

Completing Austin's Streets



OVERVIEW

Part I. 10 Lessons Learned in Austin

Part II. Peer City Best Practices

Part III. Austin Projects



Part I. 10 Lessons Learned

Or, The City of Austin's evolutionary path
from a **Bike Program***

to a

Complete Streets Program

paired with an

Active Transportation Program

** with pedestrian and transit programs too*

1. Terrible traffic helps.

- Austin-area roadways are among the most traffic-congested in the country.



2. Integrate investments with CIP \$\$\$.

- Built a mission-driven group of designers, planners, PM's, community outreach staff.
- Project team in Public Works, integrated with CIP \$\$



3. Add bike lanes during road work.

- 2002 City Council resolution: bike + ped 20%

“Whenever you can, add bicycle facilities during road work -- otherwise you lose that opportunity, perhaps for a generation.”

-- Public Works Director Howard Lazarus



Transportation

4. Build community advocates.

- Street Smart Task Force built momentum
- Gung-ho cycling community (Bike Austin)
- Bicycle Advisory Group – Advises Mayor & Council
- Nonprofit for Bike Share



5. Create + update a Bicycle Master Plan.

1998 > 2009 > 2014



6. Build a lot of bicycle routes fast.

- 2008-2013 175 miles of bike facilities



8. Shift City Culture: “Business As Usual.”



Pfluger Bicycle Bridge

Ribbon Cutting Event



9. Send decision makers on study tours.

- The Green Lane Project, 2011-2013
- 1 of 6 cities, People for Bikes
- Holland & Denmark: *See it, ride it, believe it!*





Hotel
Info

Hotel
Info

FEBO

ENTRANCE
PURE
LIFE
ENTRANCE
PURE
LIFE
ENTRANCE
PURE
LIFE





Big Take-Away:

“I’m excited about making any investment where one of the ROI’s is joy.”

City Manager
Marc Ott



Big Take-Away: “Cities need to serve not ‘cyclists’ but rather ‘people on bikes’.”

Public Works Director Howard Lazarus

Big Take-Away: “It takes decades to build mature bicycle networks, so make incremental improvements and retrofits every year.” -- Council Member Chris Riley



10. Activate a Complete Streets policy.



Policy: Community Co-Benefits

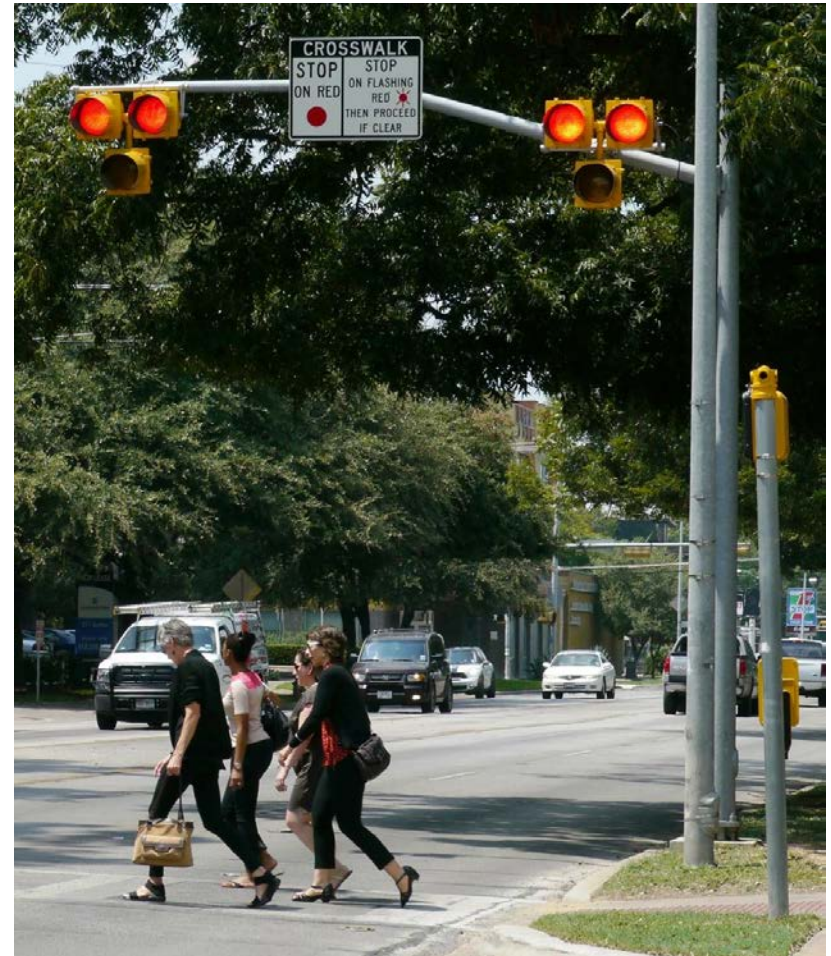
- ✓ Safety
- ✓ Health
- ✓ Affordability
- ✓ Going Green
- ✓ Economy
- ✓ Choices
- ✓ Smart growth



Policy: Integrates Pedestrian

Ongoing efforts include:

- ✓ Sidewalk Program
- ✓ Great Streets Program
- ✓ Sidewalk Cafes
- ✓ Urban Trails
- ✓ Pedestrian Beacons





Sixth
STREET - AUSTIN

Buffalo Billiards

LUNCH IS SERVED!
NOW OPEN AT 11 AM
MONDAY - FRIDAY

Buffalo Billiards

SODA

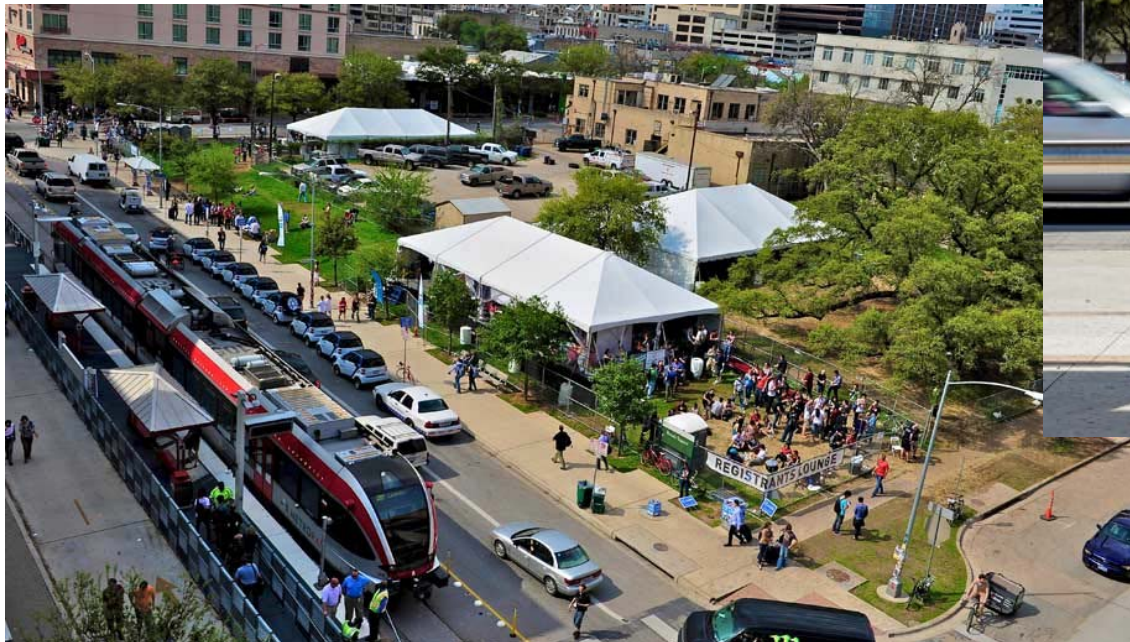
CATTO



Policy: Integrates Transit

Ongoing efforts include:

