

BOROUGH OF CONSHOHOCKEN

INFRASTRUCTURE MANAGEMENT PLAN

IMPLEMENTATION SCENARIOS

Karen M. MacNair, P.E.
Borough Engineer

Gilmore & Associates, Inc.
Engineering & Consulting Services



Gutter Curb Replacement



Hallowell Street
(E. 3rd-E. 4th)



E. 9th Avenue
(Jones-Righter)



Storm Sewer Improvements

Storm Sewer Assessment

- Identified projects
- Storm sewer televising
 - Repair & replacement

STORM SEWER LEGEND

-  **PROPOSED STORM SEWER PROJECT**
-  **EXISTING STORM SEWER SYSTEM**



Storm Sewer Televising Results

Identified Issues

- Structural cracking/broken pipe
- Settlement
- Corrosion



Recommended Roadway Treatments

Maintenance

- Crack Sealing
 - Limits spreading of open cracks
 - Prevents damage to subbase
- Microsurfacing
 - Replenishes lost asphalt and improves appearance
 - Prevents weakening of subbase



Rehabilitation

- Mill & Overlay
 - Replacement of pavement surface
 - Extends service life of base and subbase
- Full Reconstruction
 - Replacement of multiple roadway layers
 - Rebuild entire roadway to current standards

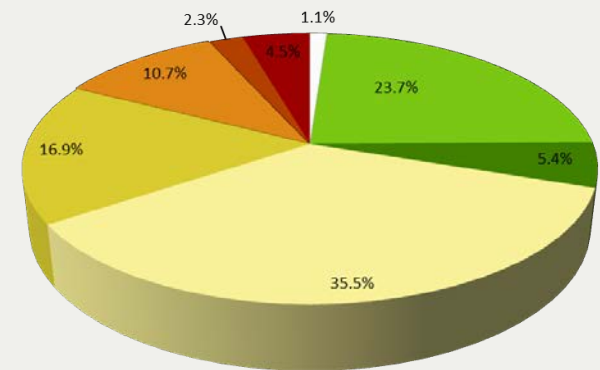


Recommended Scope



REPAIR TREATMENT LEGEND

- NO TREATMENT
- CRACK SEALING
- MICROSURFACING
- MILL & OVERLAY
- MILL & OVERLAY-MINOR BASE REPAIR
- MILL & OVERLAY-MODERATE BASE REPAIR
- MILL & OVERLAY-MAJOR BASE REPAIR
- FULL RECONSTRUCTION

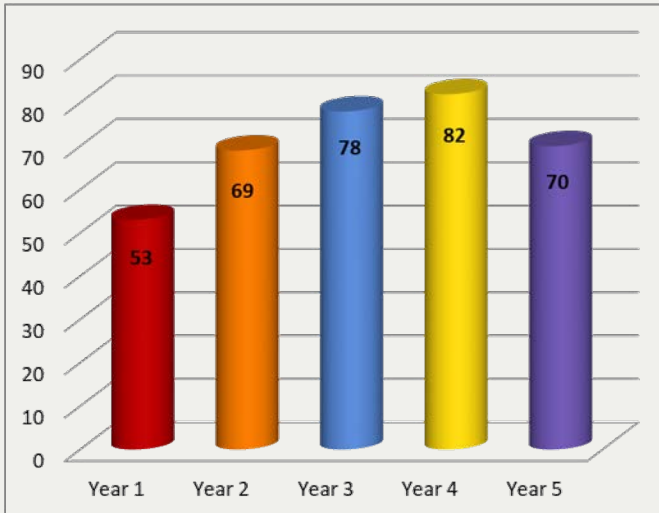


Implementation Scenarios

- Account for efficiencies (\$27.14 million)
 - Concentrates on grouping locations
 - Considers major repairs
 - Includes storm sewer projects in years 1-2
 - Microsurfacing in year 3
- “Worst First” (\$27.64 million)
 - Concentrates on worst conditions and major repairs
 - Does not consider location
 - Includes storm sewer projects in years 1-3
 - Microsurfacing in years 4-5



