



**City of Dallas**

# **Five-Year Infrastructure Management Program (IMP) FY 2021-2025**

**City Council Briefing  
November 4, 2020**

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City of Dallas

# Five-Year IMP Presentation Overview



- Five-Year IMP Background
- Streets and Degradation
- Sidewalks and Sidewalk Masterplan
- Unimproved Alley Program
- Bridge Maintenance Program





# Five-Year IMP Background



# Five-Year IMP Background



- The Five-Year Infrastructure Management Program (IMP) is a rolling list of all streets, alleys, sidewalks, and bridges programmed for maintenance (outside of bond or other capital programs) over the next five years.
- Each year, the IMP is calibrated to the annual budget and posted online in November (found on Public Works webpage).

The screenshot shows the City of Dallas Public Works webpage. The header includes the City of Dallas logo and navigation links for Resident, Visitor, Business, Government, and News. The main content area features a large image of a modern building and a navigation menu with links to HOME, AD, FIN, CIT, DA, EN, and AN. A prominent orange box displays the text: "City of Dallas", "Five-Year Infrastructure Management Program (IMP)", and "FY 2021 - FY 2025". To the right, a vertical list of blue buttons includes "Small Cell Application", "Small Cell Design Manual", "Above Ground Utility Structure Placement Guidelines", "IMP 5-Year Document", and "ROW Permit Map". A red arrow points from the "IMP 5-Year Document" button to the orange box.



# Five-Year IMP Background



- The first Five-Year IMP was developed in FY 2018 to increase transparency and plan infrastructure improvements based upon multiple funding scenarios.
- Prior to FY 2018:
  - Only bond programs were created based upon multi-year plans,
  - Maintenance dollars were fixed by treatment type,
  - There was limited data available to the public, little coordination of projects, and a lack of transparency of coming projects.



# Five-Year IMP Background



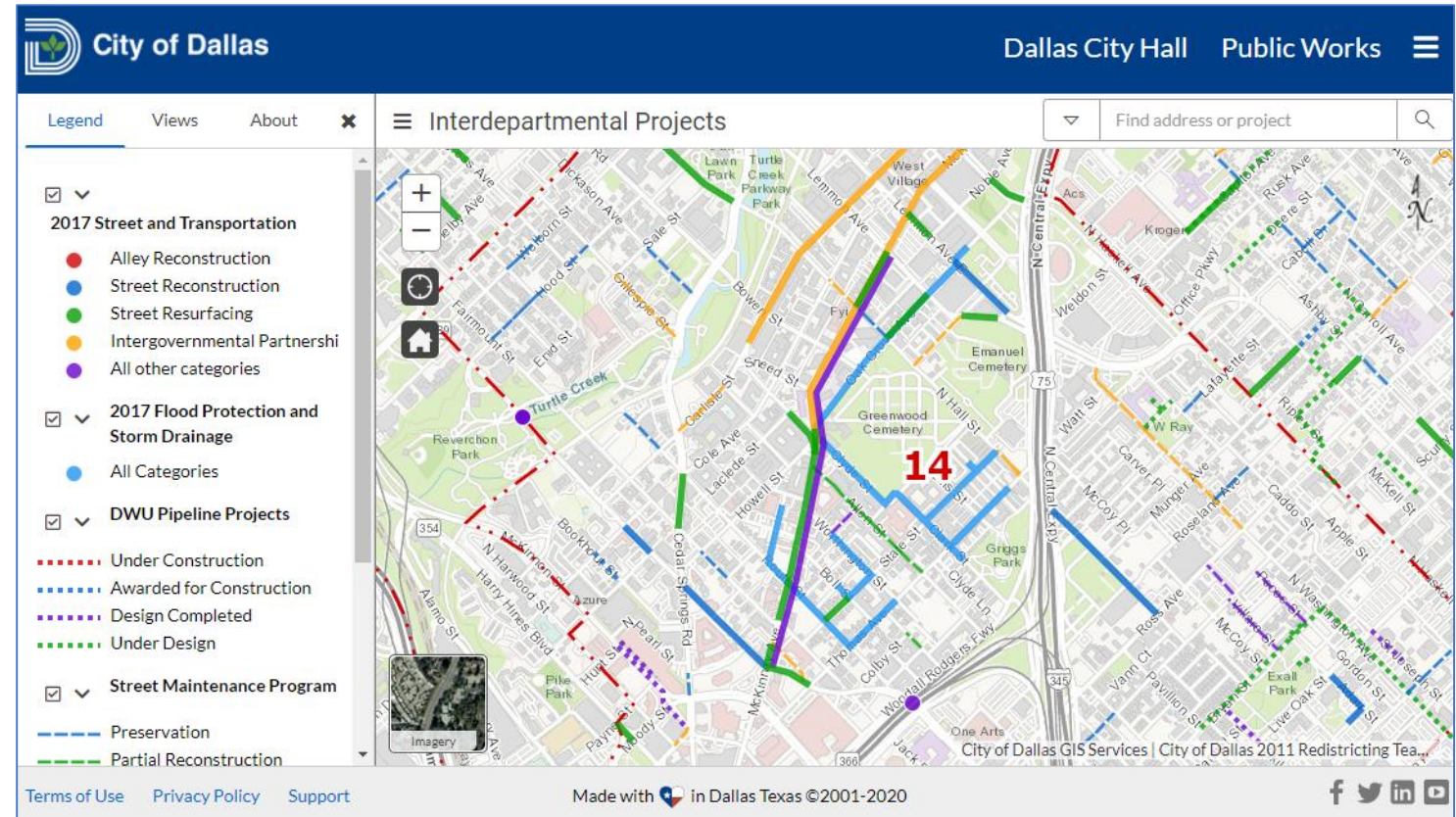
- This 3<sup>rd</sup> annual IMP includes:
  - Funding levels for each program (streets, alleys, sidewalks, and bridges),
  - Analysis of pavement condition index (PCI) ratings and degradation funding levels,
  - Assumptions of coordination of projects such as bond projects and Dallas Water Utilities projects.



