



**CITY OF AUBURN
TRANSPORTATION
ADVISORY BOARD**

SEPTEMBER 13, 2016

AGENDA

I. CALL TO ORDER – 5:30 P.M.
COMMUNITY CENTER (910 9TH STREET SE)

II. CONSENT AGENDA

A. APPROVAL OF MINUTES*

III. DISCUSSION AND INFORMATION

A. ANNUAL UPDATE TO THE CITY COUNCIL (Staff)

B. DRAFT ANNUAL STATE OF OUR STREETS REPORT* (Staff)

C. DRAFT ADA TRANSITION PLAN (Staff)

D. CURRENT TRANSPORTATION PROGRAM FUNDING (Staff)

E. MEETING SCHEDULE

IV. ADJOURNMENT

*Denotes attachments included in the agenda packet.



**CITY OF AUBURN
TRANSPORTATION
ADVISORY BOARD**

March 24, 2016

DRAFT MINUTES

I. CALL TO ORDER

Community Development and Public Works Director Kevin Snyder called the meeting to order at 5:35 p.m. in Council Chambers, located on the first floor of Auburn City Hall, 25 W Main Street, Auburn, Washington. Committee members present were: Pamela Gunderson, Barb Atrops, Tyler Cushing, Andrew Serr, Jeanette Miller, Ronald Riley, Michael Harbin Jr, Steve Carstens, Dennis Moore, Dezarae Hayes, Roger Gillette, Katie Chalmers, Dennis Grad and Jim Wilson. Also present during the meeting were: Assistant Director/City Engineer Ingrid Gaub, Transportation Manager Pablo Para, Traffic Engineer James Webb, City Attorney Dan Heid, Director of Administration Dana Hinman, Administrative Assistant Molly Mendez and Office Assistant Angie Sherwin.

II. INTRODUCTIONS AND ORIENTATION

A. PUBLIC RECORDS/OPEN PUBLIC MEETINGS ACT TRAINING (HEID)

City Attorney Heid presented training on the rules and regulations for the Public Records Act and the Open Public Meetings Act.

B. ROLES, RESPONSIBILITIES AND FORMAT OF THE MEETINGS (SNYDER/GAUB)

The format for future meetings will be for the board, working with City staff, to set the agenda, generate discussions and present recommendations and advice to the City Council on transportation topics.

III. ACTION

A. ELECTION OF THE CHAIR AND VICE CHAIR

Assistant Director/City Engineer Gaub explained the roles for Chair and Vice Chair. Currently the term for Chair and Vice Chair is 2 years. Without any additional questions from the board, Director of Community Development and Public Works Snyder brought to motion the nomination or volunteer for the TAB Chair and Vice Chair positions. Jim Wilson volunteered for Chair. Motion carried. Pamela Gunderson volunteered for Vice Chair. Motion carried.

IV. DISCUSSION AND INFORMATION

A. TRANSPORTATION GROUP ORGANIZATIONAL BRIEFING (PARA)

Transportation Manager Para presented an overview of the transportation department; staffing, responsibility, functions, area coverage, neighborhood safety, Comprehensive Transportation Plan, funding and development review. Para then opened the floor for questions. There was a group discussion regarding the annexation of Lea Hill, Traffic Impact Fees/Fund, Mitigation fees, and the overall project/work load for current and long term transportation issues. Assistant Director/City Engineer Gaub explained the Funding for the Traffic Impact Fee program; which is city wide, not area level. The Transportation Department will be requesting another FTE in the next budget to assist in handling the increasing level of transportation staffing needs specifically related to traffic signal management, operations and maintenance. The staffing budget comes from the general fund and not transportation project funding or grants. Because of additional

funding concerns, Assistant Director/City Engineer Gaub clarified information from an article in the Auburn Reporter about revenue from Auburn Way South, Dogwood to Hemlock project.

B. SEASONAL EVENT TRAFFIC PLANNING (PARA)

Transportation Manager Para spoke of the traffic impacting events occurring this year; the rules and restrictions during concerts, July 4th, etc. Staffing and scheduling considerations are made to assist with keeping traffic moving.

C. 2017 – 2022 TIP UPDATE (WEBB)

Each member received an emailed electronic file or hard copy of the 2016-2021 Transportation Impact Plan, the 2017-2022 Transportation Improvement Program Summary, the 2016 Summer Traffic Event Dates, the Auburn City Code Chapter 2.94 – Auburn Transportation Advisory Board and the Transportation Section PowerPoint.

Traffic Engineer Webb discussed a general overview of the TIP, funding, Traffic Impact Fee, the cost of some projects, and the Comprehensive Transportation Plan. The topic of pass through traffic and the potential of a usage fee in the future and other pilot programs were discussed. If state highway improvements are made, the benefit will be the reduction in through traffic using city streets. Ideas mentioned for potential revenue; car tab or state sales tax used for roadway funding.

The Sound Transit garage also attracts pass through traffic. The commuter garage is currently free to use with a potential future fee. City of Auburn residents can purchase off-street permit parking in the vicinity of the parking garage. A second garage is currently 7 or more years out from completion. Several outlying areas that may use the Sounder are not making tax based contributions to fund Sound Transit. Funding for pedestrian and bike use is a priority for the City, with a number of improvement projects included in the TIP. Examples of many projects were given. TIP program 31, 32 and 33 are specific to this concern. Generating revenue through a bike fee is not possible because currently the state legislature does not allow a fee for licensing bicycle users.

D. ADA TRANSITION PLAN PROCESS (WEBB)

Agencies are required to have an ADA Transition plan that describes the needs of the community within the public right-of-ways for addressing ADA barriers and concerns and includes the policies and priorities for addressing these needs over time.

Traffic Engineer Webb discussed inventory (ramps, lights, etc.), strategy for improvements and greatest needs. The identification of these priority locations will most likely be, for example; around schools, libraries, the hospital, etc.

In closing, Director of Community Development and Public Works Snyder gave a summary reminding the board of the purpose of the group. Transportation Manager Para and Traffic Engineer Webb will be the person(s) of contact for additional questions.

E. NEXT MEETING SCHEDULE

There was a group discussion on availability for the next meeting. The group agreed that Tuesday, September 13th, at 5:30 pm would be kept tentative for the next quarterly meeting.

V. ADJOURNMENT

There being no further business to come before the Transportation Advisory Board, the meeting was adjourned at 7:46 p.m.

Approved this _____ day of _____, 2016.

Jim Wilson
Chairman

Angie Sherwin
Engineering Office Assistant



2015 STATE OF OUR STREETS REPORT



Mayor Nancy Backus

Council members

Claude DeCorsi

John Holman

Wayne Osborne

Bill Peloza

Yolanda Trout

Rich Wagner

Largo Wales

25 West Main St.
Auburn, WA 98001

EXECUTIVE SUMMARY

This purpose of this report is to document the pavement preservation programs process, current infrastructure conditions, program progress, and forecasted needs of the approximately 245 centerline miles of paved roadways owned and maintained by the City. City owned paved alleys and gravel roads are maintained by the Maintenance & Operations service area and are not included in this report.

The City manages the roadway pavement infrastructure through two separate programs. The Arterial Street Preservation Program covers the “classified” roadways consisting of approximately 70 centerline miles of Arterials and 30 centerline miles of Collectors. The Local Street Preservation Program is responsible for the “unclassified” roadways consisting of approximately 145 centerline miles of residential and non-residential local streets.

The State of our Streets overall has improved over the past several years and will continue to see gains with improved resourcing. Recent City success in securing federal grants have helped leverage existing city funds for increased preservation capacity of the Arterial Street Program; however, without additional resourcing in the Arterial program many more lane miles of roads are at risk of failure. The local street system continues to see positive gains overall. In 2015, roadway improvements and preservation projects accounted for approximately \$6.3 million dollars of investment in city road infrastructure. The current estimated street conditions including improvements made during 2015 are shown in **Table 1**.

