



# Innovative Traffic Flow Designs

- Median Left-Turn (MLT)
- Single Point Urban Interchange (SPUI)

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# Internal Bottleneck Locations

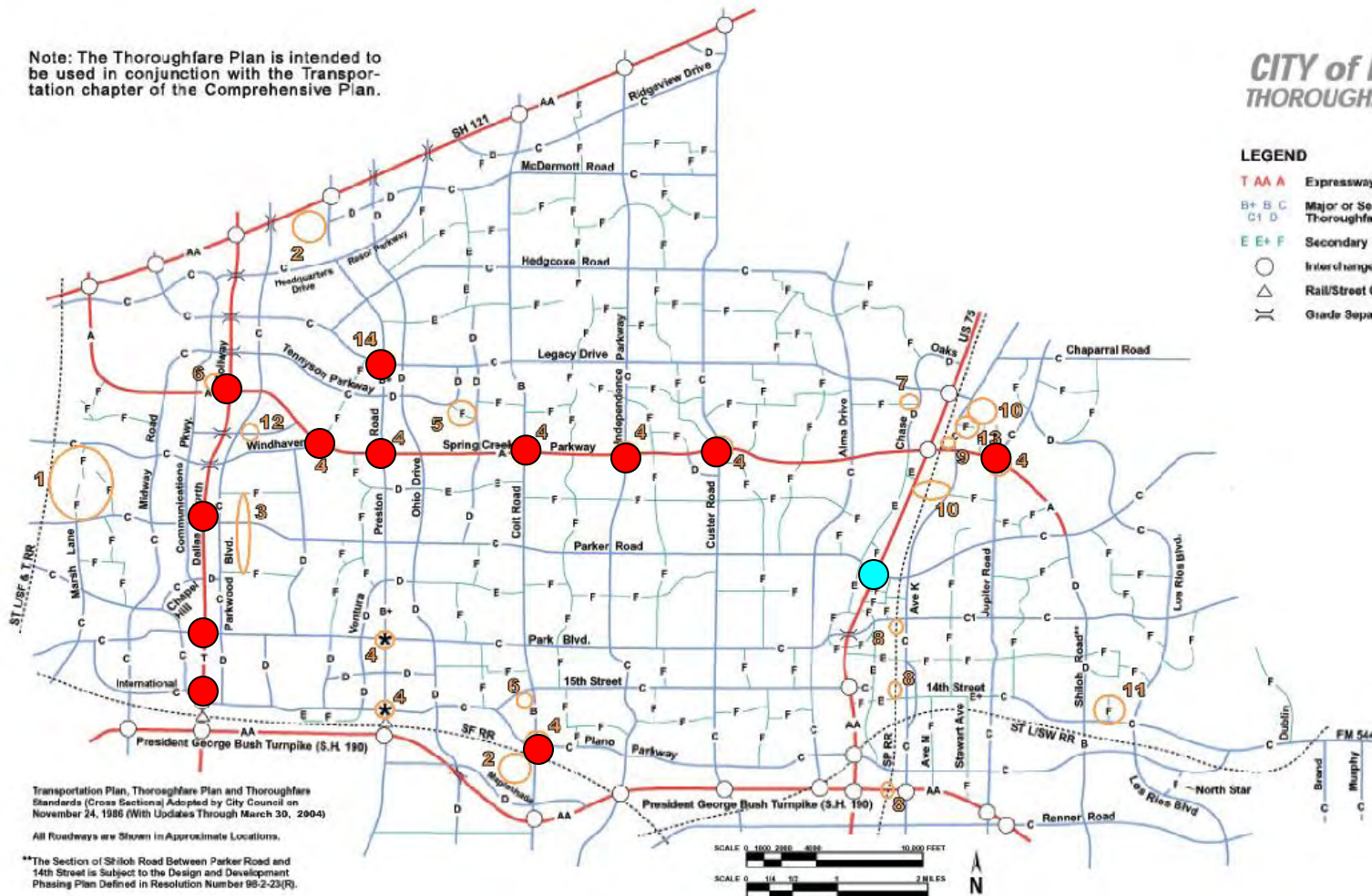
## (1990 Era Review)

Note: The Thoroughfare Plan is intended to be used in conjunction with the Transportation chapter of the Comprehensive Plan.

