August 23, 2012

Constance Schivarelli & Petcon Lands, LLC
C/o Mr. Stephen A. Matich
Matich Corporation
1371 S. La Cadena Dr.
San Bernardino, CA 92412

RE: Focused Traffic Analysis for TTM 36403, City of La Quinta, CA.

Dear Mr. Stephen A. Matich,

The purpose of this analysis letter is to evaluate the effects on traffic circulation produced from the development of TTM 36403.

The objectives of this study include the following:

- Document existing traffic conditions in the vicinity of the proposed development;
- Determine the traffic generated from the proposed development;
- Evaluate existing plus ambient growth plus cumulative plus project traffic conditions;
- Determine if the level of service (LOS) required by the City of La Quinta will be maintained at all study area intersections and roadway segments, and if not, determine the mitigation measures that will be necessary in order to maintain the required LOS;

■ Site Location

The proposed project is located on the southwest corner of Madison Street (NS) and Calle Conchita (EW) in the City of La Quinta. The project site location is presented on Figure A.

■ Land Use and Intensity

The project site encompasses approximately 6.3 acres. The project is currently proposed for development of 11 dwelling units (DU) single family detached housing.

■ Site Plan and Project Access

The current proposed project layout is shown on Figure B. TTM 36403 will have access to Calle Conchita north of the project.
Project Timing

For analysis purposes, it is assumed that TTM 36403 will be developed in a single phase and full
development is anticipated by 2014.

Study Area

The study area includes the following intersections and roadway segments:

- **Study Intersections**
  1. Madison Street (NS) / 58th Avenue (EW)
  2. Madison Street (NS) / Calle Conchita (EW)
  3. Madison Street (NS) / 60th Avenue (EW)

- **Study Roadway Segment**
  1. Madison Street between 58th Avenue to 60th Avenue.

Area Roadway System

The existing roadway system is shown on Figure C. It identifies the existing intersection traffic controls
(i.e. signals and signage) and intersection geometrics at the study intersections.

![Figure C – Existing Intersection Geometrics](image_url)

Existing Traffic Volumes

The existing AM peak period and PM peak period intersection turning movement counts were
conducted at the following intersections by Counts Unlimited, Inc in September 2011.

1. Madison Street (NS) / 58th Avenue (EW)
2. Madison Street (NS) / Calle Conchita (EW)

The traffic count worksheets are provided in the appendix. Per the City of La Quinta’s Engineering
Bulletin #06-13, the turning movement volumes were increased by a seasonal adjustment factor of 15%
to compensate for cyclical fluctuations due to significant variations in seasonal population. Peak hour
turning movement volumes for the intersection of Madison Street (NS) / 60th Avenue (EW) were derived
from the adjacent intersection and assuming 5% of traffic are to/from the west on 60th Avenue and the remaining (95%) are to/from the east on 60th Avenue. The AM and PM peak hour intersection turning movement volumes are presented on Figure D and Figure E, respectively.

Figure D – Existing AM Peak Hour Turning Movement Volumes

![Diagram of Figure D](image)

Figure E – Existing PM Peak Hour Turning Movement Volumes

![Diagram of Figure E](image)

- *Level of Service Definition and Analysis Methodology*

Unsignalized intersections have been evaluated using Chapter 17 of the HCM2000. According to this methodology, the level of service for all-way stop intersections is based upon the weighted average control delay, in seconds per vehicle, of all vehicles passing through the intersection. For two-way stop controlled intersections, the level of service is based on the highest control delay of all controlled movements for the intersection. Table 1 shows the criteria used to determine the level of service for unsignalized intersections. For roadway segment analysis a maximum daily volume to capacity (V/C) ratio of 0.90 shall be used. The maximum daily capacity of the roadway shall be determined based on its functional classification.

For this development only a Focused Traffic Impact Report will be required per the City of La Quinta’s Engineering Bulletin #6-13. Therefore, only near term conditions traffic analysis is presented in this memorandum.
Table 1 – Level of Service for Unsignalized Intersections

<table>
<thead>
<tr>
<th>Level of Service</th>
<th>Average Control Delay (sec/veh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>≤ 10</td>
</tr>
<tr>
<td>B</td>
<td>&gt; 10 and ≤ 15</td>
</tr>
<tr>
<td>C</td>
<td>&gt; 15 and ≤ 25</td>
</tr>
<tr>
<td>D</td>
<td>&gt; 25 and ≤ 35</td>
</tr>
<tr>
<td>E</td>
<td>&gt; 35 and ≤ 50</td>
</tr>
<tr>
<td>F</td>
<td>&gt; 50</td>
</tr>
</tbody>
</table>

**City of La Quinta Required Level of Service**

According to the City of La Quinta Traffic Study Guidelines:

*The City of La Quinta has established LOS ‘D’ as the minimum level of service for its intersections and street segments.*

**Levels of Service – Existing Conditions**

The levels of service for study intersections and study roadway segment for existing conditions shown on Table 2A and Table 2B are based upon the existing roadway system shown on Figure C and the existing AM and PM peak hour intersection volumes shown on Figure D and Figure E, respectively. The intersection level of service calculation worksheets are provided in the appendix. Madison Street between 58th Avenue and 60th Avenue is classified as a secondary road in the City’s General Plan Circulation Element.