Table 1 – Current System Pavement Ratings

		2013 Pavement Rating	Including 2015 Improvements*	
	Miles	Average Weighted PCI	Average Weighted PCI	Change in Average Weighted PCI
All Streets in System	245	61	65	4
Arterial Streets	70	55	59	4
Collector Streets	30	57	64	7
Local Streets	145	67	69	2

*numbers do not factor in pavement degradation from 2013 to 2016

PRESERVATION PROGRAM PROCESS

PAVEMENT INVENTORY & RATING

The pavement condition survey that is conducted by the City's service providers every few years is a semi-autonomous process where technicians drive over each road in the street system to rate the condition. The vehicle is equipped with high grade Global Positioning System (GPS) equipment as well as a laser measuring device to measure the depth of rutting present in each lane and to measure the roughness of the ride. All of this is done as one of the technicians visually rates each segment of pavement based on the amount of surface distress that is present, the amount of damage and distress is called the Pavement Condition Index (PCI), while the GPS is used to tie all of the data collected in the field to the street network maps of the City of Auburn's Geographic Information System (GIS). The PCI ratings, rut depths, and roughness of ride are all measures that help to determine when a stretch of pavement is due for rehabilitation or replacement. The three metrics are used to rate a pavement segment as very good, good, fair, poor, or very poor. A good condition pavement is smooth with few defects while a poor condition pavement is characterized by cracking, patching, rutting and roughness. Pavement segments are prioritized for rehabilitation based on the condition survey, along with input from several of the City's departments to determine which streets are packaged into a particular street project.

The City of Auburn, like most cities, utilizes a Pavement Management Database to track pavement condition, and manage the street system on a Citywide basis. City staff has evaluated the data, and have noted that there has been a downward movement in the pavement ratings between the survey completed in 2006/2008 and the most recent survey completed in 2013. There are several reasons for the downward movement in pavement conditions. The previous pavement management software that the City employed used the 2006/2008 pavement rating survey data to forecast pavement conditions in subsequent years, and with only one data point in the system it did not do an adequate job of predicting the actual rate of decline for each street over the years since 2006/2008. Additionally, the pavement rating data collected in 2013 was far more comprehensive than previous surveys. In the 2006/2008 survey, a typical street was rated on the condition of an approximate 1,000 square foot area, and then that rating was applied to the entire length and width of a street segment. Because of the advancements in the technology available for this type of work, the 2013 pavement condition rating survey used a more automated process for collecting the pavement conditions over the entire length and width of each street segment. Essentially, the 2013 survey rated more square yards of actual pavement rather than rating a 1,000 square foot "representative" area. There are several other factors that play a role in pavement degradation. Including the pavement age, thickness, base materials, and traffic loading.

In the case of the Arterial and Collector street conditions, we are aware that many of our aging Arterial and Collector Streets, while constructed to the standards at the time, are inadequate for the amount of vehicle loading that they carry today. Having more accurate information allows us to make better projections of future conditions and budget needs for long range planning.

SETTING THE BAR

The goal for the preservation programs is to maintain the entire street network at a Pavement Condition Index (PCI) Score of 70 or greater. The PCI of a street is an estimated measure of the amount of visible cracking, rutting and roughness of a particular segment of roadway. Every street in the network is rated periodically, and those scores are used to indicate when a particular street is in need of some sort of preservation, rehabilitation, or replacement. Pavement rating surveys should be completed every two to three years. The most recent comprehensive Street Rating Survey was done in 2013 with another underway in 2016.

WHAT DO THE NUMBERS MEAN?

The City measures pavement condition using the PCI for each street in the network. PCI values represent pavement condition based on a scale from 0 to 100 with 100 being newly constructed pavement and 0 indicating a pavement that has failed. The City's goal is to maintain a Citywide PCI at or above 70.

PCI values generally indicate surface condition and are useful in indicating the best time to repair the pavement. The most cost effective time to preserve pavements is when the PCI ratings are in the 50-70 range, because the pavement repair typically requires relatively less expensive treatments that preserve the existing pavement. Additionally, pavement condition tends to diminish at an accelerated rate after they have reached a PCI range of 50-70. Pavements with moderate to low PCI values usually require more expensive rehabilitative treatments. Pavements with very low PCI values are often unsalvageable and have to undergo a very expensive rebuild. **Table 2** below shows the various pavement preservation treatments used for different PCI ranges, and the typical life span and approximate cost of each treatment.

Table 2 - Pavement Preservation Treatments

Pavement Condition	Typical Treatment	Typical Life of Treatment*	Typical Cost
PCI 90 - 100 Like-New Condition	No Treatment Needed	N/A	N/A
PCI 70 - 89 Good Condition	Seal Cracks – Cracks are sealed with liquid asphalt to prevent water from penetrating the pavement and weakening the base material that forms the foundation for the pavement.	3 - 5 years	\$0.75 per square yard
PCI 50 - 69 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 (1.5 inch or less in depth) to preserve the existing pavement and provide a smooth driving surface.	15 years	\$25 to \$30 per square yard
	Chip Seal – A thin layer of liquid asphalt is sprayed over the entire pavement surface and then covered with a thin layer of aggregate. Chip seals typically do not last as long as a thin overlay nor do they provide as smooth of a driving surface.	3 - 10 years	\$5 to \$7 per square yard
PCI 25 - 49 Poor Condition	Extensive Patching and Overlay – Same treatment as above only more extensive patching is typically required. (Some streets in this condition require a thicker overlay of 2 inches or greater).	15 - 20 years	\$35 to \$45 per square yard
	Double Chip Seal – A thin layer of liquid asphalt is sprayed over the entire pavement surface and then covered with a thin layer of aggregate, then this process is repeated a second time. Based on experience, the City has found that double chip seals typically last longer than single chip seals, especially when the existing pavement is in poor condition.	3 - 10 Years	\$10 - \$15 per square yard
PCI 0 - 24 Very Poor Condition	Rebuild Pavement – Existing pavement is completely removed and a new road is constructed.	20 years	\$160 to \$210 per square yard

*Life of treatment will vary based on the traffic volume and type of vehicles that use the street, the strength of the pavement and underlying soil, the age of the existing pavement, and the amount of vehicle turning/stopping movements on the street.

International Roughness Index (IRI)

The International Roughness Index (IRI) was developed by the World Bank in the 1980s. IRI is used to define the characteristic ride of a traveled wheel path and constitutes a standardized roughness measurement. The commonly used units are inches per mile (in/mi) or meters per kilometer (m/km). The IRI is based on a standardized vehicle's accumulated suspension motion (in inches, mm, etc.) divided by the distance traveled by the vehicle during the measurement (in/mi, m/km, etc.).

Roughness is an important pavement characteristic because it affects not only ride quality but also vehicle delay costs, fuel consumption and maintenance costs; also, the general public perception of a good road is one that provides a smooth ride. The citywide map showing deficient ride quality is shown on **Map 8**. In the pavement rating survey that was completed in 2013, IRI data was collected and recorded on a zero to one hundred scale. Several State agencies actually use IRI as a parameter for street selection for improvement projects. The City of Auburn has not established a policy on the use of IRI data for managing the street system; however, citizens do comment on the ride quality of many of our city streets and it helps to be able to anticipate issues that may arise in the future.