### CITY of PLANO THOROUGHFARE PLAN

#### LEGEND

- T AA A** Expressway
- B+ B C** Major or Secondary Divided Thoroughfare
- C I D**
- E E+ F** Secondary Undivided Thoroughfare
- Interchange Grade Separation
- △ Rail/Street Grade Separation
- ( ) Grade Separation, No Interchange





# Typical Right-of-Way

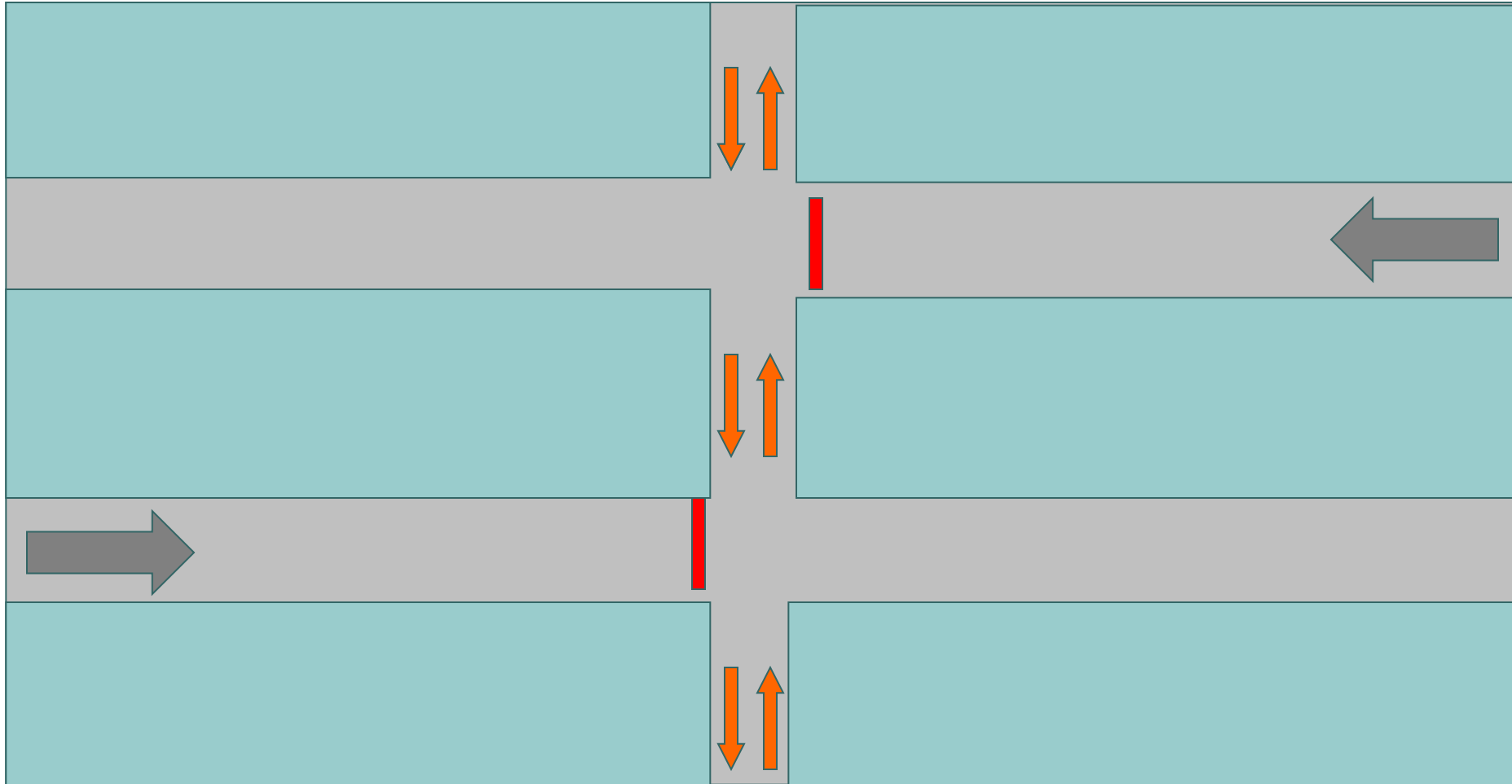
(Preston Road @ Legacy Drive)