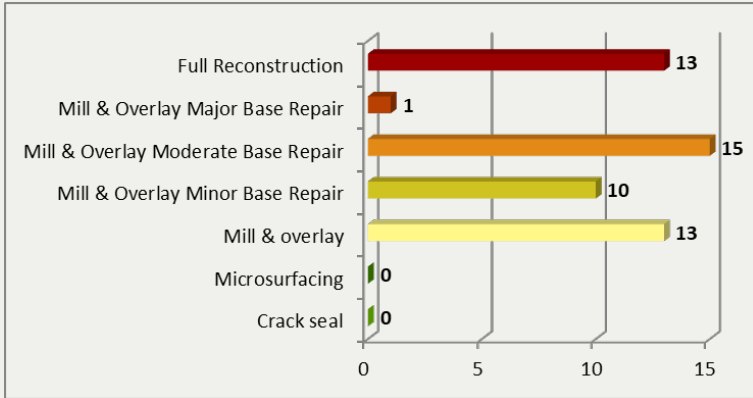
Efficiency Scenario



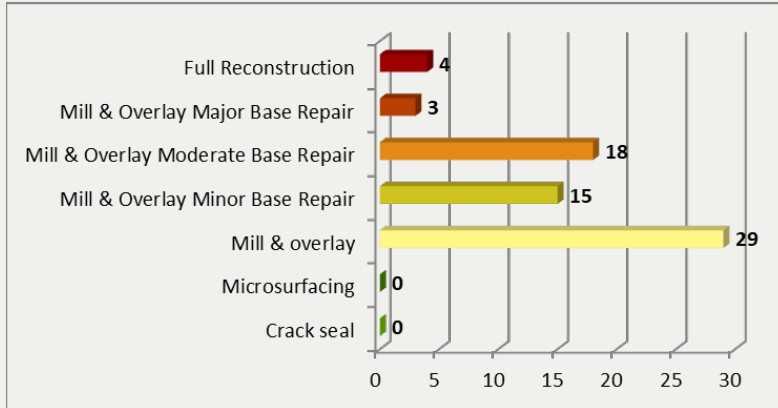
Treatment Year	Cost Per Year
Year 1	\$ 8.86 M
Year 2	\$ 8.80 M
Year 3	\$ 4.06 M
Year 4	\$ 3.29 M
Year 5	\$ 2.13 M
Total Cost	\$ 27.14 M



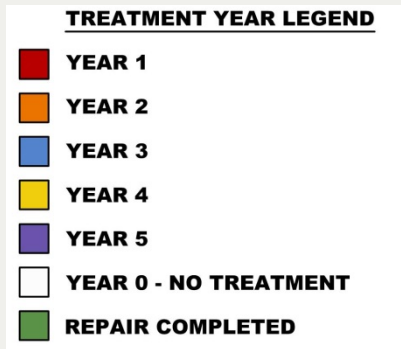
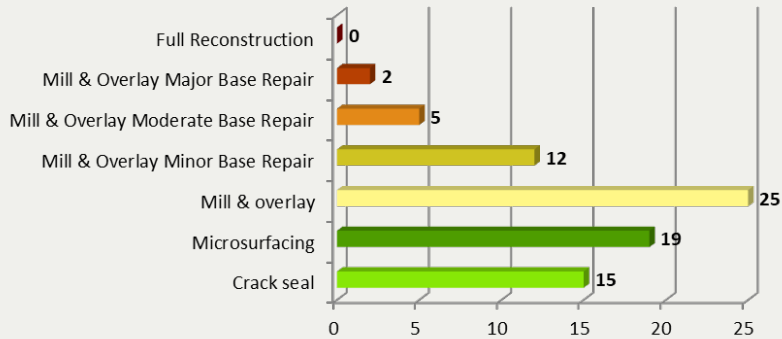
Efficiency Scenario Year 1



