

South Staples Street Pavement Marking Plan



Council Presentation
October 20, 2015



Project Map





Issues



- Two Bond projects underway for Staples Street.
- One project under design and one project is under construction.
- Decision needs to be made regarding lane allocation and bike lane inclusion to finalize pavement marking plan.
- Inclusion of bike lanes will require lane allocation or on-street parking changes.



Project Background



➤ **S. Staples from IH-37 to Morgan Ave.**

2012 Bond Project

Construction Contract Award - \$ 13,414,114.10 to Bay LTD

Curb to curb reconstruction of roadway (Existing 4 Lanes)

➤ **S. Staples from Morgan Ave. to Alameda St.**

Bond 2014 Project

Project under design 60% (Estimated Cost \$4,300,000.00)

Reconstruction of roadway (Existing 4 Lanes existing) with new curb & gutter, and sidewalks with ADA improvements

Consideration for bike lanes as presented in the Bond Election:

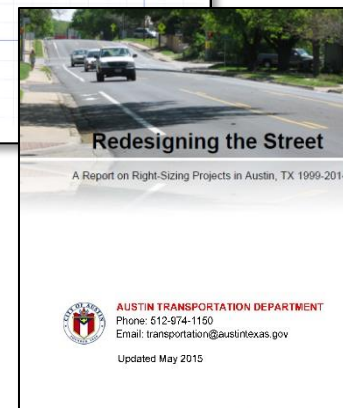
“Future bike routes will be evaluated at the time of roadway design and will conform to the adopted Bikeway Plan of the Urban Transportation Master Plan/Integrated Community Sustainability Plan (ICSP).”



4 Lane to 3 Lane Conversion



- 4 to 3 lane conversion required to accommodate bike lanes
- Common practice nationwide
- Significant literature on the topic

