Society of American Military Engineers
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Assistant District Executive – Construction
PennDOT’s Mission

OUR VISION
A better quality of life built on transportation excellence.

OUR MISSION
To provide a sustainable transportation system and quality services that are embraced by our communities and add value to our customers.

OUR VALUES

Safety – We promote the delivery of a safe work environment and a safe transportation system in our products and services.

Modernization – We consistently evaluate our processes and procedures to encourage innovation and remain competitive.

Customer Service – We are committed to providing the highest level of public service and value to our customers.

Communication – We are committed to effective communication with our customers, employees and the legislature.

Workforce Development – We value and respect one another while promoting teamwork and workforce development.
• Budget $449 Million (SFY 17-18)
  – $195 Million State funds
  – $254 Million Federal funds

• Budget Breakdown
  – $140 Million Maintenance
  – $27 Million Maintenance (Expanded)
  – $166 Million Capital Highway
  – $92 Million Capital Bridge
  – $24 Million Local
PennDOT District 11 Highlights

• 1,805 Bridges
• 2,579 Miles of Roads
• 4 Tunnel Systems

• 787 Employees
  – 354 District Office
    • 133 Civil Engineers
    • 167 Technical Specialists
    • 23 Administration
    • 17 Clerical and Administrative Support
    • 14 Trades
  – 433 Maintenance Districts
Liberty Bridge Wrapping Up
$30 Million

- Full paving from Ft. Pitt to Edgewood (A64)
- Bridge Expansion Dam replacements (A64)
- Centerline Joint repair, Edgewood to Turnpike
S.R. 279 – A83 Parkway North

$90 million +

- Paving (Patching and overlay)
- 30 bridges
- 49 overhead sign structures
- 29 walls
- Lighting
- HOV repairs and upgrades
- Anti-Icing system @ McKnight Road
SR 51- A79, Elizabeth Bridge, Allegheny County

- $31 million
- Bridge rehabilitation and painting on SR 51, Elizabeth Bridge over the Monongahela River, in Elizabeth Township, Allegheny County.
- Full deck replacement on main span
- LMC and exp. dams
P3 Rapid Bridge Replacement Projects

Construction Status

Construction Completed (75)
Under Construction (7)
Planned (2)
Total Bridges: 84
SR 28-A55 Allegheny Valley Expressway

$34 million +
- Concrete patching
- breaking and seating
- SMA asphalt
- minor drainage
- bridge preservation
2019 Projects

CONSTRUCTION

UPDATES!

Pennsylvania Department of Transportation
I-579 Urban Open Space Cap Project

- Locally-sponsored project.
- Will tie directly into the adjacent existing Centre Ave. and Webster Ave. bridges over SR 579.
- Sponsored by the Sports & Exhibition Authority of Pittsburgh Allegheny County.
S.R. 2094 – A04 - Jerome Street Bridge

$14.5 Million

- Full Paint
- Deck replacement
- PPC Overlay
Boulevard of the Allies from Bates Street to Crosstown Boulevard (approx. 4.1 miles)

Highway resurfacing project with minor structure repairs, drainage improvements, traffic signal upgrades, ADA accommodations, and ITS installation in the form of cameras and DMS signs.
S.R. 0019 (Washington Road), Upper Saint Clair Allegheny County.

- 8 Million, Betterment Project
• Full depth pavement reconstruction
• Shaler Street Bridge Replacement using SPMT’s (Self Propelled Modular Transports)
Topics / Innovations
Long Life Asphalt Pavement

Requires series of tests to check:
- Rutting resistance
- Cracking resistance
- Utilizing SMA Asphalt pavement
E-Ticketing

• Eliminate paper tickets
• No more lost tickets
• Provide materials and tonnage verification
• No time-consuming ticket sorting
• Quickly summarize tickets for contractor payments
• Reduce worksite hazards for Inspectors frequently dodging trucks
• Ticket information is now “data” for potential future use and analysis
Cement Subgrade Stabilization

- Solution: Cement-Subgrade Stabilization
- Empirical design, no standards.
- Produces excellent quality subgrade (> 100 PSI UCS) while eliminating unknowns.
- More efficient than undercuts.
Exodermic Deck – Liberty Bridge

- PA’s first Exodermic deck to be installed.
- Proven accelerated bridge construction product.
- Deck fully replaced in weekend closures.
- (1,158 panels) of grid deck for the project.
Challenges
Workforce Recruitment

Summer PennDOT Jobs

Knowledge, Education, Goal, Skills, Training, Result, Teaching, Specific, Acquisition, Qualification, Capacity, Personal, Performance, Feedback, Content, Improvement, Competencies, Practical, Software, School.
Night/Weekend Work
SR 30 Landslide
East Pittsburgh/North Braddock
Investigation

Timeline

- Paved “Dip” thought to be caused by drainage
- Settlement within 2 weeks
- Landslide 1 week after settlement
Friday (4/6/18) – Landslide Developing

- Ordered evacuation of two apartment buildings and residential house
Saturday (4/7/18) – Major Landslide

Directly Affected
• 30,000 vehicles/day
• 2 Municipalities

- 15’ high concrete wall, 80’ downhill failed
- 300’ Long x 50’ Depth landslide
Destroyed

- Two apartment buildings
- One residential house

Displaced 31 people
• Evacuated five additional apartment buildings and one warehouse

• Multiple utilities affected
Sunday (4/8/18) – Emergency Work

- Began working around the clock
- Demo of apartment buildings
- Excavation of landslide
- Prep for drilling operations
Three Emergency Contracts

- Landslide Remediation
- Drilling
- Culvert Repair
Three Emergency Contracts

• Backing into Federal Procedures for three emergency contracts
Monday (4/9/18) – Emergency Contract

- Emergency Contract design and development
- Daily internal meetings and daily conference calls with ACES
Tuesday and Wed (4/10-11/18) – Drilling

- Geotechnical drilling commenced
Thursday (4/12/18) – Access to Buildings

- Coordinated site visit for evacuated individuals with ACES
Friday (4/13/18) – Benching Continued
Monday (4/16/18)

4/7/18

4/16/18
Friday (4/20/18) – House Demolition
Friday (4/20/18) – Emergency Contract Let

• Golden Triangle Construction Company awarded emergency contract for $6,543,210.00
• 400’ Long by 20’ High pile/lagging wall to be constructed
QUESTIONS?