



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



2018

Red Line with Downtown
Station & passing tracks

~200 pass./train



Long-Range

Red Line & Future
extensions

~400 pass./train



**<400 people/
peak hour
(one way)**

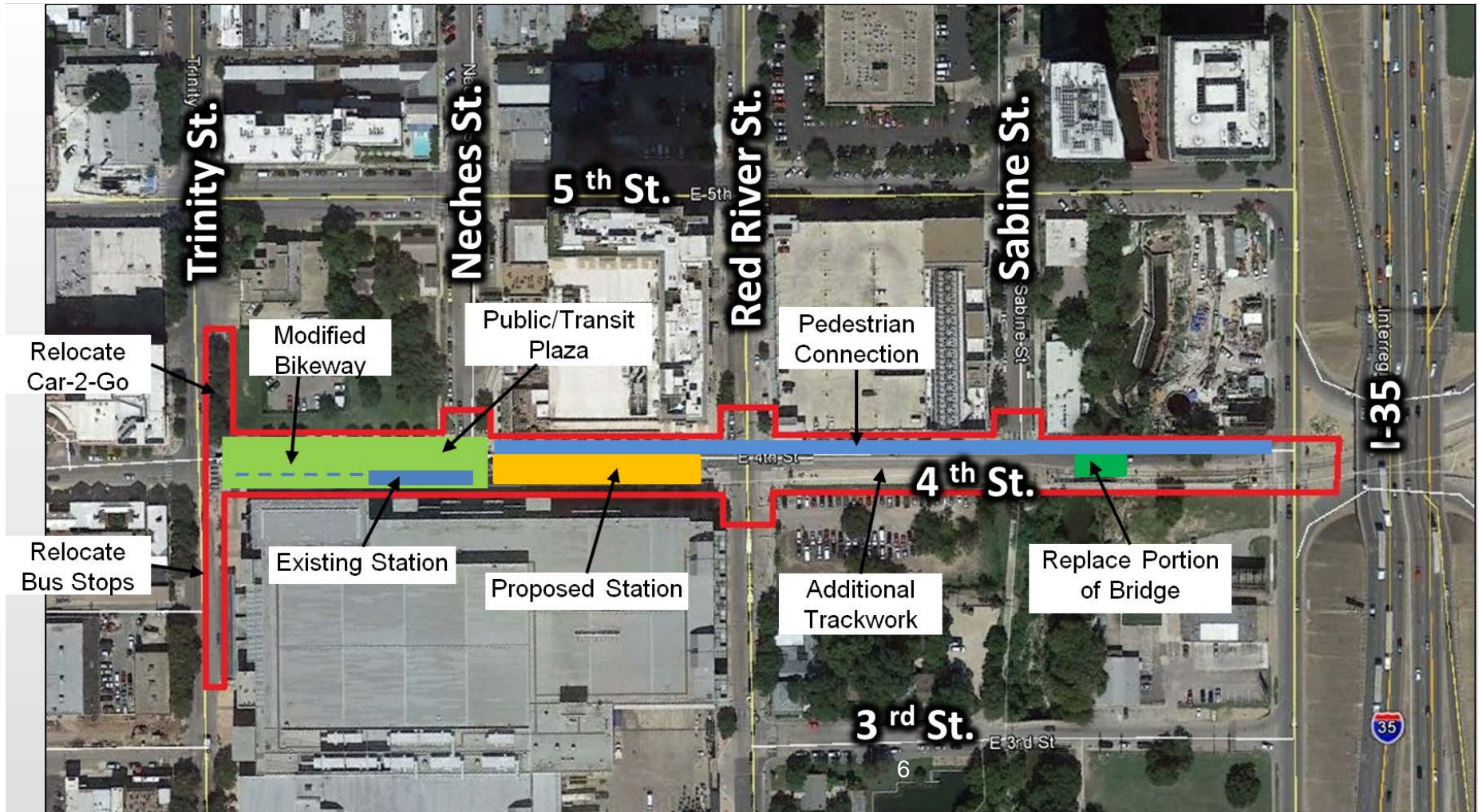


**~800 people/
peak hour
(one way)**



**~4800 people/
peak hour
(one way)**

Project Boundary & Elements



Project Context

1 TxDOT's I35 Mobility




"Modified Existing" Concept
(at Cesar Chavez)

