



# Capital Metro Downtown Multimodal Station

Project Briefing

Urban Transportation Commission

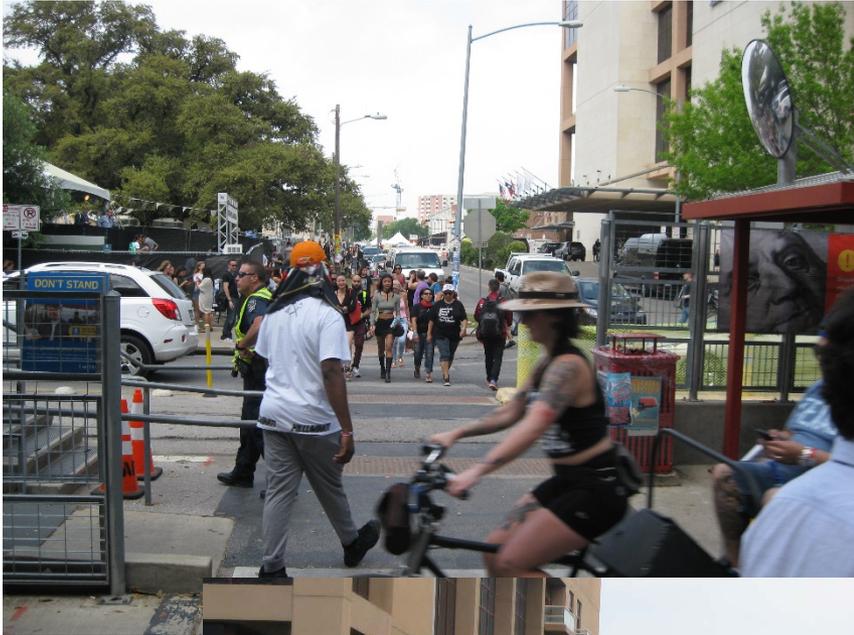
May 2016



# Existing Challenges



# Existing Challenges



# Project Goals & Objectives



1

Address near- and long-term MetroRail operational needs

- 5-minute terminal arrival / departure headway
- Platforms to accommodate longer 2-vehicle consists

2

Address existing safety issues and modal conflicts (pedestrian, bicycle, transit, auto)

- Growth of various modes are not compatible in constrained space

3

Accommodate future multimodal needs

- Additional rail and local circulator routes

4

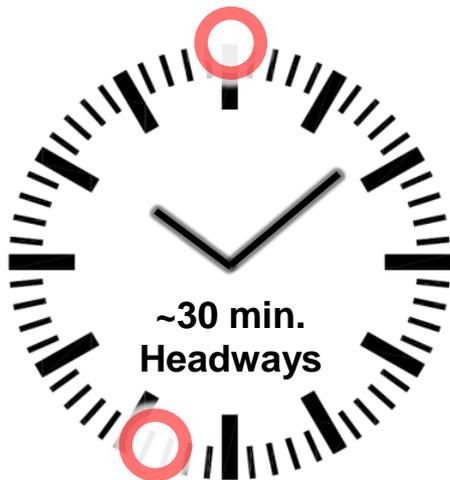
Improve aesthetics and compatibility with urban context

- Great Streets principles
- Urban aesthetics

# Peak Hour Service Capacity



**Today**  
**Red Line**  
~200 pass./train



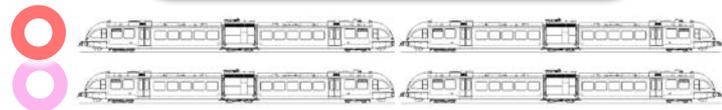
<400 people/  
peak hour  
(one way)