# Five-Year IMP Background



- The IMP allows for opportunities for project collaboration as well as to identify and mitigate project conflict (reduces cutting of new streets)



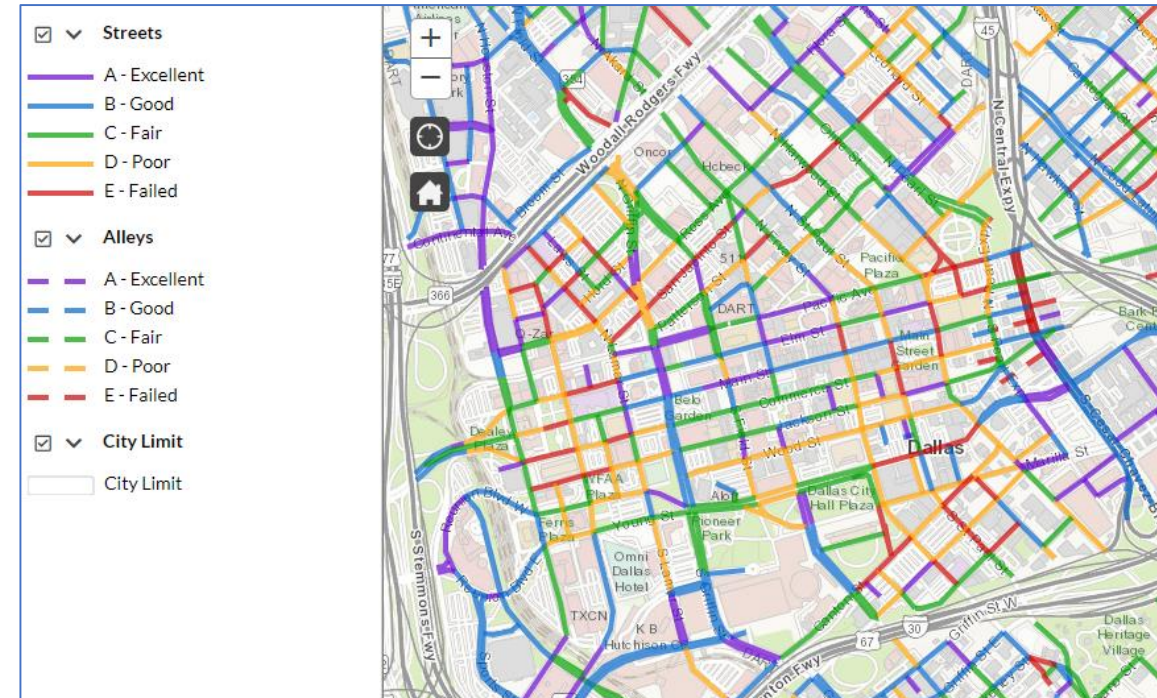
*Project Coordination Map updated annually and used to identify project conflicts and opportunities for collaboration.*



# Five-Year IMP Background



- Continual IMP improvements include:
  - Proactive updates of PCI scores (previously completed annually through contract),
  - Updating Pavement Management Model to optimize programming of current funds and prepare for the next bond program.