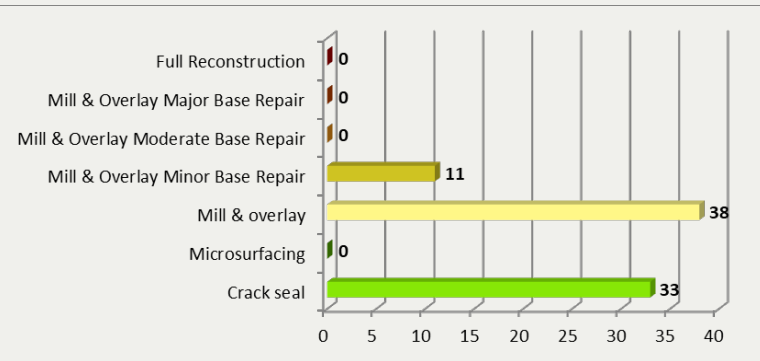
Efficiency Scenario Year 2



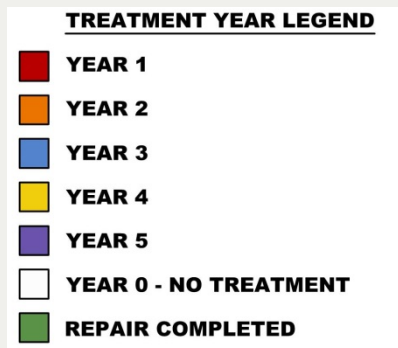
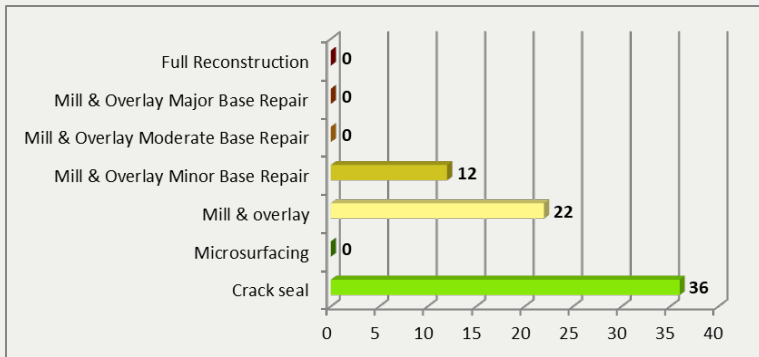
Efficiency Scenario Year 3



