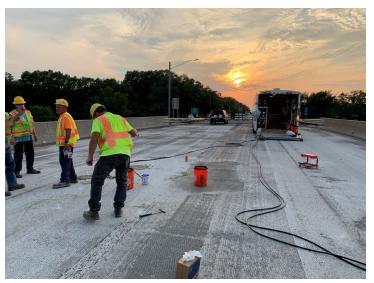
## 2025 Highway Maintenance Conference

Statewide Region Support Bridge Preservation



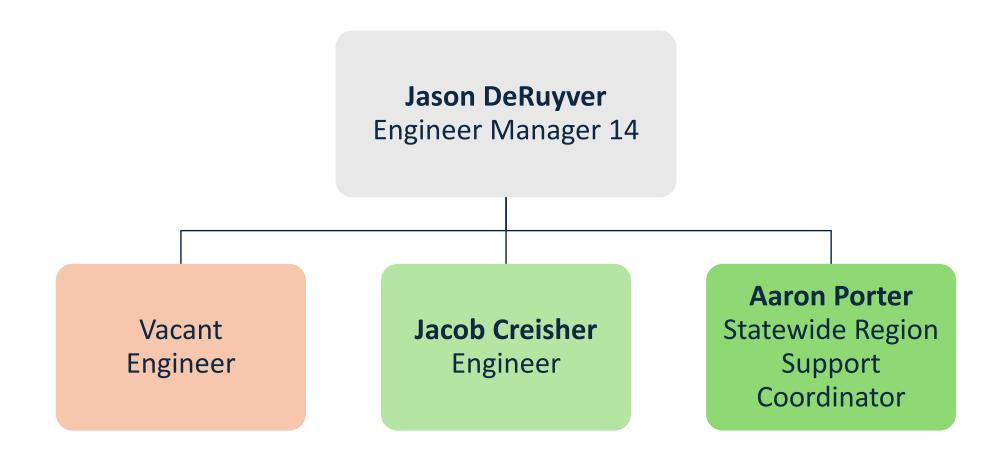


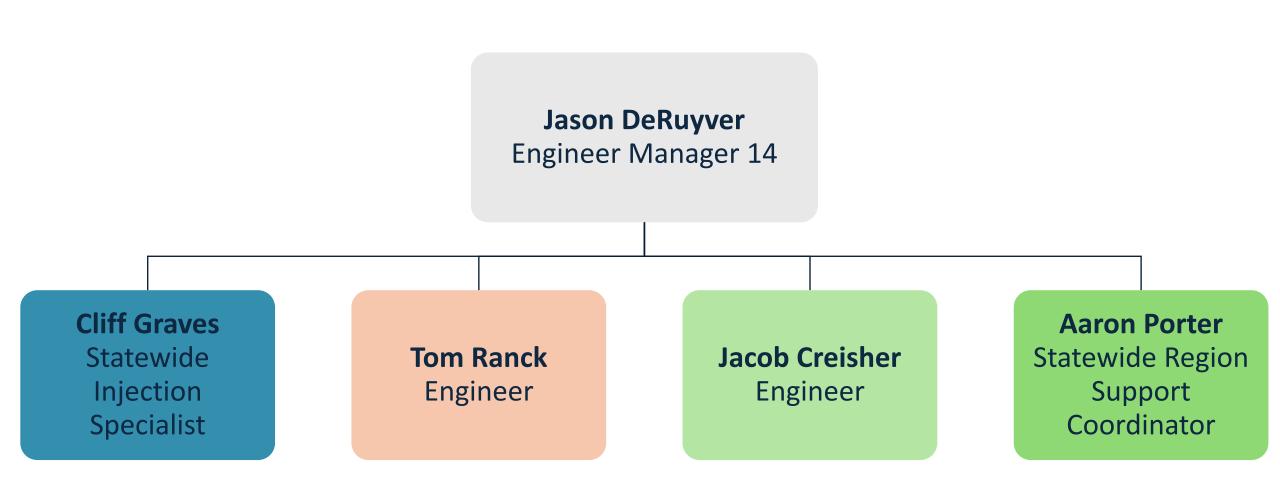


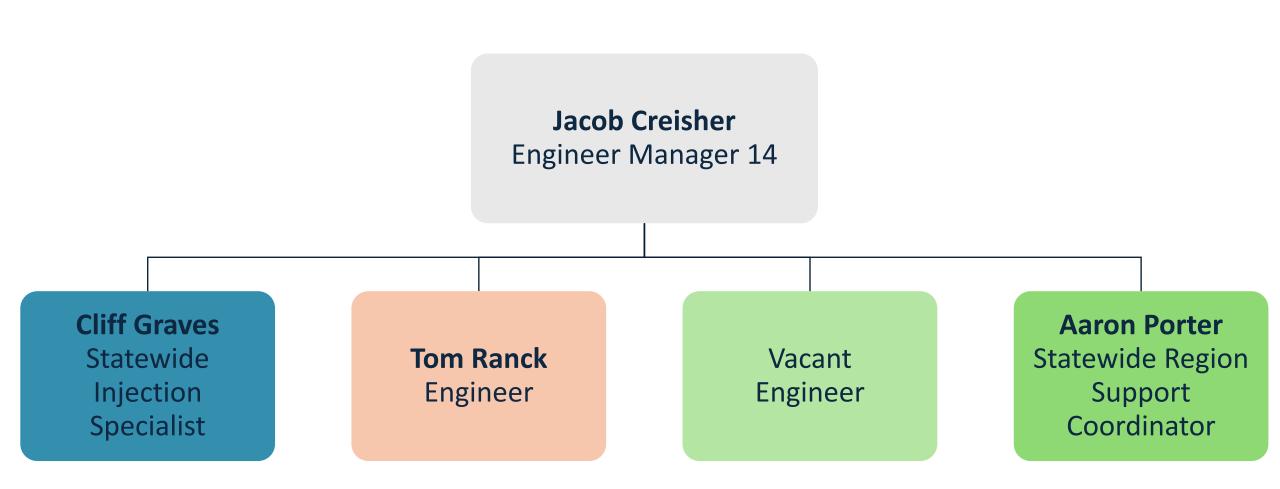


