



SAVE OUR STREETS 2007 YEAR END REPORT



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ABOUT THIS REPORT

The **Save Our Streets (or SOS) Program** was created in 2004 to preserve and improve the pavement of the local street system by funding yearly pavement preservation and improvement projects.

At the end of each year the Auburn Public Works Department produces a Year End Report to update the public on the accomplishments and future plans of the SOS Program. This is the third Year End Report produced for the SOS Program and includes:

- Background on the SOS Program and Auburn's pavement management strategy.
- A summary of the SOS projects completed and the expenditures spent during 2007.
- An update of the overall pavement condition of Auburn's local streets.
- An update on plans for future SOS Projects.

BACKGROUND

ABOUT THE SOS PROGRAM

The City maintains 159 centerline miles of streets, of which 83 centerline-miles (or more than half the network) is made up of local streets. In 2004 the public was showing concern over the condition of these local streets, but local street funding had dropped dramatically in preceding years (see Figure 1) and the City could not afford to make the needed improvements.

In response to the situation, the City proposed a funding measure (Proposition No. 1) which was approved by Auburn citizens in the November 2004 General Election. This Proposition now allows the City's property tax levy to generate money for a **Dedicated Local Street Fund** which is solely used to fund a local street preservation and improvement program, called the Save Our Streets (or SOS) Program.

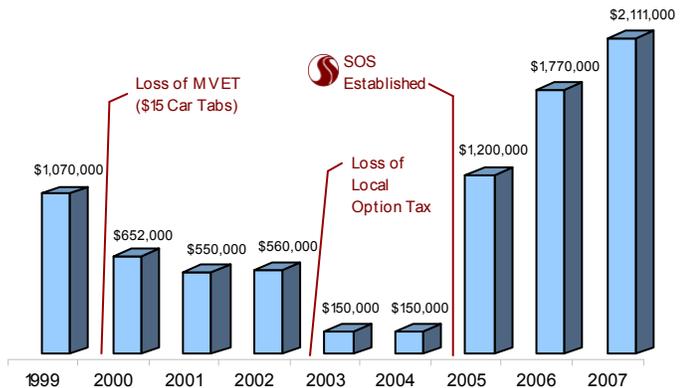


Figure 1: History of Funding for Local Streets

Through 2007 the levy generated about \$600,000 a year which was combined with other revenue sources to provide the SOS Program with at least \$1.6 million annually. In 2008 the levy will be generating \$2.2 million which will be combined with other revenue sources for total budget of \$2.6 million.

ABOUT AUBURN'S PAVEMENT MANAGEMENT

The City measures pavement condition using the **Pavement Condition Index (or PCI)**. As shown in Figure 2, PCI values represent pavement condition based on a scale from 0 to 100 with 100 being pavement in perfect condition and 0 indicating the pavement has completely failed.

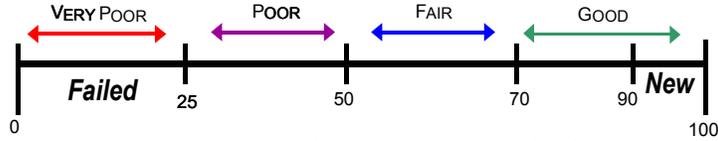


Figure 2: Pavement Condition Index (PCI) Scale

PCI values generally indicate the best treatment for pavements in different conditions. For example,

pavements with high PCI values typically require relatively inexpensive treatments that simply preserve the existing pavement; pavements with average to low PCI values typically require more expensive rehabilitative treatments; and pavements with really low PCI values are often unsalvageable and have to undergo very expensive rebuilds.

Figure 3 shows the general guidelines (called a **decision tree**) the City follows to select treatments for pavement in different PCI ranges as well as the typical costs of each treatment (although final treatment selection is always an engineering decision).

