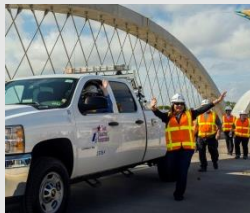




TEXAS DEPARTMENT OF TRANSPORTATION



ENGINEERING PEDESTRIAN SAFETY ON I-35: STEP-BY-STEP

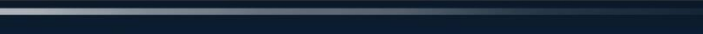
Karen Lorenzini, P.E.



07/12/2018

Mobility35 Program Overview

-



- Eight goals have been developed to guide Mobility35 and balance the needs of all corridor users:
 - Optimize the existing facility
 - Enhance safety
 - Increase capacity
 - Minimize need for additional right of way
 - Manage traffic better
 - Improve east/west connectivity
 - Improve compatibility with neighborhoods
 - Enhance bicycle, pedestrian and transit-user options

Central Texas is a Little Excited About Multi-modal Travel



Mobility35 Program Goals

(4 of 8 enhance bicycle and pedestrian facilities along I-35):

- Enhance bicycle and pedestrian options
- Enhance safety
- Improve compatibility with neighborhoods
- Improve east/west connectivity

Program-wide Concepts

- Continuous shared use path along all 79 miles
- Connecting with existing and planned east/west routes
- Dedicated pedestrian signals at all traffic signal locations
- Compliant with Americans with Disabilities Act

Corridor-wide Shared Use Path Design Guidance

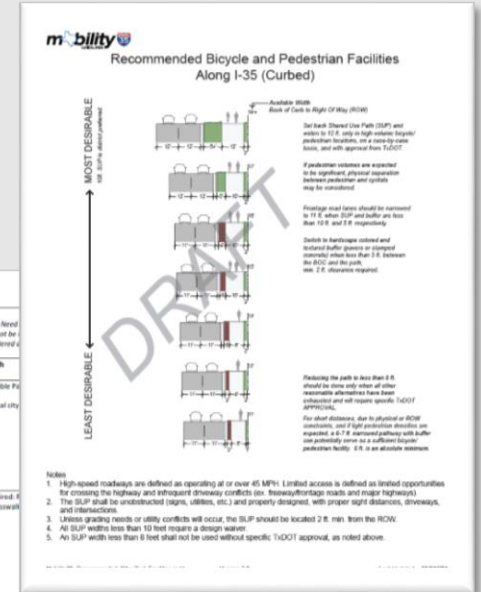
■ Team developed:

- Mobility35 SUP Design Guidance
- Mobility35 SUP Striping, Signage, and Design Treatments Guidance

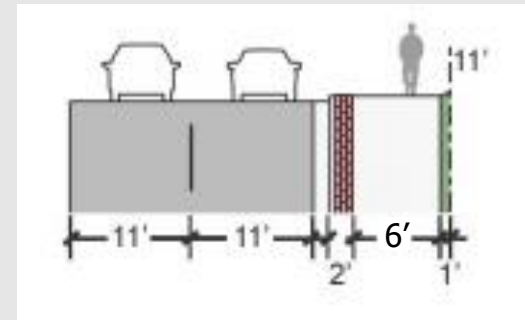
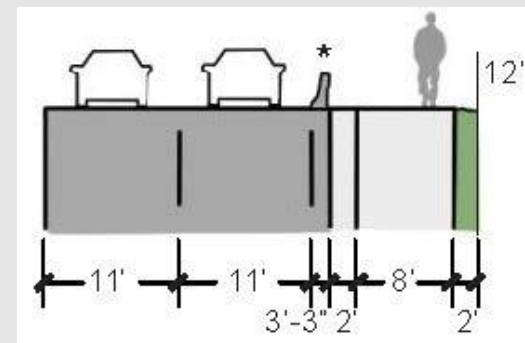
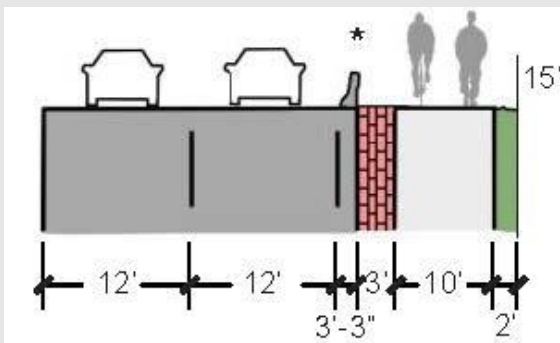
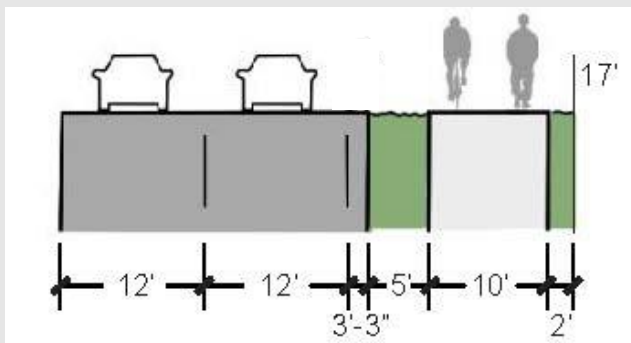
■ Collaborative effort:

