



City of Dallas

2024 Community Bond Task Force and Subcommittees

May 11, 2023

**Meeting No.1 – Introduction to the
Public Works Bond Program
Department of Public Works
City of Dallas**

Overview

- Public Works 2024 Bond Liaisons Introductions
- Presentation Topics
- Community Bond Task Force (CBTF) Input
- Terminology and Definitions
- Useful References
- Next Meetings
- Questions and Answers

Public Works 2024 Bond Liaisons Introductions

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Presentation Topics

- ▶ What is the role of the Public Works Department?
- ▶ What are the City of Dallas assets managed by Public Works Department?
- ▶ What is an Asset Life Cycle?
- ▶ What is Pavement Life and what's our goal?
- ▶ What is the process to select assets for the Bond Program?
- ▶ What are the treatments and their cost?

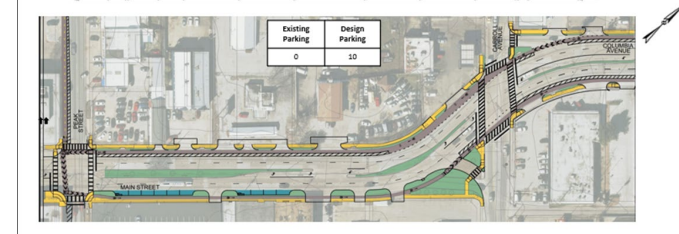
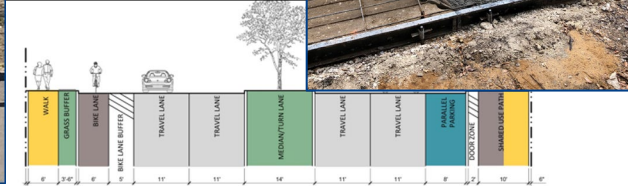
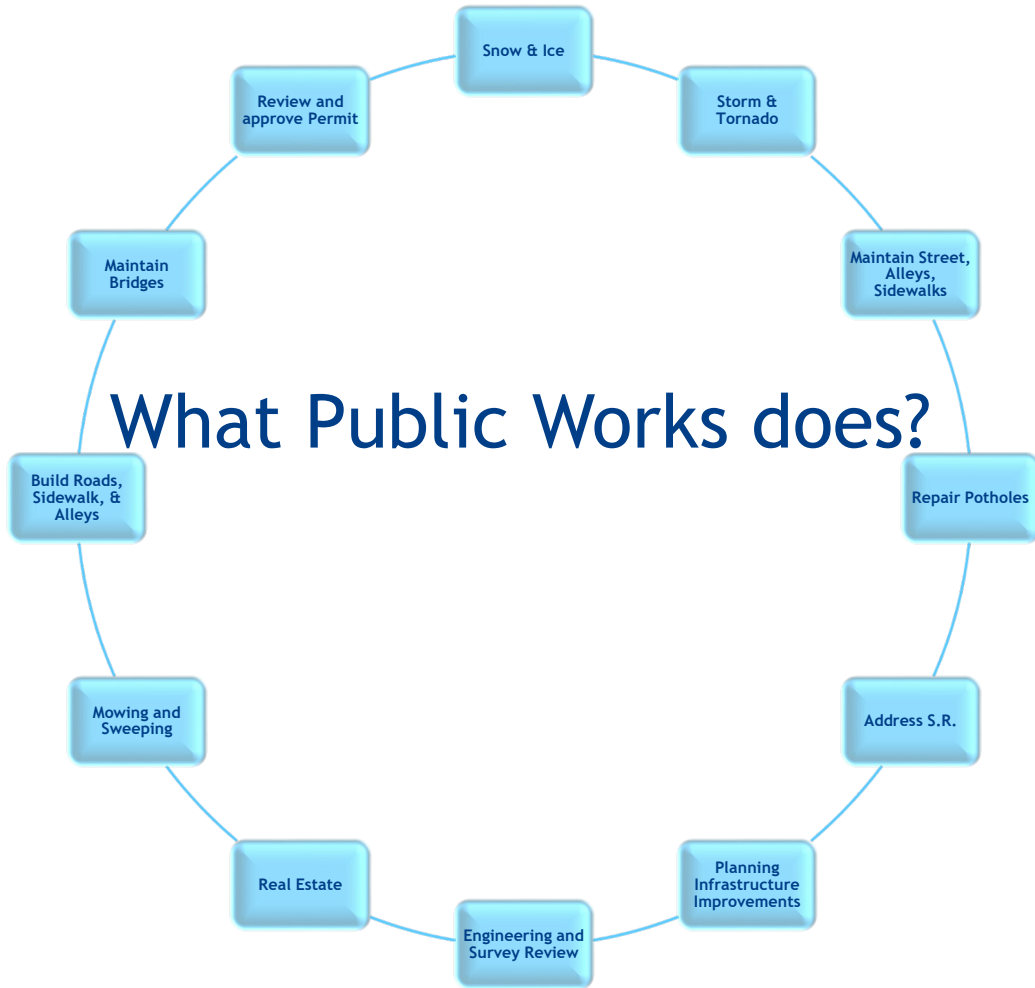


