Level of Service Considerations

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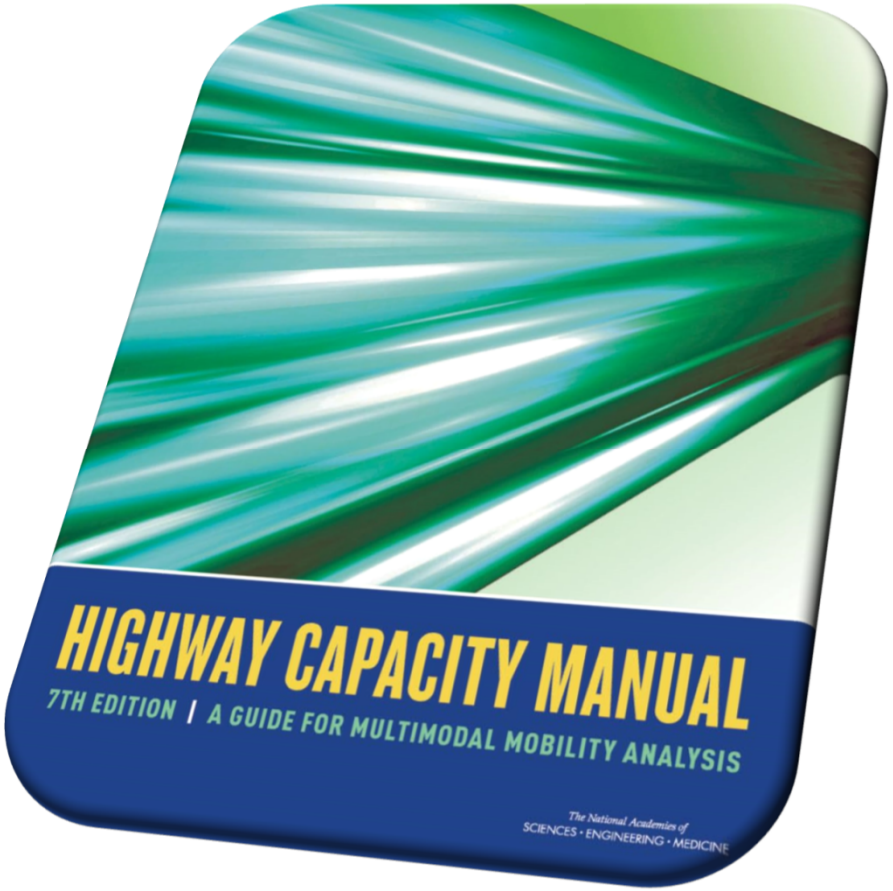
01 **What is Level of Service (LOS)**

02 **Nearby Agency Standards**

03 **Level of Service Considerations**

What is LOS?