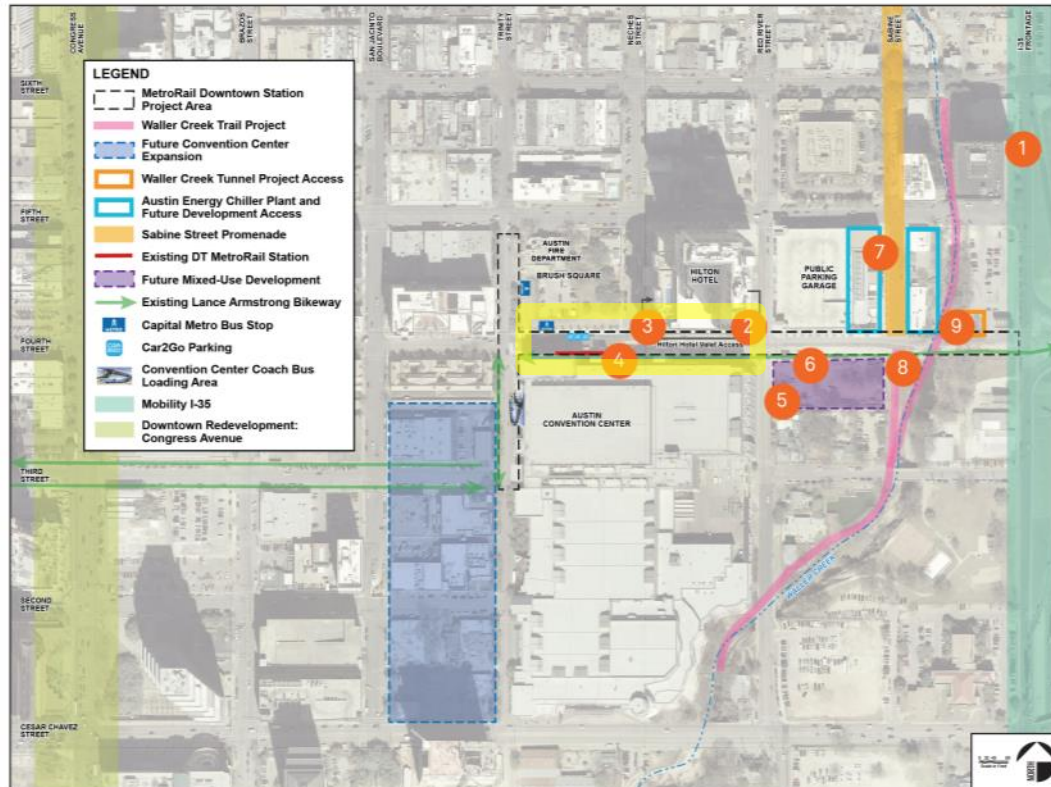
"Fully Depressed" Concept
(at Cesar Chavez)

Source: 2007 Mobility 30 District Area Corridor Implementation Plan (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 Street 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



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 4th Street

Citizen Feedback (Concept 1)

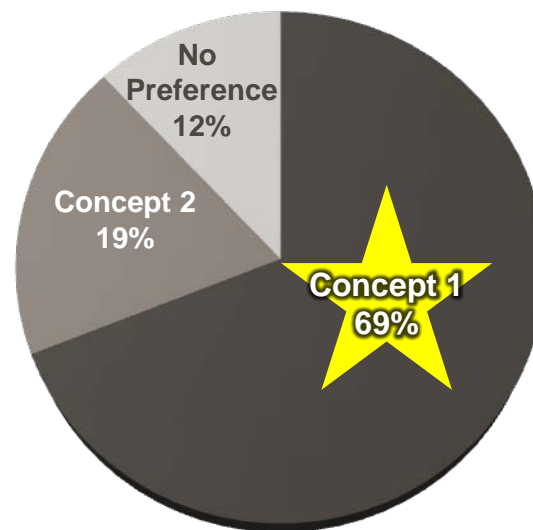
"I like the idea of having more pedestrian area. The vehicle lane isn't really that useful anyway."

