |   | 270   |   |   | 784  | 813   | 261   | 812   | 782   | 392   |
| tC, single (s)                    | 4.1   |   |   | 4.1   |   |   | 7.1  | 6.5   | 6.2   | 7.1   | 6.5   | 6.2   |
| tC, 2 stage (s)                   |   |   |   |   |   |   |  |   |   |   |   |   |
| tF (s)                            | 2.2   |   |   | 2.2   |   |   | 3.5  | 4.0   | 3.3   | 3.5   | 4.0   | 3.3   |
| p0 queue free %                   | 96  |   |   | 99  |   |   | 96   | 99  | 95  | 89  | 99  | 99  |
| cM capacity (veh/h)               | 1128  |   |   | 1293  |   |   | 293  | 297   | 778   | 270   | 309   | 657   |
| Direction, Lane #                 | EB 1  | WB 1  | NB 1  | SB 1  |   |   |  |   |   |   |   |   |
| Volume Total                      | 313   | 449   | 52  | 41  |   |   |  |   |   |   |   |   |
| Volume Left                       | 43  | 17  | 11  | 29  |   |   |  |   |   |   |   |   |
| Volume Right                      | 18  | 80  | 37  | 9   |   |   |  |   |   |   |   |   |
| cSH                               | 1128  | 1293  | 527   | 313   |   |   |  |   |   |   |   |   |
| Volume to Capacity                | 0.04  | 0.01  | 0.10  | 0.13  |   |   |  |   |   |   |   |   |
| Queue Length 95th (ft)            | 3   | 1   | 8   | 11  |   |   |  |   |   |   |   |   |
| Control Delay (s)                 | 1.5   | 0.4   | 12.6  | 18.2  |   |   |  |   |   |   |   |   |
| Lane LOS                          | A   | A   | B   | C   |   |   |  |   |   |   |   |   |
| Approach Delay (s)                | 1.5   | 0.4   | 12.6  | 18.2  |   |   |  |   |   |   |   |   |
| Approach LOS                      |   |   | B   | C   |   |   |  |   |   |   |   |   |
| Intersection Summary              |   |   |   |   |   |   |  |   |   |   |   |   |
| Average Delay                     |   |   |   | 2.4   |   |   |  |   |   |   |   |   |
| Intersection Capacity Utilization |   |   |   | 42.8%   | ICU Level of Service  | A   |  |   |   |   |   |   |
| Analysis Period (min)             | 15  |   |   |   |   |   |  |   |   |   |   |   |

HCM Unsignalized Intersection Capacity Analysis  
12: 39th St & Orange Ave

















Future plus Project AM Peak Hour  
04/24/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |      |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|------|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |      |
| Lane Configurations               |   |  |   |   |  |   |  |  |   |   |  |   |      |
| Traffic Volume (veh/h)            | 62  | 205   | 55  | 49  | 403   | 208   | 0  | 56  | 80  | 18  | 8   | 40  |      |
| Future Volume (Veh/h)             | 62  | 205   | 55  | 49  | 403   | 208   | 0  | 56  | 80  | 18  | 8   | 40  |      |
| Sign Control                      |   | Free  |   |   | Free  |   |  | Stop  |   |   | Stop  |   |      |
| Grade                             |   | 0%  |   |   | 0%  |   |  | 0%  |   |   | 0%  |   |      |
| Peak Hour Factor                  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92   | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  |      |
| Hourly flow rate (vph)            | 67  | 223   | 60  | 53  | 438   | 226   | 0  | 61  | 87  | 20  | 9   | 43  |      |
| Pedestrians                       |   |   |   |   |   |   |  |   |   |   |   |   |      |
| Lane Width (ft)                   |   |   |   |   |   |   |  |   |   |   |   |   |      |
| Walking Speed (ft/s)              |   |   |   |   |   |   |  |   |   |   |   |   |      |
| Percent Blockage                  |   |   |   |   |   |   |  |   |   |   |   |   |      |
| Right turn flare (veh)            |   |   |   |   |   |   |  |   |   |   |   |   |      |
| Median type                       | None  |   |   |   |   | None  |  |   |   |   |   |   |      |
| Median storage (veh)              |   |   |   |   |   |   |  |   |   |   |   |   |      |
| Upstream signal (ft)              |   |   |   |   |   | 347   |  |   |   |   |   |   |      |
| pX, platoon unblocked             | 0.67  |   |   |   |   |   | 0.67   | 0.67  |   |   | 0.67  | 0.67  | 0.67 |
| vC, conflicting volume            | 664   |   |   |   | 283   |   |  | 1092  | 1157  | 253   | 1162  | 1074  | 551  |
| vC1, stage 1 conf vol             |   |   |   |   |   |   |  |   |   |   |   |   |      |
| vC2, stage 2 conf vol             |   |   |   |   |   |   |  |   |   |   |   |   |      |
| vCu, unblocked vol                | 258   |   |   |   | 283   |   |  | 893   | 990   | 253   | 997   | 867   | 90   |
| tC, single (s)                    | 4.1   |   |   |   | 4.1   |   |  | 7.1   | 6.5   | 6.2   | 7.1   | 6.5   | 6.2  |
| tC, 2 stage (s)                   |   |   |   |   |   |   |  |   |   |   |   |   |      |
| tF (s)                            | 2.2   |   |   |   | 2.2   |   |  | 3.5   | 4.0   | 3.3   | 3.5   | 4.0   | 3.3  |
| p0 queue free %                   | 92  |   |   |   | 96  |   |  | 100   | 58  | 89  | 76  | 95  | 93   |
| cM capacity (veh/h)               | 880   |   |   |   | 1279  |   |  | 145   | 147   | 786   | 83  | 173   | 651  |
| Direction, Lane #                 | EB 1  | WB 1  | NB 1  | SB 1  |   |   |  |   |   |   |   |   |      |
| Volume Total                      | 350   | 717   | 148   | 72  |   |   |  |   |   |   |   |   |      |
| Volume Left                       | 67  | 53  | 0   | 20  |   |   |  |   |   |   |   |   |      |
| Volume Right                      | 60  | 226   | 87  | 43  |   |   |  |   |   |   |   |   |      |
| cSH                               | 880   | 1279  | 281   | 200   |   |   |  |   |   |   |   |   |      |
| Volume to Capacity                | 0.08  | 0.04  | 0.53  | 0.36  |   |   |  |   |   |   |   |   |      |
| Queue Length 95th (ft)            | 6   | 3   | 71  | 38  |   |   |  |   |   |   |   |   |      |
| Control Delay (s)                 | 2.5   | 1.1   | 31.2  | 32.7  |   |   |  |   |   |   |   |   |      |
| Lane LOS                          | A   | A   | D   | D   |   |   |  |   |   |   |   |   |      |
| Approach Delay (s)                | 2.5   | 1.1   | 31.2  | 32.7  |   |   |  |   |   |   |   |   |      |
| Approach LOS                      |   |   | D   | D   |   |   |  |   |   |   |   |   |      |
| Intersection Summary              |   |   |   |   |   |   |  |   |   |   |   |   |      |
| Average Delay                     |   |   | 6.7   |   |   |   |  |   |   |   |   |   |      |
| Intersection Capacity Utilization |   |   | 62.2%   | ICU Level of Service  | B   |   |  |   |   |   |   |   |      |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |      |



HCM Signalized Intersection Capacity Analysis  
13: 40th St & Orange Ave

















Future plus Project AM Peak Hour  
04/24/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |   |  |   |   |  |   |  |  |   |   |  |   |
| Traffic Volume (vph)              | 0   | 284   | 8   | 10  | 563   | 0   | 21   | 0   | 32  | 49  | 9   | 54  |
| Future Volume (vph)               | 0   | 284   | 8   | 10  | 563   | 0   | 21   | 0   | 32  | 49  | 9   | 54  |
| Ideal Flow (vphpl)                | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900   | 1900  | 1900  | 1900  | 1900  | 1900  |
| Total Lost time (s)               |   | 4.3   |   |   | 4.3   |   |  | 4.0   |   |   | 4.0   |   |
| Lane Util. Factor                 |   | 1.00  |   |   | 1.00  |   |  | 1.00  |   |   | 1.00  |   |
| Fr <sub>t</sub>                   |   | 1.00  |   |   | 1.00  |   |  | 0.92  |   |   | 0.94  |   |
| Fl <sub>t</sub> Protected         |   | 1.00  |   |   | 1.00  |   |  | 0.98  |   |   | 0.98  |   |
| Satd. Flow (prot)                 |   | 1856  |   |   | 1861  |   |  | 1678  |   |   | 1704  |   |
| Fl <sub>t</sub> Permitted         |   | 1.00  |   |   | 0.99  |   |  | 0.98  |   |   | 0.87  |   |
| Satd. Flow (perm)                 |   | 1856  |   |   | 1850  |   |  | 1678  |   |   | 1516  |   |
| Peak-hour factor, PHF             | 0.88  | 0.88  | 0.88  | 0.88  | 0.88  | 0.88  | 0.88   | 0.88  | 0.88  | 0.88  | 0.88  | 0.88  |
| Adj. Flow (vph)                   | 0   | 323   | 9   | 11  | 640   | 0   | 24   | 0   | 36  | 56  | 10  | 61  |
| RTOR Reduction (vph)              | 0   | 1   | 0   | 0   | 0   | 0   | 0  | 49  | 0   | 0   | 24  | 0   |
| Lane Group Flow (vph)             | 0   | 331   | 0   | 0   | 651   | 0   | 0  | 11  | 0   | 0   | 103   | 0   |
| Turn Type                         |   | NA  |   | Perm  | NA  |   | Split  | NA  |   | Perm  | NA  |   |
| Protected Phases                  |   | 2   |   |   | 6   |   | 3  | 3   |   |   |   | 4   |
| Permitted Phases                  |   |   |   | 6   |   |   |  |   |   | 4   |   |   |
| Actuated Green, G (s)             |   | 28.4  |   |   | 28.4  |   |  | 3.2   |   |   | 23.1  |   |
| Effective Green, g (s)            |   | 28.4  |   |   | 28.4  |   |  | 3.2   |   |   | 23.1  |   |
| Actuated g/C Ratio                |   | 0.42  |   |   | 0.42  |   |  | 0.05  |   |   | 0.34  |   |
| Clearance Time (s)                |   | 4.3   |   |   | 4.3   |   |  | 4.0   |   |   | 4.0   |   |
| Vehicle Extension (s)             |   | 2.0   |   |   | 2.0   |   |  | 2.0   |   |   | 2.0   |   |
| Lane Grp Cap (vph)                |   | 786   |   |   | 784   |   |  | 80  |   |   | 522   |   |
| v/s Ratio Prot                    |   | 0.18  |   |   |   |   |  | c0.01   |   |   |   |   |
| v/s Ratio Perm                    |   |   |   |   | c0.35   |   |  |   |   |   | c0.07   |   |
| v/c Ratio                         |   | 0.42  |   |   | 0.83  |   |  | 0.14  |   |   | 0.20  |   |
| Uniform Delay, d <sub>1</sub>     |   | 13.5  |   |   | 17.2  |   |  | 30.6  |   |   | 15.4  |   |
| Progression Factor                |   | 1.00  |   |   | 1.00  |   |  | 1.00  |   |   | 1.00  |   |
| Incremental Delay, d <sub>2</sub> |   | 0.1   |   |   | 7.1   |   |  | 0.3   |   |   | 0.8   |   |
| Delay (s)                         |   | 13.7  |   |   | 24.3  |   |  | 30.9  |   |   | 16.3  |   |
| Level of Service                  |   | B   |   |   | C   |   |  | C   |   |   | B   |   |
| Approach Delay (s)                |   | 13.7  |   |   | 24.3  |   |  | 30.9  |   |   | 16.3  |   |
| Approach LOS                      |   | B   |   |   | C   |   |  | C   |   |   | B   |   |
| <b>Intersection Summary</b>       |   |   |   |   |   |   |  |   |   |   |   |   |
| HCM 2000 Control Delay            |   |   | 20.7  |   |   |   | HCM 2000 Level of Service  |   |   | C   |   |   |
| HCM 2000 Volume to Capacity ratio |   |   | 0.52  |   |   |   |  |   |   |   |   |   |
| Actuated Cycle Length (s)         |   |   | 67.0  |   |   |   | Sum of lost time (s)   |   | 12.3  |   |   |   |
| Intersection Capacity Utilization |   |   | 53.3%   |   |   |   | ICU Level of Service   |   | A   |   |   |   |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis  
 14: Marlborough Ave S/Alley & Orange Ave

Future plus Project AM Peak Hour  
 04/24/2017

















|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |   |  |   |   |  |   |  |  |   |   |  |   |
| Traffic Volume (vph)              | 1   | 307   | 58  | 76  | 656   | 0   | 124  | 1   | 73  | 0   | 2   | 3   |
| Future Volume (vph)               | 1   | 307   | 58  | 76  | 656   | 0   | 124  | 1   | 73  | 0   | 2   | 3   |
| Ideal Flow (vphpl)                | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900   | 1900  | 1900  | 1900  | 1900  | 1900  |
| Total Lost time (s)               |   | 4.9   |   |   | 4.9   |   |  | 4.9   |   |   | 4.9   |   |
| Lane Util. Factor                 |   | 1.00  |   |   | 1.00  |   |  | 1.00  |   |   | 1.00  |   |
| Fr <sub>t</sub>                   |   | 0.98  |   |   | 1.00  |   |  | 0.95  |   |   | 0.92  |   |
| Fl <sub>t</sub> Protected         |   | 1.00  |   |   | 0.99  |   |  | 0.97  |   |   | 1.00  |   |
| Satd. Flow (prot)                 |   | 1823  |   |   | 1853  |   |  | 1716  |   |   | 1712  |   |
| Fl <sub>t</sub> Permitted         |   | 1.00  |   |   | 0.92  |   |  | 0.81  |   |   | 1.00  |   |
| Satd. Flow (perm)                 |   | 1821  |   |   | 1705  |   |  | 1428  |   |   | 1712  |   |
| Peak-hour factor, PHF             | 0.87  | 0.87  | 0.87  | 0.87  | 0.87  | 0.87  | 0.87   | 0.87  | 0.87  | 0.87  | 0.87  | 0.87  |
| Adj. Flow (vph)                   | 1   | 353   | 67  | 87  | 754   | 0   | 143  | 1   | 84  | 0   | 2   | 3   |
| RTOR Reduction (vph)              | 0   | 5   | 0   | 0   | 0   | 0   | 0  | 22  | 0   | 0   | 2   | 0   |
| Lane Group Flow (vph)             | 0   | 416   | 0   | 0   | 841   | 0   | 0  | 206   | 0   | 0   | 3   | 0   |
| Turn Type                         | Perm  | NA  |   | Perm  | NA  |   | Perm   | NA  |   |   | NA  |   |
| Protected Phases                  |   | 2   |   |   | 6   |   |  | 8   |   |   | 4   |   |
| Permitted Phases                  | 2   |   |   | 6   |   |   | 8  |   |   | 4   |   |   |
| Actuated Green, G (s)             |   | 47.5  |   |   | 47.5  |   |  | 16.9  |   |   | 16.9  |   |
| Effective Green, g (s)            |   | 47.5  |   |   | 47.5  |   |  | 16.9  |   |   | 16.9  |   |
| Actuated g/C Ratio                |   | 0.64  |   |   | 0.64  |   |  | 0.23  |   |   | 0.23  |   |
| Clearance Time (s)                |   | 4.9   |   |   | 4.9   |   |  | 4.9   |   |   | 4.9   |   |
| Vehicle Extension (s)             |   | 2.2   |   |   | 2.2   |   |  | 2.0   |   |   | 2.0   |   |
| Lane Grp Cap (vph)                |   | 1165  |   |   | 1091  |   |  | 325   |   |   | 389   |   |
| v/s Ratio Prot                    |   |   |   |   |   |   |  |   |   |   | 0.00  |   |
| v/s Ratio Perm                    |   | 0.23  |   |   | c0.49   |   |  | c0.14   |   |   |   |   |
| v/c Ratio                         |   | 0.36  |   |   | 0.77  |   |  | 0.64  |   |   | 0.01  |   |
| Uniform Delay, d <sub>1</sub>     |   | 6.2   |   |   | 9.5   |   |  | 25.9  |   |   | 22.2  |   |
| Progression Factor                |   | 1.00  |   |   | 1.00  |   |  | 1.00  |   |   | 1.00  |   |
| Incremental Delay, d <sub>2</sub> |   | 0.1   |   |   | 3.2   |   |  | 3.0   |   |   | 0.0   |   |
| Delay (s)                         |   | 6.3   |   |   | 12.7  |   |  | 28.8  |   |   | 22.2  |   |
| Level of Service                  |   | A   |   |   | B   |   |  | C   |   |   | C   |   |
| Approach Delay (s)                |   | 6.3   |   |   | 12.7  |   |  | 28.8  |   |   | 22.2  |   |
| Approach LOS                      |   | A   |   |   | B   |   |  | C   |   |   | C   |   |

| Intersection Summary              |       |                           |     |
|-----------------------------------|-------|---------------------------|-----|
| HCM 2000 Control Delay            | 13.4  | HCM 2000 Level of Service | B   |
| HCM 2000 Volume to Capacity ratio | 0.73  |                           |     |
| Actuated Cycle Length (s)         | 74.2  | Sum of lost time (s)      | 9.8 |
| Intersection Capacity Utilization | 88.8% | ICU Level of Service      | E   |
| Analysis Period (min)             | 15    |                           |     |

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis  
15: 43rd St & Orange Ave




