Efficiency Scenario Year 4



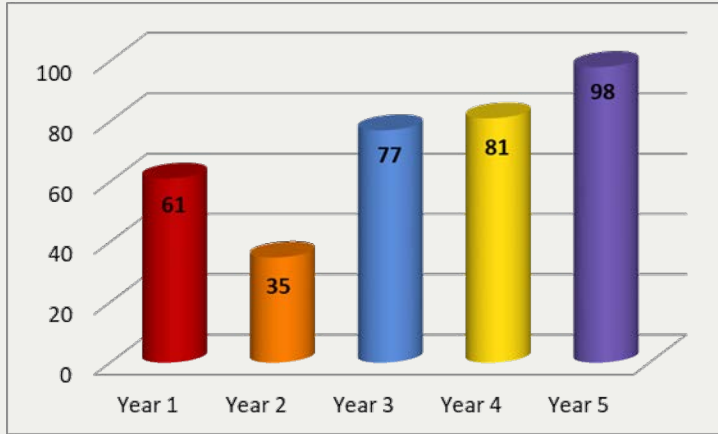
Efficiency Scenario Year 5



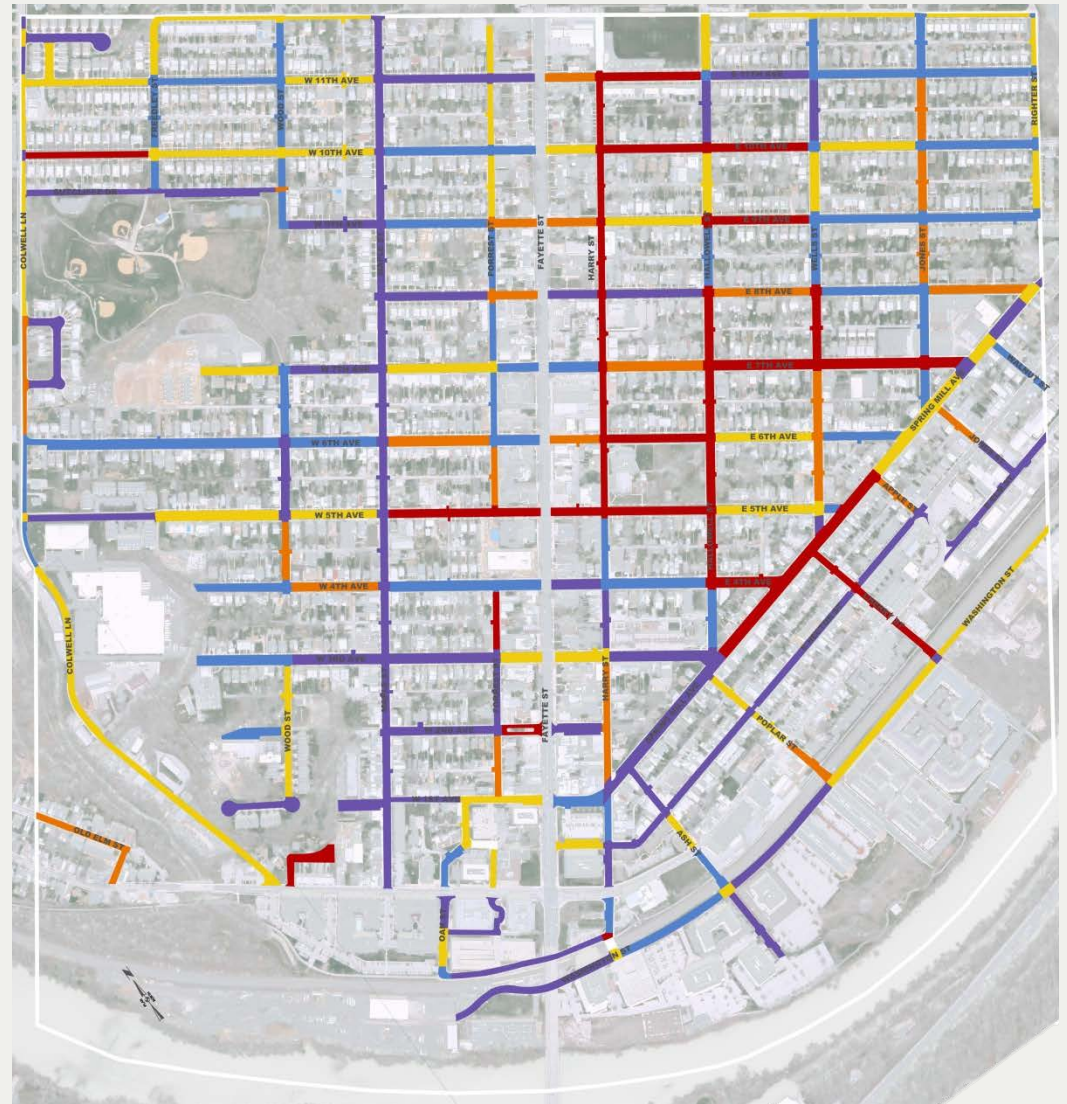
Completed Efficiency Scenario



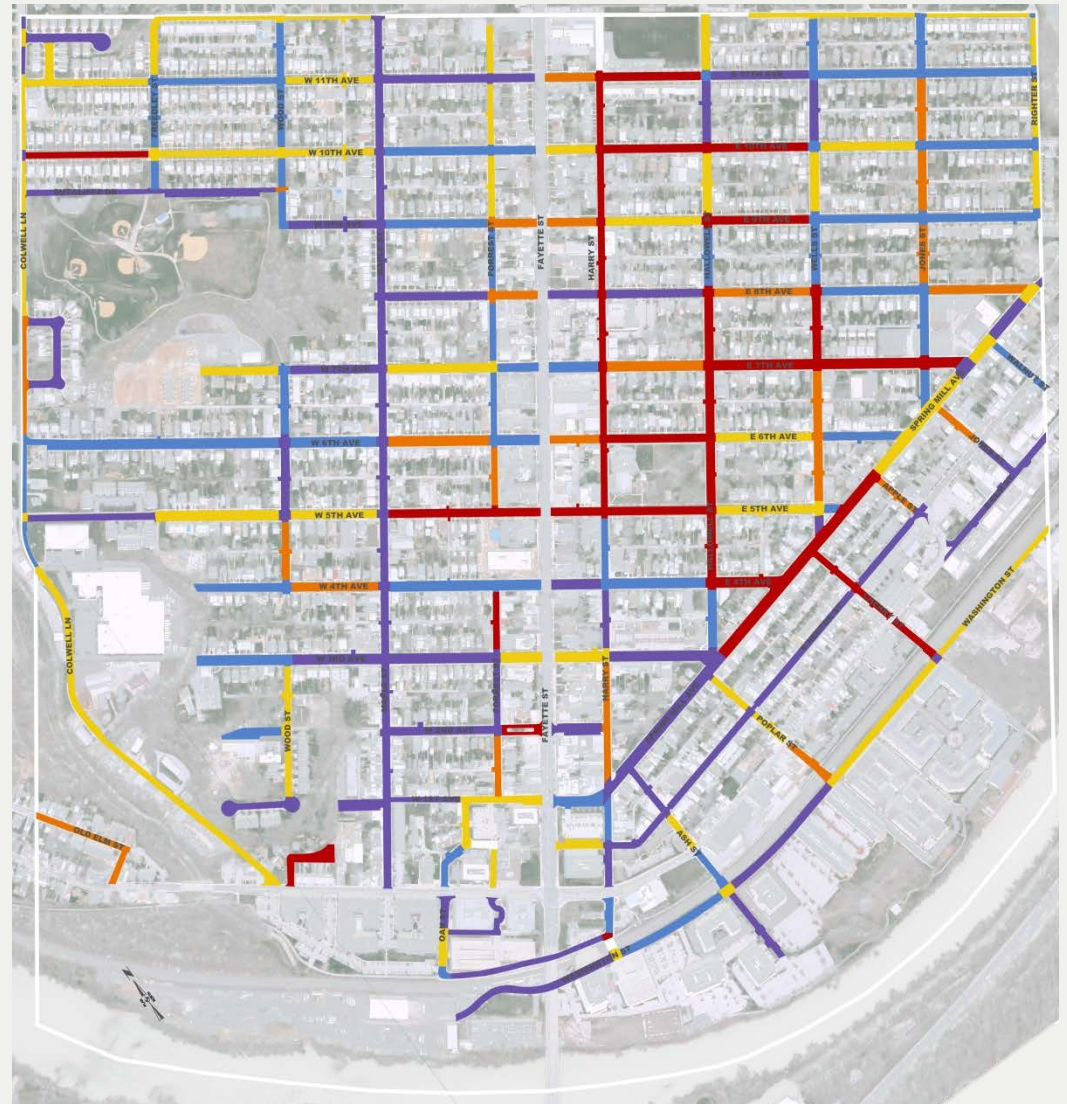