HIGHWAY CAPACITY MANUAL
7TH EDITION | A GUIDE FOR MULTIMODAL MOBILITY ANALYSIS
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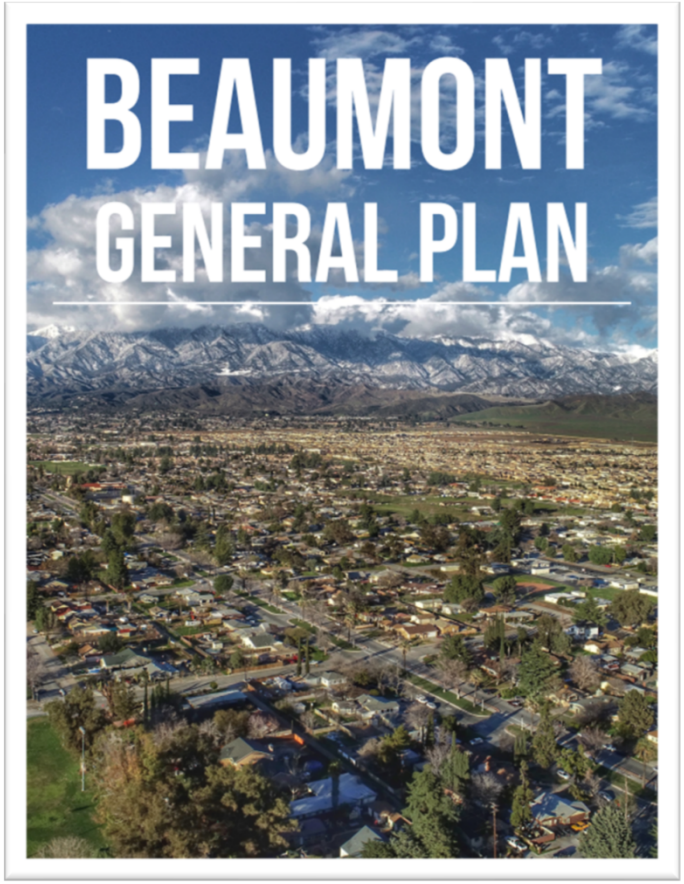
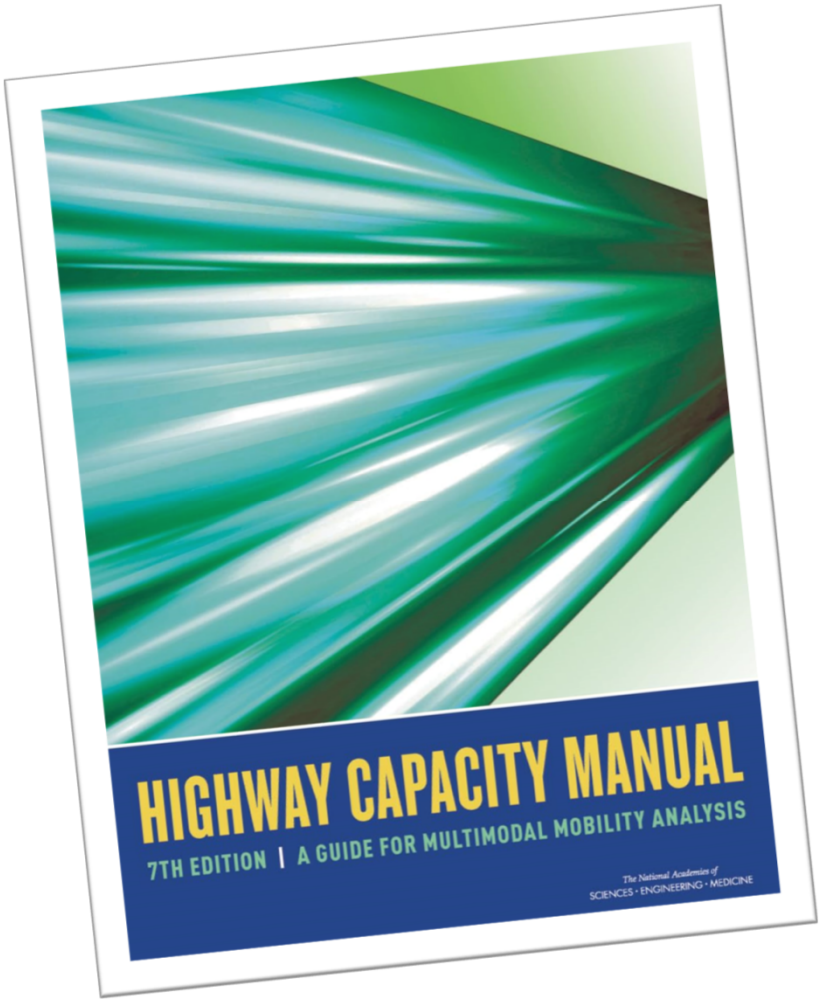


LOS

Defined in the General Plan

Level of service is a qualitative description of traffic flow based on several factors, such as speed, travel time, delay, and freedom to maneuver. Six levels are typically defined, ranging from LOS "A," representing completely free-flow conditions, to LOS "F," representing breakdown in flow resulting in stop-and-go conditions. LOS "E" represents operations at or near capacity and is an unstable level during which vehicles are operating with minimum space for maintaining uniform flow. As such, on key auto-priority corridors, it is important to improve those facilities to allow for freer movement of travel. However, in key areas of the City where retail, pedestrian, and bicycle travel are expected (such as the City's downtown core of Beaumont Avenue and Sixth Street), slower travel is expected (improving safety) and free-flow travel is not desired.