- FHWA
- City of Austin
- Bike and pedestrian advocacy groups
- Area stakeholders
- TxDOT

Condition	Minimum (Default) Treatment	Higher Need Area Treatment Options		
		Shared Use Path Approach & Crossing	I-35 Frontage Road Approach	East-West Approach
Interstates, private roads, and allways without signals	No treatment beyond that required.	For new construction, the local city and developer may consider: painted crosswalk "Continental"	For new construction, the local city and developer may consider, in advance of driveway:	As necessary or required: Raised Detectable Pave and the crosswalk (ADA). In addition, for new construction, the local city developer may consider, at crosswalk:
Public streets without signals	Stop sign for vehicles IN ADVANCE (upstream) of painted crosswalk.	Consider: R-10 As a general note, use sparingly, for example if crash history indicates some benefit.	See minimum, plus, in advance of street, if not in conflict with other required signage:	See minimum, plus, as necessary or required: Detectable Pave at each end of the crosswalk in addition, at crosswalk:
Public streets with signals	Signal, stop bars, and pedestrian signals (with sound) as required plus: painted crosswalk "Continental"	Consider: R-10 When signal includes a permissive left turn or a right turn where yield compliance is low, give SUP a head-start (leading pedestrian interval).	See minimum, plus, in advance of street: Detectable Pave at each end of the crosswalk (ADA). In addition, at crosswalk: When signal includes a permissive left turn or a right turn where yield compliance is low, give SUP a head-start (leading pedestrian interval).	See minimum, plus, as necessary or required: Raised Detectable Pave at each end of the crosswalk (ADA). In addition, at crosswalk: When signal includes a permissive left turn or a right turn where yield compliance is low, give SUP a head-start (leading pedestrian interval).

