

Department of Transportation Update

District 6 Town Hall

August 23, 2016

Mike Bagheri





Department of Transportation

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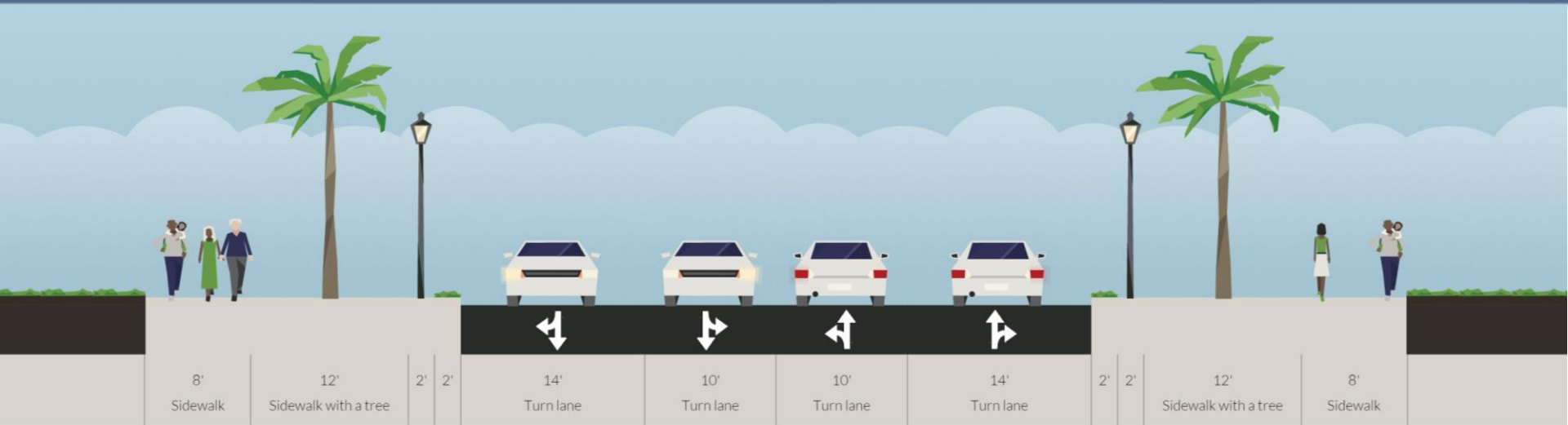
SOUTH ORANGE GROVE BOULEVARD ISSUES AND OPTIONS

PASADENA



Current Conditions

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- 48 foot roadway in 96 foot Right of Way
 - > Off-Peak Parking allowed; but parking usage is low
 - Street operates as four lanes for most of the day
- Most intersections are not signalized
 - > Creates hostile conditions for walkers and bicyclists crossing Orange Grove

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Issues

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Concerns

- Speed of traffic is too high
- Difficult for people to cross safely
- Difficult to turn left to or from cross streets and driveways
 - > Lack of left turn lanes
- Hostile roadway environment for bicyclists

Constraints/Opportunities

- Historic nature of the roadway
 - > Role of Orange Grove in the Rose Parade
- Unsuccessful prior attempts to reduce number of traffic lanes
- Shared jurisdiction at Columbia with South Pasadena



Review of Current Conditions

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- Speed Information
- Traffic Signal Operations
- Crash Data Analysis



Speeds

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- Posted Speed Limit is 35 mph
- Measured speeds:
 - > 85th percentile - 43 mph
 - Speed at which 85% of the traffic is traveling at or under (criteria to set speed limits per CA statute)
 - > 50th percentile - 36 mph
 - Average Speed or Speed at which half the traffic is traveling at or under
- More than half of the traffic is exceeding the posted limit



Traffic Signal Operations Update

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- At the intersection of **Columbia Street and Orange Grove Boulevard**, splitting the signal phasing to separate the northbound and southbound movement on it's own phase was **deemed not feasible** because of the high traffic volumes. Instead, On April 15, 2015, the City in cooperation with the City of South Pasadena implemented the following:
 - > Restricted the NBLT and SBLT movements during am peak (7-9 am and 4-6 pm)
 - > Implemented “Leading Pedestrian Interval” (LPI) where pedestrian walk signal is displayed 5 seconds before the concurrent vehicular phases are displayed
 - > Adjusted the signal green timing to mitigate excessive queuing



