CITY OF ELK GROVE
CITY COUNCIL STAFF REPORT

AGENDA TITLE: **Funding Pavement Surfacing Projects**

MEETING DATE: **April 9, 2014**

PREPARED BY
DEPARTMENT HEAD: **Richard Shepard, Public Works Director**

RECOMMENDED ACTION:

Staff requests the City Council evaluate options to generate additional revenue for Pavement Surfacing Projects.

BACKGROUND INFORMATION:

On October 9, 2013, staff presented the 2013 City of Elk Grove Pavement Quality Report (Attachment #1). That report recognizes that the existing pavement condition of the City's roads is relatively good with an average Pavement Condition Index (PCI) of 72. However, the report also recognizes that the City must invest approximately $12 million per year in pavement surfacing treatments to maintain the current road condition. This is an increase of approximately $8 million per year above what is currently being spent on surfacing treatments. In less than 20 years, without an increased investment, the average PCI is expected to drop to 42, and an investment of an estimated $466 million would be necessary to return the road network to an average PCI of 70. In essence, by investing an additional $8 million annually over the next 20 years, the City can avoid paying three times that amount if pavement repairs are deferred.

At the October 2013 meeting, various methods to help address the problem were presented; however, the City Council took no action due to the possibility that additional revenues may become available through the Sacramento Transportation Authority (STA). At that time, STA was considering a fall 2014 general election ballot measure to raise sales tax by

½-cent for transportation purposes. If the measure passed, Elk Grove would receive an estimated $6.8 million in additional funding allocation that could be applied to street maintenance and resurfacing projects. The additional $6.8 million would thereby greatly offset the estimated $8 million annual shortfall.

STA conducted public polling to assess the level of support the voters would have for the additional sales tax. The County-wide results were not favorable enough for STA to support placing the measure on the fall 2014 ballot; therefore, STA now plans to perform additional public outreach with the intention to place the measure on the 2016 ballot. While the STA poll did collect data from each of the various cities within the County, specific conclusions are difficult to reach using city-specific results. However, there were some questions that indicated residents of Elk Grove would be more supportive of a ½-cent increase in the sales tax than those in the rest of the County.

Because the STA ballot measure will not be brought forward this fall, staff returns to seek direction on whether the City should pursue alternate revenue sources to address the issue.

NEW REVENUE OPTIONS

In light of the STA decision to not pursue a county-wide sales tax measure on the November 2014 election ballot, City Council may want to consider placing an Elk Grove-specific sales tax measure on that ballot. A ½-cent sales tax increase would generate an estimated $10 million annually. If pursued, staff would recommend that the revenues generated from the measure be designated to the following uses and priorities:

1.	Road Maintenance	80%	$8 Million
2.	Transit	10%	$1 Million
3.	Transportation Capital Improvements	10%	$1 Million

Road Maintenance: One of the guiding principles of the proposed STA Measure was a "FIX IT FIRST" approach, whereby a majority of the revenues raised would be dedicated to road maintenance purposes. Consistent with these guiding principles, if 80% of the new revenues were dedicated to road maintenance and surface treatment efforts, it would close the current gap in road maintenance needs in Elk Grove, allowing the City to stabilize the condition of the road network.

Transit: Current Measure A funding allocates revenues for public transit purposes; however, all transit allocations are given to Sacramento Regional Transit (RT). Elk Grove receives no Measure A revenues for transit purposes, which places a burden on the City's General Fund to cover transit expenses that exceed other revenues. Historically, this General Fund augmentation has been $500,000-$1,000,000 per year. If 10% of the new revenues were dedicated to transit activities, it would allow the City to provide more sustainable transit services with little risk of General Fund impacts.

Transportation Capital Improvements: Having a long term source of revenues dedicated to transportation-related improvements would provide opportunities to improve the City's trails system, improve the walkability of our communities and make safety improvements that are not currently pursued due to limited funding. Some major improvements that could be pursued include:

- Bruceville Pedestrian Path between Sheldon Road and Big Horn Boulevard
- Major gap closures on the Trails Master Plan (Laguna Creek Trail, Elk Grove Creek Trail, Waterman Corridor Trail)
- Improved Intelligent Transportation System

If the City Council chooses to pursue additional revenues for road maintenance, there are different mechanisms to consider:

OPTION A: Pursue a *Special Tax* to increase sales tax by ½ cent. This would raise an estimated $10 million annually. Passage of a special tax requires a two-thirds supporting vote of the public (66.67%). If it is desired to place such a measure on the November 2014 ballot, a majority of Council would have to approve the measure ballot language on or before the June 11, 2014 scheduled City Council Meeting.

