

# Streets 5-Year Maintenance Plan

April 25, 2019



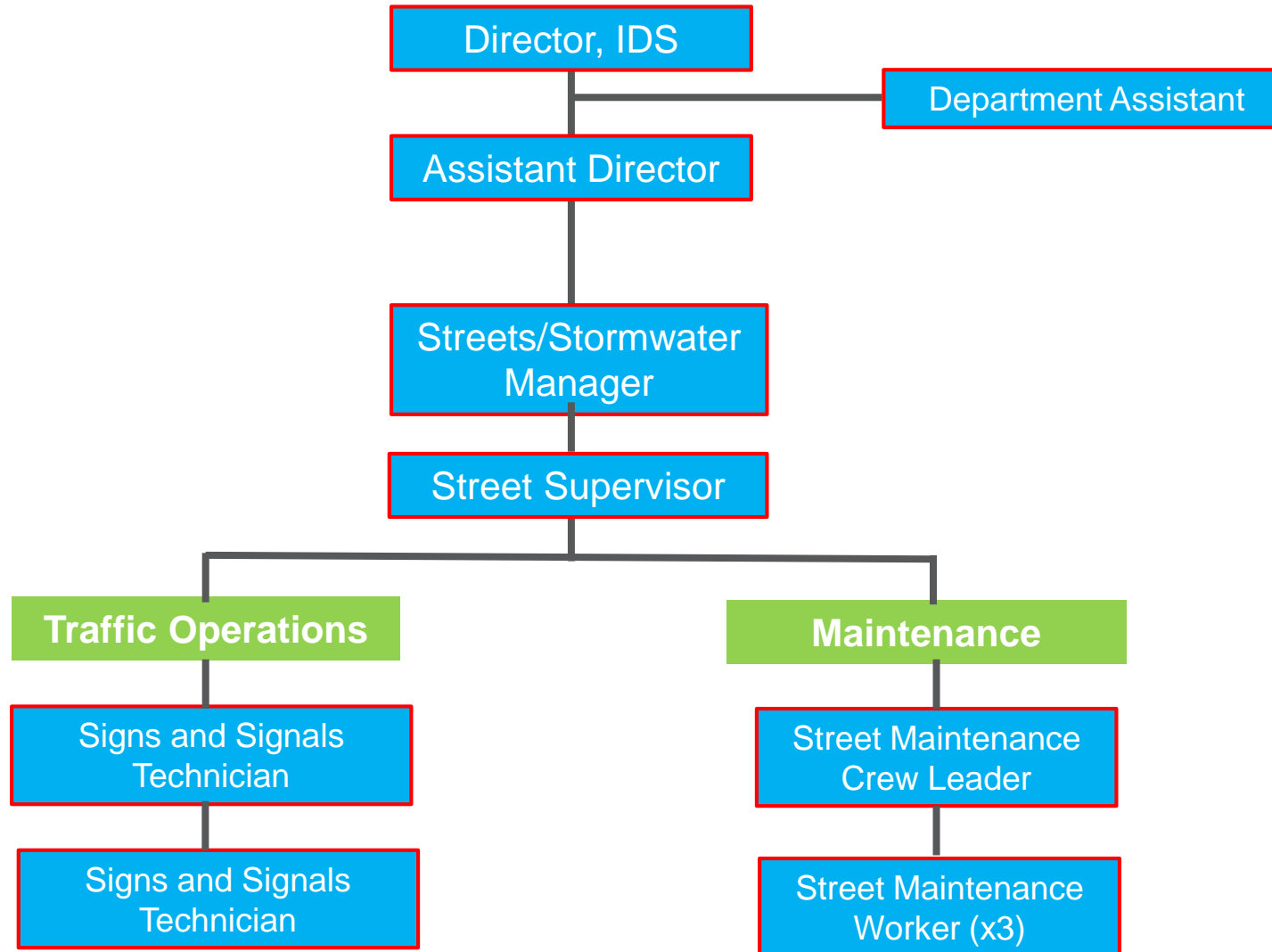
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# Streets Division – Infrastructure and Development Services Department

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# Streets Division Organization Chart



