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Learning Objectives

- Discuss the impacts of various inputs on the LOS of each mode
- Discuss recent case studies of how the methodology has been applied
Agenda

- Brief history of HCM multimodal analysis
- Development of the HCM methodology
  - Pedestrian LOS model
  - Bicyclist LOS model
  - Transit Passenger LOS model
- Case Studies
  - General Plan & Specific Plan
  - Congestion Management Program
  - Traffic Impact Analysis
  - Road Diet Analysis
- Q&A
HCM Multimodal History
Brief History of Highway Capacity Manual (HCM) Multimodal Analysis

1950
Transit and pedestrian impacts on motor vehicle capacity

1965
Level of Service concept and bus transit chapter

1985
Expanded bus transit chapter, new pedestrian chapter (density), and new bicycle chapter (vehicle hindrance)

2000
4 Transit LOS measures, expanded pedestrian and bicycle chapters
Brief History of Highway Capacity Manual (HCM) Multimodal Analysis

- Issues with HCM 2000:
  - Pedestrian and bicyclist LOS measures reflected a motorist perspective of density
  - Transit measures reflected a traveler’s perspective, but the multiple LOS measures created issues with results interpretation
HCM 2010 Multimodal Philosophy

- Integrate multimodal analysis methods into appropriate chapters
  - Road user perspective
  - No separate bicyclist, pedestrian, or transit passenger chapters
    - Methodologies for all modes presented together and intertwined
  - Encourage software developers to add multimodal analysis features
Methodology Development
Methodology Selection

- NCHRP Report 616 method used in HCM 2010
  - Designed specifically for the HCM
  - LOS measures based on traveler perceptions
  - Modal LOS scores can be directly compared to each other and reflect average traveler satisfaction by mode
  - Model developed and tested based on national conditions
Methodology
Development

- Pedestrian, bicyclist, motorist:
  - 90 typical street segments recorded
  - Video labs in four cities around the U.S.
  - 120 Participants rated conditions on an A-F scale
Methodology Development

- **Transit passenger:**
  - Video lab not feasible
  - On-board surveys conducted in 4 cities
    - However, results showed biased results
  - Final model was based on national traveler response data to changes in transit service quality
    - For example, when service frequency or travel time is improved, ridership increases
Methodology
Characteristics

- All models generate an perception score that is generally in the range of 1 to 6 (A to F)
- All models have multiple service quality factors as inputs
  - Traditional HCM service measures are based on a single factor (e.g., delay)
- LOS thresholds are the same across models
## LOS Score Interpretation

<table>
<thead>
<tr>
<th>LOS</th>
<th>LOS Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>≤2.00</td>
</tr>
<tr>
<td>B</td>
<td>&gt;2.00–2.75</td>
</tr>
<tr>
<td>C</td>
<td>&gt;2.75–3.50</td>
</tr>
<tr>
<td>D</td>
<td>&gt;3.50–4.25</td>
</tr>
<tr>
<td>E</td>
<td>&gt;4.25–5.00</td>
</tr>
<tr>
<td>F</td>
<td>&gt;5.00</td>
</tr>
</tbody>
</table>

Motorist LOS is based on *travel speed as a percentage of base free-flow speed* instead of on the perception score developed in research.
LOS Score

Interpretation

- LOS is reported individually by mode and direction
- No combined LOS for the street
  - Vehicle volumes would typically dominate an LOS weighted by number of travelers
  - Combined LOS would potentially mask important deficiencies for a given mode
- Measures the degree to which urban streets meet the need of all users
Treatment of Safety in Multimodal LOS

- HCM 2010 does not explicitly include safety in LOS calculations.
  - Collision history does not affect LOS
- However, HCM 2010 does include safety implicitly.
  - Traveler Perceived Safety
    - Speed of traffic
    - Percent heavy vehicles
    - Barriers between sidewalk and street
    - Lateral separation between vehicle stream and bicyclists and pedestrians
Urban Street System
Elements: Link

- Distance between two signalized intersections
  - Roundabout or all-way STOP could also be an end point
- Perception score for bicyclists and pedestrians
Urban Street System
Elements: Intersection