Pavement Condition	Typical Treatment	Typical Cost
PCI 90 - 100 Like-New Condition	No Treatment Needed	\$0
PCI 70 - 90 Good Condition	Seal Cracks – Cracks are sealed with melted asphalt to prevent water from penetrating the street and weakening the foundation.	\$0.25 per square yard
PCI 50 - 70 Fair Condition	Patching and Thin Overlay – Broken pavement is replaced (patched) to renew the load carrying ability of the existing pavement. Then the road is overlaid with a thin layer of pavement (1½ inch or less in depth) to preserve the existing pavement and provide a smooth driving surface.	\$12.00 per square yard
PCI 25 - 50 Poor Condition	Extensive Patching and Thin Overlay – Same treatment as above only more extensive patching is typically required. (Some streets in this condition require a thicker overlay)	\$16.00 per square yard
PCI 0 - 25 Very Poor Condition	Rebuild Pavement – Existing pavement is completely removed and a new road is constructed.	\$80.00 per square yard

Figure 3: Maintenance Decision Tree for Local Streets

About every 4 years, the City surveys Auburn's entire street system and calculates a PCI value for each street. With the help of **pavement management software**, the City uses all the PCI values from the survey and the treatment guidelines and costs from the decision tree, to determine the funding needs of the entire street system. Since these needs are always a lot more expensive than the City can actually finance in a single year, the City has to prioritize and select groups of streets to treat each year.

During the initial years of the SOS program, streets in fair to poor condition have been given the priority, since these streets would be considerably more expensive to treat in the future if allowed to deteriorate (as shown by the treatment costs listed in Figure 3). This strategy of treating the streets in fair to poor condition first will ultimately save the SOS Program a lot of money which in turn will allow the Program to treat more streets overall. It will also help achieve the City's goal of an average local street system PCI of 70 with no streets in very poor condition more quickly. Once the majority of streets in fair to poor condition have been preserved, the City will begin rebuilding the unsalvageable pavement (which is anticipated to begin in 2009).

2007 SOS PROJECTS

PROJECTS

The 2007 SOS Program consisted of the four separate projects listed below. The specific locations of these projects are shown on Map 1 (History of Local Street Treatments) in the Appendix.

2006 THIN OVERLAY PROJECT – Three blocks of streets that were scheduled to be overlaid in 2006 were deferred until 2007 to allow for the completion of unforeseen underground utility work. The scope of work included performing a thin asphalt overlay (1½ inches or less in depth) on the streets to preserve the existing pavement and provide a smooth driving surface. These 3 blocks were overlaid between June 26 and July 9 of this year.



B Street SE after Overlay



Curb and Gutter Replacement on
28th St NE

2006/2007 CITYWIDE SIDEWALK IMPROVEMENT PROJECT – This project repaired drainage problems on 2007 SOS streets by replacing segments of sunken curb and gutter. This project also repaired tripping hazards on the existing sidewalks and installed new wheelchair ramps at certain locations throughout the City; however, this portion of the work was funded by the Capital Improvement Projects fund (Fund 328). The City contracted with Construct Company LLC to construct the project. Construction began in April and was complete in June.

2007 PATCHING PROJECT – This project involved removing and replacing areas of damaged pavement on the 2007 SOS streets in preparation for the thin overlay. The damaged pavement was replaced to renew its load carrying ability which will help prolong the life of the overlay. The City contracted with Lakeside Industries to complete the work. Construction began in June and was complete in October.



Patching on Scenic Drive SE

2007 THIN OVERLAY PROJECT – This project involved resurfacing the street with a thin layer (1½ inch or less in depth) of asphalt pavement to preserve the existing pavement and provide a smoother driving surface. A total of **6.7 miles** of streets were overlaid this year. This project also raised the utilities (manholes, water valve covers, and survey monument cases) to the new road grade and applied all the paint and thermoplastic markings after the overlay. The City contracted with ICON Materials to complete this work. Construction began in August and was complete in December.



Mill Pond Loop SE after Overlay

EXPENDITURES

Figure 4 shows revenues and the expenditures of the SOS Program during 2007.