- ✓ Bus Rapid Transit and Rail
- ✓ Transit Priority Lanes



Policy: Integrates Green & Placemaking



Austin Complete Streets Policy

- **Mobility**
- **Urban Design**
- **Green Streets**





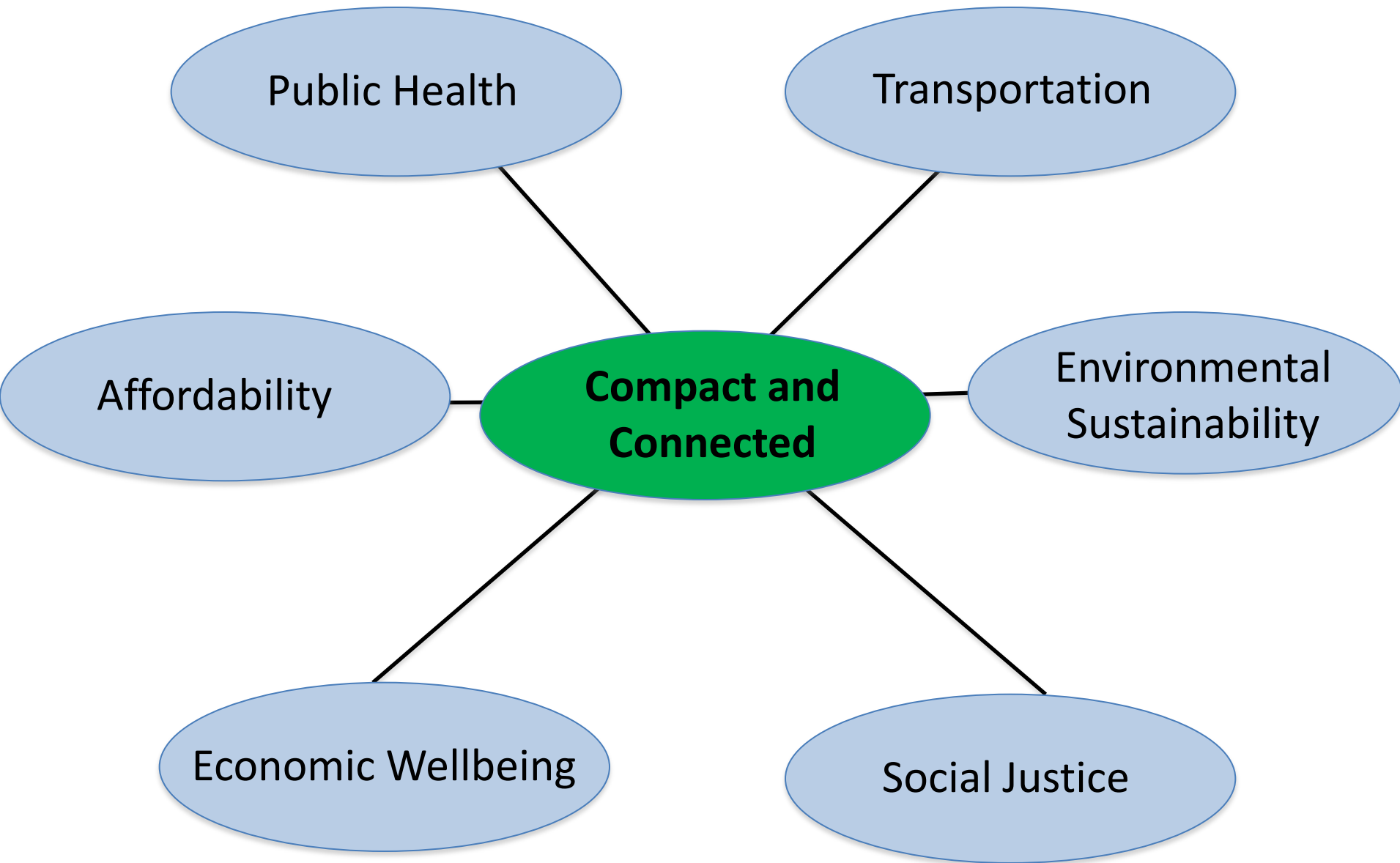
FOUNDATION

2012 - New City Comprehensive Plan

PRIORITY PROGRAMS

- Invest in a compact and connected Austin.
- Sustainably manage our water resources.
- Use green infrastructure to integrate nature into the city.
- Grow Austin's creative economy.
- Develop and maintain household affordability.
- Create a Healthy Austin Program.
- Revise development regulations and processes to promote a Compact and Connected city.

Imagine Austin Preferred Growth Pattern: Many Benefits



Austin Complete Streets Policy: 8 Principles

Complete Streets...

1. Serve all users and modes.
2. Require connected travel networks.
3. Are beautiful, interesting and comfortable places for people.
4. Require best-practice design criteria and context-sensitive approaches.
5. Protect Austin's sustainability and environment.
6. Include all roadways and all projects and phases.
7. Are the work of all City departments.
8. Require appropriate performance measures.



The Best Complete Streets
Policies of 2014

February 2015

CITY OF AUSTIN COMPLETE STREETS POLICY

VISION AND INTENT

Complete Streets are a tool to advance **multiple long-term community goals** defined by the vision and policies of the **Imagine Austin Comprehensive Plan**.

The intent of this Complete Streets policy is to **enhance Austin's quality of life** by advancing **mobility, public health and safety, livability, sustainability, equity, affordability, economic activity, climate resilience, green infrastructure, excellence in urban design and community character**.

Specifically, this Complete Streets Policy is a tool to implement a core Imagine Austin Priority Program: “Invest in a compact and connected Austin.”

As part of this program, the City of Austin commits to making improvements within the right of way that support making pedestrian, bicycle, and transit travel as safe and convenient as vehicle travel.

Complete Streets support compact development patterns and expand everyone’s mobility choices throughout Austin. They are designed to balance safety and convenience for everyone using the road.

The City of Austin recognizes that the design of streets and the right of way provides a unique opportunity to thoughtfully integrate and advance multiple objectives for our community while delivering maximum benefits from City investments.

PART II

PEER CITY RESEARCH

LEARNING FROM BEST

PRACTICES

CREATING A

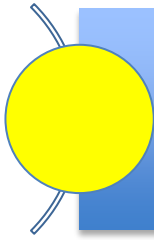
COMPLETE STREETS

CITY CULTURE

RESEARCH: What's between a POLICY ...

- **Complete Streets Program: Create, staff, fund**
- **Internal Alignment: Multiple departments**
- **Staff Training. Community/Partner Education.**
- **Private Sector (site plan review process)**
- **Project Funding (Transportation user fee)**
- **Update Guidance**
 - **Code Revisions**
 - **Criteria Manual**
 - **Street Design Guidelines**
 - **Process: Project development and reviews**

... and PROJECTS?