Rating	Rank	Description
80 – 100	Excellent	Very smooth
60 – 80	Good	Smooth with a few bumps or depressions
40 – 60	Fair	Comfortable with intermittent bumps or depressions
20 – 40	Poor	Uncomfortable with frequent bumps or depressions
0 – 20	Very Poor	Uncomfortable with constant bumps or depressions

Pavement Rut Depth Measurement

The City measures pavement Rut Depth with an automated laser rut measuring device. The rut depth is measured for each lane of each street in the network, and then averaged over the length of each street segment. Pavement rutting can create safety issues if the depth of the rut is deep enough to interrupt the flow of water across the cross slope of the road. These issues directly affect a vehicles ability to handle and stop in normal traffic situations. The Washington State Department of Transportation considers a rut depth of greater than 0.5-inch to be a maximum threshold before it triggers a pavement maintenance operation to be performed. The maximum threshold value makes sense for WSDOT since the highway system has a much greater average speed limit than a regular surface road, and WSDOT's standard cross slope for a road is 2%. The City of Auburn Arterial roads typically have a range of speeds between 30 mph and 45 mph, with a Standard design cross slope of 3%. A 3% cross slope and the lower speeds of City streets results in lower risk of hydroplaning. The rut depth information that was collected during the last pavement rating survey is illustrated on **Map 9**. The Arterial and Collector roadways that have rut depths that are between 0.25-0.5-inch range and the roads that exceed the 0.5-inch threshold are shown on the map. Local Streets are not shown due to their low speeds and low traffic volumes.

AUBURN'S STREET SELECTION PROCESS

The City surveys Auburn's street system and rates each street segment as discussed in the previous section. Since the repair costs for the overall system far exceed what the City can fund in any given year, the City then prioritizes, narrows and selects a limited number of streets for each of the annual street preservation programs.

There are many factors the City must consider when determining which streets to rebuild and or rehabilitate each year. One of the most important factors the City considers when choosing which streets to rebuild is the availability of utility funds to pay for any needed utility replacement or rehabilitation work. Many of the water, sewer and storm drainage utility mains that exist under the City's roadways need to be replaced due to condition, age of pipes, pipe material type, or there may be a need for a system upgrade. Replacing the utility mains at the same time as street restoration is more economical and disturbs the neighboring residences only once. Additionally, it prevents a newly restored or treated surface from being damaged by trenching that's needed to replace underground utilities following new roadway construction.

Consultation with the City's maintenance staff is also done when selecting streets to restore or rebuild. Maintenance and Operations staff help to identify streets that are beyond what they can adequately maintain themselves or where excessive staff time is being spent on temporary repairs. Streets that require more attention by staff are given a higher priority. Streets with significant drainage problems and poor ride quality are also given consideration. Additionally City staff consider the volume of vehicles per day, businesses and residents being served by the street; coordination with third party utility companies; and coordination with private property developments when selecting streets to improve each year.

PRESERVATION PROGRAMS OVERVIEW

ARTERIAL STREET PRESERVATION PROGRAM

The Arterial and Collector Preservation program is responsible for maintaining the overall condition of nearly 100 centerline miles of roadway that are vital to our City. These roads carry the vast majority of our citizens, goods and services to and from our regional growth center and connect our communities to the greater Puget Sound Region. The Arterial Street Preservation Program has focused almost exclusively on preservation treatments given the lack of funding to complete much needed major reconstruction projects. However, the appropriation of surplus Real Estate Excise tax (REET) funding by the City Council, favorable bids on several recent projects, and the successful acquisition of federal grant funds have generated sufficient capacity in the existing budget to program the reconstruction of B Street NW between 37th St NW and S 277th St which is the worst arterial street segment in the network.

The goal of the Arterial Preservation program is to improve the Arterial and Collector network to an overall PCI of 70 (out of 100 scale rating). The current condition of the Arterial and Collector roadway network is in fair condition (PCI Rating of 60). Over the next several years the City has secured federal grant funding for several projects which will help leverage existing city funds to better improve the system health. The current Arterial and Collector Street network PCI conditions are shown on **Map 2**. The currently funded 2016 through 2020 Arterial Street preservation projects are shown on **Map 1**.

LOCAL STREET PROGRAM

The Local Street Preservation Program is responsible for maintaining the pavement on approximately 145 miles of roadways throughout the city. Each year that number grows with the construction of development driven projects. In the beginning years of the Local Street Preservation Program, formerly the “Save Our Streets Program”, the program focused on preserving streets in fair to poor condition. In 2009, after making significant progress on these roads the City refocused the program to rebuilding streets that were in very poor condition.

The goal of the Local Street Preservation Program is to improve the Local Street system to an overall PCI rating of 70 (out of 100 scale rating). The current condition of the Local Street network is in fair condition (PCI Rating of 69). The Local Street Preservation Program is very close to achieving its goal and with the increase in private construction over the last couple of years resulting in additional funds being available for the program, we feel that we can reach our goal. The current Local Street network PCI conditions are shown on **Map 3**. Local Street Improvements scheduled for 2016 and 2017 are shown in **Map 7**.

PRESERVATION PROGRAMS FUNDING

ARTERIAL STREET PRESERVATION FUNDING

The Arterial Street Preservation Program is funded by a 1% utility tax which has supported annual budgets of approximately \$1.8 Million over that past few years. This funding has remained relatively stable however, is insufficient to complete the reconstruction work needed to reach the overall system PCI maintenance goal. Beginning in 2012, the City has successfully obtained federal grant funding for 7 projects leveraging City funds spent on preserving our arterial system. However, these federal funds are subject to competitive selection and should not be relied upon as a stable source of funding. The grant funded street and preservation projects starting in 2016 through 2020, are shown on **Map 2** and detailed below in Table 2:

TABLE 2 - GRANT FUNDED STREET PROJECTS

Year	Project Title	From	To	City Funding	Grant Funding	Total Project Investment
2016	West Main Street Multi-Modal Corridor and ITS Improvements Project	West Valley Highway	Interurban Trail	\$676,060	\$3,774,340	\$4,450,400
2016-17	S 277th St Corridor Capacity & Non-motorized Trail Improvement Project	Auburn Way N	Green River	\$607,386	\$5,020,700	\$5,628,086
2017	Auburn Way North Preservation Project	22nd St NE	45th St NE	\$875,000	\$875,000	\$1,750,000
2017	Lake Tapps Parkway Preservation Project (Pierce County)	City Limits	Lakeland Hills Way SE	\$212,850	\$750,000	\$962,850
2017	15 th Street NW/NE and Harvey Rd Preservation Project	SR167	8th St NE	\$917,500	\$817,500	\$1,735,000
2018	Auburn Way North Preservation Project Phase 2	8th St NE Vic.	22nd St NE	\$618,280	\$889,720	\$1,508,000
2019	Auburn Way North Preservation Project Phase 3	SR18	8th St NE Vic.	\$975,140	\$975,194	\$1,950,333
2020	A Street SE Preservation Project	East Main St	17th St SE	\$881,798	\$881,798	\$1,763,596
TOTALS->				\$5,764,014	\$13,984,252	\$19,748,265

LOCAL STREET PRESERVATION FUNDING

In 2004 Auburn Citizens approved a property tax levy to fund local street preservation projects under the “Save Our Streets” program. Property taxes continued as the primary funding source for the Local Street Preservation Program until 2012. Starting in 2013 City Council changed the primary funding source to sales tax on new construction. Over the last several years of funding available has varied between \$1.8 to \$2.6 Million Dollars. 2017-2018 programs are currently forecast to be funded at approximately \$2.5 Million dollars in each of the budget years.

DRAFT

WORKING HARD

The City of Auburn had three major paving projects in construction in 2015 which were funded by the Arterial and Collector Street Preservation and Local Street Preservation funds. The 2014 Citywide Arterial Pavement Patching and Overlay Project, **Map 4**, was carried forward to Spring



Figure 1: XXX Street Grind & Overlay

2015 in order to complete the project in better weather conditions and to take advantage of a more favorable bidding period. The 2015 Citywide Arterial Pavement Patching and Overlay Project, **Map 5**, was awarded in the Summer of 2015 and completed construction in early 2016. Lastly, the 2015 Local Street Pavement Reconstruction Project, **Map 6**, was constructed during the Summer and Fall of 2015. These projects and a couple utility projects

that had pavement restoration components accounted for

preservation or reconstruction of over 11 miles of Auburn roadways including; 0.9 miles of pavement reconstruction; 2.4 miles of pavement patching and overlay; 4.8 miles of pavement grind and overlay; and 3.4 miles of extensive pavement patching.