**Table 2A – Intersection Levels of Service – Existing Conditions**

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Peak Hour</th>
<th>Traffic Control</th>
<th>Delay (sec)</th>
<th>LOS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Madison Street (NS) /</td>
<td>AM</td>
<td>AWSC</td>
<td>8.6</td>
<td>A</td>
</tr>
<tr>
<td>58th Avenue (EW)</td>
<td>PM</td>
<td>8.6</td>
<td></td>
<td>A</td>
</tr>
<tr>
<td>2. Madison Street (NS) /</td>
<td>AM</td>
<td>OWSC</td>
<td>9.5</td>
<td>A</td>
</tr>
<tr>
<td>Calle Conchita (EW)</td>
<td>PM</td>
<td>8.6</td>
<td></td>
<td>A</td>
</tr>
<tr>
<td>3 Madison Street (NS) /</td>
<td>AM</td>
<td>AWSC</td>
<td>8.0</td>
<td>A</td>
</tr>
<tr>
<td>60th Avenue (EW)</td>
<td>PM</td>
<td>7.8</td>
<td></td>
<td>A</td>
</tr>
</tbody>
</table>

OWSC = One Way Stop Controlled
AWSC = All Way Stop Controlled
Table 2B – Roadway Segment Levels of Service – Existing Conditions

<table>
<thead>
<tr>
<th>Roadway Segment</th>
<th>Roadway Designation</th>
<th>Lanes</th>
<th>Existing Capacity</th>
<th>Existing ADT ¹</th>
<th>V/C</th>
<th>LOS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Madison Street</td>
<td>58th Avenue to 60th Avenue</td>
<td>4</td>
<td>41,400</td>
<td>3,341</td>
<td>0.08</td>
<td>≤E</td>
</tr>
</tbody>
</table>

¹ Existing ADT obtained from City of La Quinta General Plan Circulation Element.

- **Ambient Growth**

  Per discussion with City of La Quinta staff and in order to evaluate traffic conditions for the study year, this study will utilize a 2 percent per year ambient growth rate.

- **Cumulative Projects**

  Cumulative project traffic from within the study area is expected to have an impact on levels of service. The cumulative projects within the study area are listed in Table 3. These projects were included per discussion with City staff.

Table 3 – Cumulative Projects Trip Generation

<table>
<thead>
<tr>
<th>Project</th>
<th>Land Use</th>
<th>Qty</th>
<th>Unit</th>
<th>AM Peak Hour</th>
<th>PM Peak Hour</th>
<th>Daily</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. TR 32225</td>
<td>Single-Family Detached Housing</td>
<td>10</td>
<td>DU</td>
<td>8</td>
<td>10</td>
<td>96</td>
</tr>
<tr>
<td>2. TR 34243</td>
<td>Single-Family Detached Housing</td>
<td>20</td>
<td>DU</td>
<td>15</td>
<td>20</td>
<td>191</td>
</tr>
<tr>
<td>3. TT 30834</td>
<td>Single-Family Detached Housing</td>
<td>10</td>
<td>DU</td>
<td>8</td>
<td>10</td>
<td>96</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td>31</td>
<td>40</td>
<td>383</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

DU = Dwelling Units.

- **Site Traffic**

  - **Trip Generation**

    Trip generation represents the amount of traffic traveling to and from the proposed project. The traffic generation figures used in this study are based upon the development of 11 DU single-family detached housing. Table 4 shows the peak hour and daily trip generation rates for the proposed project. The trip generation rates for single-family detached housing are based on the weighted average trip generation rates provided in the *Trip Generation Manual (8th Edition)* by the Institute of Transportation Engineers (ITE), 2008. The inbound and outbound peak hour trip generation rates are calculated by multiplying the total peak hour generation rate by the directional distribution provided in the *Trip Generation Manual*. 
Table 4 – Trip Generation Rates

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Unit</th>
<th>AM Peak Hour</th>
<th>PM Peak Hour</th>
<th>Daily</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>In</td>
<td>Out</td>
</tr>
<tr>
<td>Single-Family Detached Housing</td>
<td>DU</td>
<td>0.75</td>
<td>0.19</td>
<td>0.56</td>
</tr>
</tbody>
</table>

DU = Dwelling Units.


Table 5 presents the daily and peak hour trip generation for the proposed project. As shown, the proposed project is anticipated to generate approximately 105 daily trip-ends, including 8 trip-ends during the AM peak hour and 11 trip-ends during the PM peak hour.

Table 5 – Proposed Project Trip Generation

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Qty</th>
<th>Unit</th>
<th>AM Peak Hour</th>
<th>PM Peak Hour</th>
<th>Daily</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Total</td>
<td>In</td>
<td>Out</td>
</tr>
<tr>
<td>Single-Family Detached Housing</td>
<td>11</td>
<td>DU</td>
<td>8</td>
<td>2</td>
<td>6</td>
</tr>
</tbody>
</table>

DU = Dwelling Units.

### Trip Distribution

Trip distribution represents the directional orientation of traffic to and from the project site. Trip distribution is influenced by the geographical location of the site, type of land use in the study area, such as shopping centers and recreational sites, and proximity to the regional freeway system.