SAN FRANCISCO 7 Year Process +

2005
Better
Streets
Policy

2006
Complete
Streets
Policy

2008
Better
Streets
Plan:
released for
public
review

2010
Better
Streets Plan
Final

2012
Project
Guidance
Issued
Integrated
website



Design Guidance by Street Type (Typologies)

Downtown Commercial

Downtown commercial streets such as Grant or Kearny Streets handle high pedestrian volumes and high levels of activity throughout the day. Due to their importance, visibility, and high levels of pedestrian activity, downtown streets should have generous sidewalks, high levels of pedestrian amenities, and distinctive, formal design treatments.

Streetscape guidelines for downtown commercial streets are described in the *Downtown Streetscape Plan*, adopted in 1995.



➤ Downtown streets cater to a high volume of local and visiting pedestrians and should reflect a high level of amenity and quality of care.

Considerations

- High levels of pedestrian activity
- Desire for generous pedestrian environment and public realm
- High volume of through traffic
- Important transit functions
- Access needs for local businesses
- Potential presence of sub-sidewalk basements
- Limited sunlight access to sidewalks

Standard Improvements

Marked crosswalks with curb ramps (Section 5.1)



Sidewalk planters (planter boxes) (6.1)

Pedestrian signals (countdown and APS) (5.2)



Stormwater control measures (6.2)

Corner curb extensions (5.2)



Pedestrian-scale lighting (6.3)

Street trees (6.1)



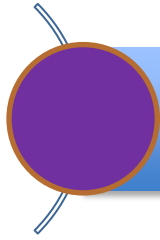
Special paving in furnishing zone (6.4)



Site furnishings (6.5)

Additional Guidelines

- Downtown Commercial streets should follow the guidelines in the *Downtown Streetscape Plan*
- For specific stormwater control measures, see Section 6.2.



CHICAGO

8 year process

2006:
Complete
Streets
Policy

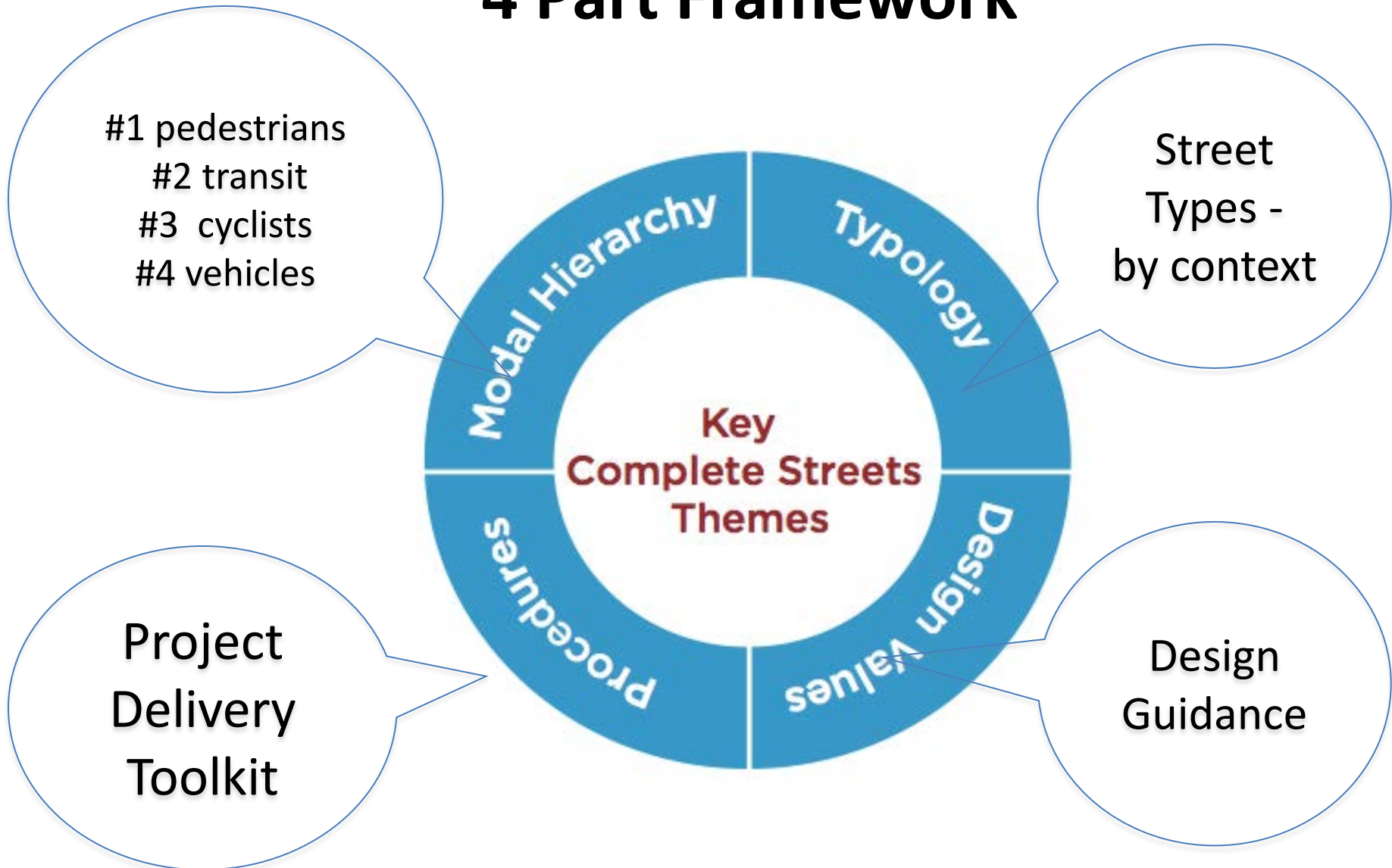
2011:
"Complete
Streets
Chicago"
**Project
Kickoff**

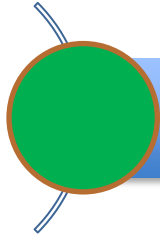
2012:
"Complete
Streets
Chicago"
**Guidelines
Published**

