



**OCTOBER 26, 2023**

**JONATHAN FLEMING**  
CHIEF EXECUTIVE OF HIGHWAY ADMINISTRATION

# PENNDOT BY THE NUMBERS



\*Total miles on all PA roadways

LB (3-23)



# FOCUS AREAS: ABOUT PEOPLE

- Safety
- Relationships
- Program Delivery
  - Asset Management
  - Pavement Updates
  - Innovation
  - Program
- Funding
- Cash Flow
- 2023-2024 Program Outlook



# **SAFETY:**

- WORKFORCE**
- WORK ZONES**
- FAMILIES**
- PUBLIC**

# INDUSTRY-WIDE SAFETY STAND-DOWN



#StandDown2SaveLives



# MENTAL HEALTH STATISTICS

1 in 5 U.S. adults experience mental illness

Approximately 1 suicide every 11 minutes

Stigma prevents 40% of people with anxiety or depression from seeking help

Construction suicides are 5x greater than all fatal construction injuries (2018)

The suicide rate among men in construction is about 4x higher than the general population

From 2000-2016, the working age adult suicide rate increased 34%

If you or someone you know is in crisis, please contact the

**National Suicide Prevention Lifeline**



- Call 1-800-273-TALK (8255)
- Use the online Lifeline Crisis Chat
- [www.suicidepreventionlifeline.org](http://www.suicidepreventionlifeline.org)

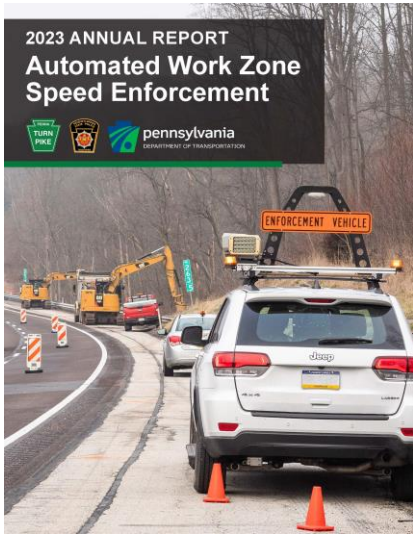
**Text HOME  
to 741741**

for free, 24/7 crisis  
support in the US.

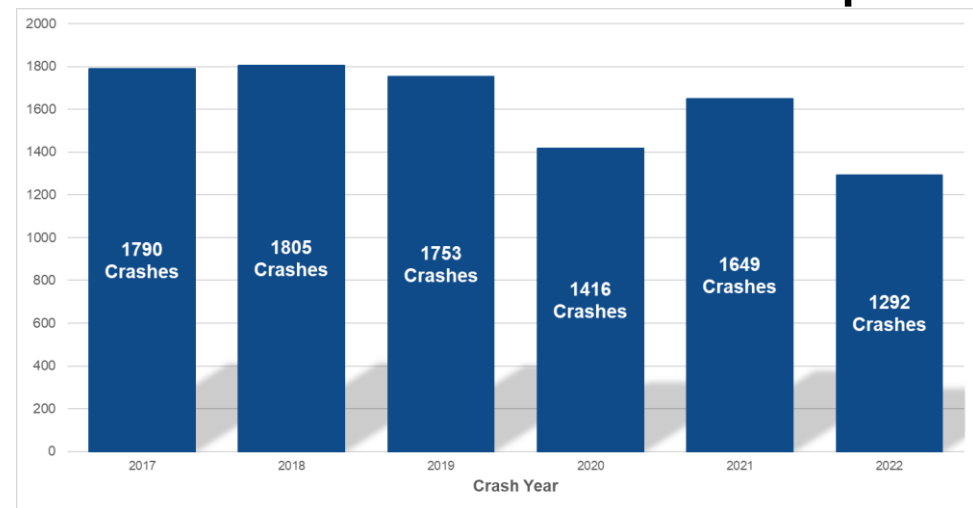
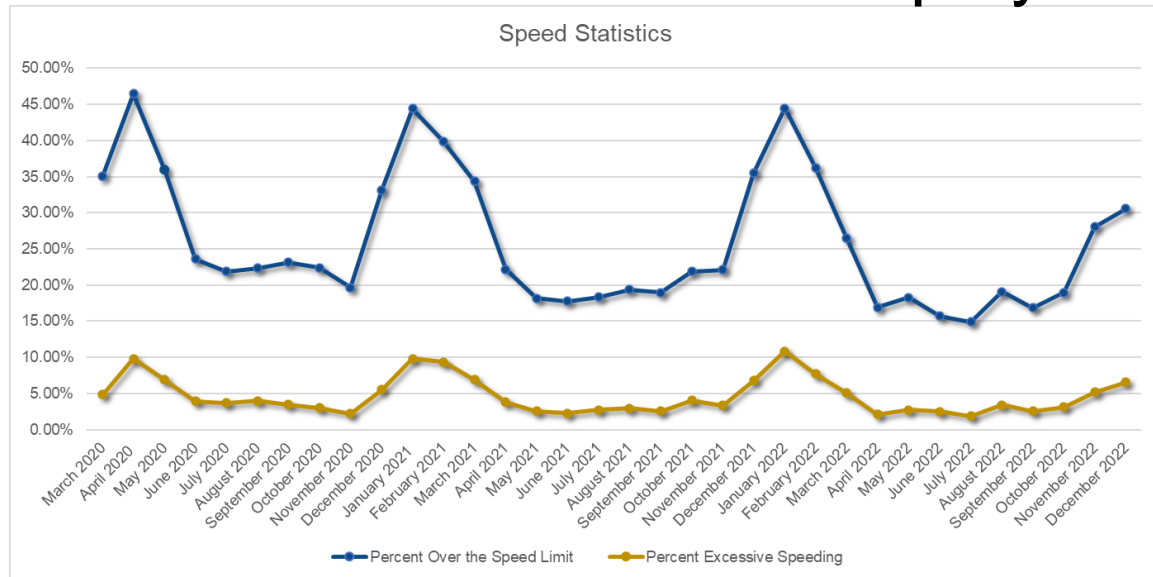




