**District of Columbia**

# State of the
# District of Columbia's
# Infrastructure

## *Presentation to the*

## *Nationals Governors Association*

## *Boston, MA*

## August 28, 2019

**Darryl Street**                           **David Clark**

*Senior Financial Policy Advisor*          *Director, Capital Improvements Program*

**Office of the Chief Financial Officer**

**Washington, D.C.**

District of Columbia

Asset Management Journey

DC Background

CARSS Demos

DC's Funding Approach

Capital Project Examples

Can I Replicate DC's Efforts?

District of Columbia

DC Background

Unique Place

Infrastructure Challenges

# District of Columbia – A Unique Place

➢ *The District operates as, and has to finance and provide the infrastructure needs of, a state, county, city and school district*

➢ The District enjoys a growing population *(approx. 700,000),* economy and tax base

➢ Fully-funded pension and OPEB trusts

➢ Strong bond ratings (Aaa/AA+/AA+) and strong reserves result in low overall costs of borrowing, but…..

➢ *The District has a large deferred maintenance backlog*

➢ *Historically low pay-as-you-go ("paygo") funding levels*

➢ *Relatively high debt per capita ratios and statutory limits on borrowing*

# Infrastructure Challenges *(National & Local)*

➢ In 2017, the American Society of Civil Engineers (ASCE) infrastructure report card scored the nation's infrastructure a "D+" on a scale of "A to F"

➢ ASCE's gave the District's infrastructure a slightly higher, but still not great, grade of "C-"

➢ District is a unique entity with responsibility to finance infrastructure needs of a state, county, city and school district

➢ The District has spent billions on schools reconstruction due to long-term lack of adequate maintenance

➢ Also had to address long-term funding needs of WMATA

District of Columbia

District's
Asset Management &
Capital Planning
Journey

Imagine a World Without Potholes?

Four Key Questions

What is CARSS?

# Imagine a World Without Potholes

# Four Key Questions to Ask

1. What assets do we have that need to be maintained?

   ✓ *Develop a comprehensive asset inventory (or registry)*

2. What is the quality of the assets we have?

   ✓ *Facility/asset condition assessments*

3. How will we prioritize our capital needs?

   ✓ *Develop system to evaluate, rank and prioritize asset maintenance*

4. How much funding is available to address capital needs and asset maintenance?

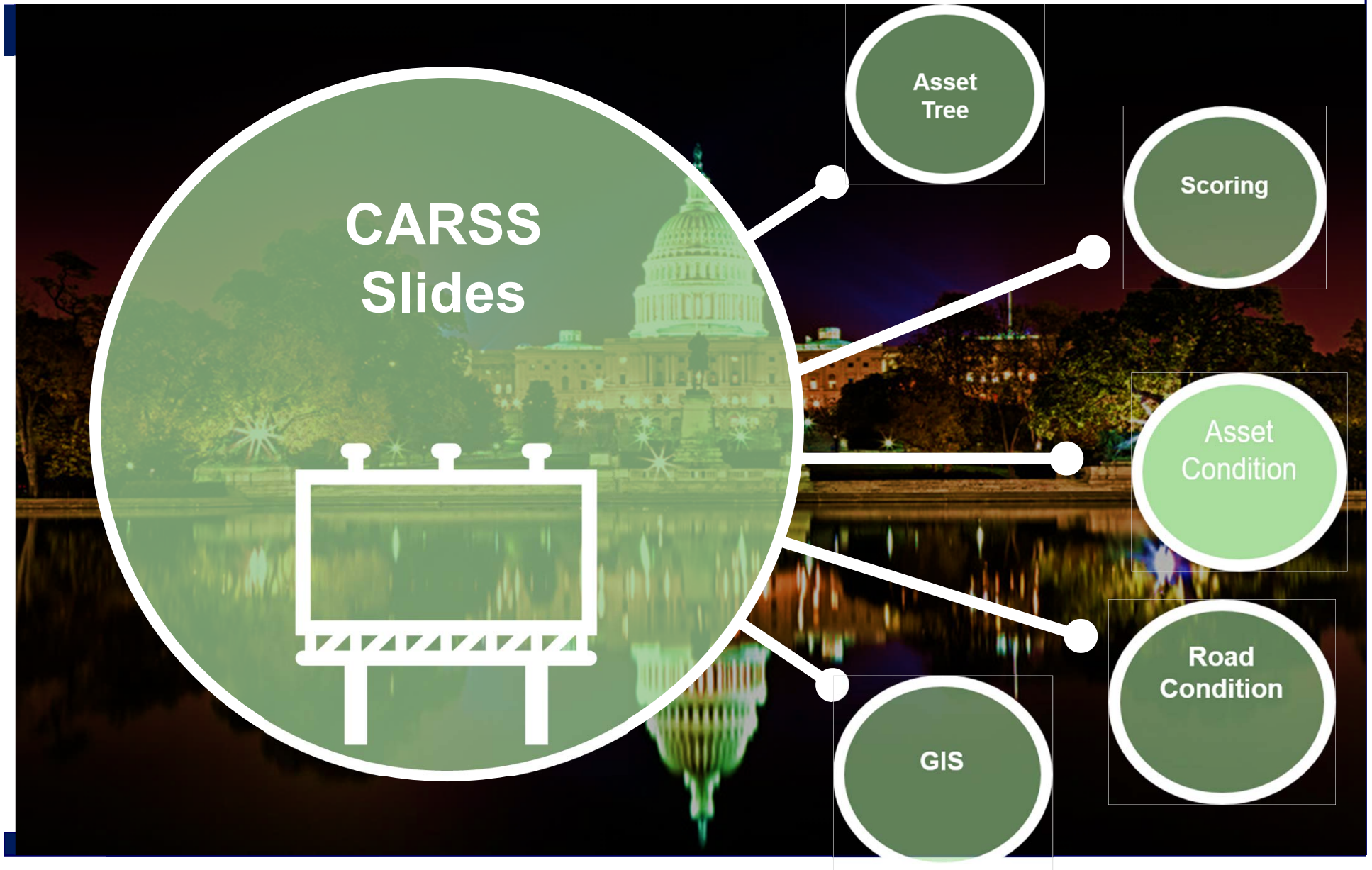   ✓ *Debt outstanding, debt limits, paygo, federal and other sources of funding*