"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

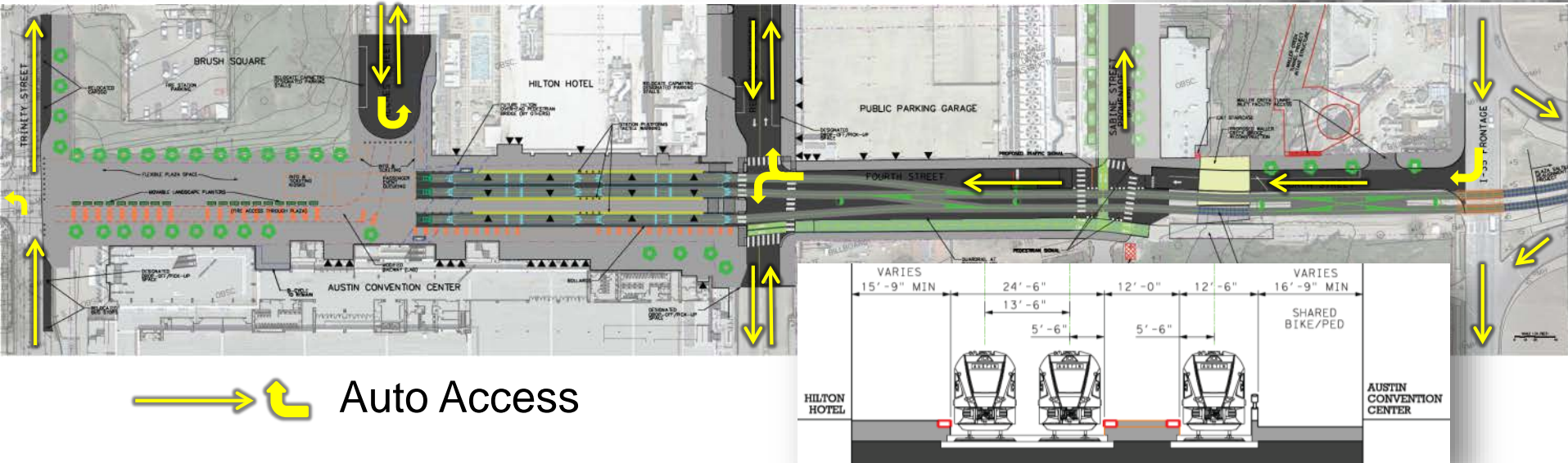
- a. Pedestrian, Bicycle and Auto Circulation
- b. Lane Configurations and Utility
- c. Stakeholder Accessibility

4

4. Context-Sensitive Compatibility

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

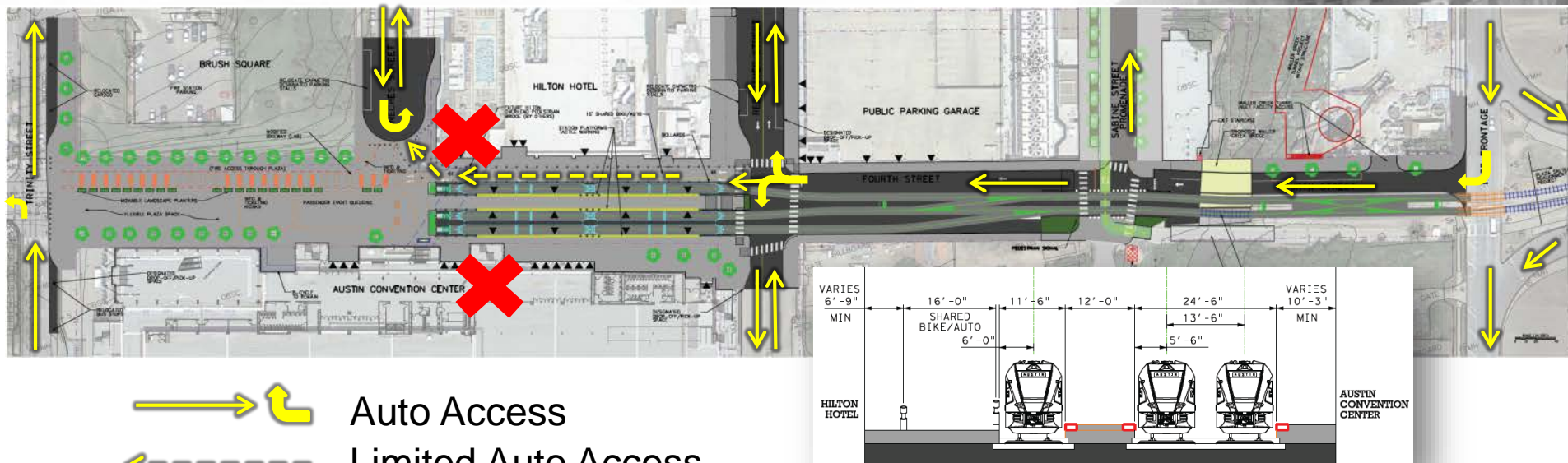
Station Concept 1 (Selected)