# AUTOMATED WORK ZONE SPEED ENFORCEMENT



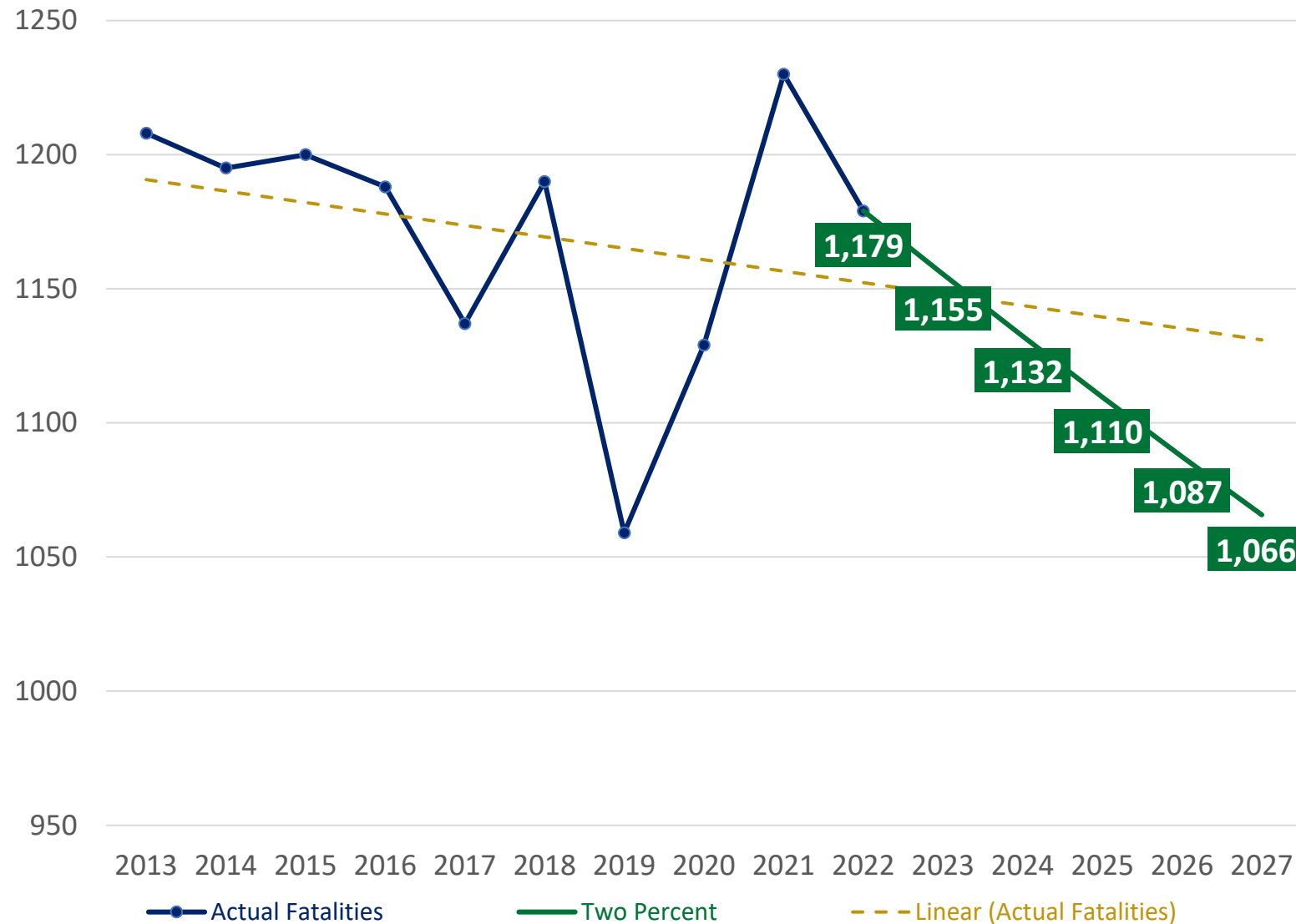
- Annual report published April 2023
- Covers from start of program to end of 2022
- Program is fulfilling its stated goals
- Program is focused on **SAFETY**, not revenue
  - Operated at a loss through end of 2022
- 69% of deployments have been to short-term patterns



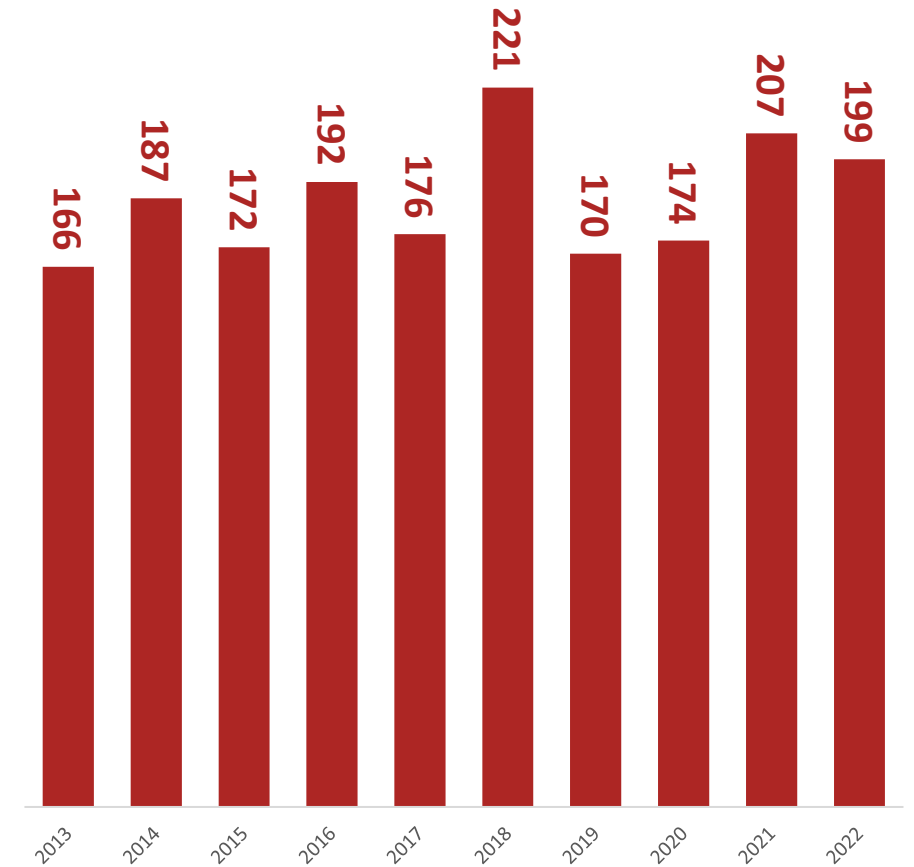
All Work Zone Crashes – 2017-2022



# FATALITIES



## Non-Motorized Fatalities



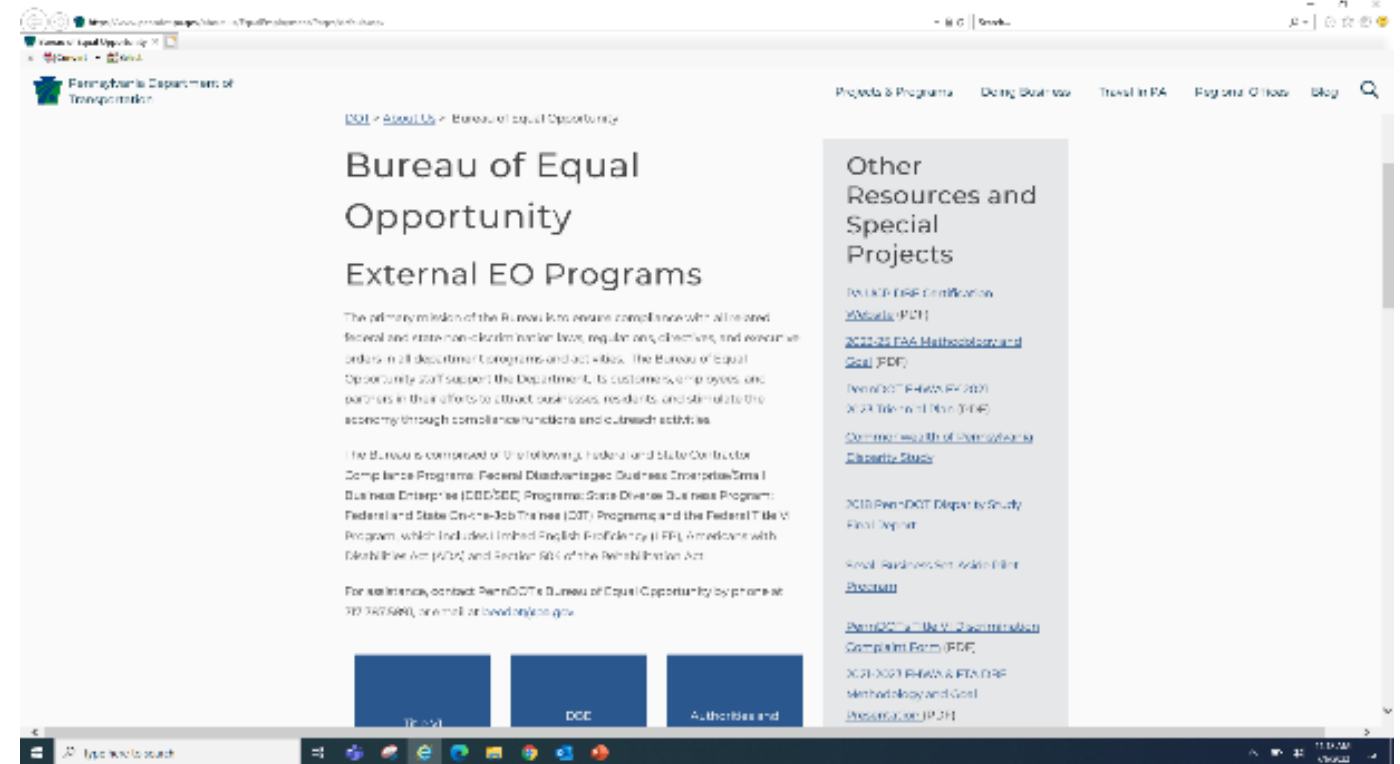


# **PROJECT DELIVERY:**

- RELATIONSHIPS**
- ASSET MANAGEMENT**
- QUALITY**

# DIVERSITY, EQUITY AND INCLUSION

- ✓ Mentor-Protégé Program
- ✓ Major Bridge P3 DBE Program
- ✓ On the Job Training Program