- Signalized intersection, roundabout, or all-way STOP that terminates a link
- Intersection scores only for pedestrians and bicyclists
Segment = link + downstream intersection

Perception scores available for all modes

- Pedestrian/Bicyclist scores based on combination of link, intersection, and additional factor
Facility = 2 or more consecutive segments

Perception scores available for all modes

- Length-weighted average of the segment scores
Pedestrian LOS
Pedestrian LOS: Links
Pedestrian LOS: Links

Model Factors

- Factors included:
  - Outside travel lane width (+)
  - Bicycle lane/shoulder width (+)
  - Buffer presence (e.g., on-street parking, street trees) (+)
  - Sidewalk presence and width (+)
  - Volume and speed of motor vehicle traffic in outside travel lane (−)

- Pedestrian density considered separately
  - Worse of (density LOS, link LOS score) used in determining overall link LOS
Pedestrian LOS: Signalized Intersections
Pedestrian LOS: Signalized Intersections
Model Factors

- Factors included:
  - Permitted left turn and right-turn-on-red volumes (−)
  - Cross-street motor vehicle volumes and speeds (−)
  - Crossing length (−)
  - Average pedestrian delay (−)
  - Right-turn channelizing island presence (+)
Pedestrian LOS: Segments
Pedestrian LOS: Segments
Model Factors

Factors included:

- Pedestrian link LOS (+)
- Pedestrian intersection LOS (+)
- Street-crossing difficulty (−/+)
  - Delay diverting to signalized crossing
  - Delay crossing street at legal unsignalized location
Pedestrian LOS: Facility

- **Length-weighted average of segment LOS scores**
  - Can mask deficiencies in individual segments
  - Consider also reporting segment LOS score for the worst segment in the facility
Bicyclist LOS
Bicyclist LOS: Links
Bicyclist LOS: Links
Model Factors

- Factors included:
  - Volume and speed of traffic in outside travel lane (−)
  - Heavy vehicle percentage (−)
  - Pavement condition (+)
  - Bicycle lane presence (+)
  - Bicycle lane, shoulder, and outside lane widths (+)
  - On-street parking utilization (−)
Bicyclist LOS: Signalized Intersections
Bicyclist LOS: Signalized Intersections
Model Factors

- Factors included:
  - Width of outside through lane and bicycle lane (+)
  - Cross-street width (−)
  - Vehicle traffic volume in the outside lane (−)
Bicyclist LOS: Segments
Bicyclist LOS: Segments
Model Factors

- Factors included:
  - Bicycle link LOS (+)
  - Bicycle intersection LOS, if signalized (+)
  - Number of access points on right side (−)
    - Includes driveways and unsignalized street intersections
    - Judgment required on how low-volume residential driveways are treated
Bicyclist LOS: Facility

- **Length-weighted average of segment LOS scores**
  - Can mask deficiencies in individual segments
  - Consider also reporting segment LOS score for the worst segment in the facility
Transit Passenger LOS
Transit Passenger LOS: Overview

- Only segment and facility LOS models
- Transit facility LOS is a length-weighted average of segment LOS
- “Transit” includes buses, streetcars, and street-running light rail
- Three main model components:
  - Access to transit (pedestrian link LOS)
  - Wait for transit (frequency)
  - Riding transit (perceived travel time rate)
Transit Passenger LOS:
Perceived Travel Time Components

- Factors included:
  - Actual bus travel speed (+)
  - Bus stop amenities (+)
  - Excess wait time due to late bus/train arrival (–)
  - On-board crowding (–)
General Plan Case Study
San Pablo, California
Case Study
General Plan (Comprehensive Plan)

- Adopted 2011
- Dyett and Bhatia – Prime consultant
- How to incorporate MMLOS
Case Study
General Plan (Comprehensive Plan)

- Complete Street general policies
- Designation of circulation system
  - Move away from motorist-only perceptions
  - Incorporate more multimodal designations

Source: Dyett and Bhatia
Case Study
General Plan (Comprehensive Plan)