LOS

How it is Calculated

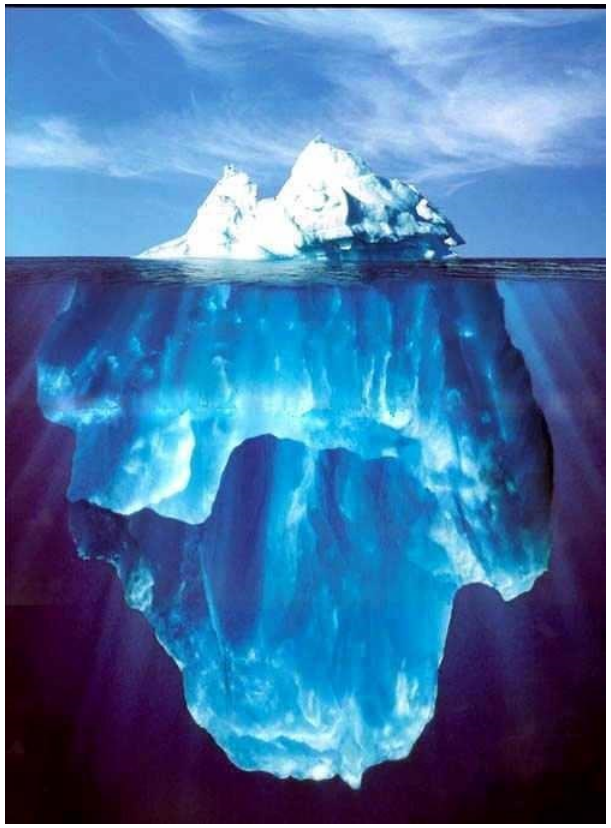
- ✓ Delay-based measurement – estimates vehicle delay at the intersection level
- ✓ Measured based on peak 15-minute period of the peak hour (referred to as peak hour)
- ✓ For intersections, includes driver reaction time, signal timing parameters, capacity of the intersection based on field measurements (ideal saturation flow rate), presence of heavy vehicles, etc.
- ✓ Roadway segment LOS is tiered from the peak hour capacity at the intersection level

LOS A / B – Free Flow

LOS E – At-Capacity

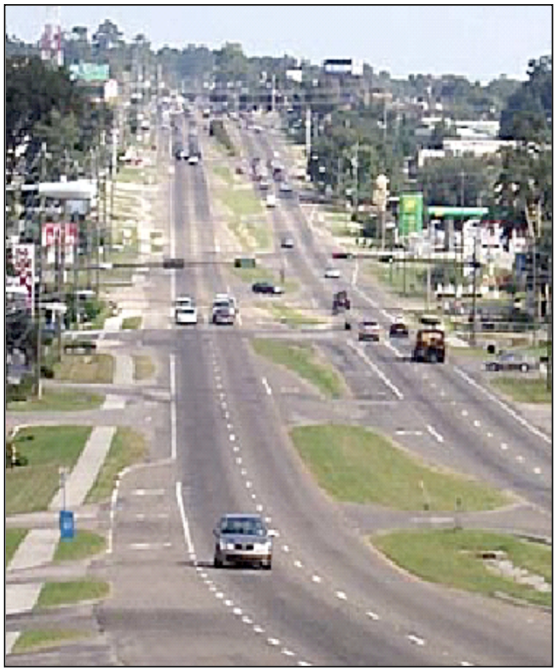
LOS D – City's Current Policy

LOS – Perspective Matters



Why LOS D – Perspective

To a driver: LOS A
To an economist: LOS F



To a driver: LOS F
To an economist: LOS A

Other Perspectives – Modal Equality

Auto Space

Other Perspectives – Modal Equality

Person Space (Auto)