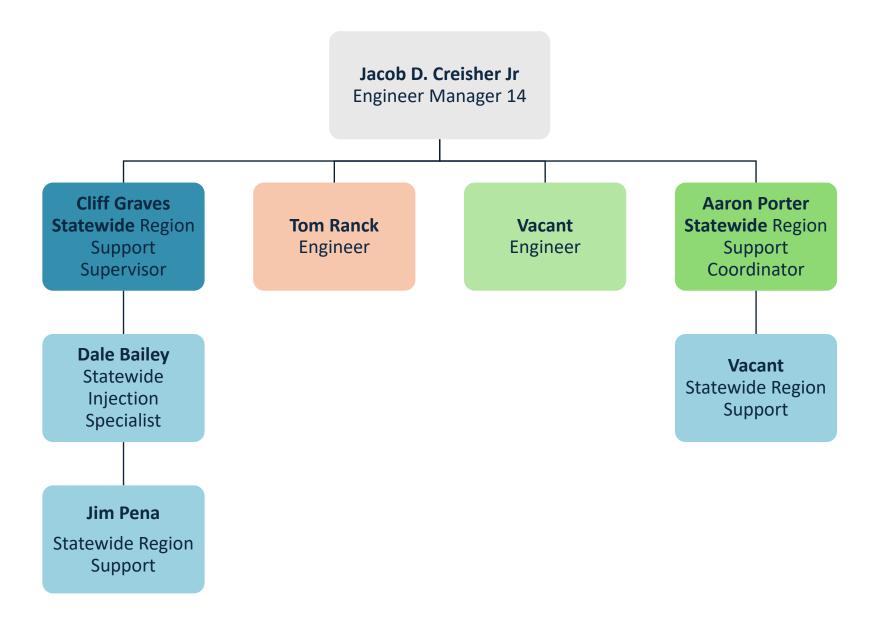
#### AGENDA

- Who are we? What is our role in the state?
- Showcase our Region Bridge Crews and how we try to help out?
- What other capabilities that Statewide Region Support unit can do?