# Streets Division Mission

- To maintain the Town's streets at such a level as to ensure that no traffic delays are caused by pavement failures
- To maintain the traffic signal system so as to safely and efficiently move traffic throughout the community
- To collect residential brush and bulk within 48 hours of receipt of a request for service
- To administer solid waste and recycling contracts
- To coordinate the placement of public and private utilities in the public right-of-way
- To oversee the installation, repair, and maintenance of overhead street lights

# FY2019 Streets Division Maintenance Budget

- \$221,592- Maintenance
  - Concrete and asphalt repairs, concrete joint repairs, sidewalk repairs
- \$143,050 – Signs and Markings
  - Street markings, sign repairs, and replacements
- \$145,000 – Street light maintenance
  - Street light pole replacements, pole painting
- \$161,100 – Signal system repairs
  - Repairs, rewiring, video detection, battery back-up

# Additional Funds Allocated in FY2019

- Self-Funded Special Project Fund
  - \$700,000 – increase street maintenance activities
    - Repairs to Lake Forest Drive from Belt Line Road to southern edge of the bridge
    - Repairs to Town Hall Drive
    - Various street maintenance activities
    - Various sidewalk repairs
- Annual maintenance budgets:
  - Storm Water Division - \$50,000
  - Utility Division - \$30,000

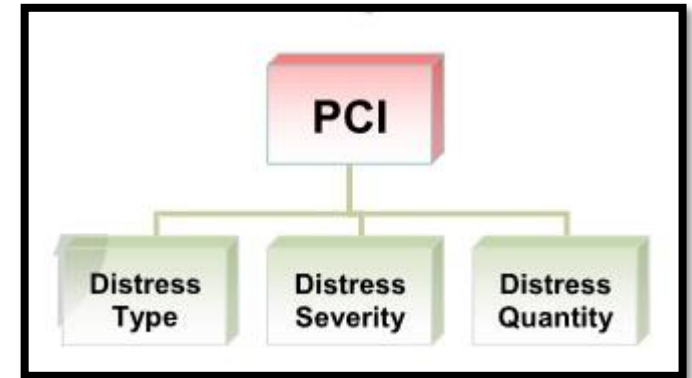
# Determining Priority of Needed Improvements

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# Determining Pavement Condition

- Visual assessment
- Pavement Condition Index (PCI)
  - Condition is based on number, severity, and type of pavement distress
  - Scale from 0 to 100



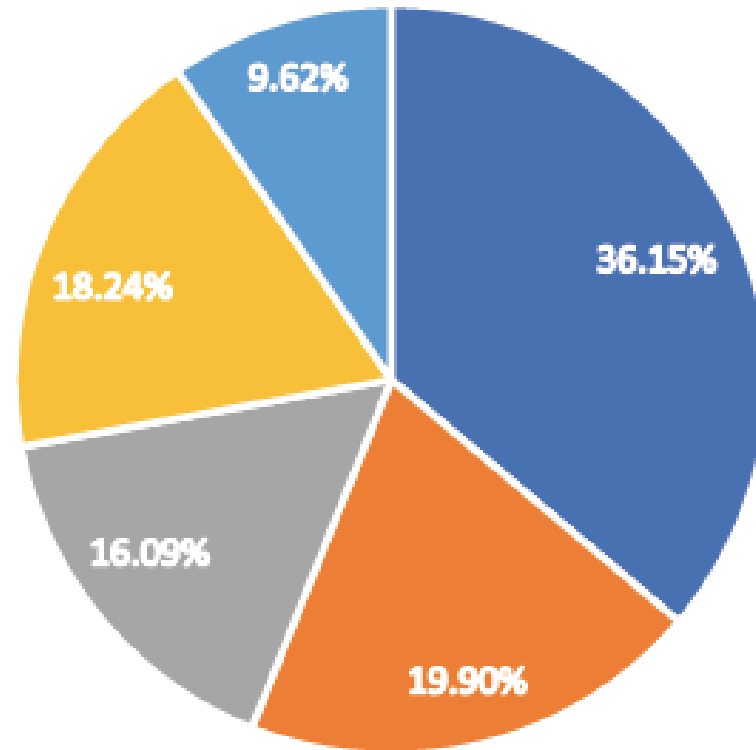
Rating	Good	Satisfactory	Fair	Poor	Very Poor	Serious	Failed
Range	85 – 100	70 – 85	55 – 70	40 – 55	25 – 40	10 -25	< 10