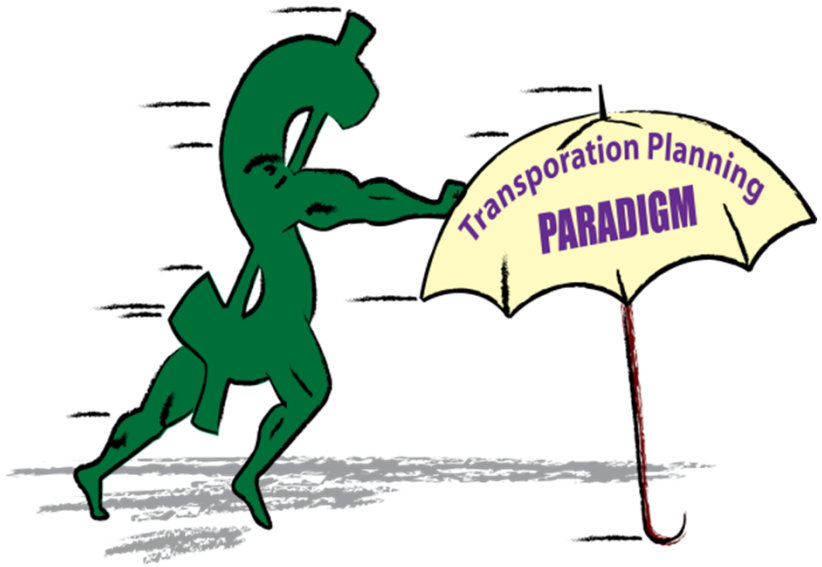
Other Perspectives – Modal Equality

Person Space (Bus)

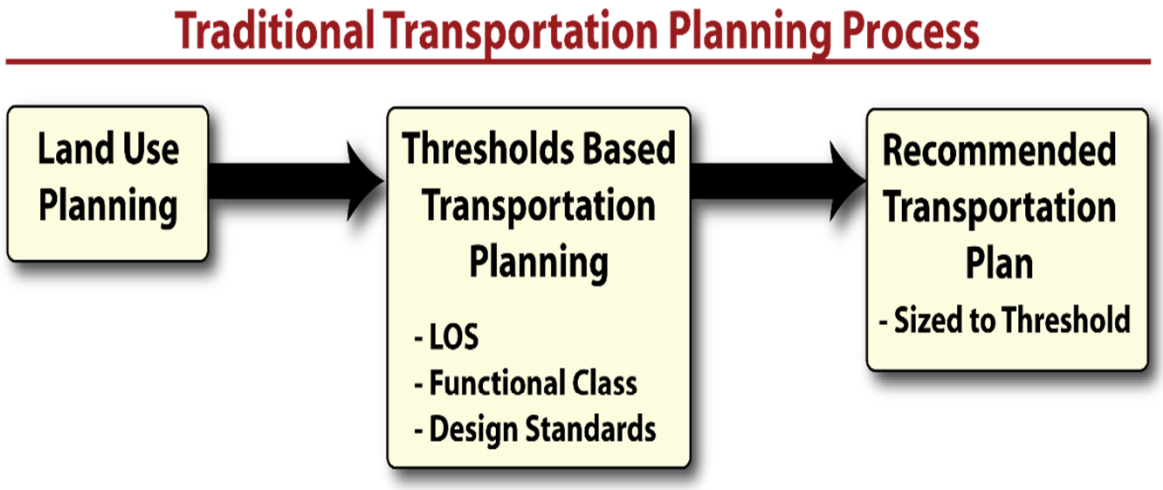
Nearby Agency Standards

City	LOS Policy	Source
Banning	LOS C for City streets and LOS D at freeway Interchanges	2006 General Plan Circulation Element
Calimesa	Standard of LOS C for roadways	2014 General Plan Circulation Element/TIA Guidelines
San Jacinto	LOS D	2020 TIA Guidelines
Yucaipa	LOS C	2016 General Plan Circulation Element
Redlands	LOS C	2018 General Plan Curculation Element/2020 TIA Guidelines
Moreno Valley	LOS C on roadway links and LOS D in the vicinity of SR-60. Strive to maintain LOS D at intersections durring peak hours.	2021 General Plan Curculation Element
Perris	LOS D along City maintained roads and along I-215 and SR 74. LOS E allowed in Downtown Specific Plan Area.	2022 General Plan Circulation Element
Hemet	LOS D for peak-hour intersection movements and LOS C for roadway segment operations	2012 General Plan Curculation Element
Loma Linda	LOS C	2009 General Plan Circulation element
Desert Hot Springs	LOS D	2020 General Plan Circulation Element
Palm Springs	LOS D	2007 General Plan Circulation Element
Menifee	LOS D, for Intersections near I-215 LOS E	General Plan Circulation Element
Murrieta	LOS D , LOS E at freeway interchanges	General Plan Circulation Element
Wildomar	LOS D for study intersections and roadways of collector or higher. LOS C for all street intersections.	TIA Guidelines
Lake Elsinore	LOS D, LOS E allowed in in dsignated community centers to the extent that it would support TOD.	General Plan Circulation Element
Riverside	LOS D, LOS E for arterial roadways which are used as freeway bypass	General Plan Circulation Element
Jurupa Valley	LOS D	2017 General Plan Circulation Element
Rialto	LOS D	2010 General Plan Circualtion Element
San Bernardino	LOS C for roadways and LOS D for intersections	2005 General lan Circulation Element
Colton	LOS D	2013 General Plan Circualtion Element
Highland	LOS D	General Plan Circulation Element
Big Bear Lake	LOS D	General Plan Circulation Element