2015 PRESERVATION PROJECTS

2014 Citywide Pavement Patching and Overlay Project

This project improved City Streets by grind and overlay of 1 mile of Arterial and Collector streets, pavement patching on 9.5 lane-miles of arterial and collector streets; thick overlay of 0.4 lane-miles of Arterial and Collector streets; and thin overlay of 1 lane-mile of local residential streets as part of the Save Our Streets Program; and replacement of 30 curb ramps to be compliant with Americans with Disabilities Act (ADA) requirements in the project area as shown on **Map 4**. This work was funded by Local Street and Arterial Street Preservation Program funds.

2015 Citywide Pavement Patching and Overlay Project

This project preserved and enhanced City streets by grinding and overlaying approximately 1 mile of arterial and collector streets, patching pavement on approximately 2 miles of arterial and collector streets, and applying a thin overlay to over 3/4 miles of local residential streets as shown on **Map 5**. The project also replaced 28 curb ramps at the various project sites so they are compliant with the Americans with Disabilities Act (ADA) requirements. This work was funded by Local Street and Arterial Street Preservation Program funds.

2015 Local Street Pavement Reconstruction Project

This project reconstructed 0.9 miles of Local Streets including; 7th Street SE between A St SE and Auburn Way S; D Street SE between Auburn Way S and 12th St SE; D Street SE between 37th St SE and 41st St SE; and the east half of K Street SE between 17th St SE and 21st St SE. The Project also installed 1,365 lineal feet of sanitary sewer main, 3,563 lineal feet of 8-inch water main, new side sewer services for 33 residents, and new water services for 51 residents along the project streets, and replaced a total of 41 curb ramps at the project sites so they are compliant with the Americans with Disabilities Act (ADA) requirements. The streets are shown on the Map 6. This work was funded by the Local Street Preservation Program, Water Utility Funds, and Sanitary Sewer Utility Funds.

2016 PRESERVATION PROJECTS

2016 Local Street Reconstruction and Preservation Project

The planned improvements to be completed in 2016 include reconstruction of 0.6 miles and overlay of 0.7 miles of local streets. The Project will also install over 2,600 lineal feet of storm drainage mains, approximately 2,700 lineal feet of new water mains, new water services for 70 residents along the project streets, and will replace a total of 36 curb ramps at the project sites so they are compliant with the Americans with Disabilities Act (ADA) requirements. The streets are shown on the attached **Map 7**. This work is funded by the Local Street Preservation Program and Water Utility Funds.

2016 Arterial Preservation Projects

Projects in design or construction using Arterial and Collector Street Preservation Program funds include:

- **2016**
 - West Main Street Multimodal Corridor and ITS Improvements
 - 37th Street SE and A Street SE Traffic Signal Safety Improvement Project
 - S 277th St Corridor Capacity & Non-motorized Trail Improvement Project

FUTURE PLANNED PRESERVATION PROJECTS

- **2017**
 - Auburn Way North Preservation Project, Phase 1 – 45th St NE to 22nd St NE (Delayed due to poor bids)
 - B Street NW Reconstruction Project – 37th St NW to S 277th ST
 - 15th Street NW/NE and Harvey Rd Preservation Project – SR-167 to 8th St NE
 - M Street SE, E Main to 3rd St SE Improvement Project
 - Lake Tapps Parkway Preservation Project Construction Lakeland Hills Way to Western City Limits
 - 2017 Local Street Reconstruction Project Construction
- **2018**
 - Auburn Way North Preservation Project, Phase 2 – 22nd St NE to 8th St NE
- **2019**
 - Auburn Way North Preservation Project, Phase 3 – 8th St NE to 4th St SE
- **2020**
 - A Street SE Preservation Project – 3rd St SE to 17th ST SE

Staff will be conducting street selection processes for the Arterial and Local Street Programs to identify additional streets that need to be addressed, and to prepare a long range plan to meet those needs in budget years 2017, 2018 and 2019. Those streets will be prioritized and packaged together in projects for each year. At the time of this report, the Local Street Program has identified project streets for reconstruction and thin overlay for the 2017 budget year and the Arterial Street Preservation Program has won several competitive grants for budget years 2016 through 2020.

FUTURE NEEDS

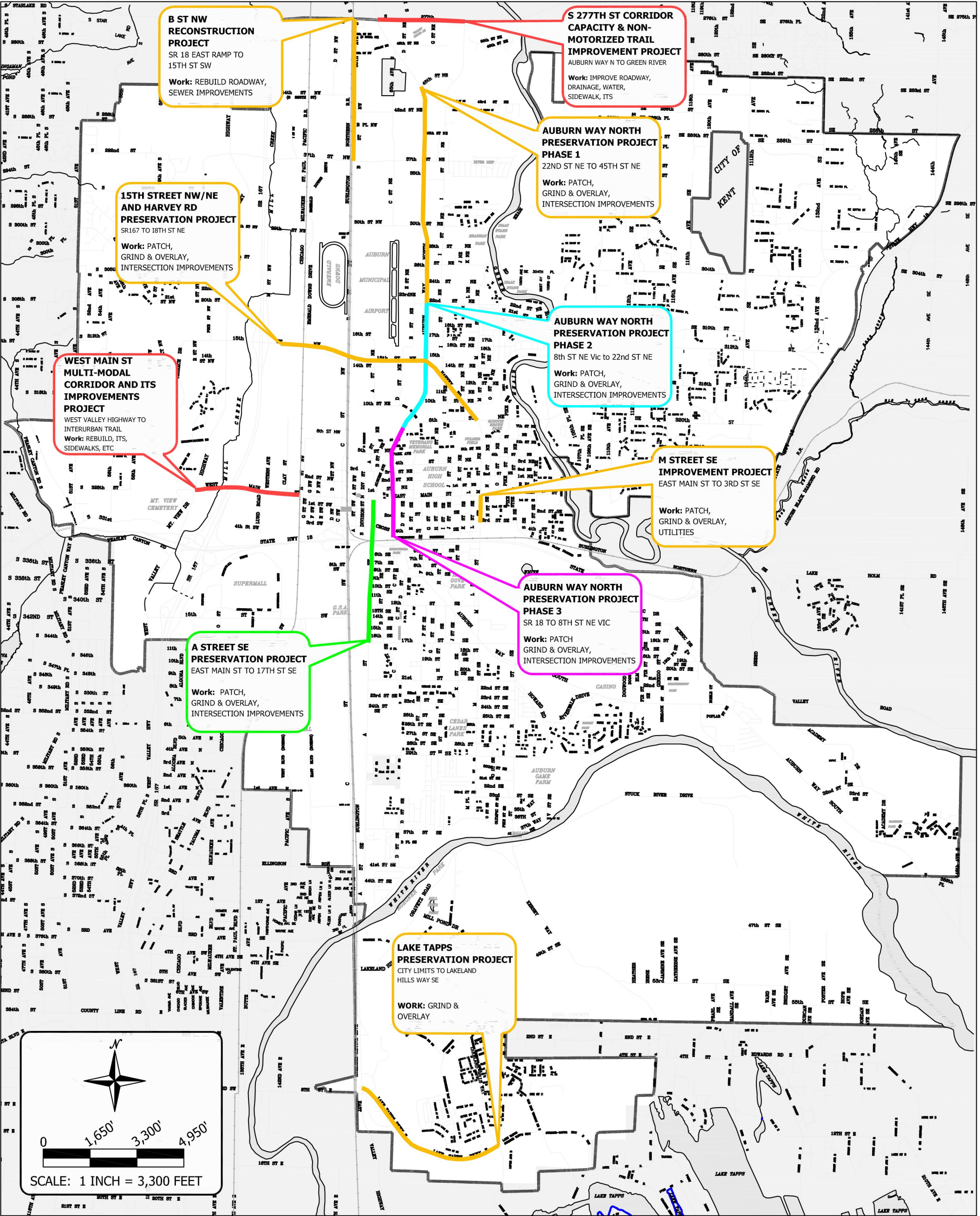
Moving forward, we anticipate several issues that will need to be addressed and managed. One issue is that the data from the latest pavement rating survey in 2013, when compared to the previous pavement rating surveys, suggests that as the pavement ages the condition of the pavement is degrading at an accelerated rate. Since the previous pavement ratings are from 2006, and 2008, it is difficult to draw this conclusion accurately. The need for additional data is key to managing the City's pavement network. We need to be able to focus our energy on the correct projects at the correct times to maximize the use and benefit of our funding. Staff has contracted for a 2016 pavement rating survey that is currently underway. That data should be available for use by November of 2016. At that time we'll be able to analyze the data and determine if we are focusing our limited resources in the most appropriate locations. If the data shows that the pavement is in fact degrading at an accelerated rate, then additional funding to preserve more of the existing pavements may be needed to obtain the City's desired goal of a average PCI rating of 70.