# Asset Management Report – Pavement System

- Visual Assessment
- 10.5 million square feet of pavement
  - 92% concrete
  - 8% asphalt
- Physical Health Score – C
- Replacement value - \$137 million (2018 dollars)

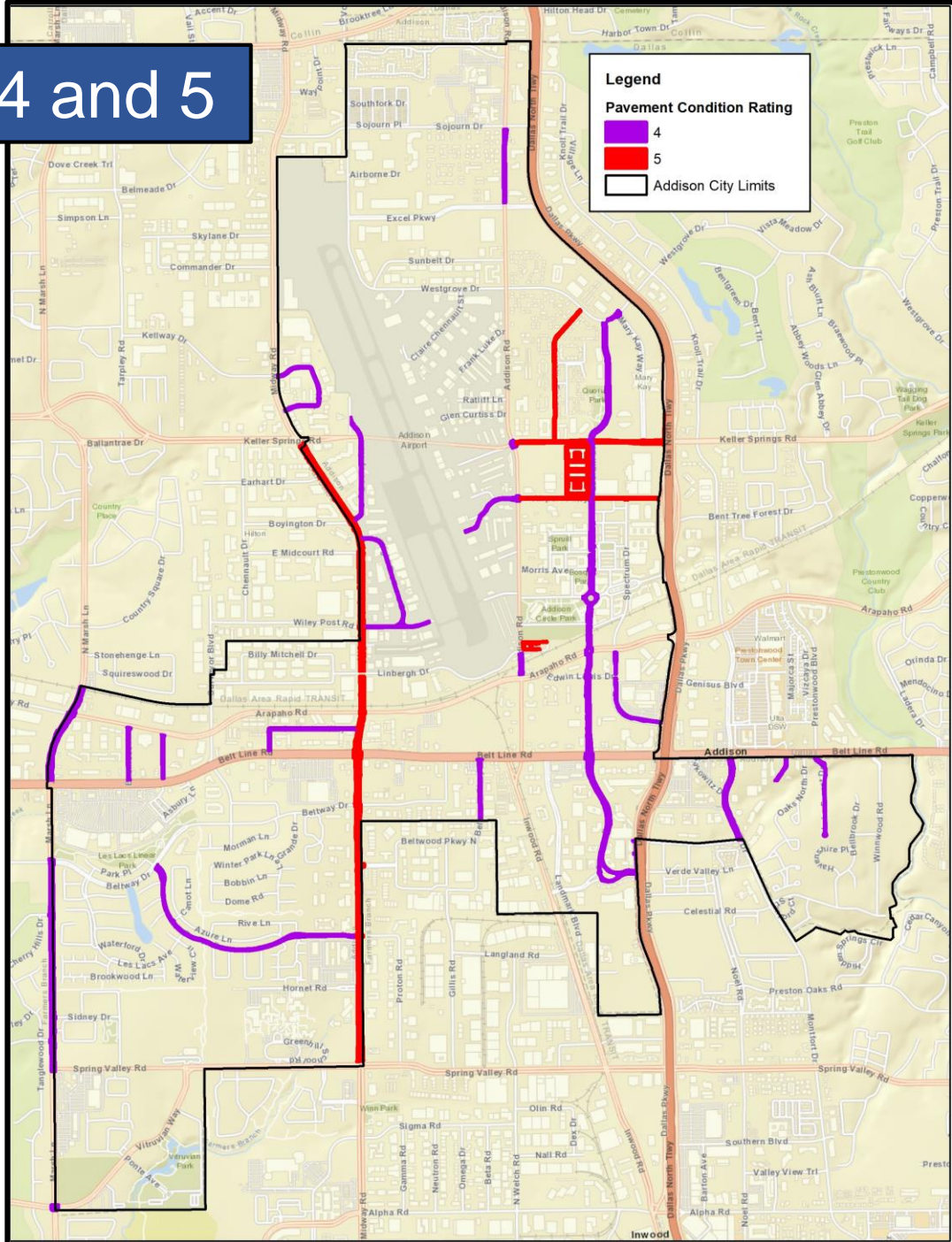
# Asset Management Visual Condition Assessment