The trip directional orientation of traffic for the proposed project was determined based upon the existing roadway system, existing traffic patterns, and existing and future land uses. The directional distribution for the proposed project traffic assumed in this study is shown on Figure F.
Figure F – Directional Distribution of Project Traffic

LEGEND
- Project Site
- Directional Distribution To/from Proposed Project Site
- 5%
- 10%
- 16%
- 58th Ave.
- Madison St.
- Calle Conchita
- Monroe St.
- 60th Ave.
- NTS
- **Modal Split**

The traffic reducing potential of public transit has not been considered in this study. Therefore, the traffic projections provided in this report are considered conservative since public transit could reduce traffic volumes in the project area.

- **Trip Assignment**

Trip assignment is the result of assigning the previously discussed trip generation numbers to the circulation system using the previously discussed trip distribution. The project related AM peak hour and PM peak hour intersection turning movement volumes are shown on Figure G and Figure H, respectively.

**Figure G – Project Only AM Peak Hour Turning Movement Volumes**

**Figure H – Project Only PM Peak Hour Turning Movement Volumes**
Future Traffic Volumes

The existing plus ambient growth plus cumulative projects plus project AM peak hour and PM peak hour intersection turning movement volumes are shown on Figure I and Figure J, respectively.

Figure I – Existing plus Ambient Growth plus Cumulative Projects plus Project AM Peak Hour Turning Movement Volumes

Figure J – Existing plus Ambient Growth plus Cumulative Projects plus Project PM Peak Hour Turning Movement Volumes

Levels of Service – Existing Plus Ambient Growth Plus Cumulative Projects Plus Project (Opening Year)

Table 5A provides the projected delay and levels of service at the study intersections and Table 5B provides volume to capacity (V/C) ratio and levels of services at the study roadway segments under existing plus ambient growth plus cumulative plus project conditions without offsite improvements. The levels of service are based upon the existing geometrics for the study intersections. The levels of service at the study intersections are LOS A and therefore, none of the study intersections are expected to operate at an unacceptable level of service. The intersection level of service calculation worksheets are provided in the appendix.

The study roadway segment of Madison Street between 58th Avenue and 60th Avenue is anticipated to operate at a V/C of .09 and therefore, will continue to operate at acceptable levels of service.
Table 5A – Intersection Levels of Service – Existing plus Ambient Growth plus Cumulative Projects plus Project Conditions

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Peak Hour</th>
<th>Traffic Control</th>
<th>Delay (sec)</th>
<th>LOS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Madison Street (NS) / 58th Avenue (EW)</td>
<td>AM</td>
<td>AWSC</td>
<td>8.9</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>PM</td>
<td></td>
<td>8.9</td>
<td>A</td>
</tr>
<tr>
<td>2. Madison Street (NS) / Calle Conchita (EW)</td>
<td>AM</td>
<td>OWSC</td>
<td>9.6</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>PM</td>
<td></td>
<td>9.2</td>
<td>A</td>
</tr>
<tr>
<td>3 Madison Street (NS) / 60th Avenue (EW)</td>
<td>AM</td>
<td>AWSC</td>
<td>8.0</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>PM</td>
<td></td>
<td>7.9</td>
<td>A</td>
</tr>
</tbody>
</table>

OWSC = One Way Stop Controlled
AWSC = All Way Stop Controlled

Table 5B – Roadway Levels of Service – Existing plus Ambient Growth plus Cumulative Projects plus Project Conditions

<table>
<thead>
<tr>
<th>Roadway Segment</th>
<th>Roadway Designation</th>
<th>Lanes</th>
<th>Existing Capacity</th>
<th>Future Condition</th>
<th>Existing ADT ¹</th>
<th>V/C</th>
<th>LOS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Madison Street</td>
<td>58th Avenue to 60th Avenue</td>
<td>Secondary</td>
<td>4</td>
<td>41,400</td>
<td>3,660</td>
<td>0.09</td>
<td>≤E</td>
</tr>
</tbody>
</table>

¹ Existing ADT obtained from City of La Quinta General Plan Circulation Element.

- Sight Distance

Per the City’s Engineering Bulletin # 10-01, the minimum corner sight distance required for a driver on Calle Conchita is 550’ (for a design speed of 50 MPH). The posted speed limit on Madison Street is 50 MPH. As shown in Attachment A, there is adequate sight distance for all turning movements at the Madison Street / Calle Conchita intersection.

- Conclusion

The conclusion of this analysis indicates that the proposed project can be accommodated within the existing circulation system without any off-site improvements.

Should you have any questions, please contact us at (951) 686-1070.

Sincerely yours,

ALBERT A. WEBB ASSOCIATES

Dilesh Sheth, P.E., T.E.
Director, Traffic and Transportation

ALBERT A. WEBB ASSOCIATES
APPENDIX
Traffic Count Worksheets
### Groups Printed- Total Volume

<table>
<thead>
<tr>
<th>Start Time</th>
<th>Madison Street Southbound</th>
<th>Avenue 58 Westbound</th>
<th>Madison Street Northbound</th>
<th>Avenue 58 Eastbound</th>
</tr>
</thead>
<tbody>
<tr>
<td>07:00 AM</td>
<td>10</td>
<td>18</td>
<td>6</td>
<td>34</td>
</tr>
<tr>
<td>07:15 AM</td>
<td>10</td>
<td>10</td>
<td>7</td>
<td>27</td>
</tr>
<tr>
<td>07:30 AM</td>
<td>12</td>
<td>21</td>
<td>6</td>
<td>39</td>
</tr>
<tr>
<td>07:45 AM</td>
<td>7</td>
<td>14</td>
<td>8</td>
<td>29</td>
</tr>
</tbody>
</table>

| Total      | 39   | 63   | 27    | 129      | 3    | 6    | 49    | 58        | 3    | 74   | 1     | 78        | 19   | 2    | 0     | 21        | 286      |