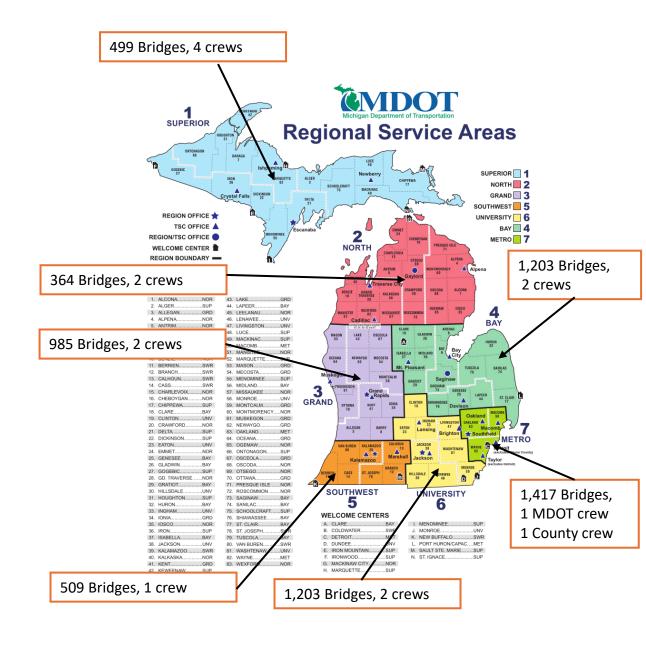


#### Statewide Region Support Unit Roles are:

- Provide training and alignment to the region crews for structural maintenance
- Provide oversight on the different maintenance activities
- Procure materials and equipment for their region crews
- Initiate new product trials, monitor performance, and implement statewide
- Respond to region concerns and help mitigate problems
- Act as a liaison to Design and Construction at bridge committee meeting to eliminate recurring concerns.

## Bridge Maintenance Workforce

- 7 Regions
- 14 Regional "Bridge" Crews Statewide
- 3 Central Office Bridge Crews
  - Statewide Steel Bridge
  - Statewide Region Support Unit
  - Statewide Reachall



# Bridge Maintenance Activities of the 7 regions

- Bridge Sweeping / Cleaning
- Pressure Relief Joints
- Silane concrete
- Joint Replacement
- Deck Patching
- Substructure Patching
- Rip Rap Installation
- Silane & Healer Sealer Applications
- Thin Epoxy/polymer Overlay

# Bridge Maintenance Activities of the 7 regions

- Carbon Fiber Wrapping
- PCI Beam Patching
- Installation of Jet Filters
- T-18 Overlay system
- Column Fiberglass Jackets

- Assist the 14 bridge crews statewide by providing Training and alignment to region crews with
  - Placement of Pressure Relief Joints









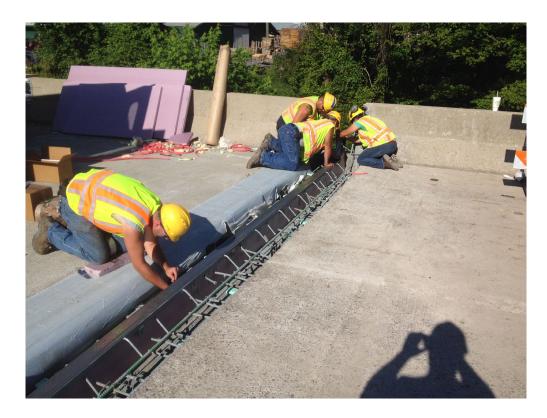
- Assist the 14 bridge crews statewide by providing Training and alignment to region crews with
  - Placement of Silane







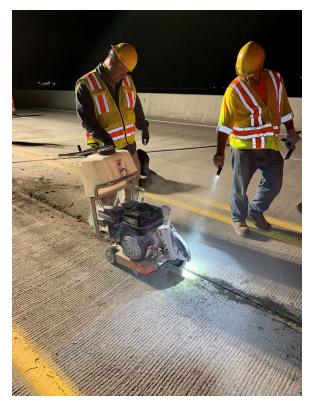
- Assist the 14 bridge crews statewide by providing Training and alignment to region crews with
  - Expansion Joint Device