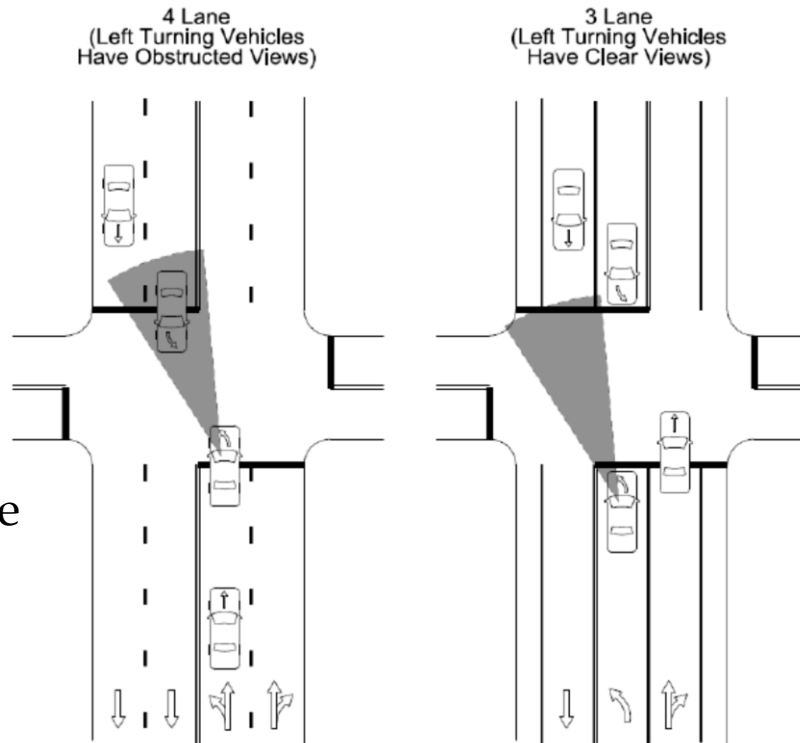




Benefits of 3 Lanes

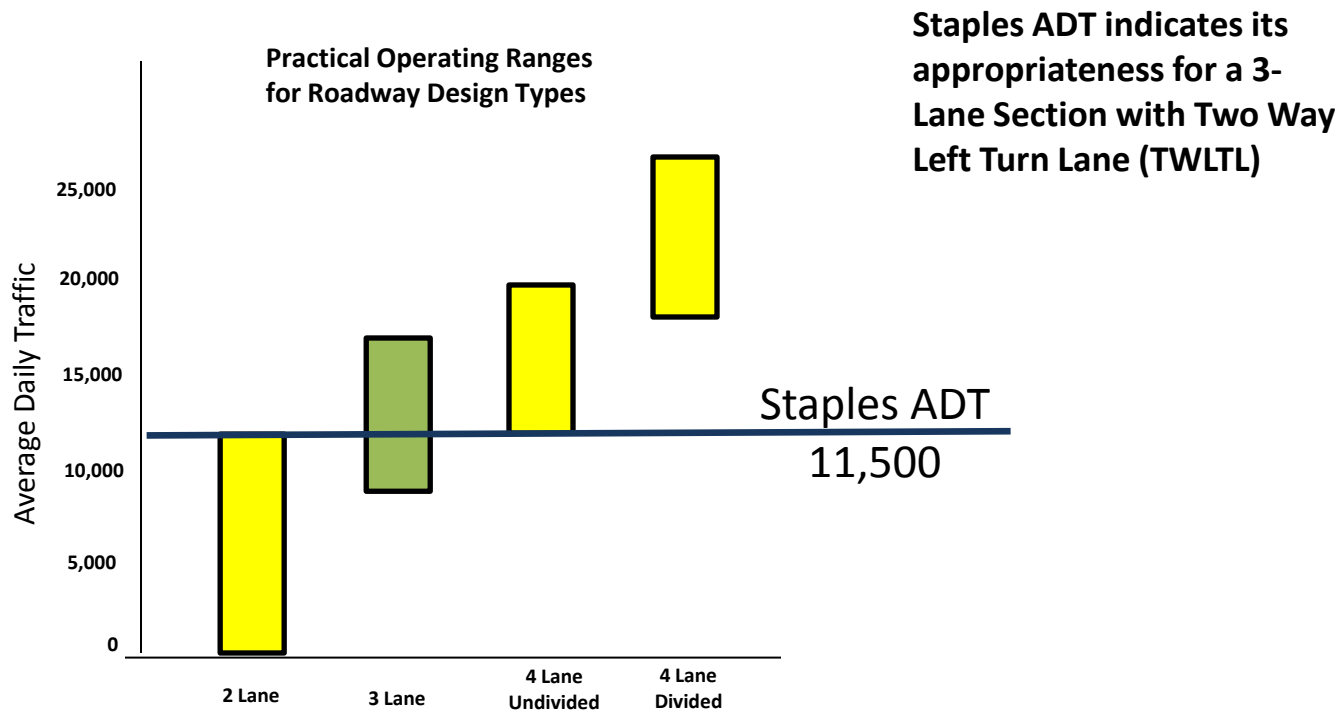


- Better visibility of oncoming traffic
- Fewer excessive speed incidents
- Fewer weaving motions
- Less unexpected braking
- Safer parallel parking
- Safer bicycle & pedestrian use





Pavement Marking Alternatives





Computer Simulation



Staff collected Traffic Counts to complete a Traffic Impact Analysis and computer simulation that was presented at the workshops.