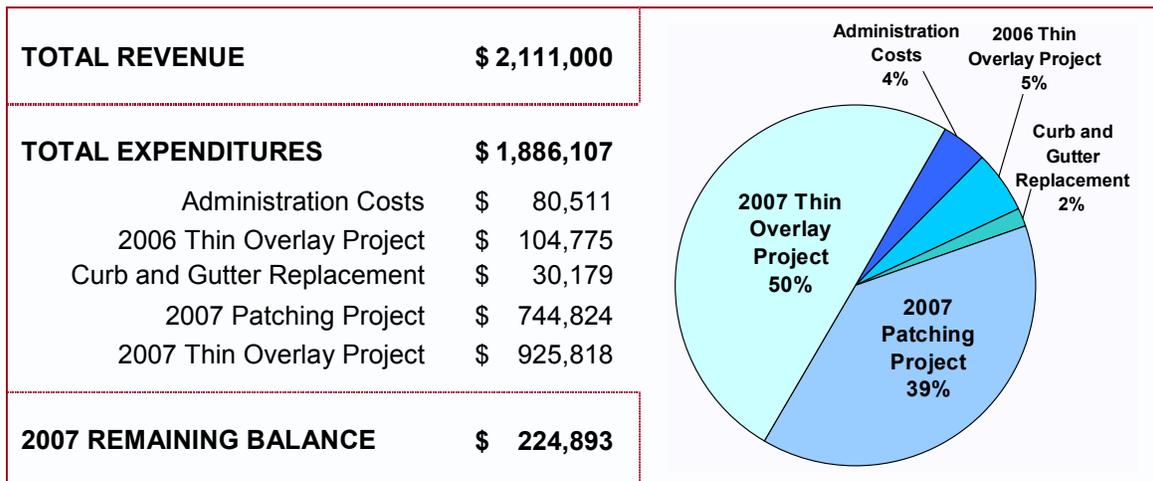


Figure 4: Expenditures of Local Street Fund during 2007

LESSONS LEARNED



Patching on Scenic Drive SE

PATCHING COST ESTIMATE – The patching project required a budget increase this year since the streets required more extensive patching than anticipated (that is they required more extensive patching than the streets done in previous years). In future patching projects the City will try to account for the varying amount of patching required by streets in different conditions to ensure that they remain within their original budget.

UTILITY COORDINATION – The patching and overlay work on Scenic Drive SE was delayed by approximately one month due to a waterline installation. This illustrates the necessity of coordinating with planned public and private utility projects to prevent delays when feasible.



Water Line Installation Scenic Drive SE

CURRENT PAVEMENT CONDITION

Figure 5 shows how the current pavement condition of Auburn's local street system compares to previous years (the current pavement conditions of individual local streets are shown on Map 2 in the Appendix.) This data is based on pavement condition surveys performed in 2002 and 2006. The patching and thin overlay treatments completed in 2005, 2006, and 2007 (implemented through the SOS Program) have reduced the quantity of streets in fair and poor condition by

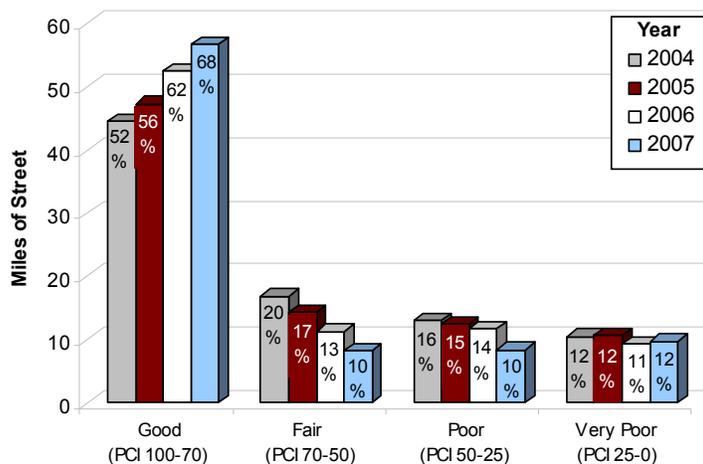


Figure 5: History of Pavement Condition for the Local Street System

approximately 6.4 miles, so the SOS Program has been doing an effective job improving the condition of Auburn’s local streets.

