TSPLOST 2023 Project Submission

Transportation & Public Works Department (T&PW)

September 13, 2021

Pavement Rehabilitation Program

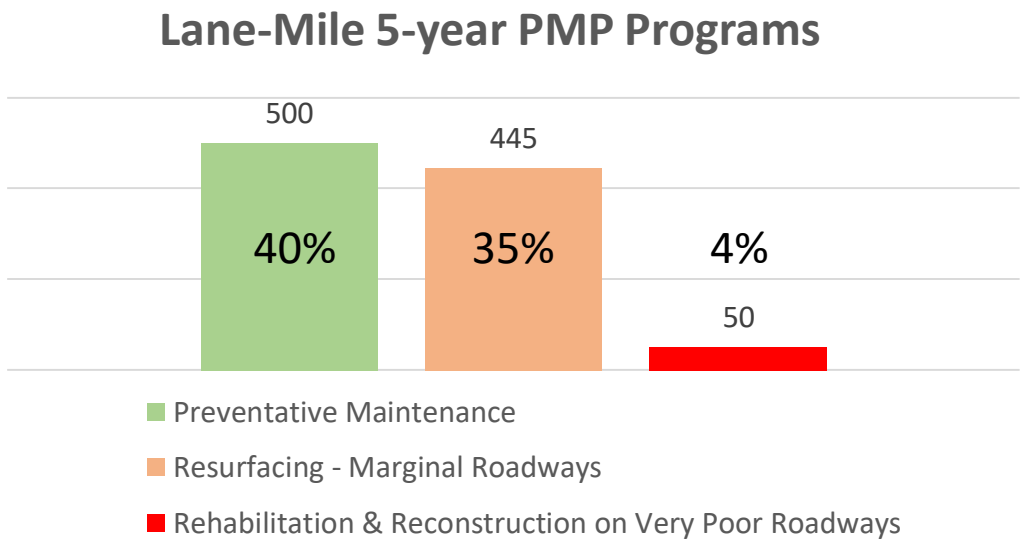
Pavement Rehabilitation

Summary of need:

- There are 1,265 lane miles of roadway maintained by ACCGov (137 Arterial, 293 Collector, 835 Local)
- Annual Program (performed in optimal funding levels) – **Life Cycle Cost**
  - Life Cycle Replacement and Maintenance every 17 years (for top surface only)
  - Estimated cost: for resurfacing marginal roadways $114,000 -/ lane-mile
  - (1,265 lane-miles / 17 years) * ($114,000 / lane-mile) = $8.5 million / year
- Historic deferred maintenance has increased resurfacing cost due to increased preparatory work needed prior to resurfacing (increased patching, full depth reclamation, ongoing maintenance). Poor and very poor roadways (PCI < 40) are estimated to cost 23% more to resurface than marginal roads.
  - Estimated overall cost for resurfacing poor roadways = 23% X $114,000 = $140,000 /lane-mile
  - Annual Construction Cost = +$10.5 million / year

Project Request:

- Project Costs – Construction (Annual): $10,901,000
- Project Costs – Construction (Total – 5 year): $54,505,000
- Program Management (Annual): $284,000
- Public Art (Annual): $109,000
- Total Request: $72,425,000 ($14.5 Million Annual)



Pavement Rehabilitation

Project Description:

- Preventative maintenance, treatment, resurfacing, and rehabilitation activities for local, collector, and arterial roadways maintained by ACCGov
- Typical activities: crack sealing, chip seal, full depth patching, resurfacing, and roadway reconstruction to preserve and extend the life of existing roadways.

Project Justification:

- TSPLOST 2018 Project: funded poor and very poor roadway list known as the deficit list established in 2017, and did not address all future needs (original ask was $50 million; only $25 million approved)
- SPLOST 2020, unlike previous SPLOSTs (2000, 2005, 2011), did not include PMP funding.
- Therefore, TSPLOST 2023 includes sufficient funding for the annual PMP needs to maintain roads on a 17-year cycle ($10.9 million / year) and **will alleviate General Capital from increased future funding requests anticipated for the CY2023 PMP Project** with potential increase from $700K (approved for FY22) to up to much higher figures in FY23 and the following years.
- Continuation of 2018 TSPLOST and 2000, 2005, and 2011 SPLOST Projects