Figure 5-1
Proposed Roadway System

- State Highway
- Mixed Use Boulevard
- Urban Arterial
- Auto Arterial
- Avenue Local
- Major Transit Hub
- Pedestrian Priority Zone
- Green Street Overlay
- Planning Area
- City Limits
- Railroads
Case Study
General Plan (Comprehensive Plan)

- Prioritization of different street types by mode

### Table 5.2-1 Transportation Facilities Matrix

<table>
<thead>
<tr>
<th>Facility</th>
<th>Transit</th>
<th>Bicycles</th>
<th>Pedestrians</th>
<th>Trucks</th>
<th>Automobiles</th>
</tr>
</thead>
<tbody>
<tr>
<td>State Highway</td>
<td>□</td>
<td>×</td>
<td>×</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Auto Arterial</td>
<td>□</td>
<td>□</td>
<td>○</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Urban Arterial¹</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Mixed Used Boulevard</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Avenue</td>
<td>○</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Local</td>
<td>○</td>
<td>□</td>
<td>□</td>
<td>×</td>
<td>□</td>
</tr>
</tbody>
</table>

- ■ = Dominant
- □ = Accommodated
- ○ = Incidental
- X = Prohibited

¹ Transit has priority over bicycles on Urban Arterials, where conflicts exist.
Case Study
General Plan (Comprehensive Plan)

- More robust determination of improvements
## Case Study

### General Plan (Comprehensive Plan)

- **MMLOS summary of factors for each mode**

<table>
<thead>
<tr>
<th>LOS</th>
<th>Transit</th>
<th>Bicycle</th>
<th>Pedestrian</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>(Good walk access to bus stops, frequent service, good bus stop amenities.)</td>
<td>(Few driveway and cross street conflicts, good pavement condition, ample width of outside lane, including parking and bike lanes.)</td>
<td>(Low traffic volumes, wide buffer separating sidewalk from traffic, numerous street trees, and high parking occupancy.)</td>
</tr>
<tr>
<td>B</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>(Poor walk access to bus stops, infrequent service, poor schedule adherence, no bus stop amenities.)</td>
<td>(Poor pavement condition, narrow width of outside lane, frequent driveways and cross streets.)</td>
<td>(High traffic volumes, limited buffer separating sidewalk from traffic, few street trees, low parking occupancy.)</td>
</tr>
<tr>
<td>F</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Source: Dowling Associates, 2010.*
Specific Plan Case Study

San Pablo Avenue
San Pablo, California
Case Study
Specific Plan

- Adopted 2011
- Guide to revitalize in a sustainable manner
- MMLOS analysis
  - Existing
  - 2030 No Project
  - 2030 Specific Plan
### AM Peak-Hour

<table>
<thead>
<tr>
<th>Corridor Section</th>
<th>Scenario</th>
<th>Transit Passenger</th>
<th>Bicyclist</th>
<th>Pedestrian</th>
<th>Transit Passenger</th>
<th>Bicyclist</th>
<th>Pedestrian</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Northbound</td>
<td></td>
<td>Southbound</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Score</td>
<td>LOS</td>
<td>Score</td>
<td>LOS</td>
<td>Score</td>
<td>LOS</td>
</tr>
<tr>
<td>North</td>
<td>Existing</td>
<td>1.67</td>
<td>A</td>
<td>3.45</td>
<td>C</td>
<td>2.98</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>2030 No Project</td>
<td>2.11</td>
<td>B</td>
<td>3.49</td>
<td>C</td>
<td>3.08</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>2030 Specific Plan</td>
<td>2.07</td>
<td>B</td>
<td>3.18</td>
<td>C</td>
<td>2.84</td>
<td>C</td>
</tr>
<tr>
<td>Central</td>
<td>Existing</td>
<td>1.08</td>
<td>A</td>
<td>3.50</td>
<td>C</td>
<td>3.06</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>2030 No Project</td>
<td>1.22</td>
<td>A</td>
<td>3.54</td>
<td>D</td>
<td>3.15</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>2030 Specific Plan</td>
<td>1.20</td>
<td>A</td>
<td>3.48</td>
<td>C</td>
<td>3.03</td>
<td>C</td>
</tr>
<tr>
<td>South</td>
<td>Existing</td>
<td>0.91</td>
<td>A</td>
<td>4.13</td>
<td>D</td>
<td>2.87</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>2030 No Project</td>
<td>1.07</td>
<td>A</td>
<td>4.22</td>
<td>D</td>
<td>2.99</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>2030 Specific Plan</td>
<td>1.04</td>
<td>A</td>
<td>3.69</td>
<td>D</td>
<td>2.81</td>
<td>C</td>
</tr>
</tbody>
</table>