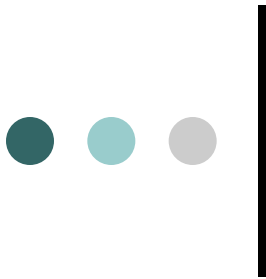


# Existing Problem

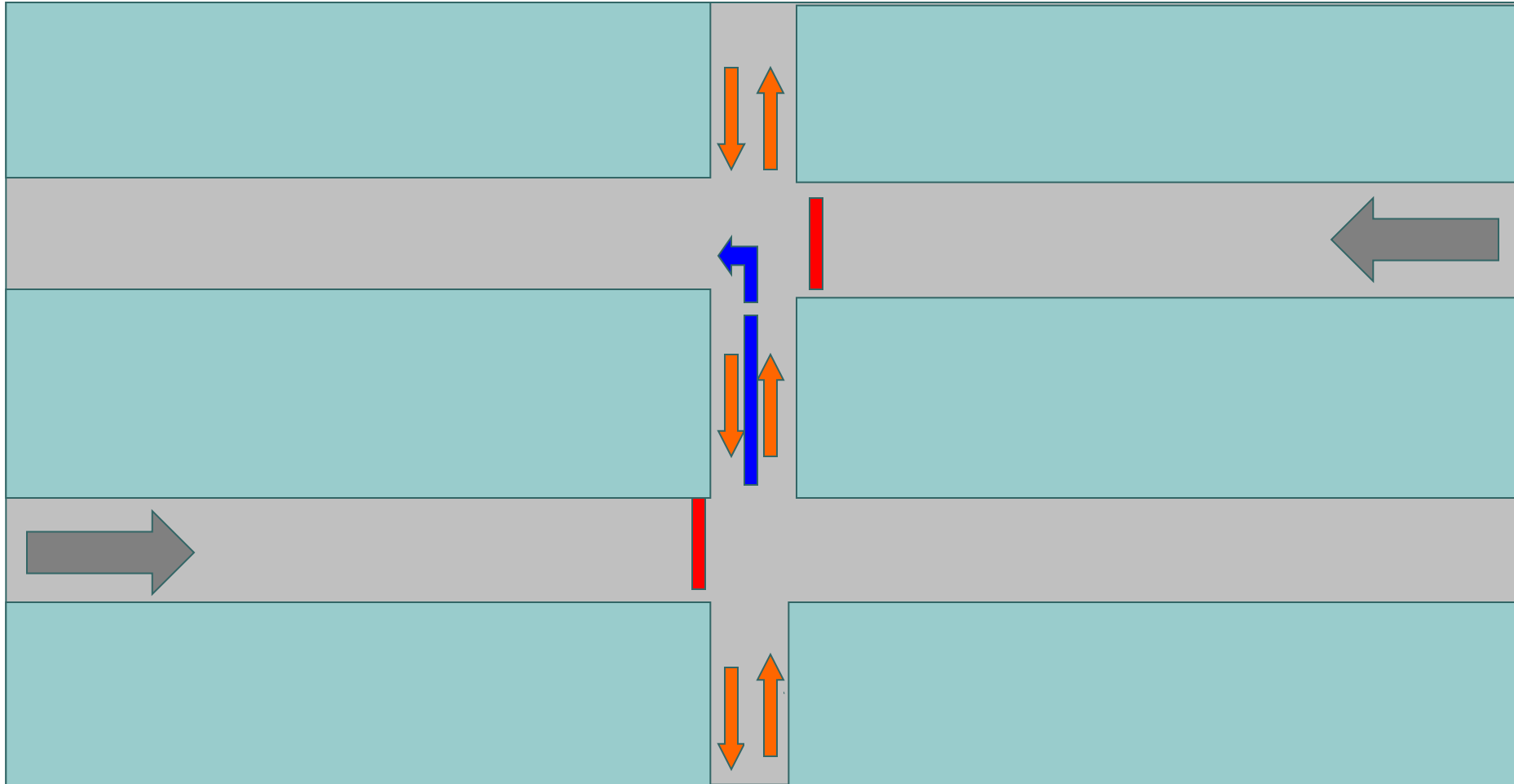
(typical)