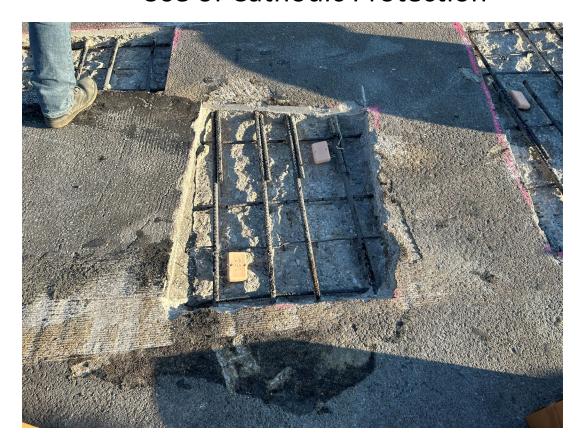
- Assist the 14 bridge crews statewide by providing Training and alignment to region crews with
  - Maintenance of Joints







- Assist the 14 bridge crews statewide by providing Training and alignment to region crews with
  - Use of Cathodic Protection





- Assist the 14 bridge crews statewide by providing Training and alignment to region crews with
  - Substructure Patching







- Assist the 14 bridge crews statewide by providing Training and alignment to region crews with
  - Placement of Fast Set Mortar (1060 Concrete)







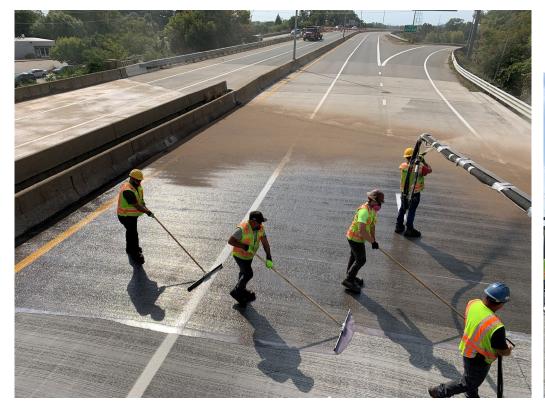
- Assist the 14 bridge crews statewide by providing Training and alignment to region crews with
  - Placement of T-17 Concrete (High Strength Concrete)







- Assist the 14 bridge crews statewide by providing Training and alignment to region crews with
  - Placement of Healer Sealer







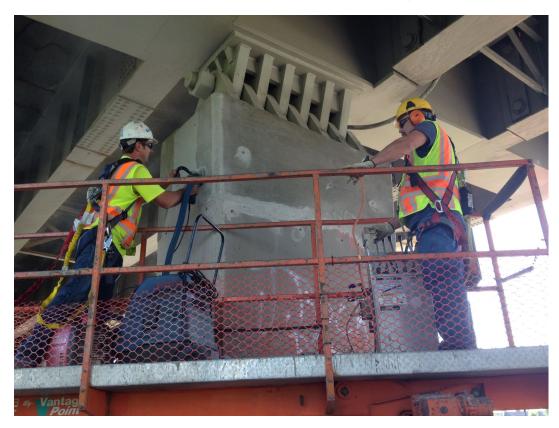
 Assist the 14 bridge crews statewide by providing Training and alignment to region crews with

Placement of Thin Epoxy Overlay





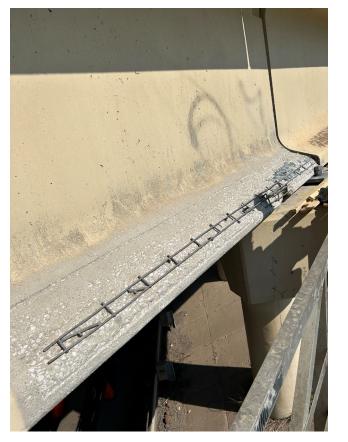
- Assist the 14 bridge crews statewide by providing Training and alignment to region crews with
  - Carbon Fiber Wrapping