Figure 2: Grind & Overlay XXX St SE

Another issue is that as we continue to improve the streets that can be preserved by conventional methods, we have more Arterial and Collector streets that are in various states of disrepair and will need to be reconstructed in the next several years. Many of our Arterial and Collector streets don't have adequate pavement structure to endure the current level of traffic that uses them, so preserving these roads may not result in good long term performance. The reduced structure for these major roads may also contribute to an accelerated decline in pavement condition. The cost of rebuilding one of these roadways requires combining several years of funding, at the current funding levels. Additional funding streams will need to be identified to address the larger issues on our Arterial and Collector street network. The longer we wait to reconstruct a street means greater costs to maintain the street; additional complaints from the travelling public; and greater strain on existing funding sources to address these issues.

With the progress that has been made on reconstructions over the past several years the Local Street preservation program will shift resources towards preserving more roads in good condition. The list of Local Streets that need to be reconstructed is shrinking and will be prioritized to align with those of the City utilities planned replacement programs. This approach will continue to improve the condition of the Local street network overall without creating an undue burden on the City Utility funds.

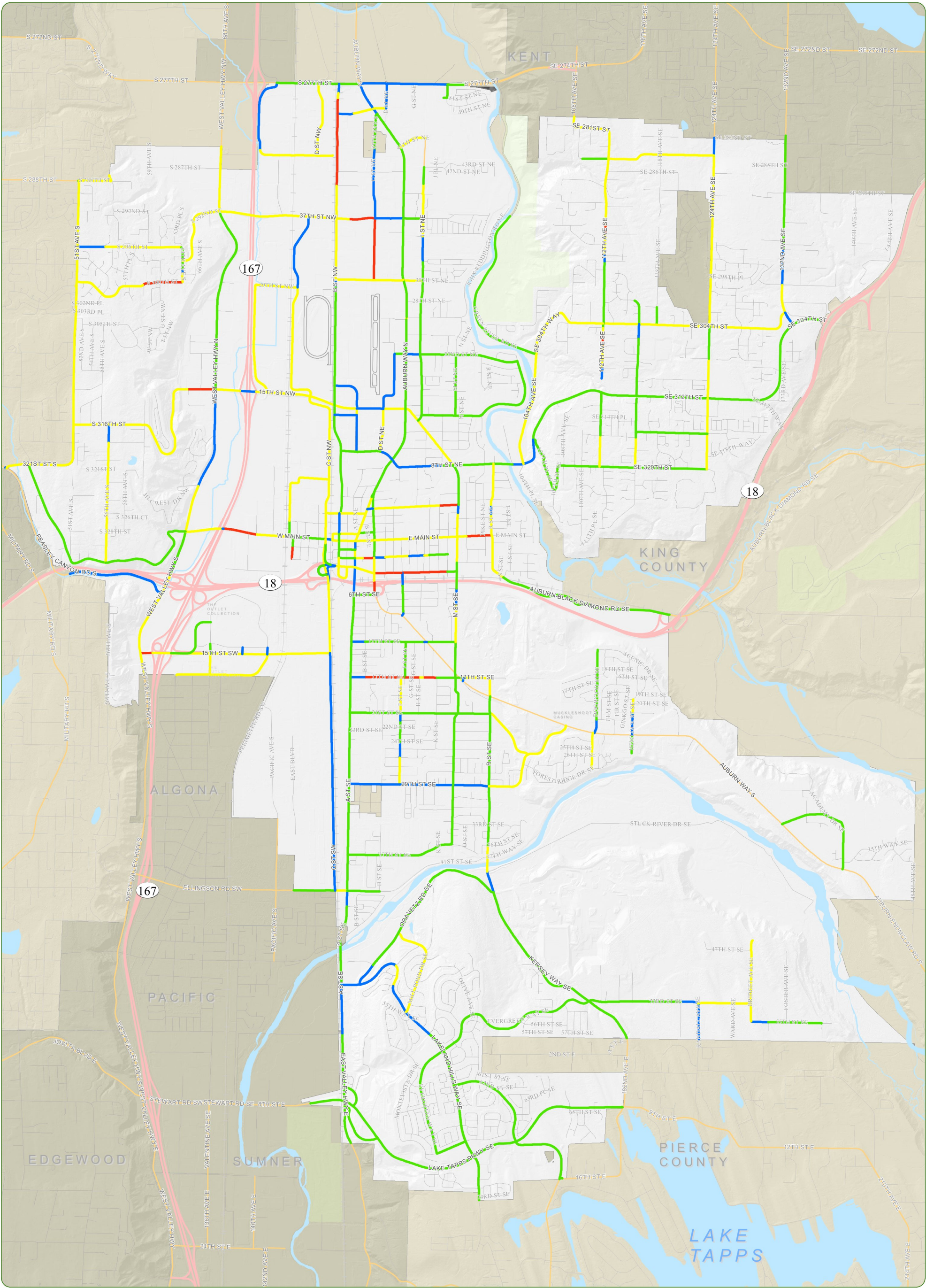


MAP 1: 2016 TO 2020 GRANT FUNDED PRESERVATION PROJECTS

- 2016 PROJECTS
- 2017 PROJECTS*
- 2018 PROJECT*
- 2019 PROJECT*
- 2020 PROJECT*

* OTHER PROJECTS WILL BE IDENTIFIED THROUGH A STREET SELECTION PROCESS IN SUMMER OF 2016

Arterial and Collector Pavement Conditions



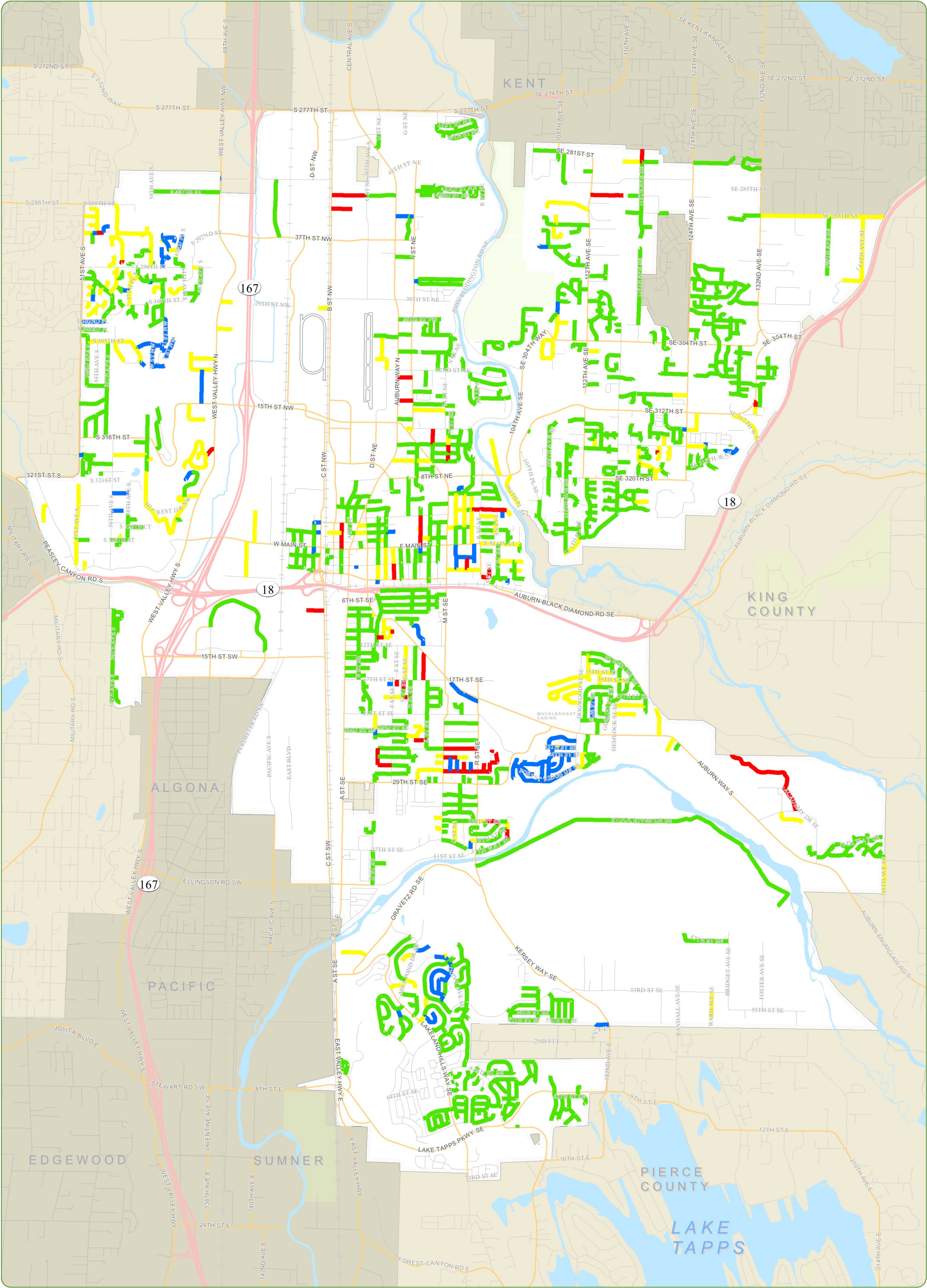
MAP 2 ARTERIAL STREET PAVEMENT CONDITION INDEX

- 0 - 25
- 26 - 50
- 51 - 69
- 70 - 100

Printed On: 7/15/2016
Map ID: 4756

Information shown is for general reference purposes only and does not necessarily represent exact geographic or cartographic data as mapped. The City of Auburn makes no warranty as to its accuracy.