<https://www.penndot.gov/about-us/EqualEmployment/Pages/default.aspx>



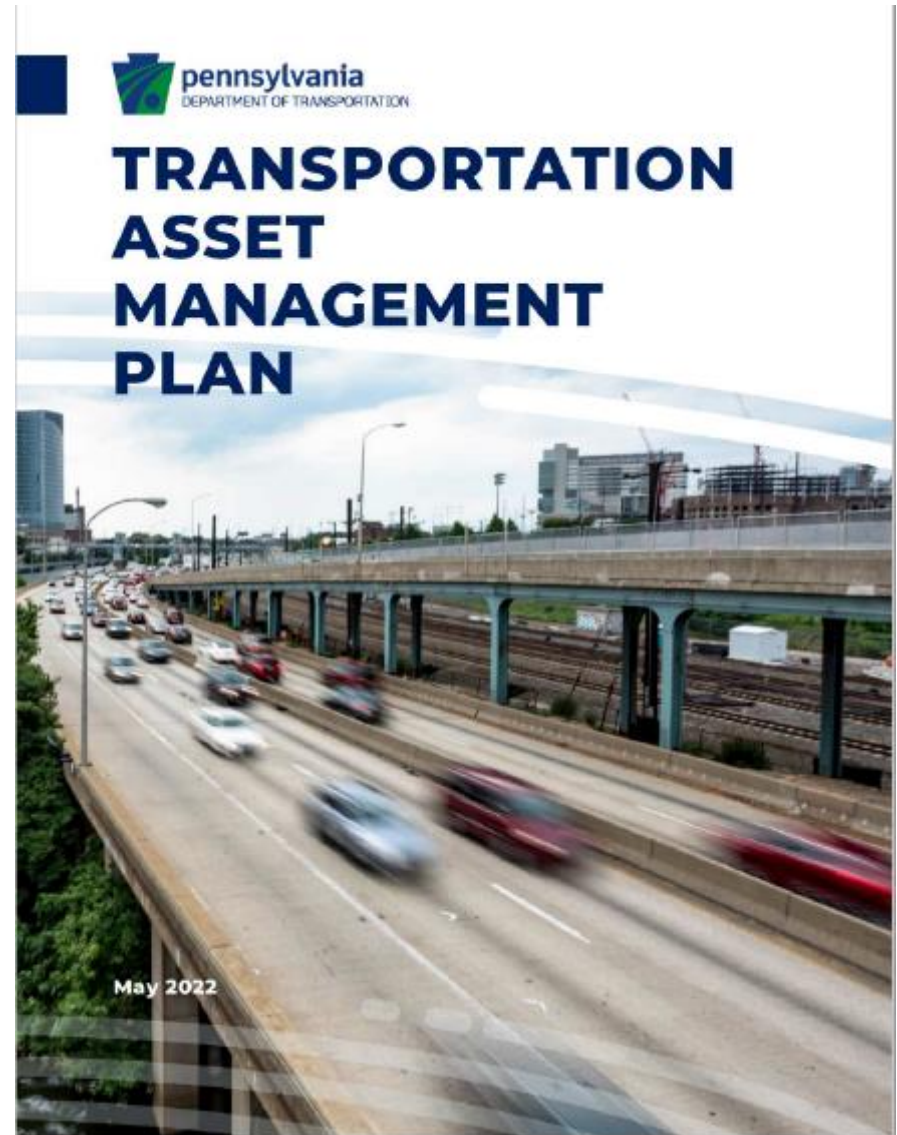
# ASSET MANAGEMENT

## 2022 Transportation Asset Management Plan

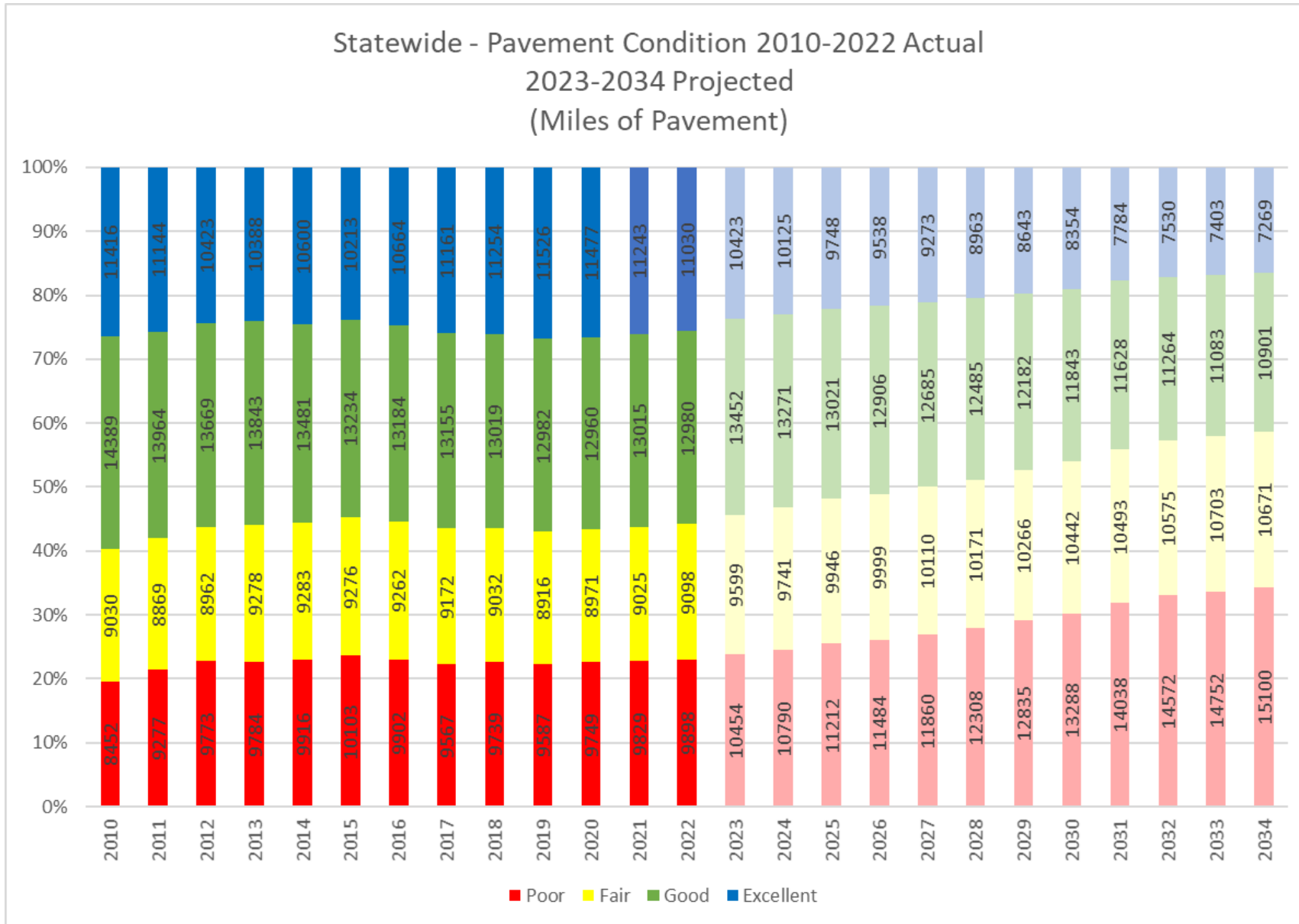
- Draft submitted to FHWA in May 2022
- BIL compliant version submitted in December of 2022
- FHWA final approval March 31, 2023
- Available to view at:

[Asset Management \(pa.gov\)](https://www.pa.gov/asset-management)

(google “PennDOT Tamp”)



# ROADWAYS - STATE OF GOOD REPAIR



# INNOVATION

# MOBILE APPLICATIONS (APPS)



eConcrete



Mileage &  
Hour Log



Sample ID



eTicketing



Maintenance  
& Protection  
of Traffic



Visual Site  
Inspection  
Report



Force Account



Project Site  
Inspection



MC DOCs



Punchlist





# DIGITAL DELIVERY DIRECTIVE 2025 (3D2025)



## PennDOT's Vision

*By 2025,  
construction projects  
will be bid using 3D  
technology and no  
longer be in a  
traditional  
construction plan  
format.*

# Digital Delivery Directive 2025 ROADMAP



## Our Vision

By 2025, construction projects will be bid using 3D technology and no longer be in a traditional construction plan format

## Our Mission

To support the digital transformation of project development within PennDOT developing modeling requirements, processes, and workforce development to enable improved asset information transfer by using 3D data-rich information models

## Goals

 **Implement 3D Technology**

 **Advance the Use of Accessible Digital Processes and Tools**

 **Capture Data-Rich Asset Models**

## Keys to Success

- Manage Pace of Change
- Help People Perceive Progress
- Create Safe Space for Experimentation
- Empower Pilot Project Teams
- Use Construction Partnering

## Strategic Approach

- Assess Stakeholder Needs, Desires and Priorities
- Align Technical Solutions with Stakeholder Input
- Advance Technical Solutions Incrementally

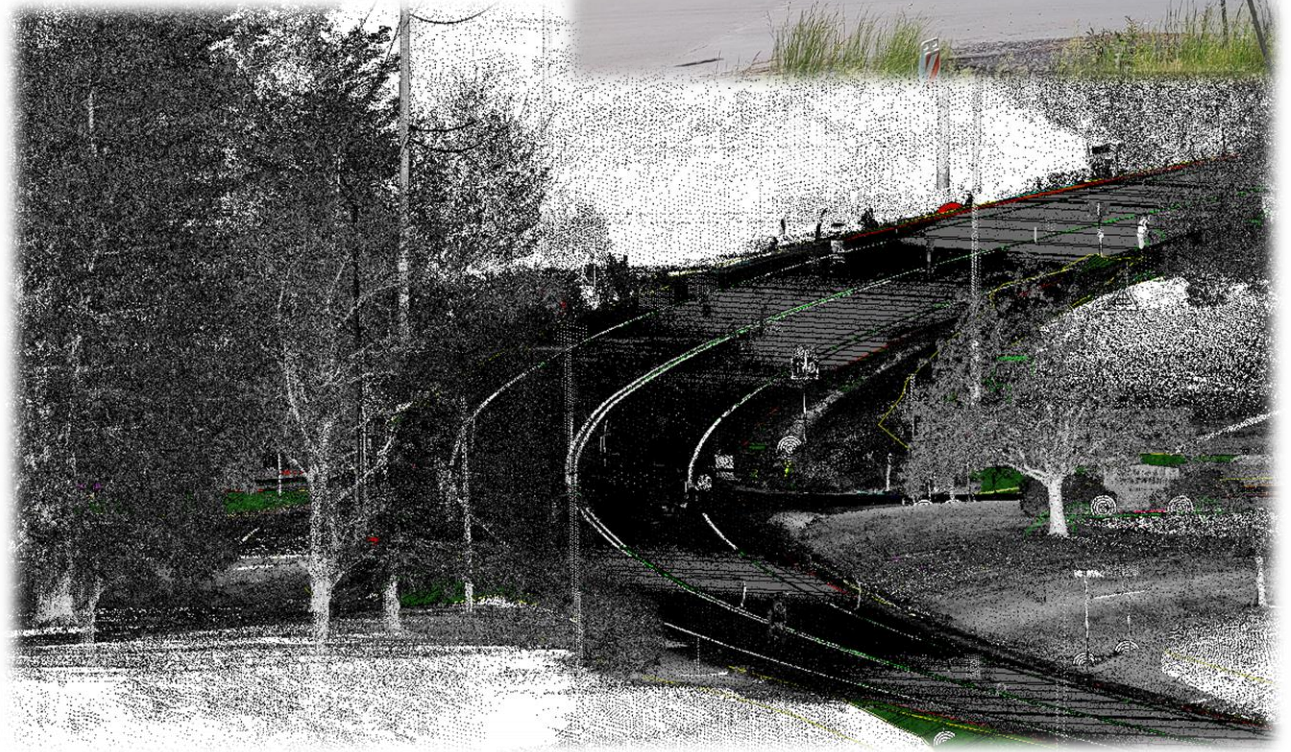
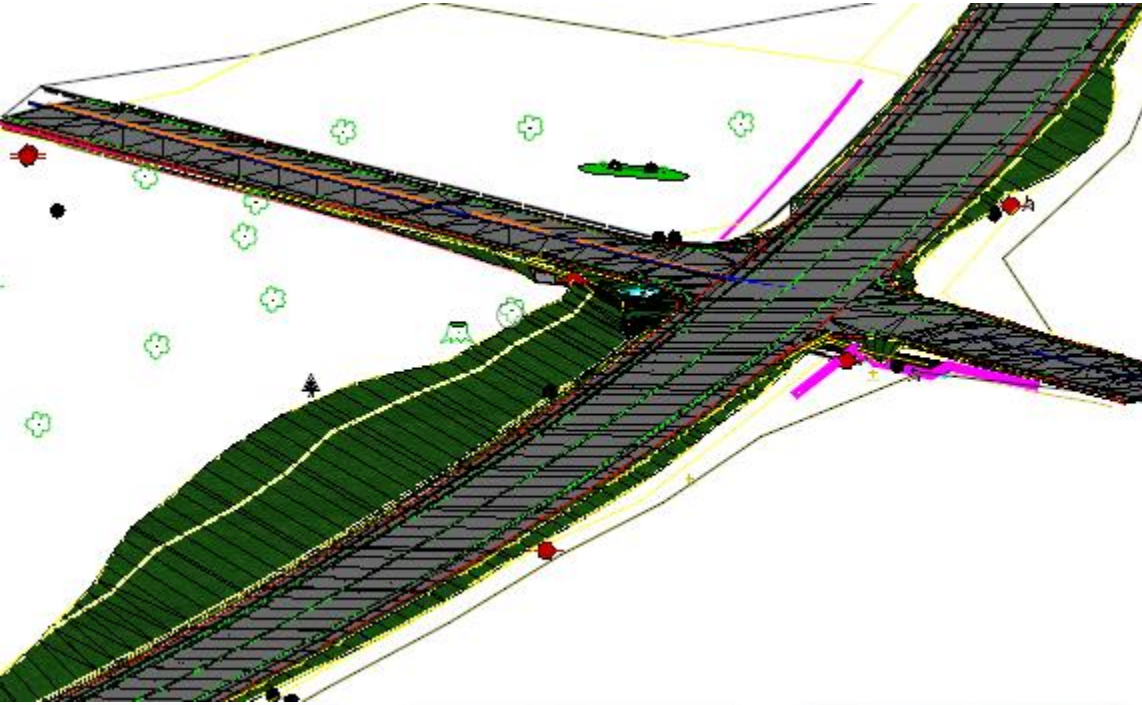
Email: [RA-PDDIGITALDELIVERY@pa.gov](mailto:RA-PDDIGITALDELIVERY@pa.gov)