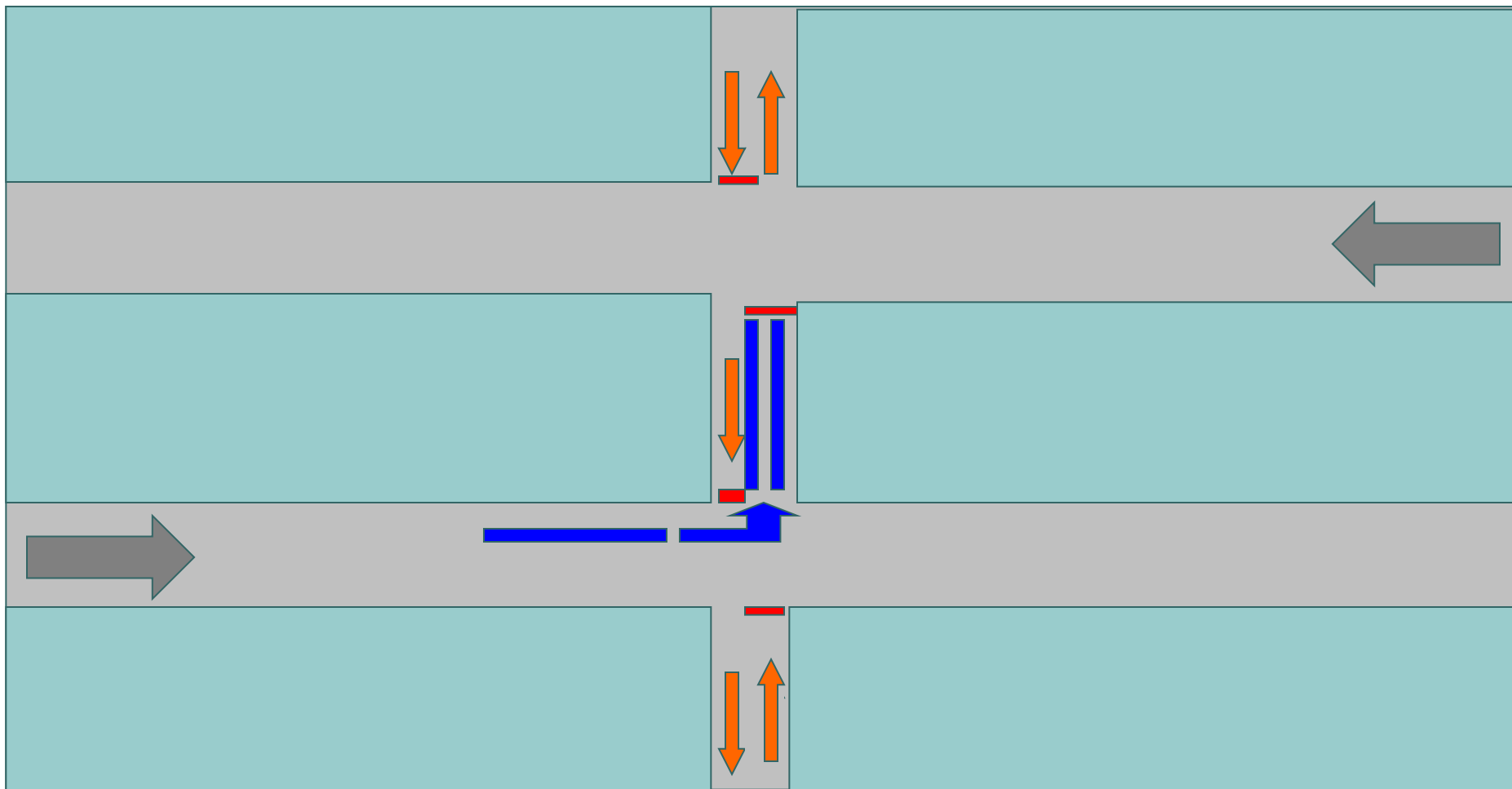


# Existing Condition (typical)



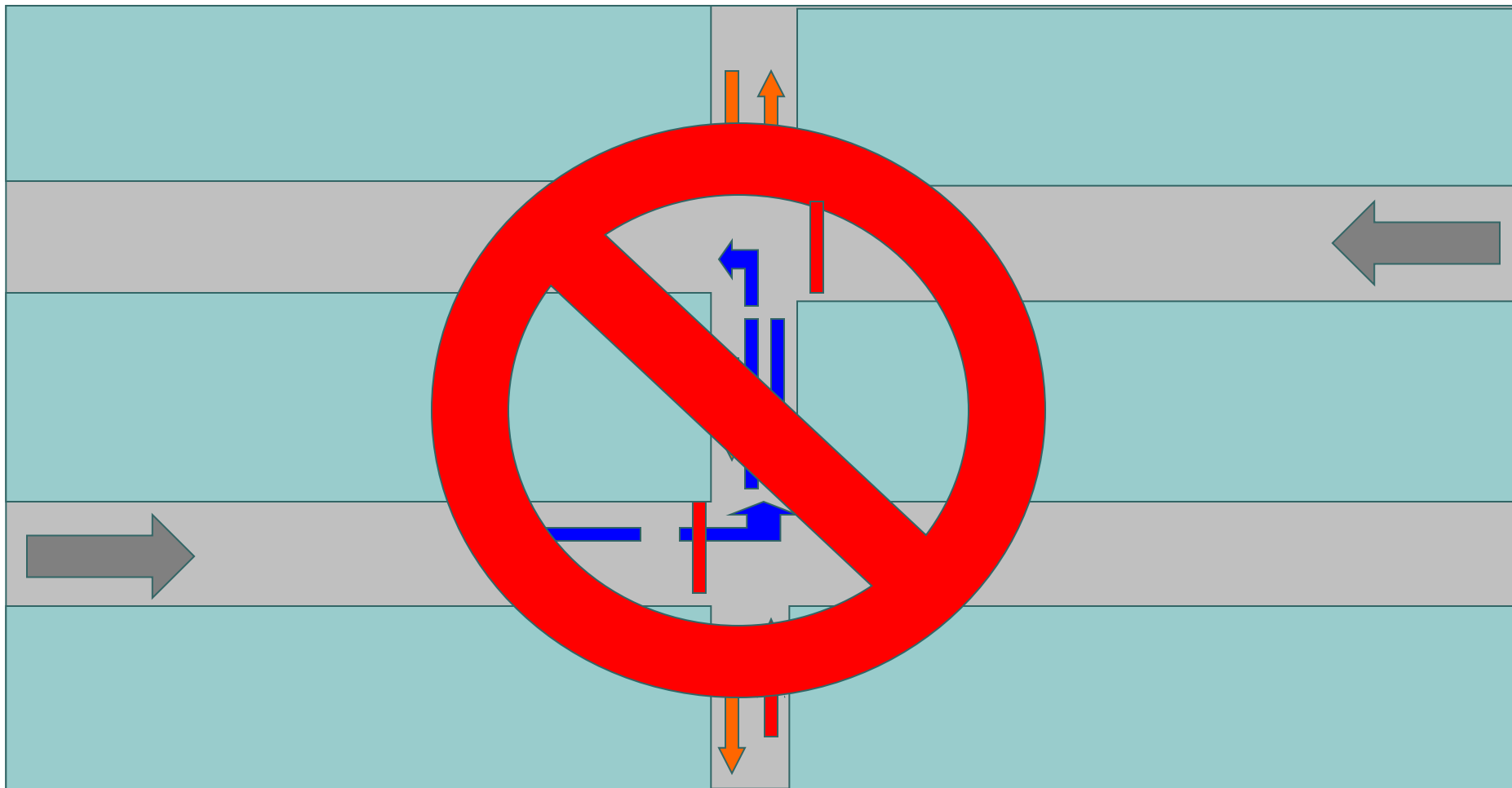


# Existing Condition (typical)





# Existing Condition (typical)







# 2005 Traffic Study

## Summary

- Significant traffic congestion will occur at major intersections