Traffic Signal Operations Update

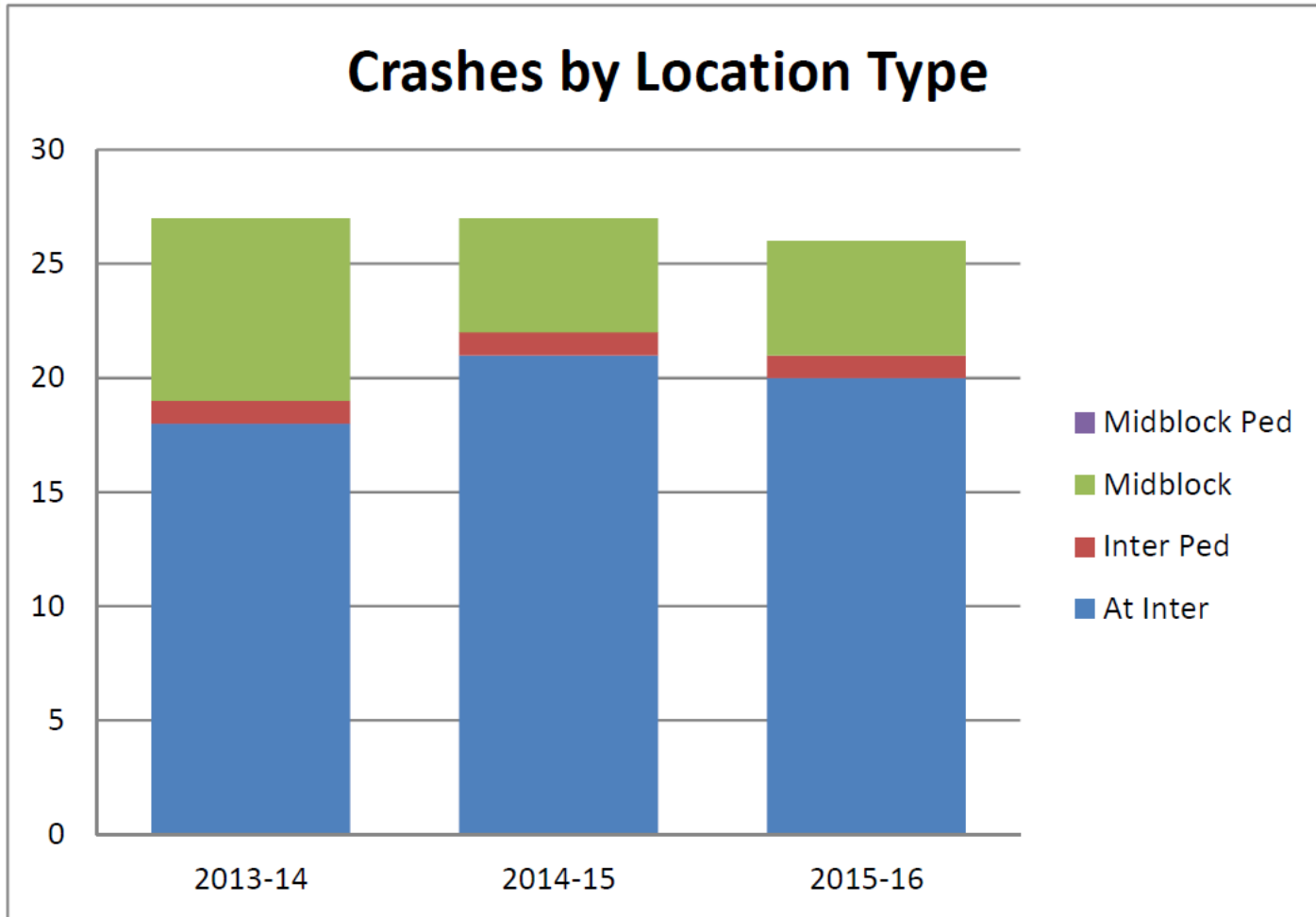
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- Caltrans approved the design and construction documents for the traffic signal modifications project for the installation of **LT signals** at the intersection of **Orange Grove Blvd and Colorado Blvd**, (LT for all approaches); and
- **“Split Phasing”** the EB-WB on **Holly Street-WB134 Off ramp and Orange Grove Boulevard**. This project is scheduled to be advertised for construction by end of this month (August, 2016). Anticipated start of construction is January 2017
- The City received a Metro Grant to **upgrade all traffic signal** cabinets and install detection systems for three corridors which included south **Orange Grove Blvd from Green Street to Columbia Blvd**. The project will replace all signal cabinets, install new controllers, rewiring and installation of new detection system, and if necessary, upgrade access ramps at each corner of all signalized intersections within the corridor. The project has not yet started and the schedule for design and construction is yet to be determined until the Memorandum of Understanding (MOU) between the City and Metro is executed by the end of this year.