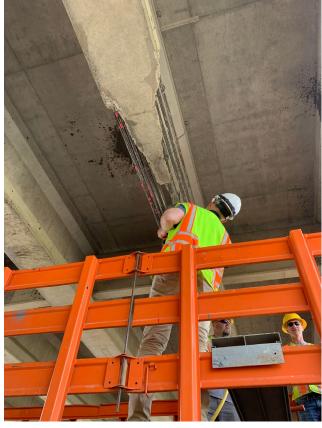




- Assist the 14 bridge crews statewide by providing Training and alignment to region crews with
  - PCI Beam Patching



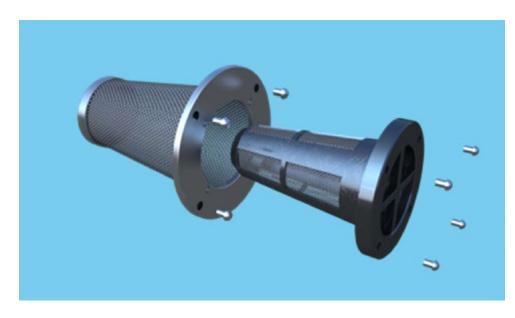




Assist the 14 bridge crews statewide by providing Training and

alignment to region crews with

Installation of Jet Filters







- Assist the 14 bridge crews statewide by providing Training and alignment to region crews with
  - Placement of T-18 Overlay System





 Assist the 14 bridge crews statewide by providing Training and alignment to region crews with

Column Fiberglass Jackets





 Provide region bridge units with scoping & technical expertise of various bridge maintenance and preservation to assist with the management of their bridge inventories.







Develop & Maintain Statewide Region Support Procurement & Service

Contracts

- Aggregate
- Epoxy Overlay & Healer Sealer
- Epoxy Overlay Removal Services
- Shot Blasting Services
- Fast Set Mortar Called 1060
- T-17 Concrete High Strength & Fast Setting
- Injection Epoxy
- Silane
- Pit Cleaning Services
- Saw Cutting Concrete Services



#### Statewide Region Support Unit

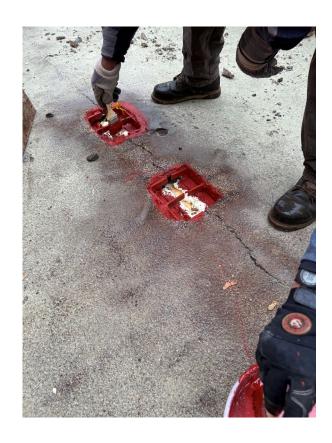
- Develop & maintain 24+ bridge preservation related Special Provisions such as
  - 11 Frequently Used Special Provision (FUSP)
    - Pressure Relief Joints
    - Joint Sealants
    - Metal Mesh Panels
    - Thin Epoxy Overlays ( 4 epoxy related)
    - Healer Sealers (Substructure & Deck)
  - 12 Non-Job Related (Templates / Recommended)
    - Bridge Cleaning
    - Deck Scaling
    - Maintainable Steel Drains (jet filters)

#### Statewide Region Support Unit

- 12 Non-Job Related (Templates / Recommended)
  - Rapid-Setting Polymer Concrete Patching Material
  - Self Expanding Pavement Joints
  - Resealing Construction Joints
  - High Friction Thin Epoxy Overlays
- 25 Unique These might be job specific
  - Geopolymer Applied Structural liner
  - Temporary Barrier
  - Maintenance Repair of Prestressed beams

- Procure & Trial of new bridge preservation products:
  - New deck patching materials