- Conventional designs were least effective at reducing delay and improving air quality
- Benefit from innovative at-grade designs (i.e. Median Left-Turn and Single Point Urban Interchange)
- Council direction to develop innovative at-grade improvements





# Recommended Design

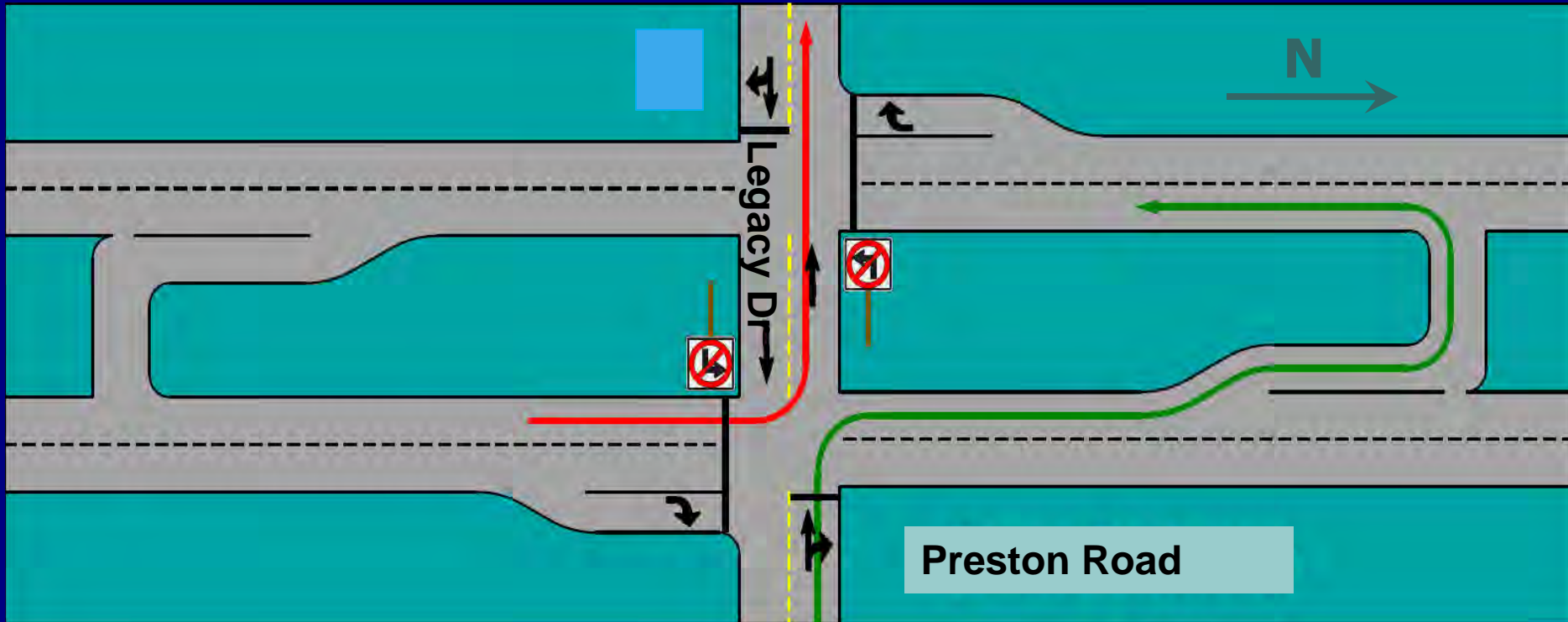
## ○ Median Left-Turn Design (MLT)