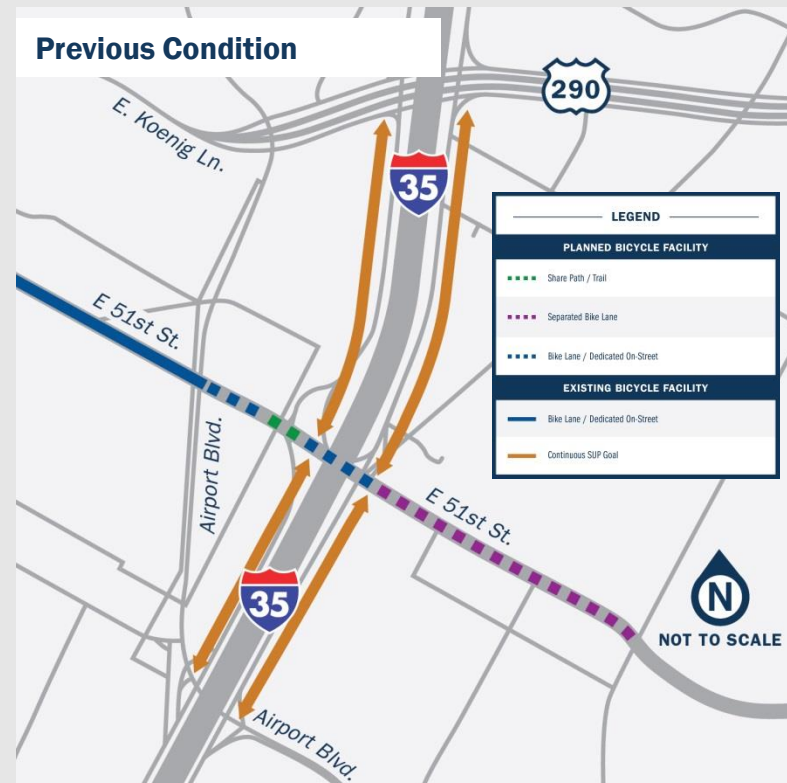


Most Desirable

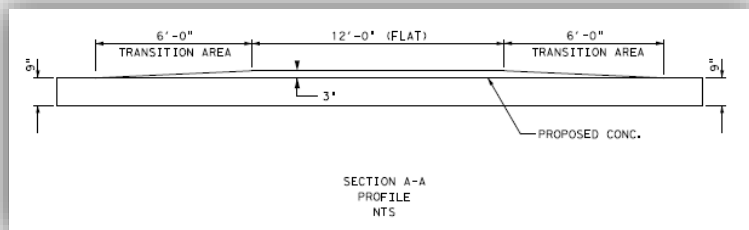
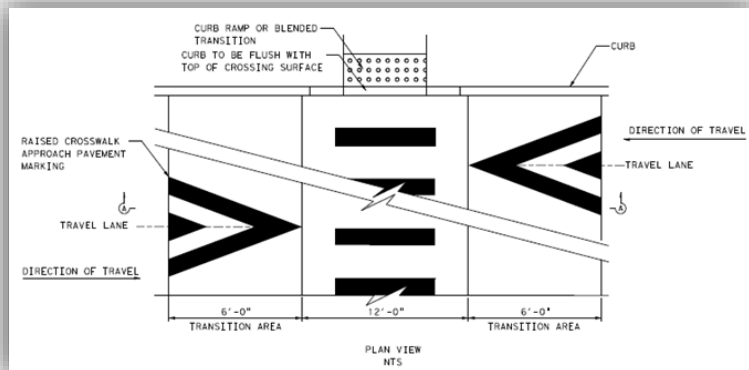


Project Level Example: 51st Project

- Challenges:
 - Gap between existing and planned facilities
 - High number of pedestrian fatalities and crashes
 - Likely increasing number of pedestrian and bicyclists due to development
 - Large number of pedestrian destinations
 - US 290 and Airport Blvd not preferred pedestrian crossings
- Enhancements:
 - Continuous north/south SUP between US 290 and Airport Blvd
 - East/west connectivity started with 51st Street

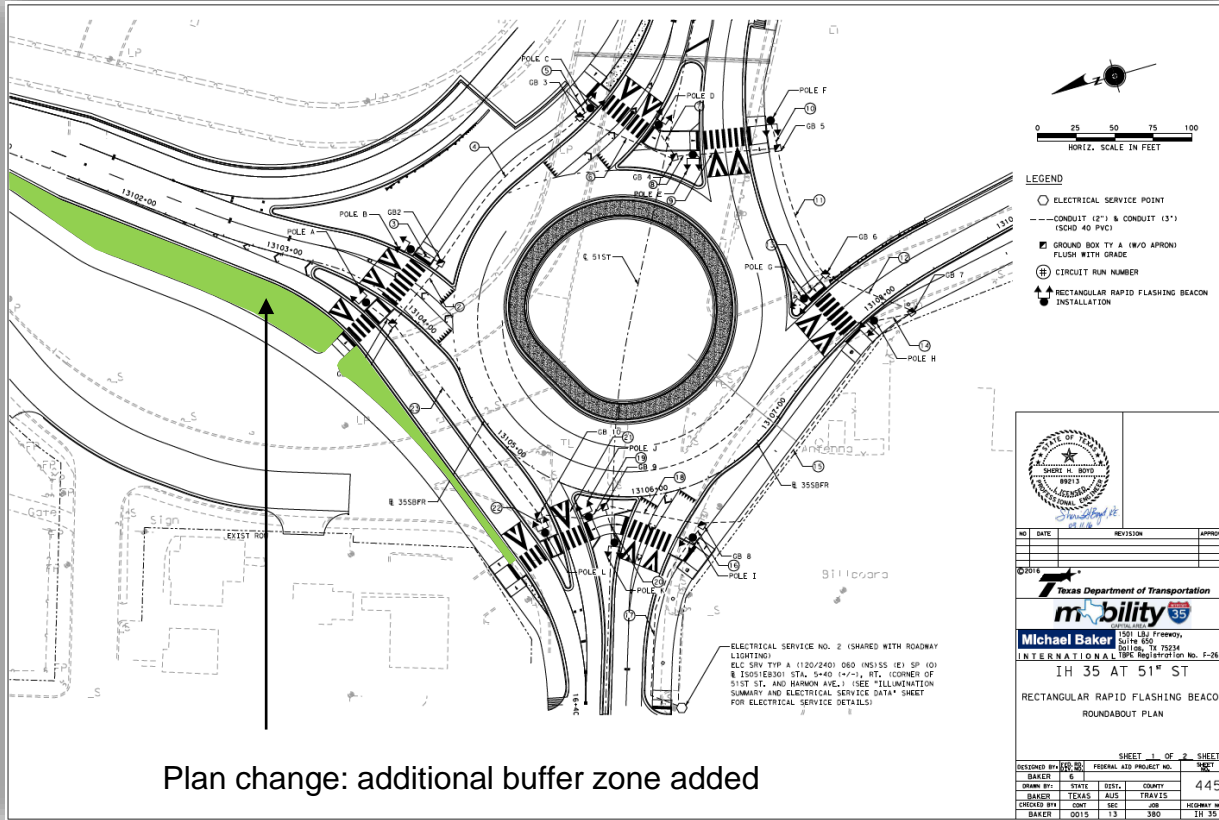


51st Street Roundabout – Raised Crosswalks & Flashing Beacons



- Conduit placement allows for future Pedestrian Hybrid Beacons (PHBs) if warranted