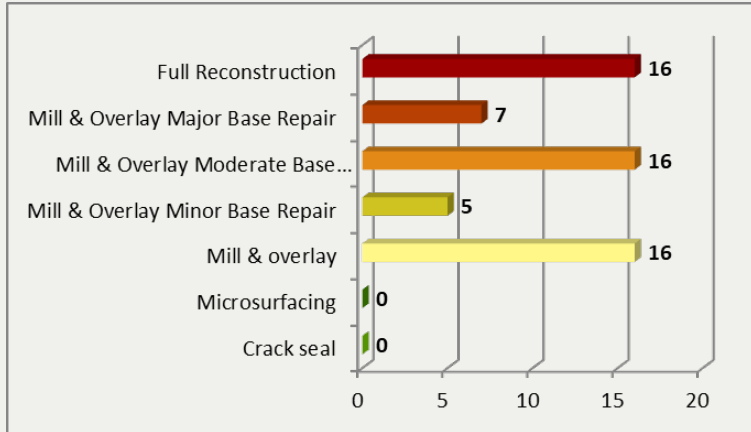
“Worst First” Scenario



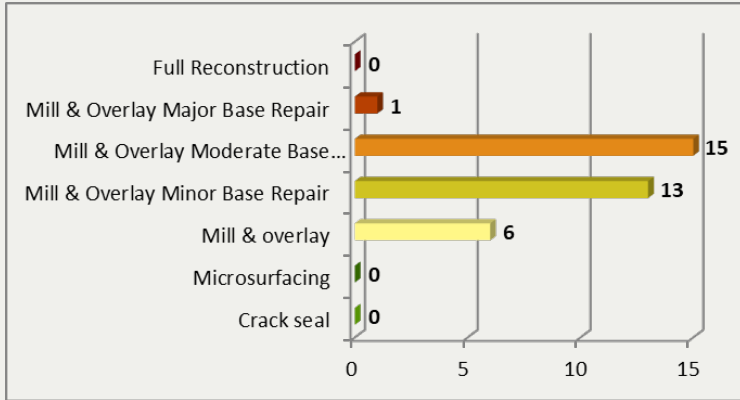
Treatment Year	Cost Per Year
Year 1	\$ 10.67 M
Year 2	\$ 3.99 M
Year 3	\$ 7.11 M
Year 4	\$ 3.87 M
Year 5	\$ 2.00 M
Total Cost	\$ 27.64 M