**2018**  
**Red Line** with Downtown  
Station & passing tracks  
~200 pass./train



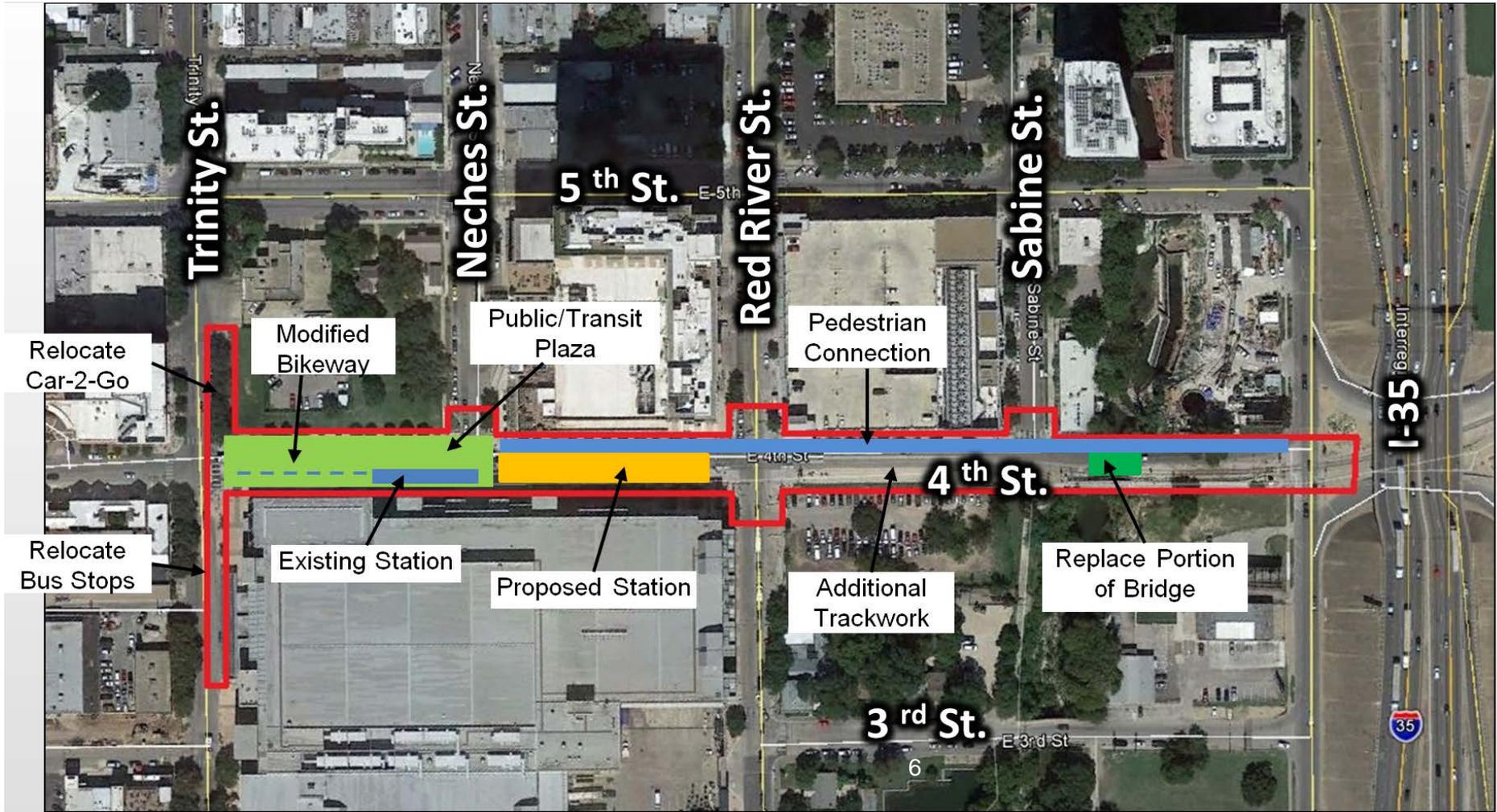
~800 people/  
peak hour  
(one way)

**Long-Range**  
**Red Line** & Future  
extensions  
~400 pass./train



~4800 people/  
peak hour  
(one way)

# Project Boundary & Elements



# Project Context

**1 TxDOT's I35 Mobility**

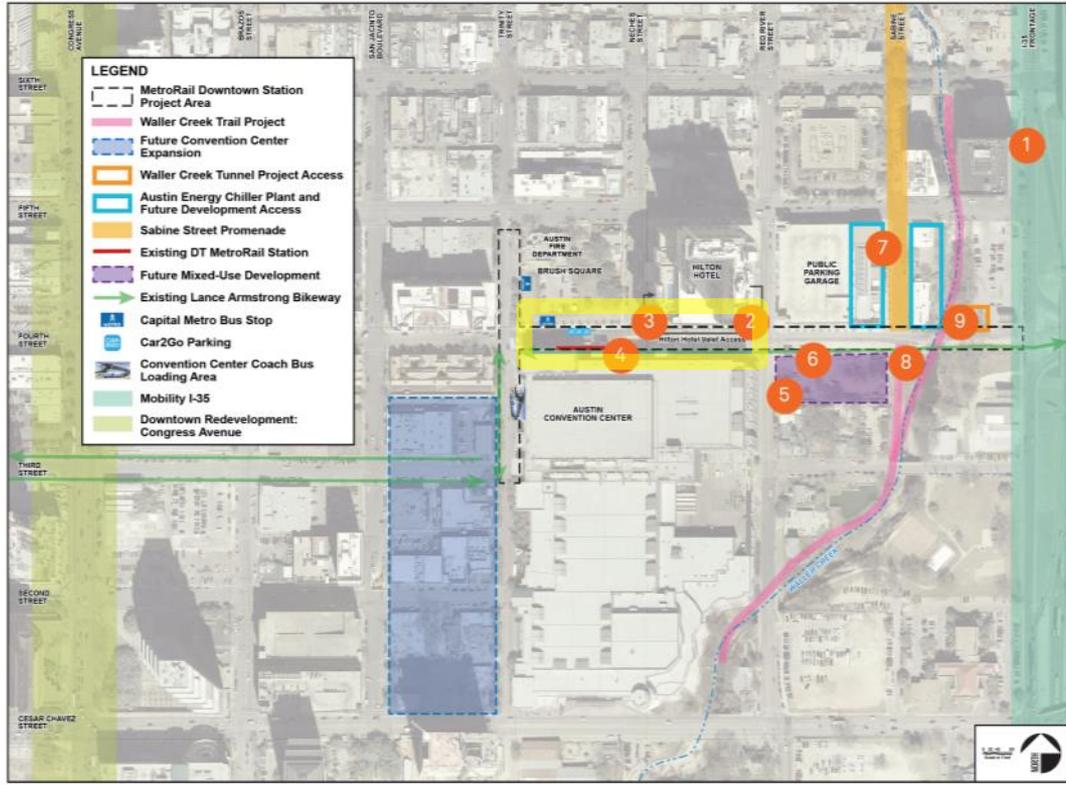
"Modified Existing" Concept (at Cesar Chavez)