- 3 platform positions that accommodate (future) 2-car consists
- **Restrict auto access** on 4th 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)



- 3 platform positions that accommodate (future) 2-car consists
- **Shared-use auto/bicycle access** on 4th 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 4th 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



4th Street Conversion (Red River to Trinity)



- **4th St. is multimodal**

- Combined bike & ped. volumes already exceed auto traffic at the Neches/4th intersection

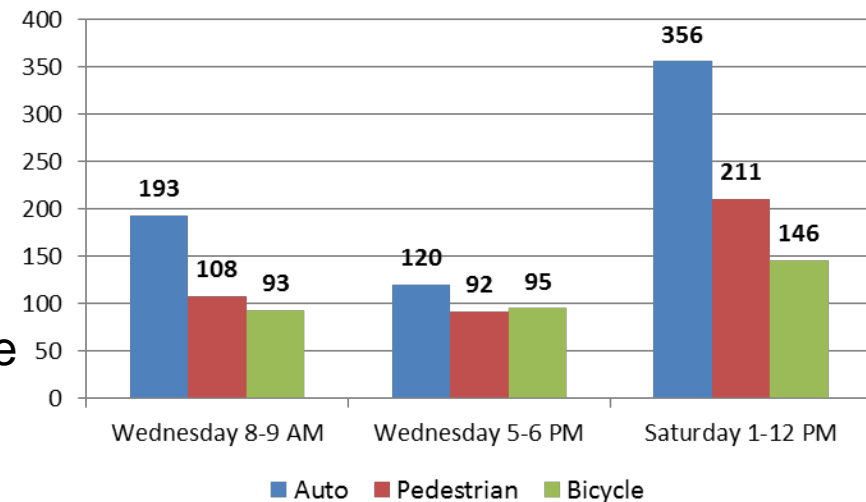
- **4th St. is not a commuter route**

- 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

- **Conclusion**

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

Auto, Pedestrian & Bicycle
Peak Hourly Volumes on 4th Street



5th Street 2-Way Conversion



- Traffic flow improvement for downtown area, Hilton Hotel occupants
- Austin Transportation Department to initiate process for 5th 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

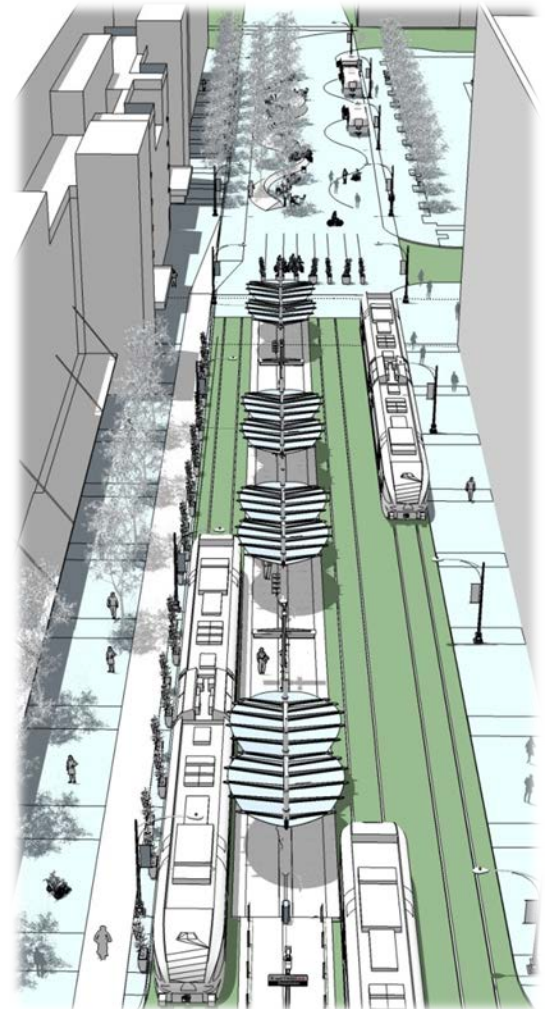
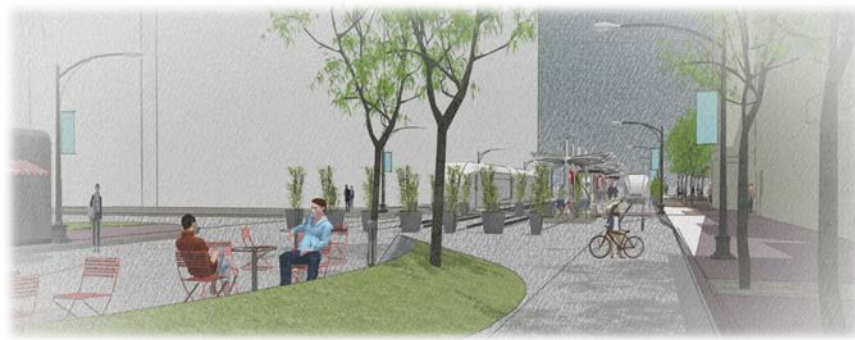
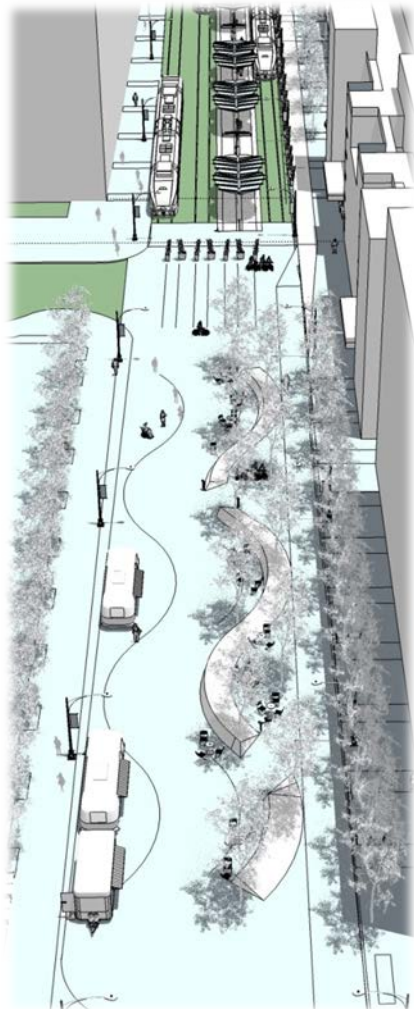