Webpage: <https://www.penndot.pa.gov/ProjectandPrograms/3D2025/Pages/default.aspx>





# DIGITAL DELIVERY DIRECTIVE 2025 (3D2025)





# PROGRAM

# PENNSYLVANIA LOCAL NETWORK



Greenfield Ave. Bridge  
City of Pittsburgh

- **Local Governments Own Over 78,000 miles**
- **Local Owned Bridges Over 6,600**
  - 26% of Deck Area in Good Condition
  - 54% of Deck Area in Fair Condition
  - 20% of Deck Area in Poor Condition



# PLANNING AND PROGRAMMING

11  
Districts

25  
MPO's/  
RPO's



## MUNICIPALITIES in Pennsylvania

### 67 COUNTIES

- 9 classes, based on population
- Most governed by 3 commissioners
- 8 have "home rule"

### 959 BOROUGHES

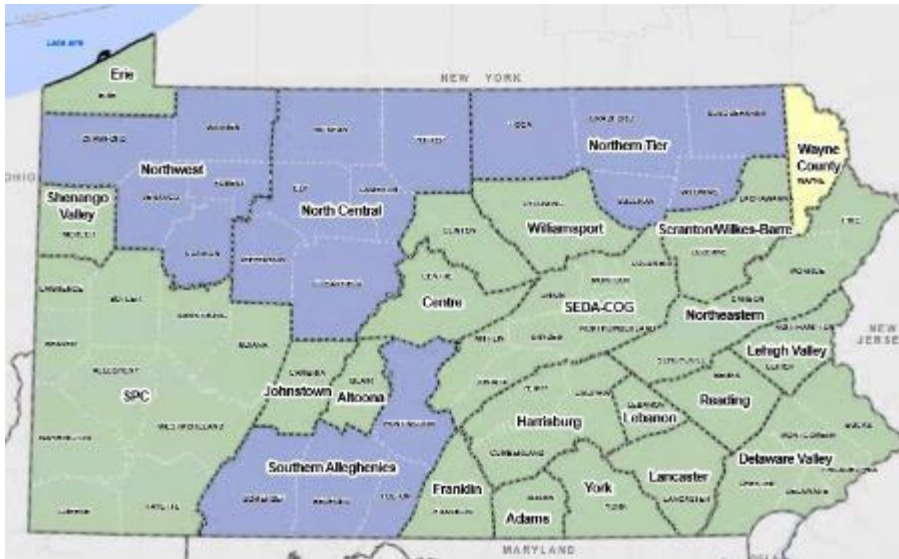
- No classes based on population
- Weak mayor
- Council holds most power
- Follow Borough Code

### 1,546 TOWNSHIPS

- 2 classes, based on population
- Governed by commissioners or supervisors
- Most decentralized government
- Follow Township Code

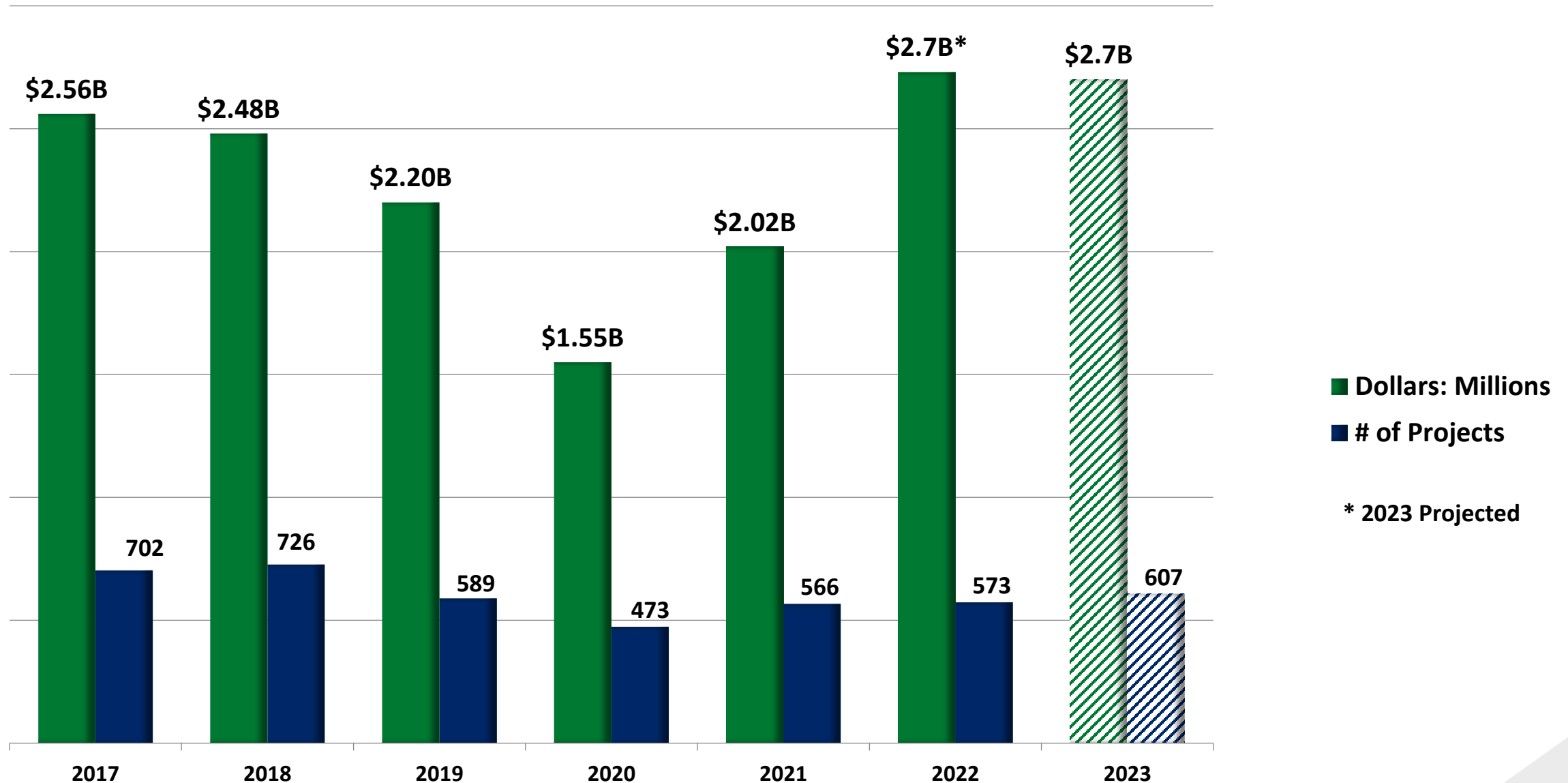
### 56 CITIES

- 4 classes, based on population
- Most are 3rd Class except Philadelphia, Pittsburgh & Scranton
- Tend to have strong mayor, centralized government
- Some have "home rule"
- Others use Third Class City Code





# PROJECT LETTING TRENDS



# PROGRAM DISTRIBUTION

	Cost Based Percentage				
	2020	2021	2022	2023	2024*
Highway	61%	71%	73%	61%	45%
Bridge	24%	17%	19%	28%	42%
Other	15%	12%	8%	11%	13%

