

Preliminary Evaluation of Pavement Surface Distresses Related to Pavement Markings

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The Problem

- ❑ Reports of pavement distresses, such as cracking and raveling, under or along pavement markings



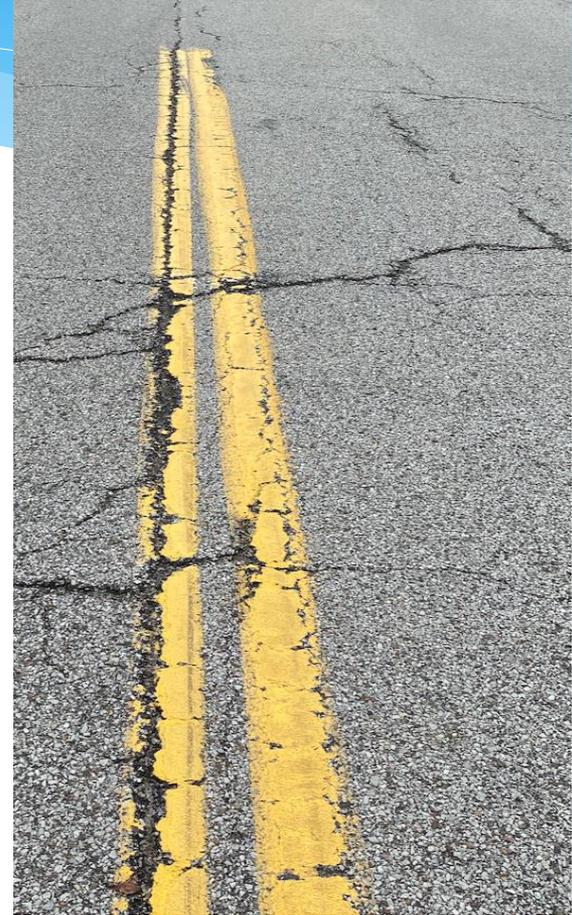
Project Objectives

- ❑ Investigate pavement surface deterioration related to pavement markings
- ❑ Develop approaches to mitigate the issues