Safety – Prior Three Years

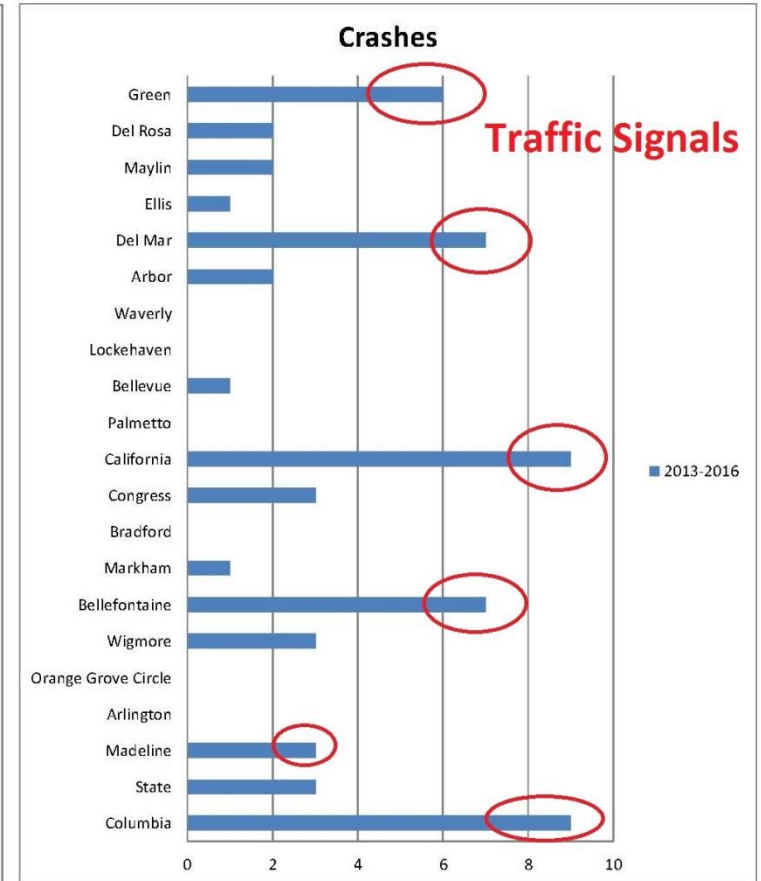
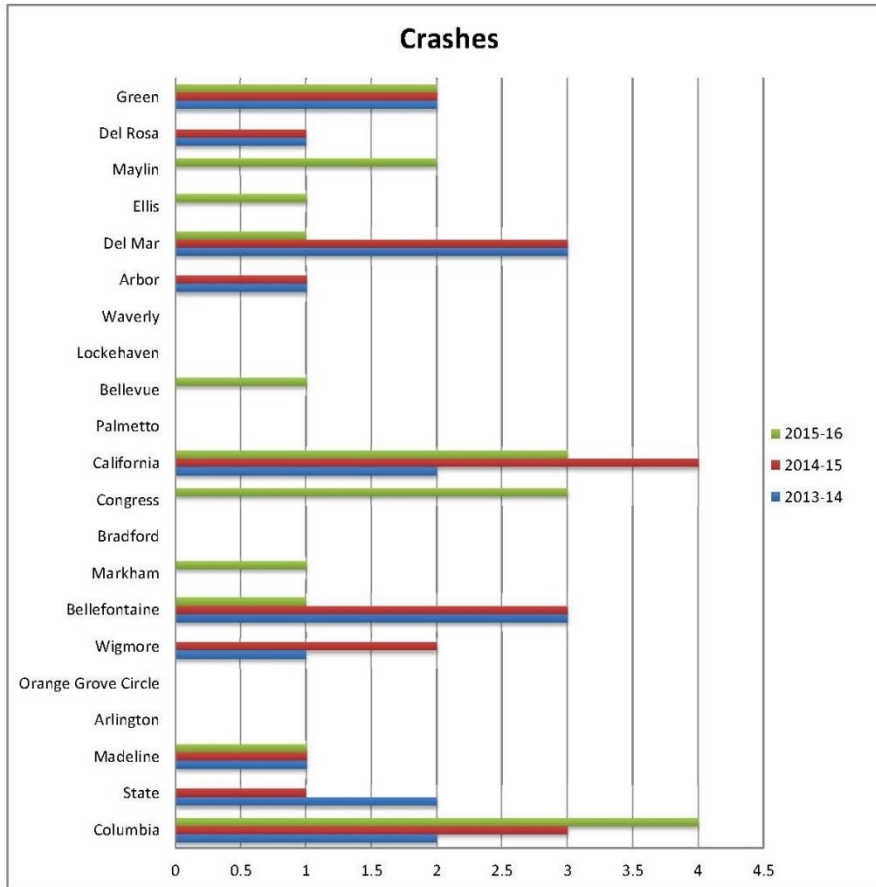
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Intersection Crashes