"Fully Depressed" Concept (at Cesar Chavez)

Source: 2007 Mobility 30 District Area Corridor Implementation Plan (Jan 2014)

**2 Hilton Valet Circulation**

**3 Hilton Overhead Bridge Connector**



**4 Multimodal Compatibility Needs**

**5 Future Private Development**

**6 Lance Armstrong Bikeway (4th St)**

**9 Adjacent Project Access Needs (4th St)**

- A: Vehicular Access
- B: Tunnel Shaft
- C: Waller Creek Hike & Bike Trail

**8 Waller Creek Trail**

**7 Sabine Steet Promenade**

# Great Streets



GREAT STREETS PRIORITIZE



*Pedestrians*



*Transit*



*Bicycles*



*Cars*

STREET USERS, PLACING THOSE USING THEIR **TWO FEET** FIRST.

In a thriving downtown environment with a variety of uses and services and an engaging street life, walking, cycling, and transit are the preferred methods of travel.

**PROJECT**  
**GREAT**  
**STREETS**

**BLACK + VERNOOY**  
ARCHITECTURE AND URBAN DESIGN



# Concept Evaluation

Downtown Multimodal Station



# Downtown Station Stakeholders



- Austin Transportation Department
- Austin Fire Department, Police Department and EMS
- Austin Convention Center
- Austin Energy
- Austin Water Utility
- Hilton Austin
- City of Austin Economic Development
- City of Austin Parks and Recreation
- City of Austin Public Works
- City of Austin Real Estate
- City of Austin Special Events
- City of Austin Urban Design / Great Streets
- City of Austin Watershed Protection
- Development Services Department
- Downtown Austin Alliance
- Homeland Security & Emergency Management
- TxDOT
- Waller Creek Conservancy
- Private Entities
- General Public



# Public & Stakeholder Outreach



- ✓ 5/23/14 – Stakeholder Workshop #1
- ✓ 7/25/14 – Stakeholder Workshop #2
- ✓ 11/14/14 – Stakeholder Workshop #3
- ✓ 1/31/15 – Public Workshop
- ✓ 8/27/15 – “Pop-Up” Open House
- ✓ 9/28/15 – “Pop-Up” Open House
- ✓ 10/5/15 – “Pop-Up” Open House
- ✓ 10/8/15 – Public Open House
- ✓ 12/9/15 - Stakeholder Workshop
- ✓ 12/11/15 – Public Workshop

# Public & Stakeholder Input



- Majority recognize the benefits of elected Concept for a conflict-free pedestrian space
- Stakeholders and coordinating agencies in favor of safety improvements and supporting multimodal mobility improvements
- Some public input indicated traffic concerns with removing autos from this segment of 4<sup>th</sup> Street

## Citizen Feedback (Concept 1)

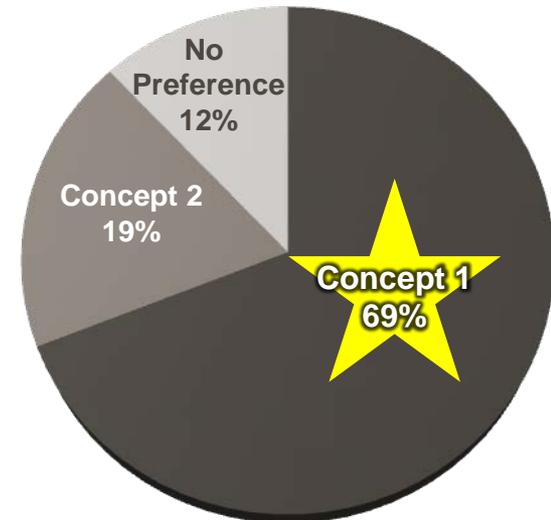
*"I like the idea of having more pedestrian area. The vehicle lane isn't really that useful anyway."*

*"I lean more toward this concept to free more space for pedestrians and bikes."*

*"Seems like a better use of space but worried about flow of extra traffic displaced from lane of street. Good park space."*



## Public Survey Results



# Concept Confirmation - Technical Evaluation Criteria



1

## 1. Safety

- a. Mitigation of Multimodal Conflicts
- b. Rail Crossing Protection Requirements