Other Considerations

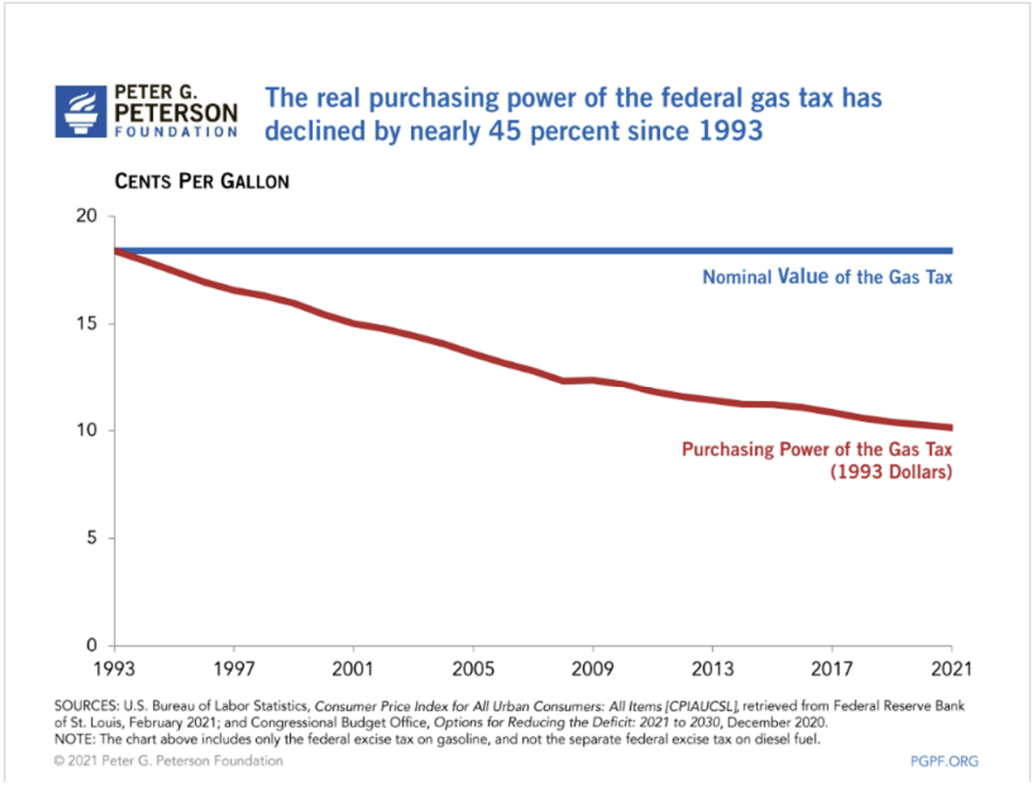


Traditional Approach



Process results in a plan that has unknown costs and is unlikely to be fully implemented resulting in traffic operations that will be worse than projected.