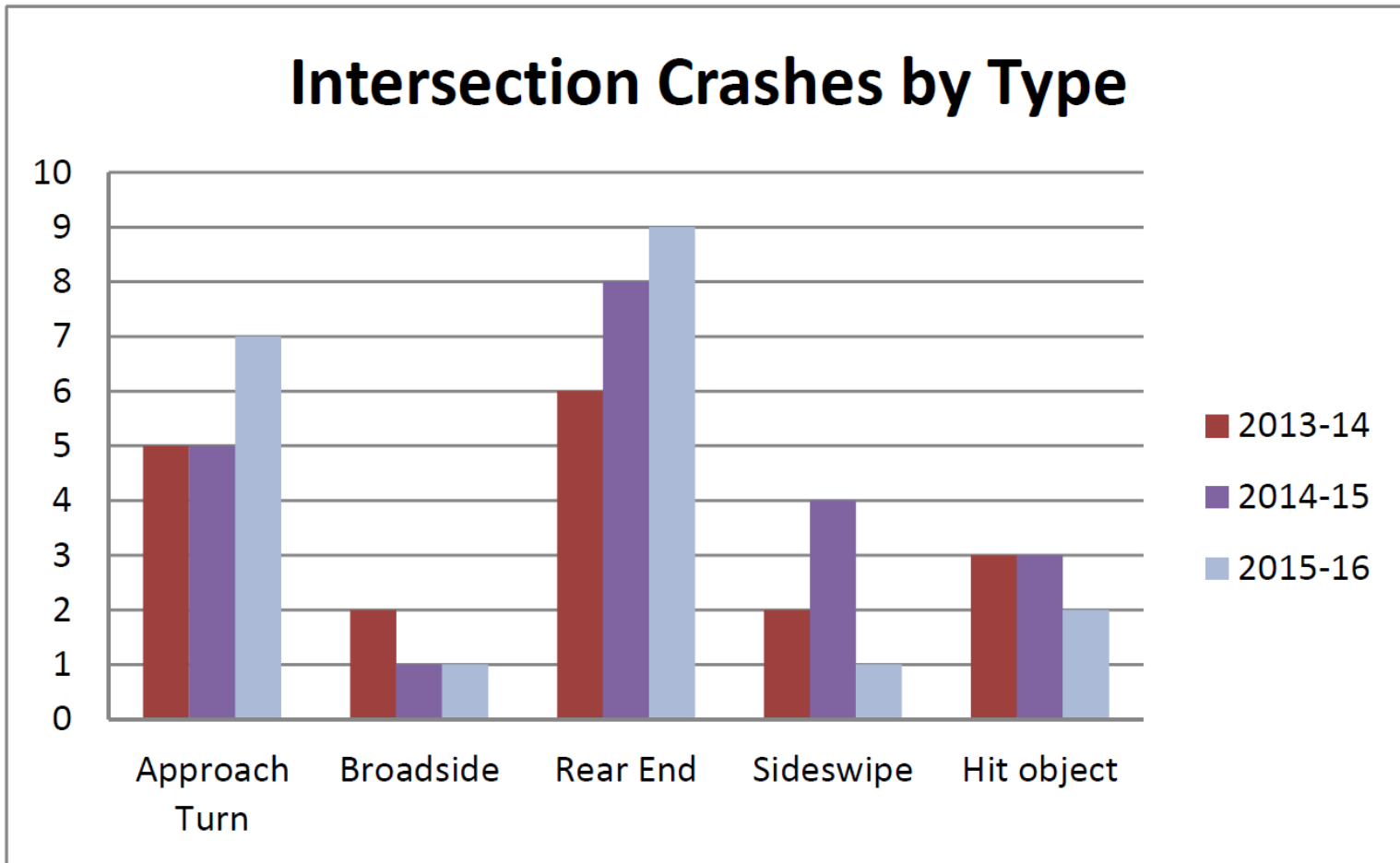
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Intersection Crashes by Type

