

Street Maintenance Need Summary & Priority Scenario

Engineering Department

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The network of paved roads within the City has been without a comprehensive maintenance/rehabilitation plan since the City's incorporation in 1872, with the exception of a street condition survey performed in 1995 and a reconstruction plan completed in 2002. At that time it was determined that our reconstruction schedule was on a 133 year cycle. Due to funding, these past plans have produced little results. While the City has grown to its current population of 16,000+, increased demand has been placed on the road system as residents drive to work, shop, and have their needs met with the assistance of truck and delivery services. Many roads experience traffic counts beyond their intended design, furthering the deterioration of the road surface.

Due in large part to grant funds and sources other than general funds, the City has been paving gravel roads, but for road maintenance we receive no outside funds except from the Highway Users Tax Fund (HUTF). This amount, that is a little less than \$600,000 per year, has been in the decline for many years. The City's annual street budget average of \$2 Million includes approximately \$1.6 Million in operating cost. Operating costs include personnel, operating supplies & materials, purchased services and equipment. The balance of \$400,000 is being used for preventative maintenance that includes crack seal, chip seal, and overlays. There is no funding for reconstruction of streets.

A major challenge is balancing the needs between preservation, system expansion, and system management and continuing to serve our objective in providing service to our community. Our goal is to slow the rate of deterioration of our existing road network using pavement preservation and rehabilitation treatments. The City's Pavement Management Program (PMP) assists in determining the most cost effective treatments to apply on a given street segment at a given time. However, this again does not address reconstruction of streets.

The City's street network system consists of over 115 paved street miles. Inspections of the street network occurred from April 2013 to November 2013. There are approximately 93 miles of asphalt streets and 5 miles of concrete streets with the balance being gravel roadways. The average age of the street network is 55 years. At a replacement cost approaching \$1.3 Million per mile, not including the cost of the right of way and other improvements, the City has over \$155 Million invested in our paved roadway network.

Due to the lack of a comprehensive and systematic maintenance program of the City's road system over a number of years, the City's average Overall Condition Index (OCI) has dropped to 37 on a scale of 0-100, 100 being a new street and 0 being a street needing full reconstruction. An average OCI of 37 is considered very poor condition according to industry standard.

Currently 25% of the roadways are rated at an OCI above 70, which is satisfactory to good or excellent condition. These are the roads in which we invest our current maintenance funds (\$400,000) to maintain them in satisfactory condition. Various rehabilitation and resurfacing methods are available to maintain a road surface, each with their own benefits and expected service life. New pavement deteriorates slowly at first, then at a continually increasing rate. This deterioration can be significantly slowed by use of systematic preventive maintenance starting in the early stages of a pavement's

lifecycle. This is why currently any available funds are be used for less costly pavement maintenance and rehabilitation on the streets that remain in favorable condition. However, additional capital funding for reconstruction is necessary and subsequent funds to keep those new streets in satisfactory condition.

The “greatest impact for the greater good” approach means the streets will warrant treatment or reconstruction based on function, location, and the condition of the street surface.

The City generally has two classes of roads: local and thoroughfares which consist of collectors and arterials. Local roads are typically those in residential neighborhoods. Collector roads generally function as those that receive traffic from multiple local roads and are usually within mixed-use areas. Arterial roads experience the highest traffic volumes and function as major transportation corridors.

Priority reconstruction would be the thoroughfares (see chart below) with any further system-wide work being prioritized using the pavement management program. Priorities are weighted using the following criteria: pavement condition, roadway classification, traffic volume, utility replacement schedule, surrounding neighborhood, and type of pavement. Other outside factors, such as project coordination, bike routes, utility work, drainage, intersection/mobility issues, future improvement agreements, public improvement districts, complaints, network growth, curb & gutter adjustment or replacement, ADA ramp reconstruction, or storm/drainage repairs or improvements, other community priorities, and safety, will require adjustment of a road’s priority for paving and resurfacing.

**MAJOR THOROUGHFARES PRIORITY RECONSTRUCTION PLAN
FACTORED BY OCI & TRAFFIC VOLUME ONLY**

<u>2015 PRIORITY</u>	<u>Street Name</u>	<u>System Type</u>
1	MARIPOSA ROAD	COLLECTOR
2	WASHINGTON STREET	COLLECTOR
3	S 1ST STREET	COLLECTOR
4	EAST MAIN STREET	COLLECTOR
5	S 4TH STREET	COLLECTOR
6	FORGE ROAD	COLLECTOR
7	N 9TH STREET	ARTERIAL
8	ORCHARD AVE	COLLECTOR
9	GRIFFIN AVE	COLLECTOR
10	YALE AVE	COLLECTOR
11	HARDING AVE	COLLECTOR
12	MAIN STREET	COLLECTOR
13	COLLEGE AVE	COLLECTOR
14	CHERRY STREET	COLLECTOR
15	5TH STREET	COLLECTOR
16	HIGH STREET	COLLECTOR
17	CR123	COLLECTOR
18	FOUR MILE LANE	ARTERIAL
19	FIELD AVE	ARTERIAL
20	SOUTH STREET	COLLECTOR
21	EVELYN DRIVE	COLLECTOR
22	RAYNOLDS AVE	COLLECTOR
23	CENTRAL AVE	COLLECTOR
24	CENTRAL AVE	ARTERIAL
25	15TH STREET	COLLECTOR
26	HARDING AVE	ARTERIAL
27	MACKENZIE AVE	ARTERIAL
28	PHAY AVE	COLLECTOR
29	RAYNOLDS AVE	ARTERIAL
30	VALLEY ROAD	COLLECTOR
31	FOUR MILE PARKWAY	ARTERIAL