CITY OF AUSTIN

Sidewalk Master Plan & ADA Transition Plan Update

(Sidewalk Asset Management Plan)

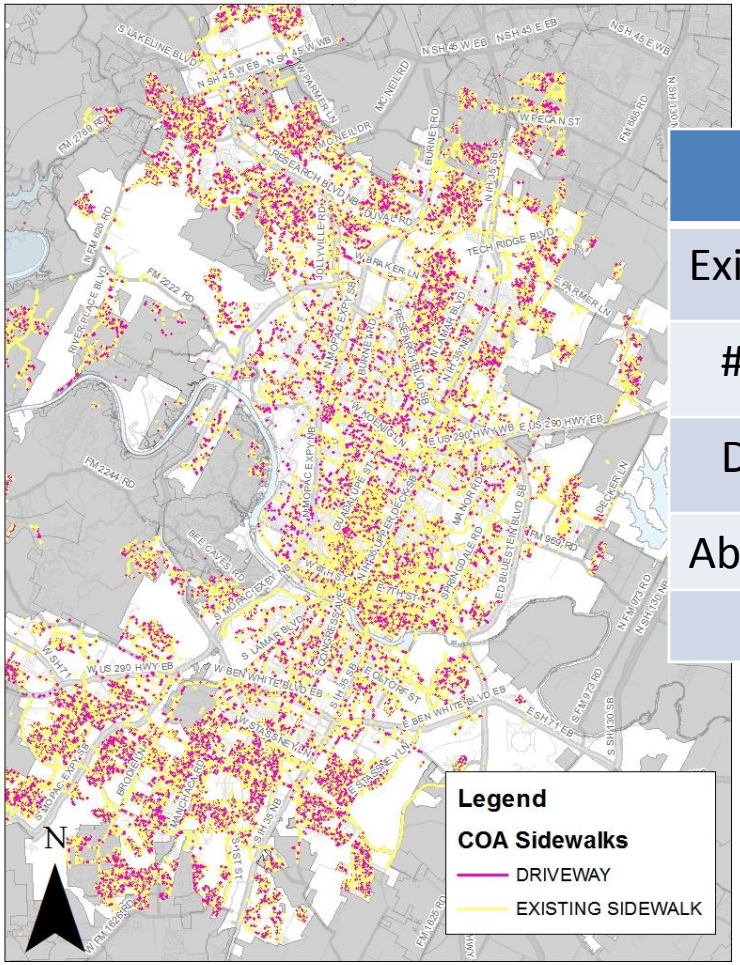
May 4th, 2015

Pedestrian Advisory Council

OVERVIEW

- Sidewalks Background
- 2009 Sidewalk Master Plan Implementation
- Update Priorities
- Peer Cities Report
- Sidewalk Condition Assessment
- Prioritization Tool Update
- Update Schedule
- Questions & Feedback

CURRENT SIDEWALK STATISTICS



TOTALS	
Existing Sidewalk (miles)	2,360
# Driveways	97,000+
Driveway/Sidewalk (miles)	360+
Absent Sidewalk (miles)	2,270

TRANSIT/ SIDEWALK SYSTEM

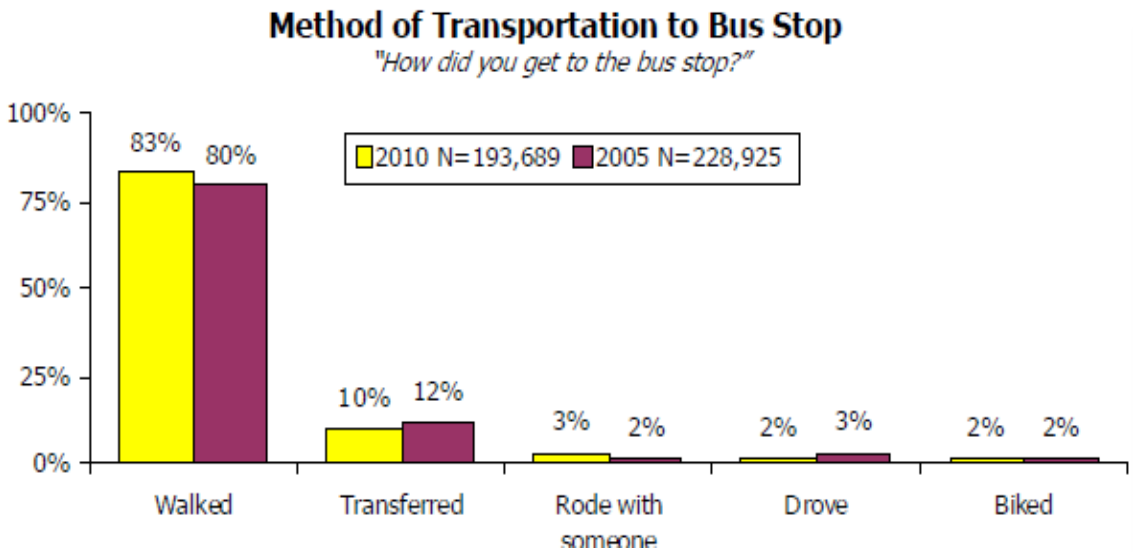
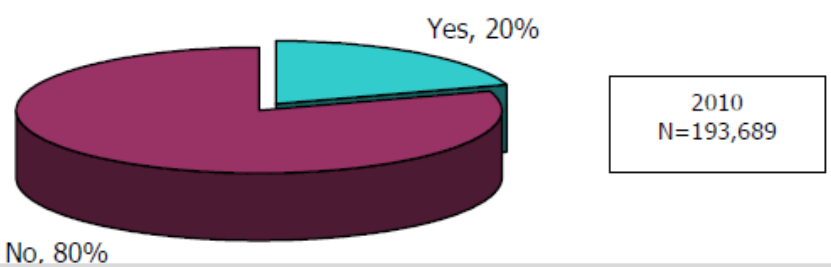


Figure 7
2010 Option to Use Household Vehicle
"Could you have used one of these vehicles to make this trip instead of riding the bus?"



CapMetro

- 34+ million boardings/yr
- 22+ million boardings/yr walked to transit and had no option to use car
- 3+ million mobility impaired pass boardings/yr

sidewalk master plan

A BRIEF HISTORY OF AUSTIN SIDEWALKS

- **1969 Sidewalks Required with Subdivision (Building Permit)**
- **1988 Sidewalks Required with Site Plan**
- **1991 ADA Adoption**
- **1995 (Approx.) Code Changes Eliminate Land Owner Responsibility for Sidewalks**
- 1998 Transportation Bond $152M
- 2000 Pedestrian Plan Adopted
- 2000 transportation Bond $150M
- 2002 Complete Street resolution (20% Rule)
- 2006 Subchapter E Standards Adopted
- 2006 Transportation Bond $103.1M with approximately $10.6 M for sidewalks
- **2006 City of Austin Sidewalk Maintenance Program initiated (driveways still landowner responsibility)**
- 2008 Sidewalks Required with Building Permit including infill and remodel projects (Fee-in-lieu initiated)
- **2009 Sidewalk Master Plan Adopted (Update)**
  - Absent Sidewalk Prioritization
  - Maintenance Prioritization Included but not Endorsed
- 2010 Transportation Bond included $4.5M for sidewalk repair
- 2012 Imagine Austin Adopted (Compact and Connected)
- 2012 Transportation and Mobility Bond $143.3M total with $25M for sidewalks
- **2013 Updated Complete Streets Resolution**
- 2014 Pedestrian Advisory Council formed
- **2014/2015 Sidewalk Master Plan Update**

OTHER RELATED PROGRAMS + ACTIVITIES

- **Pedestrian Advisory Council**
- CIP Street Reconstruction
- Private Development & Redevelopment
- Great Streets
- Parking Benefits Districts
- SubChapter E standards
- CodeNext
- Transportation Criteria Manual (TCM) update
- Active Transportation
- Complete Streets
- Pedestrian Hybrid Beacons (PHB's)
- Ped signal upgrades
- CapMetro bus stop improvements
- TXDOT sidewalk upgrades
- Local Area Traffic Management
- Urban trails
- Corridor studies