*Legend*

- Red: Worse than existing
- Orange: Worse than existing but better than 2030 No Project
- Green: Better than existing

*Dowling Associates, Inc., Multi-Modal Level of Service analysis using CompleteStreetsLOS version 2.1.8, November 2010*
Case Study
General and Specific Plan

Benefits of MMLOS

- Provided baseline LOS for all travel modes
  - Reasonableness of LOS standards
- Tested MMLOS for Specific Plan scenario
- Multimodal roadway designations
  - Provide guidelines for improvements
  - Inform mitigation requirements
  - Provide an analysis tool
Case Study
General and Specific Plan

- Lessons Learned
  - **MMLOS** works well analyzing fixed right-of-way
    - How to allocate space
    - Quantifies trade-offs between modes
  - Developing policy standards
    - Establish baseline
    - Conduct sketch what-if scenarios
    - May lead to prioritizing specific modes on streets
Congestion Management Program

San Joaquin Council of Governments (SJCOG)
Regional Congestion Management Program (RCMP) Update 2012
San Joaquin Council of Governments (SJCOG)

- Local jurisdictions
  - 7 incorporated cities
  - San Joaquin County
- Federally designated:
  - Extreme non-attainment for ozone
  - Non-attainment for carbon monoxide
  - Non-attainment for PM 2.5
Multimodal Focus

- Updated the CMP transportation network
  - Transit network
  - Bikeway system
- Updated the regional data collection program
  - Bicyclist
  - Pedestrian
  - Transit
- Developed multimodal objectives and performance measures
- Designated Multimodal Corridors
Multimodal Corridors

- 13 designated corridors
- No new significance standards
- SJCOG provides data to local agencies
  - Baseline HCM 2010 MMLOS analysis
    - Pedestrian
    - Bicyclist
    - Transit Passenger
  - Data collection this year

SJCOG RCMP Update 2012
Multimodal Corridors

- Options given to local agency

  - RCMP deficiency or impact identified
    - Opt to not widen roadway

  - Prepare Deficiency Plan
    - Identify improvements for other modes

  - Use MMLOS to analyze improvements
    - Pedestrian
    - Bicyclist
    - Transit Passenger
Multimodal Corridors

System-wide Deficiency Plan

Plan submitted in lieu of grant applications

Greater weight for funding

Improvements sanctioned as regional
2012 FHWA Certification Review Comments

- “The system monitoring program seems to be well documented as to how, when and where data collection activities are performed. The RCMP is multimodal in nature and identifies thirteen corridors applicable to a method to compute multimodal level of service (MMLOS).”

- “SJCOG appears to have done a good job in developing a range of performance measures .... They are multimodal in nature which is an important federal requirement.”

- “The federal review team found SJCOG’s CMP to be in compliance with Federal regulations.”
Development Impact Analysis

Pasadena, California
Traffic Impact Analysis

- Worked with the City of Pasadena to analyze multimodal impacts of a redevelopment project
Traffic Impact Analysis

- Impact studies generally only consider auto
- Pasadena finding it difficult to mitigate certain areas
- How might MMLOS provide another tool
- A recent development project was selected to test multimodal LOS
Traffic Impact Analysis

- Project consisted of:
  - 156 room hotel
  - 38,000 ft² of dining
  - 14,000 ft² retail
  - 103,000 ft² office
  - 8,000 ft² of bank

- Generated 4,900 daily trips
- 289 trips in the AM peak hour
- 488 trips in the PM peak hour
Traffic Impact Analysis
Traffic Impact Analysis
Traffic Impact Analysis

Link results for Colorado Blvd.