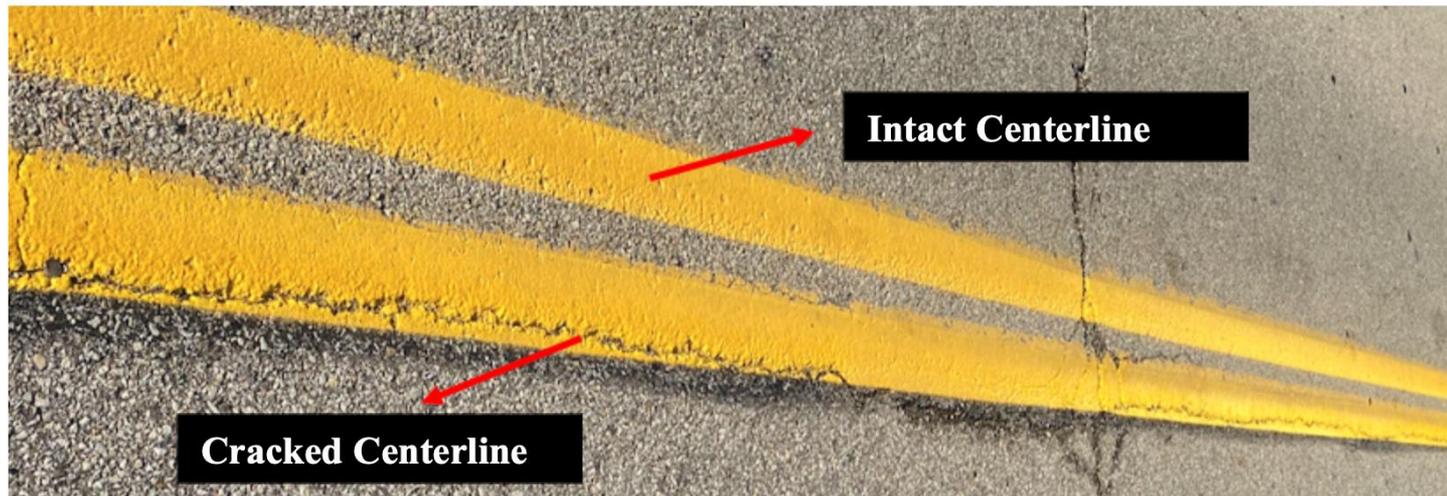


Visual Surveys

- PennDOT
- Allegheny County



Visual Surveys

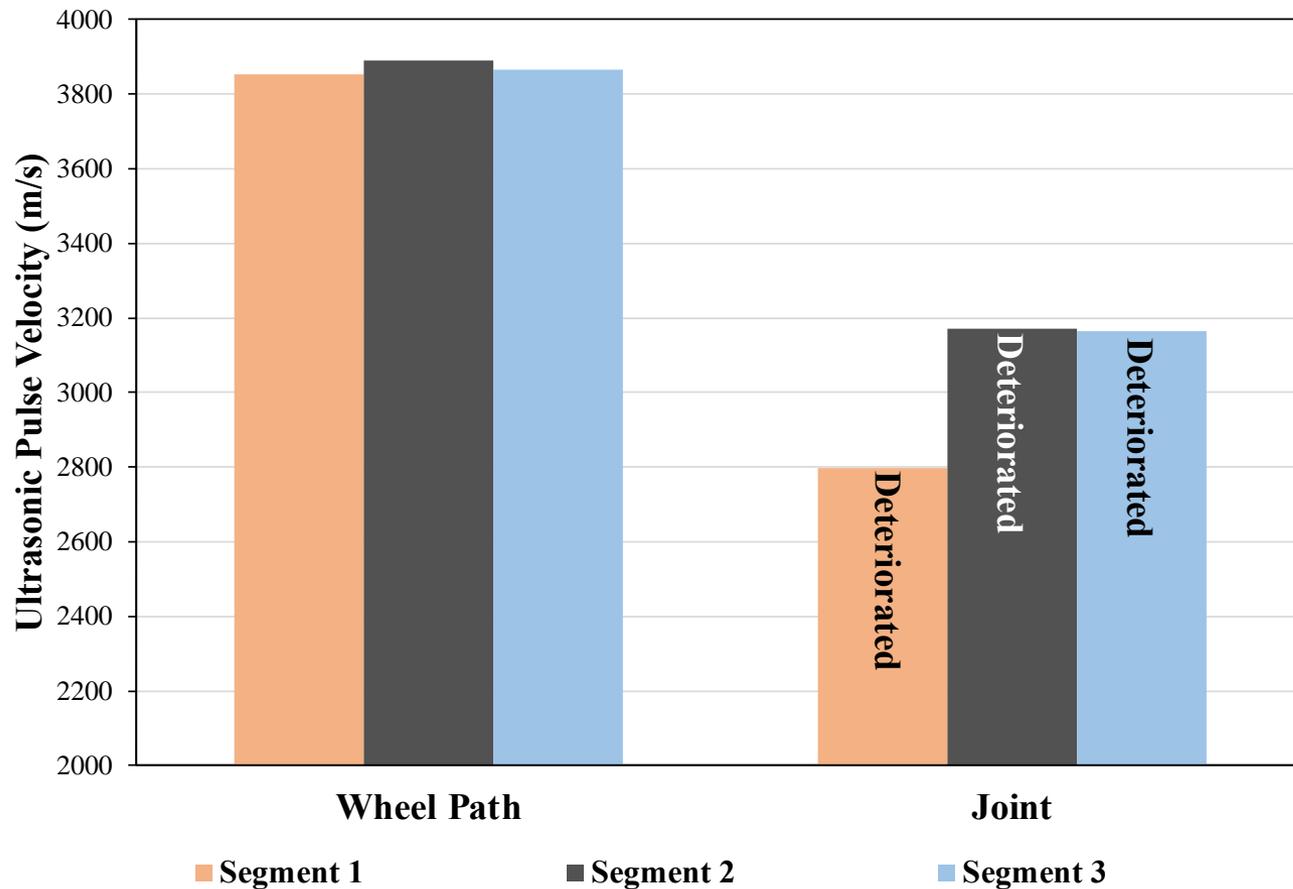