<table>
<thead>
<tr>
<th>Start Time</th>
<th>08:00 AM</th>
<th>08:15 AM</th>
<th>08:30 AM</th>
<th>08:45 AM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2</td>
<td>14</td>
<td>17</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>9</td>
<td>21</td>
<td>11</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>6</td>
<td>2</td>
<td>25</td>
</tr>
</tbody>
</table>

| Total      | 37       | 60       | 14       | 111       |

#### Grand Total

<table>
<thead>
<tr>
<th>Start Time</th>
<th>07:30 AM</th>
<th>07:45 AM</th>
<th>08:00 AM</th>
<th>08:15 AM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>12</td>
<td>7</td>
<td>2</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>21</td>
<td>14</td>
<td>9</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>8</td>
<td>4</td>
<td>24</td>
</tr>
</tbody>
</table>

| Total      | 35       | 65       | 24       | 124      |

#### % App. Total

<table>
<thead>
<tr>
<th>Start Time</th>
<th>07:30 AM</th>
<th>07:45 AM</th>
<th>08:00 AM</th>
<th>08:15 AM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>28.2</td>
<td>52.4</td>
<td>19.4</td>
<td>36.3</td>
</tr>
<tr>
<td></td>
<td>7.5</td>
<td>18.9</td>
<td>73.6</td>
<td>38.4</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

| Total      | 500      | 500      | 500      | 500      |

#### PHF

<table>
<thead>
<tr>
<th>Start Time</th>
<th>07:30 AM</th>
<th>07:45 AM</th>
<th>08:00 AM</th>
<th>08:15 AM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>625</td>
<td>774</td>
<td>750</td>
<td>756</td>
</tr>
<tr>
<td></td>
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<td>500</td>
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</tr>
<tr>
<td></td>
<td>819</td>
<td>819</td>
<td>819</td>
<td>819</td>
</tr>
</tbody>
</table>

### Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:30 AM
City of La Quinta
N/S: Madison Street
E/W: Avenue 58
Weather: Sunny

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

<table>
<thead>
<tr>
<th></th>
<th>07:00 AM</th>
<th>07:00 AM</th>
<th>07:30 AM</th>
<th>08:00 AM</th>
</tr>
</thead>
<tbody>
<tr>
<td>+0 mins.</td>
<td>10 18 6 34</td>
<td>0 1 13 14</td>
<td>1 26 0 27</td>
<td>11 0 1 12</td>
</tr>
<tr>
<td>+15 mins.</td>
<td>10 10 7 27</td>
<td>0 0 9 9</td>
<td>2 18 1 21</td>
<td>1 2 1 4</td>
</tr>
<tr>
<td>+30 mins.</td>
<td>12 21 6 39</td>
<td>2 3 16 21</td>
<td>1 26 1 28</td>
<td>9 2 0 11</td>
</tr>
<tr>
<td>+45 mins.</td>
<td>7 14 8 29</td>
<td>1 2 11 14</td>
<td>0 28 0 28</td>
<td>5 1 0 6</td>
</tr>
<tr>
<td>Total Volume</td>
<td>39 63 27 129</td>
<td>3 6 49 58</td>
<td>4 98 2 104</td>
<td>26 5 2 33</td>
</tr>
<tr>
<td>% App. Total</td>
<td>30.2 48.8 20.9</td>
<td>5.2 10.3 84.5</td>
<td>3.8 94.2 1.9</td>
<td>78.8 15.2 6.1</td>
</tr>
<tr>
<td>PHF</td>
<td>813 .750 .844 .827</td>
<td>.375 .500 .766 .690</td>
<td>.500 .875 .500 .929</td>
<td>.591 .625 .580 .688</td>
</tr>
</tbody>
</table>
## Groups Printed - Total Volume

<table>
<thead>
<tr>
<th>Start Time</th>
<th>Madison Street Southbound</th>
<th>Avenue 58 Westbound</th>
<th>Madison Street Northbound</th>
<th>Avenue 58 Eastbound</th>
<th>Int. Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>04:00 PM</td>
<td>5</td>
<td>28</td>
<td>4</td>
<td>37</td>
<td>1</td>
</tr>
<tr>
<td>04:15 PM</td>
<td>10</td>
<td>32</td>
<td>7</td>
<td>49</td>
<td>1</td>
</tr>
<tr>
<td>04:30 PM</td>
<td>13</td>
<td>24</td>
<td>2</td>
<td>39</td>
<td>0</td>
</tr>
<tr>
<td>04:45 PM</td>
<td>9</td>
<td>25</td>
<td>3</td>
<td>37</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>37</td>
<td>109</td>
<td>16</td>
<td>162</td>
<td>3</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>05:00 PM</td>
<td>4</td>
<td>33</td>
<td>6</td>
<td>43</td>
<td>0</td>
</tr>
<tr>
<td>05:15 PM</td>
<td>2</td>
<td>24</td>
<td>4</td>
<td>30</td>
<td>0</td>
</tr>
<tr>
<td>05:30 PM</td>
<td>4</td>
<td>22</td>
<td>6</td>
<td>32</td>
<td>0</td>
</tr>
<tr>
<td>05:45 PM</td>
<td>3</td>
<td>18</td>
<td>2</td>
<td>23</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>13</td>
<td>97</td>
<td>18</td>
<td>128</td>
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Grand Total:
- Left: 50, 36, 206, 34, 290
- Thru: 8, 23, 61, 92
- Right: 4, 133, 7, 144
- App. Total: 34, 30, 7, 597
- Approch %: 17.2, 11.7
- Total %: 8.4, 34.5

