



# Pavement Management System

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# Current Management System

- Pavement Condition Index (PCI)
  - Developed by the US Army Corp of Engineers
  - Most widely used rating system – survey and calculations are standardized by ASTM
  - Numerical index between 0 and 100 that indicates the general condition of the pavement (*0 = Worst; 100 = Best*)

# Current Management System

- Pavement Condition Index (PCI)
  - Statistical measure and utilizes a manual survey of type, severity, and extent of pavement distresses



**Linear crack**



**Alligator crack**



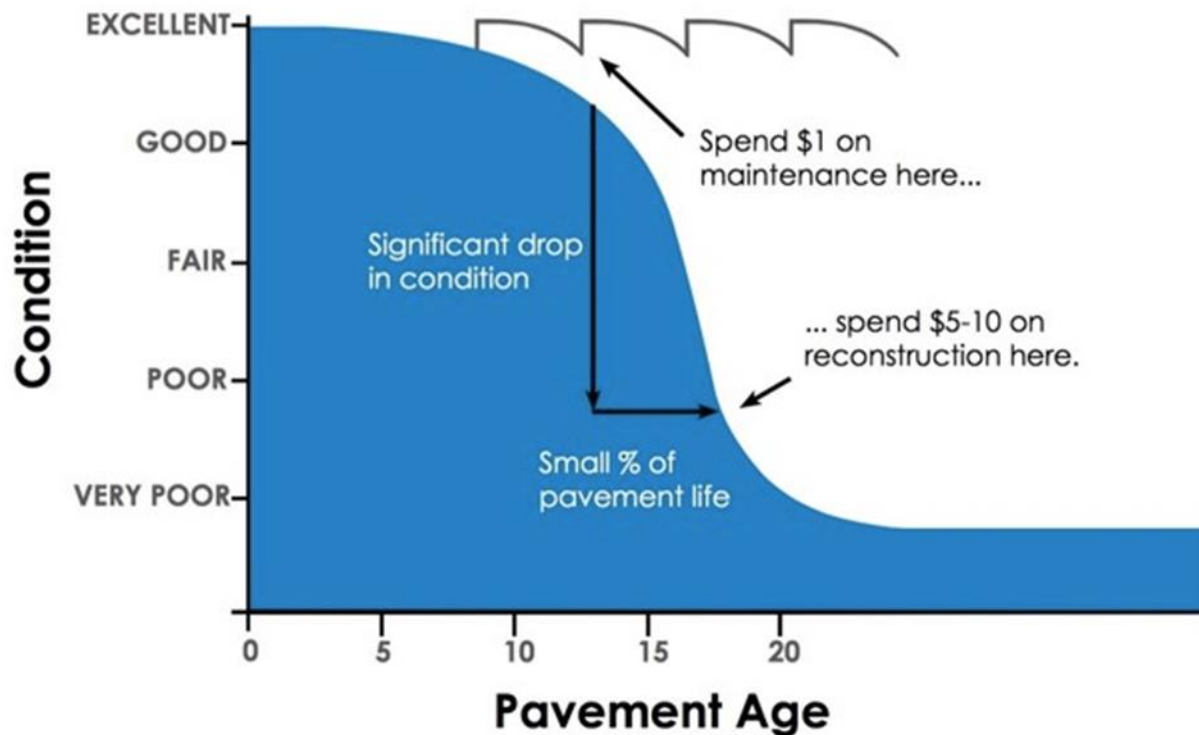
**Pothole**

# Current Management System

- Benefits of PCI
  - Provides a more accurate overview of road network condition
  - More detailed analysis and robust ratings index
  - Quantifies distress – not as subjective
  - Gives an indication of rate of deterioration
  - Allows for better monitoring of pavement condition over time