2013:
*Sustainable
Urban
Infrastructure*
**ROW
Standards**

2014: :
"Complete
Streets
Chicago"
Update

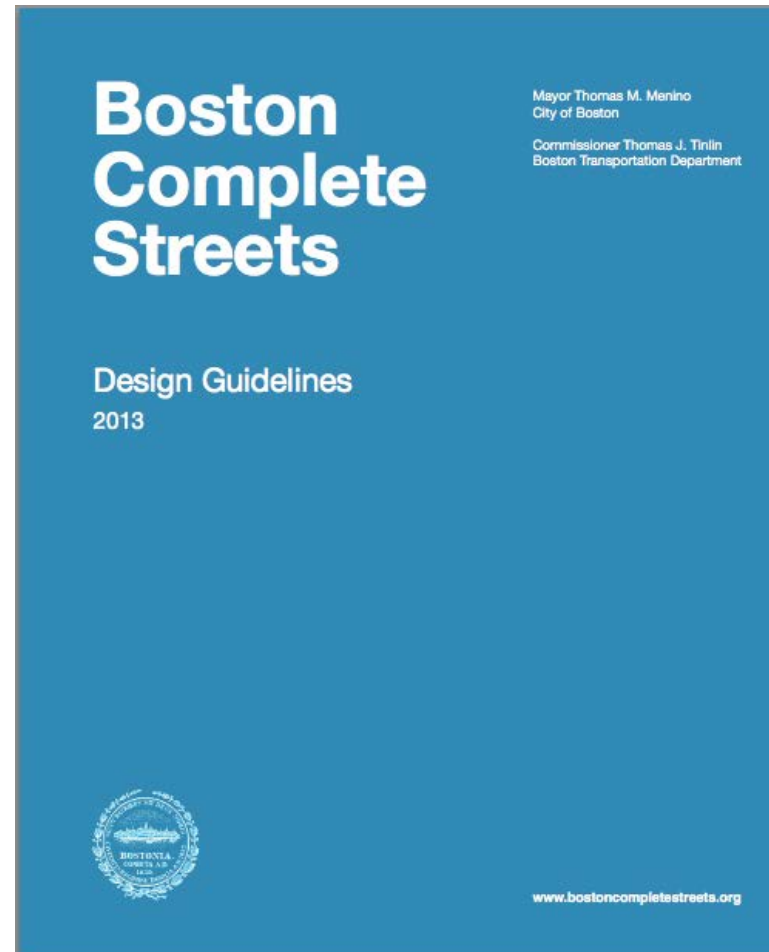
4 Part Framework





BOSTON Complete Streets Design Guidelines

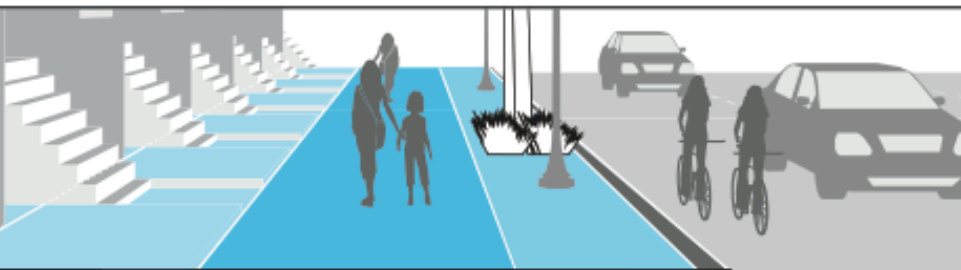
- Vision
- Street Types
- Sidewalks
- Roadways
- Intersections
- Smart Curbsides
- Implementation



Clear ROW & Engineering Guidance

Preferred and Minimum Widths for Sidewalk Zones

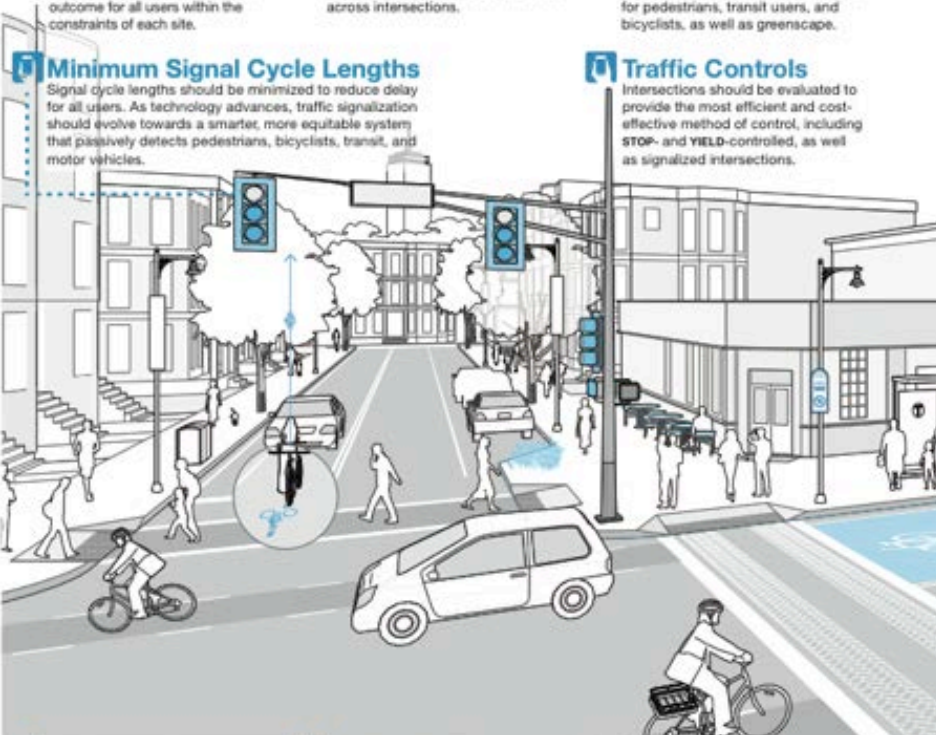
The width and design of sidewalks will vary depending on street typology, functional classification, and demand. Below are the City of Boston's preferred and minimum widths for each Sidewalk Zone by Street Type.



Street Type	Frontage Zone		Pedestrian Zone*		Greenscape/ Furnishing Zone		Curb Zone	Total Width	
	Preferred	Minimum	Preferred	Minimum	Preferred	Minimum		Preferred	Minimum
Downtown Commercial	2'	0'	12'	8'	6'	1'-6"	6"	20'-6"	10'
Downtown Mixed-Use	2'	0'	10'	8'	6'	1'-6"	6"	18'-6"	10'
Neighborhood Main	2'	0'	8'	5'	6'	1'-6"	6"	16'-6"	7'
Neighborhood Connector	2'	0'	8'	5' (4)*	5'	1'-6"	6"	15'-6"	7'
Neighborhood Residential	2'	0'	5'	5' (4)*	4'	1'-6"	6"	11'-6"	7'
Industrial Street	2'	0'	5'	5' (4)*	4'	1'-6"	6"	11'-6"	7'
Shared Street	2'	0'	Varies	5' (4)*	N/A	N/A	N/A	Varies	Varies
Parkway	N/A	N/A	6'	5'	10'	5'	6"	16'-6"	10'-6"
Boulevard	2'	0'	6'	5'	10'	5'	6"	18'-6"	11'-6"

Design Guide: Graphic & Accessible

Intersection Design Principles



Accessible for All
Universal accessibility design principles should inform all aspects of intersection design, ranging from geometry to signal timing with a commitment to achieving the best outcome for all users within the constraints of each site.

Ease of Maintenance
Intersection materials should be long-lasting and sustainable, requiring a low amount of maintenance. Pavers are not allowed in crosswalks, and a clear accessible path should be provided across intersections.

Reclaiming Space
Intersections that contain wide, undefined areas of pavement not necessary for the efficient movement of motor vehicles provide opportunities to reclaim street space for pedestrians, transit users, and bicyclists, as well as greenscape.

Minimum Signal Cycle Lengths
Signal cycle lengths should be minimized to reduce delay for all users. As technology advances, traffic signalization should evolve towards a smarter, more equitable system that passively detects pedestrians, bicyclists, transit, and motor vehicles.

Traffic Controls
Intersections should be evaluated to provide the most efficient and cost-effective method of control, including STOP- and YIELD-controlled, as well as signalized intersections.

Reduce Clutter
Intersection elements, such as sign and light poles, utility covers, hydrants, traffic control devices, etc. must be thoughtfully laid out to maximize accessibility and functionality, and utilities should be accessible for maintenance without obstructing pedestrian crossings.

Balancing Users' Needs
Intersection design should balance the safe and efficient movement of non-motorized users with the efficient movement of motor vehicles. Pedestrians and bicyclists are susceptible to far greater injuries in the event of a crash with a motor vehicle. As pedestrians are the most vulnerable roadway user, intersection designs must prioritize their needs. This design principle must inform all aspects of intersection design, from determining the number of lanes, to the configuration of crosswalks, to the design of traffic controls.