Opportunities

Downtown Multimodal Station

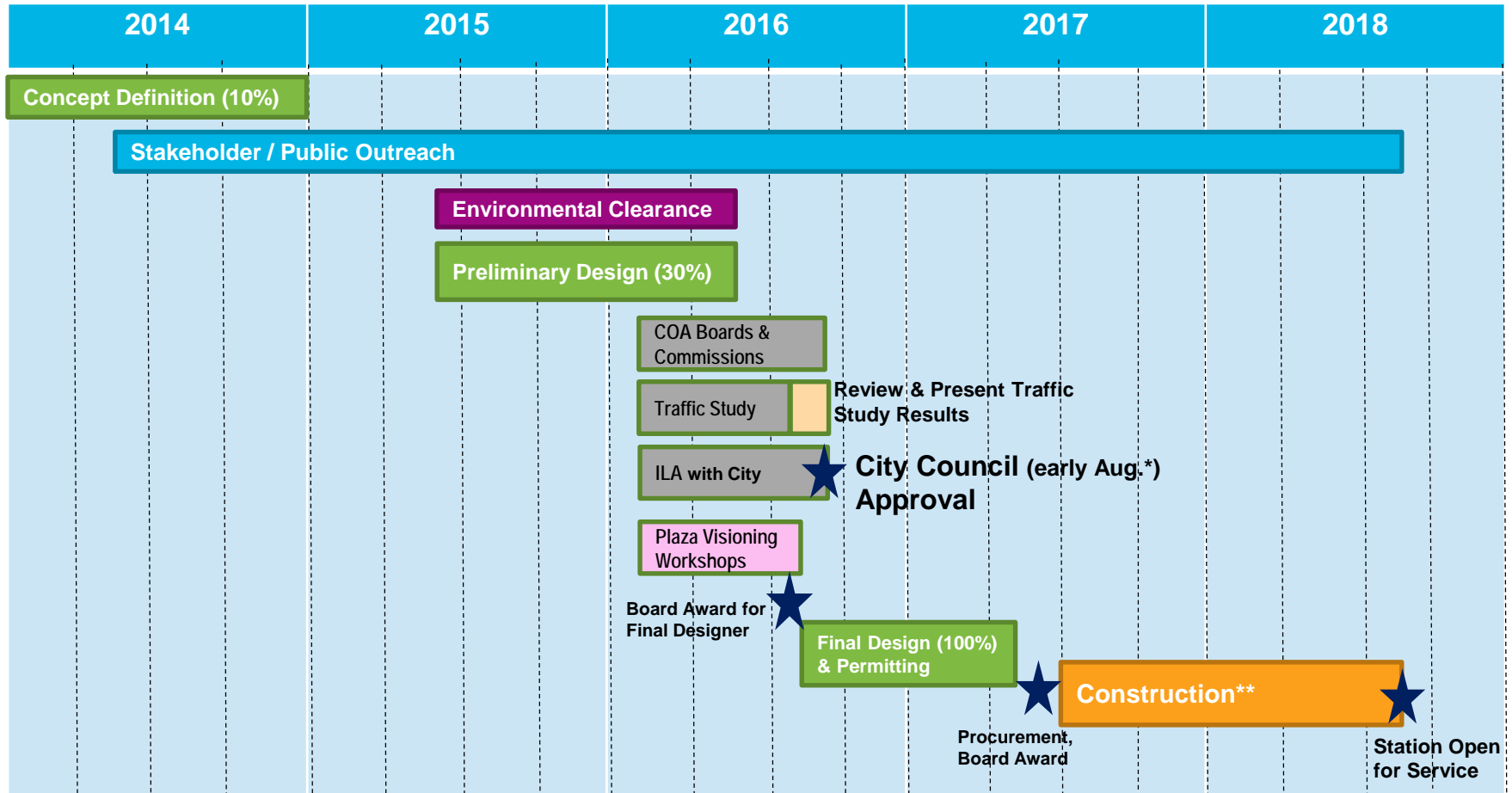


Design Study



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

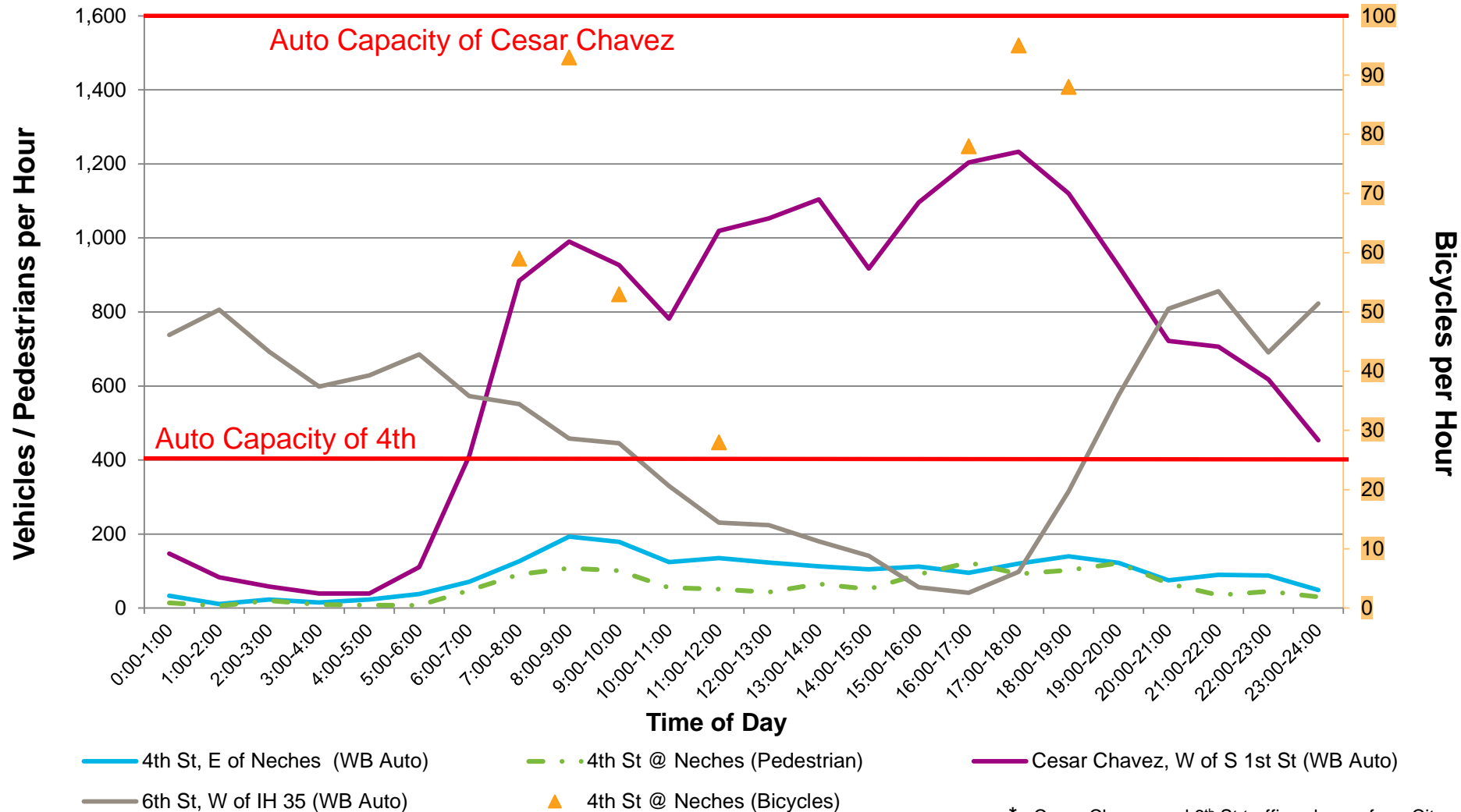


Traffic Data Collection