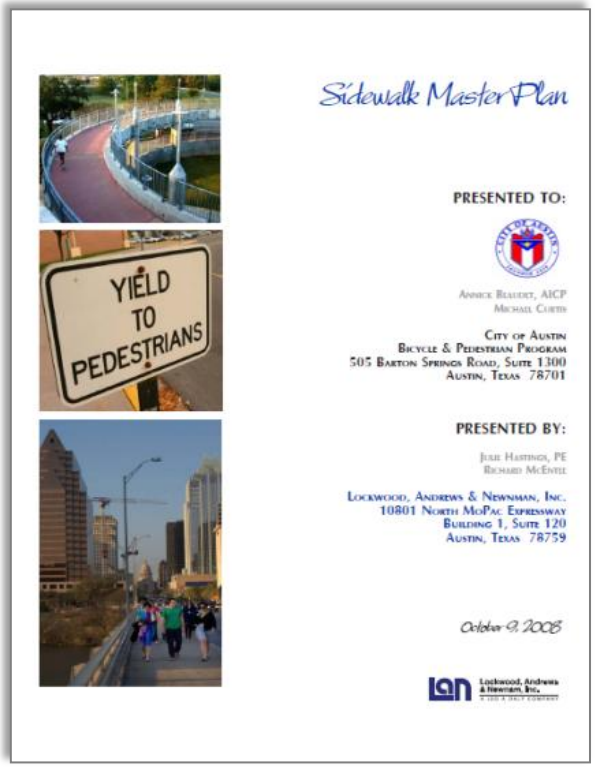
2009 SIDEWALK MASTER PLAN

Absent Sidewalk Prioritization

- GIS database of existing and absent pedestrian infrastructure
    - $>$824M to build new sidewalks

ADA Transition Plan

- Improve existing sidewalks to meet ADA standards
    - $ 120M estimate of total cost
    - Recommended Spending Strategy
        - $5M in spending in 2009 - 2014
        - **$9M in spending from FY 2015 forward**



http://www.austintexas.gov/sites/default/files/files/Public_Works/Sidewalk_Master_Plan.pdf

sidewalk master plan

SIDEWALK MASTER PLAN IMPLEMENTATION

Improvements Program

- Includes new sidewalks and improvements to meet ADA standards
- Prioritization from Sidewalk Master Plan
- $5M - $9M annually (primarily bond funded)
- Some funding from Fee-in-lieu, grants, and other sources

Rehabilitation Program

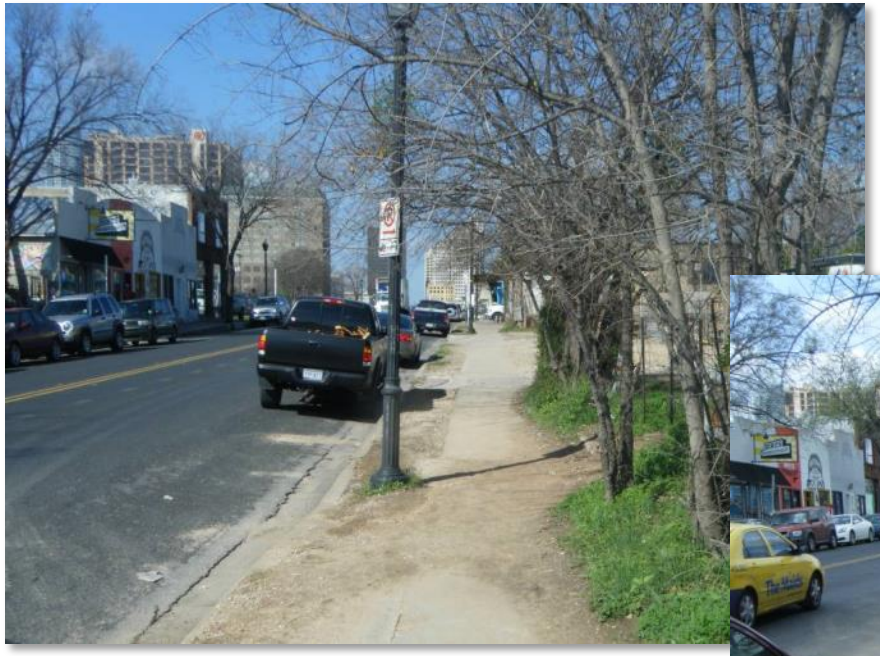
- Sidewalk repairs (311 based)
- Primarily bond funded with some Transportation User Fee (TUF) funding ($250k in FY 2015)

(Street Reconstruction & other Capital Improvement Projects also include sidewalk improvements)

INNOVATIVE PROJECT DELIVERY

- Contracts issued using a unit cost Indefinite Delivery Indefinite Quantity (IDIQ) methodology.
- Uses a set of standard details that are adapted in the field under the direct supervision of a professional engineer.
- IDIQ process has saved 25% in design costs and reduced delivery time by 75%.
- Flexible scheduling and accelerated delivery has resulted in numerous inter-agency partnerships which have improved coordination of pedestrian accessibility improvements.
- Model is being adapted by other governmental entities.

EXAMPLE



BEFORE

E 6th Street

AFTER

WHAT WORKED WELL?

- Objective data driven prioritization process developed by stakeholders
- Absent sidewalk prioritization map
- Citywide gap and rehabilitation cost estimates
- ADA Transition Plan Funding Target

WHAT NEEDS IMPROVEMENT?

- Maintenance/rehabilitation assessment and prioritization
- Pedestrian Infrastructure Management System (PIMS) – too complex
- Stable funding source(s) particularly for maintenance

AUSTIN: PROACTIVELY ADDESSING SIDEWALK MAINTENANCE

From *The Atlantic* CITYLAB

NAVIGATOR | CITYFIXER | MAPS | PHOTOS

COMMUTE WORK HOUSING WEATHER

Why L.A.'s $1.4 Billion Sidewalk Repair Case Is Such a Big Deal

Los Angeles isn't the only jurisdiction that's been forced to confront its sidewalk problems by disability-rights advocates, and it won't be the last.

SARAH GOODYEAR | @buttermilk1 | Apr 7, 2015 | 33 Comments

939 Shares | Share on Facebook | Tweet

sidewalk master plan

UPDATE PRIORITIES

Build on Success

- Update & simplify GIS Absent Sidewalk Prioritization
- Incorporate latest ADA legal rulings and guidance

Incorporate Best Practices

- Peer Cities report
- Imagine Austin & Complete Streets Resolution

Improvements based on lessons learned

- Develop condition assessment rating and prioritization system
- Review funding alternatives and goals