- Provides a high Benefit-to-Cost Ratio (14.4)
- Provides additional user benefits over “Added Lanes” or “Normalized Intersection” alternatives.
- Requires minimal additional R/W
- Minimizes disruption to traffic during construction.
- Provides acceptable traffic flow for over 20 years.
- Keeping existing U-Turn feature enhances operation
- Increasing in use throughout the U.S. and abroad



# MLT Flow Concept

*Modified Median Left-Turn (MLT)*







# Project Progress

Preston Road @ Legacy Drive

- Project Cost \$2.6M (\$2M FHWA, \$0.383M TxDOT, \$0.25M Local \$1.5 is ARRA monies)
- Project due to open 7/2010
- Monitor traffic flow/safety





# Planned MLT Locations

- Legacy @ Preston Road (Under construction)

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- Plano Prkwy @ Preston Road

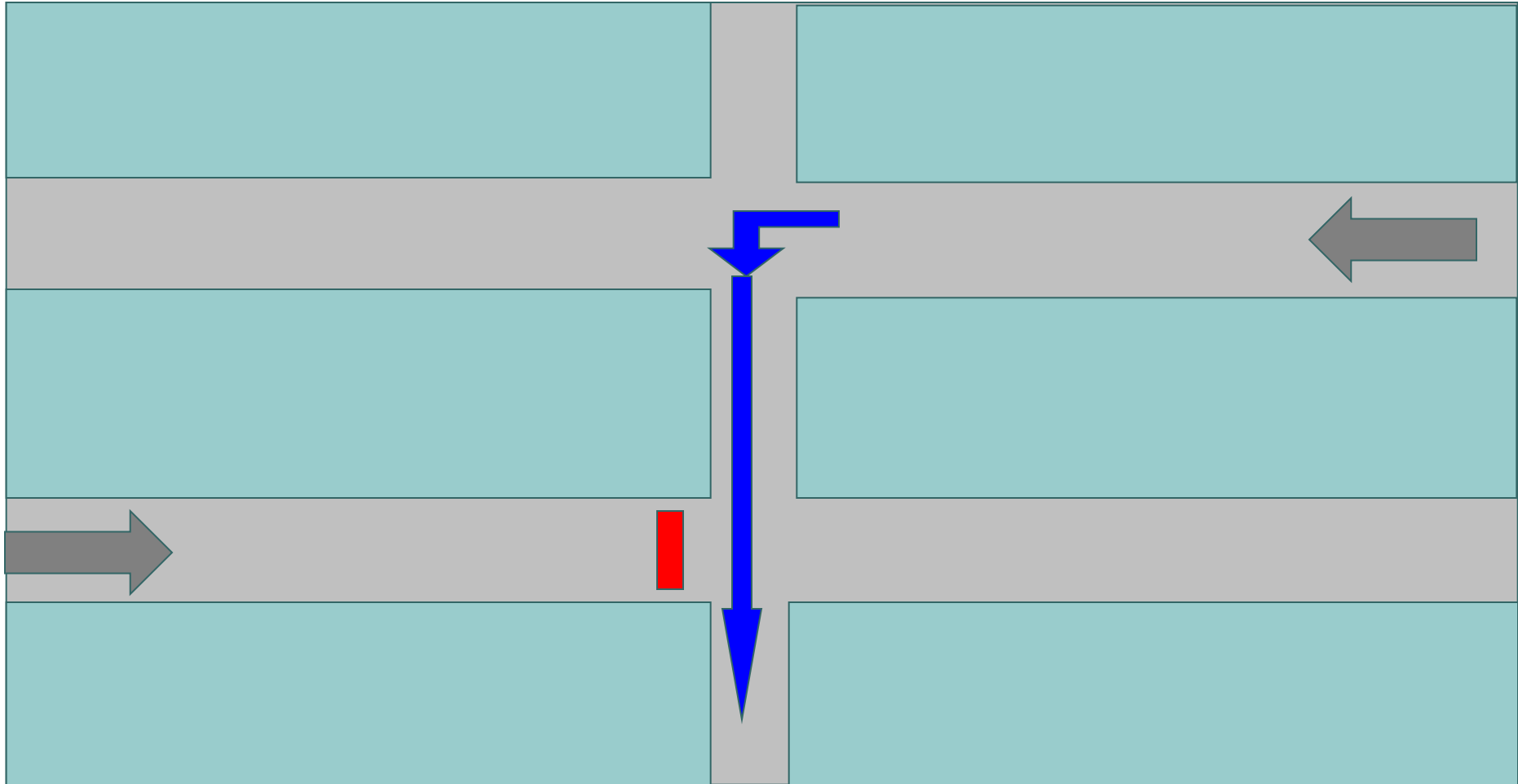
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- Spring Creek Pkwy @ Coit