# What is CARSS?

➢ Capital Asset Replacement Scheduling System

➢ Asset management planning software

- Inventories and organizes assets
- Incorporates condition assessment information
- Helps to prioritize investment in critical assets to maximize return on investment

➢ Produces a more data-driven CIP *(more defensible)*

➢ Identifies and quantifies those capital projects that cannot be funded within the financial constraints of the CIP

➢ Allows the District to focus and develop a plan to address those unmet capital needs

- *Long-Range Capital Financial Plan*

CARSS Slides

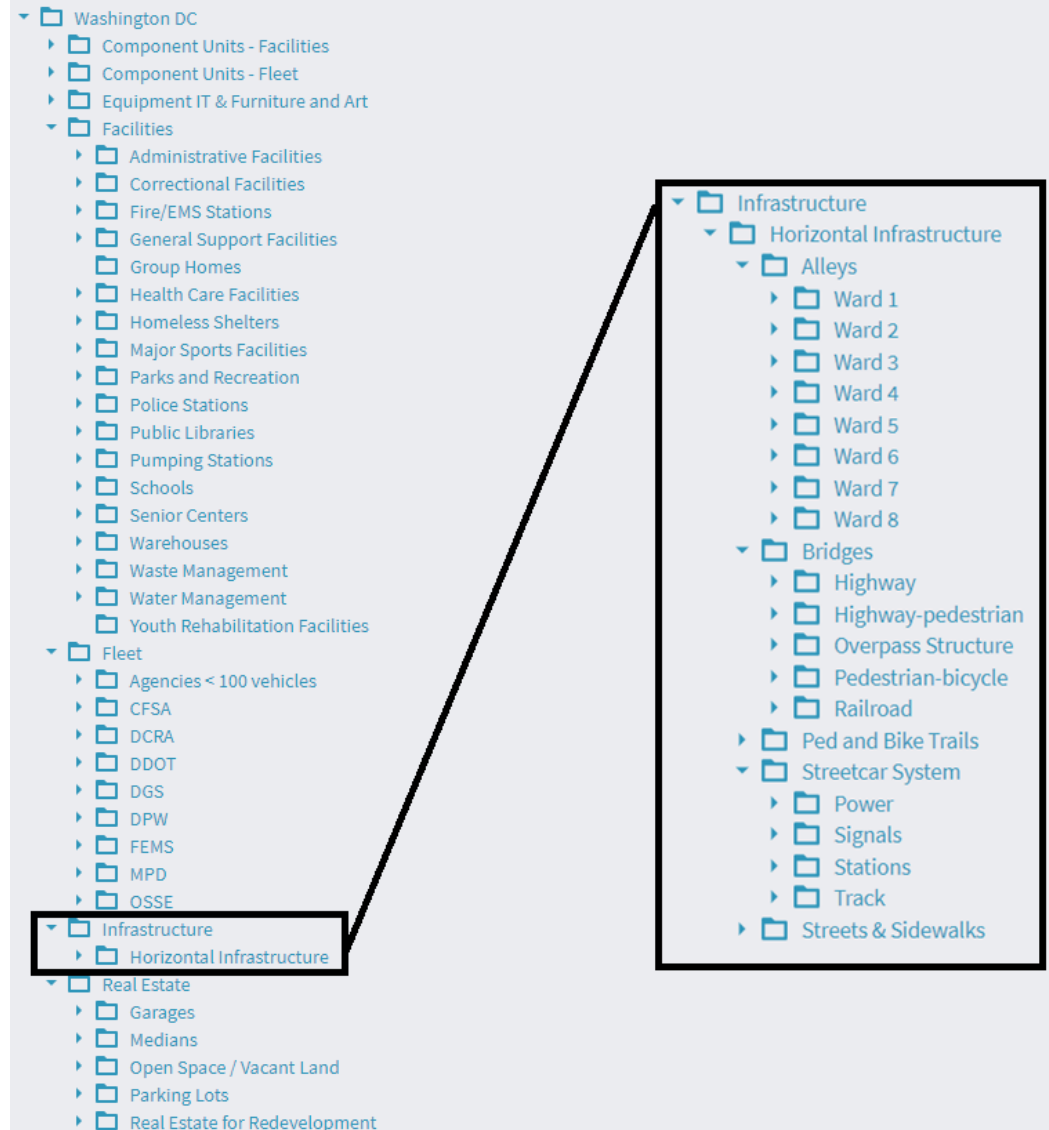Asset Tree

Scoring

Asset Condition

Road Condition

GIS

# Asset Tree

# Project Scoring

**FY 2020 - FY 2025**

| Agency | | Total Cost | | | Project Alignment with District Policies | | | | | | Evaluation Score | Multiplier | Priority Score |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project** | | | | | How supportive is the project on a scale of 1-5? | | | | | | Bonus = x | | |
| **Meets District Policy Priorities** | | | | **Project Examples** | 1= | 2= | 3= | 4= | 5= | | | | |
| *Enhance DC government services* | | | | *Transportation* *Good Government* *Mobility Infrastructure* | Provides some Infrastructure improvement or, some customer service improvement | | Improves local horiz. infrastructure or will significantly improve customer service beyond current levels | | Creates new horizontal infrastructure asset | | 0 | 3 | 0 |
| | | | | | | | | | Subtotal = | | | | 0 |
| **Cost-Benefit Factors** | | | | | 1= | 2= | 3= | 4= | 5= | | | | |
| *Readiness (catalyst project, implements Small Area Plan, etc.)* | | | | | Good project but still needs more planning around accurate budgets, spending and PM | | Well planned with appropriate budget and spending levels to be successful | | Well planned project, with designated PM, correct budget and spending plan AND, ties to District Comp/Trans plans | | 0 | 5 | 0 |