2

## 2. Station Operations

- a. MetroRail Station and Platform
- b. Multimodal Access to Project Area

3

## 3. Traffic & Accessibility

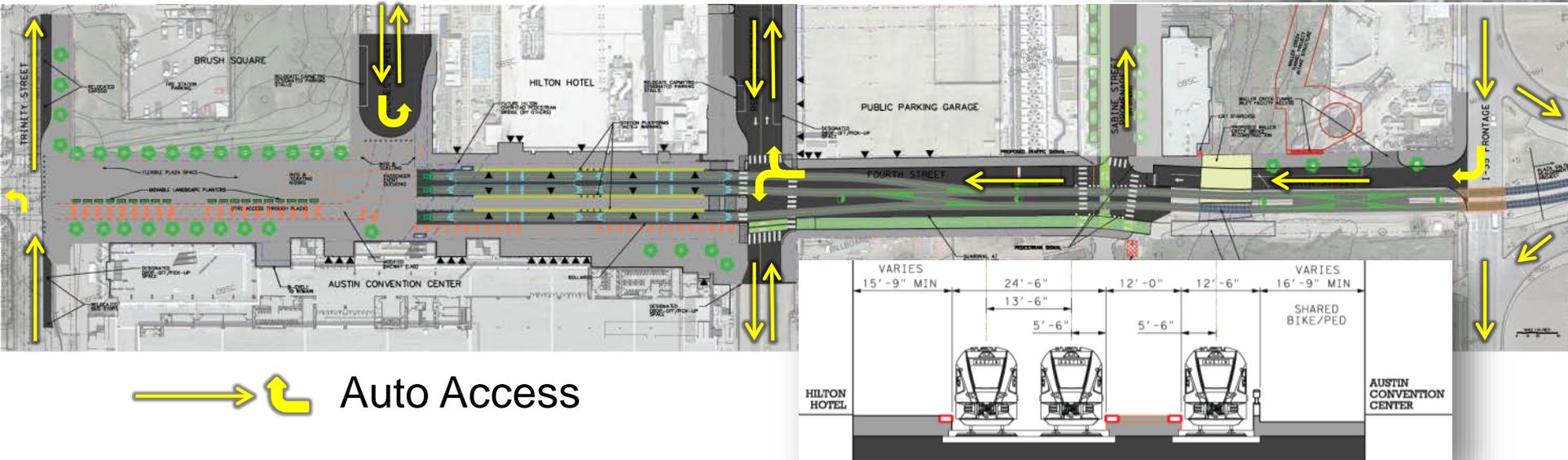
- a. Pedestrian, Bicycle and Auto Circulation
- b. Lane Configurations and Utility
- c. Stakeholder Accessibility

4

## 4. Context-Sensitive Compatibility

- a. Mitigate Impacts to Adjacent Projects and Stakeholders
- b. Great Streets Compatibility
- c. Supportive of Future Development

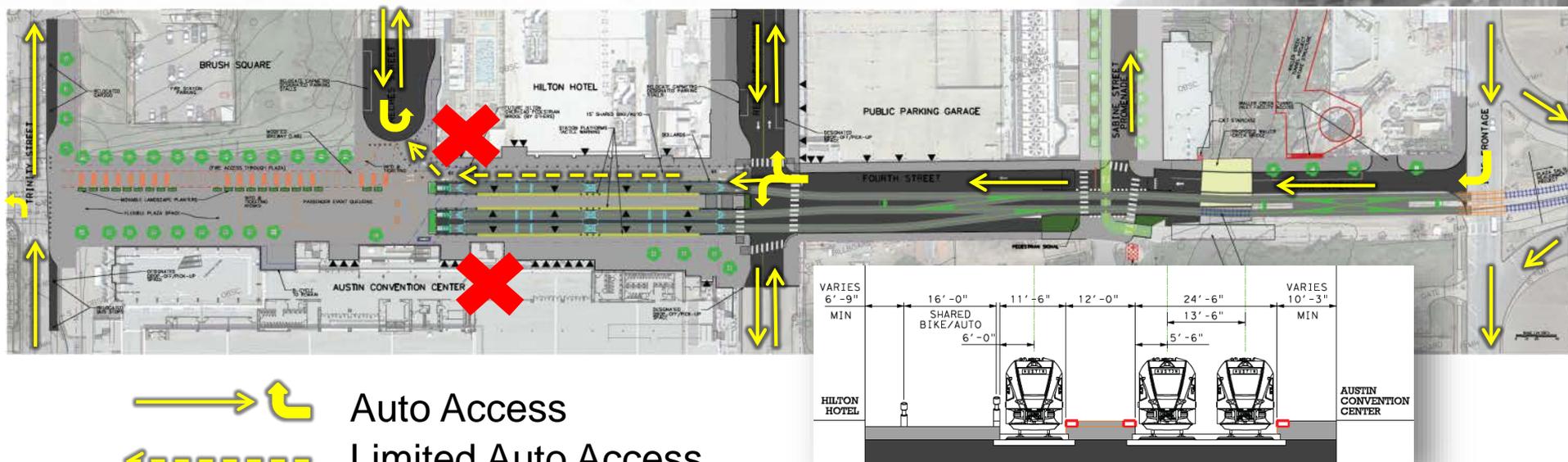
# Station Concept 1 (Selected)



- 3 platform positions that accommodate (future) 2-car consists
- **Restrict auto access** on 4<sup>th</sup> St (between Red River and Trinity)
- Public plaza accommodates platform queuing (Neches to Trinity)
- Lance Armstrong Bikeway (modified for enhanced safety and awareness through platform/plaza area)

# Station Concept 2 (not selected)

(Capital Metro is no longer pursuing this concept)



 Auto Access  
 Limited Auto Access

- 3 platform positions that accommodate (future) 2-car consists
- **Shared-use auto/bicycle access** on 4<sup>th</sup> St (Sabine to Neches)
- Public plaza accommodates platform queuing (Neches to Trinity)
- Lance Armstrong Bikeway (relocated)

-  Station platforms prevent emergency vehicles from accessing convention center
-  Relocated bikeway in conflict with 4<sup>th</sup> Street auto traffic

# Technical Evaluation – Summary



Evaluation Metric	Preferred Concept 1 (Vacate Auto Access on 4th)	Less Preferred Concept 2 (Restricted Auto Access on 4th)
Safety	Best reduction of conflicts	Auto and bikeway conflicts remain
Transit Operations	Meets requirements	May compromise platform width to fit shared-use lane and emergency access
Traffic and Accessibility	Reduces auto accessibility	Maintains accessibility; requires bikes & autos to share
Context Sensitive Compatibility	Consistent with multimodal vision & hierarchy	Diminishes multimodal vision

- **Concept 1** is the best solution for reducing safety conflicts, meeting transit operational requirements, improving multimodal accessibility, and is consistent with the urban context
- **Concept 1** challenges have been identified and mitigations are being developed.