- Excellent (Condition 1)
- Very Good (Condition 2)
- Good (Condition 3)
- Fair (Condition 4)
- Poor or Failed (Condition 5)

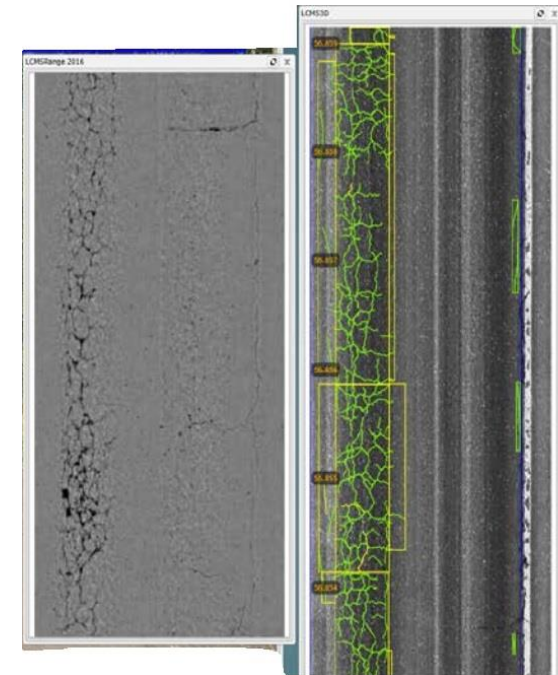
*Town of Addison Pavement Condition Assessment Results*

# Pavement Condition 4 and 5



# Pavement Management – Data Collection

- Data collected utilizing Automatic Road Analyzer (ARAN) Vehicle –
  - 2017 arterials
  - 2018 collectors, locals, and residential streets
- Uses high resolution, high speed cameras to collect:
  - Roadway distresses
  - Texture, roughness and rutting data
  - Data with GPS information
  - Data for adjacent infrastructure – such as street lights, traffic signal, signs



# Pavement Evaluation Report

- February 2018 – Fugro USA Land, Inc. Pavement Evaluation and Management System Report
  - Data Collection and Assessment
  - Maintenance Work Plan
  - Year-by-Year Treatment Recommendations
  - 10-Year Maintenance Plan

# Prioritization of Streets and Sidewalk Projects

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# Criteria to Determine Work Program - Streets

- Visual Assessment
- Asset Management Condition Score
- PCI Index – Fugro Report
- Underlying problem
- Traffic Volume
- Street Classification:
  - Arterial – Such as Belt Line and Midway Roads
  - Collectors – Such as Addison Road, Quorum Drive, Arapaho Road, Beltway Drive
  - Local – Such as Surveyor Boulevard, Commercial Drive, Business Avenue,
  - Residential – Such as Les Lacs Avenue, Oaks North Drive, Celestial Road



# Criteria to Determine Work Program - Sidewalks

- Visual condition assessment
- Presence and severity of hazard
  - Tripping hazards – uplifting, depressions, cracks
  - Americans with Disabilities Act compliance
- Location – volume of pedestrian traffic
- Significance – adjacent to special event area
- Cause – underlying issue



# Indefinite Delivery Indefinite Quantity (IDIQ) Contract for Maintenance and Repairs

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# Street Maintenance IDIQ Contract

- Bid Request Closed March 12, 2019
- Council consideration of award will be on May 28<sup>th</sup> agenda
- 5-year contract with set prices for each year
- Services to be provided:
  - Concrete and Asphalt street repairs
  - Sidewalk repairs
  - Retaining walls
  - Ramps
  - Curb and gutter
  - Storm water inlets
  - Brick pavers

# 5-Year Street Maintenance Work Plan

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# Street Maintenance Plan: Current Year - 2019