Accessible Visuals: example for driveways

FEATURES TO ACTIVATE SIDEWALKS

Driveways

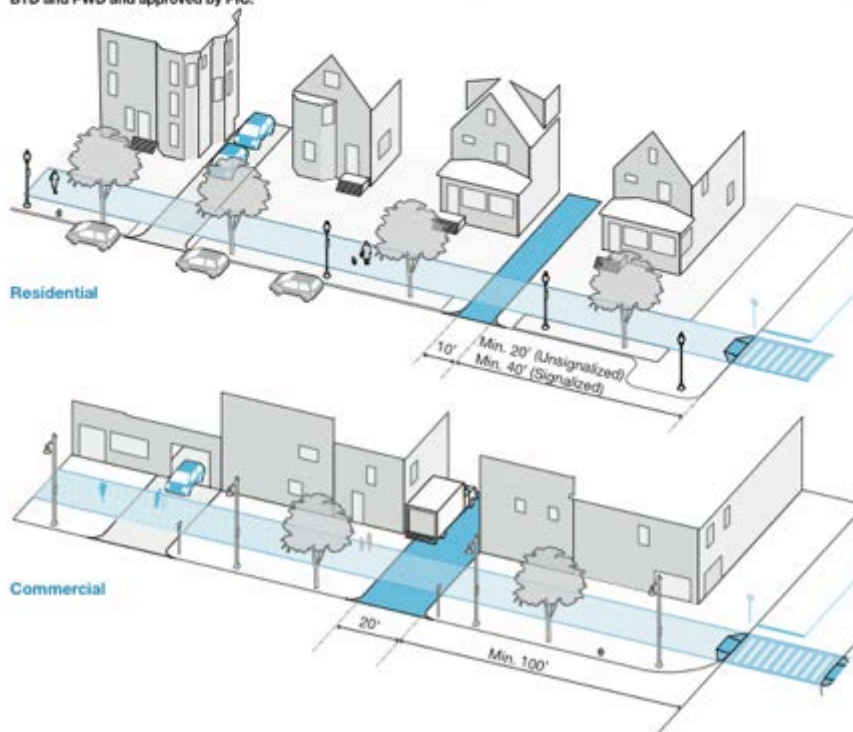
Overview

The design of driveways should provide a continuous and level Pedestrian Zone across the vehicular path and encourage vehicles to yield to pedestrians on the sidewalk. Driveways across public sidewalks are sometimes needed to link streets to off-street parking facilities and loading zones, however driveways can create conflicts and require special treatments in order to maintain a safe and comfortable walking environment.

New driveways, or changes to existing driveways for either commercial or residential use must be reviewed by BTD and PWD and approved by PIC.

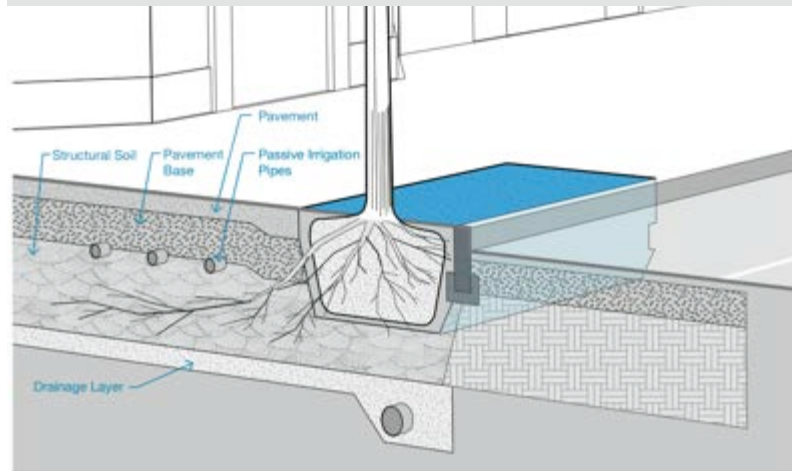
Driveway Setbacks and Widths

	Min. Distance from Signalized Intersection	Min. Distance from Unsignalized Intersection	Min. Driveway Width	Max Driveway Width
Commercial Driveways	100'	100'	20'	24'
Residential Driveways	40'	20'	10'	12'