Funding Concerns

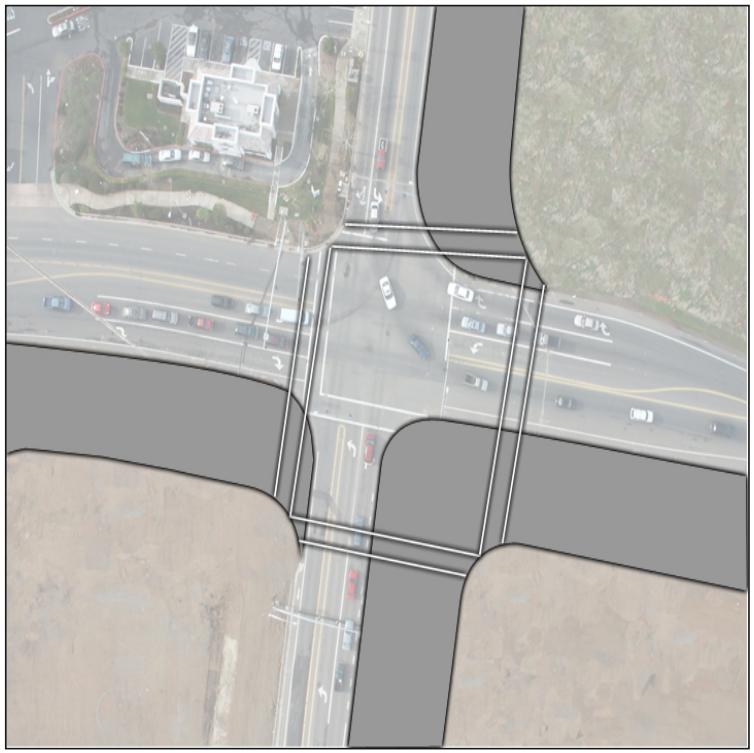


Funding Concerns

- ✓….state funding has fallen dramatically below the levels needed to maintain the system. Annual maintenance and repair needs on the state's highway system are significantly more than can be funded within existing resources, with a current identified funding gap of almost $6 billion annually.

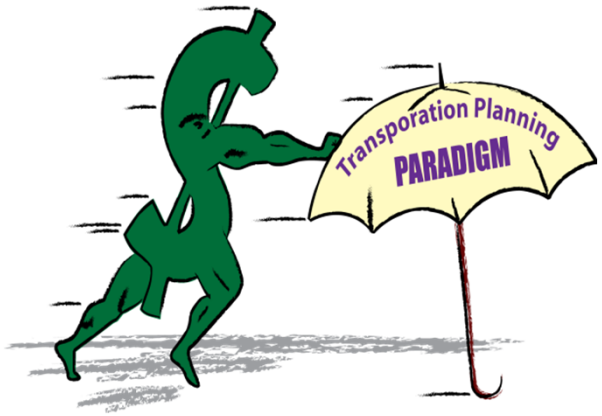
Source – State of California Department of Finance

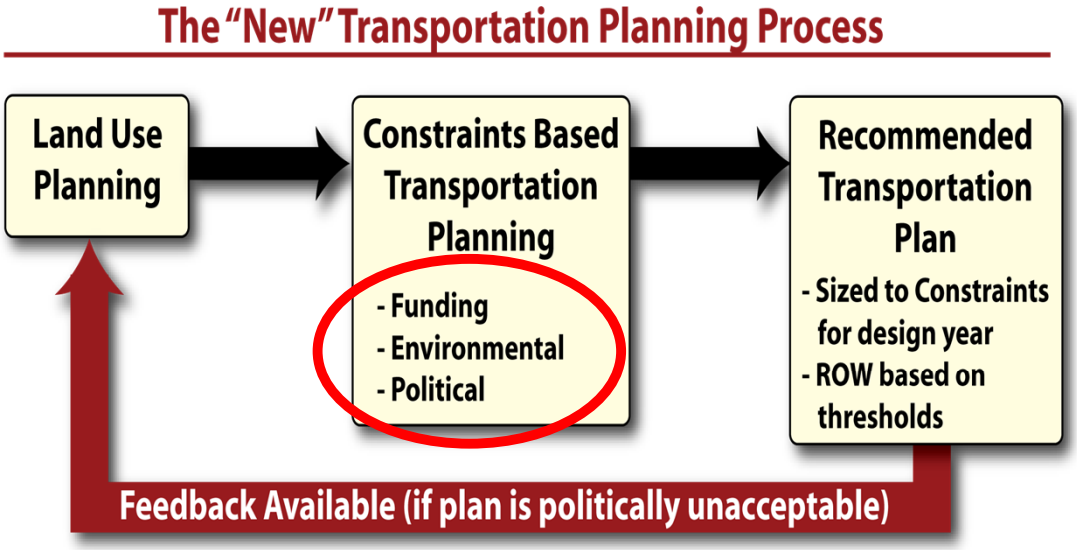
LOS B or LOS C Considerations



- ✓Balancing the needs of:
  - ✓Reducing vehicle travel time
  - ✓Increasing pedestrian crossing times, delay, and exposure to vehicles (e.g. making it less safe for pedestrians)
  - ✓Increasing stormwater runoff
  - ✓Removing riparian habitat
  - ✓Increasing heat island effect