- 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, 5th, and 6th Streets

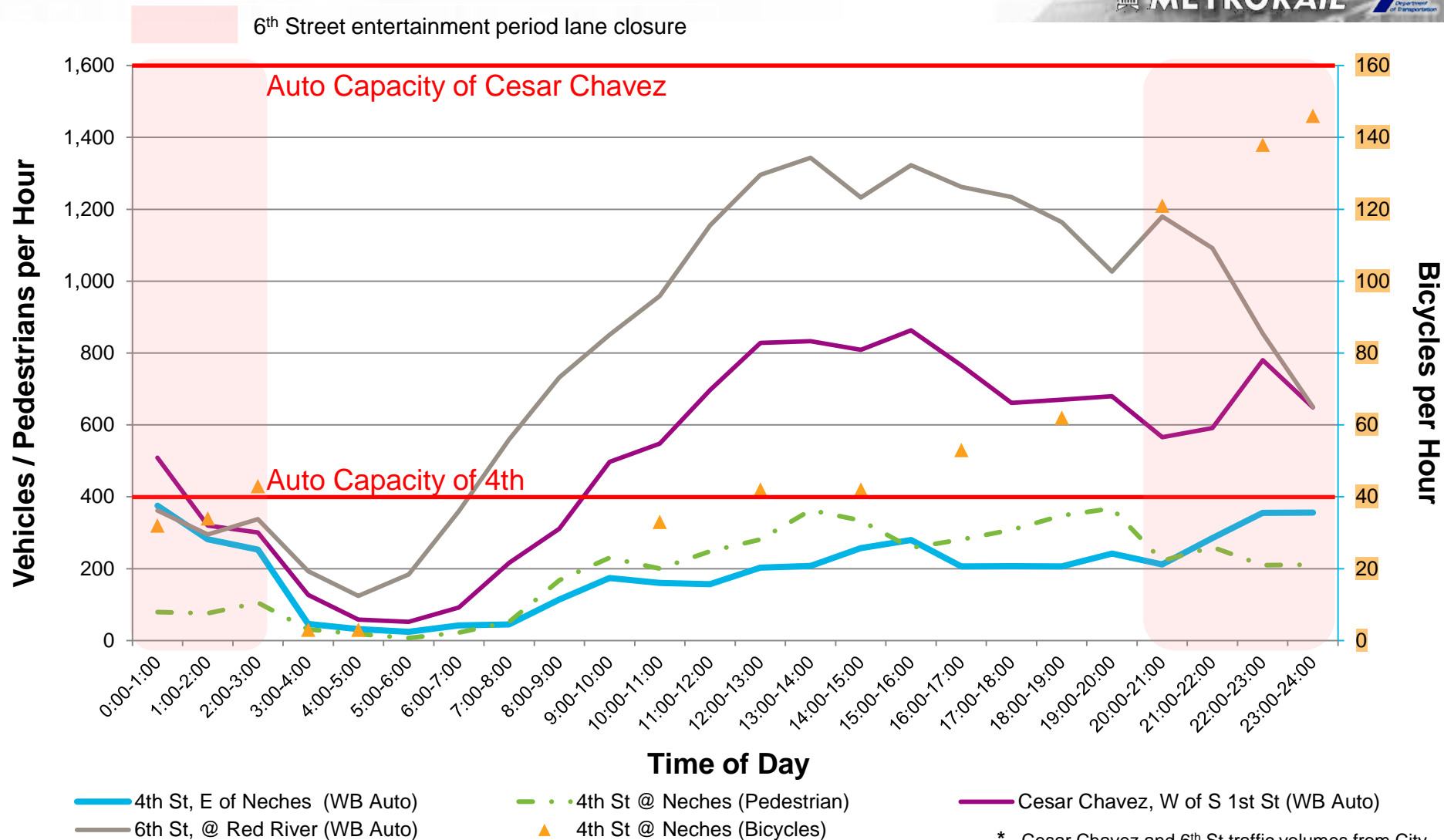


Data Summary – Hourly Volumes on Typical Weekday*



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