Specifications: example for street trees

Root Environment for Street Trees

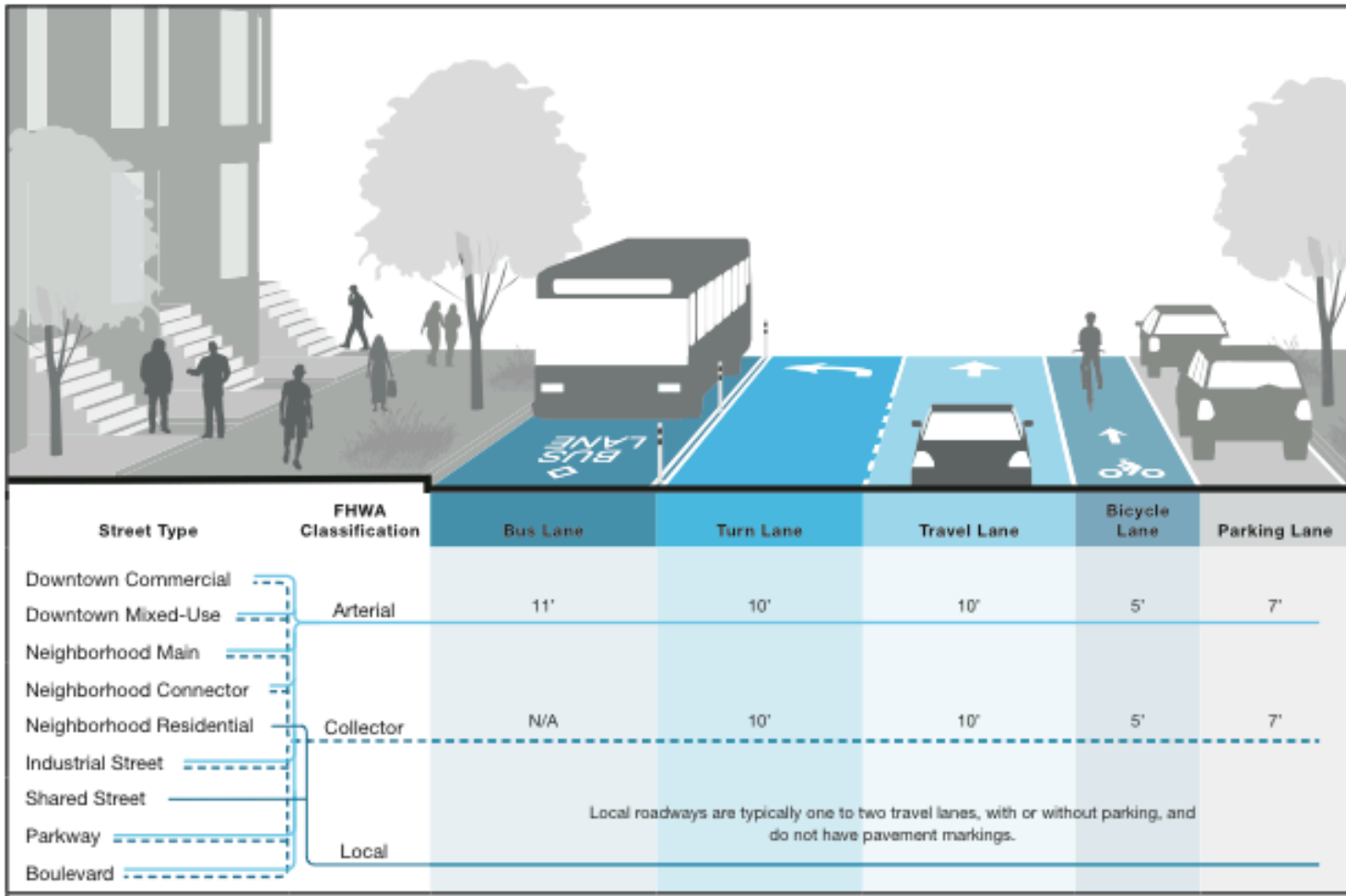


Preferred Tree Spacing and Offsets

	1 Short Stature Ornamental Trees	2 Medium Stature Trees	3 Large Stature Shade Trees
On-Center Spacing	20'	25'	30'
Offset from Curbs or Path Edges	2'-6"	2'-6"	2'-6"
Offset from Light Poles	15'	15'	15'
Offset from Driveways, Fire Hydrants, Loading Zones	10'	10'	10'
Offset from Intersections (Depending on direction of traffic)	20'	20' to 40'	20' to 40'

Specifications: Lane widths

Minimum Widths for Roadway Lanes

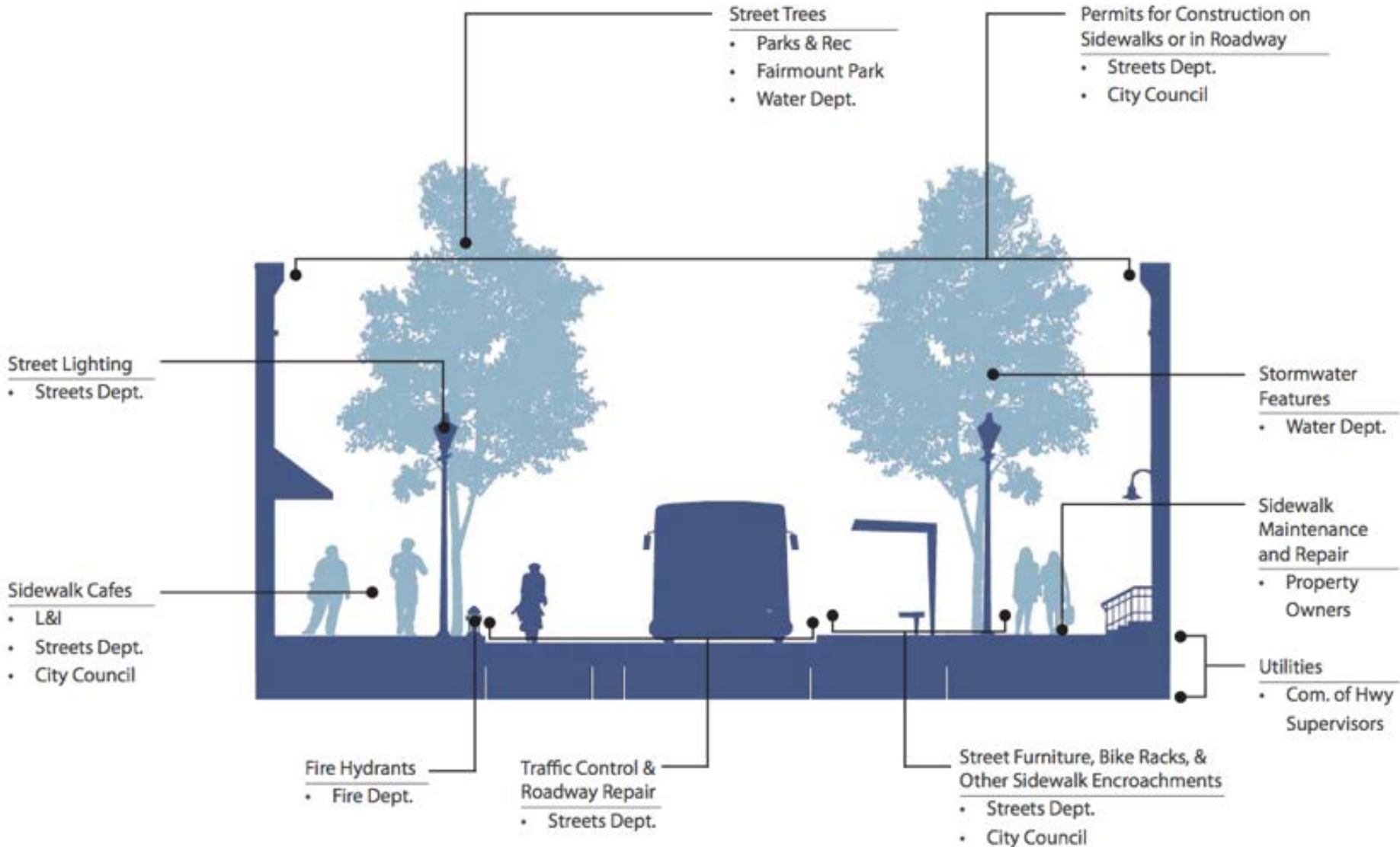


Philadelphia Complete Streets Design Handbook

- ✓ **Street Planning and Design Process**
- ✓ **Street Types (Typologies) with Map**
- ✓ **Complete Streets Components**
- ✓ **Street Design Guidance**
- ✓ **Implementation and Enforcement**
- ✓ **Green Streets Design Handbook**



Graphic: Who's Who in the R.O.W.



Street Type Classifications

- **High-Volume Pedestrian**
- Walkable Commercial Corridor
- Urban Arterial
- Commercial/Industrial
- City Neighborhood
- Low-Density Residential
- Local

Each type of street has its own section in the Complete Street Design Handbook, that shows exactly how to design it.

Design Guidance: By Street Type

3.1 HIGH-VOLUME PEDESTRIAN

These streets are important pedestrian destinations and connections in high-density commercial, residential, and mixed use neighborhoods. High-Volume Pedestrian streets serve more than 1,200 pedestrians per hour during the midday. Many of these streets also provide important connections for vehicle traffic and serve high vehicle volumes. As a result, these streets must often be designed to prioritize pedestrian movement and accommodate high vehicle traffic volumes.

PEDESTRIAN SIGNIFICANCE

High

VEHICLE SIGNIFICANCE

High to Medium

FUNCTIONAL CLASSIFICATION

Major or Minor Arterial

TYPICAL LAND USE & CHARACTERISTICS:

- Commercial, mixed use, higher-density residential (R10+)

CONSIDERATIONS:

- Primarily located in Center City
- High levels of pedestrian activity. Focus on pedestrian environment and public realm.
- Buildings set at edge of street line and commercial uses create high potential for sidewalk encroachments.