Community Bond Task Force (CBTF) Input

- The Community Bond Task Force will provide a very valuable input by representing their communities in the review of the needs and in providing their preferred areas of focus for the next Bond Program.

Terminology and Definitions

- ▶ **Assets:** City owned and/or maintained inventories.
- ▶ **Needs Inventory:** The list of the City inventories that needs attention (unfunded projects).
- ▶ **Technical Criteria:** The criteria used to rank the needs inventory projects priority list.
- ▶ **Pavement:** A hard surface made of construction materials structure.
- ▶ **Pavement Model:** Pavement modeling system to create a selection based on the optimization of benefit from a given budget.
- ▶ **Pavement Condition Index (PCI):** A measure of pavement health from 0 to 100.
- ▶ **Resurfacing:** Pavement rehabilitation treatment (pavement milling and asphalt installation) that does not need new engineering design.
- ▶ **Reconstruction:** Pavement reconstruction (reinforced concrete pavement) that includes new engineering design.
- ▶ **Improved Streets:** Existing streets that were constructed in compliance with City Standards.
- ▶ **Unimproved Streets:** Existing streets that lack Curb, Gutter, and Sidewalks.
- ▶ **Improved Alleys:** Existing alleys that have pavement.
- ▶ **Unimproved Alleys:** Existing alleys that are unpaved (Dirt and Gravel)
- ▶ **Local Street:** A street that is primarily used to get access to properties (Residential)
- ▶ **Thoroughfare:** A street that accumulates traffic from collector streets and residential streets for distribution
- ▶ **Complete Street:** A Street that provides design elements to motorists, pedestrians, bicyclists and transit riders of all ages and abilities



City of Dallas Assets

What are the City of Dallas assets managed by Public Works Department?