PHF:
- Madison Street Southbound: 0.712
- Avenue 58 Westbound: 0.852
- Madison Street Northbound: 0.571
- Avenue 58 Eastbound: 0.827
- Total: 0.750

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:00 PM

<table>
<thead>
<tr>
<th>Start Time</th>
<th>Madison Street Southbound</th>
<th>Avenue 58 Westbound</th>
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<td>6</td>
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<td>24</td>
<td>4</td>
<td>30</td>
<td>0</td>
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<tr>
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<td>4</td>
<td>22</td>
<td>6</td>
<td>32</td>
<td>0</td>
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<td>05:45 PM</td>
<td>3</td>
<td>18</td>
<td>2</td>
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<td>97</td>
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Grand Total:
- Left: 50, 36, 206, 34, 290
- Thru: 8, 23, 61, 92
- Right: 4, 133, 7, 144
- App. Total: 34, 30, 7, 597
- Approch %: 17.2, 11.7
- Total %: 8.4, 34.5

PHF:
- Madison Street Southbound: 0.712
- Avenue 58 Westbound: 0.852
- Madison Street Northbound: 0.571
- Avenue 58 Eastbound: 0.827
- Total: 0.750
City of La Quinta
N/S: Madison Street
E/W: Avenue 58
Weather: Sunny

Counts Unlimited Inc.
PO Box 1178
Corona, CA 92878
(951) 268-6268

File Name: LQAMA58PM
Site Code: 00000001
Start Date: 9/14/2011
Page No: 2

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

Peak Hour Begins at 04:00 PM
Total Volume

<table>
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<tr>
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<th>North In</th>
<th>Total</th>
<th>Right Out</th>
<th>Right In</th>
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<th>Left Out</th>
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<td>19</td>
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<td>+15 mins.</td>
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<td>24</td>
<td>37</td>
<td>2</td>
<td>3</td>
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<td>33</td>
<td>37</td>
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Total Volume: 36, 114, 18, 168
% App. Total: 21.4, 67.9, 10.7

Peak Hour Flow (PHF):

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<th>Right In</th>
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<td>+45 mins.</td>
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</table>

Total Volume: 36, 114, 18, 168
% App. Total: 21.4, 67.9, 10.7

PHF: .692, .864, .643, .857, .750, .450, .731, .833, .250, .891, .250, .913, .750, .283, .580, .405
### Groups Printed- Total Volume

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<tr>
<th>Start Time</th>
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<th></th>
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<th>Calle Conchita Eastbound</th>
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<td>0</td>
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<td>18</td>
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<td>12</td>
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<td>0</td>
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### Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:30 AM

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<th>Madison Street Northbound</th>
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<th>Calle Conchita Eastbound</th>
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<th>Int. Total</th>
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<td>0</td>
<td>14</td>
<td>0</td>
<td>19</td>
<td>19</td>
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<tr>
<td>08:00 AM</td>
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<td>12</td>
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<td>21</td>
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<td>1</td>
</tr>
<tr>
<td>08:15 AM</td>
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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

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<th>Total</th>
<th>Left</th>
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<tbody>
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</table>

Total Volume:

- North: 70, 70, 80
- South: 0, 80, 1

% App. Total:

- North: 100, 100, 100
- South: 0, 0, 0

PHF:

- North: 0.729, 0.729, 0.952
- South: 0.000, 0.952, 0.250

Peak Hour Begins at 07:30 AM
City of La Quinta
N/S: Madison Street
E/W: Calle Conchita
Weather: Sunny

File Name: LOAMACCPM
Site Code: 00000001
Start Date: 9/14/2011
Page No: 1

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<th>Madison Street Southbound</th>
<th>Madison Street Northbound</th>
<th>Calle Conchita Eastbound</th>
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<td>Right</td>
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<td>23</td>
</tr>
<tr>
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<tr>
<td>04:45 PM</td>
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<td>Apprch %</td>
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<tr>
<td>Total %</td>
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 04:00 PM

<table>
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<tr>
<th>Start Time</th>
<th>Madison Street Southbound</th>
<th>Madison Street Northbound</th>
<th>Calle Conchita Eastbound</th>
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City of La Quinta
N/S: Madison Street
E/W: Calle Conchita
Weather: Sunny

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

<table>
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<th></th>
<th>04:00 PM</th>
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<td>+0 mins.</td>
<td>21 0 21</td>
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</tr>
<tr>
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<td>21 2 23</td>
<td>0 10 10</td>
<td>0 2 2</td>
</tr>
<tr>
<td>+30 mins.</td>
<td>11 0 11</td>
<td>0 14 14</td>
<td>0 0 0</td>
</tr>
<tr>
<td>+45 mins.</td>
<td>16 0 16</td>
<td>0 8 8</td>
<td>0 0 0</td>
</tr>
</tbody>
</table>

| Total Volume | 69 2 71 | 0 44 44 | 0 2 2 |
| % App. Total | 97.2 2.8 | 0 100 100 | 0 100 100 |