Future plus Project AM Peak Hour  
04/24/2017

|                                   |  |  |  |  |  |  |  |  |  |  |   |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|--|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT  | SBR   |
| Lane Configurations               |   |  |   |   |  |   |  |   |   |   | <br> |   |
| Traffic Volume (vph)              | 0   | 341   | 39  | 19  | 531   | 0   | 0  | 0   | 0   | 51  | 268  | 81  |
| Future Volume (vph)               | 0   | 341   | 39  | 19  | 531   | 0   | 0  | 0   | 0   | 51  | 268  | 81  |
| Ideal Flow (vphpl)                | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900   | 1900  | 1900  | 1900  | 1900   | 1900  |
| Total Lost time (s)               |   | 4.9   |   |   | 4.9   |   |  |   |   |   | 4.9  |   |
| Lane Util. Factor                 |   | 1.00  |   |   | 1.00  |   |  |   |   |   | 0.95   |   |
| Frb, ped/bikes                    |   | 0.99  |   |   | 1.00  |   |  |   |   |   | 0.98   |   |
| Flpb, ped/bikes                   |   | 1.00  |   |   | 1.00  |   |  |   |   |   | 0.99   |   |
| Frt                               |   | 0.99  |   |   | 1.00  |   |  |   |   |   | 0.97   |   |
| Flt Protected                     |   | 1.00  |   |   | 1.00  |   |  |   |   |   | 0.99   |   |
| Satd. Flow (prot)                 |   | 1822  |   |   | 1857  |   |  |   |   |   | 3323   |   |
| Flt Permitted                     |   | 1.00  |   |   | 0.98  |   |  |   |   |   | 0.99   |   |
| Satd. Flow (perm)                 |   | 1822  |   |   | 1828  |   |  |   |   |   | 3323   |   |
| Peak-hour factor, PHF             | 0.94  | 0.94  | 0.94  | 0.94  | 0.94  | 0.94  | 0.94   | 0.94  | 0.94  | 0.94  | 0.94   | 0.94  |
| Adj. Flow (vph)                   | 0   | 363   | 41  | 20  | 565   | 0   | 0  | 0   | 0   | 54  | 285  | 86  |
| RTOR Reduction (vph)              | 0   | 5   | 0   | 0   | 0   | 0   | 0  | 0   | 0   | 0   | 35   | 0   |
| Lane Group Flow (vph)             | 0   | 399   | 0   | 0   | 585   | 0   | 0  | 0   | 0   | 0   | 390  | 0   |
| Confl. Peds. (#/hr)               | 43  |   | 62  | 62  |   | 43  | 22   |   | 31  | 31  |  | 22  |
| Confl. Bikes (#/hr)               |   |   | 13  |   |   | 3   |  |   |   |   |  | 3   |
| Turn Type                         |   | NA  |   | Perm  | NA  |   |  |   |   |   | Perm   | NA  |
| Protected Phases                  |   | 2   |   |   | 6   |   |  |   |   |   |  | 4   |
| Permitted Phases                  |   |   |   | 6   |   |   |  |   |   | 4   |  |   |
| Actuated Green, G (s)             |   | 44.1  |   |   | 44.1  |   |  |   |   |   |  | 16.1  |
| Effective Green, g (s)            |   | 44.1  |   |   | 44.1  |   |  |   |   |   |  | 16.1  |
| Actuated g/C Ratio                |   | 0.63  |   |   | 0.63  |   |  |   |   |   |  | 0.23  |
| Clearance Time (s)                |   | 4.9   |   |   | 4.9   |   |  |   |   |   |  | 4.9   |
| Vehicle Extension (s)             |   | 5.5   |   |   | 5.5   |   |  |   |   |   |  | 5.1   |
| Lane Grp Cap (vph)                |   | 1147  |   |   | 1151  |   |  |   |   |   |  | 764   |
| v/s Ratio Prot                    |   | 0.22  |   |   |   |   |  |   |   |   |  |   |
| v/s Ratio Perm                    |   |   |   |   | c0.32   |   |  |   |   |   |  | 0.12  |
| v/c Ratio                         |   | 0.35  |   |   | 0.51  |   |  |   |   |   |  | 0.51  |
| Uniform Delay, d1                 |   | 6.1   |   |   | 7.0   |   |  |   |   |   |  | 23.5  |
| Progression Factor                |   | 1.00  |   |   | 0.82  |   |  |   |   |   |  | 1.00  |
| Incremental Delay, d2             |   | 0.8   |   |   | 1.3   |   |  |   |   |   |  | 1.2   |
| Delay (s)                         |   | 7.0   |   |   | 7.1   |   |  |   |   |   |  | 24.7  |
| Level of Service                  |   | A   |   |   | A   |   |  |   |   |   |  | C   |
| Approach Delay (s)                |   | 7.0   |   |   | 7.1   |   |  | 0.0   |   |   |  | 24.7  |
| Approach LOS                      |   | A   |   |   | A   |   |  | A   |   |   |  | C   |
| <b>Intersection Summary</b>       |   |   |   |   |   |   |  |   |   |   |  |   |
| HCM 2000 Control Delay            |   |   | 12.3  |   | HCM 2000 Level of Service   |   |  |   |   | B   |  |   |
| HCM 2000 Volume to Capacity ratio |   |   | 0.51  |   |   |   |  |   |   |   |  |   |
| Actuated Cycle Length (s)         |   |   | 70.0  |   | Sum of lost time (s)  |   |  |   |   | 9.8   |  |   |
| Intersection Capacity Utilization |   |   | 66.7%   |   | ICU Level of Service  |   |  |   |   | C   |  |   |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |  |   |

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis  
16: Fairmount Ave & Orange Ave

















Future plus Project AM Peak Hour  
04/24/2017

|                                   |  |  |  |  |  |  |   |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL   | NBT   | NBR   | SBL   | SBT   | SBR   |   |
| Lane Configurations               |   |  |   |   |  |   |  |  |   |  |  |   |   |
| Traffic Volume (vph)              | 74  | 273   | 61  | 45  | 376   | 145   | 184   | 869   | 62  | 10  | 61  | 11  |   |
| Future Volume (vph)               | 74  | 273   | 61  | 45  | 376   | 145   | 184   | 869   | 62  | 10  | 61  | 11  |   |
| Ideal Flow (vphpl)                | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  |   |
| Total Lost time (s)               |   | 4.9   |   |   | 4.9   |   | 4.9   | 4.9   |   | 4.9   | 4.9   |   |   |
| Lane Util. Factor                 |   | 1.00  |   |   | 1.00  |   | 1.00  | 0.95  |   | 1.00  | 1.00  |   |   |
| Frb, ped/bikes                    |   | 0.97  |   |   | 0.98  |   | 1.00  | 0.99  |   | 1.00  | 0.98  |   |   |
| Flpb, ped/bikes                   |   | 1.00  |   |   | 0.99  |   | 0.94  | 1.00  |   | 0.98  | 1.00  |   |   |
| Frt                               |   | 0.98  |   |   | 0.97  |   | 1.00  | 0.99  |   | 1.00  | 0.98  |   |   |
| Flt Protected                     |   | 0.99  |   |   | 1.00  |   | 0.95  | 1.00  |   | 0.95  | 1.00  |   |   |
| Satd. Flow (prot)                 |   | 1752  |   |   | 1742  |   | 1661  | 3475  |   | 1739  | 1791  |   |   |
| Flt Permitted                     |   | 0.84  |   |   | 0.94  |   | 0.71  | 1.00  |   | 0.17  | 1.00  |   |   |
| Satd. Flow (perm)                 |   | 1479  |   |   | 1649  |   | 1237  | 3475  |   | 308   | 1791  |   |   |
| Peak-hour factor, PHF             | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  |   |
| Adj. Flow (vph)                   | 78  | 287   | 64  | 47  | 396   | 153   | 194   | 915   | 65  | 11  | 64  | 12  |   |
| RTOR Reduction (vph)              | 0   | 9   | 0   | 0   | 9   | 0   | 0   | 7   | 0   | 0   | 8   | 0   |   |
| Lane Group Flow (vph)             | 0   | 420   | 0   | 0   | 587   | 0   | 194   | 973   | 0   | 11  | 68  | 0   |   |
| Confl. Peds. (#/hr)               | 63  |   | 84  | 84  |   | 63  | 39  |   | 58  | 58  |   | 39  |   |
| Confl. Bikes (#/hr)               |   |   | 4   |   |   | 9   |   |   | 5   |   |   | 9   |   |
| Turn Type                         | Perm  | NA  |   | Perm  | NA  |   | Perm  | NA  |   | Perm  | NA  |   |   |
| Protected Phases                  |   | 2   |   |   | 6   |   |   | 8   |   |   |   | 8   |   |
| Permitted Phases                  | 2   |   |   | 6   |   |   | 8   |   |   | 8   |   |   |   |
| Actuated Green, G (s)             |   | 36.4  |   |   | 36.4  |   | 23.8  | 23.8  |   | 23.8  | 23.8  |   |   |
| Effective Green, g (s)            |   | 36.4  |   |   | 36.4  |   | 23.8  | 23.8  |   | 23.8  | 23.8  |   |   |
| Actuated g/C Ratio                |   | 0.52  |   |   | 0.52  |   | 0.34  | 0.34  |   | 0.34  | 0.34  |   |   |
| Clearance Time (s)                |   | 4.9   |   |   | 4.9   |   | 4.9   | 4.9   |   | 4.9   | 4.9   |   |   |
| Vehicle Extension (s)             |   | 5.5   |   |   | 5.5   |   | 6.3   | 6.3   |   | 6.3   | 6.3   |   |   |
| Lane Grp Cap (vph)                |   | 769   |   |   | 857   |   | 420   | 1181  |   | 104   | 608   |   |   |
| v/s Ratio Prot                    |   |   |   |   |   |   |   | c0.28   |   |   |   | 0.04  |   |
| v/s Ratio Perm                    |   | 0.28  |   |   | c0.36   |   | 0.16  |   |   | 0.04  |   |   |   |
| v/c Ratio                         |   | 0.55  |   |   | 0.69  |   | 0.46  | 0.82  |   | 0.11  | 0.11  |   |   |
| Uniform Delay, d1                 |   | 11.3  |   |   | 12.5  |   | 18.1  | 21.2  |   | 15.8  | 15.8  |   |   |
| Progression Factor                |   | 0.62  |   |   | 1.00  |   | 1.00  | 1.00  |   | 1.00  | 1.00  |   |   |
| Incremental Delay, d2             |   | 2.6   |   |   | 4.4   |   | 2.4   | 5.7   |   | 1.4   | 0.2   |   |   |
| Delay (s)                         |   | 9.7   |   |   | 17.0  |   | 20.5  | 26.9  |   | 17.2  | 16.1  |   |   |
| Level of Service                  |   | A   |   |   | B   |   | C   | C   |   | B   | B   |   |   |
| Approach Delay (s)                |   | 9.7   |   |   | 17.0  |   |   | 25.8  |   |   | 16.2  |   |   |
| Approach LOS                      |   | A   |   |   | B   |   |   | C   |   |   | B   |   |   |
| <b>Intersection Summary</b>       |   |   |   |   |   |   |   |   |   |   |   |   |   |
| HCM 2000 Control Delay            |   |   | 20.1  |   |   |   | HCM 2000 Level of Service   |   |   | C   |   |   |   |
| HCM 2000 Volume to Capacity ratio |   |   | 0.74  |   |   |   |   |   |   |   |   |   |   |
| Actuated Cycle Length (s)         |   |   | 70.0  |   |   |   | Sum of lost time (s)  |   |   | 9.8   |   |   |   |
| Intersection Capacity Utilization |   |   | 74.9%   |   |   |   | ICU Level of Service  |   |   | D   |   |   |   |
| Analysis Period (min)             |   |   | 15  |   |   |   |   |   |   |   |   |   |   |

c Critical Lane Group













HCM Unsignalized Intersection Capacity Analysis  
17: Chamoune Ave & Orange Ave

Future plus Project AM Peak Hour  
04/24/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |   |  |   |   |  |   |  |  |   |   |  |   |
| Sign Control                      |   | Stop  |   |   | Stop  |   |  | Stop  |   |   | Stop  |   |
| Traffic Volume (vph)              | 32  | 174   | 23  | 46  | 347   | 60  | 28   | 180   | 30  | 24  | 104   | 25  |
| Future Volume (vph)               | 32  | 174   | 23  | 46  | 347   | 60  | 28   | 180   | 30  | 24  | 104   | 25  |
| Peak Hour Factor                  | 0.87  | 0.87  | 0.87  | 0.87  | 0.87  | 0.87  | 0.87   | 0.87  | 0.87  | 0.87  | 0.87  | 0.87  |
| Hourly flow rate (vph)            | 37  | 200   | 26  | 53  | 399   | 69  | 32   | 207   | 34  | 28  | 120   | 29  |
| Direction, Lane #                 | EB 1  | WB 1  | NB 1  | SB 1  |   |   |  |   |   |   |   |   |
| Volume Total (vph)                | 263   | 521   | 273   | 177   |   |   |  |   |   |   |   |   |
| Volume Left (vph)                 | 37  | 53  | 32  | 28  |   |   |  |   |   |   |   |   |
| Volume Right (vph)                | 26  | 69  | 34  | 29  |   |   |  |   |   |   |   |   |
| Hadj (s)                          | 0.00  | -0.03   | -0.02   | -0.03   |   |   |  |   |   |   |   |   |
| Departure Headway (s)             | 6.7   | 6.1   | 6.9   | 7.2   |   |   |  |   |   |   |   |   |
| Degree Utilization, x             | 0.49  | 0.88  | 0.52  | 0.35  |   |   |  |   |   |   |   |   |
| Capacity (veh/h)                  | 499   | 571   | 487   | 456   |   |   |  |   |   |   |   |   |
| Control Delay (s)                 | 15.8  | 38.5  | 17.1  | 14.0  |   |   |  |   |   |   |   |   |
| Approach Delay (s)                | 15.8  | 38.5  | 17.1  | 14.0  |   |   |  |   |   |   |   |   |
| Approach LOS                      | C   | E   | C   | B   |   |   |  |   |   |   |   |   |
| Intersection Summary              |   |   |   |   |   |   |  |   |   |   |   |   |
| Delay                             |   |   |   | 25.4  |   |   |  |   |   |   |   |   |
| Level of Service                  |   |   |   | D   |   |   |  |   |   |   |   |   |
| Intersection Capacity Utilization |   |   |   | 54.1%   | ICU Level of Service  |   |  |   |   |   |   | A   |
| Analysis Period (min)             |   |   |   | 15  |   |   |  |   |   |   |   |   |

HCM Signalized Intersection Capacity Analysis  
 18: Euclid Ave & Orange Ave


















Future plus Project AM Peak Hour  
 04/24/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |   | ↕   |   |   | ↕   |   |  | ↕   |   |   | ↕   |   |
| Traffic Volume (vph)              | 50  | 138   | 70  | 71  | 211   | 70  | 81   | 346   | 45  | 25  | 160   | 58  |
| Future Volume (vph)               | 50  | 138   | 70  | 71  | 211   | 70  | 81   | 346   | 45  | 25  | 160   | 58  |
| Ideal Flow (vphpl)                | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900   | 1900  | 1900  | 1900  | 1900  | 1900  |
| Total Lost time (s)               |   | 4.9   |   |   | 4.9   |   |  | 4.9   |   |   | 4.9   |   |
| Lane Util. Factor                 |   | 1.00  |   |   | 1.00  |   |  | 1.00  |   |   | 1.00  |   |
| Flt                               |   | 0.96  |   |   | 0.97  |   |  | 0.99  |   |   | 0.97  |   |
| Flt Protected                     |   | 0.99  |   |   | 0.99  |   |  | 0.99  |   |   | 0.99  |   |
| Satd. Flow (prot)                 |   | 1777  |   |   | 1795  |   |  | 1823  |   |   | 1794  |   |
| Flt Permitted                     |   | 0.89  |   |   | 0.89  |   |  | 0.90  |   |   | 0.93  |   |
| Satd. Flow (perm)                 |   | 1589  |   |   | 1613  |   |  | 1650  |   |   | 1677  |   |
| Peak-hour factor, PHF             | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92   | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  |
| Adj. Flow (vph)                   | 54  | 150   | 76  | 77  | 229   | 76  | 88   | 376   | 49  | 27  | 174   | 63  |
| RTOR Reduction (vph)              | 0   | 13  | 0   | 0   | 9   | 0   | 0  | 4   | 0   | 0   | 11  | 0   |
| Lane Group Flow (vph)             | 0   | 267   | 0   | 0   | 373   | 0   | 0  | 509   | 0   | 0   | 253   | 0   |
| Turn Type                         | Perm  | NA  |   | Perm  | NA  |   | Perm   | NA  |   | Perm  | NA  |   |
| Protected Phases                  |   | 2   |   |   | 6   |   |  | 8   |   |   | 4   |   |
| Permitted Phases                  | 2   |   |   | 6   |   |   | 8  |   |   | 4   |   |   |
| Actuated Green, G (s)             |   | 20.0  |   |   | 20.0  |   |  | 25.2  |   |   | 25.2  |   |
| Effective Green, g (s)            |   | 20.0  |   |   | 20.0  |   |  | 25.2  |   |   | 25.2  |   |
| Actuated g/C Ratio                |   | 0.36  |   |   | 0.36  |   |  | 0.46  |   |   | 0.46  |   |
| Clearance Time (s)                |   | 4.9   |   |   | 4.9   |   |  | 4.9   |   |   | 4.9   |   |
| Vehicle Extension (s)             |   | 2.8   |   |   | 2.8   |   |  | 3.0   |   |   | 3.0   |   |
| Lane Grp Cap (vph)                |   | 577   |   |   | 586   |   |  | 756   |   |   | 768   |   |
| v/s Ratio Prot                    |   |   |   |   |   |   |  |   |   |   |   |   |
| v/s Ratio Perm                    |   | 0.17  |   |   | c0.23   |   |  | c0.31   |   |   | 0.15  |   |
| v/c Ratio                         |   | 0.46  |   |   | 0.64  |   |  | 0.67  |   |   | 0.33  |   |
| Uniform Delay, d1                 |   | 13.4  |   |   | 14.5  |   |  | 11.7  |   |   | 9.5   |   |
| Progression Factor                |   | 1.00  |   |   | 1.00  |   |  | 1.00  |   |   | 1.00  |   |
| Incremental Delay, d2             |   | 0.5   |   |   | 2.2   |   |  | 2.4   |   |   | 0.3   |   |
| Delay (s)                         |   | 13.9  |   |   | 16.7  |   |  | 14.1  |   |   | 9.8   |   |
| Level of Service                  |   | B   |   |   | B   |   |  | B   |   |   | A   |   |
| Approach Delay (s)                |   | 13.9  |   |   | 16.7  |   |  | 14.1  |   |   | 9.8   |   |
| Approach LOS                      |   | B   |   |   | B   |   |  | B   |   |   | A   |   |
| <b>Intersection Summary</b>       |   |   |   |   |   |   |  |   |   |   |   |   |
| HCM 2000 Control Delay            |   |   | 13.9  |   |   |   |  | HCM 2000 Level of Service   |   | B   |   |   |
| HCM 2000 Volume to Capacity ratio |   |   | 0.66  |   |   |   |  |   |   |   |   |   |
| Actuated Cycle Length (s)         |   |   | 55.0  |   |   |   |  | Sum of lost time (s)  |   | 9.8   |   |   |
| Intersection Capacity Utilization |   |   | 74.7%   |   |   |   |  | ICU Level of Service  |   | D   |   |   |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |

c Critical Lane Group

















HCM Unsignalized Intersection Capacity Analysis  
 19: Estrella Ave & Orange Ave

Future plus Project AM Peak Hour  
 04/24/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |   |  |   |  |  |   |  |  |   |   |  |   |
| Sign Control                      |   | Stop  |   |   | Stop  |   |  | Stop  |   |   | Stop  |   |
| Traffic Volume (vph)              | 30  | 177   | 10  | 22  | 289   | 3   | 27   | 36  | 31  | 15  | 36  | 31  |
| Future Volume (vph)               | 30  | 177   | 10  | 22  | 289   | 3   | 27   | 36  | 31  | 15  | 36  | 31  |
| Peak Hour Factor                  | 0.90  | 0.90  | 0.90  | 0.90  | 0.90  | 0.90  | 0.90   | 0.90  | 0.90  | 0.90  | 0.90  | 0.90  |
| Hourly flow rate (vph)            | 33  | 197   | 11  | 24  | 321   | 3   | 30   | 40  | 34  | 17  | 40  | 34  |
| Direction, Lane #                 | EB 1  | WB 1  | WB 2  | NB 1  | SB 1  |   |  |   |   |   |   |   |
| Volume Total (vph)                | 241   | 24  | 324   | 104   | 91  |   |  |   |   |   |   |   |
| Volume Left (vph)                 | 33  | 24  | 0   | 30  | 17  |   |  |   |   |   |   |   |
| Volume Right (vph)                | 11  | 0   | 3   | 34  | 34  |   |  |   |   |   |   |   |
| Hadj (s)                          | 0.03  | 0.53  | 0.03  | -0.10   | -0.15   |   |  |   |   |   |   |   |
| Departure Headway (s)             | 5.1   | 5.8   | 5.3   | 5.4   | 5.4   |   |  |   |   |   |   |   |
| Degree Utilization, x             | 0.34  | 0.04  | 0.48  | 0.16  | 0.14  |   |  |   |   |   |   |   |
| Capacity (veh/h)                  | 672   | 591   | 653   | 582   | 584   |   |  |   |   |   |   |   |
| Control Delay (s)                 | 10.6  | 7.9   | 11.9  | 9.4   | 9.3   |   |  |   |   |   |   |   |
| Approach Delay (s)                | 10.6  | 11.6  |   | 9.4   | 9.3   |   |  |   |   |   |   |   |
| Approach LOS                      | B   | B   |   | A   | A   |   |  |   |   |   |   |   |
| Intersection Summary              |   |   |   |   |   |   |  |   |   |   |   |   |
| Delay                             |   |   | 10.8  |   |   |   |  |   |   |   |   |   |
| Level of Service                  |   |   | B   |   |   |   |  |   |   |   |   |   |
| Intersection Capacity Utilization |   |   | 52.1%   | ICU Level of Service  | A   |   |  |   |   |   |   |   |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |

HCM Unsignalized Intersection Capacity Analysis  
1: Florida St & Howard Ave

Future plus Project PM Peak Hour  
04/24/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |   |  |   |   |  |   |  |  |   |   |  |   |
| Sign Control                      |   | Stop  |   |   | Stop  |   |  | Stop  |   |   | Stop  |   |
| Traffic Volume (vph)              | 31  | 213   | 54  | 25  | 123   | 23  | 19   | 155   | 18  | 15  | 170   | 66  |
| Future Volume (vph)               | 31  | 213   | 54  | 25  | 123   | 23  | 19   | 155   | 18  | 15  | 170   | 66  |
| Peak Hour Factor                  | 0.90  | 0.90  | 0.90  | 0.90  | 0.90  | 0.90  | 0.90   | 0.90  | 0.90  | 0.90  | 0.90  | 0.90  |
| Hourly flow rate (vph)            | 34  | 237   | 60  | 28  | 137   | 26  | 21   | 172   | 20  | 17  | 189   | 73  |
| Direction, Lane #                 | EB 1  | WB 1  | NB 1  | SB 1  |   |   |  |   |   |   |   |   |
| Volume Total (vph)                | 331   | 191   | 213   | 279   |   |   |  |   |   |   |   |   |
| Volume Left (vph)                 | 34  | 28  | 21  | 17  |   |   |  |   |   |   |   |   |
| Volume Right (vph)                | 60  | 26  | 20  | 73  |   |   |  |   |   |   |   |   |
| Hadj (s)                          | -0.05   | -0.02   | 0.00  | -0.11   |   |   |  |   |   |   |   |   |
| Departure Headway (s)             | 5.7   | 6.0   | 6.0   | 5.8   |   |   |  |   |   |   |   |   |
| Degree Utilization, x             | 0.52  | 0.32  | 0.35  | 0.45  |   |   |  |   |   |   |   |   |
| Capacity (veh/h)                  | 589   | 522   | 534   | 570   |   |   |  |   |   |   |   |   |
| Control Delay (s)                 | 14.8  | 11.8  | 12.3  | 13.3  |   |   |  |   |   |   |   |   |
| Approach Delay (s)                | 14.8  | 11.8  | 12.3  | 13.3  |   |   |  |   |   |   |   |   |
| Approach LOS                      | B   | B   | B   | B   |   |   |  |   |   |   |   |   |
| Intersection Summary              |   |   |   |   |   |   |  |   |   |   |   |   |
| Delay                             |   |   | 13.3  |   |   |   |  |   |   |   |   |   |
| Level of Service                  |   |   | B   |   |   |   |  |   |   |   |   |   |
| Intersection Capacity Utilization |   |   | 43.9%   | ICU Level of Service  | A   |   |  |   |   |   |   |   |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |






















| Intersection                |       |       |       |       |
|-----------------------------|-------|-------|-------|-------|
| Intersection Delay, s/veh   | 5.5   |       |       |       |
| Intersection LOS            | A     |       |       |       |
| Approach                    | EB    | WB    | NB    | SB    |
| Entry Lanes                 | 1     | 1     | 1     | 1     |
| Conflicting Circle Lanes    | 1     | 1     | 1     | 1     |
| Adj Approach Flow, veh/h    | 254   | 142   | 92    | 114   |
| Demand Flow Rate, veh/h     | 259   | 144   | 93    | 116   |
| Vehicles Circulating, veh/h | 108   | 97    | 243   | 153   |
| Vehicles Exiting, veh/h     | 161   | 239   | 124   | 88    |
| Follow-Up Headway, s        | 3.186 | 3.186 | 3.186 | 3.186 |
| Ped Vol Crossing Leg, #/h   | 27    | 18    | 27    | 17    |
| Ped Cap Adj                 | 0.996 | 0.998 | 0.996 | 0.998 |
| Approach Delay, s/veh       | 6.2   | 4.9   | 5.1   | 4.9   |
| Approach LOS                | A     | A     | A     | A     |
| Lane                        | Left  | Left  | Left  | Left  |
| Designated Moves            | LTR   | LTR   | LTR   | LTR   |
| Assumed Moves               | LTR   | LTR   | LTR   | LTR   |
| RT Channelized              |       |       |       |       |
| Lane Util                   | 1.000 | 1.000 | 1.000 | 1.000 |
| Critical Headway, s         | 5.193 | 5.193 | 5.193 | 5.193 |
| Entry Flow, veh/h           | 259   | 144   | 93    | 116   |
| Cap Entry Lane, veh/h       | 1014  | 1025  | 886   | 970   |
| Entry HV Adj Factor         | 0.980 | 0.983 | 0.987 | 0.986 |
| Flow Entry, veh/h           | 254   | 142   | 92    | 114   |
| Cap Entry, veh/h            | 991   | 1006  | 872   | 954   |
| V/C Ratio                   | 0.256 | 0.141 | 0.105 | 0.120 |
| Control Delay, s/veh        | 6.2   | 4.9   | 5.1   | 4.9   |
| LOS                         | A     | A     | A     | A     |
| 95th %tile Queue, veh       | 1     | 0     | 0     | 0     |

# HCM Signalized Intersection Capacity Analysis

## 3: Texas St & Howard Ave

Future plus Project PM Peak Hour

04/24/2017

|                        |  |  |  |  |  |  |   |  |  |  |  |  |  |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement               | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL   | NBT   | NBR   | SBL   | SBT   | SBR   |   |
| Lane Configurations    |   |  |   |   |  |   |  |  |   |  |  |   |   |
| Traffic Volume (vph)   | 15  | 167   | 16  | 19  | 106   | 39  | 4   | 243   | 15  | 67  | 421   | 34  |   |
| Future Volume (vph)    | 15  | 167   | 16  | 19  | 106   | 39  | 4   | 243   | 15  | 67  | 421   | 34  |   |
| Ideal Flow (vphpl)     | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  |   |
| Total Lost time (s)    |   | 4.9   |   |   | 4.9   |   | 4.9   | 4.9   |   | 4.9   | 4.9   |   |   |
| Lane Util. Factor      |   | 1.00  |   |   | 1.00  |   | 1.00  | 1.00  |   | 1.00  | 1.00  |   |   |
| Frbp, ped/bikes        |   | 1.00  |   |   | 0.99  |   | 1.00  | 1.00  |   | 1.00  | 1.00  |   |   |
| Flpb, ped/bikes        |   | 1.00  |   |   | 1.00  |   | 0.99  | 1.00  |   | 0.98  | 1.00  |   |   |
| Frt                    |   | 0.99  |   |   | 0.97  |   | 1.00  | 0.99  |   | 1.00  | 0.99  |   |   |
| Flt Protected          |   | 1.00  |   |   | 0.99  |   | 0.95  | 1.00  |   | 0.95  | 1.00  |   |   |
| Satd. Flow (prot)      |   | 1830  |   |   | 1777  |   | 1754  | 1841  |   | 1732  | 1836  |   |   |
| Flt Permitted          |   | 0.97  |   |   | 0.93  |   | 0.45  | 1.00  |   | 0.59  | 1.00  |   |   |
| Satd. Flow (perm)      |   | 1787  |   |   | 1662  |   | 838   | 1841  |   | 1076  | 1836  |   |   |
| Peak-hour factor, PHF  | 0.94  | 0.94  | 0.94  | 0.94  | 0.94  | 0.94  | 0.94  | 0.94  | 0.94  | 0.94  | 0.94  | 0.94  |   |
| Adj. Flow (vph)        | 16  | 178   | 17  | 20  | 113   | 41  | 4   | 259   | 16  | 71  | 448   | 36  |   |
| RTOR Reduction (vph)   | 0   | 5   | 0   | 0   | 17  | 0   | 0   | 2   | 0   | 0   | 3   | 0   |   |
| Lane Group Flow (vph)  | 0   | 206   | 0   | 0   | 157   | 0   | 4   | 273   | 0   | 71  | 481   | 0   |   |
| Confl. Peds. (#/hr)    | 6   |   |   |   |   |   | 6   | 10  |   | 16  | 16  | 10  |   |
| Confl. Bikes (#/hr)    |   |   | 5   |   |   | 3   |   |   |   |   |   | 3   |   |
| Turn Type              | Perm  | NA  |   | Perm  | NA  |   | Perm  | NA  |   | Perm  | NA  |   |   |
| Protected Phases       |   | 2   |   |   | 2   |   |   | 4   |   |   |   | 4   |   |
| Permitted Phases       | 2   |   |   | 2   |   |   | 4   |   |   | 4   |   |   |   |
| Actuated Green, G (s)  |   | 13.0  |   |   | 13.0  |   | 51.2  | 51.2  |   | 51.2  | 51.2  |   |   |
| Effective Green, g (s) |   | 13.0  |   |   | 13.0  |   | 51.2  | 51.2  |   | 51.2  | 51.2  |   |   |
| Actuated g/C Ratio     |   | 0.18  |   |   | 0.18  |   | 0.69  | 0.69  |   | 0.69  | 0.69  |   |   |
| Clearance Time (s)     |   | 4.9   |   |   | 4.9   |   | 4.9   | 4.9   |   | 4.9   | 4.9   |   |   |
| Vehicle Extension (s)  |   | 2.0   |   |   | 2.0   |   | 2.0   | 2.0   |   | 2.0   | 2.0   |   |   |
| Lane Grp Cap (vph)     |   | 313   |   |   | 291   |   | 579   | 1273  |   | 744   | 1270  |   |   |
| v/s Ratio Prot         |   |   |   |   |   |   |   | 0.15  |   |   |   | c0.26   |   |
| v/s Ratio Perm         |   | c0.12   |   |   | 0.09  |   | 0.00  |   |   | 0.07  |   |   |   |
| v/c Ratio              |   | 0.66  |   |   | 0.54  |   | 0.01  | 0.21  |   | 0.10  | 0.38  |   |   |
| Uniform Delay, d1      |   | 28.4  |   |   | 27.8  |   | 3.5   | 4.1   |   | 3.8   | 4.8   |   |   |
| Progression Factor     |   | 1.00  |   |   | 1.00  |   | 1.00  | 1.00  |   | 1.00  | 1.00  |   |   |
| Incremental Delay, d2  |   | 3.8   |   |   | 1.0   |   | 0.0   | 0.4   |   | 0.3   | 0.9   |   |   |
| Delay (s)              |   | 32.2  |   |   | 28.7  |   | 3.6   | 4.5   |   | 4.0   | 5.6   |   |   |
| Level of Service       |   | C   |   |   | C   |   | A   | A   |   | A   | A   |   |   |
| Approach Delay (s)     |   | 32.2  |   |   | 28.7  |   |   | 4.5   |   |   | 5.4   |   |   |
| Approach LOS           |   | C   |   |   | C   |   |   | A   |   |   | A   |   |   |

### Intersection Summary

|                                   |       |                           |     |
|-----------------------------------|-------|---------------------------|-----|
| HCM 2000 Control Delay            | 13.2  | HCM 2000 Level of Service | B   |
| HCM 2000 Volume to Capacity ratio | 0.44  |                           |     |
| Actuated Cycle Length (s)         | 74.0  | Sum of lost time (s)      | 9.8 |
| Intersection Capacity Utilization | 58.8% | ICU Level of Service      | B   |
| Analysis Period (min)             | 15    |                           |     |




















c Critical Lane Group

| Intersection                |       |       |       |       |
|-----------------------------|-------|-------|-------|-------|
| Intersection Delay, s/veh   | 6.4   |       |       |       |
| Intersection LOS            | A     |       |       |       |
| Approach                    | EB    | WB    | NB    | SB    |
| Entry Lanes                 | 1     | 1     | 1     | 1     |
| Conflicting Circle Lanes    | 1     | 1     | 1     | 1     |
| Adj Approach Flow, veh/h    | 256   | 240   | 160   | 166   |
| Demand Flow Rate, veh/h     | 261   | 245   | 163   | 169   |
| Vehicles Circulating, veh/h | 193   | 126   | 293   | 205   |
| Vehicles Exiting, veh/h     | 181   | 330   | 161   | 166   |
| Follow-Up Headway, s        | 3.186 | 3.186 | 3.186 | 3.186 |
| Ped Vol Crossing Leg, #/h   | 33    | 44    | 44    | 34    |
| Ped Cap Adj                 | 0.995 | 0.994 | 0.994 | 0.995 |
| Approach Delay, s/veh       | 6.9   | 6.2   | 6.4   | 5.8   |
| Approach LOS                | A     | A     | A     | A     |
| Lane                        | Left  | Left  | Left  | Left  |
| Designated Moves            | LTR   | LTR   | LTR   | LTR   |
| Assumed Moves               | LTR   | LTR   | LTR   | LTR   |
| RT Channelized              |       |       |       |       |
| Lane Util                   | 1.000 | 1.000 | 1.000 | 1.000 |
| Critical Headway, s         | 5.193 | 5.193 | 5.193 | 5.193 |
| Entry Flow, veh/h           | 261   | 245   | 163   | 169   |
| Cap Entry Lane, veh/h       | 932   | 996   | 843   | 921   |
| Entry HV Adj Factor         | 0.980 | 0.979 | 0.983 | 0.982 |
| Flow Entry, veh/h           | 256   | 240   | 160   | 166   |
| Cap Entry, veh/h            | 909   | 969   | 824   | 900   |
| V/C Ratio                   | 0.281 | 0.247 | 0.195 | 0.184 |
| Control Delay, s/veh        | 6.9   | 6.2   | 6.4   | 5.8   |
| LOS                         | A     | A     | A     | A     |
| 95th %tile Queue, veh       | 1     | 1     | 1     | 1     |

| Intersection                |       |       |       |       |
|-----------------------------|-------|-------|-------|-------|
| Intersection Delay, s/veh   | 7.5   |       |       |       |
| Intersection LOS            | A     |       |       |       |
| Approach                    | EB    | WB    | NB    | SB    |
| Entry Lanes                 | 1     | 1     | 1     | 1     |
| Conflicting Circle Lanes    | 1     | 1     | 1     | 1     |
| Adj Approach Flow, veh/h    | 317   | 256   | 178   | 245   |
| Demand Flow Rate, veh/h     | 323   | 261   | 181   | 249   |
| Vehicles Circulating, veh/h | 263   | 173   | 350   | 254   |
| Vehicles Exiting, veh/h     | 240   | 358   | 236   | 180   |
| Follow-Up Headway, s        | 3.186 | 3.186 | 3.186 | 3.186 |
| Ped Vol Crossing Leg, #/h   | 25    | 25    | 25    | 19    |
| Ped Cap Adj                 | 0.997 | 0.997 | 0.997 | 0.997 |
| Approach Delay, s/veh       | 8.6   | 6.7   | 7.1   | 7.3   |
| Approach LOS                | A     | A     | A     | A     |
| Lane                        | Left  | Left  | Left  | Left  |
| Designated Moves            | LTR   | LTR   | LTR   | LTR   |
| Assumed Moves               | LTR   | LTR   | LTR   | LTR   |
| RT Channelized              |       |       |       |       |
| Lane Util                   | 1.000 | 1.000 | 1.000 | 1.000 |
| Critical Headway, s         | 5.193 | 5.193 | 5.193 | 5.193 |
| Entry Flow, veh/h           | 323   | 261   | 181   | 249   |
| Cap Entry Lane, veh/h       | 869   | 950   | 796   | 876   |
| Entry HV Adj Factor         | 0.983 | 0.981 | 0.985 | 0.982 |
| Flow Entry, veh/h           | 317   | 256   | 178   | 245   |
| Cap Entry, veh/h            | 851   | 929   | 781   | 859   |
| V/C Ratio                   | 0.373 | 0.276 | 0.228 | 0.285 |
| Control Delay, s/veh        | 8.6   | 6.7   | 7.1   | 7.3   |
| LOS                         | A     | A     | A     | A     |
| 95th %tile Queue, veh       | 2     | 1     | 1     | 1     |