**Public Works
Assets**



Streets

Total of 11,753 Lane Miles

→ **Improved Streets**

→ **Unimproved Streets**

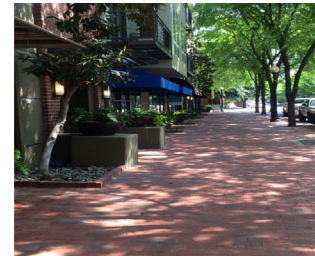


Alleys

Total of 1,400 Miles

→ **Improved Alleys**

→ **Unimproved Alleys**



Sidewalks

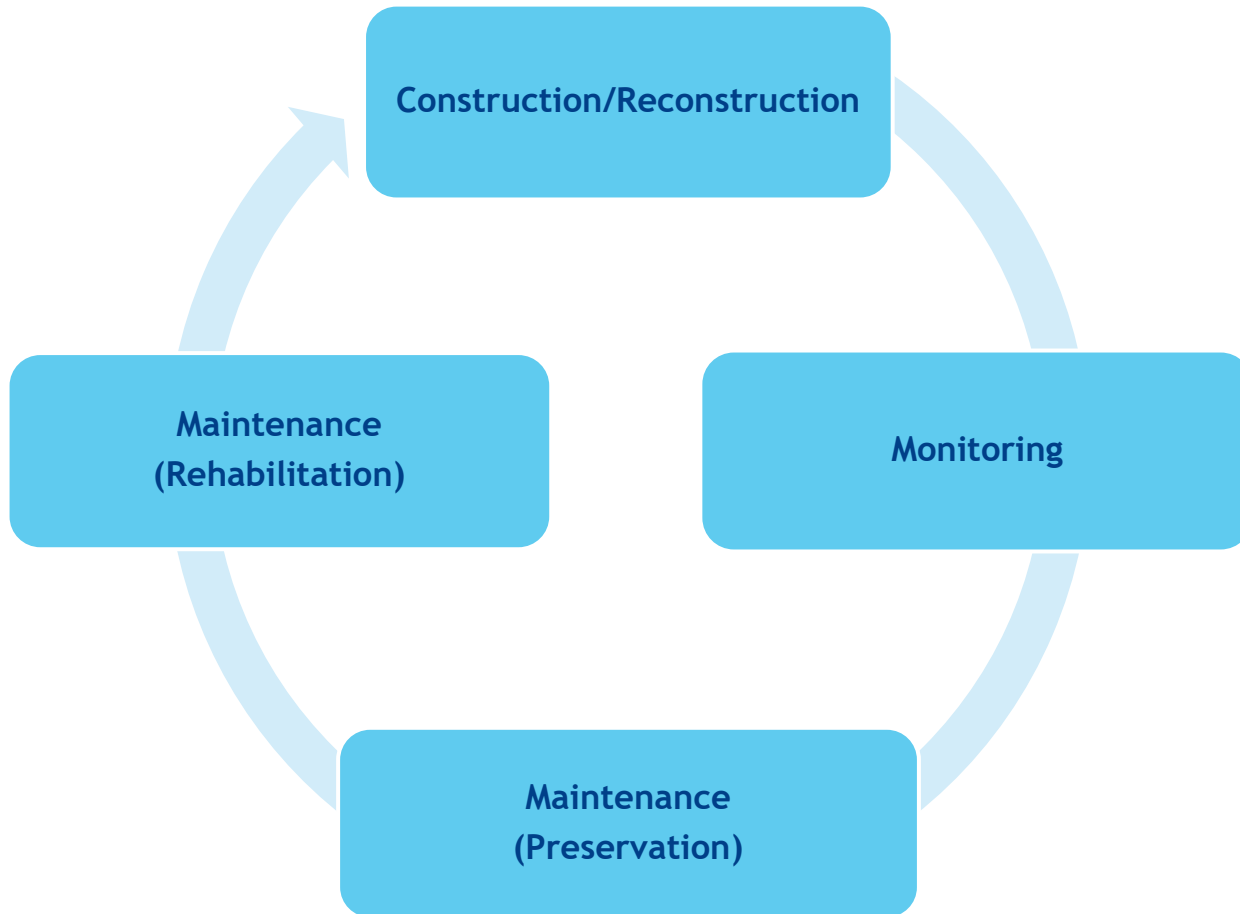
Total of 4,536 Miles



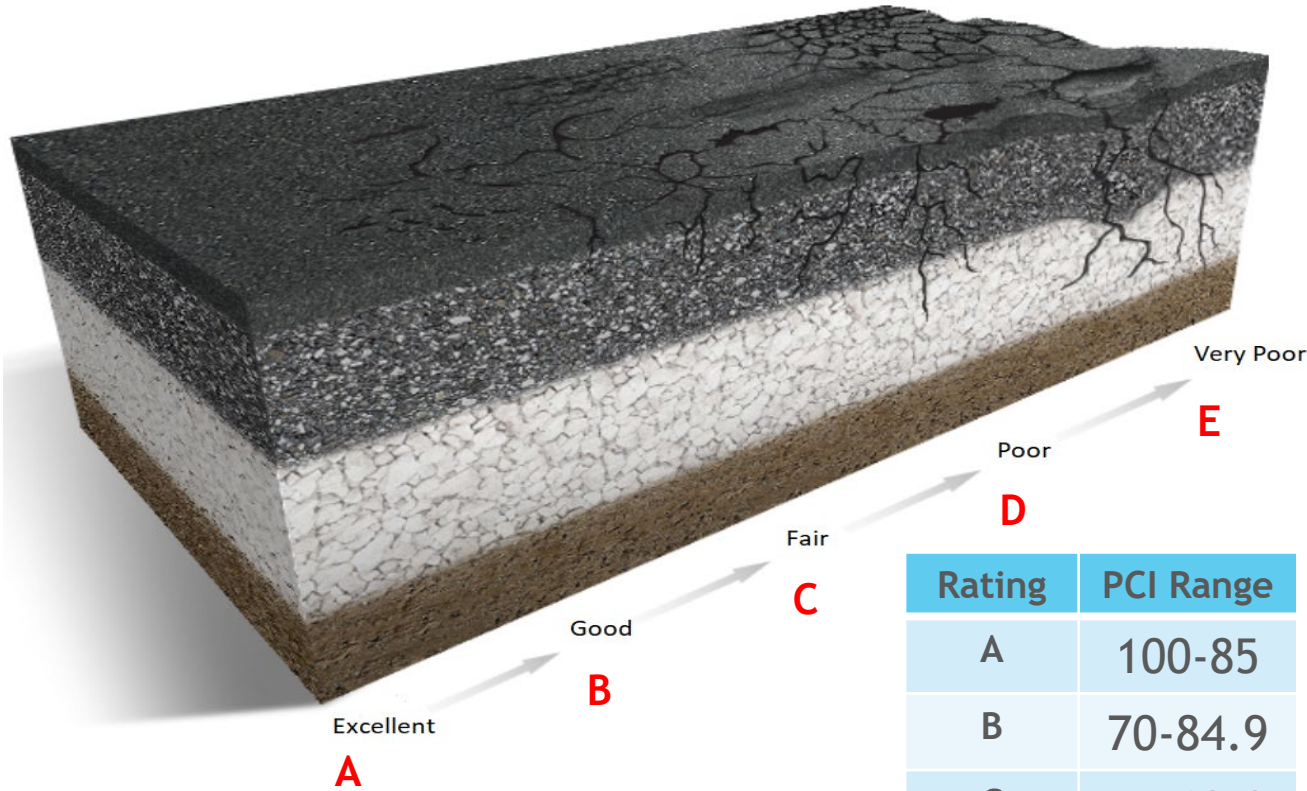
Bridges

Total of 648 Bridges

