



# Pavement Management Program Town of Waterford

2015 Update

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## Presentation Outline

- Pavement Management Background
- Conditions in Waterford
- Recommendations

## What is Pavement Management?

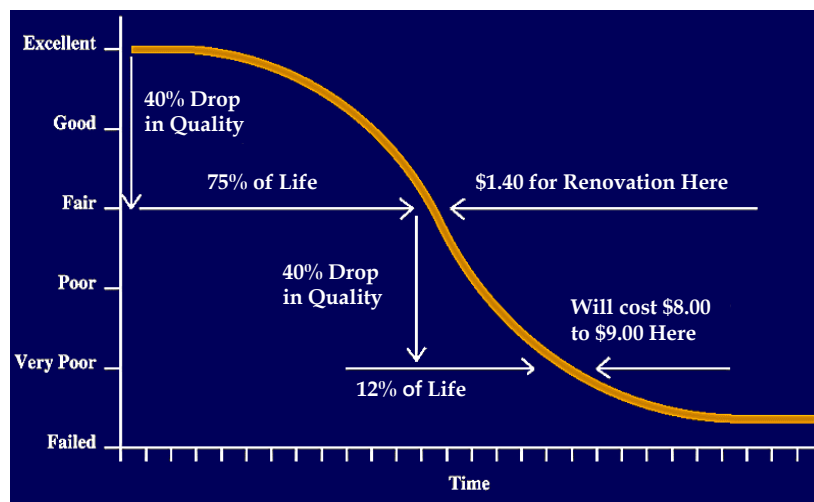
... The practice of **planning** for pavement **maintenance** and **rehabilitation** with the goal of **maximizing** the **value** and **life** of a **pavement** network.

**"Getting the Biggest Bang for your Buck"**

## The Process

1. Pavement Section Inventory
2. Pavement Distress Identification & Quantification by Visual Inspection
3. Pavement Condition Index (PCI) Calculation on a 0 to 100 Scale
4. GIS Integration
5. Define Repair Strategies and Costs
6. Test Various Budget Scenarios
7. Develop Annual Road Program

## Pavement Deterioration Curve



**Do Nothing**  
(Dimmock Road)

**93-100 PCI**



**Routine Maintenance**  
(Vauxhall Street – Crack Seal)

**73-92 PCI**



**Preventive Maintenance**

**59-72 PCI**

(Vauxhall Street – Crack Seal & Patch, Microsurface, Chip Seal)



**Structural Improvement Condition**

**52-58 PCI**

(Oil Mill Road – Overlay or Mill & Overlay)



Restoration Condition  
(Fargo Road – Reclamation)