| | | | | | | | | | Subtotal = | | | | 0 |
| **Project-Specific Criteria** | | | | | 1= | 2= | 3= | 4= | 5= | | | | 0 |
| *Federally Required Mandate* | | | | | Must be completed but no time frame given | | Must be completed between 2-5 years | | Must be completed in the next 2 years | | 0 | 5 | 0 |
| *Extends Useful Life of Asset receiving the budget* | | | | | Extends the useful life of the asset receiving the budget > 2 years and <5 | | Extends the useful life of the asset receiving the budget > 5 years and <10 | | Extends the useful life of the asset receiving the budget > 10 years | | 0 | 5 | 0 |
| | | Master Project | | | If the requested budget is for Master Project = bonus points | | | | | | | N/A | 0 |
| | | | | | | | | | Subtotal = | | | | 0 |
| | | | | | | | | | **Overall Score** | | | | **0** |

# Facility & Asset Condition Assessments

POWERPLAN INSIGHTS | Dashboard

richard.dietz@dc.gov

Edit

Overview · / Asset Condition Overview ·

= FIRE & EMERGENCY M...

**Asset Type Report**

| Asset Type | Count | Age (Average...) | Maintenance Cost | Condition (Average...) | Events | Event Cost |
|---|---|---|---|---|---|---|
| Administrative | 104 | 11.03 | $1.71M | 11.11 | 99 | $5.91M |
| Ambulance | 98 | 3.55 | $3.83M | 9.18 | 91 | $26.72M |
| Command | 31 | 5.91 | $0.74M | 11.00 | 25 | $1.15M |
| Ladder Trucks | 28 | 9.11 | $3.41M | 8.44 | 14 | $18.61M |
| Other Respon... | 16 | 13.13 | $0.47M | 8.84 | 11 | $11.63M |
| Pumpers | 56 | 10.82 | $8.18M | 12.64 | 42 | $36.84M |
| Rescue Squads | 11 | 14.73 | $1.07M | 11.19 | 9 | $12.29M |
| Σ | 344 | X̄ 9.75 | Σ $19.41M | X̄ 10.34 | {} 291 | {} $113.15M |