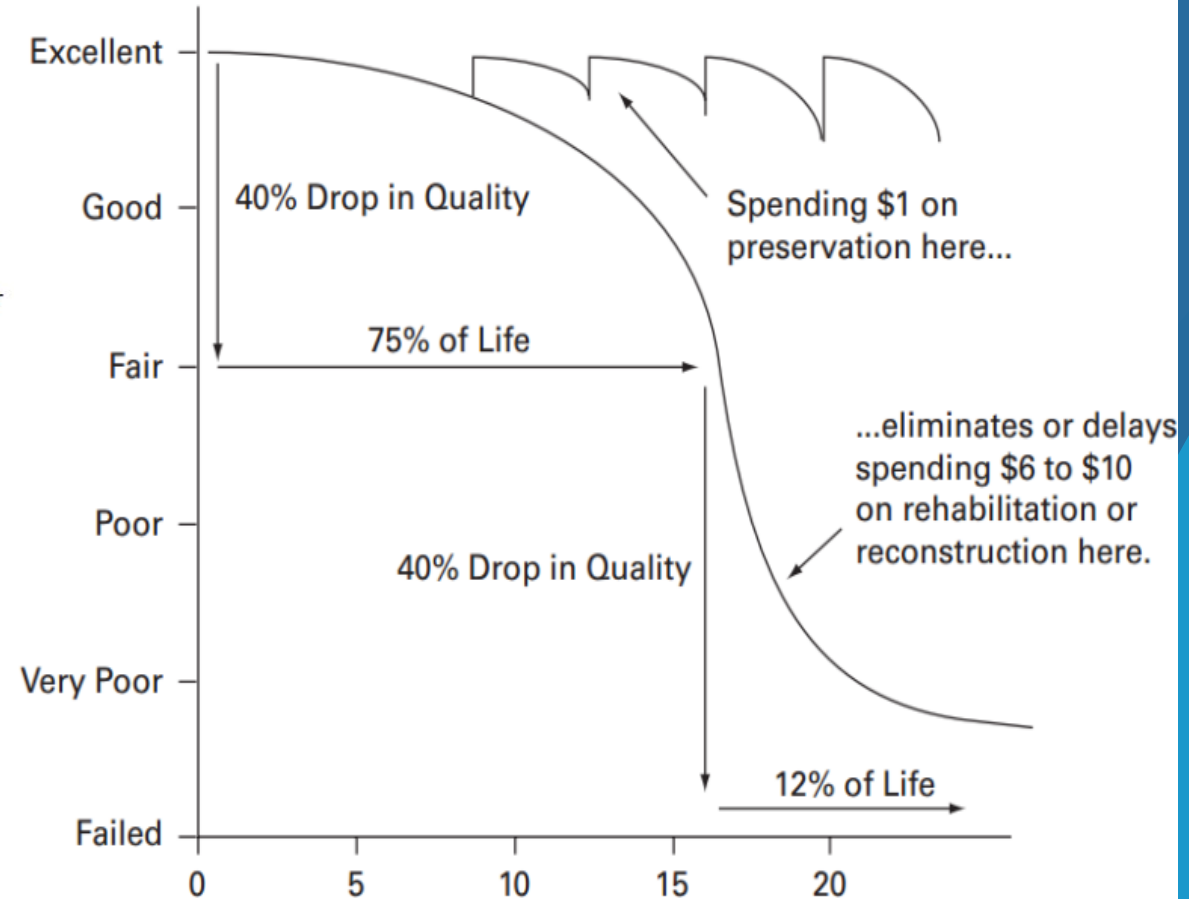
What is an Asset Life Cycle?



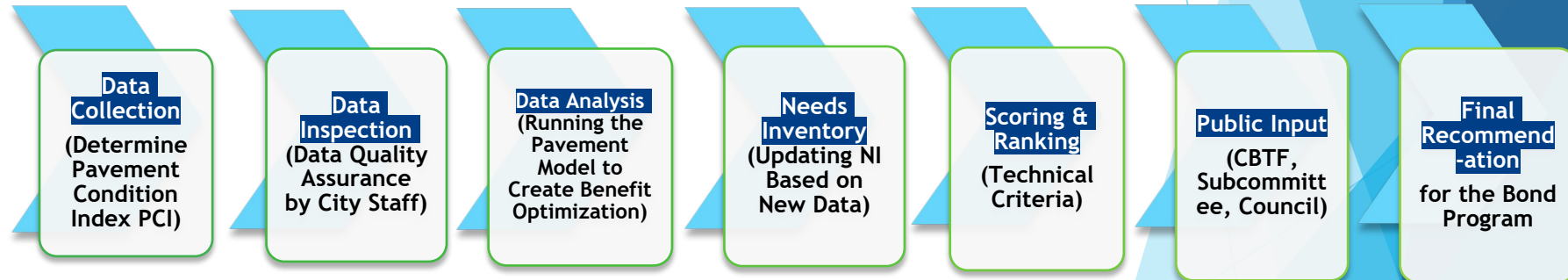
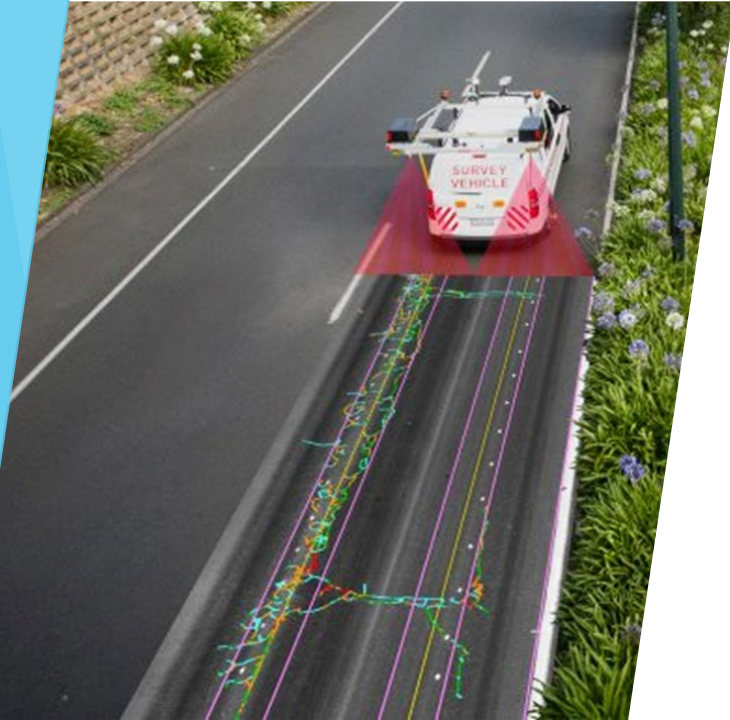
What is Pavement Life and What's our Goal?