40-51 PCI



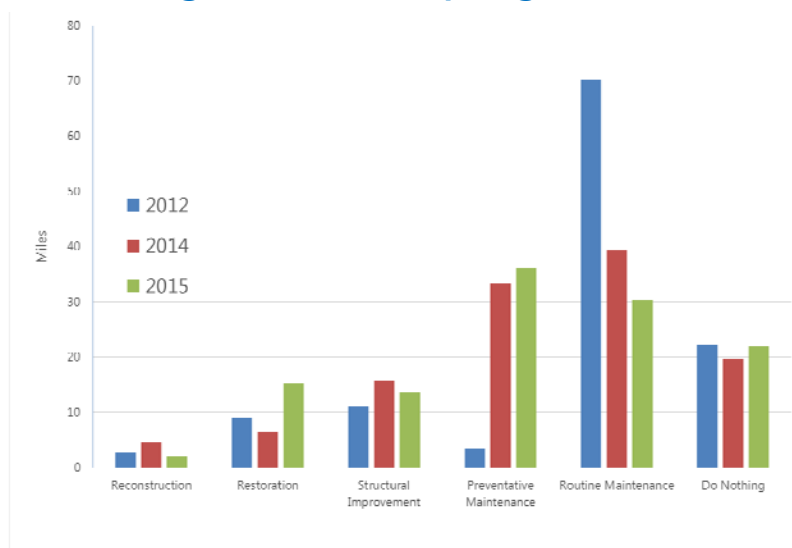
Reconstruction Condition

0-39 PCI



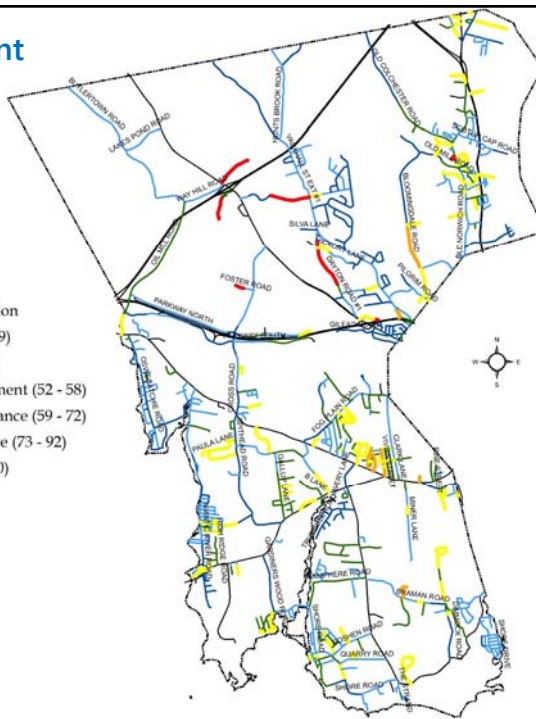


## PCI Distribution (Average PCI = 70, Spring, 2015)



## Estimated Current Pavement Conditions

- Current Pavement Condition
- Reconstruction (0 - 39)
  - Restoration (40 - 51)
  - Structural Improvement (52 - 58)
  - Preventive Maintenance (59 - 72)
  - Routine Maintenance (73 - 92)
  - Do Nothing (93 - 100)
  - Pavement Routes



## Unit Costs

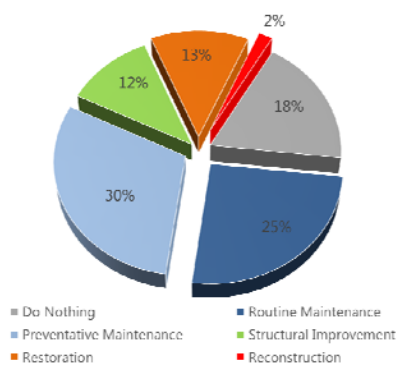
<b>Treatment</b>	<b>Estimated Cost/SQ Yard</b>
<u>Reconstruction</u>	
Arterial Collector	\$88.00
Local	\$75.00
<u>Restoration</u>	
Full Arterial Collector	\$22.50
Full Local	\$22.50
<u>Structural Improvement</u>	
Overlay Local	\$8.75
Overlay ST	\$8.75
<u>Preventive Maintenance</u>	
Chip Seal	\$1.85
Cape Seal	\$3.75
Crack Seal, Patch, Microsurface	\$4.40
<u>Routine Maintenance</u>	
Patch & Crack Seal	\$1.75
Local Patch & Crack Seal	\$1.25
Paver Localized Repair	\$1.25

## Backlog of Work

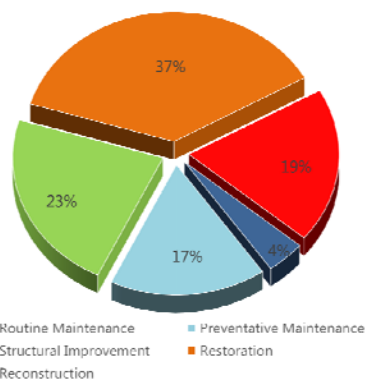
<u>Treatment Band</u>	<u>Miles</u>	<u>Dollar Backlog</u>
Do Nothing	22.0	\$ 0
Routine Maintenance (Crackseal & Patch)	30.4	578,982
Preventive Maintenance (Microsurface)	36.0	2,331,178
Structural Improvement (Overlay, Mill & Overlay)	13.7	3,121,879
Restoration (Reclaim & Overlay)	15.2	5,136,108
Reconstruction	2.2	2,669,737
<b>Totals</b>	<b>119.6</b>	<b>\$13,837,886</b>



## Backlog of Work

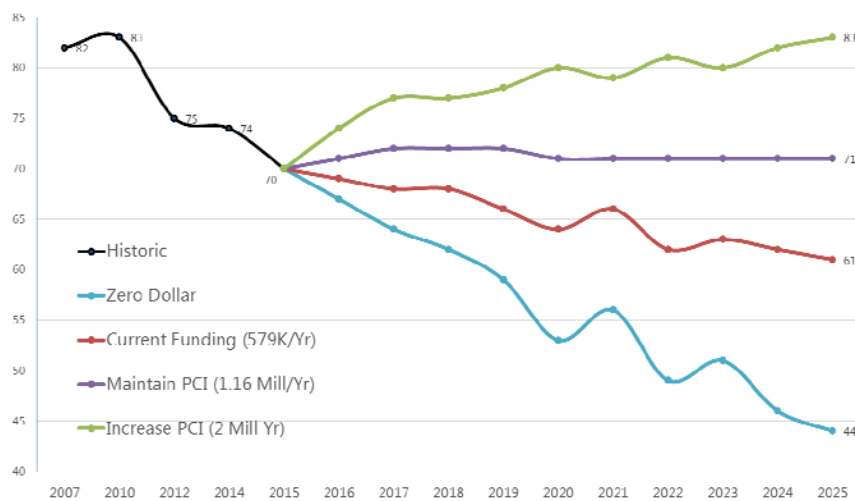


Miles by Treatment Band



Dollars by Treatment Band

## PCI Projections



## Conclusions & Recommendations

- Average conditions have been gradually deteriorating at current funding level
- Town should allocate sufficient budget to achieve condition goal
- Continue to include pavement preservation in program while funding major projects
- Provide resources to check quality during construction
- Continue to monitor conditions and progress