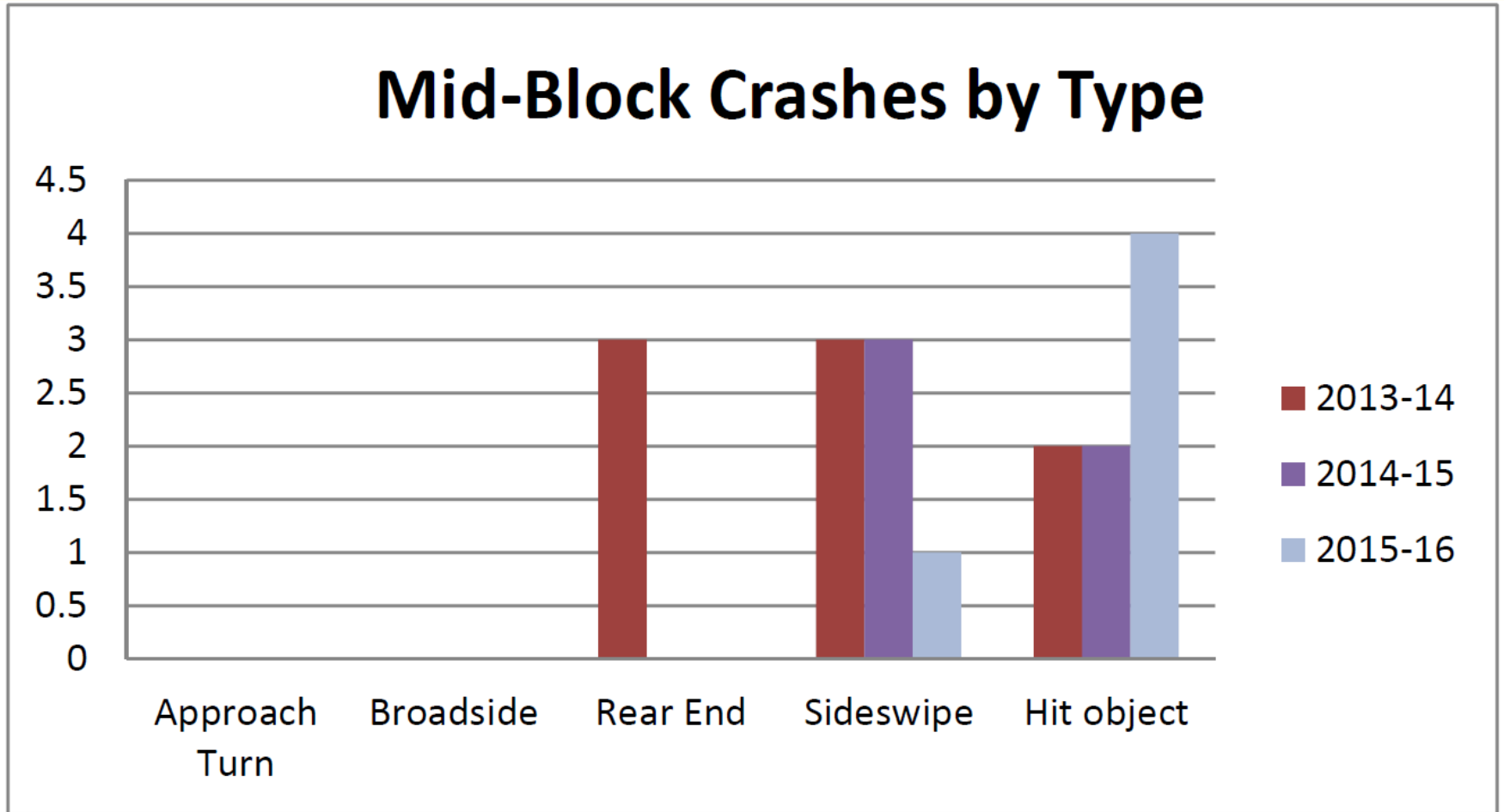
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Mid-Block Crashes by Type