Local Road Pavement Condition

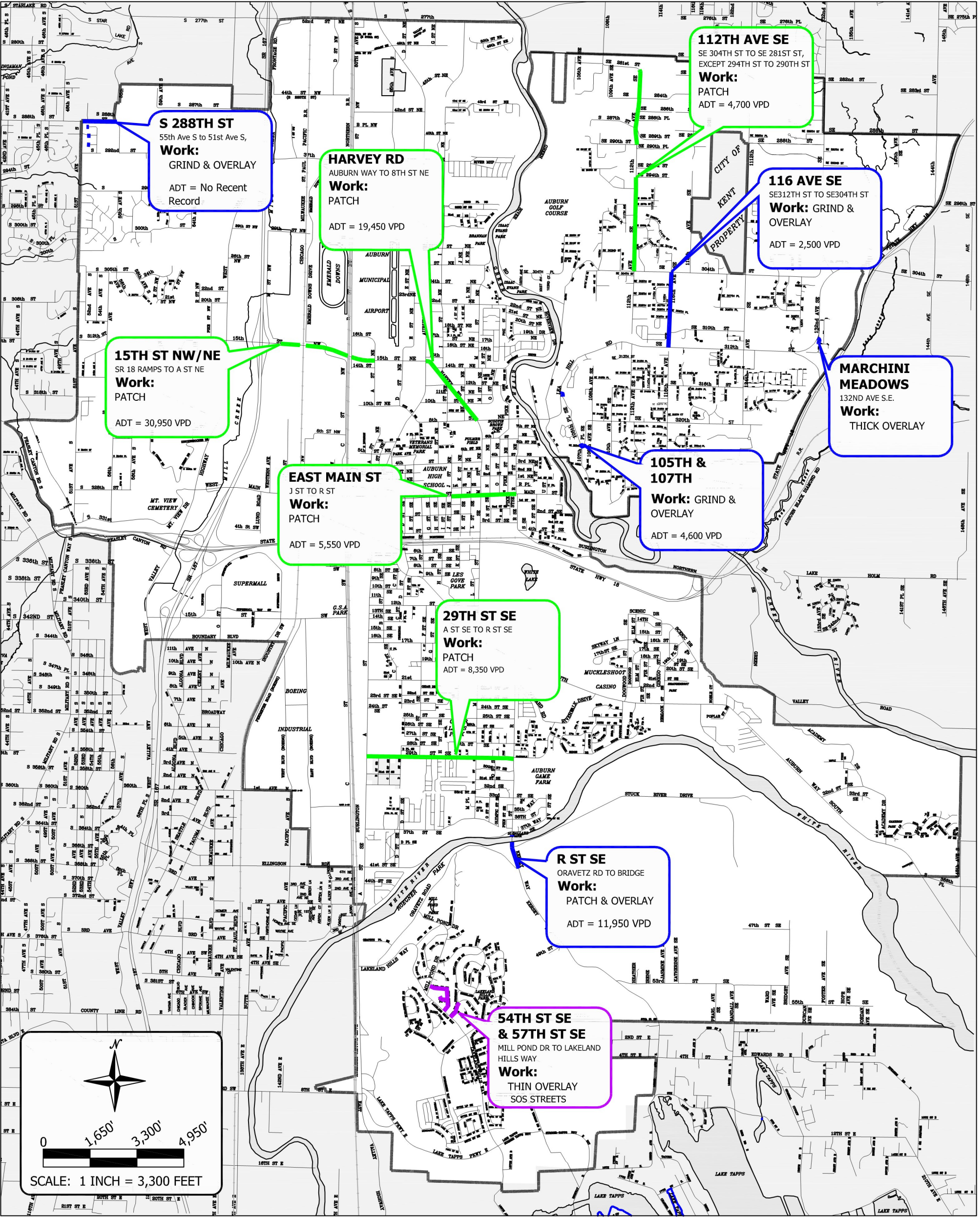


MAP 3: PAVEMENT CONDITION INDEX (PCI) FOR LOCAL STREET NETWORK

- 0 - 25.99
- 26.00 - 50.99
- 51.00 - 69.99
- 70.00 - 100.00

Printed On: 7/21/2016
Map ID: 4755

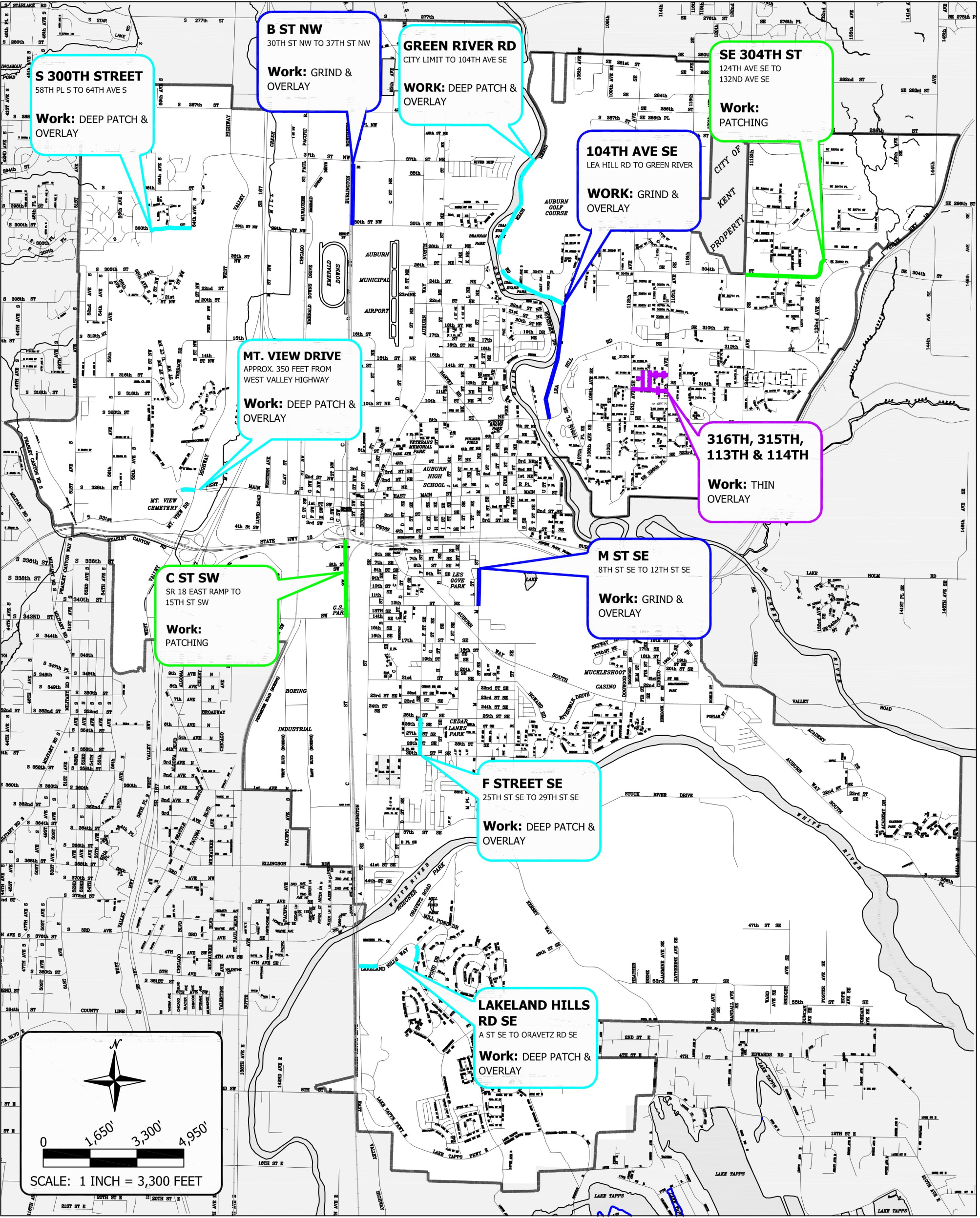
Information shown is for general reference purposes only and