*Pavement Condition Map now updated as project are completed; also tied to restoration requirements for pavement cuts.*







# Five-Year IMP Background

- The FY 2021 IMP includes \$137.7M for streets, sidewalks, alleys, and bridges

<i>Proposed Five-Year IMP Program Budgets</i>						
<i>Program</i>	<i>FY 21</i>	<i>FY 22</i>	<i>FY 23</i>	<i>FY 24</i>	<i>FY 25</i>	<i>Total</i>
<b>Streets - Bond</b>	\$63.2M	\$87.3M	\$113.6M*	\$50.0M**	\$50.0M**	<b>\$364.0M</b>
<b>Streets - Maint.</b>	\$61.2M	\$61.7M	\$61.7M	\$61.7M	\$61.7M	<b>\$308.1M</b>
<b>Bridge</b>	\$1.0M	\$1.0M	\$1.0M	\$1.0M	\$1.0M	<b>\$5.0M</b>
<b>Sidewalks</b>	\$10.7M	\$4.5M	\$2.2M	\$2.2M	\$2.2M	<b>\$21.8M</b>
<b>Alleys- Unimproved</b>	\$1.6M	\$1.6M	\$1.6M	\$1.6M	\$1.6M	<b>\$8.0M</b>
<b>Alleys - Improved</b>	\$0.0M	\$2.0M	\$2.0M	\$2.0M	\$2.0M	<b>\$8.0M</b>
<b>Total</b>	<b>\$137.7M</b>	<b>\$158.1M</b>	<b>\$182.1M</b>	<b>\$118.5M</b>	<b>\$118.5M</b>	<b>\$715.0M</b>

- Greyed out boxes are subject to annual appropriations
- \* \$113.6M assumes \$25M in future bond funding for resurfacing projects
- \*\* Assumes a future bond program



# Five-Year IMP Background



- Equity Distribution:
  - Public Works' goal to spend \$8.6M in historically underserved areas,
  - A total of \$11.5M and 423 projects were programmed in historically underserved areas (goal exceeded by 34%).

Category	No. Of Projects	Length/Area	Unit	Budget
Streets	365	102.7	Lane Miles	\$9,175,000
Sidewalks	5	2.6	Linear Miles	\$1,440,000
Alleys	53	6.4	Linear Miles	\$925,000
<b>Total</b>	<b>423</b>	<b>111.7</b>		<b>\$11,540,000</b>





# Streets and Degradation



# Streets and Degradation



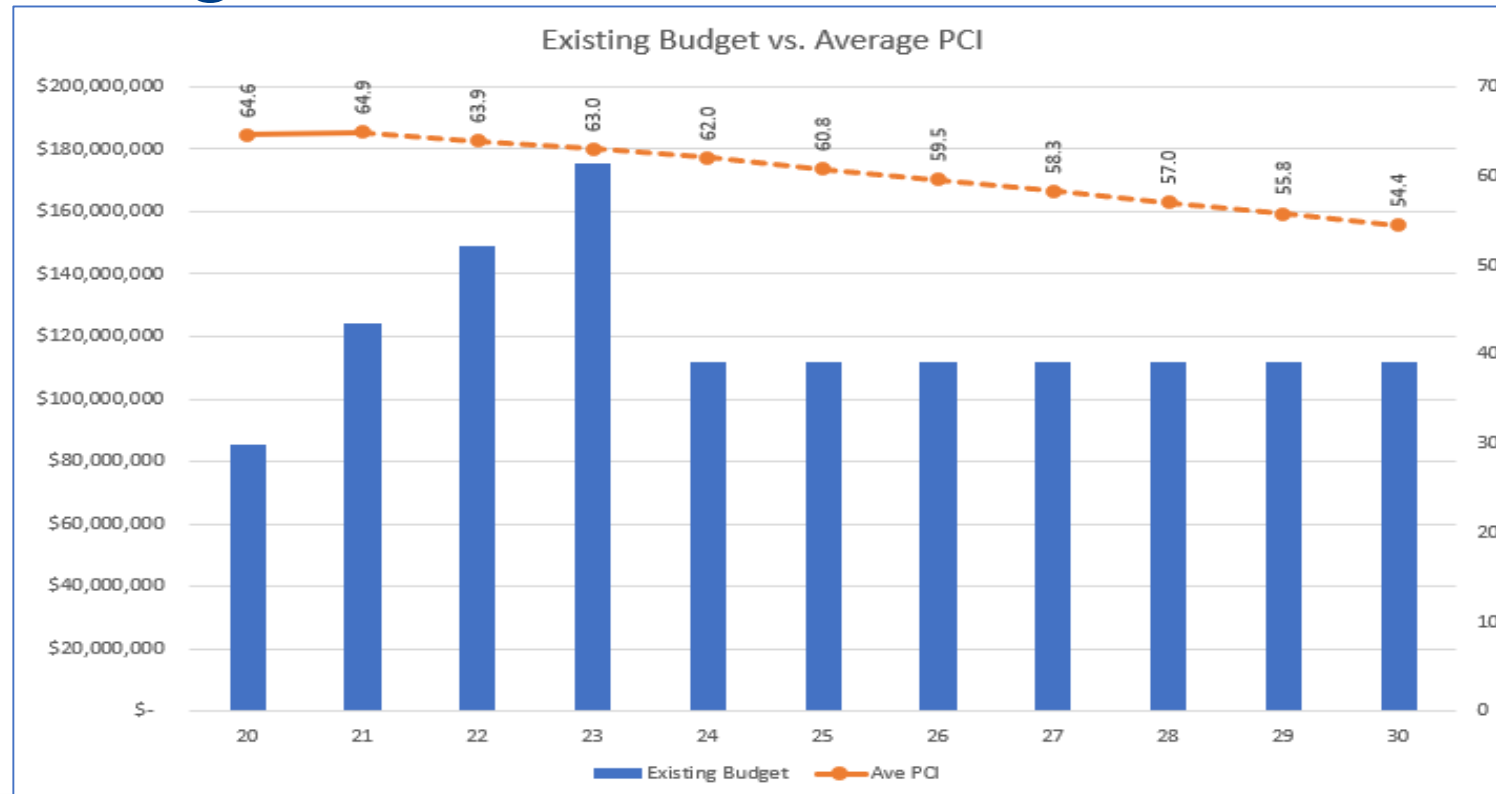
- Of the \$137.7M in the FY21 IMP, \$95.0M is for 757 lanes miles of resurfacing and reconstruction, street maintenance and preservation.
- Street maintenance and preservation includes applications such as:
  - Resurfacing
  - Partial reconstruction
  - Slurry seal