Non-Destructive Testing

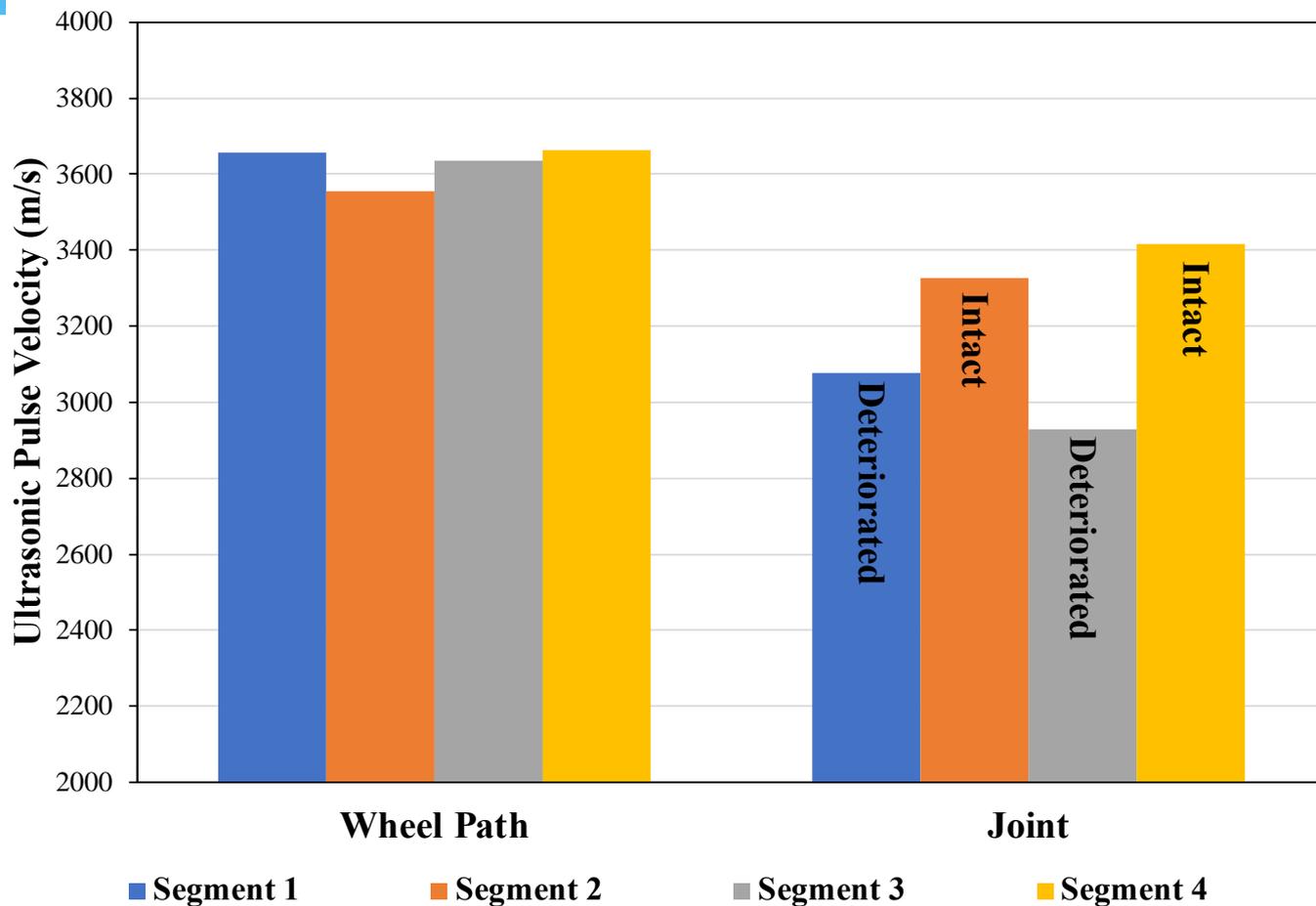
- ❑ Ultrasonic Testing
- ❑ Measure Pulse Velocity
- ❑ Related to stiffness, density