HCM Signalized Intersection Capacity Analysis  
6: 30th St & Howard Ave

Future plus Project PM Peak Hour  
04/24/2017

















|                        |  |  |  |  |  |  |   |  |  |  |  |  |  |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement               | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL   | NBT   | NBR   | SBL   | SBT   | SBR   |   |
| Lane Configurations    |   |  |   |   |  |   |  |  |   |  |  |   |   |
| Traffic Volume (vph)   | 29  | 301   | 58  | 43  | 184   | 50  | 47  | 324   | 35  | 72  | 311   | 22  |   |
| Future Volume (vph)    | 29  | 301   | 58  | 43  | 184   | 50  | 47  | 324   | 35  | 72  | 311   | 22  |   |
| Ideal Flow (vphpl)     | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  |   |
| Total Lost time (s)    |   | 4.9   |   |   | 4.9   |   | 4.9   | 4.9   |   | 4.9   | 4.9   |   |   |
| Lane Util. Factor      |   | 1.00  |   |   | 1.00  |   | 1.00  | 1.00  |   | 1.00  | 1.00  |   |   |
| Frbp, ped/bikes        |   | 0.99  |   |   | 0.99  |   | 1.00  | 0.99  |   | 1.00  | 0.99  |   |   |
| Flpb, ped/bikes        |   | 1.00  |   |   | 1.00  |   | 0.96  | 1.00  |   | 0.94  | 1.00  |   |   |
| Frt                    |   | 0.98  |   |   | 0.98  |   | 1.00  | 0.99  |   | 1.00  | 0.99  |   |   |
| Flt Protected          |   | 1.00  |   |   | 0.99  |   | 0.95  | 1.00  |   | 0.95  | 1.00  |   |   |
| Satd. Flow (prot)      |   | 1790  |   |   | 1772  |   | 1700  | 1814  |   | 1668  | 1834  |   |   |
| Flt Permitted          |   | 0.96  |   |   | 0.84  |   | 0.54  | 1.00  |   | 0.52  | 1.00  |   |   |
| Satd. Flow (perm)      |   | 1732  |   |   | 1491  |   | 969   | 1814  |   | 913   | 1834  |   |   |
| Peak-hour factor, PHF  | 0.99  | 0.99  | 0.99  | 0.99  | 0.99  | 0.99  | 0.99  | 0.99  | 0.99  | 0.99  | 0.99  | 0.99  |   |
| Adj. Flow (vph)        | 29  | 304   | 59  | 43  | 186   | 51  | 47  | 327   | 35  | 73  | 314   | 22  |   |
| RTOR Reduction (vph)   | 0   | 11  | 0   | 0   | 14  | 0   | 0   | 6   | 0   | 0   | 4   | 0   |   |
| Lane Group Flow (vph)  | 0   | 381   | 0   | 0   | 266   | 0   | 47  | 356   | 0   | 73  | 332   | 0   |   |
| Confl. Peds. (#/hr)    | 27  |   | 38  | 38  |   | 27  | 38  |   | 59  | 59  |   | 38  |   |
| Confl. Bikes (#/hr)    |   |   | 5   |   |   | 6   |   |   | 8   |   |   | 6   |   |
| Turn Type              | Perm  | NA  |   | Perm  | NA  |   | Perm  | NA  |   | Perm  | NA  |   |   |
| Protected Phases       |   | 2   |   |   | 2   |   |   | 4   |   |   |   | 4   |   |
| Permitted Phases       | 2   |   |   | 2   |   |   | 4   |   |   | 4   |   |   |   |
| Actuated Green, G (s)  |   | 16.1  |   |   | 16.1  |   | 35.0  | 35.0  |   | 35.0  | 35.0  |   |   |
| Effective Green, g (s) |   | 16.1  |   |   | 16.1  |   | 35.0  | 35.0  |   | 35.0  | 35.0  |   |   |
| Actuated g/C Ratio     |   | 0.26  |   |   | 0.26  |   | 0.57  | 0.57  |   | 0.57  | 0.57  |   |   |
| Clearance Time (s)     |   | 4.9   |   |   | 4.9   |   | 4.9   | 4.9   |   | 4.9   | 4.9   |   |   |
| Vehicle Extension (s)  |   | 2.0   |   |   | 2.0   |   | 3.3   | 3.3   |   | 3.3   | 3.3   |   |   |
| Lane Grp Cap (vph)     |   | 457   |   |   | 394   |   | 556   | 1042  |   | 524   | 1054  |   |   |
| v/s Ratio Prot         |   |   |   |   |   |   |   | c0.20   |   |   |   | 0.18  |   |
| v/s Ratio Perm         |   | c0.22   |   |   | 0.18  |   | 0.05  |   |   | 0.08  |   |   |   |
| v/c Ratio              |   | 0.83  |   |   | 0.68  |   | 0.08  | 0.34  |   | 0.14  | 0.32  |   |   |
| Uniform Delay, d1      |   | 21.1  |   |   | 20.1  |   | 5.8   | 6.9   |   | 6.0   | 6.7   |   |   |
| Progression Factor     |   | 1.00  |   |   | 1.00  |   | 1.00  | 1.00  |   | 1.00  | 1.00  |   |   |
| Incremental Delay, d2  |   | 11.8  |   |   | 3.6   |   | 0.3   | 0.9   |   | 0.6   | 0.8   |   |   |
| Delay (s)              |   | 33.0  |   |   | 23.6  |   | 6.1   | 7.7   |   | 6.5   | 7.5   |   |   |
| Level of Service       |   | C   |   |   | C   |   | A   | A   |   | A   | A   |   |   |
| Approach Delay (s)     |   | 33.0  |   |   | 23.6  |   |   | 7.6   |   |   | 7.3   |   |   |
| Approach LOS           |   | C   |   |   | C   |   |   | A   |   |   | A   |   |   |

| Intersection Summary              |       |                           |     |
|-----------------------------------|-------|---------------------------|-----|
| HCM 2000 Control Delay            | 17.2  | HCM 2000 Level of Service | B   |
| HCM 2000 Volume to Capacity ratio | 0.50  |                           |     |
| Actuated Cycle Length (s)         | 60.9  | Sum of lost time (s)      | 9.8 |
| Intersection Capacity Utilization | 66.2% | ICU Level of Service      | C   |
| Analysis Period (min)             | 15    |                           |     |

c Critical Lane Group


















HCM Unsignalized Intersection Capacity Analysis  
7: Illinois St & Howard Ave

Future plus Project PM Peak Hour  
04/24/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |   |  |   |   |  |   |  |  |   |   |  |   |
| Sign Control                      |   | Stop  |   |   | Stop  |   |  | Stop  |   |   | Stop  |   |
| Traffic Volume (vph)              | 46  | 286   | 15  | 13  | 197   | 16  | 8  | 99  | 22  | 56  | 151   | 33  |
| Future Volume (vph)               | 46  | 286   | 15  | 13  | 197   | 16  | 8  | 99  | 22  | 56  | 151   | 33  |
| Peak Hour Factor                  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95   | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  |
| Hourly flow rate (vph)            | 48  | 301   | 16  | 14  | 207   | 17  | 8  | 104   | 23  | 59  | 159   | 35  |
| Direction, Lane #                 | EB 1  | WB 1  | NB 1  | SB 1  |   |   |  |   |   |   |   |   |
| Volume Total (vph)                | 365   | 238   | 135   | 253   |   |   |  |   |   |   |   |   |
| Volume Left (vph)                 | 48  | 14  | 8   | 59  |   |   |  |   |   |   |   |   |
| Volume Right (vph)                | 16  | 17  | 23  | 35  |   |   |  |   |   |   |   |   |
| Hadj (s)                          | 0.03  | 0.00  | -0.06   | 0.00  |   |   |  |   |   |   |   |   |
| Departure Headway (s)             | 5.6   | 5.7   | 6.1   | 5.9   |   |   |  |   |   |   |   |   |
| Degree Utilization, x             | 0.56  | 0.38  | 0.23  | 0.41  |   |   |  |   |   |   |   |   |
| Capacity (veh/h)                  | 612   | 573   | 505   | 555   |   |   |  |   |   |   |   |   |
| Control Delay (s)                 | 15.5  | 12.2  | 10.9  | 13.0  |   |   |  |   |   |   |   |   |
| Approach Delay (s)                | 15.5  | 12.2  | 10.9  | 13.0  |   |   |  |   |   |   |   |   |
| Approach LOS                      | C   | B   | B   | B   |   |   |  |   |   |   |   |   |
| Intersection Summary              |   |   |   |   |   |   |  |   |   |   |   |   |
| Delay                             |   |   | 13.4  |   |   |   |  |   |   |   |   |   |
| Level of Service                  |   |   | B   |   |   |   |  |   |   |   |   |   |
| Intersection Capacity Utilization |   |   | 64.6%   | ICU Level of Service  | C   |   |  |   |   |   |   |   |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |


















HCM Unsignalized Intersection Capacity Analysis  
8: Boundary St & Howard Ave/Orange Ave

Future plus Project PM Peak Hour  
04/24/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |   |
| Lane Configurations               |   |  |   |   |  |   |  |  |   |   |  |   |   |
| Traffic Volume (veh/h)            | 1   | 289   | 41  | 45  | 231   | 3   | 19   | 1   | 55  | 0   | 0   | 1   |   |
| Future Volume (Veh/h)             | 1   | 289   | 41  | 45  | 231   | 3   | 19   | 1   | 55  | 0   | 0   | 1   |   |
| Sign Control                      |   | Free  |   |   | Free  |   |  | Stop  |   |   | Stop  |   |   |
| Grade                             |   | 0%  |   |   | 0%  |   |  | 0%  |   |   | 0%  |   |   |
| Peak Hour Factor                  | 0.91  | 0.91  | 0.91  | 0.91  | 0.91  | 0.91  | 0.91   | 0.91  | 0.91  | 0.91  | 0.91  | 0.91  |   |
| Hourly flow rate (vph)            | 1   | 318   | 45  | 49  | 254   | 3   | 21   | 1   | 60  | 0   | 0   | 1   |   |
| Pedestrians                       |   | 8   |   |   | 10  |   |  | 10  |   |   | 7   |   |   |
| Lane Width (ft)                   |   | 12.0  |   |   | 12.0  |   |  | 12.0  |   |   | 12.0  |   |   |
| Walking Speed (ft/s)              |   | 3.5   |   |   | 3.5   |   |  | 3.5   |   |   | 3.5   |   |   |
| Percent Blockage                  |   | 1   |   |   | 1   |   |  | 1   |   |   | 1   |   |   |
| Right turn flare (veh)            |   |   |   |   |   |   |  |   |   |   |   |   |   |
| Median type                       |   | None  |   |   | None  |   |  |   |   |   |   |   |   |
| Median storage (veh)              |   |   |   |   |   |   |  |   |   |   |   |   |   |
| Upstream signal (ft)              |   |   |   |   | 985   |   |  |   |   |   |   |   |   |
| pX, platoon unblocked             |   |   |   |   |   |   |  |   |   |   |   |   |   |
| vC, conflicting volume            | 264   |   |   | 373   |   |   | 715  | 714   | 360   | 774   | 736   | 270   |   |
| vC1, stage 1 conf vol             |   |   |   |   |   |   |  |   |   |   |   |   |   |
| vC2, stage 2 conf vol             |   |   |   |   |   |   |  |   |   |   |   |   |   |
| vCu, unblocked vol                | 264   |   |   | 373   |   |   | 715  | 714   | 360   | 774   | 736   | 270   |   |
| tC, single (s)                    | 4.1   |   |   | 4.1   |   |   | 7.1  | 6.5   | 6.2   | 7.1   | 6.5   | 6.2   |   |
| tC, 2 stage (s)                   |   |   |   |   |   |   |  |   |   |   |   |   |   |
| tF (s)                            | 2.2   |   |   | 2.2   |   |   | 3.5  | 4.0   | 3.3   | 3.5   | 4.0   | 3.3   |   |
| p0 queue free %                   | 100   |   |   | 96  |   |   | 94   | 100   | 91  | 100   | 100   | 100   |   |
| cM capacity (veh/h)               | 1291  |   |   | 1174  |   |   | 324  | 336   | 671   | 270   | 327   | 757   |   |
| <b>Direction, Lane #</b>          | <b>EB 1</b>   | <b>WB 1</b>   | <b>NB 1</b>   | <b>SB 1</b>   |   |   |  |   |   |   |   |   |   |
| Volume Total                      | 364   | 306   | 82  | 1   |   |   |  |   |   |   |   |   |   |
| Volume Left                       | 1   | 49  | 21  | 0   |   |   |  |   |   |   |   |   |   |
| Volume Right                      | 45  | 3   | 60  | 1   |   |   |  |   |   |   |   |   |   |
| cSH                               | 1291  | 1174  | 522   | 757   |   |   |  |   |   |   |   |   |   |
| Volume to Capacity                | 0.00  | 0.04  | 0.16  | 0.00  |   |   |  |   |   |   |   |   |   |
| Queue Length 95th (ft)            | 0   | 3   | 14  | 0   |   |   |  |   |   |   |   |   |   |
| Control Delay (s)                 | 0.0   | 1.7   | 13.2  | 9.8   |   |   |  |   |   |   |   |   |   |
| Lane LOS                          | A   | A   | B   | A   |   |   |  |   |   |   |   |   |   |
| Approach Delay (s)                | 0.0   | 1.7   | 13.2  | 9.8   |   |   |  |   |   |   |   |   |   |
| Approach LOS                      |   |   | B   | A   |   |   |  |   |   |   |   |   |   |
| <b>Intersection Summary</b>       |   |   |   |   |   |   |  |   |   |   |   |   |   |
| Average Delay                     |   |   | 2.1   |   |   |   |  |   |   |   |   |   |   |
| Intersection Capacity Utilization |   |   | 55.0%   |   | ICU Level of Service  |   |  |   | B   |   |   |   |   |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |   |