<table>
<thead>
<tr>
<th>Segment</th>
<th>Mode</th>
<th>Direction</th>
<th>Existing</th>
<th>2015</th>
<th>2015 + Proj</th>
<th>Diff.</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>El Molino Ave to Oak Knoll Ave</td>
<td>Auto</td>
<td>EB</td>
<td>2.88 (C)</td>
<td>2.90 (C)</td>
<td>2.91 (C)</td>
<td>0.01</td>
<td>0.3%</td>
</tr>
<tr>
<td></td>
<td>Transit</td>
<td>WB</td>
<td>1.54 (A)</td>
<td>1.61 (A)</td>
<td>1.61 (A)</td>
<td>0.00</td>
<td>0.0%</td>
</tr>
<tr>
<td></td>
<td>Pedestrian</td>
<td>EB</td>
<td>1.80 (A)</td>
<td>2.16 (B)</td>
<td>2.21 (B)</td>
<td>0.05</td>
<td>2.3%</td>
</tr>
<tr>
<td></td>
<td>Bicycle</td>
<td>EB</td>
<td>2.98 (C)</td>
<td>3.10 (C)</td>
<td>3.12 (C)</td>
<td>0.02</td>
<td>0.6%</td>
</tr>
<tr>
<td>Oak Knoll Ave to Hudson Ave</td>
<td>Auto</td>
<td>EB</td>
<td>3.10 (C)</td>
<td>3.17 (C)</td>
<td>3.19 (C)</td>
<td>0.02</td>
<td>0.6%</td>
</tr>
<tr>
<td></td>
<td>Transit</td>
<td>EB</td>
<td>1.44 (A)</td>
<td>1.53 (A)</td>
<td>1.54 (A)</td>
<td>0.01</td>
<td>0.7%</td>
</tr>
<tr>
<td></td>
<td>Pedestrian</td>
<td>EB</td>
<td>1.83 (A)</td>
<td>2.19 (B)</td>
<td>2.24 (B)</td>
<td>0.05</td>
<td>2.3%</td>
</tr>
<tr>
<td></td>
<td>Bicycle</td>
<td>EB</td>
<td>2.68 (B)</td>
<td>2.80 (C)</td>
<td>2.81 (C)</td>
<td>0.01</td>
<td>0.4%</td>
</tr>
</tbody>
</table>
Traffic Impact Analysis

- **Transit Passenger**
  - Minimal effect, transit speed slightly slower (-)
  - Pedestrian LOS slightly worse (-)

- **Bicyclist**
  - Slower auto speeds (+)
  - Increased volume (-)

- **Pedestrian**
  - More vehicles in lane nearest pedestrians (-)
  - Slower auto speeds (+)

- All impacts minor, volume has only small effect on LOS for non-auto modes
Traffic Impact Analysis

Conclusions

Lessons Learned:

- Multimodal LOS not very sensitive to volume changes
- Methodology much better at quantitatively showing impacts to all four modes resulting from physical attributes such as:
  - Cross section changes (Pedestrians/Bikes)
  - Trees or other buffers (Pedestrians)
  - Pavement condition (Bikes)
Road Diet Analysis

Santa Clara County, California
Road Diet Analysis Corridor

Analyzed Shannon Rd. to Lark Ave.
Road Diet Analysis Corridor

Possible Road Diet Assumed:
- Gateway to Lark would maintain lanes but remove parking
- Remaining segments reduced from 3 to 2 lanes
- Space allocated as follows:
  - 2.5 feet of additional sidewalk (8’ total)
  - 5 feet of buffer with trees
  - 8 feet of parking
  - 5.5 feet of bike lanes