Year	Average Local Street System PCI
2004	66
2005	68
2006	70
2007	72

Figure 6: History of Average Local Street System PCI

Furthermore Figure 6 shows that the average PCI of the entire local street system has increased by about 2 PCI values each year since the SOS Program was formed, again confirming the success of the Program.

FUTURE SOS PROJECTS

The 2008 SOS projects will continue to be devoted to preserving and rehabilitating the streets in fair to poor condition. The total anticipated budget for 2008 is \$2,149,400 which includes the \$1,119,400 that is currently budgeted and an additional \$1,030,000 that is anticipated to be budgeted in a future budget amendment. This will allow an estimated 7.6 miles of streets to be preserved. Map 3 in the Appendix shows the specific streets the City plans to treat in 2008.



9th St SE Scheduled to be Overlaid in 2008

Furthermore, an additional \$360,000 is anticipated to be budgeted in 2008 to begin the design work on the estimated 1.5 miles of streets in very poor condition that will be rebuilt as part of the 2009 SOS program. The 2009 SOS program will also overlay an estimated 1.8 miles of street in fair and poor condition. These streets as well as the streets that will be part of the 2010 and 2011 SOS Program have been tentatively selected but may change as the streets are coordinated with utility projects.



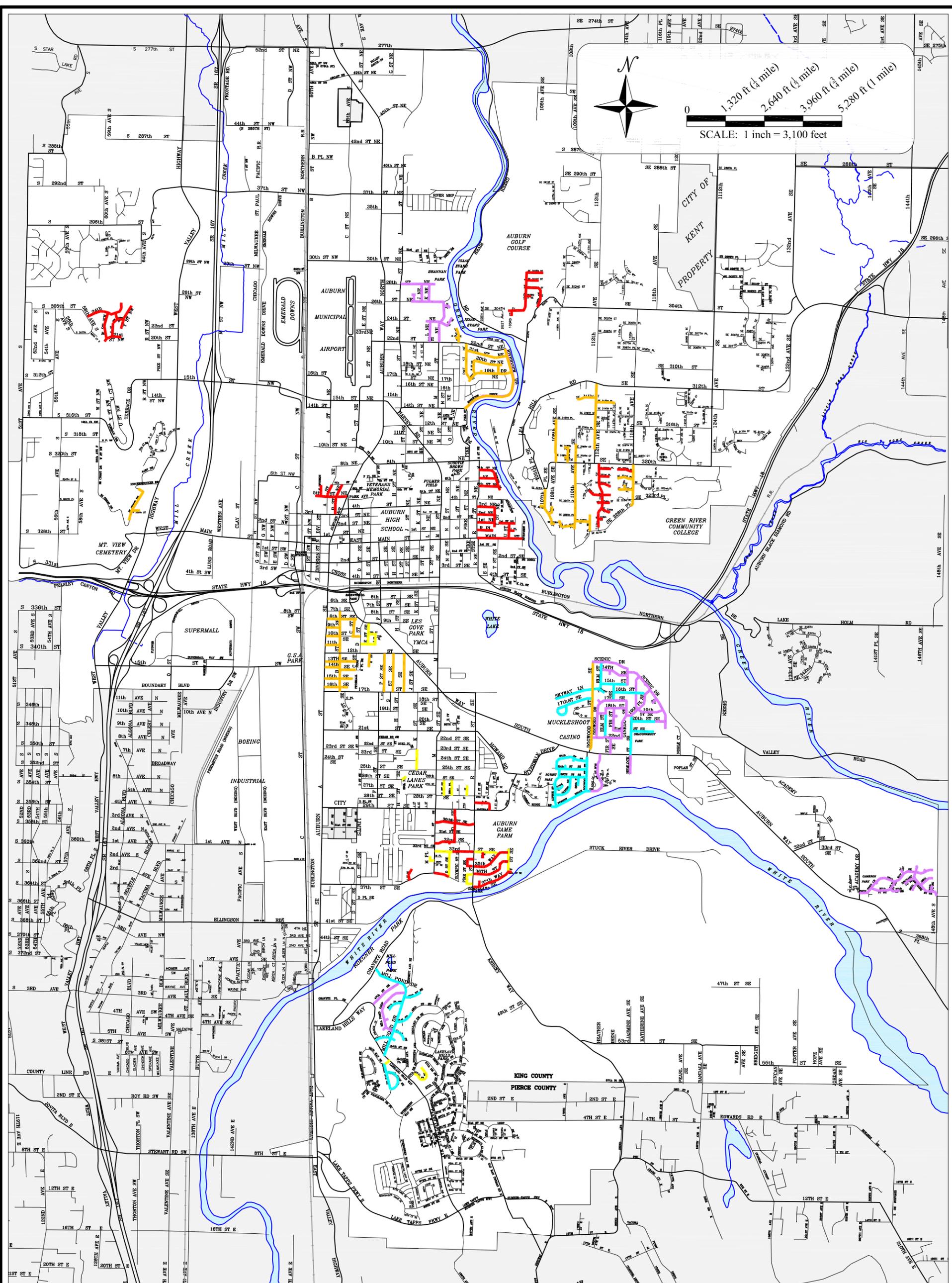
112th Ave SE: A Local Street Annexed in 2008