does not necessarily represent exact geographic or cartographic data as mapped. The City of Auburn makes no warranty as to its accuracy.



MAP 4: CP1402 - 2014 CITYWIDE PAVEMENT PATCHING AND OVERLAY PROJECT

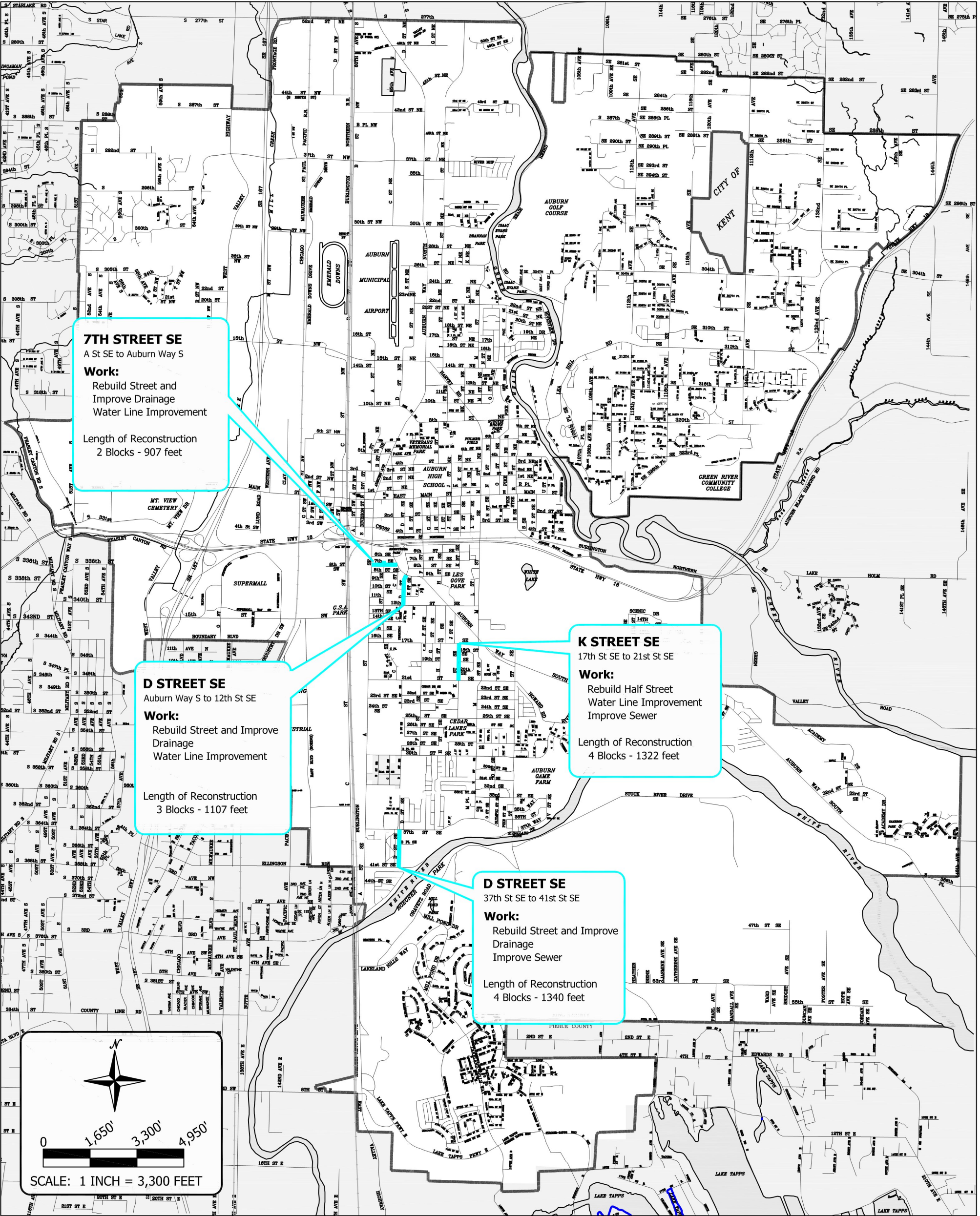
- █ **PATCH** (105 FUND)
- █ **GRIND & OVERLAY** (105 FUND)
- █ **THIN OVERLAY** (103 FUND)