<table>
<thead>
<tr>
<th>Direction</th>
<th>Segment</th>
<th>Sidewalk</th>
<th>Buffer*</th>
<th>Shoulder/Parking</th>
<th>Bike Lane</th>
<th>Outside Lane Width</th>
<th>Segment Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northbound</td>
<td>Shannon Rd. to Blossom Hill Rd.</td>
<td>5.5</td>
<td>2.5</td>
<td>0</td>
<td>5</td>
<td>11</td>
<td>1067</td>
</tr>
<tr>
<td></td>
<td>Blossom Hill Rd. to Los Gatos Almaden Rd.</td>
<td>5.5</td>
<td>2.5</td>
<td>10</td>
<td>0</td>
<td>11</td>
<td>2096</td>
</tr>
<tr>
<td></td>
<td>Los Gatos Almaden Rd. to Village Square</td>
<td>5.5</td>
<td>2.5</td>
<td>10</td>
<td>0</td>
<td>11</td>
<td>1208</td>
</tr>
<tr>
<td></td>
<td>Village Square to Gateway Dr.</td>
<td>5.5</td>
<td>2.5</td>
<td>10</td>
<td>0</td>
<td>11</td>
<td>871</td>
</tr>
<tr>
<td></td>
<td>Gateway Dr. to Lark Ave.</td>
<td>5.5</td>
<td>2.5</td>
<td>10</td>
<td>0</td>
<td>11</td>
<td>767</td>
</tr>
</tbody>
</table>
Road Diet Analysis Corridor

- Impact on the auto mode

<table>
<thead>
<tr>
<th>Direction and Peak Hour</th>
<th>Percent of FF Speed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existing Northbound AM</td>
<td>66%</td>
</tr>
<tr>
<td>Proposed Northbound AM</td>
<td>62%</td>
</tr>
<tr>
<td>Difference</td>
<td>4%</td>
</tr>
<tr>
<td>Existing Southbound PM</td>
<td>68%</td>
</tr>
<tr>
<td>Proposed Southbound PM</td>
<td>64%</td>
</tr>
<tr>
<td>Difference</td>
<td>4%</td>
</tr>
</tbody>
</table>
Road Diet Analysis Corridor

- **Bicycle Intersection**
  - Factors: Cross-Section, Volume

- **Bicycle Link**
  - Factors: Cross-Section, Volume, Speed, Pavement Condition

- **Bicycle Segment**
  - No change in the number of driveways

<table>
<thead>
<tr>
<th>Segment</th>
<th>Existing NB AM</th>
<th></th>
<th>Proposed NB AM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Intersection</td>
<td>Link</td>
<td>Segment</td>
</tr>
<tr>
<td>Shannon Rd. to Blossom Hill Rd.</td>
<td>2.73 (B)</td>
<td>2.39 (B)</td>
<td>3.75 (D)</td>
</tr>
<tr>
<td>Blossom Hill Rd. to Los Gatos Almaden Rd.</td>
<td>3.25 (C)</td>
<td>3.73 (D)</td>
<td>3.91 (D)</td>
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<td>4.07 (D)</td>
<td>4.01 (D)</td>
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<td>4.11 (D)</td>
<td>4.28 (E)</td>
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<td>Facility</td>
<td>3.99 (D)</td>
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<td>3.50 (C)</td>
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</tbody>
</table>
Road Diet Analysis Corridor

- **Pedestrian Intersection**
  - Factors: Cross-Section, Vehicle Volume, Speed, Ped. Delay

- **Pedestrian Link**
  - Factors: Cross-Section, Volume, Speed
  - Gateway Dr. to Lark Ave. became worse due to parking removal

- **Pedestrian Segment**
  - RCDF – No change from the maximum value

<table>
<thead>
<tr>
<th>Segment</th>
<th>Existing NB AM</th>
<th>Proposed NB AM</th>
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<tr>
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<td>Link</td>
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<td>Shannon Rd. to Blossom Hill Rd.</td>
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<td>2.56 (B)</td>
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<td>2.66 (B)</td>
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<td>2.78 (C)</td>
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<td>2.64 (B)</td>
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<td>Gateway Dr. to Lark Ave.</td>
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<td>2.80 (C)</td>
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Questions?

• Enter questions/comments in the Question Pod. Your question will be answered in the order it was received.