Rating	PCI Range
A	100-85
B	70-84.9
C	55-69.9
D	40-54.9
E	0-39.9



What is the process to select assets for the Bond Program?



What are the treatments and what's their cost?

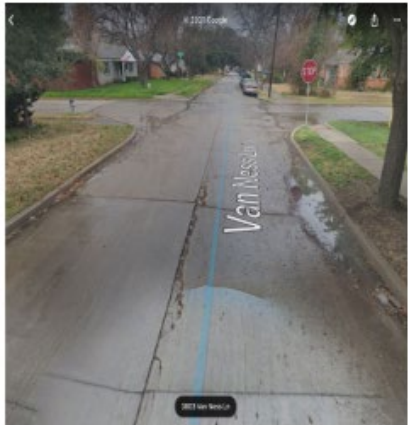
Resurfacing

- Rehabilitation treatment (Maintenance)
- Milling existing pavement and placing new asphalt.
- Does not need new engineering design prior to construction
- Up to 20 years life service time
- Cost: **\$620,000/Lane Mile**

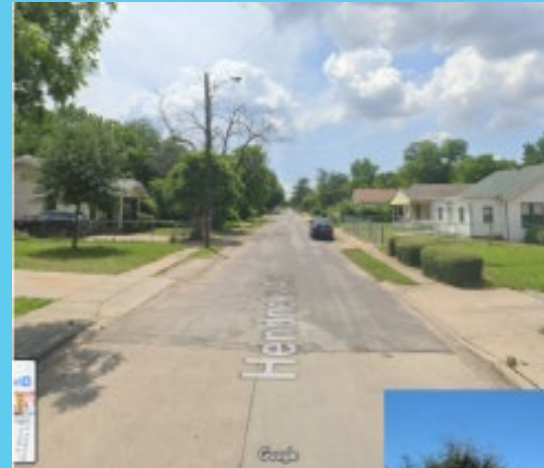
Reconstruction

- Reconstruction treatment
- New design of Concrete Pavements includes drainage and utility upgrades
- Needs a new engineering design prior to construction
- From 30-50 years service life if properly cared for
- Cost:
 - Improved and Unimproved Alleys Recon/Con: **\$350/Linear Foot**
 - Street Reconstruction- Local: **\$2.1M/Lane Mile**
 - Street Reconstruction- Thoroughfare: **\$3.7M/Lane Mile**
 - Unimproved Street Reconstruction: **\$2.5M/Lane Mile**
 - Complete Street: **\$2.4M/Lane Mile**
 - Sidewalks Recon/Con: **\$10/Square Foot**