PHF | .821 | .250 | .772 | .000 | .786 | .786 | .000 | .250 | .250
Existing
Level of Service Calculations
Intersection #1: Madison St (NS) / 58th Ave (EW)

**Base+Add Vol:**
- Lanes: 0 1 1 0 1
- Signal=Stop/Right=Include
- Vol Cnt Date: 9/14/2011
- Rights=Include
- Cycle Time (sec): 100
- Loss Time (sec): 0
- Critical V/C: 0.122
- Avg Crit Del (sec/veh): 8.6
- Avg Delay (sec/veh): 8.6
- LOS: A

**Street Name:** Madison Street (NS) / 58th Avenue (EW)

**Approach:**
- Movement: L - T - R / L - T - R
- North Bound: 1.00 1.00 1.00 1.00 1.00 1.00
- South Bound: 1.00 1.00 1.00 1.00 1.00 1.00
- All Way Avg Q: 0.1 0.1 0.0 0.1 0.1 0.0 0.1 0.0

**Volume Module:**
- Base Vol: 5 113 3 56 105 35 2 17 63
- Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00
- Initial Base: 5 113 3 56 105 35 2 17 63
- Added Vol: 0 0 0 0 0 0 0 0
- PasserByVol: 0 0 0 0 0 0 0 0
- Initial Init: 5 113 3 56 105 35 2 17 63
- User Adj: 1.15 1.15 1.15 1.15 1.15 1.15 1.15 1.15
- PHP Adj: 0.82 0.82 0.82 0.82 0.82 0.82 0.82 0.82
- PHP Volume: 7 159 3 56 105 35 2 17 63
- Reduce Vol: 0 0 0 0 0 0 0 0
- Reduced Vol: 7 159 3 56 105 35 2 17 63
- PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
- NLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
- Final Volume: 7 159 3 56 105 35 2 17 63

**Saturation Flow Module:**
- Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
- Lanes: 1.00 2.00 1.00 1.00 1.00 1.00 1.00 1.00
- All Way Avg Q: 0.1 0.1 0.0 0.1 0.1 0.0 0.0 0.0

**Saturation Flow Module:**
- Movement: L - T - R / L - T - R
- North Bound: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
- South Bound: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
- All Way Avg Q: 0.1 0.1 0.0 0.1 0.1 0.0 0.0 0.0

**Volume Module:**
- Base Vol: 194 43 125 18 22 5 1 3 10 44
- Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
- Initial Base: 194 43 125 18 22 5 1 3 10 44
- Added Vol: 0 0 0 0 0 0 0 0
- PasserByVol: 0 0 0 0 0 0 0 0
- Initial Init: 194 43 125 18 22 5 1 3 10 44
- User Adj: 1.15 1.15 1.15 1.15 1.15 1.15 1.15 1.15
- PHP Adj: 0.84 0.84 0.84 0.84 0.84 0.84 0.84 0.84
- PHP Volume: 1 129 1 59 171 1 30 7 1 4 14 60
- Reduce Vol: 0 0 0 0 0 0 0 0
- Reduced Vol: 1 129 1 59 171 1 30 7 1 4 14 60
- PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
- NLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
- Final Volume: 1 129 1 59 171 1 30 7 1 4 14 60

**Saturation Flow Module:**
- Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
- Lanes: 1.00 2.00 1.00 1.00 1.00 1.00 1.00 1.00
- All Way Avg Q: 0.1 0.1 0.0 0.1 0.1 0.0 0.0 0.0

**Capacity Analysis Module:**
- Vol/Sat: 0.00 0.10 0.00 0.00 0.00 0.00 0.00 0.00 0.00
- Crit Move: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
- Delay/Veh: 8.6 8.7 7.3 9.0 8.4 8.1 9.3 8.4 7.7 8.9 8.8 8.1
- AdjDelay/Veh: 8.6 8.7 7.3 9.0 8.4 8.1 9.3 8.4 7.7 8.9 8.8 8.1
- LOS by Move: A A A A A A A A A A A A
- ApproxDel: 8.7 8.7 9.1 8.2
- Delay Adj: 1.00 1.00 1.00 1.00
- ApproxDel: 8.7 8.7 9.1 8.2
- LOS by Appr: A A A A
- AllWayAvgQ: 0.0 0.1 0.0 0.1 0.1 0.1 0.0 0.0 0.0 0.0 0.0 0.1

**Capacity Analysis Module:**
- Vol/Sat: 0.00 0.10 0.00 0.10 0.14 0.14 0.06 0.01 0.00 0.01 0.01 0.09
- Crit Move: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
- Delay/Veh: 8.6 8.7 7.4 8.9 8.6 8.5 9.3 8.5 7.7 8.9 8.4 8.1
- AdjDelay/Veh: 8.6 8.7 7.4 8.9 8.6 8.5 9.3 8.5 7.7 8.9 8.8 8.1
- LOS by Move: A A A A A A A A A A A A
- ApproxDel: 8.7 8.7 9.1 8.2
- Delay Adj: 1.00 1.00 1.00 1.00
- ApproxDel: 8.7 8.7 9.1 8.2
- LOS by Appr: A A A A
- AllWayAvgQ: 0.0 0.1 0.0 0.1 0.2 0.2 0.1 0.0 0.0 0.0 0.0 0.1
**Level Of Service Computation Report**