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# Driver Expectation

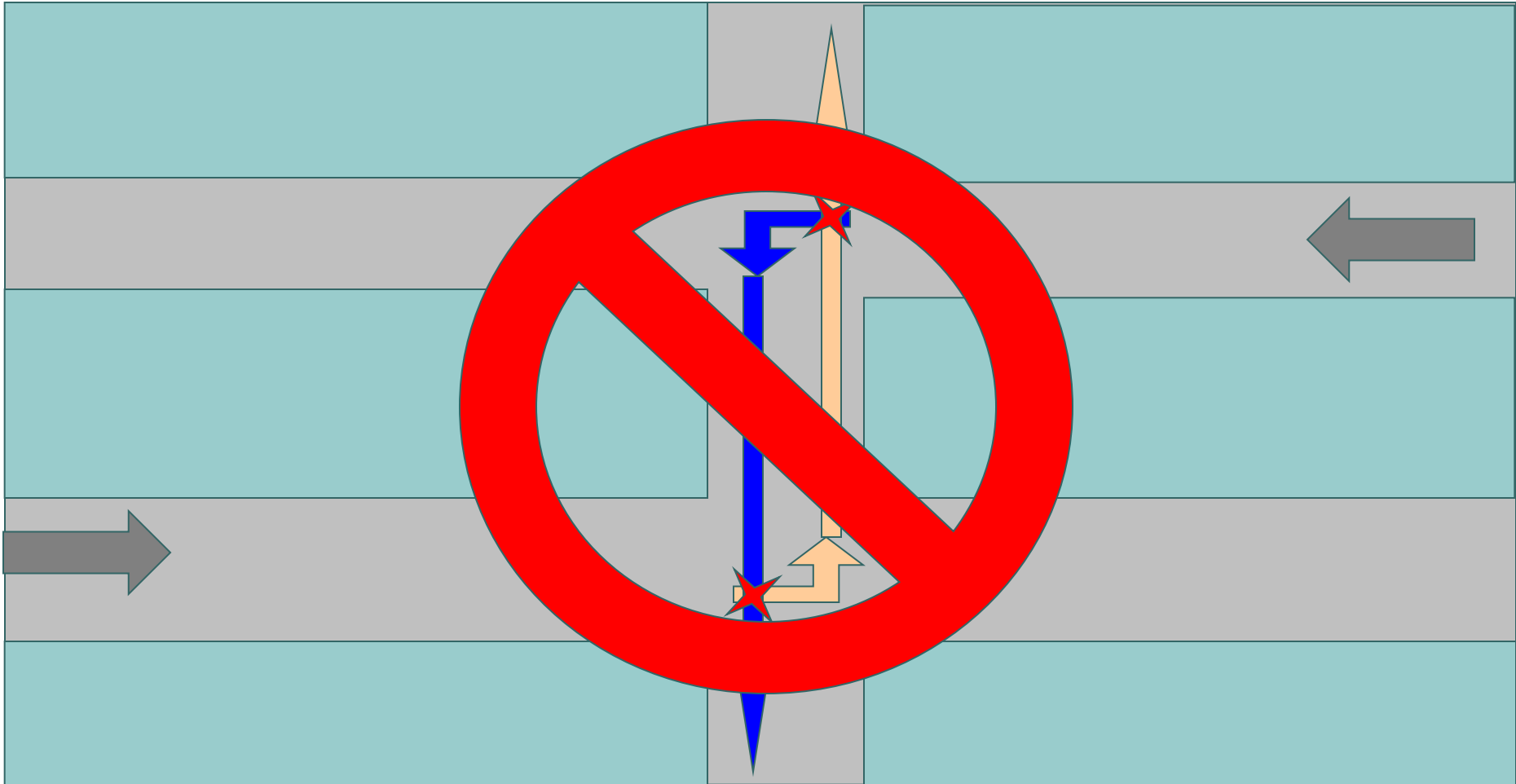
*Existing Condition at highway exit ramp*