A *Special Tax* can only be used for the purpose identified in the ballot measure. In this case, the new revenues would be dedicated to Transportation uses as described above.

OPTION B: Pursue a *General Tax* to increase sales tax by ½ cent. This would raise an estimated $10 million annually. Passage of a

general tax requires a simple majority vote (50%+1) of the public; however, the following criteria must also be met:

a. requires 2/3 approval by the legislative body to place the general tax measure on the ballot (would require support from four of five Council Members);
b. must be considered as part of a general municipal election in which elected member seats of the legislative body are up for election (November 2014 would meet this requirement).

A *General Tax* is not restricted on how the new revenues would be used. However, it may be possible to include a non-binding advisory provision in the ballot materials indicating the City's intent to use the new tax revenue for specific purposes, such as roadway maintenance and transit. However, as a general tax, the funds could be used for other general government purposes if the City so desired.

OPTION C: Pursue a City Wide Benefit Assessment District to generate an estimated $8 to $10 Million annually. To implement the assessment district, the City would need to demonstrate a special benefit to assessed properties, which would be the subject of further study and analysis. Staff anticipates that the City could make the appropriate benefit determination as to roadway maintenance, since there is a direct benefit to property owners in having the City's road network maintained. However, it is uncertain whether a parcel assessment would be appropriate to increase revenues for the transit or capital components because a parcel benefit determination may be more difficult to make for these items. However, as noted, the issue of benefit determinations and possible assessments would require further analysis and study before implementation.

In order to create a parcel assessment, the fair share cost of each parcel must be determined and every parcel owner must be notified by mail of the assessment with an included ballot to return. Council could then impose the assessment as long as a majority (50%+1) of the ballots returned are in

favor of the assessment. The majority vote is determined by the weighted average of parcels based on the amount of that parcel's assessment.

Preliminary estimates indicate that an annual parcel assessment of $150-$250 would generate approximately $8 to $10 million annually.

If the funding gap is not addressed in fall 2014, it will compound and be more impactful each year thereafter. An appropriation from the General Fund may also be requested to assist in years that a necessary project exceeds available funds.

FISCAL IMPACT:

The cost to proceed with a November 2014 election ballot item is approximately $5,000; whereas, a mailed ballot for the parcel assessment approximates $40,000. Either expense would be borne by the General Fund.

If a new revenue source is supported, the additional revenue would maintain the quality of the City's road surfaces.

ATTACHMENTS:

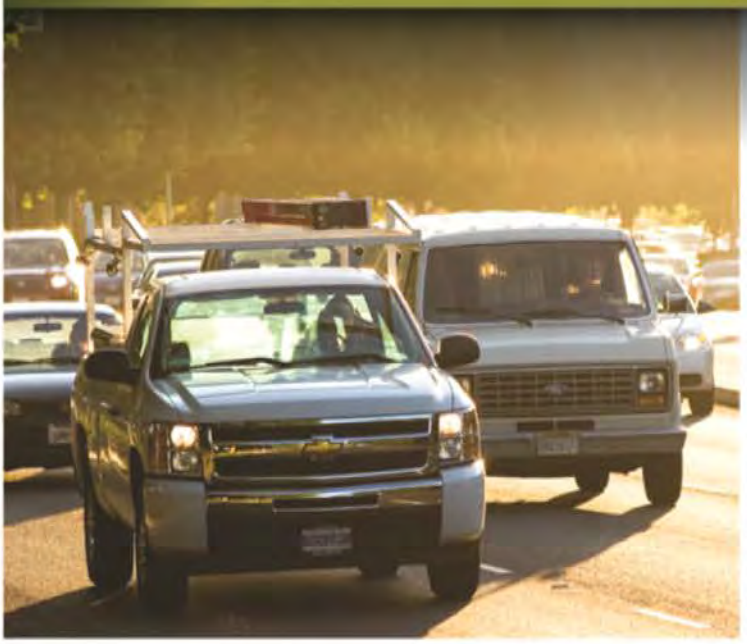
1. The 2013 City of Elk Grove Pavement Quality Report

PUBLIC WORKS DEPARTMENT

CITY OF ELK GROVE

PAVEMENT QUALITY REPORT

CITY OF ELK GROVE, CALIFORNIA



Whether it is transportation, water, sewer, or electricity, the vitality of a community is dependent on the quality of its infrastructure. While the City is not responsible for providing water, sewer or other typical utility services, it is responsible for the quality of its transportation system. This report will focus on the current and future conditions of the City's road system and provide strategies to preserve the system.