DESIGN TREATMENTS:



4.3 PEDESTRIAN COMPONENT

Required

- Min. clear width 8' or half total sidewalk width (4.3.2)
- Curb ramps (4.3.3)
High Priority (include if width permits)
- 16' sidewalk width (4.3.1)
Appropriate in Limited Circumstances
- Festival (curbless) street (4.3.5)



4.4 BUILDING & FURNISHING COMPONENT

Required

- ☑ Min. 4' furnishing zone (4.4.2)
High Priority (include if width permits)
- Bicycle parking (4.4.3)
- Lighting (4.4.4)
- Street trees (4.4.7)
- Street Furniture, Honor Boxes, Etc (4.4.10)
Priority (consider if width permits)
- Benches (4.4.5)
- Planters (4.4.8)
- Stormwater planters (4.4.9)

Appropriate in Limited Circumstances

- Sidewalk cafes (4.4.6)
- Newsstands (4.4.11)
- Vendors (4.4.12)
- Architectural features (4.4.13)



4.5 BICYCLE COMPONENT

High Priority (include if width permits)

- Conventional bike lane (4.5.1)
- Buffered bike lane (4.5.3)
- Bike route signs (4.5.11)
Priority (consider if width permits)
- Marked shared lane (4.5.9)
Appropriate in Limited Circumstances
- Cycle track (4.5.6)
- Bicycle friendly street (4.5.8)
- Green colored pavement (4.5.10)



4.6 CURBSIDE MANAGEMENT COMPONENT

High Priority (include if width permits)

- On-street parking (4.6.1)
- In-street bicycle parking (4.6.2)
- Loading zones (4.6.4)
- Transit stops & shelters (4.6.5)

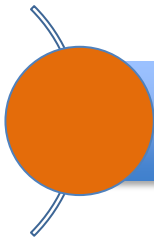
Street Types: Map

Find your street, know your design



So, back to Austin ...





AUSTIN 5 Year Process



Bike and Pedestrian Projects
+ Transit Priority continue

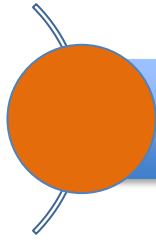
2014
Policy
Adopted

2014-15
CS Program
Launched
Active
Transport.
Bike Plan
Trails Plan

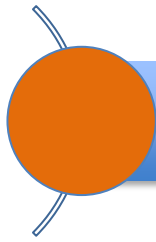
2016
Street Network
Plan
Street Design
Process
Vision Zero
CodeNEXT
CS Metrics Report

2017-2018
Strategic
Mobility
Plan
CS Design
Standards
New Code &
Criteria

2018-2020
Transformational
Projects
Metrics
*Continuous
Improvement*
ALL YEARS
*Education
Enforcement
Funding
Safety (Vision Zero)*



- ✓ Policy Development
- ✓ **New!** Complete Streets Steering Committee
- ✓ **Complete Streets Policy Adopted**
- ✓ National Complete Streets Coalition
 - 2 Training Workshops*
 - ✓ City Staff
 - ✓ Community
 - ✓ Draft work plan
 - ✓ Pilot projects
- ✓ **New! Active Transportation Program**
(Bike Program moved from Public Works)
- ✓ **New! Complete Streets Program**
(Manager plus Consulting Engineer)
- ✓ **New! Green Streets Working Group**
- ✓ **Bike Plan Adopted**
- ✓ **Urban Trails Plan Adopted**
- ✓ 5-Year: Developed phased approach



AUSTIN 2015-16 – Maturing A Program

6 C.S. Program Elements

1. Policy, Program & Funding
2. Street Design
3. System Development
4. Project Compliance Reviews
5. Education, Outreach & Communications
6. Metrics



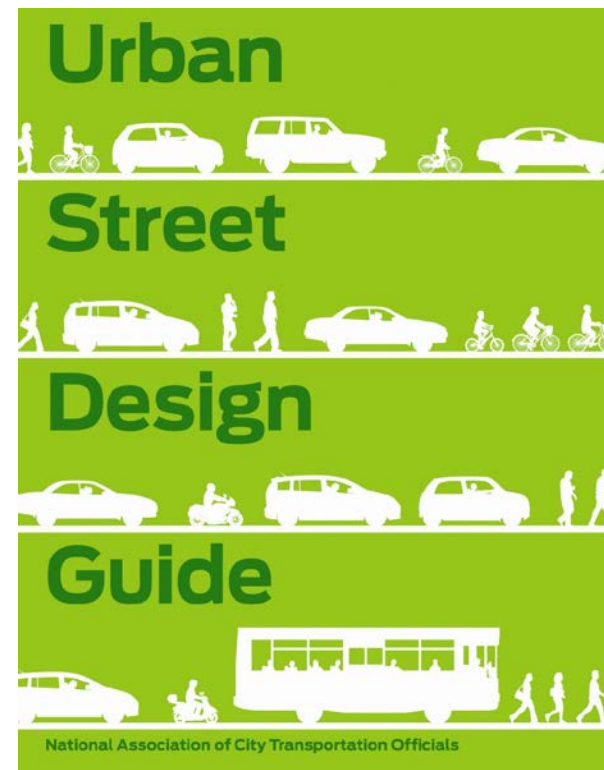
Active Transportation Program
Cycle Track Project, Third Street

Links Downtown Convention Center to
City Hall/Second Street District



NACTO Designing Cities 2015 Conference in Austin

Austin welcomed city transportation officials and practitioners from across North America for a series of conversations on urban street design and transportation policy.



Part III. Austin Projects

- **South Congress Avenue**
- **Guadalupe St. (The Drag)**
- **Great Streets Downtown**

South Congress Avenue





AUSTIN

MOTEL

NO ADDITIVES
NO PRESERVATIVES
CORPORATE FREE
SINCE 1938

I LOVE
HAPPY
BACON
& BRACK BAR

James
The Circle

ONE WAY

WALKING

WALKING

WALKING

WALKING

WALKING

WALKING

WALKING

WALKING

South Congress Avenue

- **Date Opened: 2011**
- **Budget: \$5M***
- **Location: “SoCo” entertainment and tourist area**
- **Scope: 11+ blocks, bicycle lane, rapid transit stations**
- **Special features: Stormwater treatment channels; pedestrian “bulb outs” with bike racks**
- **Parking: Reverse angle parking**
- **Next Steps: Extending the bike lane southward**