# Selected Concept Challenges, Opportunities

Downtown Multimodal Station

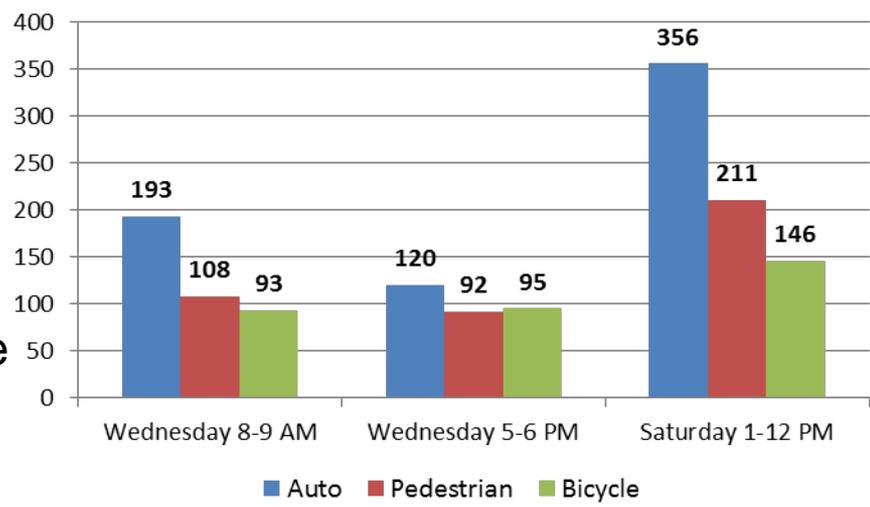


# 4<sup>th</sup> Street Conversion (Red River to Trinity)



- **4<sup>th</sup> St. is multimodal**
  - Combined bike & ped. volumes already exceed auto traffic at the Neches/4<sup>th</sup> intersection
- **4<sup>th</sup> St. is not a commuter route**
  - Peak demand is during the weekend PM entertainment period
  - 6th Street peak demand is the during weekday AM commuter period
  - Cesar Chavez Street peak demand is the during weekday PM commuter period

Auto, Pedestrian & Bicycle Peak Hourly Volumes on 4<sup>th</sup> Street



- **Conclusion**
  - 6th Street and Cesar Chavez have excess capacity to absorb the displaced volume of traffic during both peak and entertainment periods

# 5<sup>th</sup> Street 2-Way Conversion



- Traffic flow improvement for downtown area, Hilton Hotel occupants
- Austin Transportation Department to initiate process for 5<sup>th</sup> Street 2-Way conversion from I-35 to Trinity (or Brazos)
- Goal to complete conversion before Downtown Station construction
- Stakeholders have requested additional traffic analysis in vicinity