	Project Location	Description	Budget
2019	Town Hall Drive	Pavement Replacement on Town Hall Drive	Engineer's Opinion of Probable Cost (EOPC) \$231,912. Self-Funded Special Project Fund
2019	Lake Forest Drive	Reconstruction of concrete panels north of the bridge, resurfacing the bridge with hot mixed asphalt.	EOPC \$187,338 Self-Funded Special Project Fund
2019	Addison Road South of Airport Parkway to RR Tracks	Crack seal surface cracks from George Haddaway to RR Tracks.	Annual maintenance budgets: Streets - \$220,000 Storm Water - \$50,000 Utility - \$30,000 Total: \$300,000
2019	Brookwood, Beau Park, and Park Place	Sidewalk and ramp repairs to fix tripping hazards and install, Joint sealing on streets.	
2019	Les Lacs Ave and Leadville Place	Concrete Panel Replacements / Diamond Grinding	
2019	Maiden Court, Paldium Drive, Lochinvar Court, Lochinvar Drive, Oaks North Place, Trafalgar Court	Concrete panel lifting and replacements	
2019	Addison Circle Drive	Limited panel replacements / joint sealing	
2019	Proton Drive	Concrete Panel Replacements	Remaining funds from Self-Funded Special Project Fund: Approximately \$280,750
2019	Quorum Drive	Panel replacement of severe failures depending on CIP funding and project timeline.	
2019	Knots Landing, Planters Row, Sojourn Place	Limited Panel Replacements / Diamond Grinding	
			Grand Total: \$580,750

# Street Maintenance Plan: Year 1 - 2020

Year 1	Project Location	Description	Budget
2020	Sojourn Drive	Mill and overlay	<p><b>Proposed Decision Package</b></p>          <p><b>Based \$230,000 annual budget</b></p>
2020	Bellbrook Drive	Limited panel replacements and joint sealing.	
2020	Addison Circle Area	Sidewalk and ramp repairs to fix tripping hazards.	
2020	Arapaho Road Between Quorum and Spectrum	Joint and crack sealing.	
2020	Addison Road	Full depth repair in distressed areas and possible microsurfacing.	
2020	Belt Line Road	Limited crack sealing.	
2020	Paladium Drive	Reconstruction of concrete panels near the intersection of Montfort.	
2020	Various Locations	Repairs to Storm Water Inlets	

# Street Maintenance Plan: Year 2 - 2021

Year 2	Project Location	Description	Budget
2021	Belt Line Road	Crack seal from Marsh to Dallas North Tollway	<b>Proposed Decision Package</b>  <b>Based on \$230,000 annual budget</b>
2021	Lakeway Court	Joint and crack seal	
2021	Morris Avenue	Limited joint and crack seal	
2021	Oaks North Area	Sidewalk and ramp tripping hazard repairs	
2021	Camelot Court	Concrete slab repairs	
2021	Addison Road	Limited crack seal	
2021	Various Locations	Repairs to Storm Water Inlets and ponding issues	

# Street Maintenance Plan: Year 3 - 2022

Year 3	Project Location	Description	Budget
2022	Beltway Drive	Limited joint and crack seal with limited panel replacements.	<b>Based on \$230,000 annual budget</b>
2022	Excel Parkway	Limited concrete slab replacement.	
2022	Addison Road	Limited crack seal	
2022	Seabolt Place	Limited concrete slab replacement.	
2022	Arapaho Road	Limited joint and crack sealing, fix tripping hazards on sidewalk and ramps	
2022	Various Locations	Repairs to Storm Water Inlets and ponding issues	

# Street Maintenance Plan: Year 4 - 2023

Year 4	Project Location	Description	Budget
2023	Limited mill and overlay / microsurfacing of Belt Line Road	Depending on condition	<b>Proposed Decision Package</b>
2023	Westgrove Drive	Limited concrete slab replacement and limited joint / crack sealing sidewalk and ramp repairs.	
2023	Arapaho Road	Limited joint and crack sealing.	<b>Based on \$230,000 annual budget</b>
2023	Landmark Boulevard	Limited slab repair.	
2023	Inwood Road	Limited slab repair.	
2023	Marsh Lane	Limited slab repair / joint sealing.	
2023	Various Locations	Repairs to Storm Water inlets and ponding issues	



# Street Maintenance Plan: Year 5 - 2024

Year 5	Project Location	Description	Budget
2024	Camden Lane	Limited slab repair / diamond grinding.	<p><b>Based on \$230,000 annual budget</b></p>
2024	Excel Parkway	Limited slab repair / diamond grinding.	
2024	Arapaho Road	Slab repair / diamond grinding.	
2024	Sojourn Drive	Crack Sealing repair sidewalks and ramps.	
2024	Belt Line Road	Microsurfacing.	
2023	Various Locations	Repairs to Storm Water inlets and ponding issues	

**Questions**

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