HCM Signalized Intersection Capacity Analysis  
 9: Alley/33rd St & Orange Ave

Future plus Project PM Peak Hour  
 04/24/2017


















|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |   |  |   |   |  |   |  |  |   |  |  |   |
| Traffic Volume (vph)              | 75  | 265   | 0   | 6   | 208   | 157   | 1  | 0   | 0   | 271   | 5   | 112   |
| Future Volume (vph)               | 75  | 265   | 0   | 6   | 208   | 157   | 1  | 0   | 0   | 271   | 5   | 112   |
| Ideal Flow (vphpl)                | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900   | 1900  | 1900  | 1900  | 1900  | 1900  |
| Total Lost time (s)               |   | 4.0   |   |   | 4.0   |   |  | 4.0   |   | 4.0   | 4.0   |   |
| Lane Util. Factor                 |   | 1.00  |   |   | 1.00  |   |  | 1.00  |   | 1.00  | 1.00  |   |
| Fr <sub>t</sub>                   |   | 1.00  |   |   | 0.94  |   |  | 1.00  |   | 1.00  | 0.86  |   |
| Fl <sub>t</sub> Protected         |   | 0.99  |   |   | 1.00  |   |  | 0.95  |   | 0.95  | 1.00  |   |
| Satd. Flow (prot)                 |   | 1842  |   |   | 1755  |   |  | 1770  |   | 1770  | 1595  |   |
| Fl <sub>t</sub> Permitted         |   | 0.87  |   |   | 0.99  |   |  | 0.95  |   | 0.95  | 1.00  |   |
| Satd. Flow (perm)                 |   | 1628  |   |   | 1746  |   |  | 1770  |   | 1770  | 1595  |   |
| Peak-hour factor, PHF             | 0.98  | 0.98  | 0.98  | 0.98  | 0.98  | 0.98  | 0.98   | 0.98  | 0.98  | 0.98  | 0.98  | 0.98  |
| Adj. Flow (vph)                   | 77  | 270   | 0   | 6   | 212   | 160   | 1  | 0   | 0   | 277   | 5   | 114   |
| RTOR Reduction (vph)              | 0   | 0   | 0   | 0   | 19  | 0   | 0  | 0   | 0   | 0   | 79  | 0   |
| Lane Group Flow (vph)             | 0   | 347   | 0   | 0   | 359   | 0   | 0  | 1   | 0   | 277   | 40  | 0   |
| Turn Type                         | Perm  | NA  |   | Perm  | NA  |   | Split  | NA  |   | Split   | NA  |   |
| Protected Phases                  |   | 2   |   |   | 6   |   | 3  | 3   |   | 4   | 4   |   |
| Permitted Phases                  | 2   |   |   | 6   |   |   |  |   |   |   |   |   |
| Actuated Green, G (s)             |   | 16.9  |   |   | 16.9  |   |  | 0.7   |   | 13.2  | 13.2  |   |
| Effective Green, g (s)            |   | 16.9  |   |   | 16.9  |   |  | 0.7   |   | 13.2  | 13.2  |   |
| Actuated g/C Ratio                |   | 0.39  |   |   | 0.39  |   |  | 0.02  |   | 0.31  | 0.31  |   |
| Clearance Time (s)                |   | 4.0   |   |   | 4.0   |   |  | 4.0   |   | 4.0   | 4.0   |   |
| Vehicle Extension (s)             |   | 2.1   |   |   | 2.3   |   |  | 2.0   |   | 2.0   | 2.0   |   |
| Lane Grp Cap (vph)                |   | 642   |   |   | 689   |   |  | 28  |   | 545   | 491   |   |
| v/s Ratio Prot                    |   |   |   |   |   |   |  | c0.00   |   | c0.16   | 0.03  |   |
| v/s Ratio Perm                    |   | c0.21   |   |   | 0.21  |   |  |   |   |   |   |   |
| v/c Ratio                         |   | 0.54  |   |   | 0.52  |   |  | 0.04  |   | 0.51  | 0.08  |   |
| Uniform Delay, d <sub>1</sub>     |   | 10.0  |   |   | 9.9   |   |  | 20.7  |   | 12.1  | 10.5  |   |
| Progression Factor                |   | 1.00  |   |   | 1.00  |   |  | 1.00  |   | 1.00  | 1.00  |   |
| Incremental Delay, d <sub>2</sub> |   | 0.5   |   |   | 0.5   |   |  | 0.2   |   | 0.3   | 0.0   |   |
| Delay (s)                         |   | 10.5  |   |   | 10.3  |   |  | 20.9  |   | 12.4  | 10.5  |   |
| Level of Service                  |   | B   |   |   | B   |   |  | C   |   | B   | B   |   |
| Approach Delay (s)                |   | 10.5  |   |   | 10.3  |   |  | 20.9  |   |   | 11.8  |   |
| Approach LOS                      |   | B   |   |   | B   |   |  | C   |   |   | B   |   |
| <b>Intersection Summary</b>       |   |   |   |   |   |   |  |   |   |   |   |   |
| HCM 2000 Control Delay            |   |   | 10.9  |   |   |   |  |   |   |   | HCM 2000 Level of Service   | B   |
| HCM 2000 Volume to Capacity ratio |   |   | 0.51  |   |   |   |  |   |   |   |   |   |
| Actuated Cycle Length (s)         |   |   | 42.8  |   |   |   |  |   |   | 12.0  |   |   |
| Intersection Capacity Utilization |   |   | 63.0%   |   |   |   |  |   |   |   | ICU Level of Service  | B   |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |

c Critical Lane Group



HCM Signalized Intersection Capacity Analysis  
10: 35th St & Orange Ave

















Future plus Project PM Peak Hour  
04/24/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |   |  |  |   |  |   |  |  |   |   |  |   |
| Traffic Volume (vph)              | 39  | 378   | 49  | 30  | 289   | 51  | 29   | 69  | 32  | 49  | 99  | 41  |
| Future Volume (vph)               | 39  | 378   | 49  | 30  | 289   | 51  | 29   | 69  | 32  | 49  | 99  | 41  |
| Ideal Flow (vphpl)                | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900   | 1900  | 1900  | 1900  | 1900  | 1900  |
| Total Lost time (s)               |   | 4.9   | 4.9   |   | 4.9   |   |  | 4.9   |   |   | 4.9   |   |
| Lane Util. Factor                 |   | 1.00  | 1.00  |   | 1.00  |   |  | 1.00  |   |   | 1.00  |   |
| Frbp, ped/bikes                   |   | 1.00  | 0.94  |   | 0.99  |   |  | 0.99  |   |   | 0.99  |   |
| Flpb, ped/bikes                   |   | 1.00  | 1.00  |   | 1.00  |   |  | 1.00  |   |   | 1.00  |   |
| Frt                               |   | 1.00  | 0.85  |   | 0.98  |   |  | 0.97  |   |   | 0.97  |   |
| Flt Protected                     |   | 1.00  | 1.00  |   | 1.00  |   |  | 0.99  |   |   | 0.99  |   |
| Satd. Flow (prot)                 |   | 1852  | 1484  |   | 1807  |   |  | 1763  |   |   | 1760  |   |
| Flt Permitted                     |   | 0.94  | 1.00  |   | 0.95  |   |  | 0.89  |   |   | 0.89  |   |
| Satd. Flow (perm)                 |   | 1757  | 1484  |   | 1725  |   |  | 1589  |   |   | 1590  |   |
| Peak-hour factor, PHF             | 0.94  | 0.94  | 0.94  | 0.94  | 0.94  | 0.94  | 0.94   | 0.94  | 0.94  | 0.94  | 0.94  | 0.94  |
| Adj. Flow (vph)                   | 41  | 402   | 52  | 32  | 307   | 54  | 31   | 73  | 34  | 52  | 105   | 44  |
| RTOR Reduction (vph)              | 0   | 0   | 12  | 0   | 5   | 0   | 0  | 27  | 0   | 0   | 27  | 0   |
| Lane Group Flow (vph)             | 0   | 443   | 40  | 0   | 388   | 0   | 0  | 111   | 0   | 0   | 174   | 0   |
| Confl. Peds. (#/hr)               | 13  |   | 25  | 25  |   | 13  | 14   |   | 5   | 5   |   | 14  |
| Confl. Bikes (#/hr)               |   |   | 12  |   |   | 8   |  |   |   |   |   | 8   |
| Turn Type                         | Perm  | NA  | Perm  | Perm  | NA  |   | Perm   | NA  |   | Perm  | NA  |   |
| Protected Phases                  |   | 2   |   |   | 2   |   |  | 4   |   |   |   | 4   |
| Permitted Phases                  | 2   |   | 2   | 2   |   |   | 4  |   |   | 4   |   |   |
| Actuated Green, G (s)             |   | 40.2  | 40.2  |   | 40.2  |   |  | 11.9  |   |   | 11.9  |   |
| Effective Green, g (s)            |   | 40.2  | 40.2  |   | 40.2  |   |  | 11.9  |   |   | 11.9  |   |
| Actuated g/C Ratio                |   | 0.65  | 0.65  |   | 0.65  |   |  | 0.19  |   |   | 0.19  |   |
| Clearance Time (s)                |   | 4.9   | 4.9   |   | 4.9   |   |  | 4.9   |   |   | 4.9   |   |
| Vehicle Extension (s)             |   | 3.1   | 3.1   |   | 3.1   |   |  | 2.0   |   |   | 2.0   |   |
| Lane Grp Cap (vph)                |   | 1141  | 963   |   | 1120  |   |  | 305   |   |   | 305   |   |
| v/s Ratio Prot                    |   |   |   |   |   |   |  |   |   |   |   |   |
| v/s Ratio Perm                    |   | c0.25   | 0.03  |   | 0.23  |   |  | 0.07  |   |   | c0.11   |   |
| v/c Ratio                         |   | 0.39  | 0.04  |   | 0.35  |   |  | 0.36  |   |   | 0.57  |   |
| Uniform Delay, d1                 |   | 5.1   | 3.9   |   | 4.9   |   |  | 21.7  |   |   | 22.7  |   |
| Progression Factor                |   | 1.00  | 1.00  |   | 1.00  |   |  | 1.00  |   |   | 1.00  |   |
| Incremental Delay, d2             |   | 1.0   | 0.1   |   | 0.8   |   |  | 0.3   |   |   | 1.6   |   |
| Delay (s)                         |   | 6.1   | 4.0   |   | 5.8   |   |  | 22.0  |   |   | 24.3  |   |
| Level of Service                  |   | A   | A   |   | A   |   |  | C   |   |   | C   |   |
| Approach Delay (s)                |   | 5.9   |   |   | 5.8   |   |  | 22.0  |   |   | 24.3  |   |
| Approach LOS                      |   | A   |   |   | A   |   |  | C   |   |   | C   |   |
| <b>Intersection Summary</b>       |   |   |   |   |   |   |  |   |   |   |   |   |
| HCM 2000 Control Delay            |   |   | 10.7  |   |   |   |  |   |   |   |   | B   |
| HCM 2000 Volume to Capacity ratio |   |   | 0.43  |   |   |   |  |   |   |   |   |   |
| Actuated Cycle Length (s)         |   |   | 61.9  |   |   |   |  |   |   |   | 9.8   |   |
| Intersection Capacity Utilization |   |   | 67.6%   |   |   |   |  |   |   |   |   | C   |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |

c Critical Lane Group

















HCM Unsignalized Intersection Capacity Analysis  
 11: 37th St & Orange Ave

Future plus Project PM Peak Hour  
 04/24/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |   |  |   |   |  |   |  |  |   |   |  |   |
| Traffic Volume (veh/h)            | 21  | 391   | 18  | 16  | 324   | 74  | 13   | 6   | 21  | 40  | 9   | 22  |
| Future Volume (Veh/h)             | 21  | 391   | 18  | 16  | 324   | 74  | 13   | 6   | 21  | 40  | 9   | 22  |
| Sign Control                      |   | Free  |   |   | Free  |   |  | Stop  |   |   | Stop  |   |
| Grade                             |   | 0%  |   |   | 0%  |   |  | 0%  |   |   | 0%  |   |
| Peak Hour Factor                  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92   | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  |
| Hourly flow rate (vph)            | 23  | 425   | 20  | 17  | 352   | 80  | 14   | 7   | 23  | 43  | 10  | 24  |
| Pedestrians                       |   |   |   |   |   |   |  |   |   |   |   |   |
| Lane Width (ft)                   |   |   |   |   |   |   |  |   |   |   |   |   |
| Walking Speed (ft/s)              |   |   |   |   |   |   |  |   |   |   |   |   |
| Percent Blockage                  |   |   |   |   |   |   |  |   |   |   |   |   |
| Right turn flare (veh)            |   |   |   |   |   |   |  |   |   |   |   |   |
| Median type                       | None  |   |   |   |   | None  |  |   |   |   |   |   |
| Median storage (veh)              |   |   |   |   |   |   |  |   |   |   |   |   |
| Upstream signal (ft)              | 1317  |   |   |   |   |   |  |   |   |   |   |   |
| pX, platoon unblocked             | 1.00  |   |   |   |   |   | 1.00   | 1.00  |   | 1.00  | 1.00  | 1.00  |
| vC, conflicting volume            | 432   |   |   | 445   |   |   | 936  | 947   | 435   | 934   | 917   | 392   |
| vC1, stage 1 conf vol             |   |   |   |   |   |   |  |   |   |   |   |   |
| vC2, stage 2 conf vol             |   |   |   |   |   |   |  |   |   |   |   |   |
| vCu, unblocked vol                | 430   |   |   | 445   |   |   | 935  | 946   | 435   | 932   | 916   | 390   |
| tC, single (s)                    | 4.1   |   |   | 4.1   |   |   | 7.1  | 6.5   | 6.2   | 7.1   | 6.5   | 6.2   |
| tC, 2 stage (s)                   |   |   |   |   |   |   |  |   |   |   |   |   |
| tF (s)                            | 2.2   |   |   | 2.2   |   |   | 3.5  | 4.0   | 3.3   | 3.5   | 4.0   | 3.3   |
| p0 queue free %                   | 98  |   |   | 98  |   |   | 94   | 97  | 96  | 81  | 96  | 96  |
| cM capacity (veh/h)               | 1127  |   |   | 1115  |   |   | 223  | 252   | 621   | 226   | 262   | 657   |
| Direction, Lane #                 | EB 1  | WB 1  | NB 1  | SB 1  |   |   |  |   |   |   |   |   |
| Volume Total                      | 468   | 449   | 44  | 77  |   |   |  |   |   |   |   |   |
| Volume Left                       | 23  | 17  | 14  | 43  |   |   |  |   |   |   |   |   |
| Volume Right                      | 20  | 80  | 23  | 24  |   |   |  |   |   |   |   |   |
| cSH                               | 1127  | 1115  | 345   | 290   |   |   |  |   |   |   |   |   |
| Volume to Capacity                | 0.02  | 0.02  | 0.13  | 0.27  |   |   |  |   |   |   |   |   |
| Queue Length 95th (ft)            | 2   | 1   | 11  | 26  |   |   |  |   |   |   |   |   |
| Control Delay (s)                 | 0.6   | 0.5   | 17.0  | 21.8  |   |   |  |   |   |   |   |   |
| Lane LOS                          | A   | A   | C   | C   |   |   |  |   |   |   |   |   |
| Approach Delay (s)                | 0.6   | 0.5   | 17.0  | 21.8  |   |   |  |   |   |   |   |   |
| Approach LOS                      |   |   | C   | C   |   |   |  |   |   |   |   |   |
| Intersection Summary              |   |   |   |   |   |   |  |   |   |   |   |   |
| Average Delay                     |   |   |   | 2.8   |   |   |  |   |   |   |   |   |
| Intersection Capacity Utilization |   |   |   | 43.5%   | ICU Level of Service  | A   |  |   |   |   |   |   |
| Analysis Period (min)             |   |   |   | 15  |   |   |  |   |   |   |   |   |

HCM Unsignalized Intersection Capacity Analysis  
12: 39th St & Orange Ave

















Future plus Project PM Peak Hour  
04/24/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |   |  |   |   |  |   |  |  |   |   |  |   |
| Traffic Volume (veh/h)            | 38  | 390   | 54  | 41  | 371   | 65  | 0  | 18  | 55  | 12  | 12  | 31  |
| Future Volume (Veh/h)             | 38  | 390   | 54  | 41  | 371   | 65  | 0  | 18  | 55  | 12  | 12  | 31  |
| Sign Control                      |   | Free  |   |   | Free  |   |  | Stop  |   |   | Stop  |   |
| Grade                             |   | 0%  |   |   | 0%  |   |  | 0%  |   |   | 0%  |   |
| Peak Hour Factor                  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92   | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  |
| Hourly flow rate (vph)            | 41  | 424   | 59  | 45  | 403   | 71  | 0  | 20  | 60  | 13  | 13  | 34  |
| Pedestrians                       |   |   |   |   |   |   |  |   |   |   |   |   |
| Lane Width (ft)                   |   |   |   |   |   |   |  |   |   |   |   |   |
| Walking Speed (ft/s)              |   |   |   |   |   |   |  |   |   |   |   |   |
| Percent Blockage                  |   |   |   |   |   |   |  |   |   |   |   |   |
| Right turn flare (veh)            |   |   |   |   |   |   |  |   |   |   |   |   |
| Median type                       | None  |   |   |   |   | None  |  |   |   |   |   |   |
| Median storage (veh)              |   |   |   |   |   |   |  |   |   |   |   |   |
| Upstream signal (ft)              |   |   |   |   |   | 347   |  |   |   |   |   |   |
| pX, platoon unblocked             | 0.81  |   |   |   |   |   | 0.81   | 0.81  |   | 0.81  | 0.81  | 0.81  |
| vC, conflicting volume            | 474   |   |   | 483   |   |   | 1104   | 1100  | 454   | 1134  | 1094  | 438   |
| vC1, stage 1 conf vol             |   |   |   |   |   |   |  |   |   |   |   |   |
| vC2, stage 2 conf vol             |   |   |   |   |   |   |  |   |   |   |   |   |
| vCu, unblocked vol                | 238   |   |   | 483   |   |   | 1013   | 1007  | 454   | 1050  | 1000  | 194   |
| tC, single (s)                    | 4.1   |   |   | 4.1   |   |   | 7.1  | 6.5   | 6.2   | 7.1   | 6.5   | 6.2   |
| tC, 2 stage (s)                   |   |   |   |   |   |   |  |   |   |   |   |   |
| tF (s)                            | 2.2   |   |   | 2.2   |   |   | 3.5  | 4.0   | 3.3   | 3.5   | 4.0   | 3.3   |
| p0 queue free %                   | 96  |   |   | 96  |   |   | 100  | 89  | 90  | 90  | 93  | 95  |
| cM capacity (veh/h)               | 1080  |   |   | 1080  |   |   | 149  | 180   | 606   | 129   | 182   | 689   |
| Direction, Lane #                 | EB 1  | WB 1  | NB 1  | SB 1  |   |   |  |   |   |   |   |   |
| Volume Total                      | 524   | 519   | 80  | 60  |   |   |  |   |   |   |   |   |
| Volume Left                       | 41  | 45  | 0   | 13  |   |   |  |   |   |   |   |   |
| Volume Right                      | 59  | 71  | 60  | 34  |   |   |  |   |   |   |   |   |
| cSH                               | 1080  | 1080  | 381   | 271   |   |   |  |   |   |   |   |   |
| Volume to Capacity                | 0.04  | 0.04  | 0.21  | 0.22  |   |   |  |   |   |   |   |   |
| Queue Length 95th (ft)            | 3   | 3   | 20  | 21  |   |   |  |   |   |   |   |   |
| Control Delay (s)                 | 1.1   | 1.2   | 16.9  | 22.0  |   |   |  |   |   |   |   |   |
| Lane LOS                          | A   | A   | C   | C   |   |   |  |   |   |   |   |   |
| Approach Delay (s)                | 1.1   | 1.2   | 16.9  | 22.0  |   |   |  |   |   |   |   |   |
| Approach LOS                      |   |   | C   | C   |   |   |  |   |   |   |   |   |
| Intersection Summary              |   |   |   |   |   |   |  |   |   |   |   |   |
| Average Delay                     |   |   | 3.3   |   |   |   |  |   |   |   |   |   |
| Intersection Capacity Utilization |   |   | 51.0%   | ICU Level of Service  | A   |   |  |   |   |   |   |   |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |