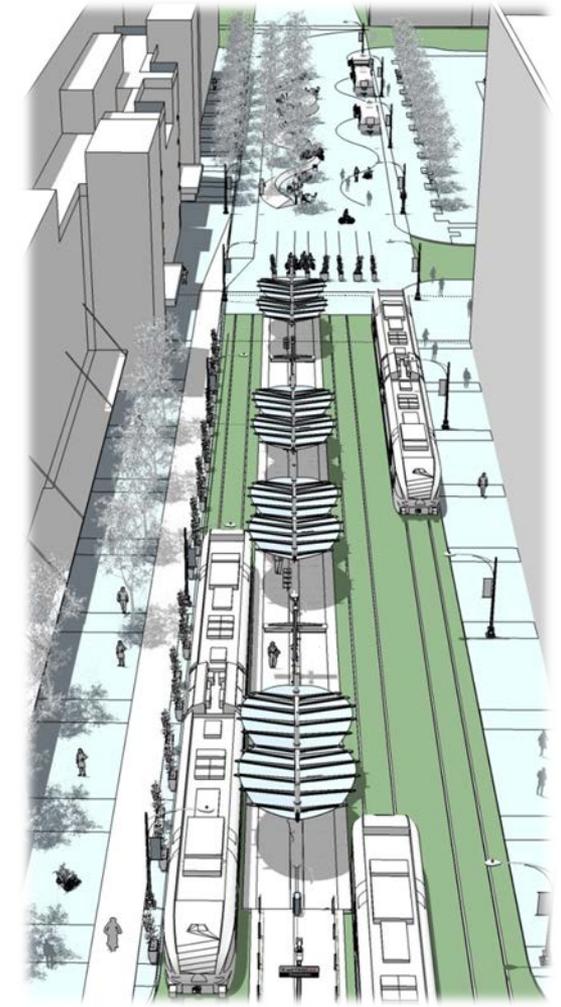


# Opportunities

Downtown Multimodal Station

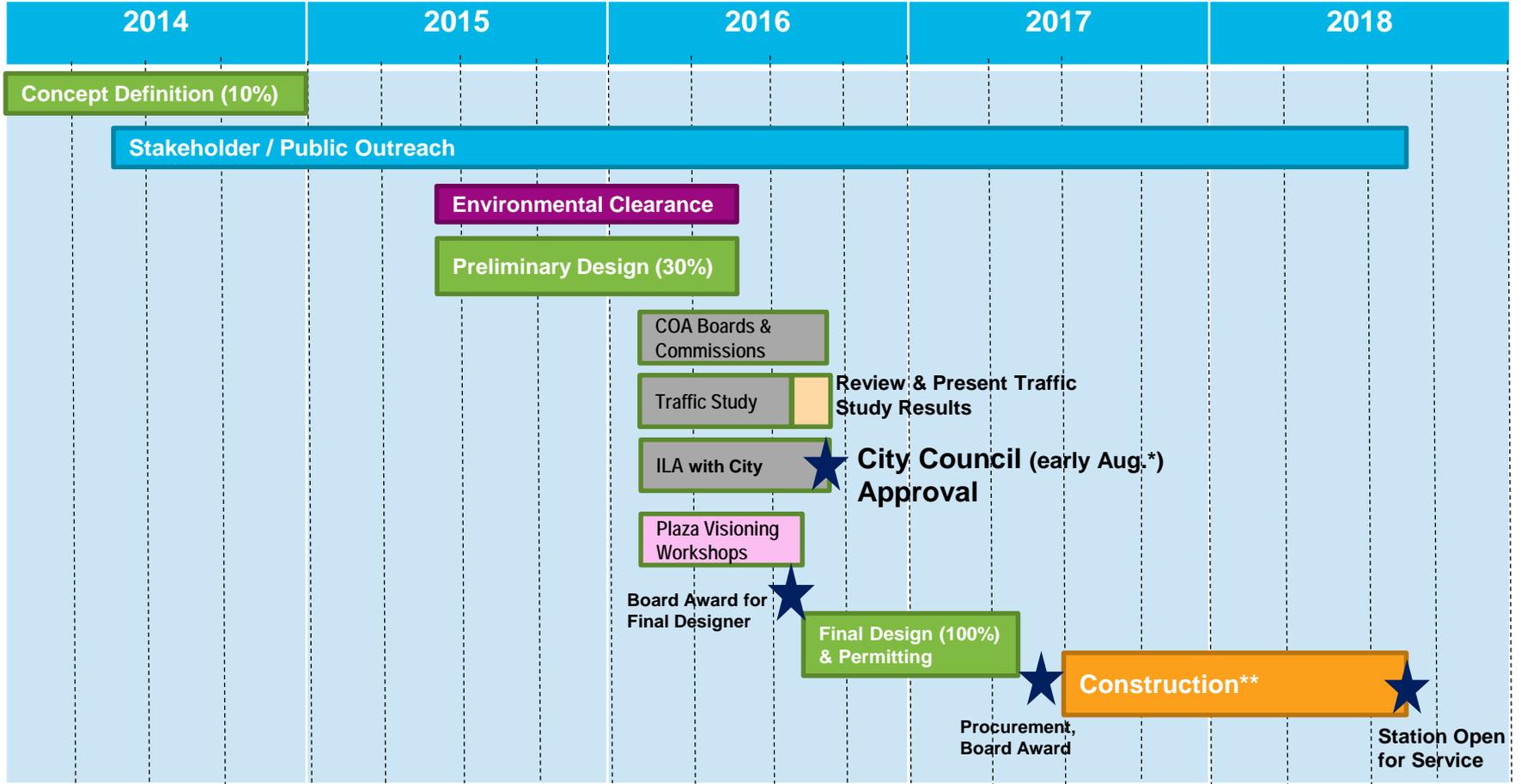


# Design Study



# Downtown Station

## Preliminary Schedule



\*June City Council agenda preferred if traffic studies are completed sooner

\*\*All construction activities are pending environmental clearance and City permitting



## Next Steps

- Capital Metro & City of Austin Agreement
- 30% Design Completion
- Station Vicinity Traffic Analysis
- Project Environmental Approval