# Existing Problem

*If Allowing Concurrent Movements*

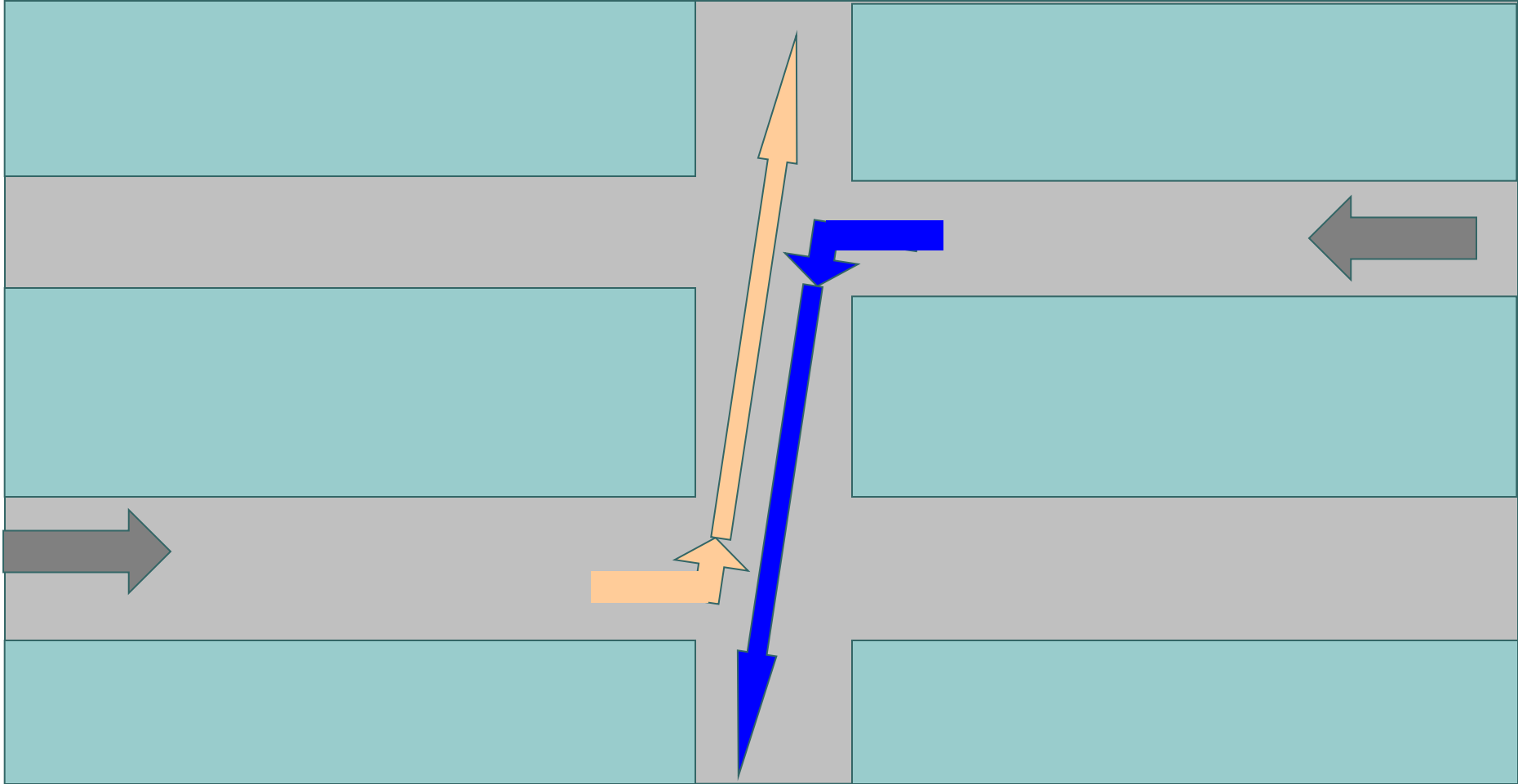




# SPUI Flow Concept

## Single Point Urban Interchange (SPUI)

*Permits Concurrent Left-turn Movements*





# Project Design

Parker Road @ US-75





# SPUI Operation

Parker Road @ US-75







# Project Progress

Parker Road @ US-75

- Project Cost \$25M (\$20M RTR, \$0.75M TxDOT, \$4M Local)
- Project due to open Fall 2010
- Monitor traffic flow/safety





# Questions / Comments

- More Info at:  
[www: Planotraffic.org](http://www.Planotraffic.org)

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