# Current Management System

- Pavement Condition Index (PCI)
  - Focus on lower cost maintenance



# Current Management System

- TotalPave PCI

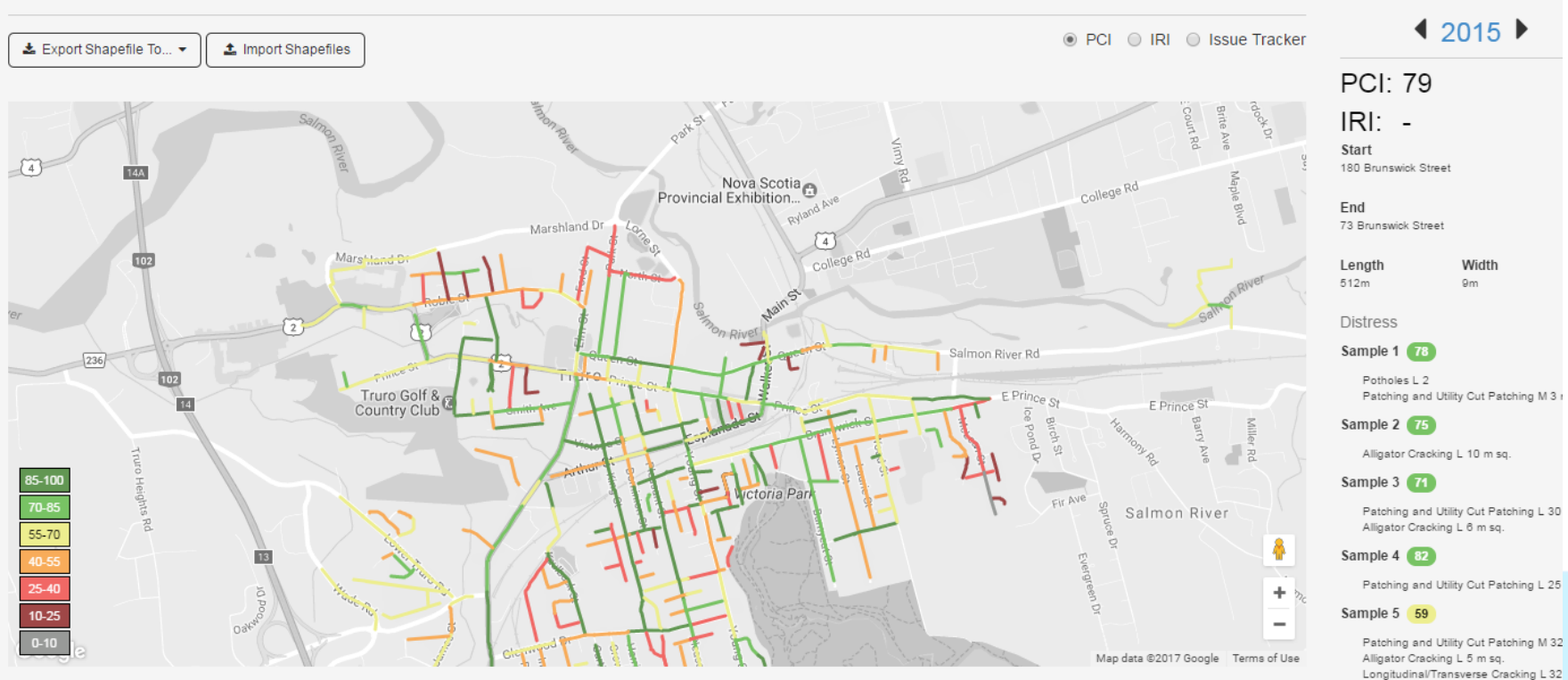
- Implemented in 2015
- Smartphone app
- Developed by UNB Grab Students with a goal of simplifying data collection and calculations
- Road sections broken into intervals and distresses are entered on phone
- Real-time calculation and upload of data to web



# Current Management System

- TotalPave PCI – Web Portal

Home - Town of Truro



# Rehabilitation/Maintenance Options

- Considerations
  - PCI rating
  - Traffic Volumes
  - Surface defects
  - Sub-base condition
  - Drainage
  - Other infrastructure
    - Water
    - Sewer
    - Storm
    - Curb and sidewalks



# Rehabilitation/Maintenance Options

- Options
  - Pothole patching
  - Crack sealing
  - Cutting and patching
  - Milling and patching
  - Milling and overlay
  - Micro-surfacing
  - Full-Reconstruction

# Budget Considerations

- Pavement Management is Costly
  - Crack sealing ~ \$1.25/linear m
  - Milling and Paving ~ \$220/m
  - Full-Reconstruction ~ \$500-\$550/m

# Budget Considerations

- 2008/2009 Budget
  - Street Capital - **\$1,550,000**
  - Sidewalk Capital - **\$885,000**
- 2017/2018 Budget
  - Street and Sidewalk Capital - **\$900,000**
- Increased focus on maintenance activities
- Shift away from 'worst first'

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