LEGEND
ADT AVERAGE DAILY TRAFFIC
VPD VEHICLES PER DAY



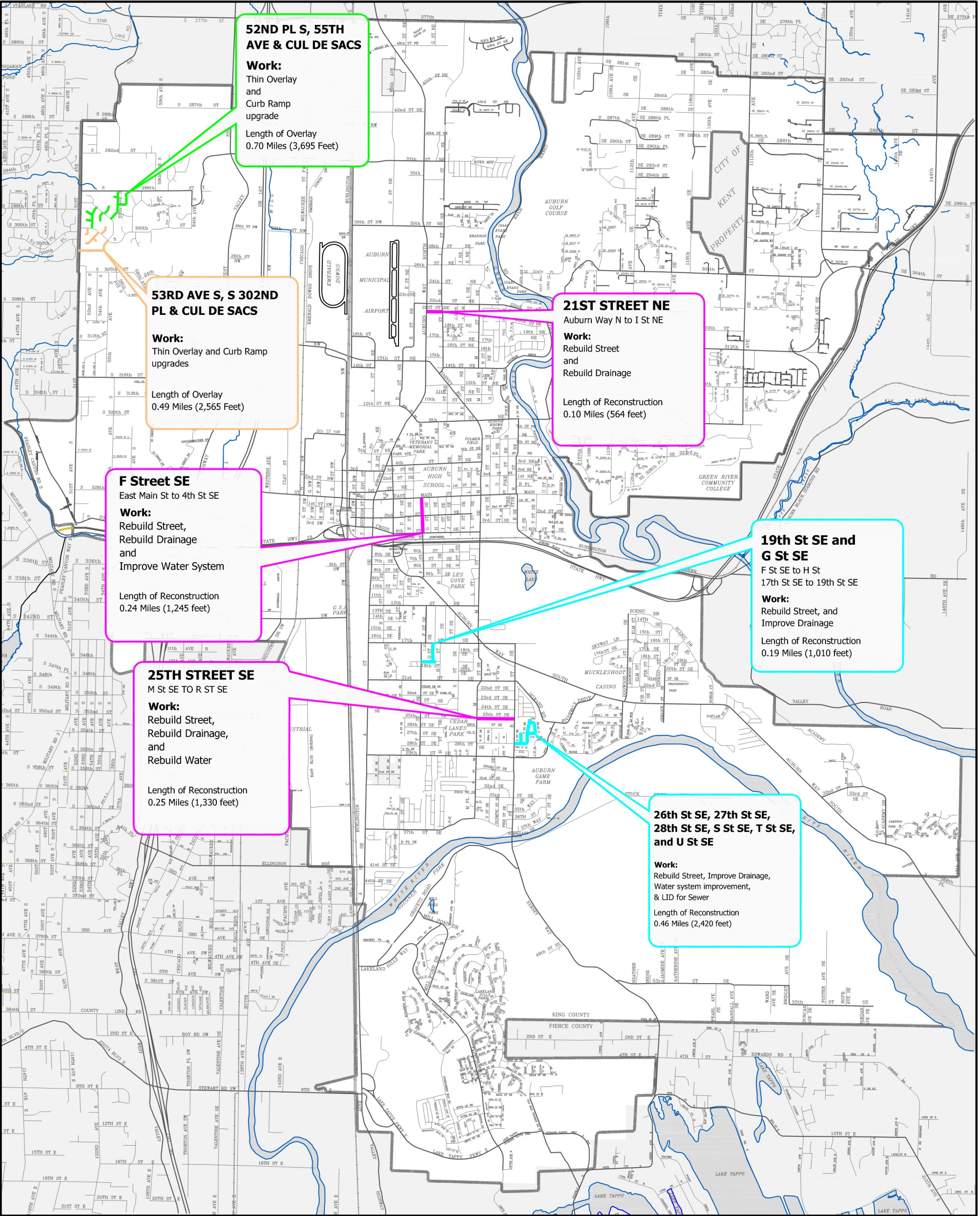
MAP 5: CP1506 2015 PAVEMENT PATCHING AND OVERLAY PROJECT STREETS

- █ PATCH (105 FUND)
- █ GRIND & OVERLAY (105 FUND)
- █ DEEP PATCH & OVERLAY (105 FUND)
- █ THIN OVERLAY (103 FUND)



MAP 6: CP1414 - 2015 LOCAL STREET RECONSTRUCTION PROJECT

PROJECT STREET

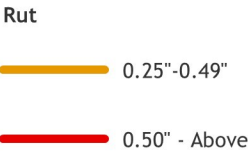
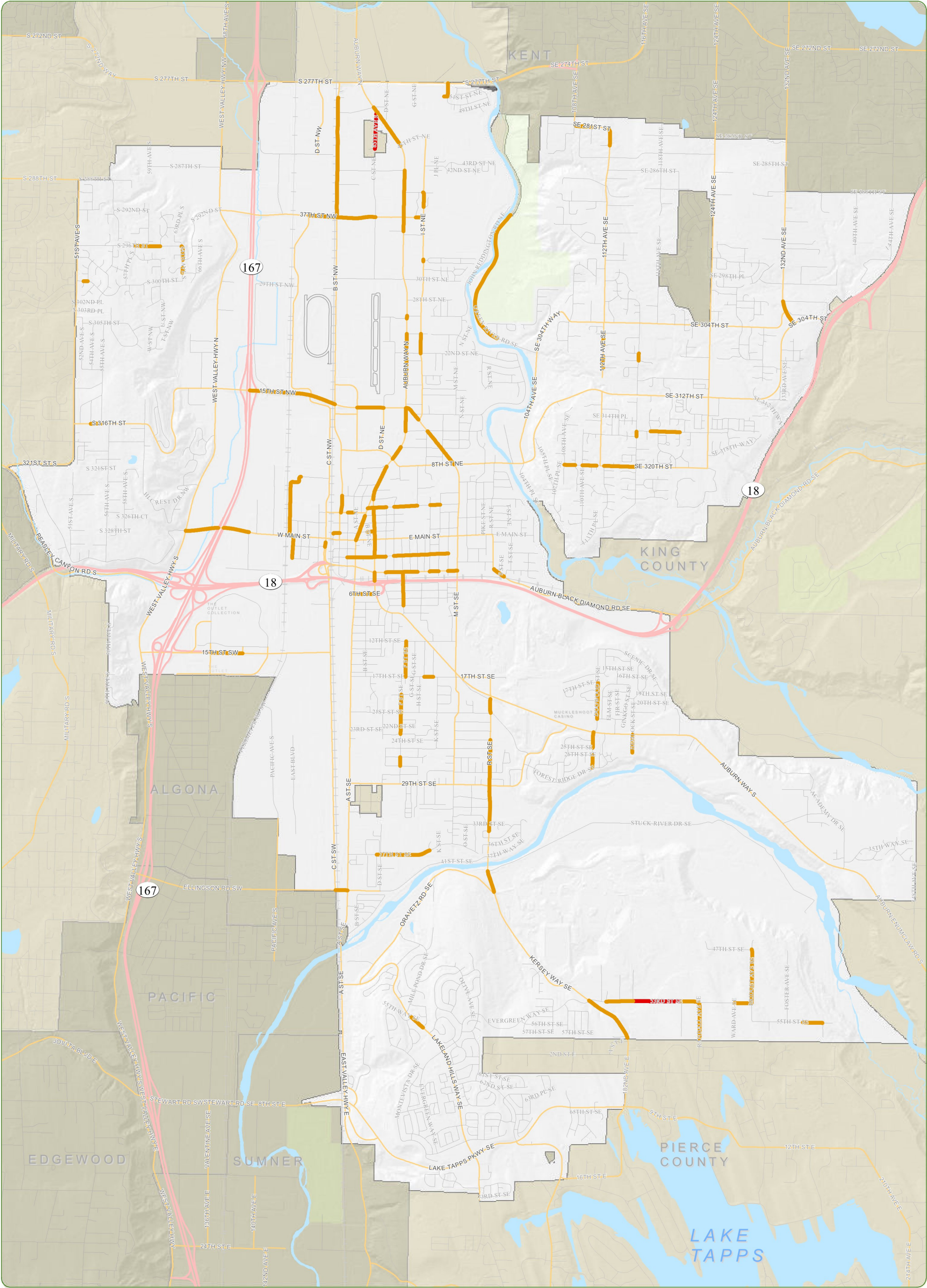


MAP 7: 2016 AND 2017 LOCAL STREET PROGRAM PROJECTS VICINITY MAP

- 2016 PROPOSED REBUILD STREETS (0.59 Miles)
- 2016 PROPOSED OVERLAY STREETS (0.70 Miles)
- 2017 PROPOSED REBUILD STREETS (0.65 Miles)
- 2017 PROPOSED OVERLAY STREETS (0.49 Miles)



Arterial and Collector Roadways Rut Average



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Map ID: 4762

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