PEER CITIES

peer city report

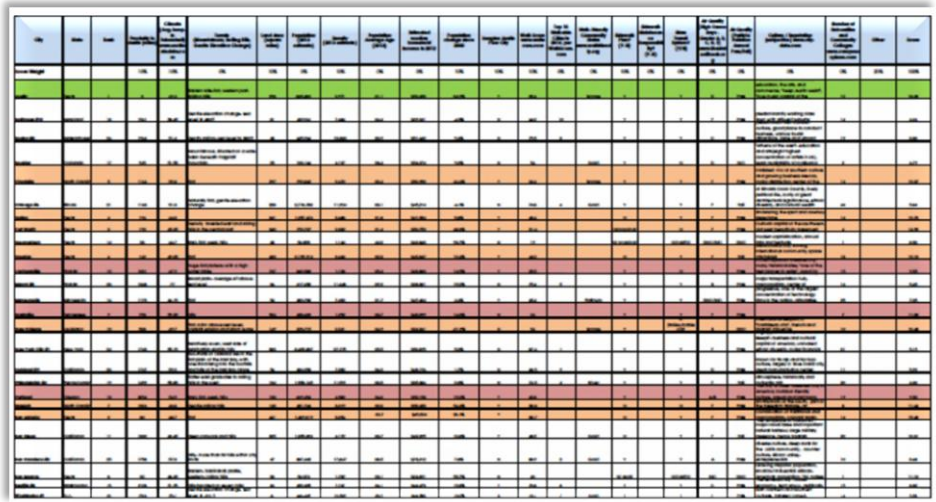
SELECTION PROCESS

top 3 ranking texas cities

- **San Antonio**
- Fort Worth
- **Dallas**
- **Houston**

top 2 ranking non-texas cities

- **Charlotte, NC**
- Raleigh, NC
- **Nashville, TN**

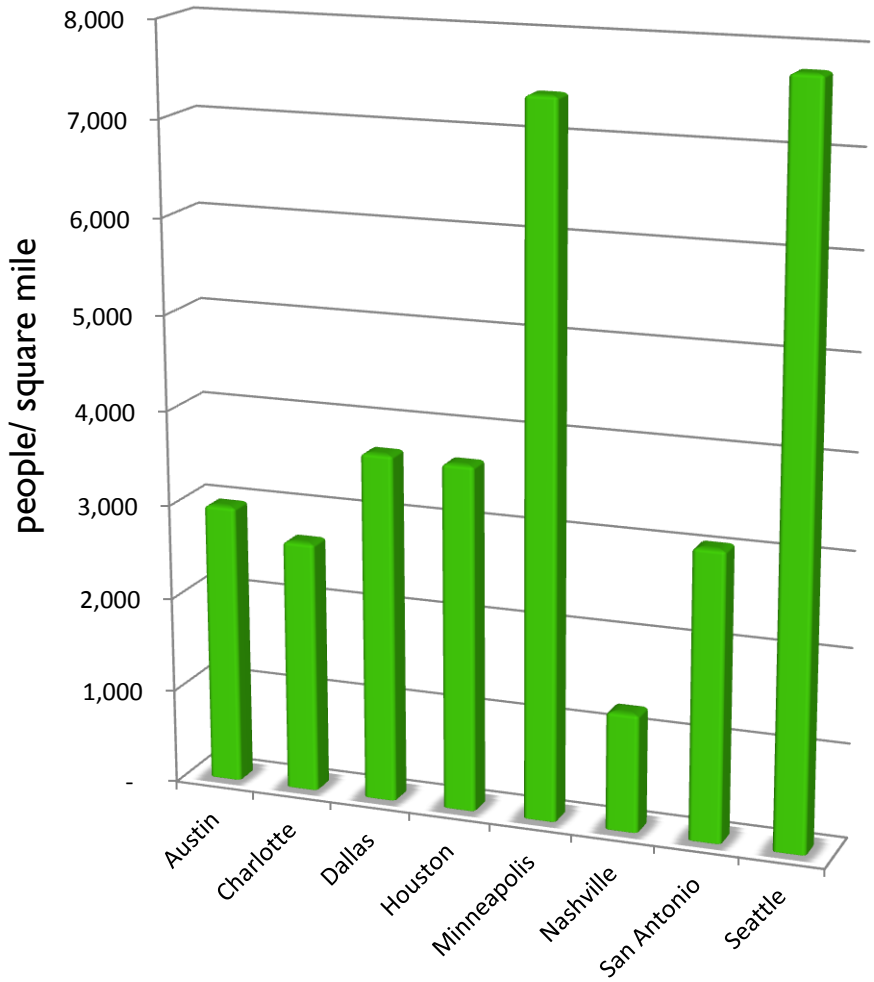


top 2 imagine austin peer cities ranked per walkscore.com

- **Seattle, WA**
- **Minneapolis, MN**

peer city report

PEER CITY POPULATION DENSITY



population		land area sq. mi	density
Austin	885,400	298	2,971
Charlotte	792,862	297	2,670
Dallas	1,257,676	341	3,688
Houston	2,195,914	600	3,660
Minneapolis	400,700	54	7,420
Nashville	658,602	526	1,252
San Antonio	1,409,019	461	3,056
Seattle	652,405	84	7,767

PEDESTRIAN ADVISORY COUNCILS

peer cities	PAC
Austin	yes
Charlotte	no
Dallas	yes
Houston	yes
Minneapolis	yes
Nashville	yes
Seattle	yes
San Antonio	yes

QUESTIONNAIRE RESPONSES

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mwm Design Group

City of Austin Citywide Sidewalk Master Plan Update

Peer City Interview Questionnaire

City of Charlotte, NC

1. Sidewalk Inventory and Planning

1.1. Miles of existing sidewalk: 2,094 mi

1.1.1. Inventory method: GIS / Aerial review (field verification where needed)

1.2. Miles of absent sidewalk: 2,114 mi

1.2.1. Inventory method: GIS (not an 'inventory' of missing sidewalk, but needs and requests are tracked via

1.3. Does your city have a Sidewalk Master Plan, Asset Management Plan or similar document? YES ✓ NO ✓

1.3.1. Date of plan: 2011

1.3.2. Update/revision frequency: 5 years (TAP - see below)

1.3.3. Performance measures for addressing walkability? YES ✓ NO

1.3.3.1. Describe:

The City's Transportation Action Plan (TAP) sets a target of 10 miles of new sidewalk const year. This is not a sidewalk-specific plan, though there is a pedestrian element within it. An initiative called Charlotte WALKS will address pedestrian issues (see 7.3).

While we don't have a sidewalk master plan, we have a process through which we are able t program and construct sidewalk projects each year. This process is guided by the Sidewalk F

1.3.4. Website link to copy of the most recent plan:

http://charmeck.org/city/charlotte/Transportation/PlansProjects/Pages/Transportation%20Action%20P

1.3.4.1. Parts of the plan that have been particularly effective or noteworthy:

The TAP is Charlotte's first comprehensive transportation plan. It sets transportation goals and helped to define the City's complete streets approach to the transportation system.

1.4. Value assigned to the sidewalk network? YES NO ✓

1.4.1. Basis of value (examples: intensity of pedestrian activity, connectivity, property values or family incomes, etc):

1.4.2. Value in 2015:

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1.5. Amount spending in lawsuit settlements as a result of injuries caused by deteriorated sidewalk infrastructure: $15,761 in the last 5 years

2. Sidewalk Maintenance:

2.1. Maintenance responsibility for sidewalks: City ✓ Property Owner

2.1.1. If City, department responsible: Charlotte Department of Transportation

2.2. Sidewalk maintenance Budget? YES ✓ NO

2.2.1. Budget for sidewalk maintenance in 2015:

2.2.1.1. Number of miles to be maintained:

2.2.2. Budget for last 5 years:

2.2.2.1. Number of miles maintained:

2.2.3. Source(s) of funding and percentages:

2.2.4. How are sidewalk maintenance areas selected and/or prioritized?

2.2.5. Incentives or any other cost sharing alternatives offered for property owners to maintain sidewalks? For example: cost sharing programs, low interest loans or equity based assistance programs? YES NO

2.2.5.1. Short program summary and describe the benefits and challenges of these initiatives.

2.3. Condition assessment of the sidewalk network? YES NO

2.3.1. Update frequency:

2.3.2. Condition assessment used to prioritize repairs? YES NO

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Sidewalk Master Plan Update - Peer Cities Interview Questionnaire Page 3 of 10

The prioritization process is based on specific criteria including various land uses, transit, safety, traffic, and other roadway conditions. I'll include a copy of the Sidewalk Retrofit Policy in my email response.

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efficient/faster implementation?

Charlotte addresses issues with capital projects and via land development projects. Complaints are addressed through the maintenance program for now.

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Sidewalk Master Plan Update - Peer Cities Interview Questionnaire Page 6 of 10

etc.?

The project that impacts existing non-compliant sidewalk is respon

compliant sidewalk.