Resurfacing



Reconstruction



2012 Bond Program—Hendricks Street from Denley to Moore



Useful References

- ▶ Lots of Information can be obtained by visiting the Public works Website as shown on the picture
- ▶ <https://dallascityhall.com/departments/public-works/Pages/Data-and-Maps.aspx>



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REAL ESTATE
RIGHT-OF-WAY

Data and Maps

2017 Bond Program All projects in the 2017 Bond Program.	Active Capital Projects Capital projects from the 2017 bond program and previous bond programs that are under design, under construction, or recently completed.	Project Coordination Capital Improvement Program, Maintenance and DWU projects.
Infrastructure Management Program Comprehensive Plan for maintaining the City's Streets, Sidewalks, and Alleys.	Needs Inventory The Needs Inventory is the list of the City's needs based on maintenance records, master plans, citizen input, and Council recommendations.	Pavement Condition Pavement Condition of City-maintained streets and alleys.
PBW Maintenance Projects Street Maintenance Program	Right-of-Way Permits Right-of-Way permits and inspections for construction	Thoroughfare Plan The Thoroughfare Plan and the Central Business District

Next Meetings

Date	Meeting Topics
May 25 th 2023	Scorning and Technical Criteria
June 3 rd 2023	Field Trip 1
June 10 th 2023	Field Trip 2
June 13 th 2023	Needs Inventory: Alleys, Sidewalks, Bridges
June 20 th 2023	Needs Inventory: Signals, Quiet Zones, Street Lighting
August 15 th 2023	Intergovernmental Partnership Projects
August 22 nd 2023	Needs Inventory: Street Reconstruction- Local, Streets Reconstruction- Thoroughfare, Unimproved Streets, Complete Streets, and Streets Resurfacing

Questions & Answers



City of Dallas

2024 Community Bond Task Force and Subcommittees

May 11, 2023

**Meeting No.1 – Introductions
Department of Public Works
City of Dallas**



City of Dallas

2024 Bond Streets & Transportation Subcommittee

May 11, 2023

**Meeting No.1
City of Dallas**

Overview



- Department of Transportation – Areas of Responsibility
- Traffic Signals & Flashers
- Transportation Systems Development
- Interagency Projects
- Bond Project Categories
- Q&A





Areas of Responsibility

Roadway Signs & Markings



Traffic Signals & Flashers



Street Lighting



Traffic Engineering



Transportation Systems Development



Active Transportation



Vision Zero (Safety)



Interagency Projects



Parking Management & Enforcement





Areas of Responsibility that Need Bond Funding

Roadway Signs & Markings



Traffic Signals & Flashers



Street Lighting



Traffic Engineering



Transportation Systems Development



Active Transportation



Vision Zero (Safety)



Interagency Projects



Parking Management & Enforcement



Traffic Signals & Flashers



What We Do:

- Design, build, and maintain traffic signals, pedestrian signals, school flashers, etc.; conduct studies to warrant signals and adjust signal timing.

State of the City's Traffic Signal Infrastructure:

- Traffic signals are in a state-of-good-repair if they are <25 years old.
- 68% of the City's 1,400+ signalized intersections are more than 25 years old. 46% are more than 40 years old (built pre-1980).
- Old signals lack standard safety features, detection, ADA accessibility, signal phasing capabilities.
- We should be replacing 60 signals per year to be in a state-of-good repair. \$0 was allocated in the 2017 Bond for traffic signal upgrades.
- Each new or replacement signal costs on average \$500,000 (2022 dollars).