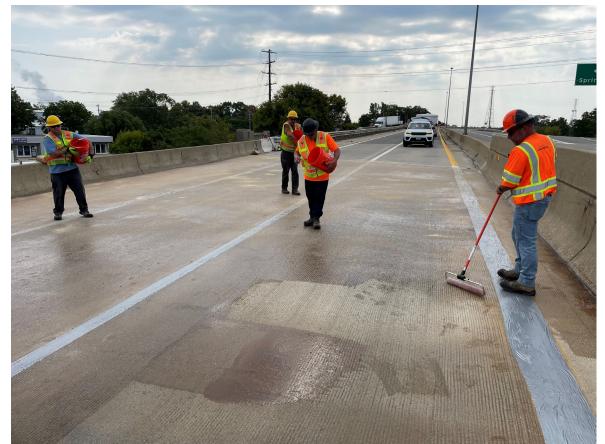
- Procure & Trial of new bridge preservation products:
  - New expansion Joint materials



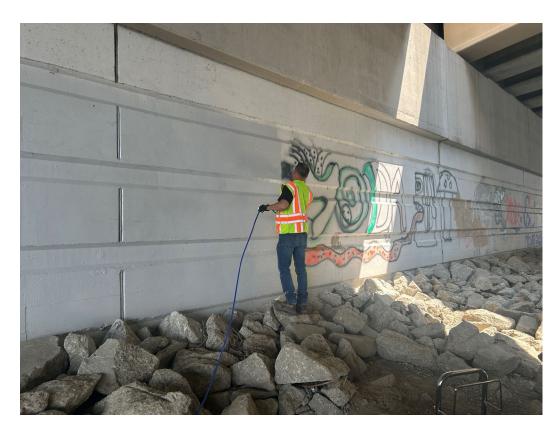


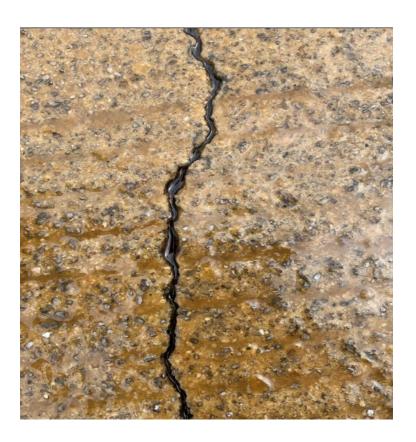


- Procure & Trial of new bridge preservation products:
  - Protective overlay systems



- Procure & Trial of new bridge preservation products:
  - Protective sealant systems





Serve as a resource to regions on equipment expertise and servicing









Serve as a resource to regions on equipment expertise and servicing



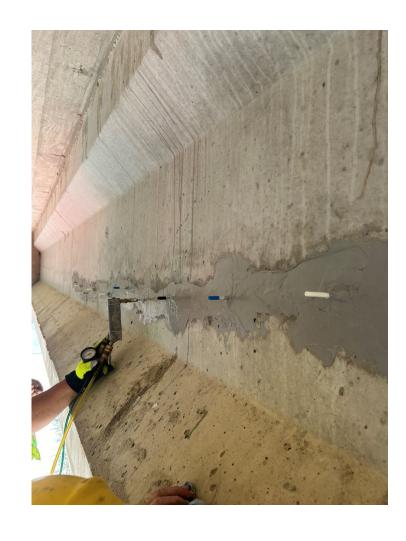


#### Preservation Bridge Maintenance Activities

- PCI Beam Injection
- Epoxy Deck Injection
- Abutment Injections
- Culvert Injections
- Slope Injection
- Retaining wall Injections
- Soil Stabilization
- Coming soon Slab lifting

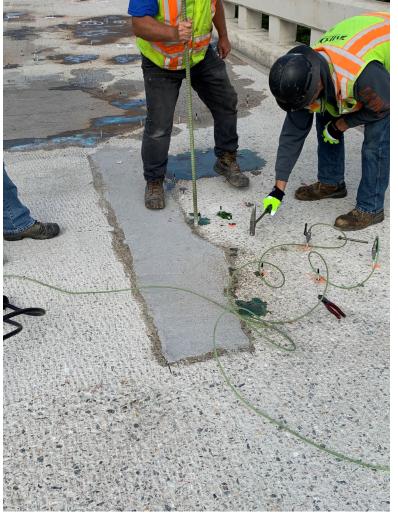
# Statewide Region Support Unit PCI Beam Injections