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Sidewalk Master Plan Update - Peer Cities Interview Questionnaire Page 9 of 10

Sidewalk Master Plan Update - Peer Cities Interview Questionnaire Page 10 of 10

QUESTIONNAIRE DATA TABLE

	11 Miles of Existing Sidewalk	111 Inventory Method	12 Miles of Absent Sidewalk	121 Inventory Method	131 Date of Plan	132 Update Revision Frequency	1331 Performance Measures of Walkability	134 Website Link	1341 Parts of Plan Noteworthy	141 Fam Inco
Charlotte, NC	2,094 mi	GIS / Aerial review (field verification where needed)	2,114 mi	GIS (not an 'inventory' of missing sidewalk, but needs and requests are tracked via GIS)	2011	5 years (TAP - see below)	The City's Transportation Action Plan (TAP) sets a target of 10 miles of new sidewalk construction per year. This is not a sidewalk-specific plan, though there is a pedestrian element within it. An upcoming initiative called Charlotte WALKS will address pedestrian issues (see 7.3). While we don't have a sidewalk master plan, we have a process through which we are able to program and construct sidewalk projects each year. This process is guided by the Sidewalk Retrofit Policy.	http://charmeck.org/city/charlotte/Transportation/PlansProjects/Pages/Transportation%20Action%20Plan.aspx	The TAP is Charlotte's first comprehensive transportation plan. It sets transportation goals and and helped to define the City's complete streets approach to the transportation system.	
Houston, TX	approx. 4,400	Asset Management	approx. 3,200	Asset Management	N/A	N/A	Specific requests are made through Safe Sidewalk Program (SSP), with timeliness and backlog routinely measured. Requests are evaluated based on City criteria.	Website link exists for sidewalk requests, http://www.publicworks.houstontx.gov/notices/safe_sidewalk_program.html	Request website and general guidelines	Pedes valuec
Minneapolis, MN	1845	city ordinance	108	Access Minneapolis	10/16/2009			http://www.minneapolismn.gov/publicworks/transplan/		
San Antonio, TX	4761 miles	Sidewalk GIS dataset	2484 miles	Sidewalk GIS dataset	N/A	N/A	N/A	N/A	N/A	N/A
Seattle, WA	2000	Manual; physical observation	500	Manual; physical observation	2009	2015	Safety Performance Measures · Rate of crashes involving pedestrians · Vehicle speeds along identified corridors · School participation in pedestrian safety, education, and encouragement programs · Driver and pedestrian behaviors and awareness of pedestrian laws Equity Performance Measures · City investments toward Top Tier projects in High Priority Areas · Public communication about pedestrian issues · Transit ridership · Mode share (more people walking) Vibrancy Performance Measures · Streetscape vibrancy · Pedestrian activity Health Performance Measures · Self-reported physical activity · Children walking or biking to or from school	http://www.seattle.gov/transportation/pedestrian_masterplan/default.htm	Prioritization for construction of new sidewalks and crossing improvement locations	replac

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QUESTIONNAIRE DATA CONFIRMATION + INTERVIEW

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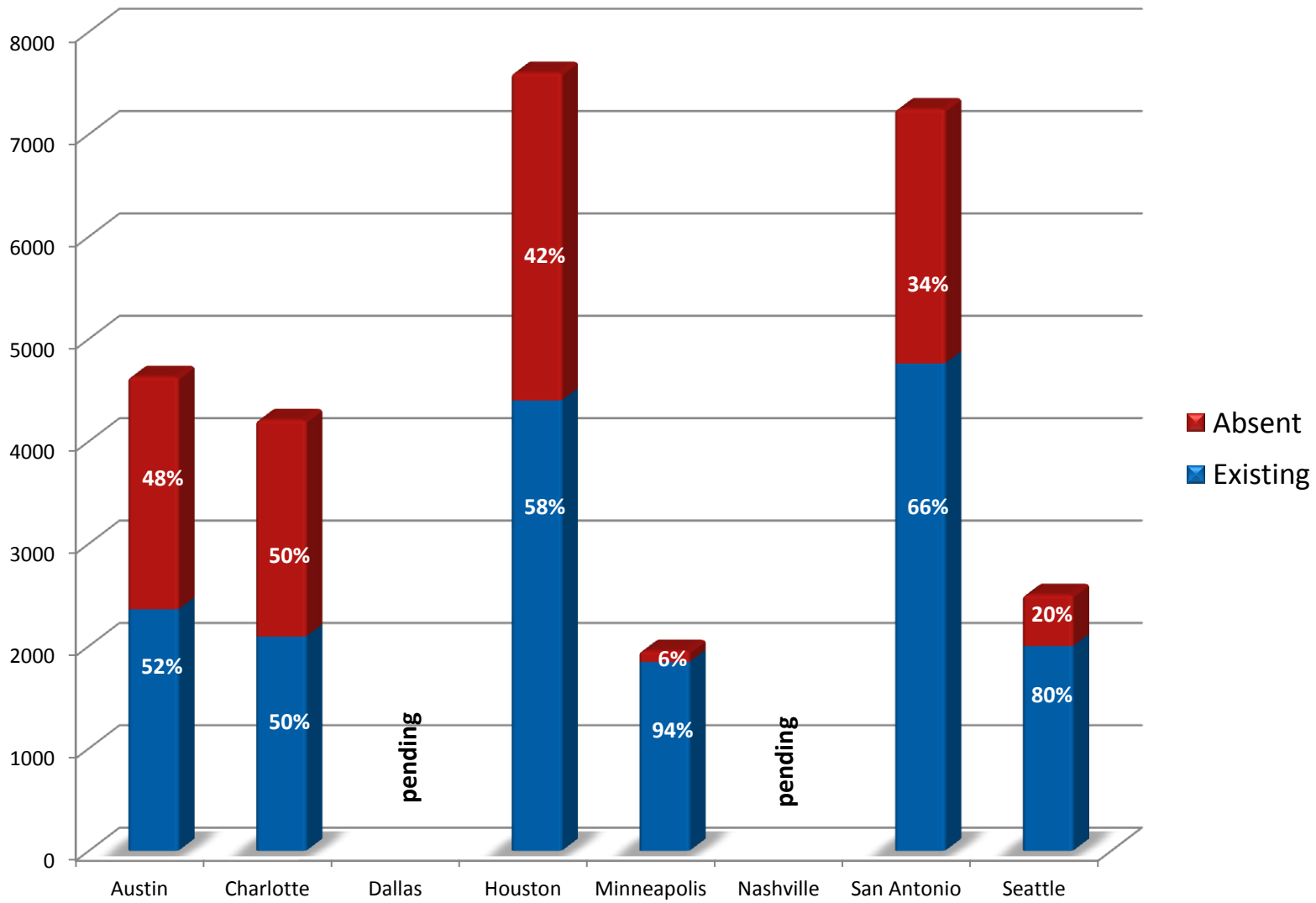
CURRENT INVENTORY - MILES OF SIDEWALK