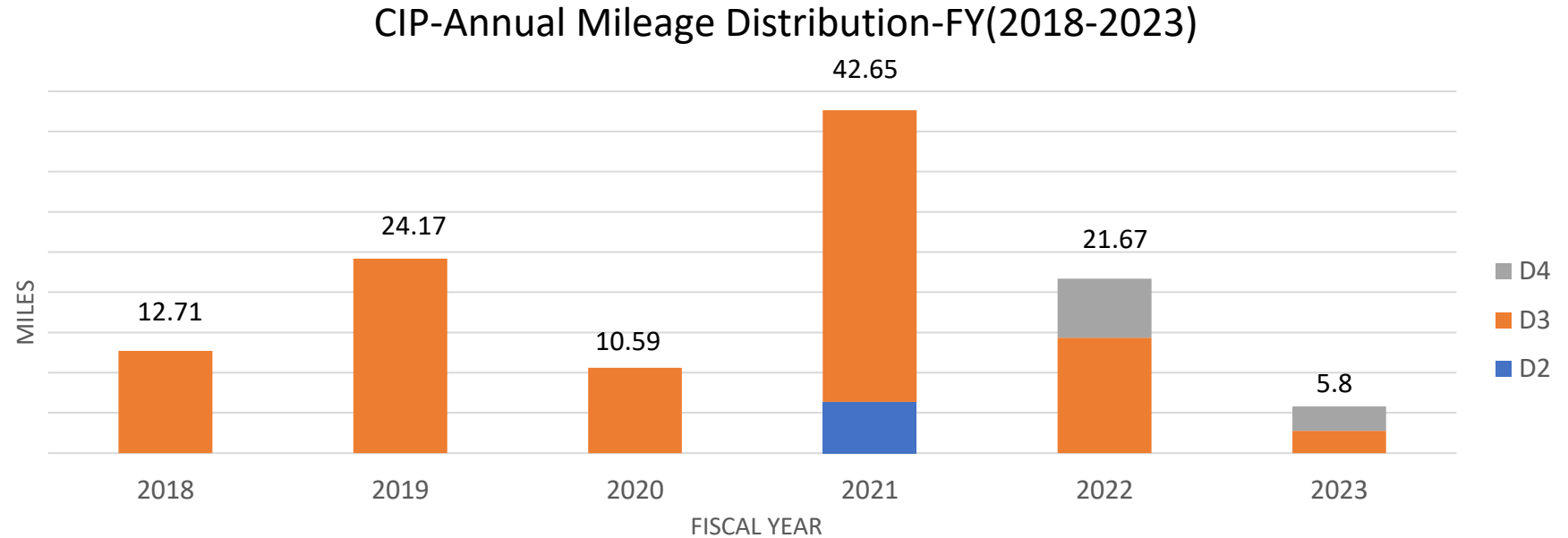
\*2023 Projected



# COLD IN PLACE RECYCLING

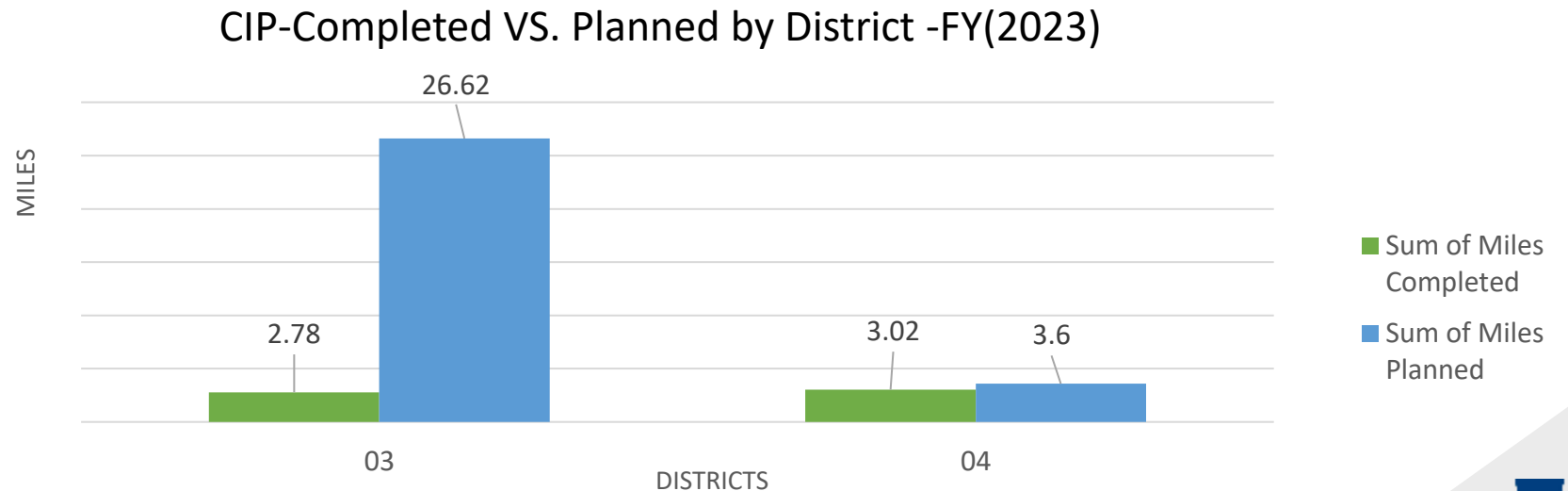
## Fiscal Year 2018-2023

- 117.59 miles



## Fiscal Year 2023

- Completed – 5.8 miles
- Planned – 30.22 miles



# COLD IN PLACE RECYCLING

## Low-Cost Treatment - MILES PAVED & ESTIMATED SAVINGS (FY 18 - 23)

LC-Treatment Type	District	Total Miles Paved	Total Estimated Savings	Additional Miles Paved (Compared to Traditional Treatments)
Cold-In Place	2	6.36	\$445,200	2.97
	3	100.88	\$7,061,600	47.08
	4	10.36	\$725,200	4.83
Grand Total		117.6	\$8,232,000	54.88





## District 5 – Carbon County SR 1001

- PILOT- COLD IN PLACE RECYCLING

# D5 - PILOT- COLD IN PLACE RECYCLING

## District 5- Carbon County- SR 1001

SR 1001 Seg 0150/0422 - Seg 0150/2622	
<ul style="list-style-type: none"><li>• 5" depth of cold in place recycling</li><li>• Pilot Project – August 18<sup>TH</sup> , 2023</li><li>• Project Length – 2,200 feet; full width (24' wide)</li><li>• Double seal coat</li></ul>	
1 <sup>st</sup> Seal coat - 9/11	2 <sup>nd</sup> coat - 9/12
0.47 Gallon per SY with 21 lbs. of stone	0.33 gallon per SY with 18 lbs. of stone





# SEAL COAT OPERATIONS

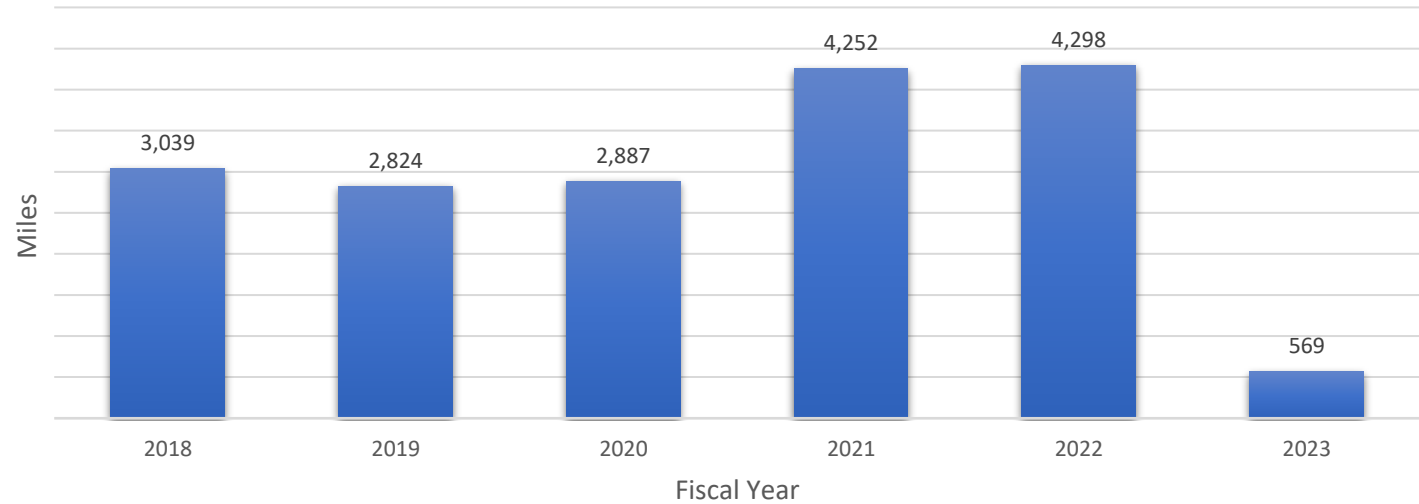
## Fiscal Year 2018-2023

- 17,869 miles
- Oil usage – 83.7 million gallons
- Operation hours –1.3 million hours