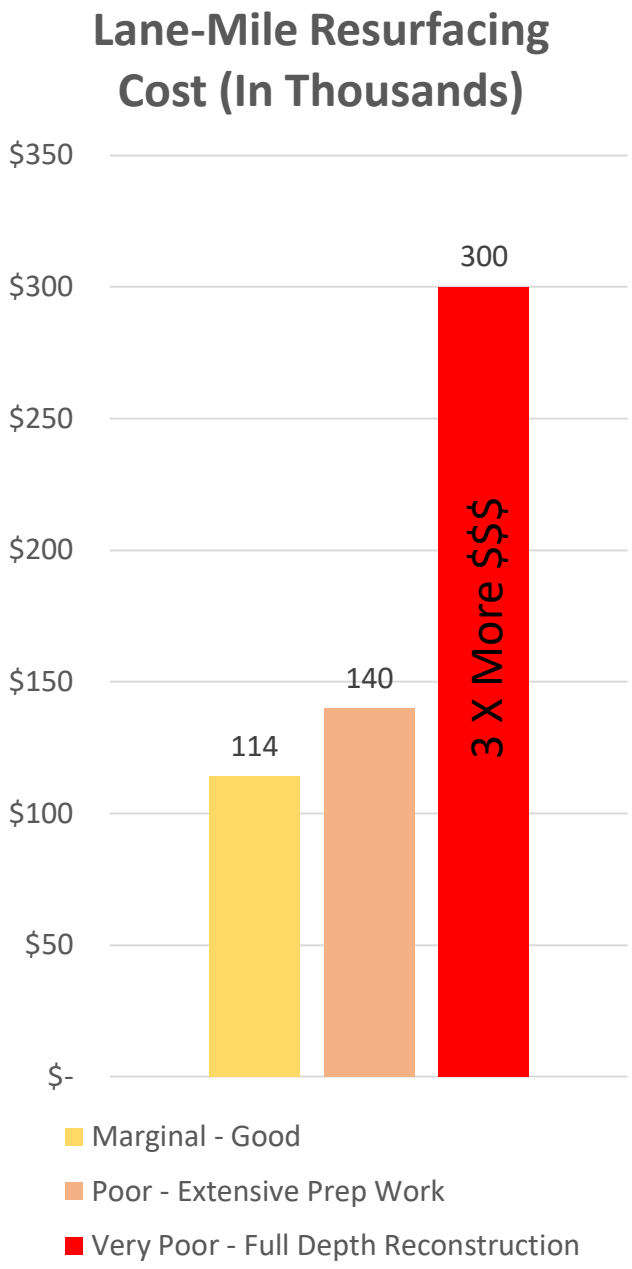
Pavement Rehabilitation

Budget Impacts:

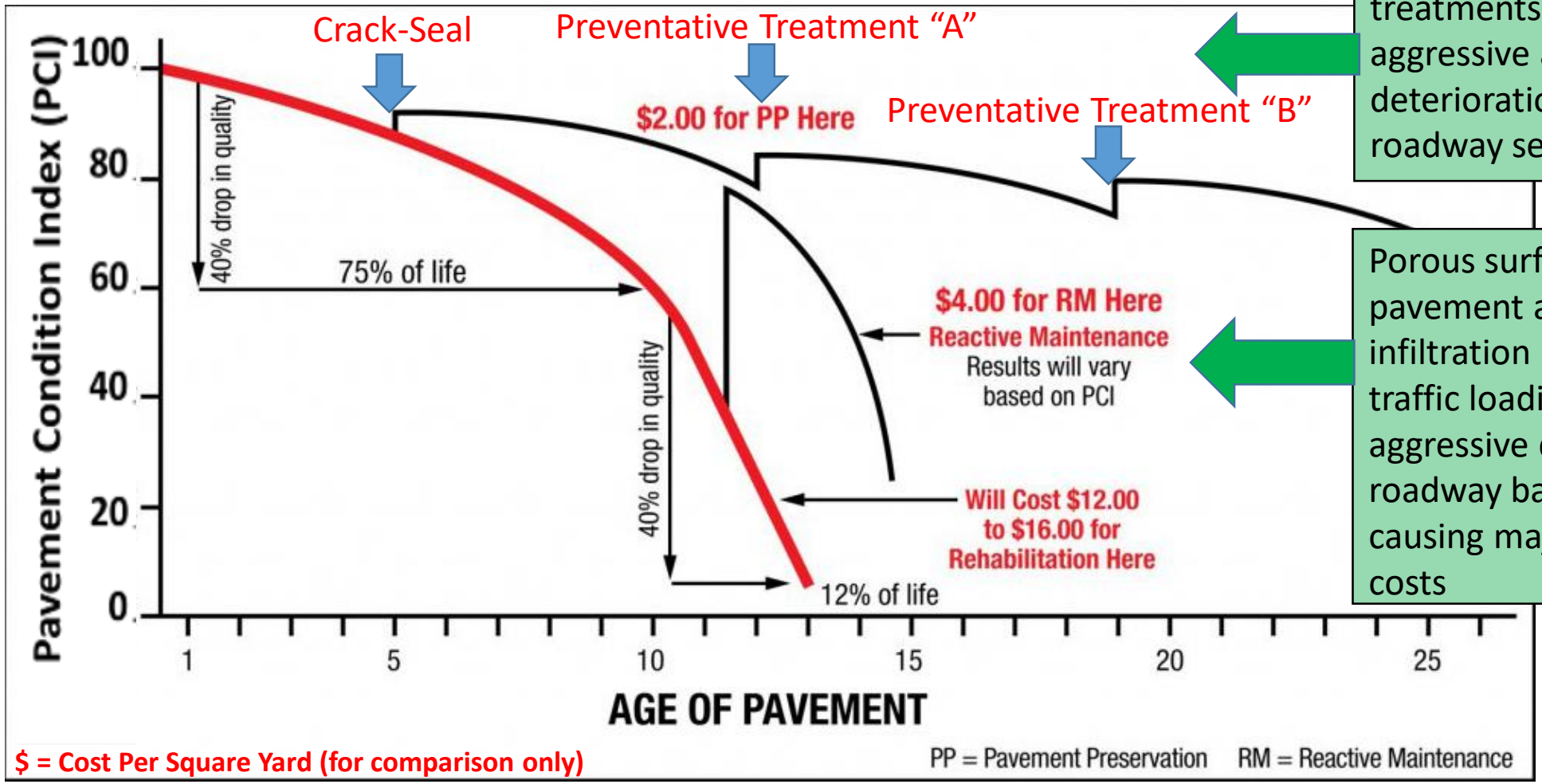
- More efficient use of General Fund operating budget (fewer maintenance requests)
- Avoiding Future Costly Full-Depth Reclamation work on severely deteriorated roads