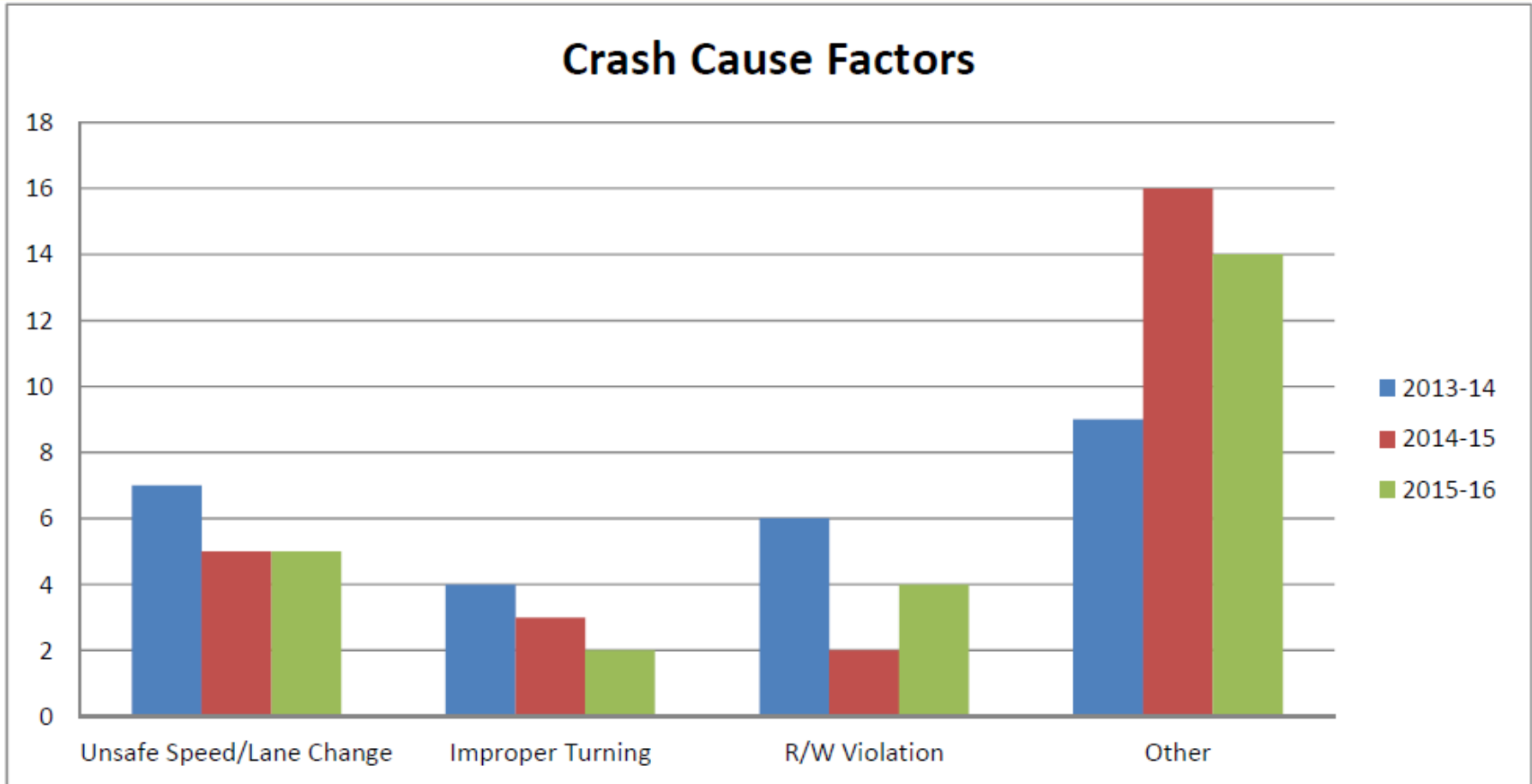
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Crash Cause Factors

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What Does It All Mean?

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- Four Lanes + Moderate Traffic = High Speeds
- + No left turn lanes = Difficulty in Turning
 - > Turning motorists use inappropriate gaps in traffic and don't consider limited sight distance of approaching vehicles in outside lanes
 - > Turning motorists are not watching for **people** on the sidewalk or in the crosswalks
- + No Bike Lanes = Hostile Cycling Conditions
 - > Result is few bicyclists using South Orange Grove
 - > High car:bike speed differential increases crash severity



Bicycle Transportation Plan

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- Orange Grove is listed in the Bike Plan for buffered bike lane.
 - > Road Diet would be necessary
 - > Parking would be prohibited



What's a Road Diet?

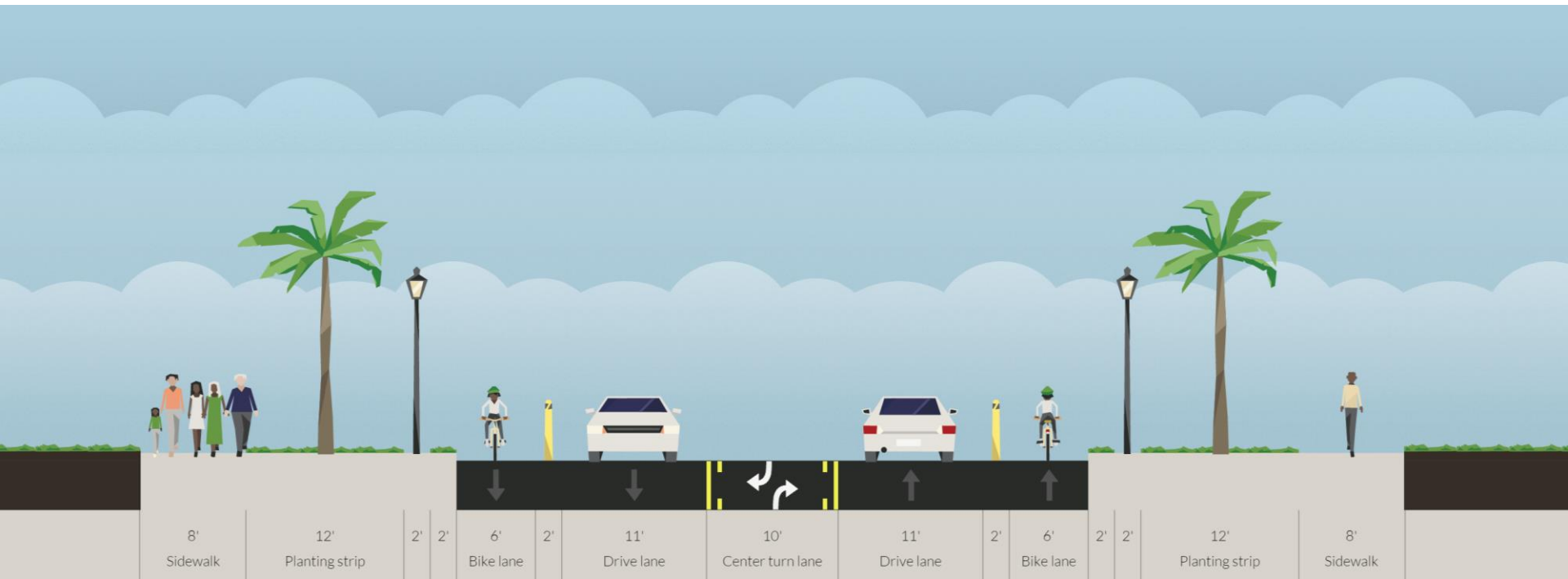
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- Jenny Craig's or going Vegan?
- Road diet removes car lanes in favor of the most vulnerable users of the road- pedestrians and bicyclists.