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





5th Street

Downtown Multimodal Station

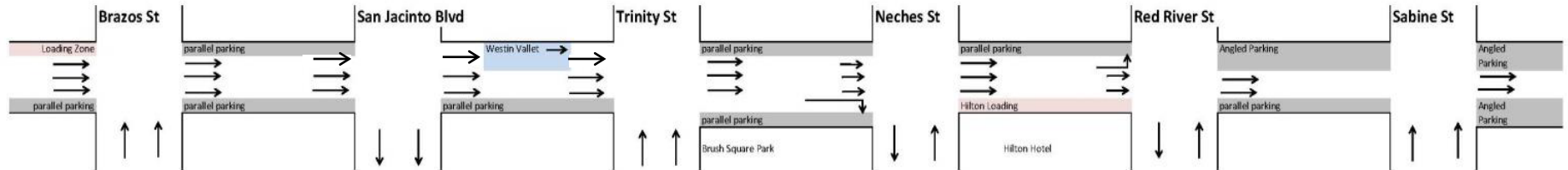


Potential 5th Street 2-Way Conversion by City of Austin

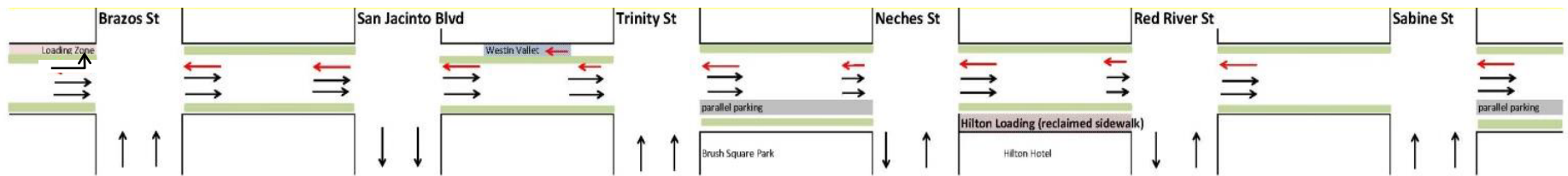
Lane Configuration Options