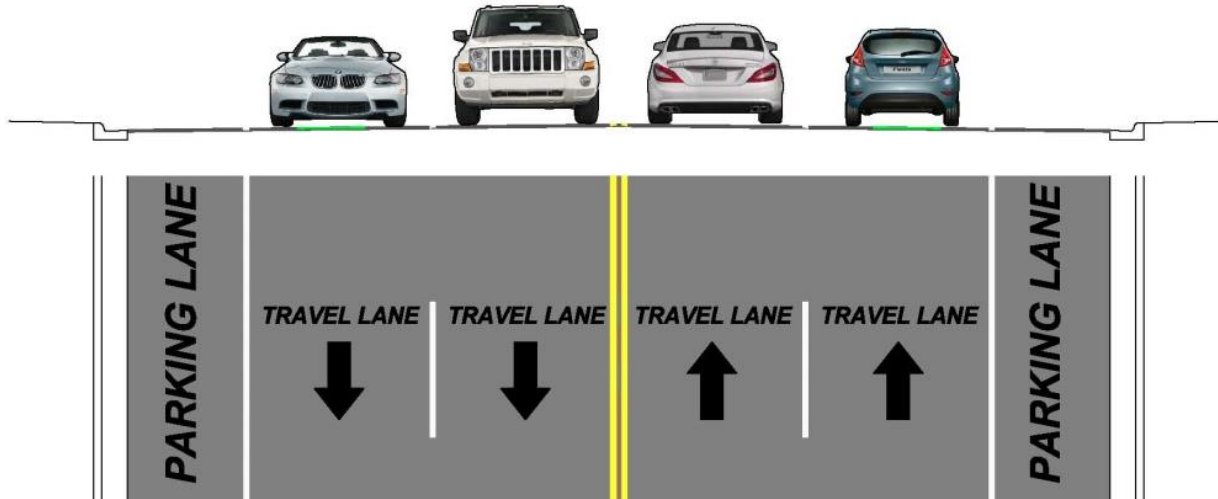
- Modeling indicates minor capacity degradation resulting in an average travel time increase of 1 second per vehicle with 3-lane configuration during PM peak hour and no change during AM peak