South Congress Improvement Project - Timeline

1998 – \$4 million project funded by 1998 Bond Election

2000 – Project put on hold pending Light Rail referendum

March 2003 – Lighting study complete; construction not desired

May 2002 – City partners with TX School for the Deaf for improvements

October 2004 – Potential project list generated for Feasibility Study

February 2005 – Feasibility Study initiated

July 2006 – South Congress Avenue re-striped

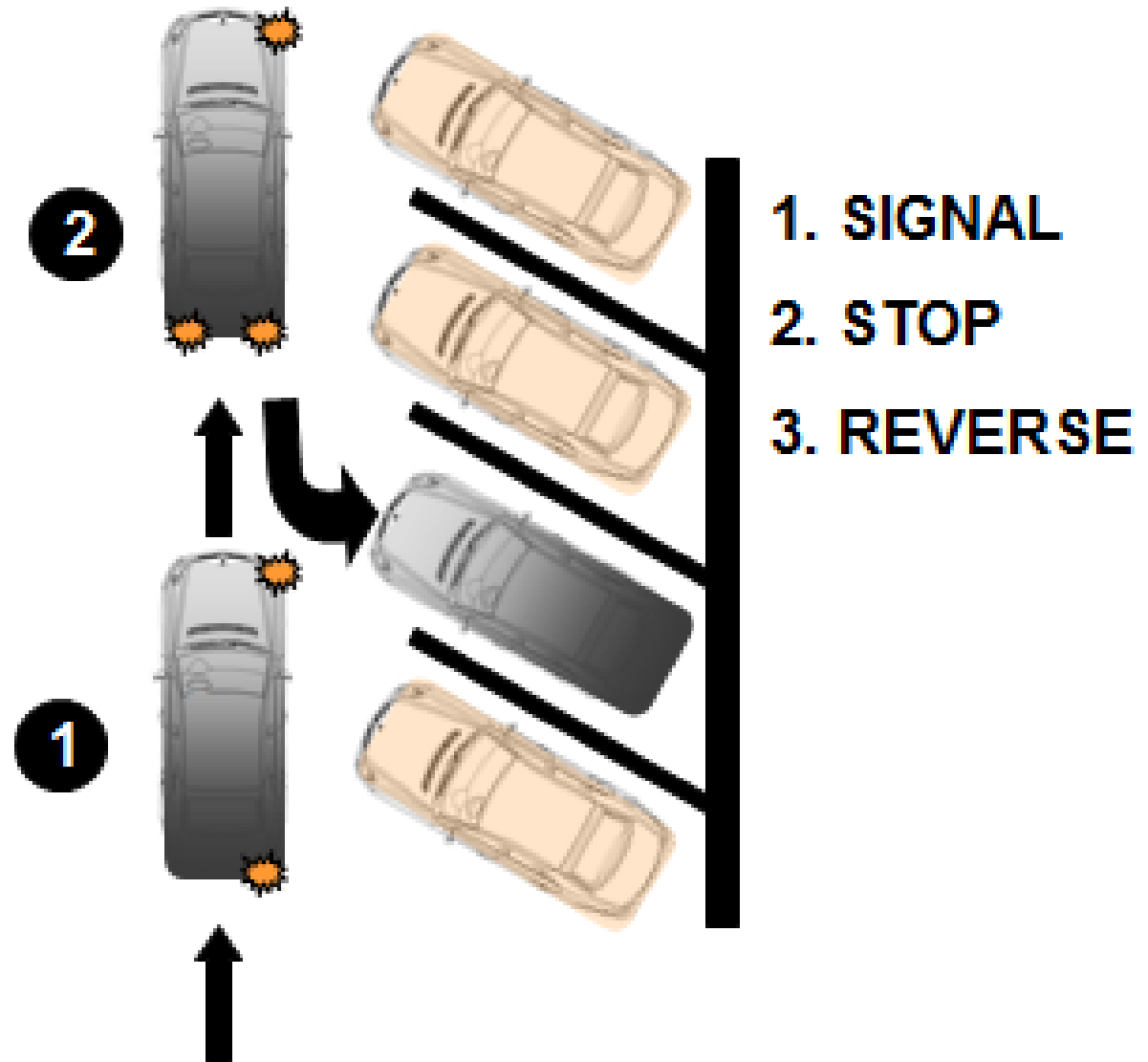
March 2007 – Feasibility Study completed

2007-2010 – Community meetings; design/construction of improvements

2011 – Project Completion

Back-in Angle Parking

Designed for the safety of drivers, cyclists, and pedestrians





South Congress Avenue









DO NOT
YIELD
TO GREEN

CESAR CHAVEZ

ONLY

Guadalupe Street (The Drag)



Guadalupe Street (The Drag)

- **Date Opened: Oct. 2013**
- **Budget: \$650,000 (bond funding)**
- **Location: “The Drag” at heart of University campus**
- **Scope: 5 blocks, protected bicycle lane, MetroRapid stations, bike share station**
- **Special features: Green lane, buffer area with 2 rapid bus stops, pedestrian islands, planters**
- **Parking: Cars form a buffer for bike lane**
- **Next Steps: Full Corridor Plan, 10 blocks**





RIDING BIKES
OR
SKATEBOARDS
ON SIDEWALK
PROHIBITED

KAPL

5 WOODROW



TEXAS
CVS
Grocery
Beauty
Photo

P

P

People who skip to fast burn more calories
FOR UP TO 10%
www.texasstate.gov

FREE

CVS

P



83

9310

Express

HIGH AUTHORITY

SS

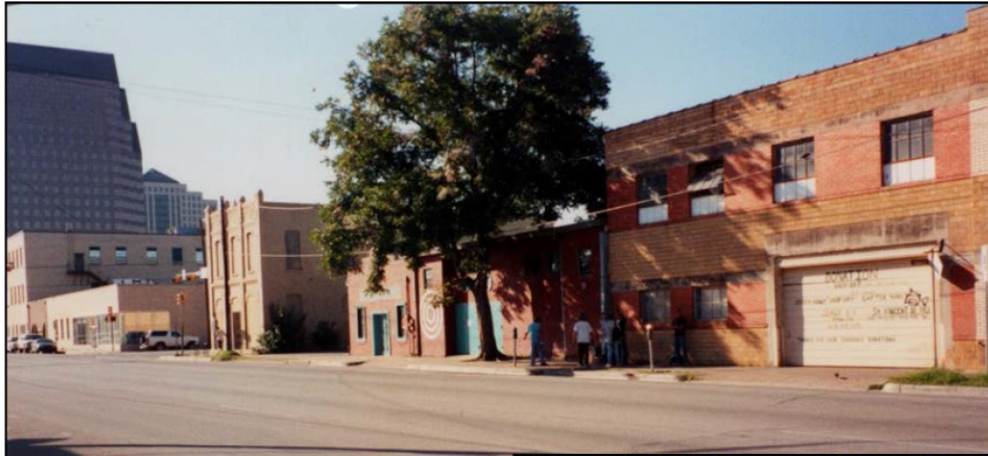
CAUTION
THIS COACH BUSES
WIDE RIGHT TURN

TEXAS
CVS
Grocery
Beauty
Pharmacy

P
3
3PM
5PM

CD-UT
MARK

Great Street Success: **Second Street**



Before

Great Urban Design
Creates
Economic Development



After

Great Streets Program: 15 Years

Mission: To improve the quality of downtown streets and sidewalks, to create great public spaces and places

Streetscape Standards:

- Wide sidewalks: 18 or 32 feet
- Street furnishings: benches, bike racks, public art
- Street trees, to create pedestrian shade canopy
- Transit stops; pedestrian and/or transit/bike priority
- Sidewalk cafes

Developer reimbursements: Funded by parking \$\$\$

2nd Street: Walkable Retail District





2nd Street: Pedestrian Priority

JO'S
NEW COFFEE
NEW TASTE
PROVIDED BY...
CIVÉE
COFFEE
FROM THE CITY PRESENTS
FIRST WIFE OF EVERY MONTH
LIVING RECORD



3rd Street: Cycle Track





3rd Street: Bicycle Priority



4th Street: Transit and Bicycle Priority

Mopac Bridge (over Barton Creek) Connects the Network



HDR HDR Engineering, Inc.
4401 West Gate Blvd, Suite 400
Austin, TX 78745
FIRM REGISTRATION No. 754



CITY OF AUSTIN

PRELIMINARY
FOR INTERIM REVIEW ONLY; NOT FOR
PERMITTING, BIDDING, OR CONSTRUCTION.
Prepared by or under the
Direct Supervision of
MARK D. BORNSTEIN, P.E. 92239
6/25/2012

MOPAC MOBILITY PROJECT

183A Shared Use Path Paid for as part of Toll Road Extension



**Complete streets
are lively streets ...**








John R Rogers
photographic artist

Thank You!

Robert Spillar, P.E. Rob.Spillar@AustinTexas.gov
Director, Austin Transportation Department



IMAGINEAUSTON

Vibrant. Livable. Connected.