O.G. Road Diet with Buffered Bike Lane Concept

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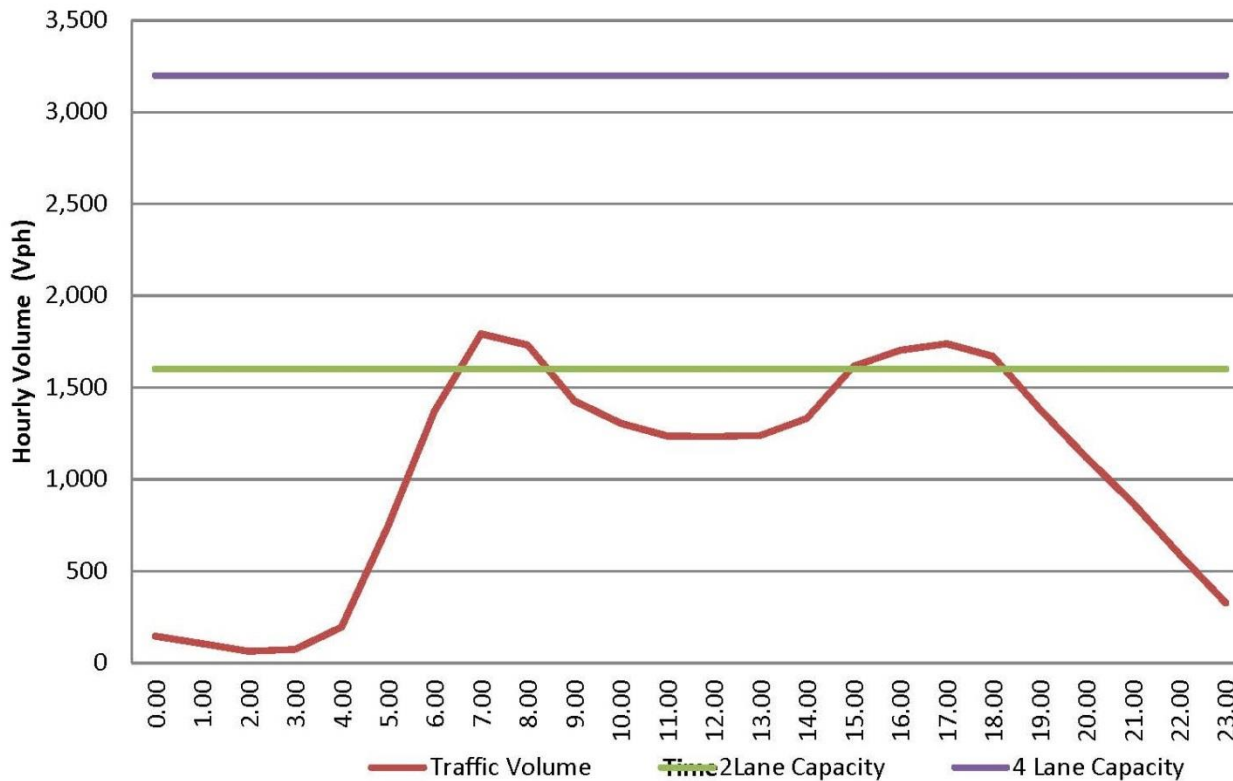




Average Daily Volumes

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Orange Grove Blvd. from Green St. to Columbia St.