Downtown Multimodal Station





# Questions?

Downtown Multimodal Station





# Appendix

Downtown Multimodal Station

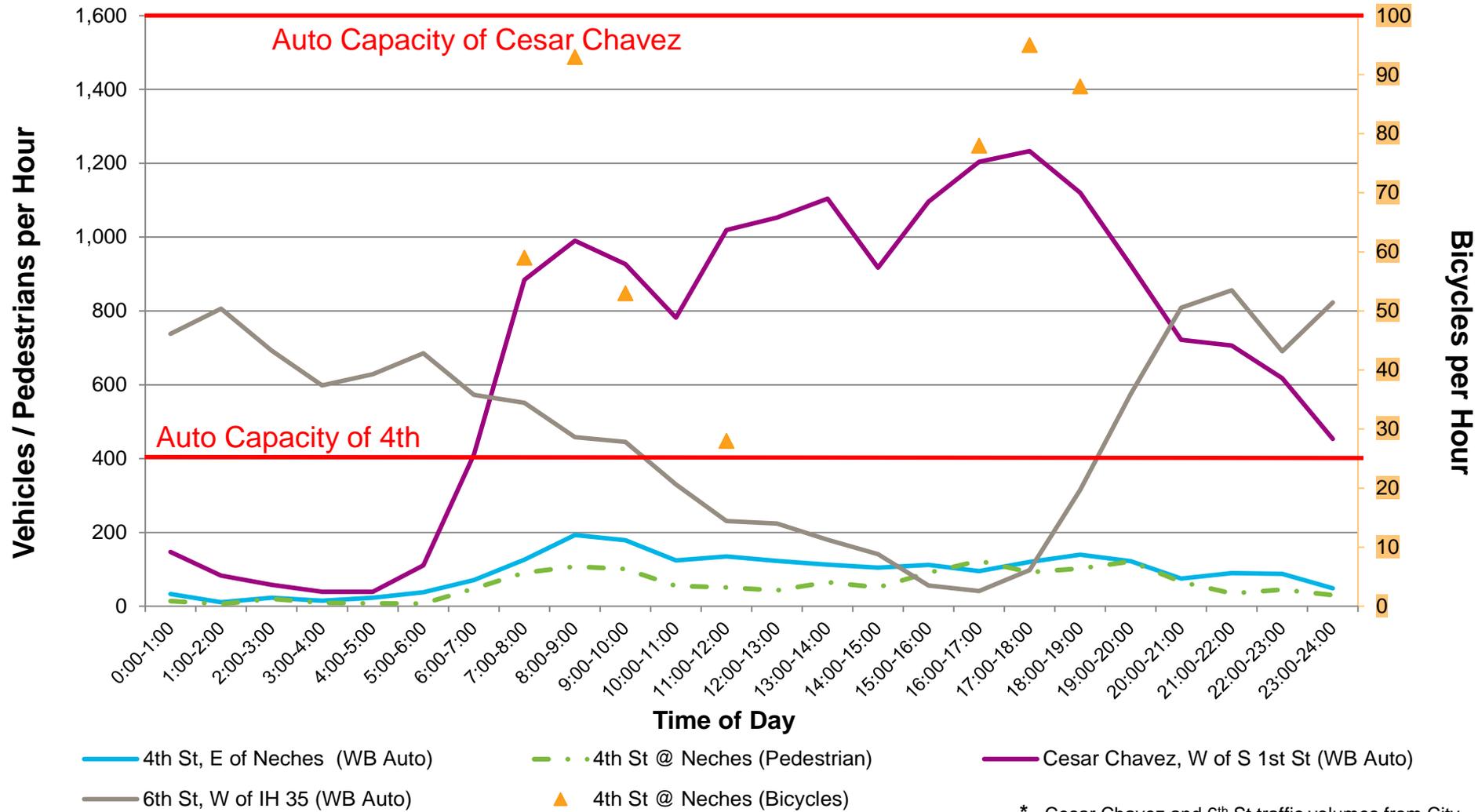


# Traffic Data Collection

- Video camera set up at the corner of 4th Street and Neches
- 7-day, 24-hour counts (Thursday 9/3 to 9/10)
- Data for auto, pedestrian, and bike
- Historical counts on Cesar Chavez, 5<sup>th</sup>, and 6<sup>th</sup> Streets