After 2011, the SOS projects will continue to rebuild and overlay streets each year until every street in the local street system is in good condition. The specific streets that will be worked during these years have not yet been selected.

In addition to the current local street system, about 35 miles of local streets will be annexed into the City in 2008. The City plans to perform a pavement condition survey on these streets into 2008 and incorporate them into the SOS Program planning in 2009.

APPENDIX

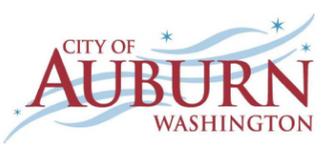
- Map 1:** **History of Local Street Treatments** - This map shows the history of local street improvement projects (including SOS projects completed in 2007).
- Map 2:** **Current Pavement Conditions of Local Streets** - This map shows the current pavement condition of every local street in Auburn.
- Map 3:** **2008 SOS Projects** - This map shows which streets the City plans to improve as part of the 2008 SOS projects.

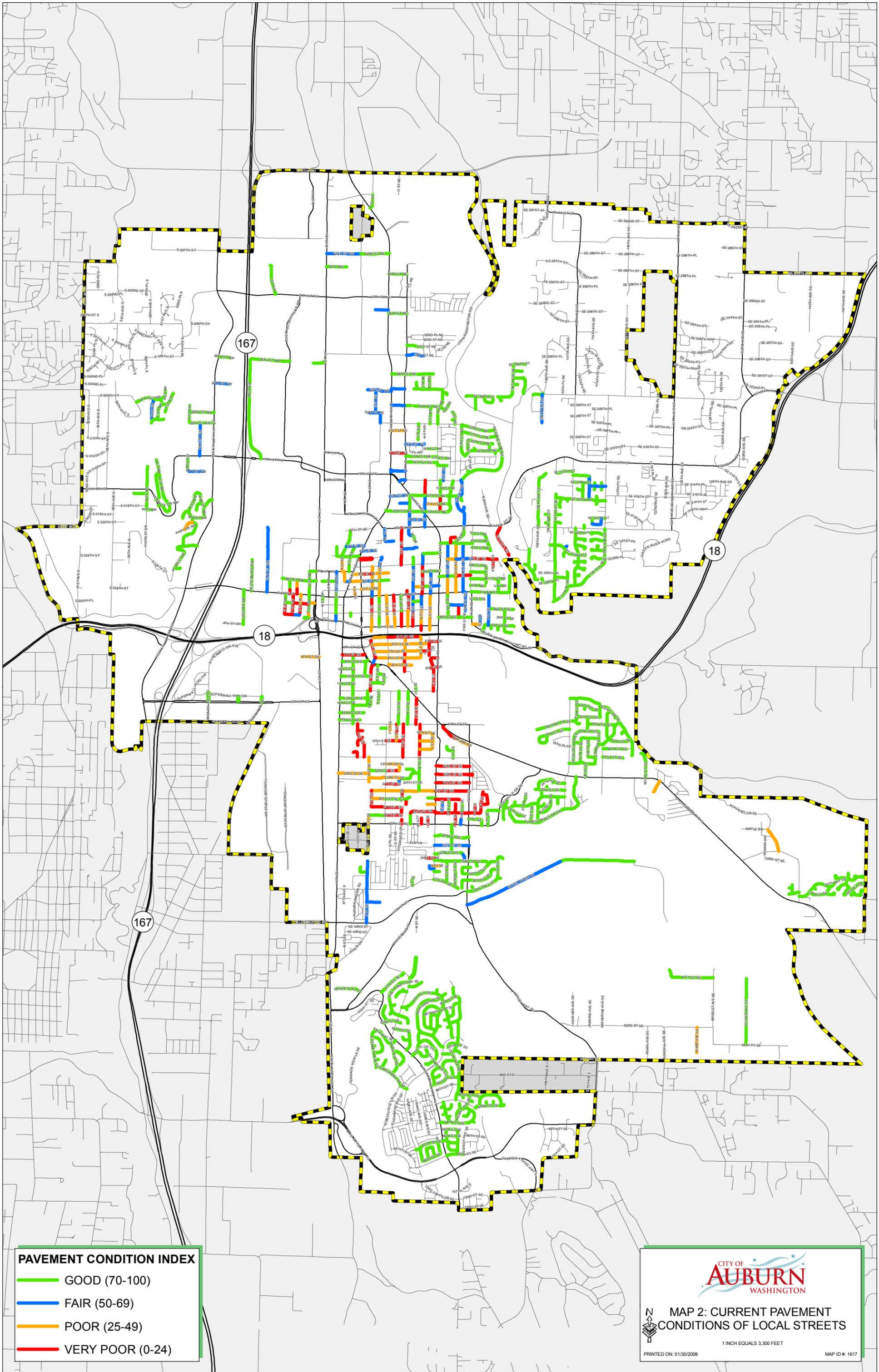


MAP 1: History of Local Street Treatments

LEGEND

- 2007 PATCHING/THIN OVERLAY (2007 SOS PROJECTS)
- 2006 PATCHING/THIN OVERLAY (2006 SOS PROJECTS)
- 2005 PATCHING/THIN OVERLAY (2005 SOS PROJECTS)
- 2004 CHIP SEAL
- 2003 CHIP SEAL
- OUTSIDE AUBURN CITY LIMITS