**2000 HCM Unsignalized (Future Volume Alternative)**

**Intersection #2: Madison St (NS) / Calle Conchita (EW)**

**Signatures:**
- **North Bound:** Stop
- **South Bound:** Stop

**Volume:**
- Base + Add:
  - North Bound: 2
  - South Bound: 0

**Lanes:**
- 0 1 1 0 0

**Cycle Time (sec):** 100

**Loss Time (sec):** 0

**Critical V/C:** 0.000

**Avg Critical Del (sec/veh):** 0.1

**Avg Delay (sec/veh):** 0.1

**LOS:** A

---

**Approach 1:**

**Street Name:** Madison Street (NS)

**Base Add:**
- Lanes: 0 1 0 0

**Vol:**
- North Bound: 0
- South Bound: 81

**Cycle Time (sec):** 103

**Loss Time (sec):** 0

**Critical V/C:** 0.000

**Avg Critical Del (sec/veh):** 0.1

**Avg Delay (sec/veh):** 0.1

**LOS:** A

---

**Approach 2:**

**Street Name:** Calle Conchita (EW)

**Base Add:**
- Lanes: 0 1 0 0

**Vol:**
- North Bound: 0
- South Bound: 46

**Cycle Time (sec):** 103

**Loss Time (sec):** 0

**Critical V/C:** 0.000

**Avg Critical Del (sec/veh):** 0.1

**Avg Delay (sec/veh):** 0.1

**LOS:** A
### Intersection #3: Madison St (NS) / 60th Ave (EW)

**Base+Add Vol:**
- **Lanes:** 0 1 0 0 1

**Signal=Stop/Rights=Include**
- **Cycle Time (sec):** 100
- **Loss Time (sec):** 0
- **Critical V/C:** 0.135
- **Avg Crit Del (sec/veh):** 8.0
- **Avg Delay (sec/veh):** 8.0
- **LOS:** A

**Volume Module:**
- **Base Vol:** 0 1 0 0 1
- **Growth Adj:** 1.00 1.00 1.00 1.00 1.00
- **Initial Base:** 0 1 0 0 1
- **Added Vol:** 0 1 0 0 1
- **PassengerVol:** 0 1 0 0 1
- **Initial Put:** 0 1 0 0 1
- **User Adj:** 1.00 1.00 1.00 1.00 1.00
- **PHF Adj:** 0.84 0.84 0.84 0.84 0.84
- **PHF Volume:** 0 91 0 5 0
- **Reduced Vol:** 0 91 0 5 0
- **PCE Adj:** 1.00 1.00 1.00 1.00 1.00
- **MFD Adj:** 1.00 1.00 1.00 1.00 1.00
- **Final Volume:** 0 91 0 5 0

**Saturation Flow Module:**
- **Adjustment:** 1.00 1.00 1.00 1.00 1.00
- **Lanes:** 0 0 0 0 0
- **Final Sat.:** 0 0 673 0 686

**Capacity Analysis Module:**
- **Vol/Sat:** 0.00 0.00 0.00 0.00 0.00
- **Crt Mvms:** 0.13 0.01 0.01 0.00 0.00

### Intersection #3: Madison St (NS) / 60th Ave (EW)

**Base+Add Vol:**
- **Lanes:** 0 1 0 0 1

**Signal=Stop/Rights=Include**
- **Cycle Time (sec):** 100
- **Loss Time (sec):** 0
- **Critical V/C:** 0.108
- **Avg Crit Del (sec/veh):** 7.9
- **Avg Delay (sec/veh):** 7.9
- **LOS:** A

**Volume Module:**
- **Base Vol:** 0 1 0 0 1
- **Growth Adj:** 1.00 1.00 1.00 1.00 1.00
- **Initial Base:** 0 1 0 0 1
- **Added Vol:** 0 1 0 0 1
- **PassengerVol:** 0 1 0 0 1
- **Initial Put:** 0 1 0 0 1
- **User Adj:** 1.00 1.00 1.00 1.00 1.00
- **PHF Adj:** 0.84 0.84 0.84 0.84 0.84
- **PHF Volume:** 0 91 0 5 0
- **Reduced Vol:** 0 91 0 5 0
- **PCE Adj:** 1.00 1.00 1.00 1.00 1.00
- **MFD Adj:** 1.00 1.00 1.00 1.00 1.00
- **Final Volume:** 0 91 0 5 0

**Saturation Flow Module:**
- **Adjustment:** 1.00 1.00 1.00 1.00 1.00
- **Lanes:** 0 0 0 0 0
- **Final Sat.:** 0 0 697 0 908

**Capacity Analysis Module:**
- **Vol/Sat:** 0.00 0.00 0.00 0.00 0.00
- **Crt Mvms:** 0.13 0.01 0.01 0.00 0.00

---

**Street Name:** Madison St (NS) / 60th Ave (EW)

**Approach:** North Bound / South Bound / East Bound / West Bound

**Min. Green:** 7 7 7 7

**All Way Avg Q:** 0.0 0.0 0.0 0.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.1
Existing plus Ambient Growth plus Cumulative Projects plus Project
Level of Service Calculations
### Intersection #1: Madison St (NS) / 58th Ave (EW)