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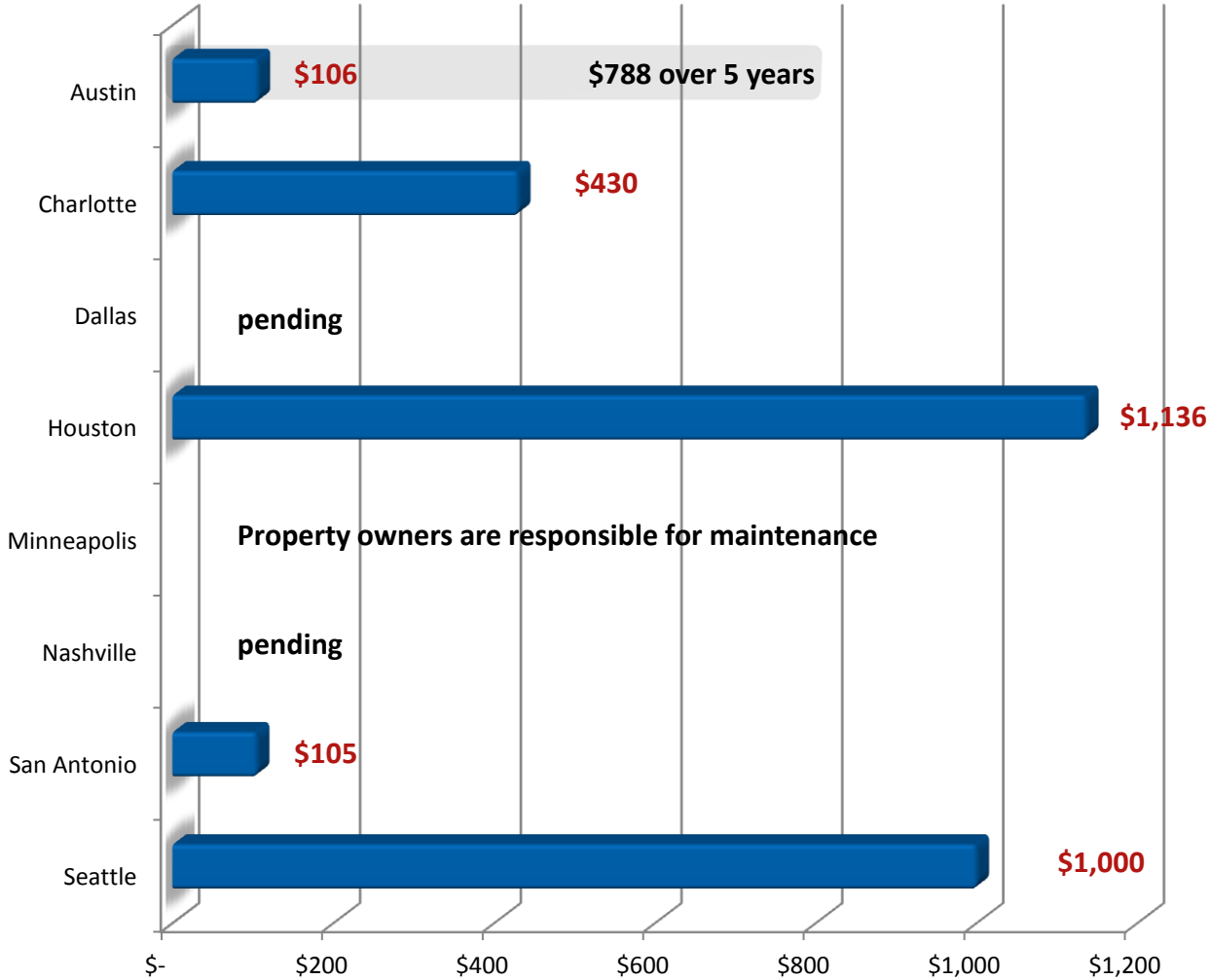
EXISTING SIDEWALK MAINTENANCE - BUDGET PER MILE



annual budget	miles existing
$250,000	2,359
$900,000	2,094
Pending	
$5,000,000	4,400
NA	1,845
pending	
$500,000	4,761
$2,000,000	2,000

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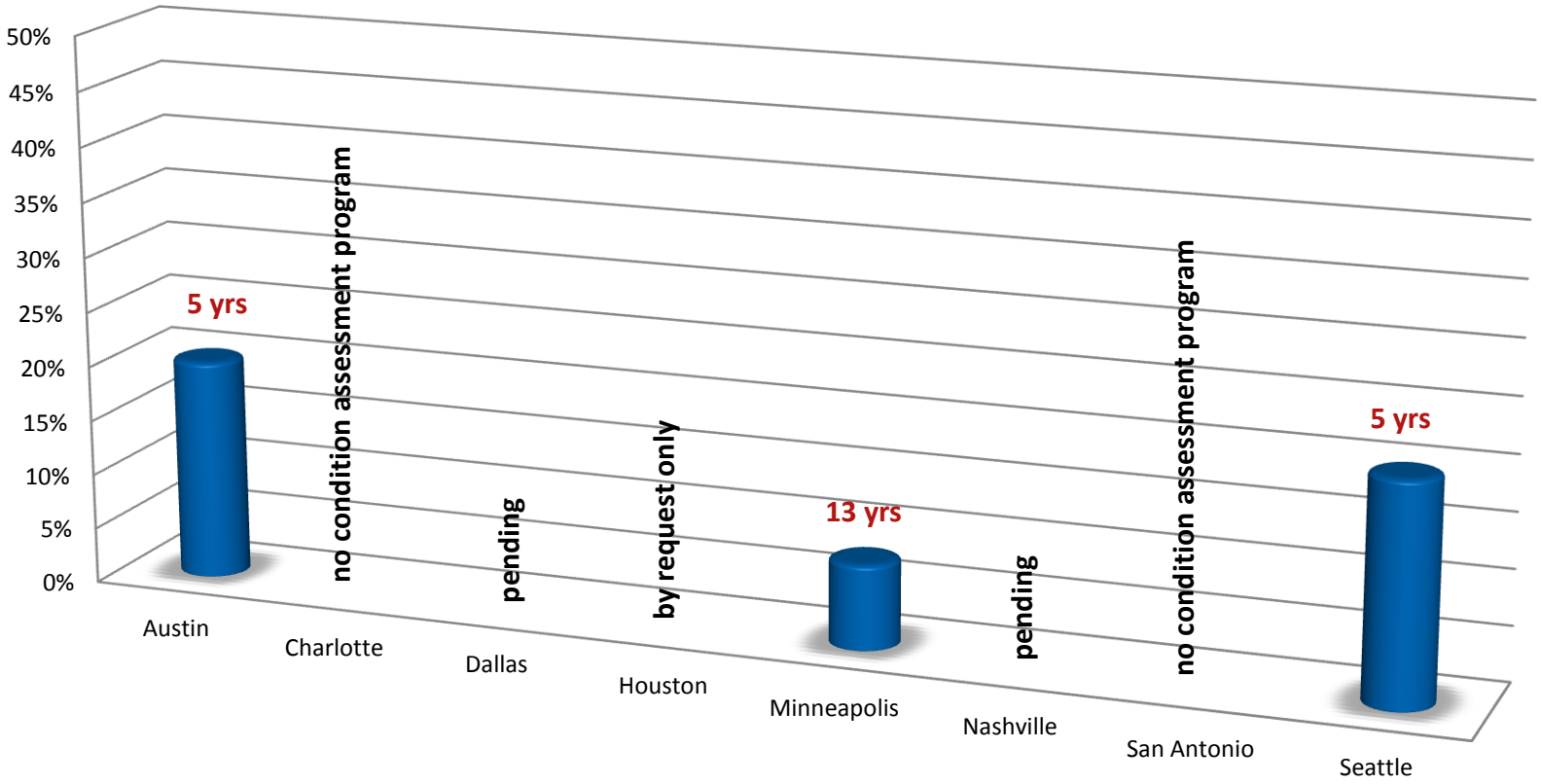
EXISTING SIDEWALK ASSESSMENT - PERCENT ASSESSED PER YEAR