- Peak Hourly Volume 1,700 to 1,800 vehicles per hour
- Average Daily Traffic: 22,000 to 26,000 vpd

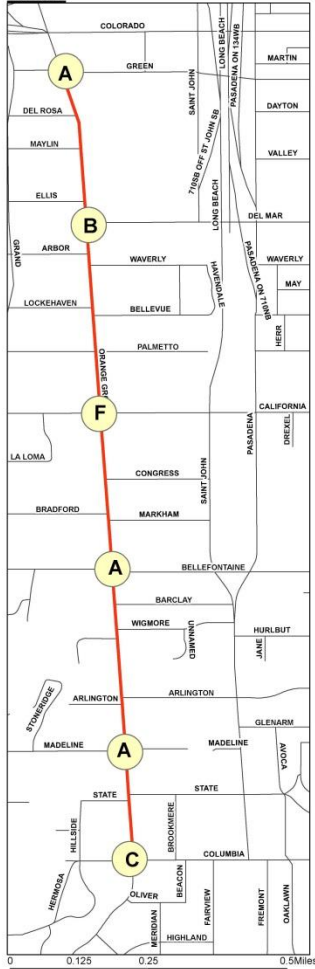


Level of Service Comparison

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Orange Grove Blvd. Road Diet

Before



After



Orange Grove @	Existing	With Road Diet
Green	A	D
Del Mar	B	C
California	F	D
Bellefontaine	A	E
Madeline	A	B
Columbia	C	E

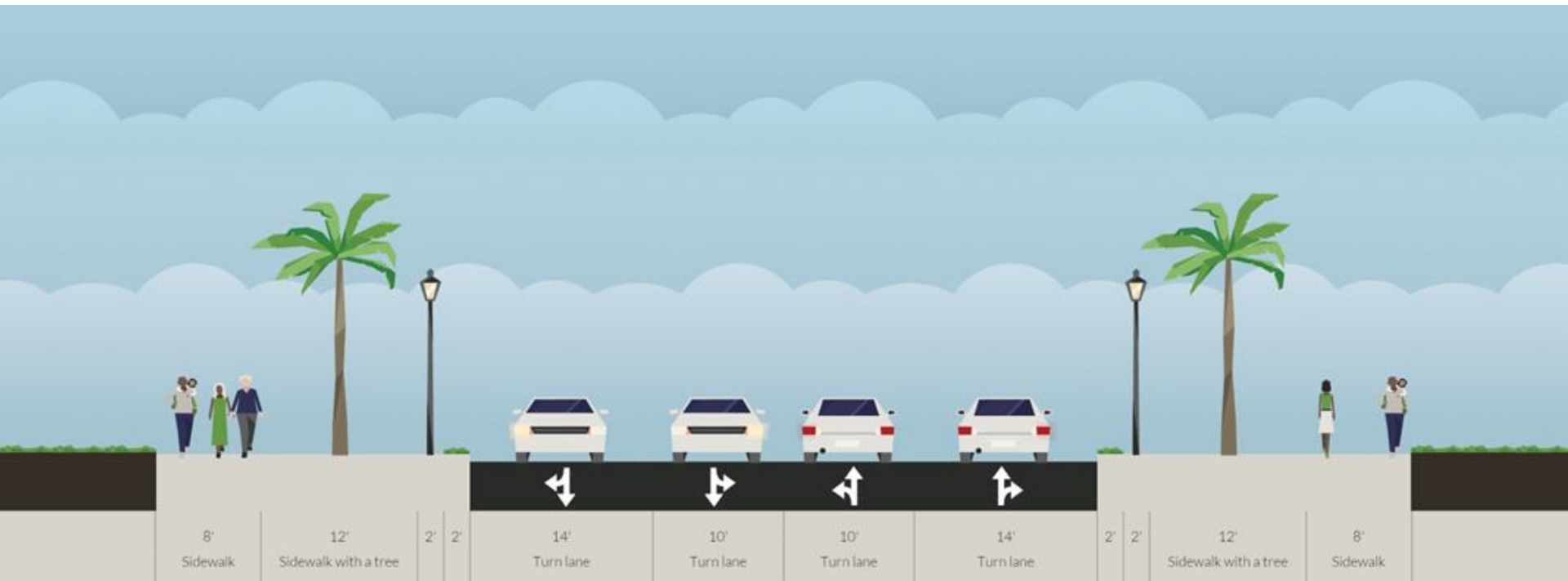
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Pros & Cons of a Road Diet on Orange Grove

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- **Pros**
 - > Safer pedestrian crossings
 - > Safer for bicyclists
 - > Lower car speeds
- **Cons**
 - > Vehicular volumes will exceed roadway capacity during morning and afternoon peak hours,
 - > Some traffic might be diverted to adjacent roadways,
 - > Parking will be prohibited on both sides



DISCUSSION



QUESTIONS/COMMENTS?

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