#### EACP-AM

**Street Name:** Madison Street (NS) / 58th Avenue (EW)

**Approach:**
- **North Bound (NS):**
  - Lane: 0
  - Initial Vol: 36
  - Cycle Time (sec): 60
  - Loss Time (sec): 0
  - Critical V/C: 0.139
  - Avg Crit Del (sec/veh): 5
  - Avg Delay (sec/veh): 8.9
  - LOS: A
- **South Bound (EW):**
  - Lane: 0
  - Initial Vol: 43
  - Cycle Time (sec): 60
  - Loss Time (sec): 0
  - Critical V/C: 0.139
  - Avg Crit Del (sec/veh): 5
  - Avg Delay (sec/veh): 8.9
  - LOS: A

**Volume Module:**
- **Total:** 36
- **Future:** 43
- **Base:** 5
- **Added:** 5
- **Passerby Vol:** 0
- **Passerby:** 0
- **Initial Put:** 6
- **User Adj:** 1.15
- **PFW Adj:** 0.82
- **PFV:** 9
- **Reduct Vol:** 0
- **Reduced Vol:** 0
- **PCE Adj:** 0
- **MLF Adj:** 1.00
- **Final Volume:** 15

**Saturation Flow Module:**
- **Adjustment:** 1.00
- **Lanes:** 1.00
- **Final Sat.:** 578

**Capacity Analysis Module:**
- **Volume:** 0.02
- **Movement:** 0.10
- **Crit Moves:** 0.10
- **Delay/Veh:** 8.9
- **AdJDev/Veh:** 8.8
- **Approach Dev:** 9.0
- **Delay Adj:** 1.00
- **ApprDevAdj:** 8.8
- **LOS by Appr:** A
- **AllWayAvgq:** 0.0

#### EACP-PM

**Street Name:** Madison Street (NS) / 58th Avenue (EW)

**Approach:**
- **North Bound (NS):**
  - Lane: 0
  - Initial Vol: 38
  - Cycle Time (sec): 60
  - Loss Time (sec): 0
  - Critical V/C: 0.178
  - Avg Crit Del (sec/veh): 2
  - Avg Delay (sec/veh): 8.9
  - LOS: A
- **South Bound (EW):**
  - Lane: 0
  - Initial Vol: 3
  - Cycle Time (sec): 60
  - Loss Time (sec): 0
  - Critical V/C: 0.178
  - Avg Crit Del (sec/veh): 2
  - Avg Delay (sec/veh): 8.9
  - LOS: A

**Volume Module:**
- **Total:** 38
- **Future:** 46
- **Base:** 5
- **Added:** 1
- **Passerby Vol:** 0
- **Passerby:** 0
- **Initial Put:** 6
- **User Adj:** 1.15
- **PFW Adj:** 0.82
- **PFV:** 9
- **Reduct Vol:** 0
- **Reduced Vol:** 0
- **PCE Adj:** 0
- **MLF Adj:** 1.00
- **Final Volume:** 15

**Saturation Flow Module:**
- **Adjustment:** 1.00
- **Lanes:** 1.00
- **Final Sat.:** 569

**Capacity Analysis Module:**
- **Volume:** 0.02
- **Movement:** 0.10
- **Crit Moves:** 0.10
- **Delay/Veh:** 8.9
- **AdJDev/Veh:** 8.8
- **Approach Dev:** 9.0
- **Delay Adj:** 1.00
- **ApprDevAdj:** 8.8
- **LOS by Appr:** A
- **AllWayAvgq:** 0.0
### Intersection #3: Madison St (NS) / 60th Ave (EW)

#### Approach: North Bound

<table>
<thead>
<tr>
<th>Movement</th>
<th>L</th>
<th>T</th>
<th>R</th>
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<tbody>
<tr>
<td>Initial Vol</td>
<td>4</td>
<td>0</td>
<td>82**</td>
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#### Approach: South Bound

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<tbody>
<tr>
<td>Initial Vol</td>
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<td>Critical V/C</td>
<td>0.144</td>
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#### Approach: East Bound

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<tr>
<td>Initial Vol</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Avg Ctr Delay (sec/veh)</td>
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#### Approach: West Bound

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<th>R</th>
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<tbody>
<tr>
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<td>0</td>
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<tr>
<td>Avg Ctr Delay (sec/veh)</td>
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#### Street Name: Madison St (NS) / 60th Ave (EW)

<table>
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<th>Initial Vol</th>
<th>Signal/Stop Rights=Include</th>
<th>Critical V/C</th>
<th>Avg Ctr Del (sec/veh)</th>
<th>LOS</th>
<th>AllWay Avg Q</th>
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<tbody>
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<td>North Bound</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>A</td>
<td>0</td>
</tr>
<tr>
<td>South Bound</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>A</td>
<td>0</td>
</tr>
<tr>
<td>East Bound</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>A</td>
<td>0</td>
</tr>
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<td>0</td>
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<td>A</td>
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#### Street Name: Madison St (NS) / 60th Ave (EW)

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<td>0</td>
<td>A</td>
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