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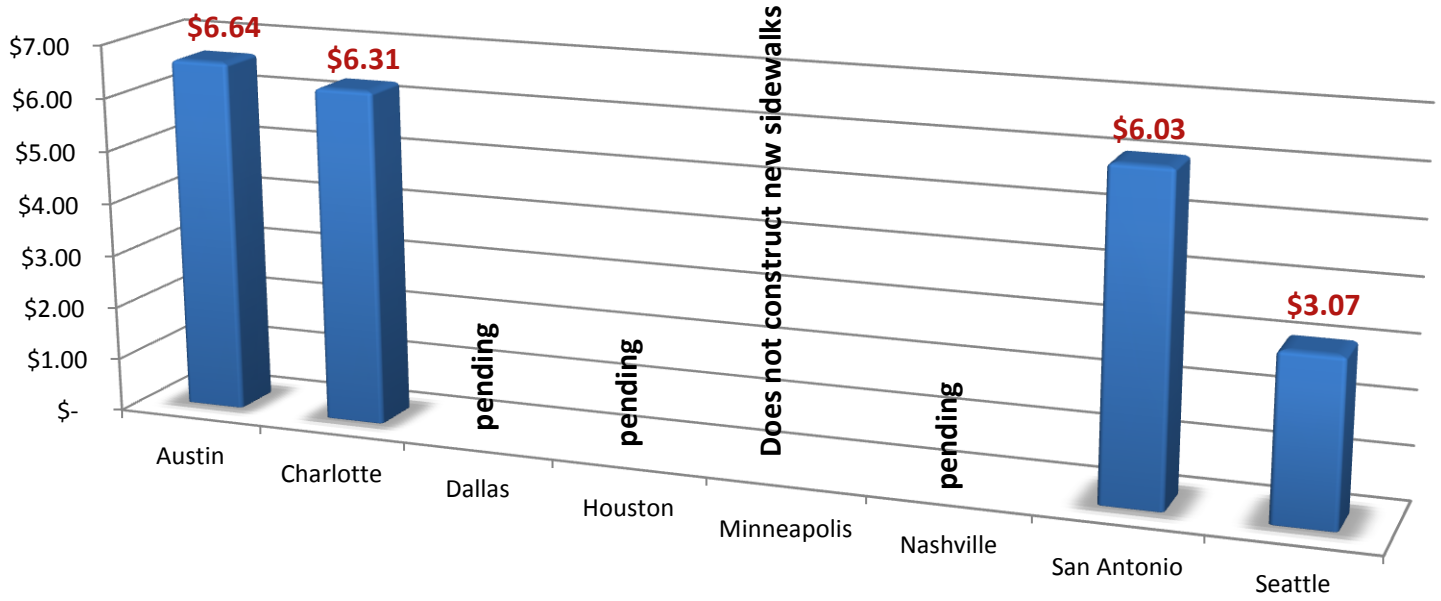
NEW SIDEWALK BUDGET PER CAPITA

average budget 2010-2015



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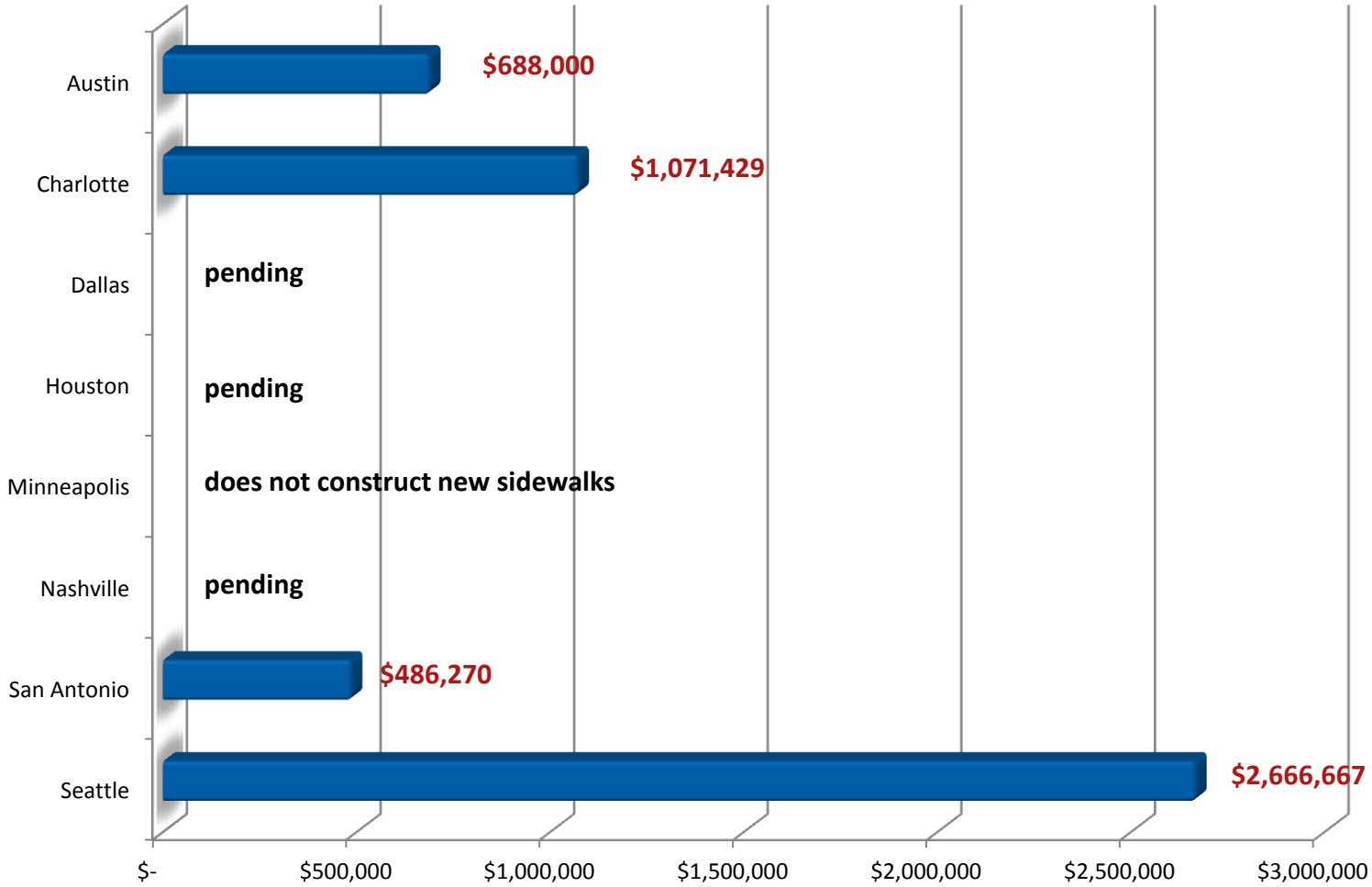
ABSENT SIDEWALK - CONSTRUCTION COST PER MILE



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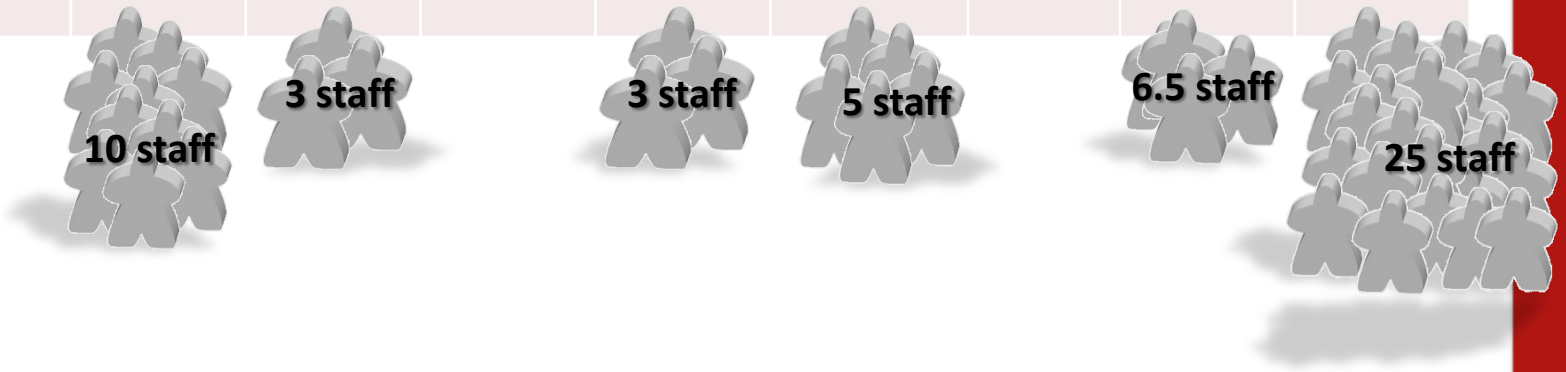
STAFF POSITIONS PER CAPITA

	Austin	Charlotte	Dallas	Houston	Minneapolis	Nashville	San Antonio	Seattle
Population	885,400	792,862	1,257,676	2,195,914	400,700	658,602	1,409,019	652,405
Residents /Staff	88,540	264,287	pending	731,971	80,140	pending	216,772	26,096



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CONDITION RATING SYSTEM

A - EXCELLENT condition / Fully ADA compliant

B - GOOD condition / Minor levels of ADA Noncompliance
- Functional for all users