Pavement Marking Alternative 1



EXISTING 4 LANE CONFIGURATION

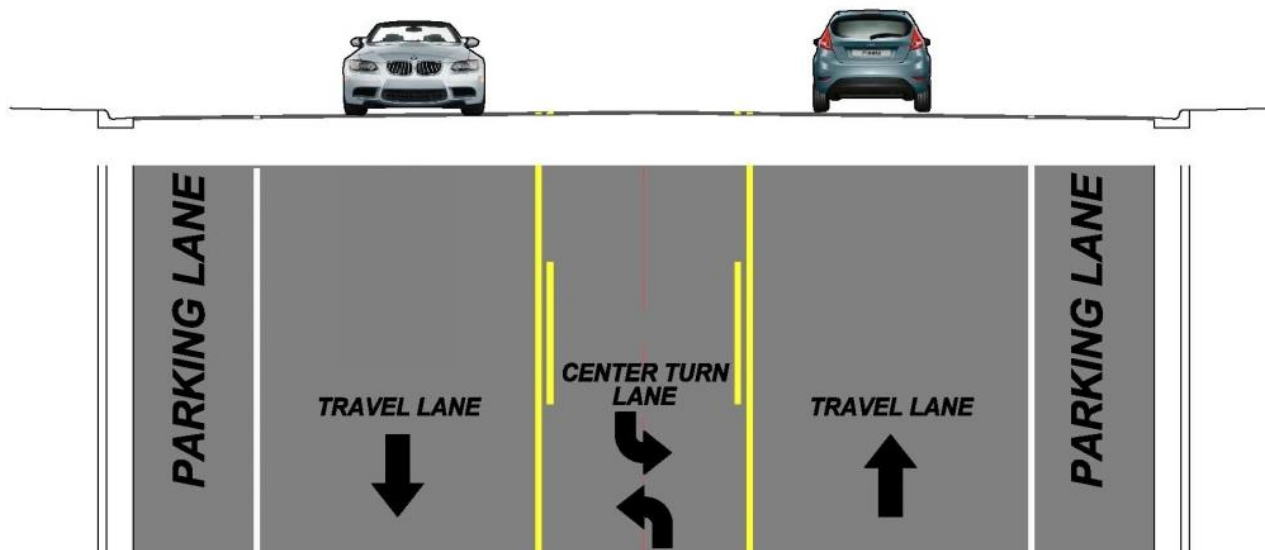




Pavement Marking Alternative 2



3 LANE CONFIGURATION WITH TWO WAY LEFT
TURN LANE (TWLTL)

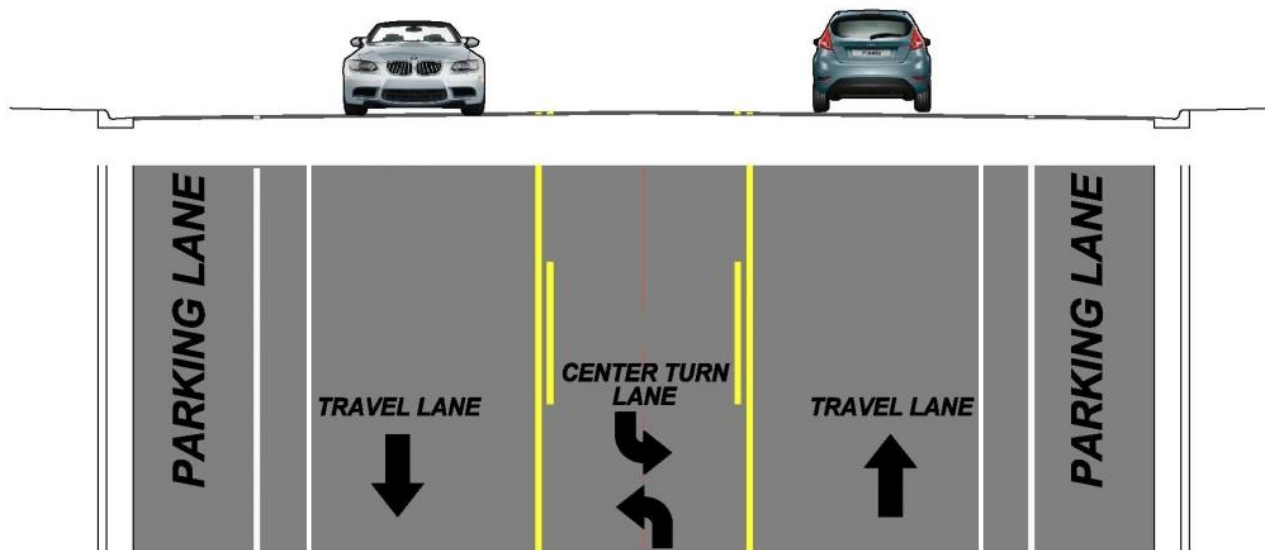




Pavement Marking Alternative 3



3 LANE CONFIGURATION WITH TWLTL AND BIKE
LANES





Public Workshops



To increase input from local businesses and property owners and to share information, three public meetings/workshops were conducted:

- 1st Workshop – August 17, 2015
- 2nd Workshop – August 24, 2015
- 3rd Workshop – August 31, 2015



Tradeoff Analysis



CHARACTERISTIC	RETURN TO EXISTING 4-LANE	3-LANE WITH TWLTL	3-LANE WITH TWLTL AND BIKE LANES
Peak hour capacity	Best	Good	Good
Peak hour average corridor delay increase	Same as existing	Less than 10 s	Less than 10 s
Peak Hour Level of Service (LOS) score	C	C	C
Reduction of high risk speeding	None	Good	Best
Oncoming traffic visibility problems for left turns	Poor	Good	Good
On street parking safety	Poor	Good	Best
Cyclist accommodation	Poor	Good	Best
Accident incidence	Same	25-35% reduction	25-35% reduction



Conclusion



- Guidance on lane configuration is required to allow both projects to move forward.
- There are benefits to a 3 lane conversion
- The tradeoff is between shared use and enhanced safety versus slight increases in corridor delay.
- The vast majority of the workshop attendees were adjoining business owners who expressed a strong desire to remain with the existing 4 lane configuration



Questions?