HCM Signalized Intersection Capacity Analysis  
13: 40th St & Orange Ave

Future plus Project PM Peak Hour

















04/24/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |   |  |   |   |  |   |  |  |   |   |  |   |
| Traffic Volume (vph)              | 0   | 422   | 15  | 11  | 361   | 0   | 14   | 0   | 22  | 118   | 23  | 85  |
| Future Volume (vph)               | 0   | 422   | 15  | 11  | 361   | 0   | 14   | 0   | 22  | 118   | 23  | 85  |
| Ideal Flow (vphpl)                | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900   | 1900  | 1900  | 1900  | 1900  | 1900  |
| Total Lost time (s)               |   | 4.3   |   |   | 4.3   |   |  | 4.0   |   |   | 4.0   |   |
| Lane Util. Factor                 |   | 1.00  |   |   | 1.00  |   |  | 1.00  |   |   | 1.00  |   |
| Flt                               |   | 1.00  |   |   | 1.00  |   |  | 0.92  |   |   | 0.95  |   |
| Flt Protected                     |   | 1.00  |   |   | 1.00  |   |  | 0.98  |   |   | 0.97  |   |
| Satd. Flow (prot)                 |   | 1854  |   |   | 1860  |   |  | 1677  |   |   | 1723  |   |
| Flt Permitted                     |   | 1.00  |   |   | 0.89  |   |  | 0.98  |   |   | 0.83  |   |
| Satd. Flow (perm)                 |   | 1854  |   |   | 1653  |   |  | 1677  |   |   | 1476  |   |
| Peak-hour factor, PHF             | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95   | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  |
| Adj. Flow (vph)                   | 0   | 444   | 16  | 12  | 380   | 0   | 15   | 0   | 23  | 124   | 24  | 89  |
| RTOR Reduction (vph)              | 0   | 1   | 0   | 0   | 0   | 0   | 0  | 37  | 0   | 0   | 14  | 0   |
| Lane Group Flow (vph)             | 0   | 459   | 0   | 0   | 392   | 0   | 0  | 1   | 0   | 0   | 223   | 0   |
| Turn Type                         |   | NA  |   | Perm  | NA  |   | Split  | NA  |   | Perm  | NA  |   |
| Protected Phases                  |   | 2   |   |   | 6   |   | 3  | 3   |   |   |   | 4   |
| Permitted Phases                  |   |   |   | 6   |   |   |  |   |   | 4   |   |   |
| Actuated Green, G (s)             |   | 21.8  |   |   | 21.8  |   |  | 2.7   |   |   |   | 35.9  |
| Effective Green, g (s)            |   | 21.8  |   |   | 21.8  |   |  | 2.7   |   |   |   | 35.9  |
| Actuated g/C Ratio                |   | 0.30  |   |   | 0.30  |   |  | 0.04  |   |   |   | 0.49  |
| Clearance Time (s)                |   | 4.3   |   |   | 4.3   |   |  | 4.0   |   |   |   | 4.0   |
| Vehicle Extension (s)             |   | 2.0   |   |   | 2.0   |   |  | 2.0   |   |   |   | 2.0   |
| Lane Grp Cap (vph)                |   | 555   |   |   | 495   |   |  | 62  |   |   |   | 728   |
| v/s Ratio Prot                    |   | c0.25   |   |   |   |   |  | c0.00   |   |   |   |   |
| v/s Ratio Perm                    |   |   |   |   | 0.24  |   |  |   |   |   |   | c0.15   |
| v/c Ratio                         |   | 0.83  |   |   | 0.79  |   |  | 0.02  |   |   |   | 0.31  |
| Uniform Delay, d1                 |   | 23.7  |   |   | 23.4  |   |  | 33.7  |   |   |   | 11.0  |
| Progression Factor                |   | 1.00  |   |   | 1.00  |   |  | 1.00  |   |   |   | 1.00  |
| Incremental Delay, d2             |   | 9.3   |   |   | 7.9   |   |  | 0.1   |   |   |   | 1.1   |
| Delay (s)                         |   | 33.0  |   |   | 31.3  |   |  | 33.8  |   |   |   | 12.1  |
| Level of Service                  |   | C   |   |   | C   |   |  | C   |   |   |   | B   |
| Approach Delay (s)                |   | 33.0  |   |   | 31.3  |   |  | 33.8  |   |   |   | 12.1  |
| Approach LOS                      |   | C   |   |   | C   |   |  | C   |   |   |   | B   |
| <b>Intersection Summary</b>       |   |   |   |   |   |   |  |   |   |   |   |   |
| HCM 2000 Control Delay            |   |   | 28.0  |   |   |   | HCM 2000 Level of Service  |   |   | C   |   |   |
| HCM 2000 Volume to Capacity ratio |   |   | 0.48  |   |   |   |  |   |   |   |   |   |
| Actuated Cycle Length (s)         |   |   | 72.7  |   |   |   | Sum of lost time (s)   |   | 12.3  |   |   |   |
| Intersection Capacity Utilization |   |   | 53.8%   |   |   |   | ICU Level of Service   |   | A   |   |   |   |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis  
 14: Marlborough Ave S/Alley & Orange Ave

















Future plus Project PM Peak Hour  
 04/24/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |   |  |   |   |  |   |  |  |   |   |  |   |
| Traffic Volume (vph)              | 1   | 490   | 87  | 81  | 382   | 4   | 77   | 1   | 46  | 2   | 0   | 1   |
| Future Volume (vph)               | 1   | 490   | 87  | 81  | 382   | 4   | 77   | 1   | 46  | 2   | 0   | 1   |
| Ideal Flow (vphpl)                | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900   | 1900  | 1900  | 1900  | 1900  | 1900  |
| Total Lost time (s)               |   | 4.9   |   |   | 4.9   |   |  | 4.9   |   |   | 4.9   |   |
| Lane Util. Factor                 |   | 1.00  |   |   | 1.00  |   |  | 1.00  |   |   | 1.00  |   |
| Flt                               |   | 0.98  |   |   | 1.00  |   |  | 0.95  |   |   | 0.95  |   |
| Flt Protected                     |   | 1.00  |   |   | 0.99  |   |  | 0.97  |   |   | 0.97  |   |
| Satd. Flow (prot)                 |   | 1825  |   |   | 1845  |   |  | 1716  |   |   | 1722  |   |
| Flt Permitted                     |   | 1.00  |   |   | 0.84  |   |  | 0.81  |   |   | 0.80  |   |
| Satd. Flow (perm)                 |   | 1824  |   |   | 1564  |   |  | 1432  |   |   | 1430  |   |
| Peak-hour factor, PHF             | 0.98  | 0.98  | 0.98  | 0.98  | 0.98  | 0.98  | 0.98   | 0.98  | 0.98  | 0.98  | 0.98  | 0.98  |
| Adj. Flow (vph)                   | 1   | 500   | 89  | 83  | 390   | 4   | 79   | 1   | 47  | 2   | 0   | 1   |
| RTOR Reduction (vph)              | 0   | 5   | 0   | 0   | 0   | 0   | 0  | 24  | 0   | 0   | 2   | 0   |
| Lane Group Flow (vph)             | 0   | 585   | 0   | 0   | 477   | 0   | 0  | 103   | 0   | 0   | 1   | 0   |
| Turn Type                         | Perm  | NA  |   | Perm  | NA  |   | Perm   | NA  |   | Perm  | NA  |   |
| Protected Phases                  |   | 2   |   |   | 6   |   |  | 8   |   |   | 4   |   |
| Permitted Phases                  | 2   |   |   | 6   |   |   | 8  |   |   | 4   |   |   |
| Actuated Green, G (s)             |   | 27.1  |   |   | 27.1  |   |  | 7.8   |   |   | 7.8   |   |
| Effective Green, g (s)            |   | 27.1  |   |   | 27.1  |   |  | 7.8   |   |   | 7.8   |   |
| Actuated g/C Ratio                |   | 0.61  |   |   | 0.61  |   |  | 0.17  |   |   | 0.17  |   |
| Clearance Time (s)                |   | 4.9   |   |   | 4.9   |   |  | 4.9   |   |   | 4.9   |   |
| Vehicle Extension (s)             |   | 2.2   |   |   | 2.2   |   |  | 2.0   |   |   | 2.0   |   |
| Lane Grp Cap (vph)                |   | 1105  |   |   | 948   |   |  | 249   |   |   | 249   |   |
| v/s Ratio Prot                    |   |   |   |   |   |   |  |   |   |   |   |   |
| v/s Ratio Perm                    |   | c0.32   |   |   | 0.30  |   |  | c0.07   |   |   | 0.00  |   |
| v/c Ratio                         |   | 0.53  |   |   | 0.50  |   |  | 0.41  |   |   | 0.00  |   |
| Uniform Delay, d1                 |   | 5.1   |   |   | 5.0   |   |  | 16.4  |   |   | 15.2  |   |
| Progression Factor                |   | 1.00  |   |   | 1.00  |   |  | 1.00  |   |   | 1.00  |   |
| Incremental Delay, d2             |   | 0.3   |   |   | 0.2   |   |  | 0.4   |   |   | 0.0   |   |
| Delay (s)                         |   | 5.4   |   |   | 5.2   |   |  | 16.8  |   |   | 15.2  |   |
| Level of Service                  |   | A   |   |   | A   |   |  | B   |   |   | B   |   |
| Approach Delay (s)                |   | 5.4   |   |   | 5.2   |   |  | 16.8  |   |   | 15.2  |   |
| Approach LOS                      |   | A   |   |   | A   |   |  | B   |   |   | B   |   |
| <b>Intersection Summary</b>       |   |   |   |   |   |   |  |   |   |   |   |   |
| HCM 2000 Control Delay            |   |   | 6.5   |   |   |   |  | HCM 2000 Level of Service   |   | A   |   |   |
| HCM 2000 Volume to Capacity ratio |   |   | 0.50  |   |   |   |  |   |   |   |   |   |
| Actuated Cycle Length (s)         |   |   | 44.7  |   |   |   |  | Sum of lost time (s)  |   | 9.8   |   |   |
| Intersection Capacity Utilization |   |   | 76.3%   |   |   |   |  | ICU Level of Service  |   | D   |   |   |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis  
15: 43rd St & Orange Ave



















Future plus Project PM Peak Hour  
04/24/2017

|                                   |  |  |  |  |  |  |  |  |  |  |   |  |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|--|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL   | NBT   | NBR   | SBL   | SBT  | SBR   |
| Lane Configurations               |   |  |   |   |  |   |   |   |   |   | <br> |   |
| Traffic Volume (vph)              | 0   | 420   | 65  | 32  | 404   | 0   | 0   | 0   | 0   | 155   | 484  | 65  |
| Future Volume (vph)               | 0   | 420   | 65  | 32  | 404   | 0   | 0   | 0   | 0   | 155   | 484  | 65  |
| Ideal Flow (vphpl)                | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900   | 1900  |
| Total Lost time (s)               |   | 4.9   |   |   | 4.9   |   |   |   |   |   | 4.9  |   |
| Lane Util. Factor                 |   | 1.00  |   |   | 1.00  |   |   |   |   |   | 0.95   |   |
| Frb, ped/bikes                    |   | 0.99  |   |   | 1.00  |   |   |   |   |   | 0.99   |   |
| Flpb, ped/bikes                   |   | 1.00  |   |   | 1.00  |   |   |   |   |   | 0.99   |   |
| Frt                               |   | 0.98  |   |   | 1.00  |   |   |   |   |   | 0.99   |   |
| Flt Protected                     |   | 1.00  |   |   | 1.00  |   |   |   |   |   | 0.99   |   |
| Satd. Flow (prot)                 |   | 1817  |   |   | 1854  |   |   |   |   |   | 3389   |   |
| Flt Permitted                     |   | 1.00  |   |   | 0.95  |   |   |   |   |   | 0.99   |   |
| Satd. Flow (perm)                 |   | 1817  |   |   | 1760  |   |   |   |   |   | 3389   |   |
| Peak-hour factor, PHF             | 0.93  | 0.93  | 0.93  | 0.93  | 0.93  | 0.93  | 0.93  | 0.93  | 0.93  | 0.93  | 0.93   | 0.93  |
| Adj. Flow (vph)                   | 0   | 452   | 70  | 34  | 434   | 0   | 0   | 0   | 0   | 167   | 520  | 70  |
| RTOR Reduction (vph)              | 0   | 9   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 13   | 0   |
| Lane Group Flow (vph)             | 0   | 513   | 0   | 0   | 468   | 0   | 0   | 0   | 0   | 0   | 744  | 0   |
| Confl. Peds. (#/hr)               | 31  |   | 41  | 41  |   | 31  | 18  |   |   | 26  | 26   | 18  |
| Confl. Bikes (#/hr)               |   |   | 2   |   |   | 7   |   |   |   |   |  | 7   |
| Turn Type                         |   | NA  |   | Perm  | NA  |   |   |   |   |   | Perm   | NA  |
| Protected Phases                  |   | 2   |   |   | 6   |   |   |   |   |   |  | 4   |
| Permitted Phases                  |   |   |   | 6   |   |   |   |   |   | 4   |  |   |
| Actuated Green, G (s)             |   | 31.6  |   |   | 31.6  |   |   |   |   |   |  | 18.6  |
| Effective Green, g (s)            |   | 31.6  |   |   | 31.6  |   |   |   |   |   |  | 18.6  |
| Actuated g/C Ratio                |   | 0.53  |   |   | 0.53  |   |   |   |   |   |  | 0.31  |
| Clearance Time (s)                |   | 4.9   |   |   | 4.9   |   |   |   |   |   |  | 4.9   |
| Vehicle Extension (s)             |   | 5.5   |   |   | 5.5   |   |   |   |   |   |  | 5.1   |
| Lane Grp Cap (vph)                |   | 956   |   |   | 926   |   |   |   |   |   |  | 1050  |
| v/s Ratio Prot                    |   | c0.28   |   |   |   |   |   |   |   |   |  |   |
| v/s Ratio Perm                    |   |   |   |   | 0.27  |   |   |   |   |   |  | 0.22  |
| v/c Ratio                         |   | 0.54  |   |   | 0.51  |   |   |   |   |   |  | 0.71  |
| Uniform Delay, d1                 |   | 9.4   |   |   | 9.2   |   |   |   |   |   |  | 18.3  |
| Progression Factor                |   | 1.00  |   |   | 0.79  |   |   |   |   |   |  | 1.00  |
| Incremental Delay, d2             |   | 2.2   |   |   | 1.7   |   |   |   |   |   |  | 2.8   |
| Delay (s)                         |   | 11.5  |   |   | 8.9   |   |   |   |   |   |  | 21.1  |
| Level of Service                  |   | B   |   |   | A   |   |   |   |   |   |  | C   |
| Approach Delay (s)                |   | 11.5  |   |   | 8.9   |   |   | 0.0   |   |   |  | 21.1  |
| Approach LOS                      |   | B   |   |   | A   |   |   | A   |   |   |  | C   |
| <b>Intersection Summary</b>       |   |   |   |   |   |   |   |   |   |   |  |   |
| HCM 2000 Control Delay            |   |   | 15.0  |   |   | HCM 2000 Level of Service   |   |   |   | B   |  |   |
| HCM 2000 Volume to Capacity ratio |   |   | 0.60  |   |   |   |   |   |   |   |  |   |
| Actuated Cycle Length (s)         |   |   | 60.0  |   |   | Sum of lost time (s)  |   |   |   | 9.8   |  |   |
| Intersection Capacity Utilization |   |   | 79.3%   |   |   | ICU Level of Service  |   |   |   | D   |  |   |
| Analysis Period (min)             |   |   | 15  |   |   |   |   |   |   |   |  |   |

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis  
16: Fairmount Ave & Orange Ave

