51st Street Project - Most Desirable



51st Street Project – Least Desirable



- Limited ROW
- Utilities
- No Buffer

























*Recommended
bicycle route is
Harmon Ave*

RM 1431 to FM 3406 Project – Less Desirable

Shared Use Path *Under Construction* – varies 4 ft. to 8 ft.

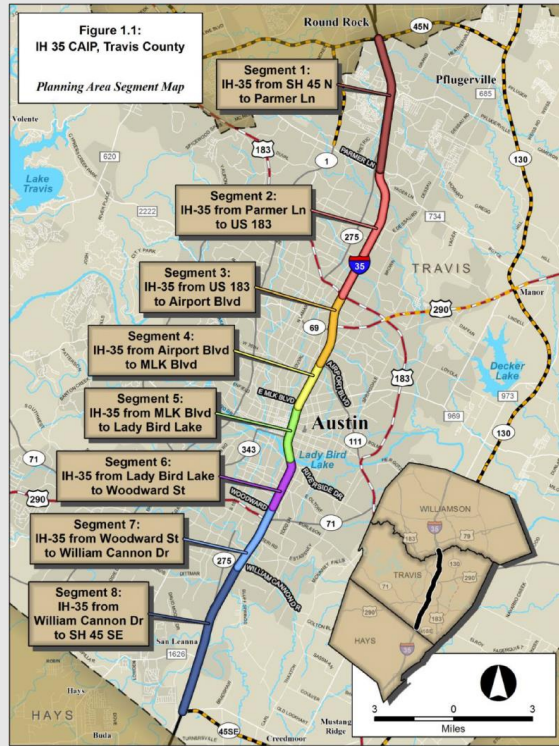


Collaborative Implementation – Optional Signage and Striping

		Higher Need Area Treatment Options		
Condition	Minimum	SUP & Crossing	Frontage Road	East-West
Driveways, private roads, and alleys without signals	No treatment beyond that required.	Painted crosswalk: 	In advance of driveway: 	Raised Detectable Pavers at each end of the crosswalk (ADA) and:  
Public streets without signals	Stop sign/bar for vehicles IN ADVANCE (upstream) of painted crosswalk:  For SUP, painted crosswalk: 	Consider:  *As a general note, use sparingly, for example if crash history indicates some benefit.	See minimum, plus, in advance of street, if not in conflict with other required signage: 	See minimum, plus, as necessary or required: Raised Detectable Pavers at each end of the crosswalk (ADA) In addition, at crosswalk:  
Public streets with Signals	Signal, stop bars, and pedestrian signals (with sound) as required plus: painted crosswalk: 	Consider: 	See minimum, plus, in advance of street:  When signal includes a permissive left turn or a right-turn where yield compliance is low, give SUP a head-start (leading pedestrian interval).	See minimum, plus, as necessary or required: Raised Detectable Pavers at each end of the crosswalk (ADA) In addition, at crosswalk:  
"Free-right" turns (FRT)	Anticipated new RDM design guidelines for tightened radii and narrower FRTs Signage:   	See Minimum	See Minimum Plus, in ADVANCE of minimum signage with additional yield triangle pavement markings just ahead of crosswalk and at FRT crosswalk:   	See Minimum Plus, in ADVANCE of minimum signage with additional yield triangle pavement markings just ahead of crosswalk and At FRT crosswalk:   

Ongoing Activities – Near Term Priority Assessment

Assessment Plan



Assessment Example Photo



- Walking the corridors to assess usability and comfort of existing facility
- Coordination with city of Austin on upcoming bicycle/pedestrian projects

Public Outreach

- Mobility35 Construction Outreach
 - Coordination with schools, neighborhoods, businesses, and people experiencing homelessness
 - Pedestrian construction signing
 - Multi-lingual construction safety outreach and detour information
 - Coordination with Safe Routes to Schools and other advocacy groups
- Be Safe Be Seen Pedestrian Safety Initiative



Lessons Learned

- Data is your friend
- Bicycle and pedestrian detours during construction is important
- Seek input from multiple TxDOT departments (maintenance, traffic, and signage) and partners early on in the design process
- Land development is locally controlled



Stay involved:

Web: www.My35.org/Capital or www.My35Construction.org

Facebook: www.facebook.com/TxDOT

Twitter: @TxDOTAustin