Count by Asset Type

Asset Condition Distribution

# Condition of Washington DC's Roads
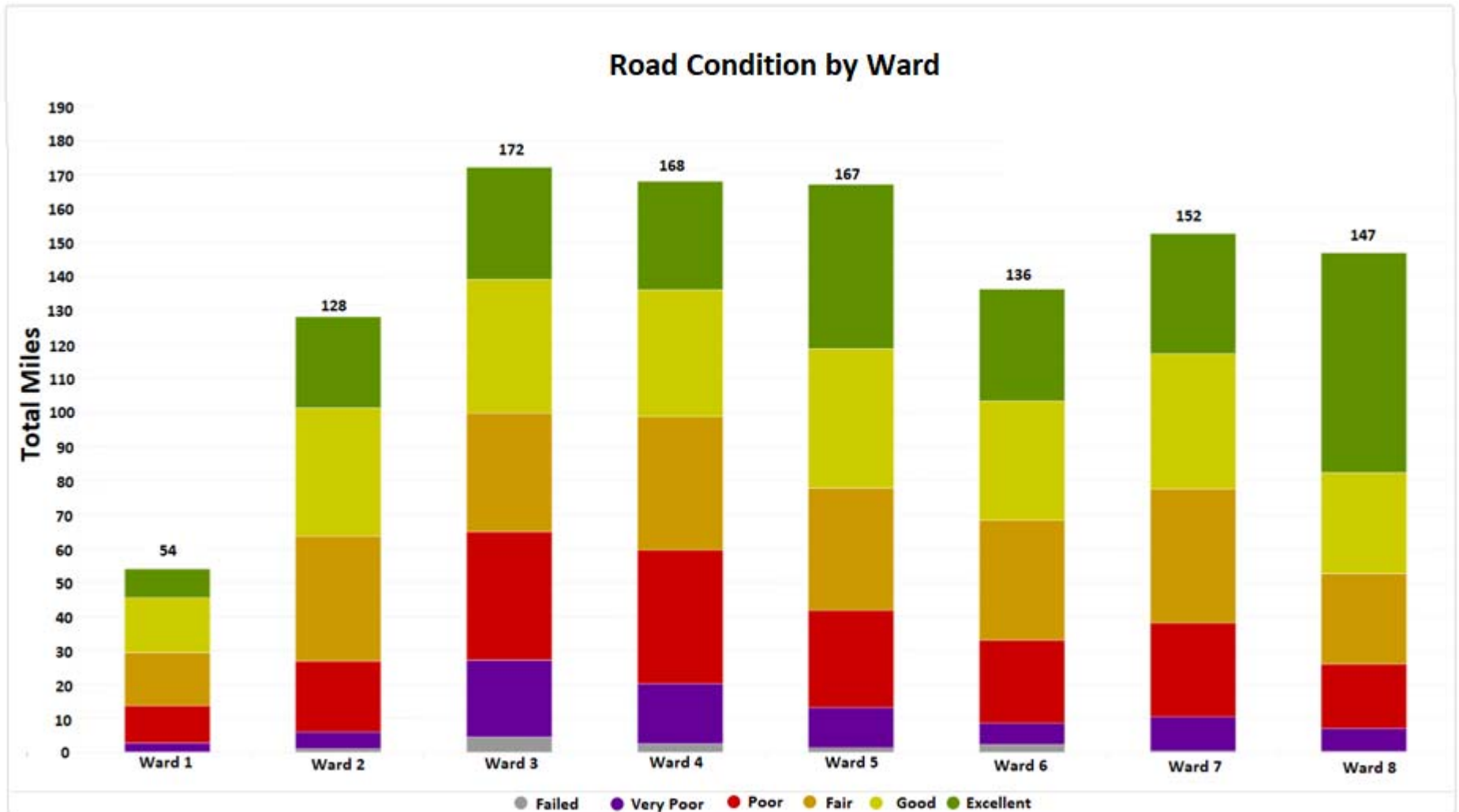


Road Condition by Ward

# GIS Road Condition
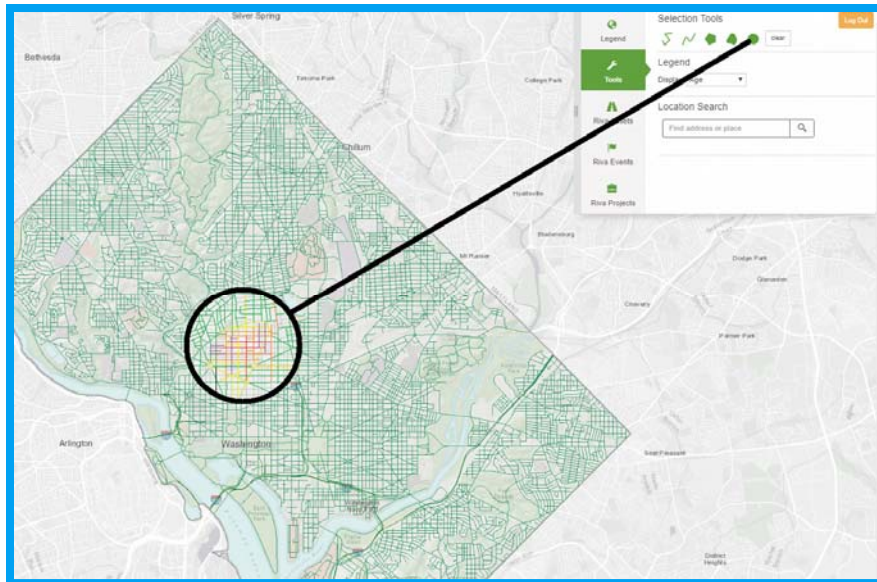




| Condition by Mileage | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Condition | Ward 1 | Ward 2 | Ward 3 | Ward 4 | Ward 5 | Ward 6 | Ward 7 | Ward 8 | Totals | |