# Streets and Degradation



- Current funding levels result in an average one percentage point reduction of PCI (currently 64.6) through FY 2030.



# Streets and Degradation



- An annual average budget of \$347.0M would be needed to maintain zero-degradation of our street network through FY 2030.
  - The FY 2020 IMP identified an average annual budget of \$314.6M needed to maintain zero-degradation.
  - The increase to \$347.0M is based upon higher contractual prices and adding last year's shortfall; this increasing trend will continue with deferment of maintenance.
- An average annual budget of \$493.1 would be needed to increase our average PCI street ratings by one percentage point annually, through FY 2030.



# Streets and Degradation



- To mitigate degradation and budget needs, Public Works:
  - Is working with a consultant to update its pavement management models – available early calendar year 2021,
  - Is implementing a new in-house Onyx seal program – will save \$600K in FY 2021; could be expanded in FY 2022 to save another \$600K for a total program savings of \$1.2M compared to new contractual prices.



# Streets and Degradation



- To mitigate degradation and budget needs, Public Works (continued):
  - Has extended its current slurry and micro seal contract to save \$980K in FY 2021 compared to new contractual prices,
  - Will continue evaluating options to expand its in-house programs for future savings and efficiencies,
  - Will explore partnership opportunities (ex. \$1.6M in Dallas County funding in FY 2020).