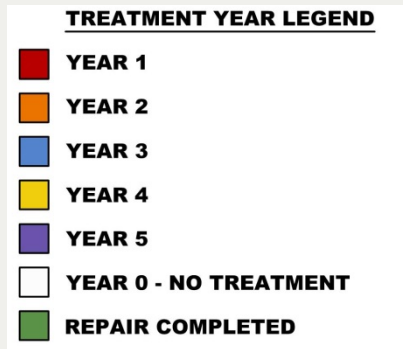
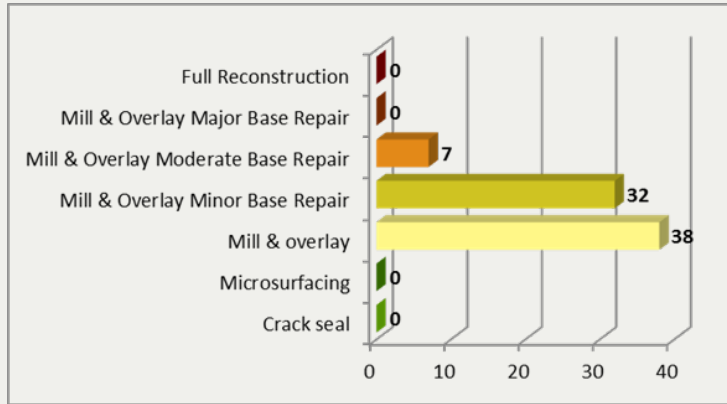
“Worst First” Scenario Year 1



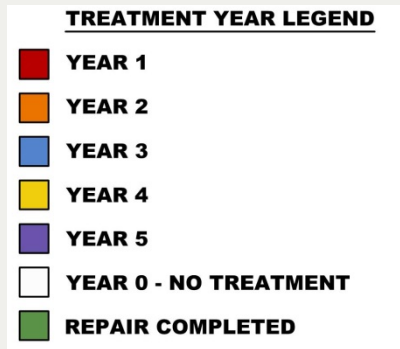
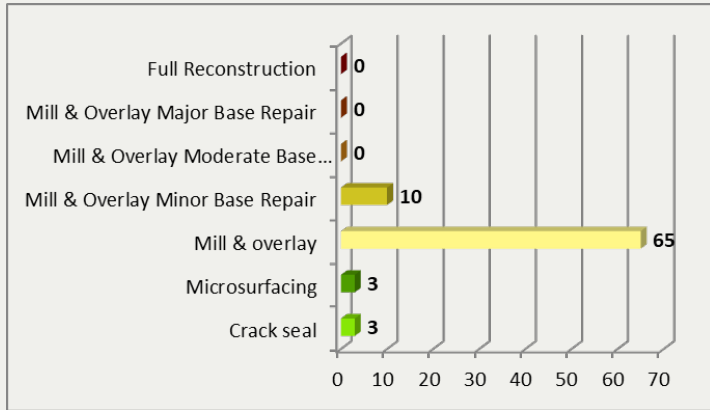
“Worst First” Scenario Year 2



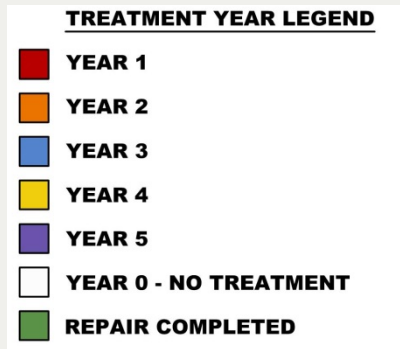
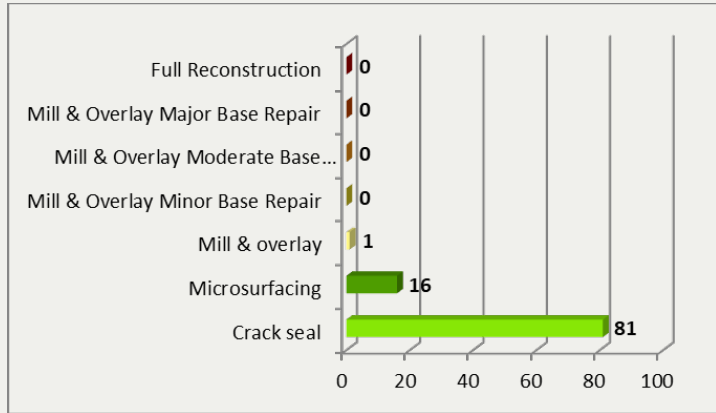
“Worst First” Scenario Year 3



“Worst First” Scenario Year 4



“Worst First” Scenario Year 5



Completed “Worst First” Scenario