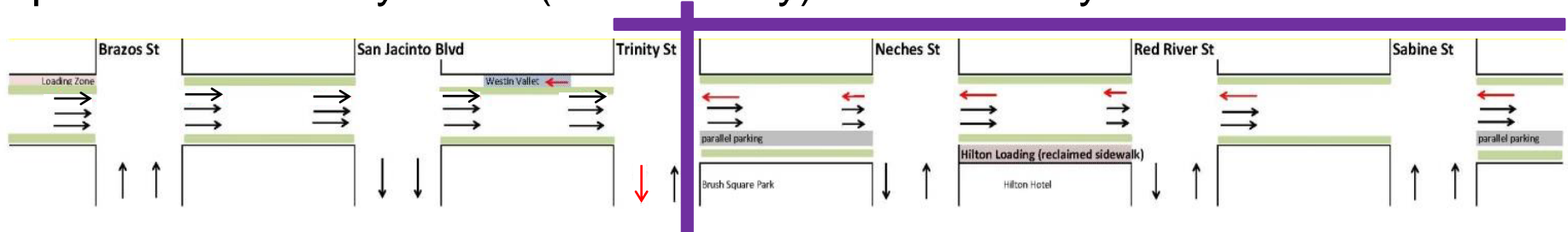
Existing



Option 1 - Two-way on 5th (I35 to Brazos)



Option 2 - Two-way on 5th (I35 to Trinity) and on Trinity



- Limits of 2-way conversion

- Protected bicycle lane (potential)