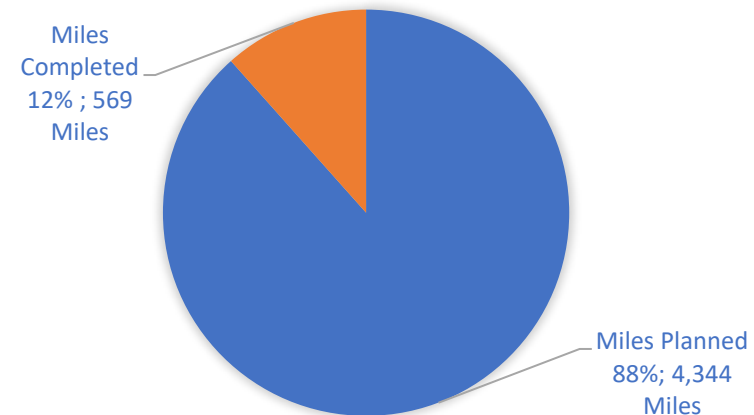
## Fiscal Year 2023

- 569 miles
- Oil usage – 9.7 million gallons
- Operation hours – 144,44 hours

Seal Coat Operations Mileage Distribution-FY (2018-2023)



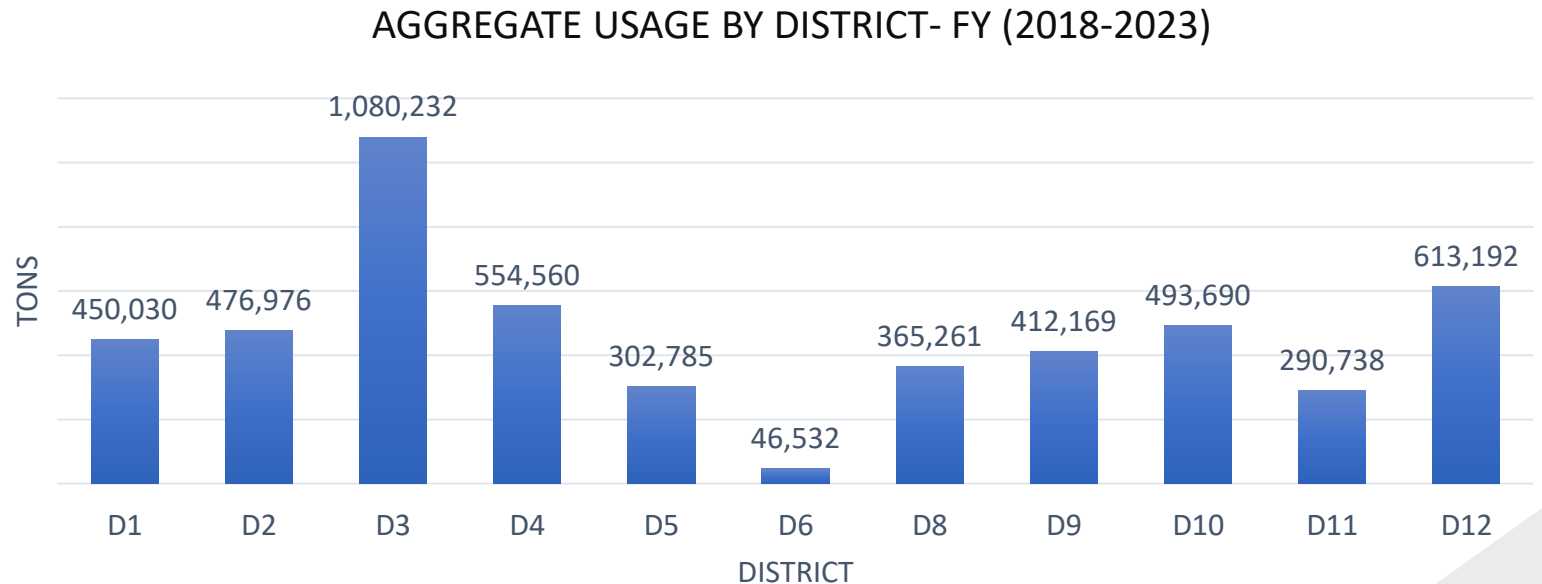
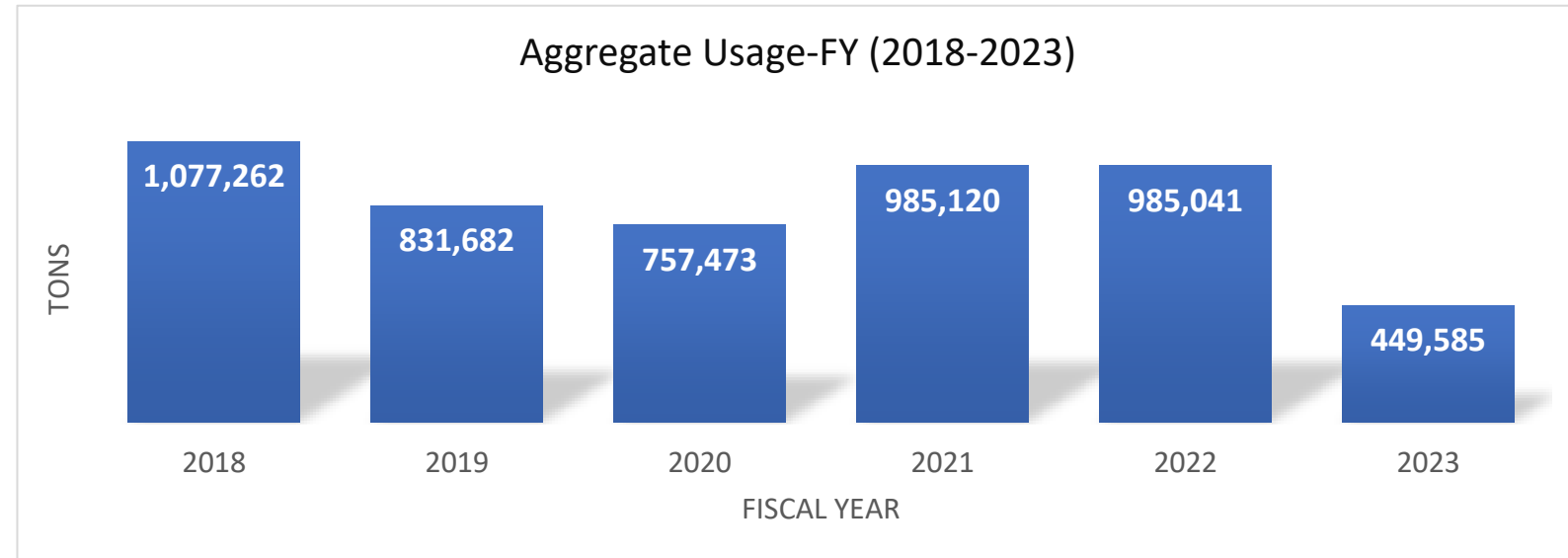
PLANNED VS. COMPLETED-FY(2023)