| **Excellent** | 9 | 27 | 33 | 32 | 48 | 33 | 35 | 65 | 282 | 25% |
| **Good** | 16 | 38 | 39 | 37 | 41 | 35 | 40 | 30 | 276 | 25% |
| **Fair** | 16 | 37 | 35 | 39 | 36 | 35 | 39 | 27 | 264 | 23% |
| **Poor** | 11 | 21 | 38 | 39 | 29 | 24 | 28 | 19 | 209 | 19% |
| **Very Poor** | 3 | 5 | 23 | 18 | 12 | 6 | 10 | 7 | 83 | 7% |
| **Failed** | | 1 | 5 | 3 | 1 | 2 | | | 12 | 1% |
| Total Miles | 54 | 128 | 172 | 168 | 167 | 136 | 152 | 147 | 1,125 | 100% |

District of Columbia

Approach to Funding Solutions

- Prioritizing Needs
- Identifying Unmet Need
- Funding Approach
- Results
- Success
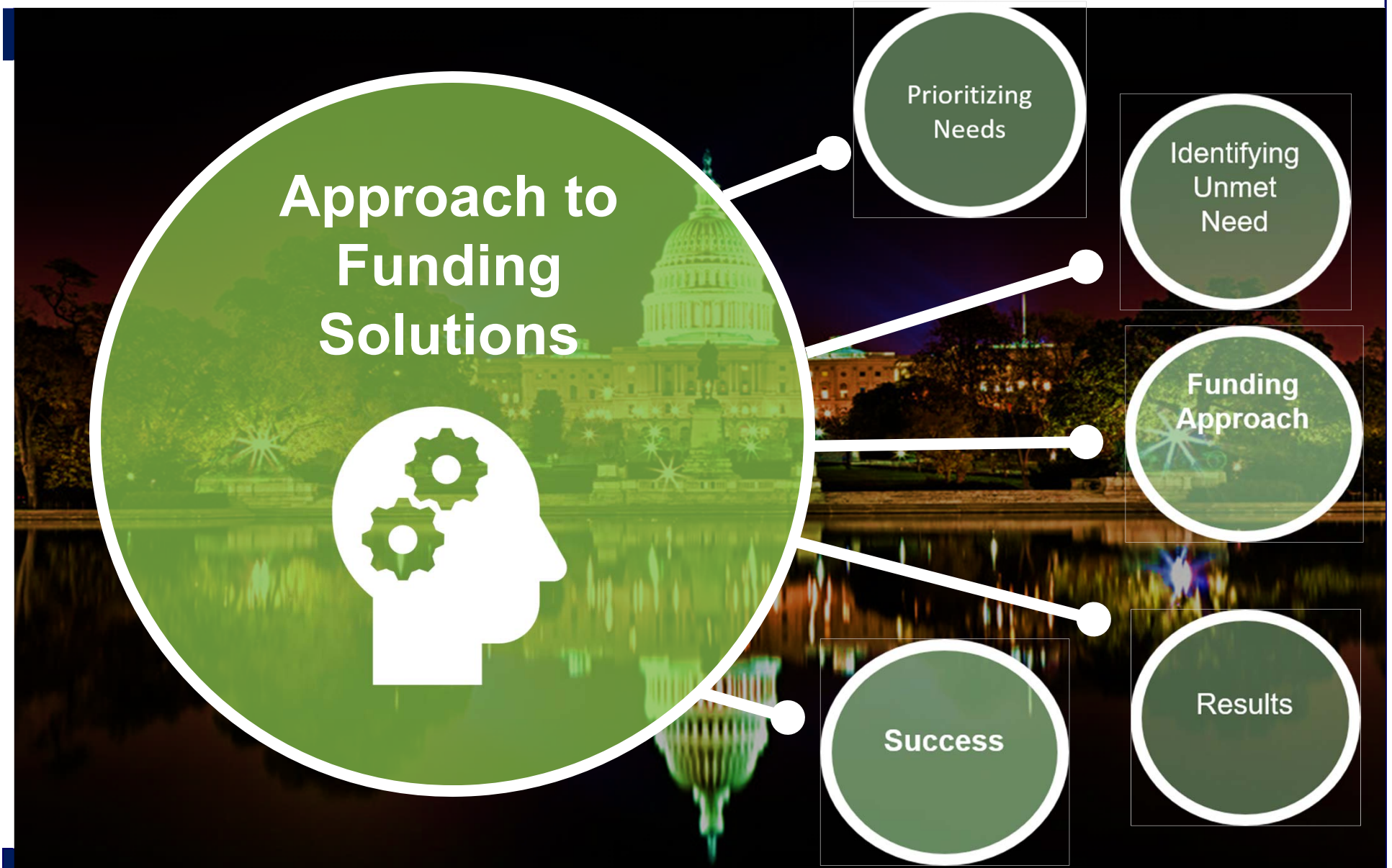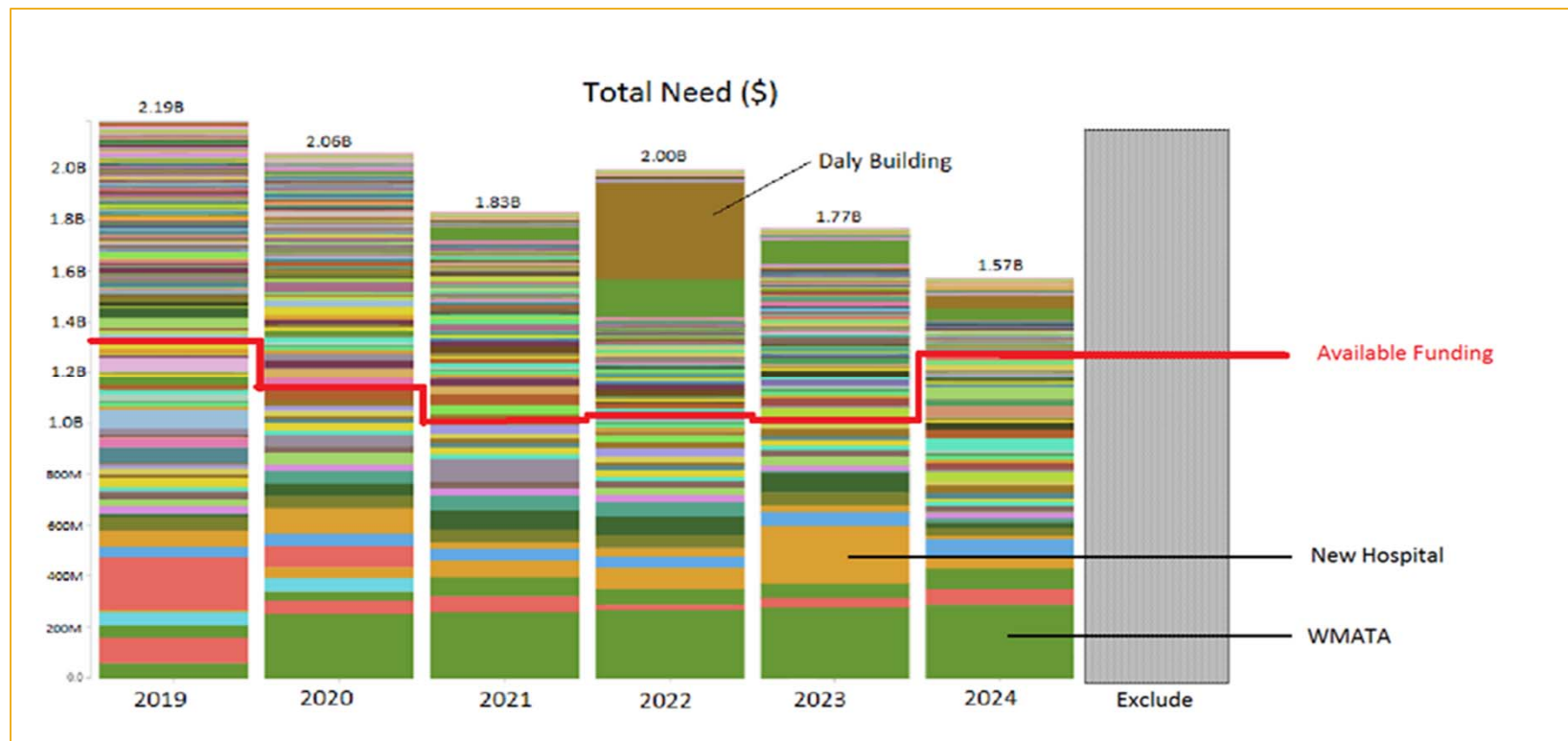
# Prioritizing Most Critical Capital Needs