C - MARGINAL condition / Intermediate level of ADA noncompliance
- May not be functional for some users

D - POOR condition / Severe level of ADA noncompliance
- Not functional for many / May present hazards for all users

F - FAILED condition / Extreme level of ADA noncompliance
- Essentially nonexistent as a developed pedestrian route

SAMPLE CRITERIA

condition assessment

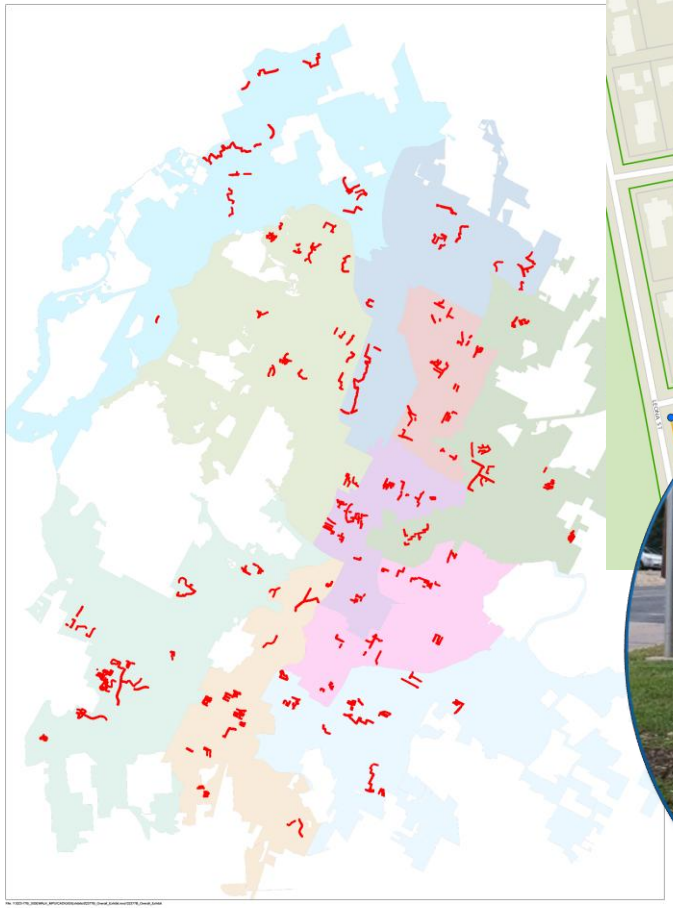
Sidewalk Condition	A	B	C	D	F
Width	> 48 in.	36 in. - 48 in.	32 in. - 36 in.		< 32 in.
Passing Space Interval	< 200 ft		> 200 ft		
Grade	0 - 5%	6 - 8%	9 - 12%	> 12%	
Cross-Slope	0 - 2%	3 - 5%	6 - 8%	9 - 12%	> 12%
Faults	< 0.25 in.	0.25 - 0.5 in.	0.5 - 2 in.	2 - 4 in.	> 4 in.
Faults (Count)	None	1 - 20 / 100 ft	> 20 / 100 ft		
Cracks	None/Minor	Moderate	Severe		
Roughness	< 0.25 in.	0.25 - 0.5 in.	0.5 - 1 in.	1 - 2 in.	> 2 in.
Vertical Clearance	> 80 in.			< 80 in.	
Obstruction Height	< 0.25 in.	0.25 - 0.5 in.	0.5 - 2 in.	2 - 4 in.	> 4 in.
Perpendicular Grate Opening	< 0.5 in.		> 0.5 in.		
Parallel Grate Opening	None		Opening Exists		
Driveway Interruption	< 0.25 in.	0.25 - 0.5 in.	0.5 - 2 in.	2 - 4 in.	> 4 in.

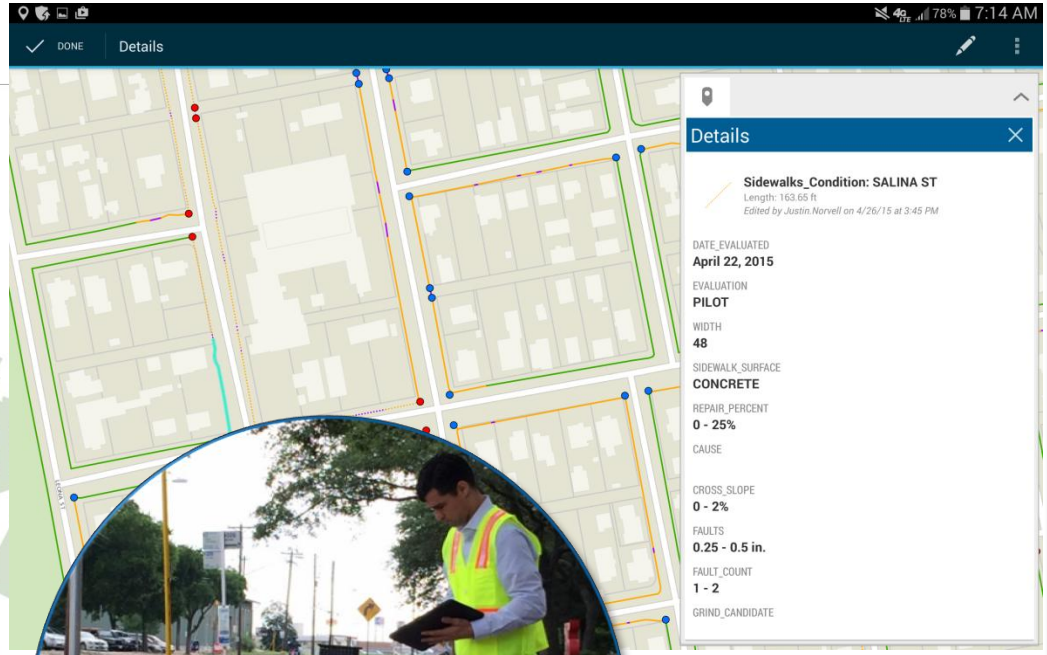
*blanks identify ratings not applicable to condition