Updated Approach

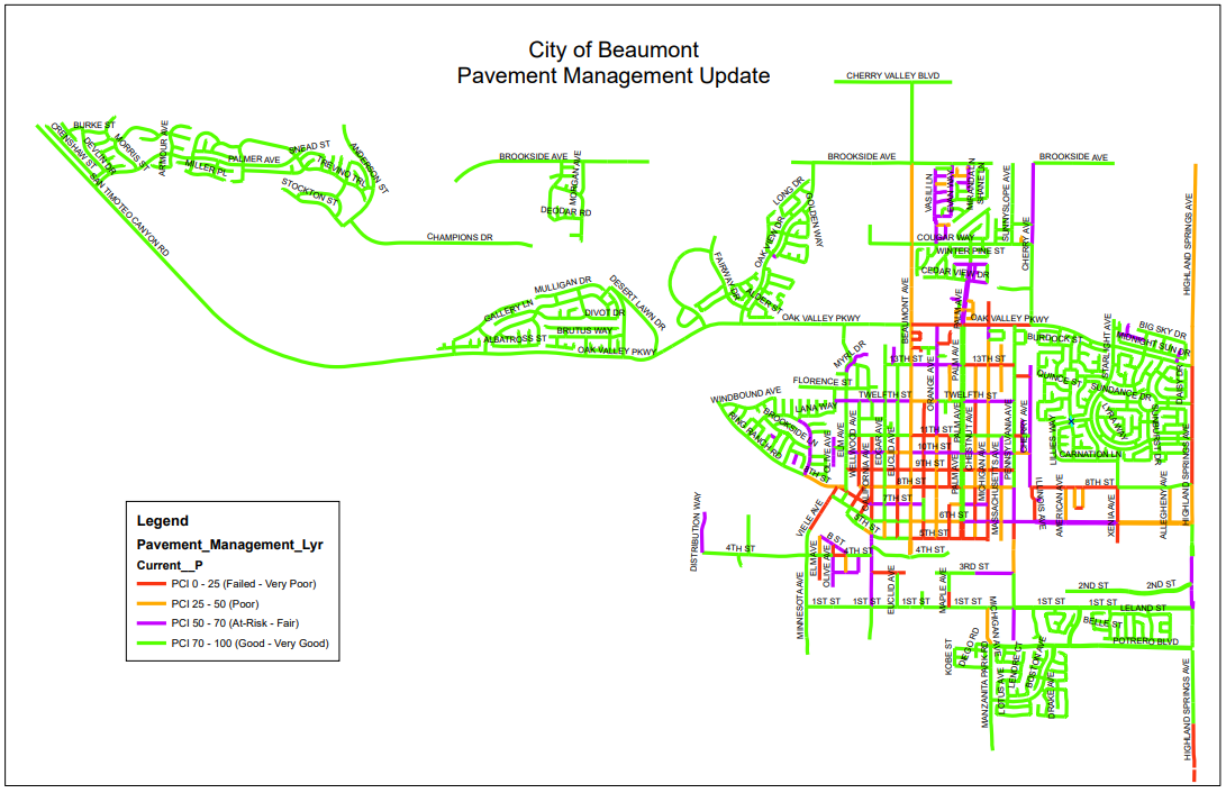




Process results in a plan that is consistent with constraints (especially available funding) and provides a realistic assessment of future traffic operations. ROW is still preserved based on thresholds.

Beaumont Considerations

- ✓2017 Pavement Condition Index
- ✓Indicates that there is likely deferred maintenance
- ✓Likely due to funding constraints?
- ✓LOS D policy reflects these constraints – changing the LOS policy increases capital and maintenance costs



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Questions?
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