CARSS ranks and prioritizes every capital project when building the District's 6-year CIP

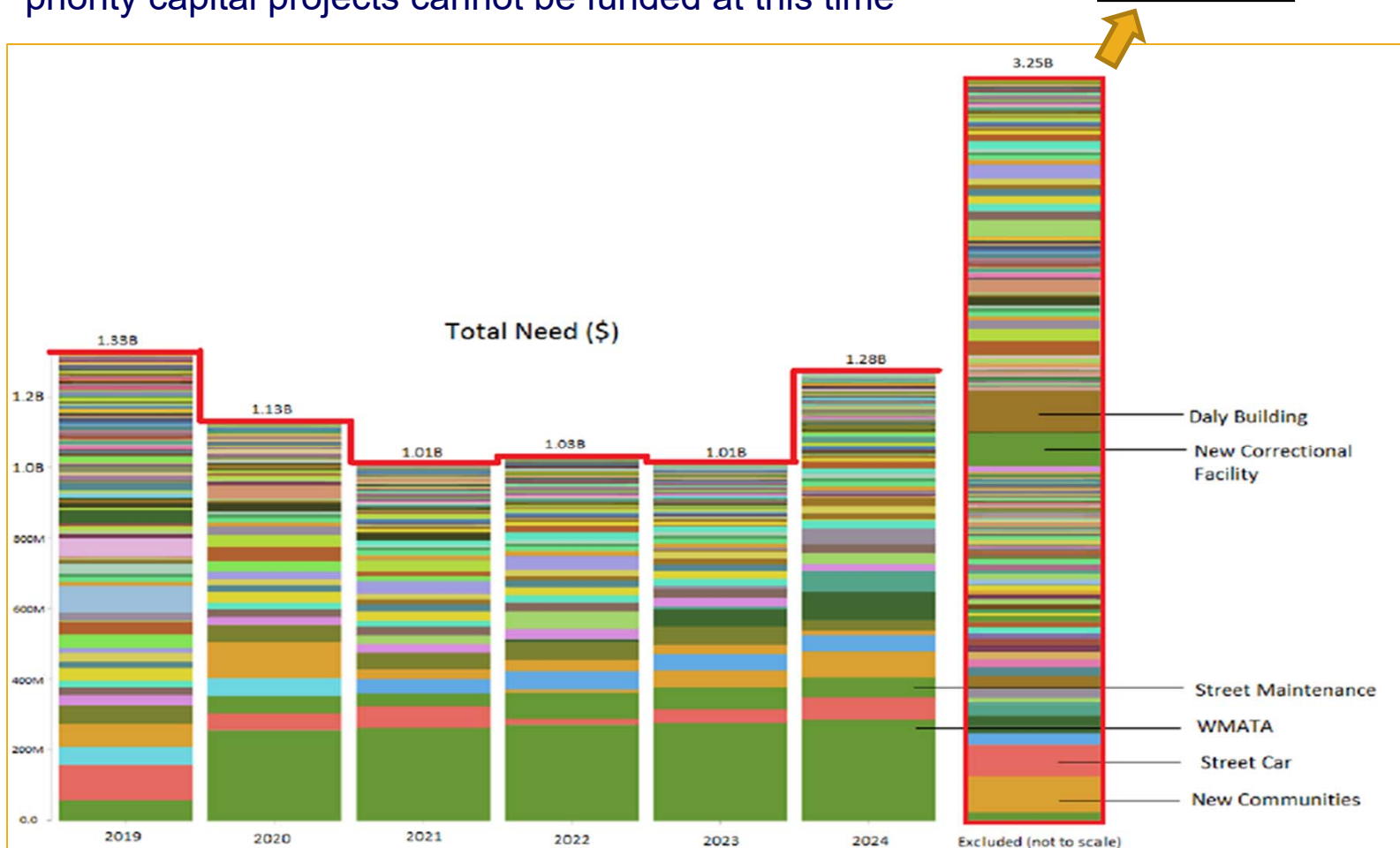# Identifying & Funding Unmet Capital Needs

**District of Columbia**

CARSS determines the highest priority capital needs, which are funded in the 6-year CIP, and which lower-priority capital projects cannot be funded at this time

Represents total $3.3 billion unfunded capital needs



Total Need ($)

3.25B

1.33B
1.13B
1.01B
1.03B
1.01B
1.28B

Daly Building
New Correctional Facility

Street Maintenance
WMATA
Street Car
New Communities

1.2B
1.0B
800M
600M
400M
200M
0.0

2019  2020  2021  2022  2023  2024  Excluded (not to scale)

# Funding Approach for Capital Needs

**Projected Future Paygo Transfers vs. Est. Annual Depreciation**
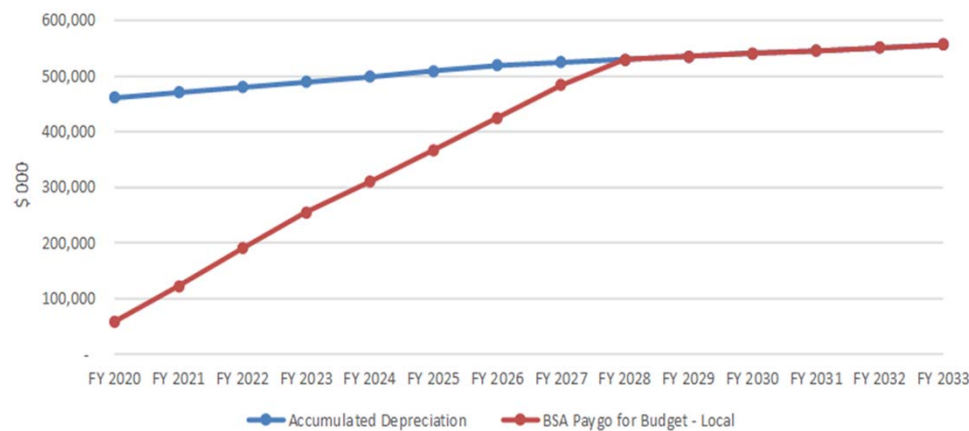


New District law gradually increases paygo (cash funding) levels until they equal annual depreciation of District assets.