Non-Destructive Testing



Non-Destructive Testing



Non-Destructive Testing

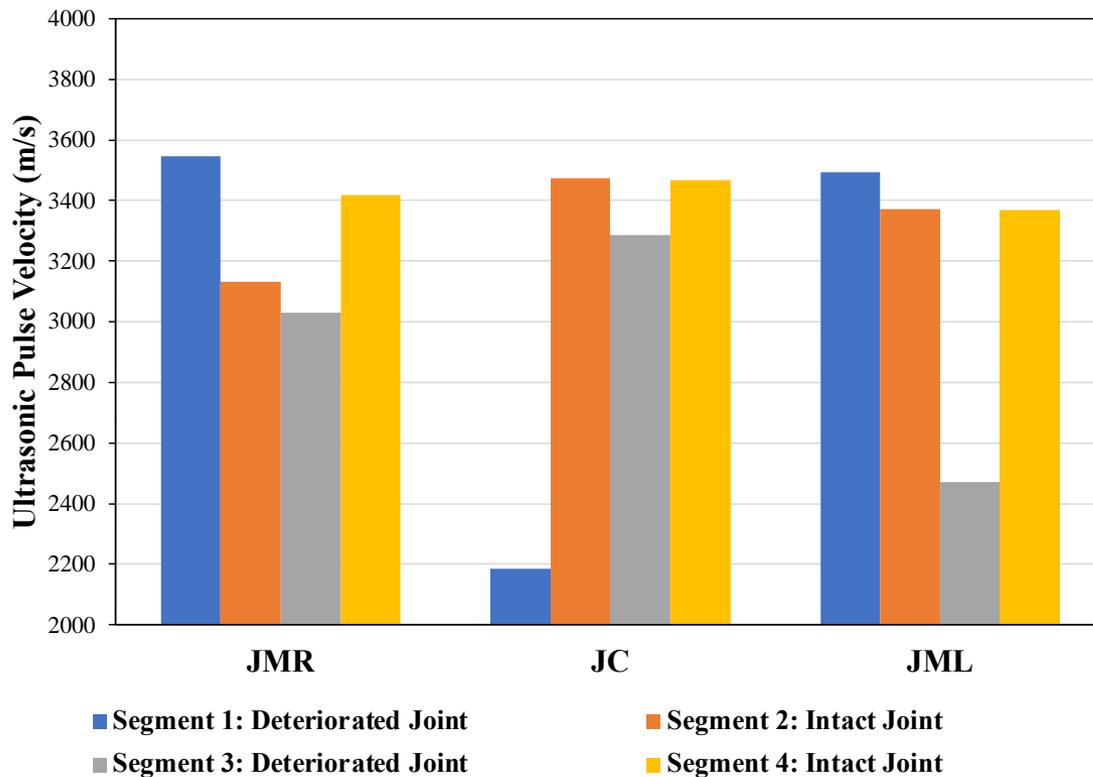


Deteriorated Joint



Intact Joint

Non-Destructive Testing

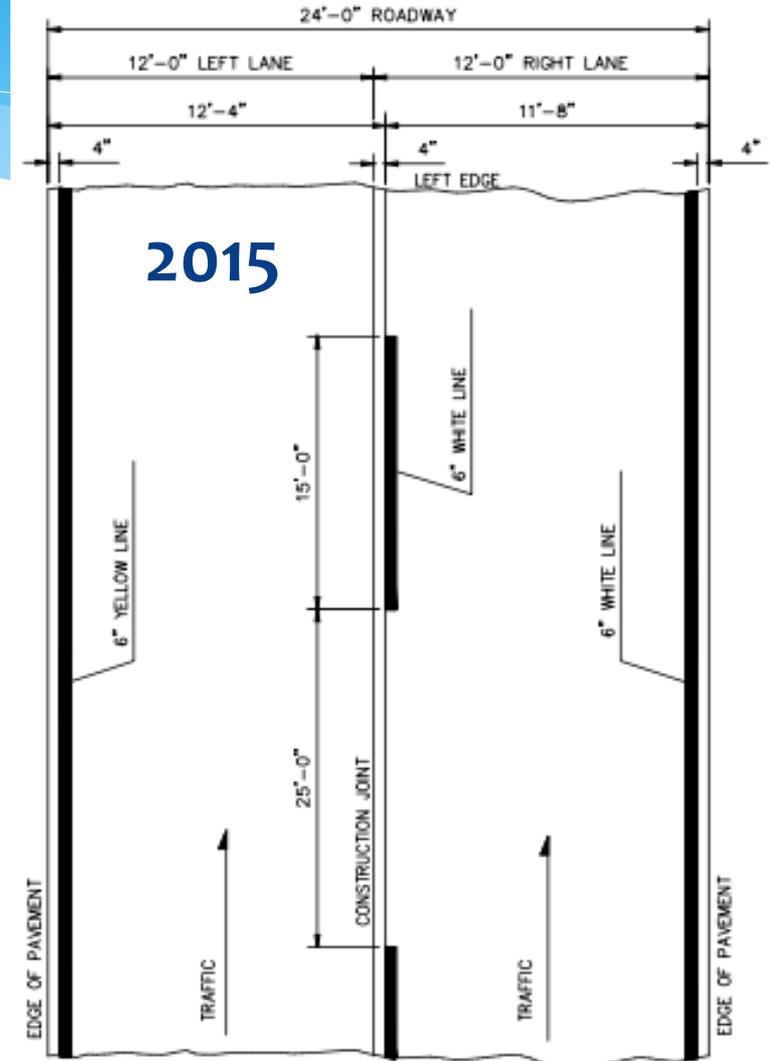
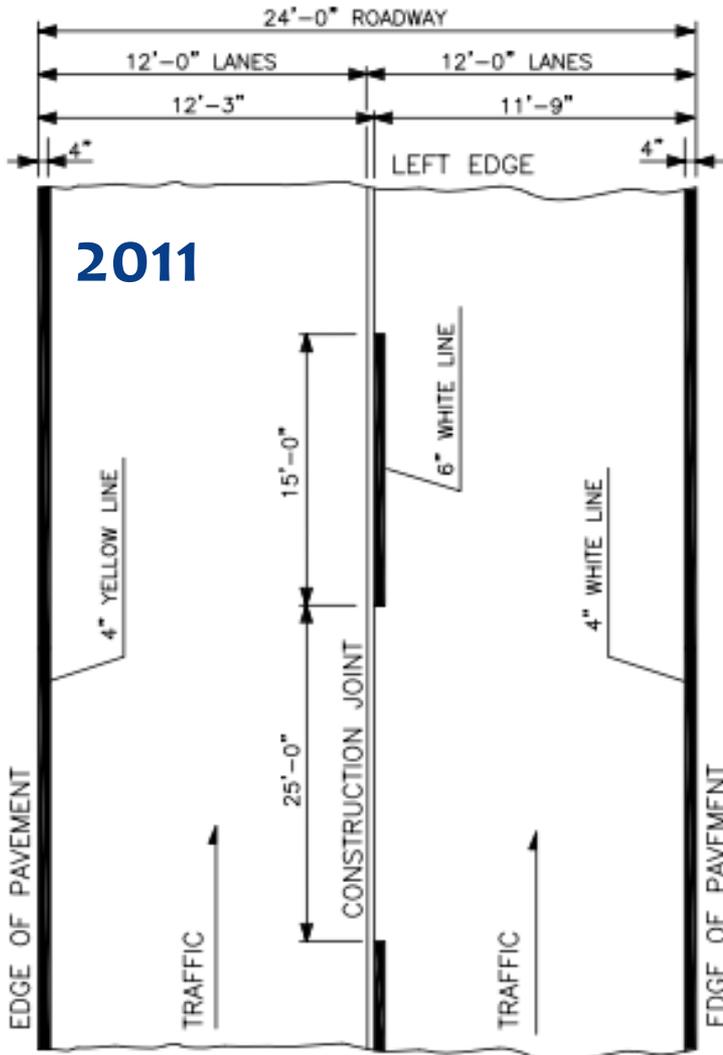


- Joint Marking Left (JML)
- Joint Center (JC)
- Joint Marking Right (JMR)

Non-Destructive Testing



Turnpike Commission



Results

- ❑ Pavement markings influence distress when located around vulnerable low-density asphalt due to joint construction difficulties.
- ❑ Mitigation Strategies:
 - ❑ Improvement of longitudinal joint compaction
 - ❑ If possible, place pavement marking on the confined side of the joint or at