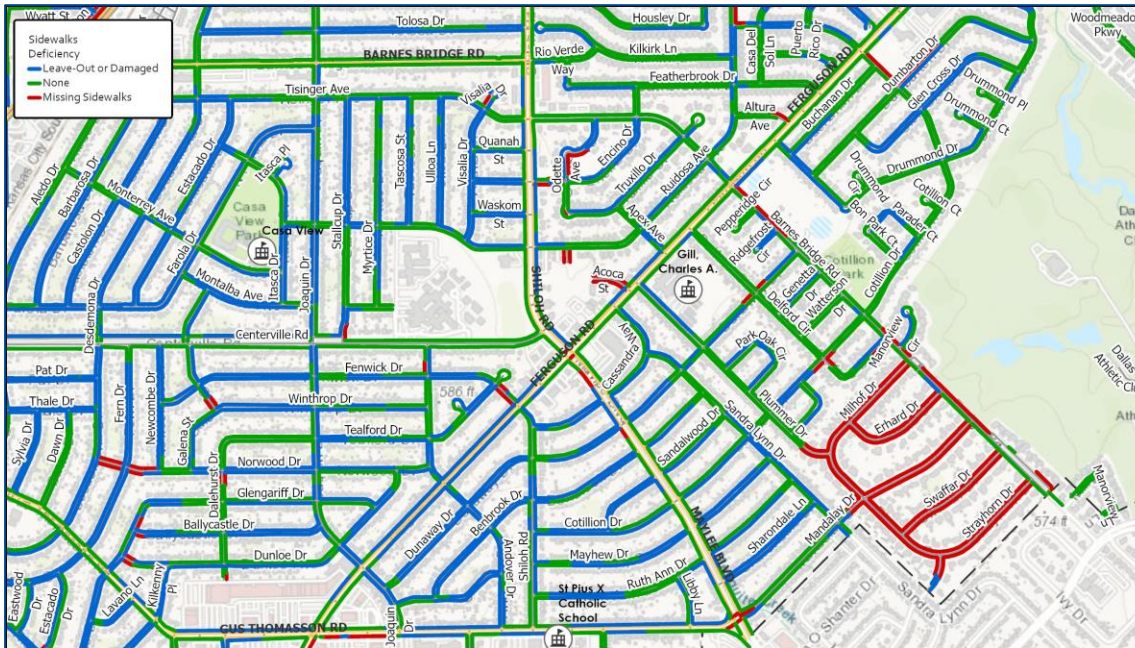




# Sidewalks and Sidewalk Masterplan



# Sidewalks and Sidewalk Masterplan



- The City's sidewalk inventory includes 4,277 miles, of which:
  - 1,942 miles have no deficiencies,
  - 2,335 miles are damaged or have leave-out
  - Estimated 1,759 miles of missing sidewalk

Sidewalks  
Deficiency

- Leave-Out or Damaged
- None
- Missing Sidewalks



# Sidewalks and Sidewalk Masterplan



- The FY 2021 IMP includes \$10.7M for 25 miles of sidewalks.
- Five (5) projects for 2.6 miles are in the newly defined Equity Zone.
- Approximately \$6.2M of sidewalks will be started while the Sidewalk Masterplan is being completed.



*Example of Sidewalk program repairs*



# Sidewalks and Sidewalk Masterplan



- The Sidewalk Masterplan will prioritize:
  - Sidewalks gaps that exist within the City,
  - Areas historically underserved,
  - Areas near schools, places of congregation,
  - Connectivity throughout neighborhoods.
- The Sidewalk Masterplan will compliment the City's ongoing ADA transition plan and complete streets projects.





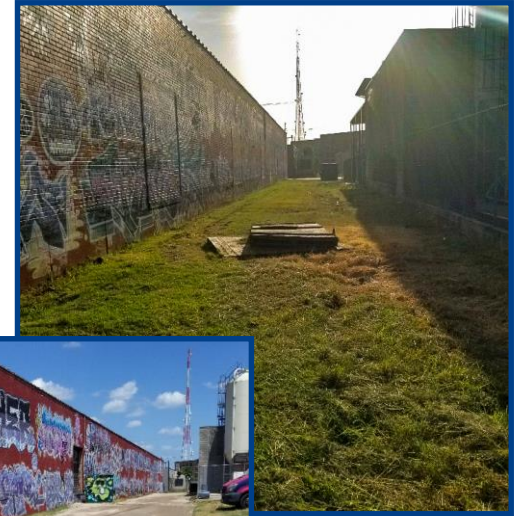
# Unimproved Alley Program



# Unimproved Alley Program



- The FY 2021 IMP includes \$1.6M for 103 unimproved alley segments totalling 11.4 alley miles.
- Public Works maintains an inventory of 134.6 miles of unimproved alleys.
- 53 projects for 6.4 alley miles are in the newly defined Equity Zone.



*Deep Ellum Alley  
Before and After*





# Bridge Maintenance Program



# Bridge Maintenance Program



- The FY 2021 IMP includes \$1.0M to continue with the Bridge Management Firm and 3 bridge maintenance projects.
  - Lemmon Ave, NB over Bachman Lake.
  - Lemmon Ave, SB over Bachman Lake.
  - Military Parkway over UP Railroad.





# Bridge Maintenance Program



- In FY 2021, Public Works will work with a Bridge Management Consultant to:
  - Identify and prioritize bridges needing repairs,
  - Assist in coordination with TxDOT as needed,
  - Develop standard specifications for repairs that will be able to be completed in house.





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# Equity Distribution



- Areas of Equity were defined using:
  - Market Value Analysis
  - Dallas Policy Map - Predominant Minority Race or Ethnic Groups
  - HUD's Qualified Census Tract for Low Income Areas
  - Social Vulnerability Index The SVI is an index developed by the Center for Disease Control and used to determine how vulnerable a community is after a natural or man-made disaster.
  - Streets in neighborhoods with no sidewalks to promote walkability

PBW Priority Areas, City of Dallas