# AGGREGATE USAGE

## Fiscal Year 2018-2023

- 5.1 million tons used
- FY-2018 – 1.1 million tons
- FY-2023 – 449,585 tons
- D3 – 1.1 million tons
- D6 – 46,53 tons





## District 5 - Berks County SR 724 & SR 10

- ROAD SEALER OPERATIONS

# D5 - ROAD SEALER OPERATIONS

## District 5-Berks County - SR 724 & SR 10

<b>SR 0724</b> <b>Seg 0032/0000 – Seg 0142/2415</b>	<b>SR 0010</b> <b>Seg 0010/0000 – Seg 0260/255</b>
<ul style="list-style-type: none"><li>• May 15, 16, and 17, 2023</li><li>• Skim Patching</li><li>• Road Sealer Rental – 30 hours</li><li>• Oil – 7,739 gallons</li><li>• Aggregate #8's – 229 tons</li></ul>	<ul style="list-style-type: none"><li>• May 17, 19, and 22, 2023</li><li>• Skim Patching</li><li>• Road Sealer Rental – 25.5 hours</li><li>• Oil – 7,442 gallons</li><li>• Aggregate #8's – 233 tons</li></ul>

- Total Operation Costs – \$171,188.57; (PAAMA funded ) \$48,750







## District 4 - Luzerne county SR 29

- FOG SEAL OPERATION

# D4 - FOG SEAL OPERATION

## District 4 - Luzerne county - SR 29

(North Bound) Seg 10/0000 – Seg 90/3414	(South Bound) Seg 11/0000 – Seg 91/3416
<ul style="list-style-type: none"><li>• Total SY – 74,113</li><li>• Total Cost – \$30,173.34</li><li>• Total Cost/SY – \$0.41</li><li>• 5,963.57 gallons</li></ul>	<ul style="list-style-type: none"><li>• Total SY – 72,002</li><li>• Total Cost – \$30,191.46</li><li>• Total Cost/SY – \$0.42</li><li>• 5,963.57 gallons</li></ul>

- Fog oil – Poly Fog with polymer from Midland Asphalt
- Fog seal shot rate – start at .08 then increased to .09





# FOG SEAL OPERATION



# FUNDING

# BI-PARTISAN INFRASTRUCTURE LAW (BIL)

FFY	PA Increased Formula Highway and Bridge Funding	PA Federal Formula Highway and Bridge Funding Totals (Existing + New)
2022	\$704.7 million	\$2.5 billion
2023	\$748.2 million	\$2.5 billion
2024	\$792.5 million	\$2.6 billion
2025	\$837.7 million	\$2.6 billion
2026	\$883.9 million	\$ 2.7 billion
<b>5-year Total</b>	<b>\$4 billion</b>	<b>~\$13 billion</b>

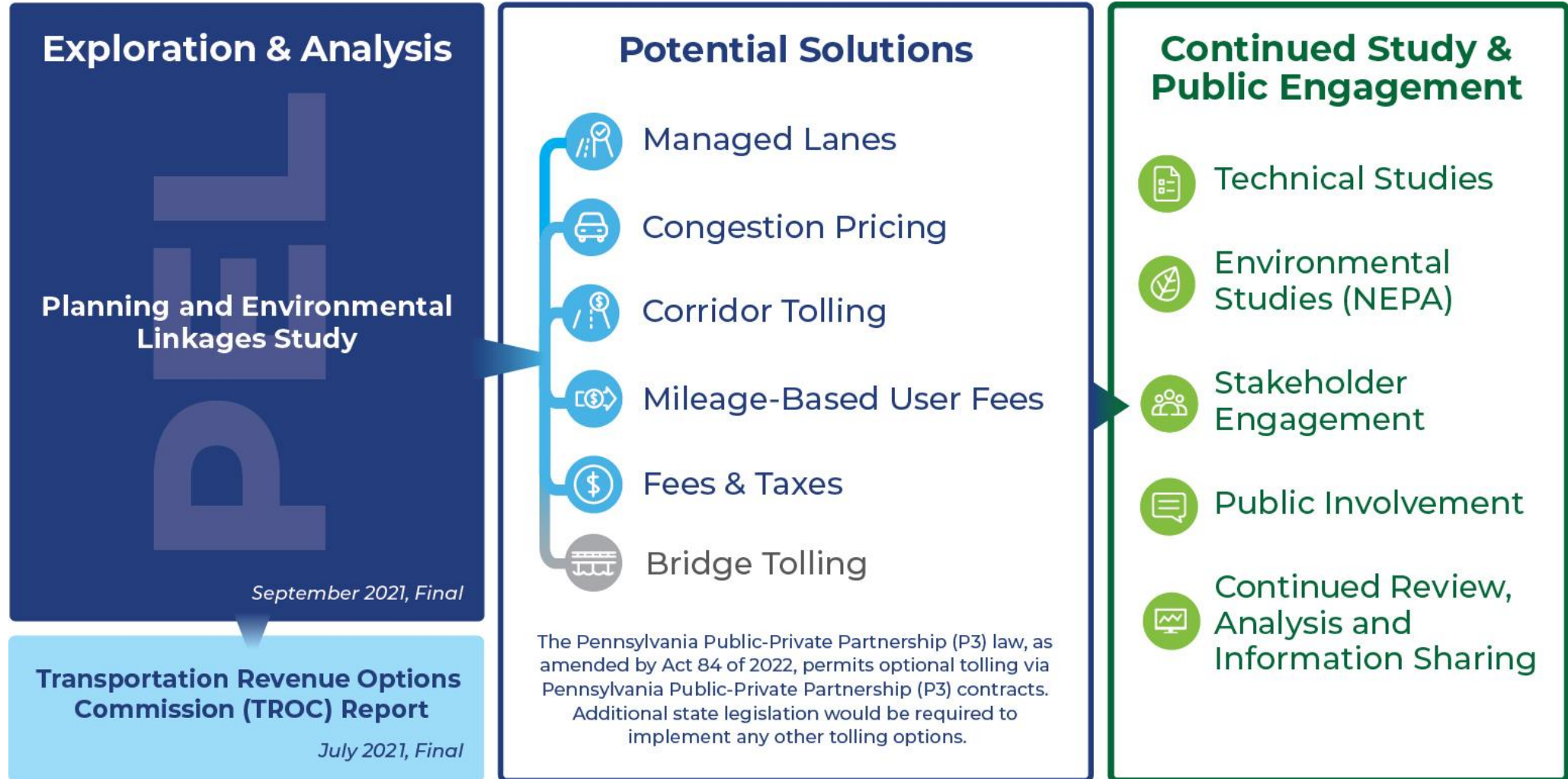


# BI-PARTISAN INFRASTRUCTURE LAW (BIL)

Numerous competitive grant programs, each with a different focus.



# PENNDOT PATHWAYS



# FUNDING PROJECTS– CASH FLOW

- FY 22-23 Budget Enactment reduced the PSP funding from the Motor License Fund to \$500 million starting in FY 21-22.
- Highway Construction Appropriation is holding \$191 million, that will be held for future IIJA state match.
- Highway Maintenance was increased by \$44 million.
- \$2.7 Billion dollar letting program is sustainable for calendar year 2023. Future years may have to be reduced based on the latest revenue estimates. The future number will continue to be evaluated based on inflationary, winter and other impacts, but is expected to remain at \$2.5 Billion.



# **2023 PROGRAM**

# **\$2.7 BILLION**



# I-95 BRIDGE COLLAPSE





# I-95 BRIDGE COLLAPSE



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# MOVING FORWARD INTO 2024

**We look forward to working with PAAMA and its members in 2024!**



# BE SAFE ON OUR ROADWAYS!



AASHTO TransComm 2020 Award: Marketing/Advertising  
(Print and Electronic Marketing)