Traffic Signals & Flashers



Example of signals built pre-1980

Only one overhead
signal head for
two thru lanes

No signal
head for left
turns



Lacks ped. features
(ramps, push buttons,
countdown timers)



Traffic Signals & Flashers



Example of upgraded traffic signal (Commerce and Griffin)



Adequate number of overhead traffic signal heads

Signal heads have reflective back plates

Improved lighting

ADA-compliant ped. push button



Traffic Signals & Flashers



New signal vs. old signal (Wheatland & Hampton)



Traffic Signals & Flashers



- There are also approx. 35 intersections that warrant traffic signals, but no funding to implement them.
- Examples:

Wheatland Rd. & Mountain Creek Pkwy



Ledbetter Dr. & Duncanville Rd.

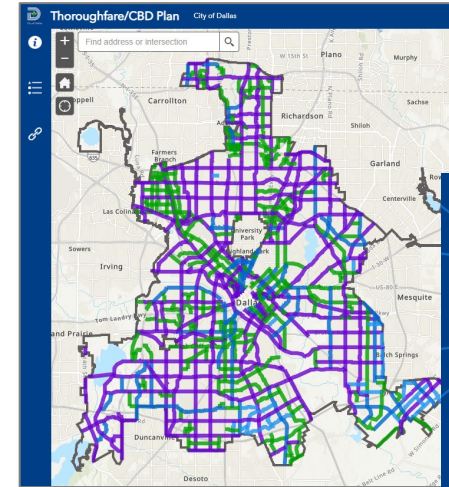


Transportation Systems Development

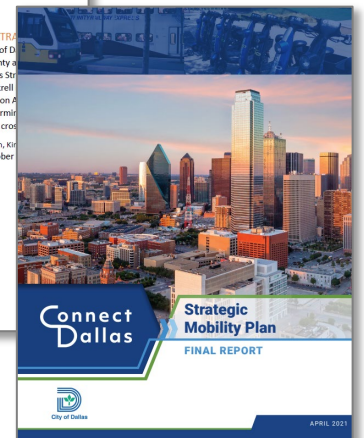
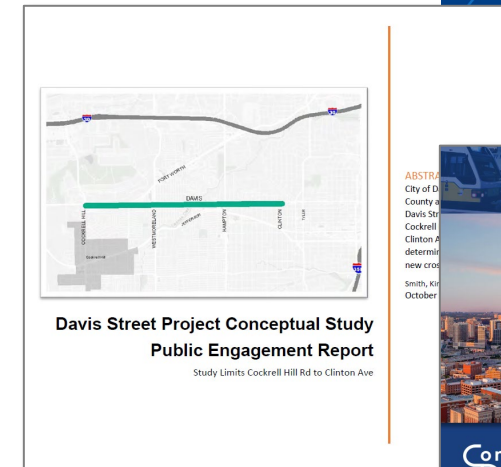


What We Do:

- Develop transportation systems plans and policies, and promote their implementation.
 - Thoroughfare Plan (long-term plan for the street system in Dallas)
 - Bike Plan (long-term plan for the bike network)
 - Vision Zero Action Plan (Dallas's traffic safety plan)
 - Dallas Strategic Mobility Plan
 - Complete Streets Design Manual
 - Corridor plans/studies (e.g., Gaston Ave., Davis St.)
- Coordinate on City, private development, and partner agency projects to ensure compliance with these plans and policies.



Draft cover



Interagency Projects



What We Do:

- Manage transportation projects that are partially or wholly funded by external governmental agencies (e.g., NCTCOG, TxDOT, Counties).
- Funding is usually awarded through grant application cycles.
- Most of these projects have a local match requirement, usually 20%-50% of total project costs.
- There are currently around 20 projects that require local funding. The source of that funding is expected to be the Bond program.
- There is also a need to set aside funds to leverage future partnership opportunities.



Bond Project Categories



Transportation Bond Project Categories:

1. Traffic Signals & Flashers:
 - a. Traffic Signal - Upgrades
 - b. Traffic Signal - Warranted Signals
2. Transportation Systems Development:
 - a. Complete Streets
 - b. Thoroughfare Expansions
3. Interagency Projects:
 - a. Partnership Projects - Funded
 - b. Partnership Projects – Prospective
 - c. Quiet Zones
4. Street Lighting
5. Vision Zero/Safety



Questions & Answers