Issuing debt up to the statutory limits, as well as refinancing existing debt when appropriate, will allow the District to fund its unmet needs in a reasonable amount of time. Also, by FY2028 significant debt capacity occurs to help fund needed, new capital projects to support growth.
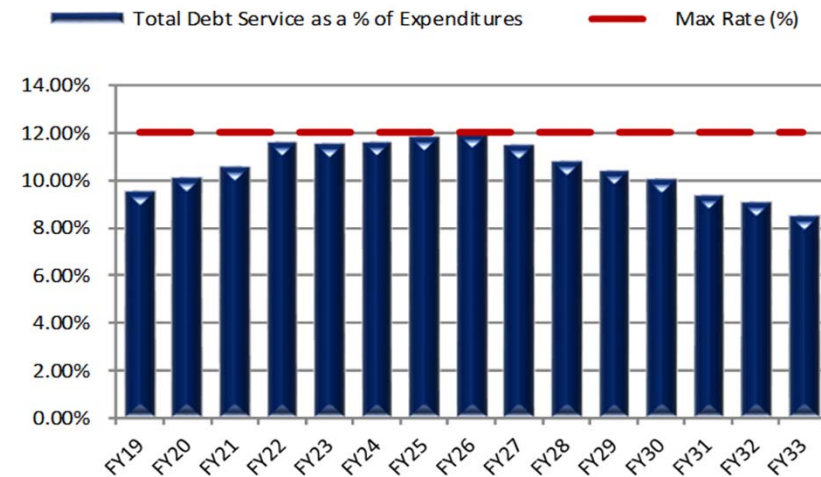
# Results of Long-Term Capital Planning

- Total unmet capital needs reduced to $3.3 billion *(from $5.7 billion last year)*
  - *Approximately $1.2 billion is deferred maintenance*

- All unmet capital needs, including deferred maintenance, funded by FY2028
  - Significantly increased capital budget for repairs of streets, sidewalks and alleys

- 100% of District-owned assets now inventoried in CARSS
  - Facility condition assessments to be completed on all assets within 12-18 months
  - ***CARSS is most comprehensive asset management system of any state or local government in the nation***

- Bond ratings upgraded across the board, including to Aaa by Moody's

- District has addressed its share of additional capital funds needed for WMATA *(Approx. $2.3 billion over 10 years)*
  - *New dedicated funding, and increased existing funding for capital should allow WMATA to meet its SGR capital needs within a decade*

# Transportation & Infrastructure Success

## 1. WMATA - $15.5 Billion

1. *WMATA to reach a good state of repair in 10 years*

2. *Dedicated regional funding source of $500M annually beginning in FY 2020*

## 2. Local Streets Deterioration Prevention

**D.C. to repave 90 miles of weather-damaged roads this year**

By Sophie Kaplan                    Washington Times

Jeff Marootian, director of the District Department of Transportation (DDOT), said the city plans to repave more than 90 miles of weather-damaged streets this year.

DDOT started its PaveDC program last year in an effort to achieve Mayor Muriel Bowser's goal of rehabilitating all of the District's pockmarked roads by 2024.

When the District started its repaving effort in 2018, about 25% of the roads were in poor condition.

Mr. Marootian said the District spent about $5 million a year on paving between 2010 and 2014, and now spends $35 million, which he attributed to the mayor's dedication to this issue.

District of Columbia

How do Other State & Local Governments Replicate DC's Efforts?

Some Things To Consider

Other Things To Consider

# Things to Consider When Getting Started

➢ *Determine quality of existing data*

   ▪ *Is my data even good enough to get started?*

➢ Obtain an asset management software/database tool

   ▪ *Allows for the critical step of building as asset inventory (or registry)*

   ▪ *Also incorporates condition assessment data for all assets*

   ▪ *Helps in ranking and prioritizing various capital projects*

➢ *Understand what staff resources to commit*

   ▪ *How many people need to be on the project and what subject matter expertise is needed for the team?*

➢ *Getting buy in*

   ▪ *Understand whom in your government needs to champion this effort*

   ▪ *How do you get them on board and how do you sell the cost/benefit of the effort?*

# Things to Consider When Getting Started *(continued)*

➢ *Financing the effort*

▪ *How do you determine and justify the costs of embarking on this effort*

➢ *Quantifying the Problem…now what?*

▪ *Once you're able to produce information on deferred maintenance or unfunded capital needs, what do you do with that information?*

▪ *How do you change or reprioritize your CIP?*

▪ *How do you develop a financing program to address those needs? Over what period of time is reasonable?*

➢ *Potential credit implications*

▪ *How do you communicate this information to the rating agencies and bond investors?*

# So is a World Without Potholes Possible?

## Yes...and we know what it looks like!

District of Columbia

*Copies of the District's 2018 Long-Range Capital Financial Plan Report can be found on the OCFO website at https://cfo.dc.gov, or on the District's investor relations website at www.DCbonds.com.*

**Contact Information:**

David A. Clark, *Director, Capital Improvements Program*
(202) 727–2055
david.allen.clark@dc.gov

Darryl Street, *Senior Financial Policy Advisor*
(202) 727-1768
darryl.street@dc.gov