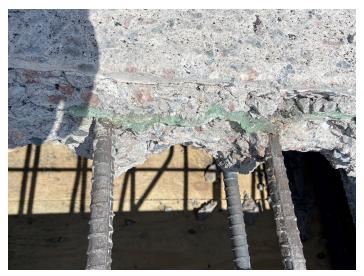




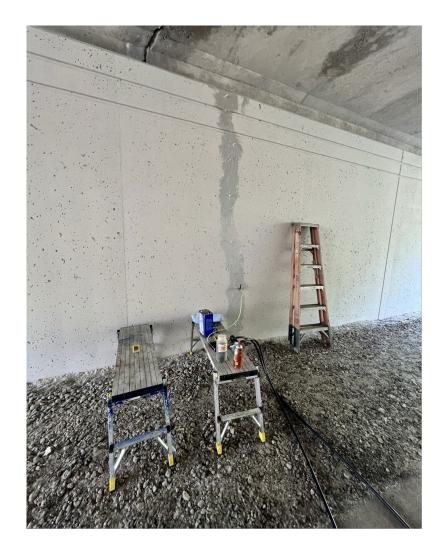
## Statewide Region Support Unit Epoxy Deck Injection







## Statewide Region Support Unit Abutment Injections







# Statewide Region Support Unit Culvert Injections









# Statewide Region Support Unit Slope Paving Repair



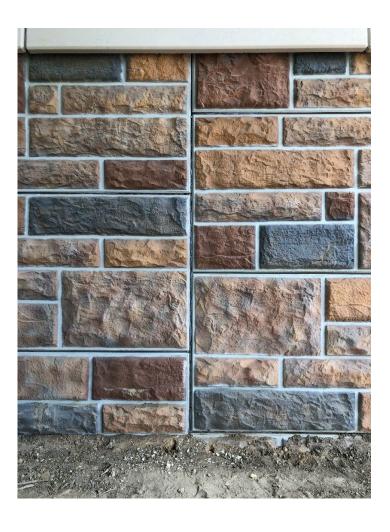




## Statewide Region Support Unit Retaining Wall Injections







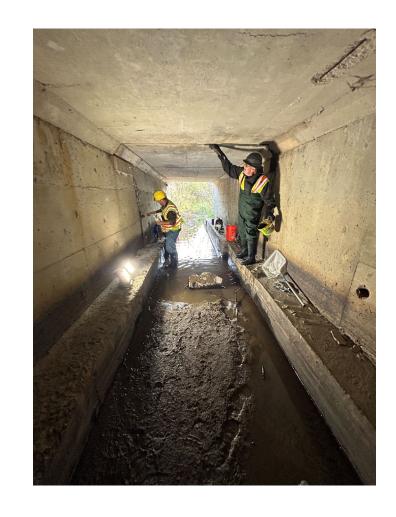
## Statewide Region Support Unit Soil Stabilization







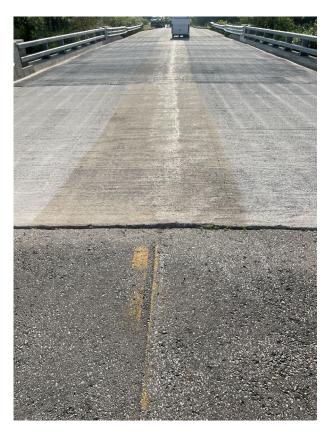
- Assist region maintenance garages with recently discovered ancillary structure RFAs & maintenance
  - Provide trouble shooting with scoping / asset management to the ancillary structure division & the regions alike
  - Provide training to maintenance garages on various ancillary structure repairs such as
    - Concrete culvert repairs
    - CMP repairs
    - Jet Filters



 Assist county engineers statewide by providing Training and alignment on bridge preservation









 Assist county engineers statewide by providing Training and alignment on bridge preservation





 Assist regions with the use of various other statewide contracts such as the as needed Culvert Rehab & Drainage Restoration contract







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#### Jim Pena

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## QUESTIONS