Future plus Project PM Peak Hour  
04/24/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL   | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |   |  |   |   |  |   |  |  |   |  |  |   |
| Traffic Volume (vph)              | 87  | 429   | 81  | 56  | 325   | 136   | 111   | 407   | 51  | 65  | 147   | 17  |
| Future Volume (vph)               | 87  | 429   | 81  | 56  | 325   | 136   | 111   | 407   | 51  | 65  | 147   | 17  |
| Ideal Flow (vphpl)                | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  |
| Total Lost time (s)               |   | 4.9   |   |   | 4.9   |   | 4.9   | 4.9   |   | 4.9   | 4.9   |   |
| Lane Util. Factor                 |   | 1.00  |   |   | 1.00  |   | 1.00  | 0.95  |   | 1.00  | 1.00  |   |
| Frbp, ped/bikes                   |   | 0.98  |   |   | 0.99  |   | 1.00  | 0.99  |   | 1.00  | 0.99  |   |
| Flpb, ped/bikes                   |   | 1.00  |   |   | 1.00  |   | 0.94  | 1.00  |   | 0.97  | 1.00  |   |
| Frt                               |   | 0.98  |   |   | 0.96  |   | 1.00  | 0.98  |   | 1.00  | 0.98  |   |
| Flt Protected                     |   | 0.99  |   |   | 0.99  |   | 0.95  | 1.00  |   | 0.95  | 1.00  |   |
| Satd. Flow (prot)                 |   | 1783  |   |   | 1764  |   | 1666  | 3443  |   | 1709  | 1815  |   |
| Flt Permitted                     |   | 0.86  |   |   | 0.89  |   | 0.65  | 1.00  |   | 0.41  | 1.00  |   |
| Satd. Flow (perm)                 |   | 1553  |   |   | 1579  |   | 1133  | 3443  |   | 736   | 1815  |   |
| Peak-hour factor, PHF             | 0.93  | 0.93  | 0.93  | 0.93  | 0.93  | 0.93  | 0.93  | 0.93  | 0.93  | 0.93  | 0.93  | 0.93  |
| Adj. Flow (vph)                   | 94  | 461   | 87  | 60  | 349   | 146   | 119   | 438   | 55  | 70  | 158   | 18  |
| RTOR Reduction (vph)              | 0   | 9   | 0   | 0   | 19  | 0   | 0   | 17  | 0   | 0   | 7   | 0   |
| Lane Group Flow (vph)             | 0   | 633   | 0   | 0   | 536   | 0   | 119   | 476   | 0   | 70  | 169   | 0   |
| Confl. Peds. (#/hr)               | 24  |   | 59  | 59  |   | 24  | 50  |   | 48  | 48  |   | 50  |
| Confl. Bikes (#/hr)               |   |   | 9   |   |   | 6   |   |   | 5   |   |   | 6   |
| Turn Type                         | Perm  | NA  |   | Perm  | NA  |   | Perm  | NA  |   | Perm  | NA  |   |
| Protected Phases                  |   | 2   |   |   | 6   |   |   | 8   |   |   |   | 8   |
| Permitted Phases                  | 2   |   |   | 6   |   |   | 8   |   |   | 8   |   |   |
| Actuated Green, G (s)             |   | 32.9  |   |   | 32.9  |   | 17.3  | 17.3  |   | 17.3  | 17.3  |   |
| Effective Green, g (s)            |   | 32.9  |   |   | 32.9  |   | 17.3  | 17.3  |   | 17.3  | 17.3  |   |
| Actuated g/C Ratio                |   | 0.55  |   |   | 0.55  |   | 0.29  | 0.29  |   | 0.29  | 0.29  |   |
| Clearance Time (s)                |   | 4.9   |   |   | 4.9   |   | 4.9   | 4.9   |   | 4.9   | 4.9   |   |
| Vehicle Extension (s)             |   | 5.5   |   |   | 5.5   |   | 6.3   | 6.3   |   | 6.3   | 6.3   |   |
| Lane Grp Cap (vph)                |   | 851   |   |   | 865   |   | 326   | 992   |   | 212   | 523   |   |
| v/s Ratio Prot                    |   |   |   |   |   |   |   | c0.14   |   |   |   | 0.09  |
| v/s Ratio Perm                    |   | c0.41   |   |   | 0.34  |   | 0.11  |   |   | 0.10  |   |   |
| v/c Ratio                         |   | 0.74  |   |   | 0.62  |   | 0.37  | 0.48  |   | 0.33  | 0.32  |   |
| Uniform Delay, d1                 |   | 10.3  |   |   | 9.3   |   | 17.0  | 17.6  |   | 16.8  | 16.8  |   |
| Progression Factor                |   | 0.59  |   |   | 1.00  |   | 1.00  | 1.00  |   | 1.00  | 1.00  |   |
| Incremental Delay, d2             |   | 5.0   |   |   | 3.3   |   | 2.1   | 1.1   |   | 2.8   | 1.1   |   |
| Delay (s)                         |   | 11.1  |   |   | 12.6  |   | 19.1  | 18.7  |   | 19.6  | 17.8  |   |
| Level of Service                  |   | B   |   |   | B   |   | B   | B   |   | B   | B   |   |
| Approach Delay (s)                |   | 11.1  |   |   | 12.6  |   |   | 18.8  |   |   | 18.3  |   |
| Approach LOS                      |   | B   |   |   | B   |   |   | B   |   |   | B   |   |
| <b>Intersection Summary</b>       |   |   |   |   |   |   |   |   |   |   |   |   |
| HCM 2000 Control Delay            |   |   | 14.7  |   |   |   | HCM 2000 Level of Service   |   |   |   | B   |   |
| HCM 2000 Volume to Capacity ratio |   |   | 0.65  |   |   |   |   |   |   |   |   |   |
| Actuated Cycle Length (s)         |   |   | 60.0  |   |   |   | Sum of lost time (s)  |   |   | 9.8   |   |   |
| Intersection Capacity Utilization |   |   | 84.4%   |   |   |   | ICU Level of Service  |   |   | E   |   |   |
| Analysis Period (min)             |   |   | 15  |   |   |   |   |   |   |   |   |   |

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis  
17: Chamoune Ave & Orange Ave













Future plus Project PM Peak Hour  
04/24/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |   |  |   |   |  |   |  |  |   |   |  |   |
| Sign Control                      |   | Stop  |   |   | Stop  |   |  | Stop  |   |   | Stop  |   |
| Traffic Volume (vph)              | 23  | 403   | 38  | 36  | 299   | 33  | 31   | 56  | 21  | 23  | 67  | 32  |
| Future Volume (vph)               | 23  | 403   | 38  | 36  | 299   | 33  | 31   | 56  | 21  | 23  | 67  | 32  |
| Peak Hour Factor                  | 0.90  | 0.90  | 0.90  | 0.90  | 0.90  | 0.90  | 0.90   | 0.90  | 0.90  | 0.90  | 0.90  | 0.90  |
| Hourly flow rate (vph)            | 26  | 448   | 42  | 40  | 332   | 37  | 34   | 62  | 23  | 26  | 74  | 36  |
| Direction, Lane #                 | EB 1  | WB 1  | NB 1  | SB 1  |   |   |  |   |   |   |   |   |
| Volume Total (vph)                | 516   | 409   | 119   | 136   |   |   |  |   |   |   |   |   |
| Volume Left (vph)                 | 26  | 40  | 34  | 26  |   |   |  |   |   |   |   |   |
| Volume Right (vph)                | 42  | 37  | 23  | 36  |   |   |  |   |   |   |   |   |
| Hadj (s)                          | 0.00  | 0.00  | -0.02   | -0.09   |   |   |  |   |   |   |   |   |
| Departure Headway (s)             | 5.5   | 5.6   | 6.8   | 6.7   |   |   |  |   |   |   |   |   |
| Degree Utilization, x             | 0.78  | 0.64  | 0.22  | 0.25  |   |   |  |   |   |   |   |   |
| Capacity (veh/h)                  | 640   | 607   | 462   | 475   |   |   |  |   |   |   |   |   |
| Control Delay (s)                 | 25.4  | 18.1  | 11.7  | 11.9  |   |   |  |   |   |   |   |   |
| Approach Delay (s)                | 25.4  | 18.1  | 11.7  | 11.9  |   |   |  |   |   |   |   |   |
| Approach LOS                      | D   | C   | B   | B   |   |   |  |   |   |   |   |   |
| Intersection Summary              |   |   |   |   |   |   |  |   |   |   |   |   |
| Delay                             |   |   | 19.9  |   |   |   |  |   |   |   |   |   |
| Level of Service                  |   |   | C   |   |   |   |  |   |   |   |   |   |
| Intersection Capacity Utilization |   |   | 50.5%   | ICU Level of Service  | A   |   |  |   |   |   |   |   |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |



HCM Signalized Intersection Capacity Analysis  
18: Euclid Ave & Orange Ave


















Future plus Project PM Peak Hour  
04/24/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |   | ↕   |   |   | ↕   |   |  | ↕   |   |   | ↕   |   |
| Traffic Volume (vph)              | 51  | 303   | 95  | 76  | 231   | 65  | 62   | 256   | 63  | 42  | 322   | 66  |
| Future Volume (vph)               | 51  | 303   | 95  | 76  | 231   | 65  | 62   | 256   | 63  | 42  | 322   | 66  |
| Ideal Flow (vphpl)                | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900   | 1900  | 1900  | 1900  | 1900  | 1900  |
| Total Lost time (s)               |   | 4.9   |   |   | 4.9   |   |  | 4.9   |   |   | 4.9   |   |
| Lane Util. Factor                 |   | 1.00  |   |   | 1.00  |   |  | 1.00  |   |   | 1.00  |   |
| Fr <sub>t</sub>                   |   | 0.97  |   |   | 0.98  |   |  | 0.98  |   |   | 0.98  |   |
| Fl <sub>t</sub> Protected         |   | 0.99  |   |   | 0.99  |   |  | 0.99  |   |   | 1.00  |   |
| Satd. Flow (prot)                 |   | 1799  |   |   | 1801  |   |  | 1807  |   |   | 1816  |   |
| Fl <sub>t</sub> Permitted         |   | 0.92  |   |   | 0.84  |   |  | 0.88  |   |   | 0.93  |   |
| Satd. Flow (perm)                 |   | 1670  |   |   | 1524  |   |  | 1612  |   |   | 1702  |   |
| Peak-hour factor, PHF             | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  | 0.95   | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  |
| Adj. Flow (vph)                   | 54  | 319   | 100   | 80  | 243   | 68  | 65   | 269   | 66  | 44  | 339   | 69  |
| RTOR Reduction (vph)              | 0   | 9   | 0   | 0   | 8   | 0   | 0  | 7   | 0   | 0   | 7   | 0   |
| Lane Group Flow (vph)             | 0   | 464   | 0   | 0   | 383   | 0   | 0  | 393   | 0   | 0   | 445   | 0   |
| Turn Type                         | Perm  | NA  |   | Perm  | NA  |   | Perm   | NA  |   | Perm  | NA  |   |
| Protected Phases                  |   | 2   |   |   | 6   |   |  | 8   |   |   | 4   |   |
| Permitted Phases                  | 2   |   |   | 6   |   |   | 8  |   |   | 4   |   |   |
| Actuated Green, G (s)             |   | 22.2  |   |   | 22.2  |   |  | 22.1  |   |   | 22.1  |   |
| Effective Green, g (s)            |   | 22.2  |   |   | 22.2  |   |  | 22.1  |   |   | 22.1  |   |
| Actuated g/C Ratio                |   | 0.41  |   |   | 0.41  |   |  | 0.41  |   |   | 0.41  |   |
| Clearance Time (s)                |   | 4.9   |   |   | 4.9   |   |  | 4.9   |   |   | 4.9   |   |
| Vehicle Extension (s)             |   | 2.8   |   |   | 2.8   |   |  | 3.0   |   |   | 3.0   |   |
| Lane Grp Cap (vph)                |   | 685   |   |   | 625   |   |  | 658   |   |   | 695   |   |
| v/s Ratio Prot                    |   |   |   |   |   |   |  |   |   |   |   |   |
| v/s Ratio Perm                    |   | c0.28   |   |   | 0.25  |   |  | 0.24  |   |   | c0.26   |   |
| v/c Ratio                         |   | 0.68  |   |   | 0.61  |   |  | 0.60  |   |   | 0.64  |   |
| Uniform Delay, d1                 |   | 13.0  |   |   | 12.6  |   |  | 12.5  |   |   | 12.8  |   |
| Progression Factor                |   | 1.00  |   |   | 1.00  |   |  | 1.00  |   |   | 1.00  |   |
| Incremental Delay, d2             |   | 2.6   |   |   | 1.7   |   |  | 1.5   |   |   | 2.0   |   |
| Delay (s)                         |   | 15.6  |   |   | 14.3  |   |  | 14.0  |   |   | 14.8  |   |
| Level of Service                  |   | B   |   |   | B   |   |  | B   |   |   | B   |   |
| Approach Delay (s)                |   | 15.6  |   |   | 14.3  |   |  | 14.0  |   |   | 14.8  |   |
| Approach LOS                      |   | B   |   |   | B   |   |  | B   |   |   | B   |   |
| <b>Intersection Summary</b>       |   |   |   |   |   |   |  |   |   |   |   |   |
| HCM 2000 Control Delay            |   |   | 14.7  |   |   |   |  |   |   |   | HCM 2000 Level of Service   | B   |
| HCM 2000 Volume to Capacity ratio |   |   | 0.66  |   |   |   |  |   |   |   |   |   |
| Actuated Cycle Length (s)         |   |   | 54.1  |   |   |   |  |   |   |   | Sum of lost time (s)  | 9.8   |
| Intersection Capacity Utilization |   |   | 74.6%   |   |   |   |  |   |   |   | ICU Level of Service  | D   |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis  
19: Estrella Ave & Orange Ave

Future plus Project PM Peak Hour  
04/24/2017

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |   |  |   |  |  |   |  |  |   |   |  |   |
| Sign Control                      |   | Stop  |   |   | Stop  |   |  | Stop  |   |   | Stop  |   |
| Traffic Volume (vph)              | 30  | 319   | 16  | 28  | 258   | 5   | 23   | 24  | 15  | 13  | 34  | 33  |
| Future Volume (vph)               | 30  | 319   | 16  | 28  | 258   | 5   | 23   | 24  | 15  | 13  | 34  | 33  |
| Peak Hour Factor                  | 0.81  | 0.81  | 0.81  | 0.81  | 0.81  | 0.81  | 0.81   | 0.81  | 0.81  | 0.81  | 0.81  | 0.81  |
| Hourly flow rate (vph)            | 37  | 394   | 20  | 35  | 319   | 6   | 28   | 30  | 19  | 16  | 42  | 41  |
| Direction, Lane #                 | EB 1  | WB 1  | WB 2  | NB 1  | SB 1  |   |  |   |   |   |   |   |
| Volume Total (vph)                | 451   | 35  | 325   | 77  | 99  |   |  |   |   |   |   |   |
| Volume Left (vph)                 | 37  | 35  | 0   | 28  | 16  |   |  |   |   |   |   |   |
| Volume Right (vph)                | 20  | 0   | 6   | 19  | 41  |   |  |   |   |   |   |   |
| Hadj (s)                          | 0.02  | 0.53  | 0.02  | -0.04   | -0.18   |   |  |   |   |   |   |   |
| Departure Headway (s)             | 5.1   | 6.1   | 5.6   | 6.1   | 5.9   |   |  |   |   |   |   |   |
| Degree Utilization, x             | 0.64  | 0.06  | 0.50  | 0.13  | 0.16  |   |  |   |   |   |   |   |
| Capacity (veh/h)                  | 685   | 570   | 628   | 500   | 524   |   |  |   |   |   |   |   |
| Control Delay (s)                 | 16.6  | 8.3   | 12.8  | 10.0  | 10.1  |   |  |   |   |   |   |   |
| Approach Delay (s)                | 16.6  | 12.4  |   | 10.0  | 10.1  |   |  |   |   |   |   |   |
| Approach LOS                      | C   | B   |   | B   | B   |   |  |   |   |   |   |   |
| Intersection Summary              |   |   |   |   |   |   |  |   |   |   |   |   |
| Delay                             |   |   | 13.9  |   |   |   |  |   |   |   |   |   |
| Level of Service                  |   |   | B   |   |   |   |  |   |   |   |   |   |
| Intersection Capacity Utilization |   |   | 56.1%   |   | ICU Level of Service  |   | B  |   |   |   |   |   |
| Analysis Period (min)             |   |   | 15  |   |   |   |  |   |   |   |   |   |

## **APPENDIX E: HCM ARTERIAL ANALYSIS**

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**Arterial Level of Service: EB Orange Ave**


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| Cross Street      | Arterial Class | Flow Speed | Running Time | Signal Delay | Travel Time (s) | Dist (mi) | Arterial Speed | Arterial LOS |
|-------------------|----------------|------------|--------------|--------------|-----------------|-----------|----------------|--------------|
| Alley             | IV             | 25         | 50.9         | 14.0         | 64.9            | 0.33      | 18.5           | C            |
| 35th St           | IV             | 25         | 38.3         | 6.3          | 44.6            | 0.25      | 20.2           | B            |
| 40th St           | IV             | 25         | 76.8         | 22.0         | 98.8            | 0.50      | 18.3           | C            |
| Marlborough Ave S | IV             | 25         | 36.0         | 8.4          | 44.4            | 0.22      | 17.7           | C            |
| 43rd St           | IV             | 25         | 35.9         | 7.1          | 43.0            | 0.22      | 18.2           | C            |
| Fairmount Ave     | IV             | 25         | 16.3         | 18.1         | 34.4            | 0.06      | 6.4            | F            |
| Euclid Ave        | IV             | 25         | 38.6         | 26.3         | 64.9            | 0.25      | 14.0           | C            |
| Total             | IV             |            | 292.8        | 102.2        | 395.0           | 1.84      | 16.7           | C            |

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**Arterial Level of Service: WB Orange Ave**


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| Cross Street  | Arterial Class | Flow Speed | Running Time | Signal Delay | Travel Time (s) | Dist (mi) | Arterial Speed | Arterial LOS |
|---------------|----------------|------------|--------------|--------------|-----------------|-----------|----------------|--------------|
| Euclid Ave    | IV             | 25         | 22.6         | 25.8         | 48.4            | 0.13      | 9.3            | D            |
| Fairmount Ave | IV             | 25         | 39.1         | 23.5         | 62.6            | 0.26      | 14.7           | C            |
| 43rd St       | IV             | 25         | 16.3         | 13.3         | 29.6            | 0.06      | 7.5            | E            |
| Alley         | IV             | 25         | 35.9         | 13.3         | 49.2            | 0.22      | 15.9           | C            |
| 40th St       | IV             | 25         | 36.0         | 33.5         | 69.5            | 0.22      | 11.3           | D            |
| 35th St       | IV             | 25         | 76.8         | 8.2          | 85.0            | 0.50      | 21.3           | B            |
| 33rd St       | IV             | 25         | 38.3         | 15.8         | 54.1            | 0.25      | 16.7           | C            |
| Total         | IV             |            | 265.0        | 133.4        | 398.4           | 1.63      | 14.7           | C            |

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**Arterial Level of Service: EB Orange Ave**


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| Cross Street      | Arterial Class | Flow Speed | Running Time | Signal Delay | Travel Time (s) | Dist (mi) | Arterial Speed | Arterial LOS |
|-------------------|----------------|------------|--------------|--------------|-----------------|-----------|----------------|--------------|
| Alley             | IV             | 25         | 50.9         | 14.9         | 65.8            | 0.33      | 18.2           | C            |
| 35th St           | IV             | 25         | 38.3         | 6.9          | 45.2            | 0.25      | 20.0           | B            |
| 40th St           | IV             | 25         | 76.8         | 30.1         | 106.9           | 0.50      | 16.9           | C            |
| Marlborough Ave S | IV             | 25         | 36.0         | 8.2          | 44.2            | 0.22      | 17.8           | C            |
| 43rd St           | IV             | 25         | 35.9         | 13.1         | 49.0            | 0.22      | 16.0           | C            |
| Fairmount Ave     | IV             | 25         | 16.3         | 17.6         | 33.9            | 0.06      | 6.5            | F            |
| Euclid Ave        | IV             | 25         | 38.6         | 28.7         | 67.3            | 0.25      | 13.5           | C            |
| Total             | IV             |            | 292.8        | 119.5        | 412.3           | 1.84      | 16.0           | C            |