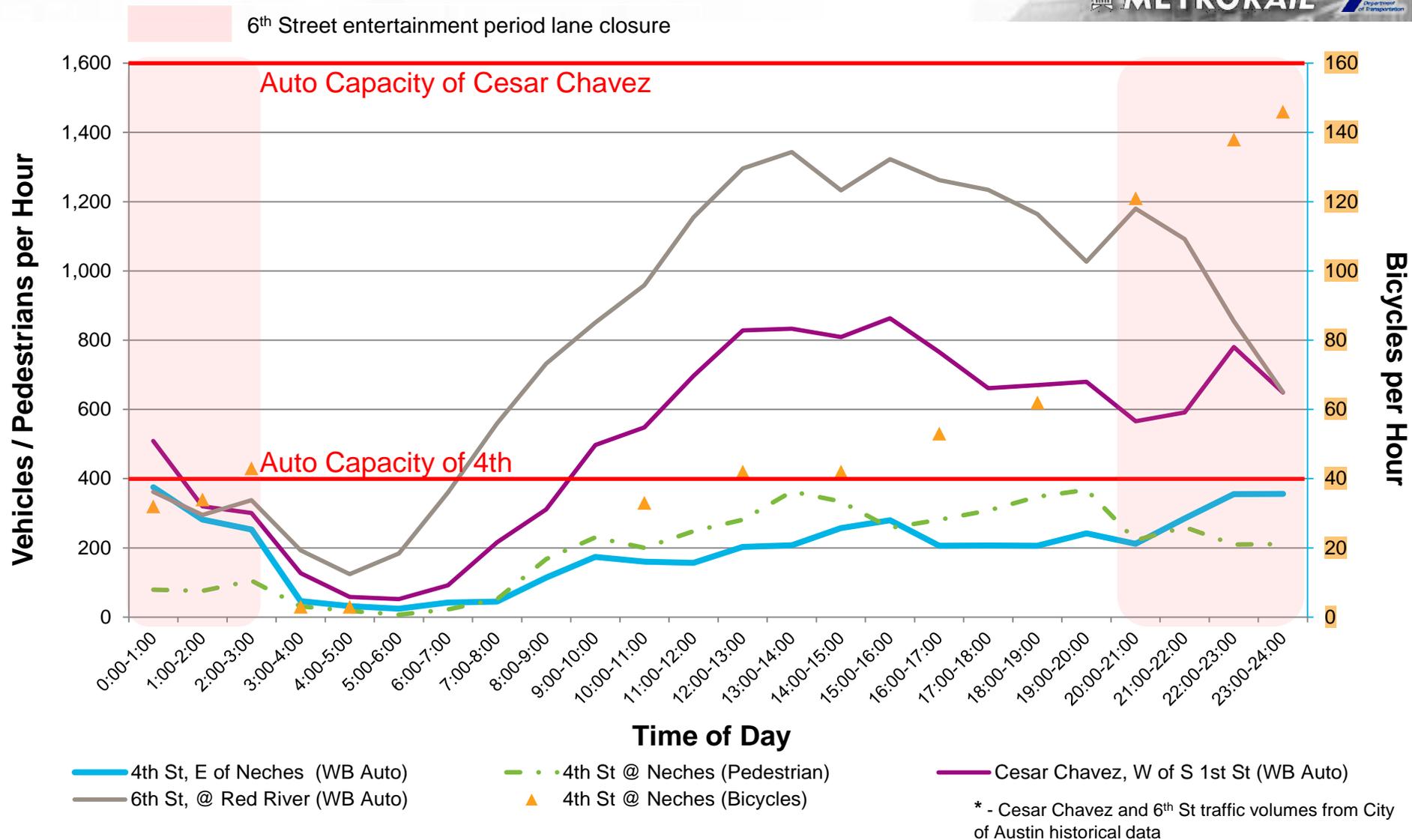


# Data Summary – Hourly Volumes on Typical Weekday\*



\* - Cesar Chavez and 6th St traffic volumes from City of Austin historical data

# Data Summary – Hourly Volumes on Typical Weekend\* (Saturday)





# 5<sup>th</sup> Street

Downtown Multimodal Station

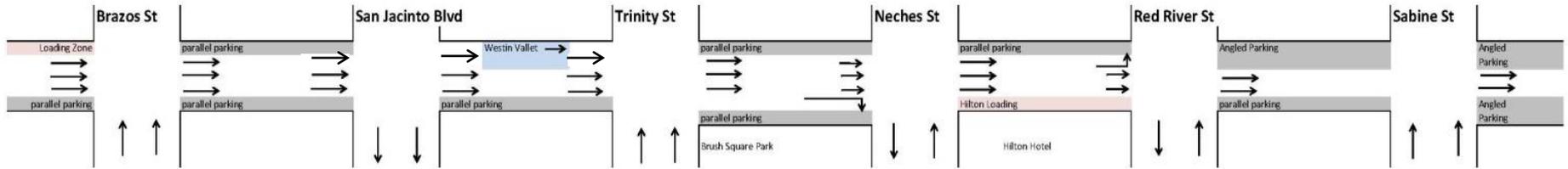


# Potential 5<sup>th</sup> Street 2-Way Conversion by City of Austin

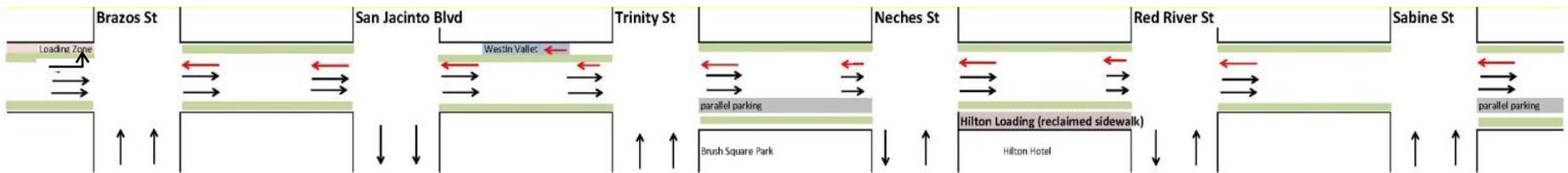
## Lane Configuration Options



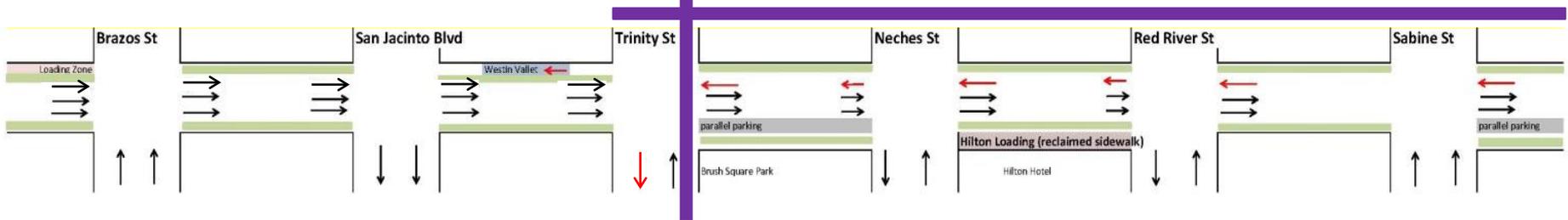
### Existing



### Option 1 - Two-way on 5<sup>th</sup> (I35 to Brazos)



### Option 2 - Two-way on 5<sup>th</sup> (I35 to Trinity) and on Trinity



- Limits of 2-way conversion

- Protected bicycle lane (potential)