Community Impact:

- Reliable pavement which is used by nearly all residents daily: passenger vehicles, bicyclists, transit, and freight
- Sustainable maintenance of roadways which have a replacement value of $144 million (just considering cost of resurfacing)



Pavement Condition Index (PCI)



The use of preventative treatments will delay aggressive asphalt surface deterioration and prolong the roadway service life

Porous surface and subsurface pavement allowing water infiltration (in addition to traffic loading) results in aggressive deterioration of the roadway base and sub-base causing major reconstruction costs

Coughlin Company Inc

http://www.coughlincompany.com/pavement-preservation-methods/

Pavement Rehabilitation

Impacts of Not Funding:

- **No Change:** Without TSPLOST Funding but with General Fund Capital, it is expected that the paving deficit to grow to higher levels than pre-TSPLOST 2018 levels within 5-years
- **Loss of General Fund Capital:** Without TSPLOST Funding or General Capital, it is expected that the paving deficit will increase by over $5 million annually & average PCI drops 2 - 4 points a year.
- Without TSPLOST funding, pavement maintenance is funded with an average expected life cycle of 63 years resulting in PCI average of 40 or less.
  - Assumes $600k of General Fund Capital continues
  - Assumes $1.3 million of State funding (LMIG)

Closing the Equity Gap

- The current pavement inspection protocol utilizes an **automated rating system performed by a hired contractor** that provides an objective and scientific methodology, based on national inspection standards, to determine Pavement Condition Index (PCI) for each roadway. Under optimal funding levels, PCI scores are utilized to determine the preferred maintenance treatment including, crack-sealing, thin patching, deep patching, thin overlay, resurfacing, and/or full reconstruction.
- **Adequate program funding will maintain equity between all roadways** and allows for an equitable program driven by data and science rather than reaction to pave failing roadways, or respond to the “loudest voices” from the public.
- Funding this project out of TSPLOST rather than General Capital, **supports stable and consistent tax rates by transferring PMP Life Cycle Cost responsibility away from ACC property tax payers.**

M&C Strategic Commitments

- This project strongly supports 11 of the 14 project selection criteria
  - Equity in Capital Infrastructure
  - Protecting existing Transportation Infrastructure Investments
  - **Reduces Pavement Maintenance Deficit**
  - Promoting Alternative Transportation Facilities
  - Continuing Sidewalk & Multi-Use Trail construction
  - Increased Access to Existing Public Facilities
  - Promoting Usage of Transit and Pedestrian Access to Transit
  - Increases Capital for Transit services/Expands Transit System
  - Maintains or Improves Air Quality
  - Continues TSPLOST 2018 Improvements
  - Promoting Health and Safety

Pavement Rehabilitation Program
Extra Benefits

- Roadway Diet
- Formalize Parking
- Repair Curb & Gutter
- Enhance Bike & Pedestrian Network

Triple Bottom Line Impact

- **Economic**
  - Roadways are the backbone of commerce providing gateway to a healthy economy connecting communities; well maintained roadway network is an essential catalyst for economic prosperity.
  - Relieve GF/Property Tax from funding roadway maintenance needs.
- **Social**
  - Residents and visitors utilize publicly owned roadways on a daily basis, providing access to commerce and public amenities.
  - Well-maintained roadways also reduce daily wear and tear on personal vehicles, and increase comfort levels for all modes of transportation.
- **Environmental**
  - Several Preventative Maintenance treatments, including thin overlay - each one with a small environmental impact - are more eco-efficient than few major rehabilitations (including thick overlay with extensive preparatory work)
  - Shift effort from reactive to proactive planning and management of ACC roadway maintenance.

Questions