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**Arterial Level of Service: WB Orange Ave**


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| Cross Street  | Arterial Class | Flow Speed | Running Time | Signal Delay | Travel Time (s) | Dist (mi) | Arterial Speed | Arterial LOS |
|---------------|----------------|------------|--------------|--------------|-----------------|-----------|----------------|--------------|
| Euclid Ave    | IV             | 25         | 22.6         | 21.1         | 43.7            | 0.13      | 10.3           | D            |
| Fairmount Ave | IV             | 25         | 39.1         | 11.0         | 50.1            | 0.26      | 18.3           | C            |
| 43rd St       | IV             | 25         | 16.3         | 10.0         | 26.3            | 0.06      | 8.4            | E            |
| Alley         | IV             | 25         | 35.9         | 6.8          | 42.7            | 0.22      | 18.3           | C            |
| 40th St       | IV             | 25         | 36.0         | 21.8         | 57.8            | 0.22      | 13.6           | C            |
| 35th St       | IV             | 25         | 76.8         | 6.3          | 83.1            | 0.50      | 21.7           | B            |
| 33rd St       | IV             | 25         | 38.3         | 20.9         | 59.2            | 0.25      | 15.2           | C            |
| Total         | IV             |            | 265.0        | 97.9         | 362.9           | 1.63      | 16.2           | C            |

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**Arterial Level of Service: EB Orange Ave**


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| Cross Street      | Arterial Class | Flow Speed | Running Time | Signal Delay | Travel Time (s) | Dist (mi) | Arterial Speed | Arterial LOS |
|-------------------|----------------|------------|--------------|--------------|-----------------|-----------|----------------|--------------|
| Alley             | IV             | 25         | 50.9         | 7.6          | 58.5            | 0.33      | 20.5           | B            |
| 35th St           | IV             | 25         | 38.3         | 7.0          | 45.3            | 0.25      | 19.9           | B            |
| 40th St           | IV             | 25         | 76.8         | 14.7         | 91.5            | 0.50      | 19.7           | B            |
| Marlborough Ave S | IV             | 25         | 36.0         | 7.5          | 43.5            | 0.22      | 18.1           | C            |
| 43rd St           | IV             | 25         | 35.9         | 6.9          | 42.8            | 0.22      | 18.3           | C            |
| Fairmount Ave     | IV             | 25         | 16.3         | 9.2          | 25.5            | 0.06      | 8.7            | E            |
| Euclid Ave        | IV             | 25         | 38.6         | 16.1         | 54.7            | 0.25      | 16.6           | C            |
| Total             | IV             |            | 292.8        | 69.0         | 361.8           | 1.84      | 18.3           | C            |

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**Arterial Level of Service: WB Orange Ave**


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| Cross Street  | Arterial Class | Flow Speed | Running Time | Signal Delay | Travel Time (s) | Dist (mi) | Arterial Speed | Arterial LOS |
|---------------|----------------|------------|--------------|--------------|-----------------|-----------|----------------|--------------|
| Euclid Ave    | IV             | 25         | 22.6         | 20.0         | 42.6            | 0.13      | 10.6           | D            |
| Fairmount Ave | IV             | 25         | 39.1         | 15.9         | 55.0            | 0.26      | 16.7           | C            |
| 43rd St       | IV             | 25         | 16.3         | 7.3          | 23.6            | 0.06      | 9.4            | D            |
| Alley         | IV             | 25         | 35.9         | 15.3         | 51.2            | 0.22      | 15.3           | C            |
| 40th St       | IV             | 25         | 36.0         | 25.1         | 61.1            | 0.22      | 12.9           | D            |
| 35th St       | IV             | 25         | 76.8         | 8.7          | 85.5            | 0.50      | 21.1           | B            |
| 33rd St       | IV             | 25         | 38.3         | 8.1          | 46.4            | 0.25      | 19.4           | B            |
| Total         | IV             |            | 265.0        | 100.4        | 365.4           | 1.63      | 16.1           | C            |

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**Arterial Level of Service: EB Orange Ave**


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| Cross Street      | Arterial Class | Flow Speed | Running Time | Signal Delay | Travel Time (s) | Dist (mi) | Arterial Speed | Arterial LOS |
|-------------------|----------------|------------|--------------|--------------|-----------------|-----------|----------------|--------------|
| Alley             | IV             | 25         | 50.9         | 12.4         | 63.3            | 0.33      | 18.9           | C            |
| 35th St           | IV             | 25         | 38.3         | 7.2          | 45.5            | 0.25      | 19.8           | B            |
| 40th St           | IV             | 25         | 76.8         | 35.0         | 111.8           | 0.50      | 16.2           | C            |
| Marlborough Ave S | IV             | 25         | 36.0         | 8.2          | 44.2            | 0.22      | 17.8           | C            |
| 43rd St           | IV             | 25         | 35.9         | 11.4         | 47.3            | 0.22      | 16.6           | C            |
| Fairmount Ave     | IV             | 35         | 10.2         | 11.6         | 21.8            | 0.06      | 10.2           | D            |
| Euclid Ave        | IV             | 25         | 38.6         | 18.5         | 57.1            | 0.25      | 15.9           | C            |
| Total             | IV             |            | 286.7        | 104.3        | 391.0           | 1.84      | 16.9           | C            |

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**Arterial Level of Service: WB Orange Ave**


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| Cross Street  | Arterial Class | Flow Speed | Running Time | Signal Delay | Travel Time (s) | Dist (mi) | Arterial Speed | Arterial LOS |
|---------------|----------------|------------|--------------|--------------|-----------------|-----------|----------------|--------------|
| Euclid Ave    | IV             | 25         | 22.6         | 16.9         | 39.5            | 0.13      | 11.4           | D            |
| Fairmount Ave | IV             | 25         | 39.1         | 12.2         | 51.3            | 0.26      | 17.9           | C            |
| 43rd St       | IV             | 35         | 10.2         | 8.8          | 19.0            | 0.06      | 11.7           | D            |
| Alley         | IV             | 25         | 35.9         | 8.4          | 44.3            | 0.22      | 17.7           | C            |
| 40th St       | IV             | 25         | 36.0         | 32.8         | 68.8            | 0.22      | 11.4           | D            |
| 35th St       | IV             | 25         | 76.8         | 6.6          | 83.4            | 0.50      | 21.7           | B            |
| 33rd St       | IV             | 25         | 38.3         | 11.3         | 49.6            | 0.25      | 18.2           | C            |
| Total         | IV             |            | 258.9        | 97.0         | 355.9           | 1.63      | 16.5           | C            |

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**Arterial Level of Service: EB Orange Ave**


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| Cross Street      | Arterial Class | Flow Speed | Running Time | Signal Delay | Travel Time (s) | Dist (mi) | Arterial Speed | Arterial LOS |
|-------------------|----------------|------------|--------------|--------------|-----------------|-----------|----------------|--------------|
| Alley             | IV             | 25         | 50.9         | 14.5         | 65.4            | 0.33      | 18.3           | C            |
| 35th St           | IV             | 25         | 38.3         | 6.5          | 44.8            | 0.25      | 20.1           | B            |
| 40th St           | IV             | 25         | 76.8         | 22.0         | 98.8            | 0.50      | 18.3           | C            |
| Marlborough Ave S | IV             | 25         | 36.0         | 8.8          | 44.8            | 0.22      | 17.5           | C            |
| 43rd St           | IV             | 25         | 35.9         | 7.4          | 43.3            | 0.22      | 18.1           | C            |
| Fairmount Ave     | IV             | 25         | 16.3         | 20.0         | 36.3            | 0.06      | 6.1            | F            |
| Euclid Ave        | IV             | 25         | 38.6         | 28.2         | 66.8            | 0.25      | 13.6           | C            |
| Total             | IV             |            | 292.8        | 107.4        | 400.2           | 1.84      | 16.5           | C            |

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**Arterial Level of Service: WB Orange Ave**


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| Cross Street  | Arterial Class | Flow Speed | Running Time | Signal Delay | Travel Time (s) | Dist (mi) | Arterial Speed | Arterial LOS |
|---------------|----------------|------------|--------------|--------------|-----------------|-----------|----------------|--------------|
| Euclid Ave    | IV             | 25         | 22.6         | 30.9         | 53.5            | 0.13      | 8.4            | E            |
| Fairmount Ave | IV             | 25         | 39.1         | 27.7         | 66.8            | 0.26      | 13.8           | C            |
| 43rd St       | IV             | 25         | 16.3         | 14.4         | 30.7            | 0.06      | 7.2            | E            |
| Alley         | IV             | 25         | 35.9         | 14.4         | 50.3            | 0.22      | 15.6           | C            |
| 40th St       | IV             | 25         | 36.0         | 35.1         | 71.1            | 0.22      | 11.1           | D            |
| 35th St       | IV             | 25         | 76.8         | 8.8          | 85.6            | 0.50      | 21.1           | B            |
| 33rd St       | IV             | 25         | 38.3         | 17.1         | 55.4            | 0.25      | 16.3           | C            |
| Total         | IV             |            | 265.0        | 148.4        | 413.4           | 1.63      | 14.2           | C            |



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**Arterial Level of Service: EB Orange Ave**


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| Cross Street      | Arterial Class | Flow Speed | Running Time | Signal Delay | Travel Time (s) | Dist (mi) | Arterial Speed | Arterial LOS |
|-------------------|----------------|------------|--------------|--------------|-----------------|-----------|----------------|--------------|
| Alley             | IV             | 25         | 50.9         | 15.8         | 66.7            | 0.33      | 18.0           | C            |
| 35th St           | IV             | 25         | 38.3         | 7.3          | 45.6            | 0.25      | 19.8           | B            |
| 40th St           | IV             | 25         | 76.8         | 28.0         | 104.8           | 0.50      | 17.2           | C            |
| Marlborough Ave S | IV             | 25         | 36.0         | 8.5          | 44.5            | 0.22      | 17.7           | C            |
| 43rd St           | IV             | 25         | 35.9         | 14.7         | 50.6            | 0.22      | 15.5           | C            |
| Fairmount Ave     | IV             | 25         | 16.3         | 18.6         | 34.9            | 0.06      | 6.3            | F            |
| Euclid Ave        | IV             | 25         | 38.6         | 30.6         | 69.2            | 0.25      | 13.1           | C            |
| Total             | IV             |            | 292.8        | 123.5        | 416.3           | 1.84      | 15.9           | C            |

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**Arterial Level of Service: WB Orange Ave**


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| Cross Street  | Arterial Class | Flow Speed | Running Time | Signal Delay | Travel Time (s) | Dist (mi) | Arterial Speed | Arterial LOS |
|---------------|----------------|------------|--------------|--------------|-----------------|-----------|----------------|--------------|
| Euclid Ave    | IV             | 25         | 22.6         | 24.3         | 46.9            | 0.13      | 9.6            | D            |
| Fairmount Ave | IV             | 25         | 39.1         | 12.0         | 51.1            | 0.26      | 18.0           | C            |
| 43rd St       | IV             | 25         | 16.3         | 10.7         | 27.0            | 0.06      | 8.2            | E            |
| Alley         | IV             | 25         | 35.9         | 6.8          | 42.7            | 0.22      | 18.3           | C            |
| 40th St       | IV             | 25         | 36.0         | 20.9         | 56.9            | 0.22      | 13.8           | C            |
| 35th St       | IV             | 25         | 76.8         | 6.5          | 83.3            | 0.50      | 21.7           | B            |
| 33rd St       | IV             | 25         | 38.3         | 22.3         | 60.6            | 0.25      | 14.9           | C            |
| Total         | IV             |            | 265.0        | 103.5        | 368.5           | 1.63      | 15.9           | C            |

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**Arterial Level of Service: EB Orange Ave**


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| Cross Street      | Arterial Class | Flow Speed | Running Time | Signal Delay | Travel Time (s) | Dist (mi) | Arterial Speed | Arterial LOS |
|-------------------|----------------|------------|--------------|--------------|-----------------|-----------|----------------|--------------|
| Alley             | IV             | 25         | 50.9         | 7.5          | 58.4            | 0.33      | 20.5           | B            |
| 35th St           | IV             | 25         | 38.3         | 7.3          | 45.6            | 0.25      | 19.8           | B            |
| 40th St           | IV             | 25         | 76.8         | 14.4         | 91.2            | 0.50      | 19.8           | B            |
| Marlborough Ave S | IV             | 25         | 36.0         | 7.7          | 43.7            | 0.22      | 18.0           | C            |
| 43rd St           | IV             | 25         | 35.9         | 7.3          | 43.2            | 0.22      | 18.1           | C            |
| Fairmount Ave     | IV             | 25         | 16.3         | 9.8          | 26.1            | 0.06      | 8.5            | E            |
| Euclid Ave        | IV             | 25         | 38.6         | 17.5         | 56.1            | 0.25      | 16.2           | C            |
| Total             | IV             |            | 292.8        | 71.5         | 364.3           | 1.84      | 18.1           | C            |

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**Arterial Level of Service: WB Orange Ave**


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| Cross Street  | Arterial Class | Flow Speed | Running Time | Signal Delay | Travel Time (s) | Dist (mi) | Arterial Speed | Arterial LOS |
|---------------|----------------|------------|--------------|--------------|-----------------|-----------|----------------|--------------|
| Euclid Ave    | IV             | 25         | 22.6         | 21.9         | 44.5            | 0.13      | 10.1           | D            |
| Fairmount Ave | IV             | 25         | 39.1         | 17.4         | 56.5            | 0.26      | 16.3           | C            |
| 43rd St       | IV             | 25         | 16.3         | 7.6          | 23.9            | 0.06      | 9.3            | D            |
| Alley         | IV             | 25         | 35.9         | 16.6         | 52.5            | 0.22      | 14.9           | C            |
| 40th St       | IV             | 25         | 36.0         | 25.4         | 61.4            | 0.22      | 12.8           | D            |
| 35th St       | IV             | 25         | 76.8         | 9.3          | 86.1            | 0.50      | 21.0           | B            |
| 33rd St       | IV             | 25         | 38.3         | 8.3          | 46.6            | 0.25      | 19.4           | B            |
| Total         | IV             |            | 265.0        | 106.5        | 371.5           | 1.63      | 15.8           | C            |

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**Arterial Level of Service: EB Orange Ave**


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| Cross Street      | Arterial Class | Flow Speed | Running Time | Signal Delay | Travel Time (s) | Dist (mi) | Arterial Speed | Arterial LOS |
|-------------------|----------------|------------|--------------|--------------|-----------------|-----------|----------------|--------------|
| Alley             | IV             | 25         | 50.9         | 12.9         | 63.8            | 0.33      | 18.8           | C            |
| 35th St           | IV             | 25         | 38.3         | 7.6          | 45.9            | 0.25      | 19.7           | B            |
| 40th St           | IV             | 25         | 76.8         | 34.7         | 111.5           | 0.50      | 16.2           | C            |
| Marlborough Ave S | IV             | 25         | 36.0         | 8.5          | 44.5            | 0.22      | 17.7           | C            |
| 43rd St           | IV             | 25         | 35.9         | 12.1         | 48.0            | 0.22      | 16.3           | C            |
| Fairmount Ave     | IV             | 25         | 16.3         | 13.2         | 29.5            | 0.06      | 7.5            | E            |
| Euclid Ave        | IV             | 25         | 38.6         | 20.4         | 59.0            | 0.25      | 15.4           | C            |
| Total             | IV             |            | 292.8        | 109.4        | 402.2           | 1.84      | 16.4           | C            |

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**Arterial Level of Service: WB Orange Ave**


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| Cross Street  | Arterial Class | Flow Speed | Running Time | Signal Delay | Travel Time (s) | Dist (mi) | Arterial Speed | Arterial LOS |
|---------------|----------------|------------|--------------|--------------|-----------------|-----------|----------------|--------------|
| Euclid Ave    | IV             | 25         | 22.6         | 19.0         | 41.6            | 0.13      | 10.9           | D            |
| Fairmount Ave | IV             | 25         | 39.1         | 13.3         | 52.4            | 0.26      | 17.5           | C            |
| 43rd St       | IV             | 25         | 16.3         | 9.6          | 25.9            | 0.06      | 8.6            | E            |
| Alley         | IV             | 25         | 35.9         | 8.7          | 44.6            | 0.22      | 17.6           | C            |
| 40th St       | IV             | 25         | 36.0         | 33.9         | 69.9            | 0.22      | 11.2           | D            |
| 35th St       | IV             | 25         | 76.8         | 7.0          | 83.8            | 0.50      | 21.6           | B            |
| 33rd St       | IV             | 25         | 38.3         | 11.6         | 49.9            | 0.25      | 18.1           | C            |
| Total         | IV             |            | 265.0        | 103.1        | 368.1           | 1.63      | 15.9           | C            |

**APPENDIX F: ROADWAY SEGMENT VOLUME GROWTH CALCULATIONS**

### Using Series 13 SANDAG Model

| <b>ROADWAY SEGMENT TRAFFIC VOLUMES GROWTH</b> |              |              |              |
|---|--------------|--------------|--------------|
| <b>Roadway (East-West)</b>                    | <b>2012</b>  | <b>2020</b>  | <b>CAGR</b>  |
| Howard Ave btwn Georgia St & Florida St       | 1900         | 2500         | 3.49%        |
| Howard Ave btwn Oregon St & Utah St           | 600          | 700          | 1.95%        |
| Howard Ave btwn Kansas St & 30th St           | 2200         | 2600         | 2.11%        |
| Orange Ave btwn Boundary St & 33rd St         | 3900         | 4400         | 1.52%        |
| Orange Ave btwn 37th St & 39th St             | 4900         | 5700         | 1.91%        |
| Orange Ave btwn 43rd St & Fairmount Ave       | 4500         | 5300         | 2.07%        |
| Orange Ave btwn Euclid Ave & Estrella Ave     | 7600         | 8900         | 1.99%        |
| <b>TOTAL</b>                                  | <b>25600</b> | <b>30100</b> | <b>2.04%</b> |

Source: Fehr & Peers, 2017

Volumes obtained from SANDAG Series 13: 2050 Regional Growth Forecast Model