DATA COLLECTION PROCESS

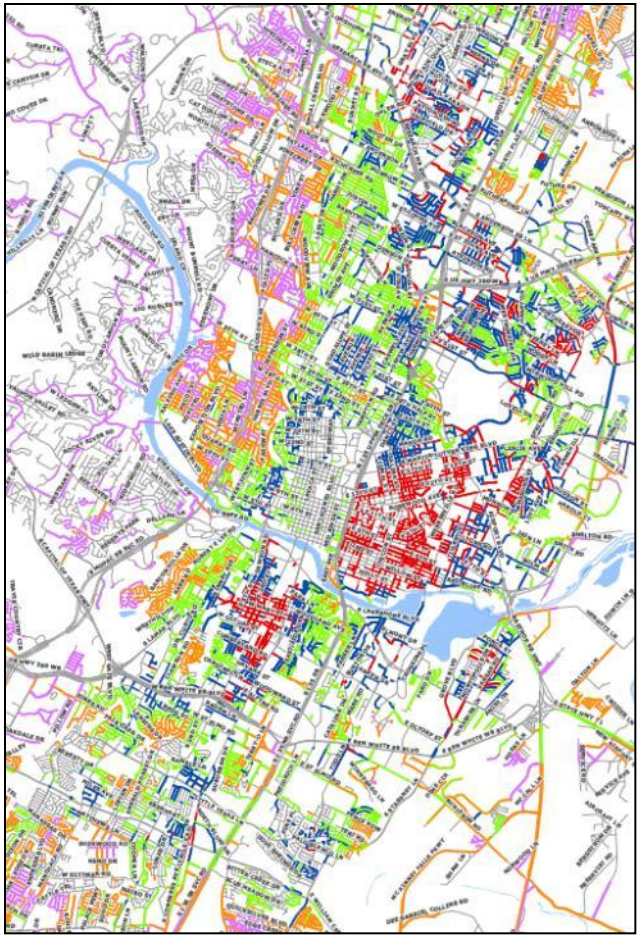
condition assessment

Condition Assessment Pilot Locations





SIDEWALK PRIORITIZATION



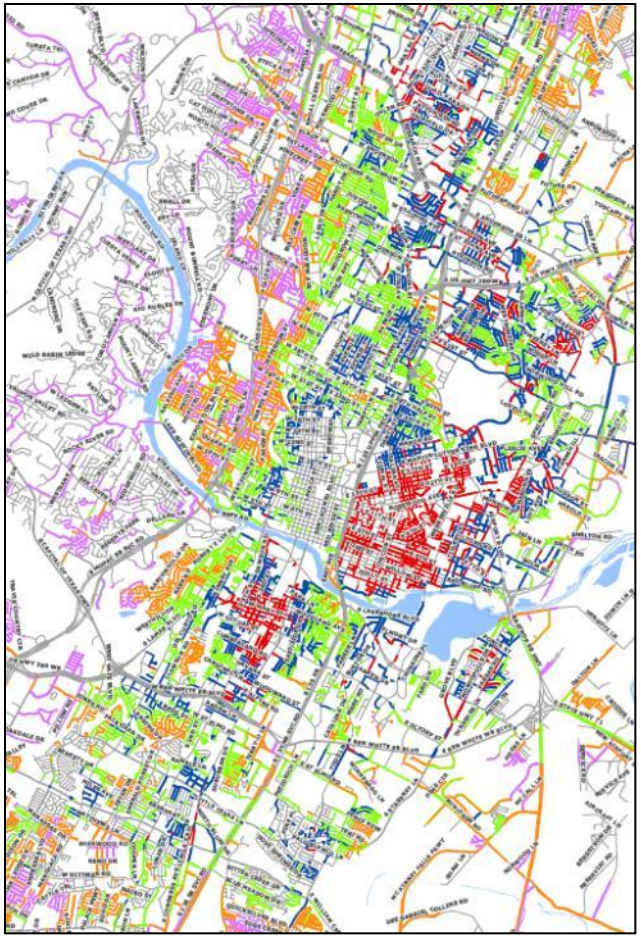
- pedestrian attractor score (50%)
- pedestrian safety score (40%)
- fiscal availability score (10%)

PIMS ABSENT SIDEWALK SCORE	ABSENT SIDEWALK SEGMENT COUNT
< 30.00 (Very Low)	15,072
30.01 - 40.00 (Low)	5,869
40.01 - 50.00 (Medium)	5,669
50.01 - 59.00 (High)	4,091
> 59.01 (Very High)	2,039
WATERBODIES	
RIVERS	
Roads	

SCORING DISTRIBUTION
Minimum: 0.00
Maximum: 81.43
Mean: 40.01
Median: 39.26

prioritization tool

GIS PRIORITIZATION TOOL



Prioritization Tool Analysis Elements

- Proximity to Atractors
  - State or Local Government Offices
  - Commuter Rail Stations
  - Transit Stop
  - Major Grocery Stores
  - Places of Public Accommodations
    - Convention Center
    - Health Clinic
    - Hospitals
    - Library
    - Museum
    - Nursing Home
    - Post Office
    - Recreation-Outdoors
    - Recreation Centers
    - Police Stations
    - Fire Stations
    - Parks
  - Public or Private Schools
  - Employers with > 500 Employees
  - Public Housing
  - Public Parking Facilities
  - Religious Institutions

Prioritization Tool Analysis Elements (cont.)

ehold Income
opulation
ties on Street

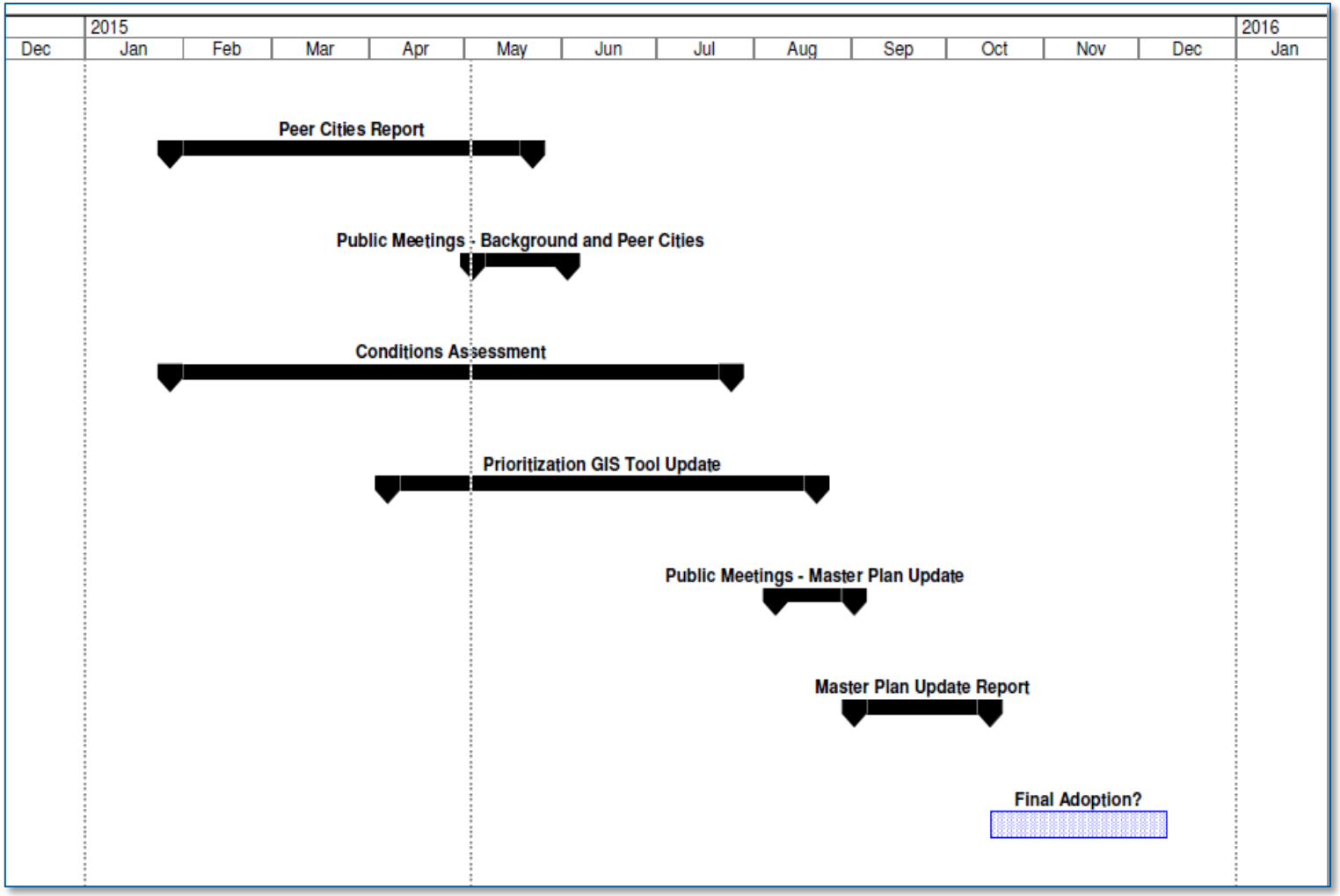
sk Force

orhood
Corridor

cation
ealth Status
utomobile Incidents
l Availability

prioritization tool

MASTER PLAN UPDATE SCHEDULE



sidewalk master plan

COMMENTS + FEEDBACK

- Peer Cities Best Practices
- Sidewalk Condition rating system (draft)
- Funding Ideas
- Alternative approaches

https://austintexas.gov/department/pedestrian-program

sidewalk master plan

QUESTIONS

Brian Wells (MWM DesignGroup)
brianw@mwmdesigngroup.com

John Eastman (City of Austin)
john.eastman@austintexas.gov

https://austintexas.gov/department/pedestrian-program

http://www.austintexas.gov/sites/default/files/files/Public_Works/Sidewalk_Master_Plan.pdf

sidewalk master plan