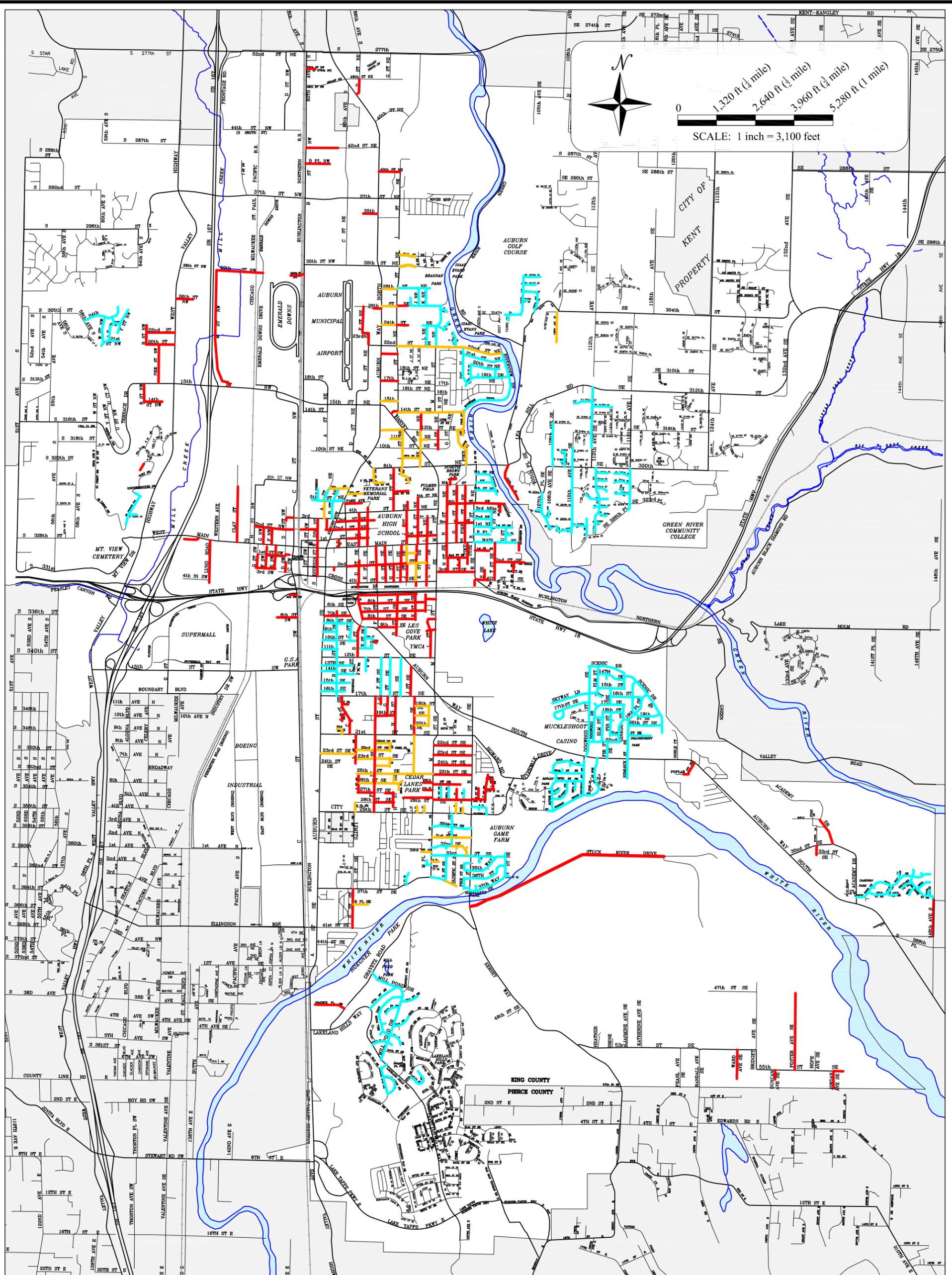
PAVEMENT CONDITION INDEX

—	GOOD (70-100)
—	FAIR (50-69)
—	POOR (25-49)
—	VERY POOR (0-24)


CITY OF AUBURN WASHINGTON

MAP 2: CURRENT PAVEMENT CONDITIONS OF LOCAL STREETS

1 INCH EQUALS 3,300 FEET
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MAP 3: 2008 SOS Projects

LEGEND

- 2003 - 2007 CHIP SEAL OR THIN OVERLAY COMPLETE
- 2008 THIN OVERLAY PLANNED
- 2009 AND BEYOND THIN OVERLAY OR RECONSTRUCTION PLANNED
- OUTSIDE CITY LIMITS