The City implements its responsibility for planning, designing, constructing, maintaining and operating its road system through its Public Works Department. One of the most important jobs in the City's Public Works Department is the upkeep of the city's road network, the miles of street lanes that fill out the city's roadmap. Every street is vital, they connect you from one destination point to another, whether you are traveling for leisure, making your way to work, or running simple errands. Clean, safe roads aid economic development and contribute to a better quality of life for residents. The City is committed to preserving all streets in good condition and repairing those in need.

The vision of the Department is to ensure all Elk Grove residents and visitors experience a quiet, smooth, safe, and uncongested drive while traveling through the city. To see this vision through, the Department utilizes a state-of-the-art pavement management program to assess the quality of each street, make repair recommendations and predict future conditions and repair needs based on available budgets. This analysis allows the City to look into the future and evaluate strategies so that the limited amount of funds can best be used to delay the effects of an aging infrastructure and improve the condition of the system.

Incorporated in 2000, the City of Elk Grove is a relatively young city. It has a populous of 159,074 residents and roughly 1,384 street lane miles. Since much of the growth of the City occurred in the last 10-12 years, most of the streets are still relatively new and are in relatively "Good" shape. With that said, the current level of funding is insufficient to keep up with the growing needs caused by an aging system. This condition is not unique to Elk Grove. In fact, communities across the nation are facing more challenging predicaments. The local agencies in California have co-authored a report to the legislature describing this problem in the hopes that some statewide solution can be found. In the meantime, local agencies like Elk Grove are left to their own devices and this report will discuss some options to consider for closing the gap between growing needs and available revenues.

EXISTING SYSTEM

ROADWAY CLASSIFICATIONS

The City's roadway system is separated into three main types:

- **Local Roads –** These are typically two lane roads that carry the local residential, commercial and industrial traffic and are designed for low speeds. Most homes have driveways connected to a local road. The City has 905 miles of local roads.
- **Collector Roads –** Acting as the name suggests, these roads collect traffic from local

roads. They normally carry more traffic, are designed for higher speeds and can extend for many blocks. They will usually terminate into an Arterial road. The City has 197 miles of collector roads.

- **Arterial Roads -–** These are typically larger, multi-lane roads carrying regional traffic. They usually have higher speeds and the number of access points (ie, intersections and driveways) is typically restricted. The City has 282 miles of arterial roads.

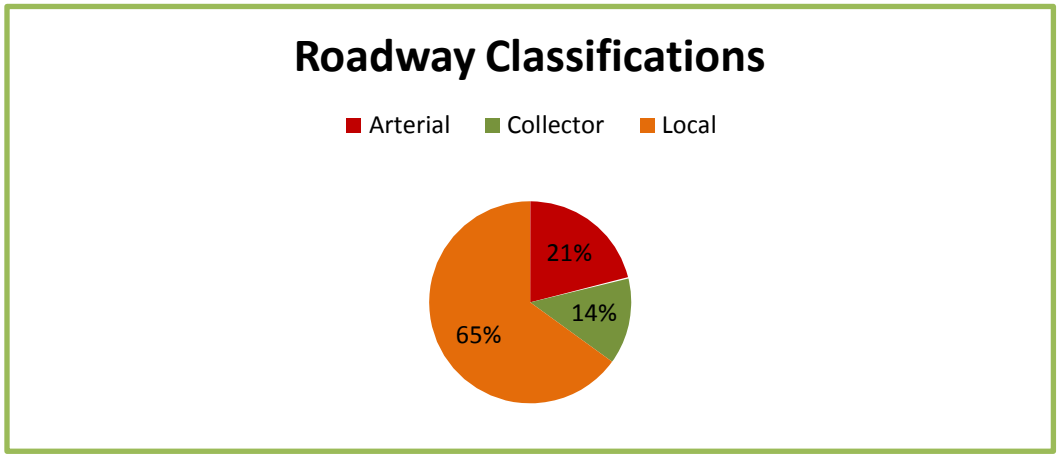
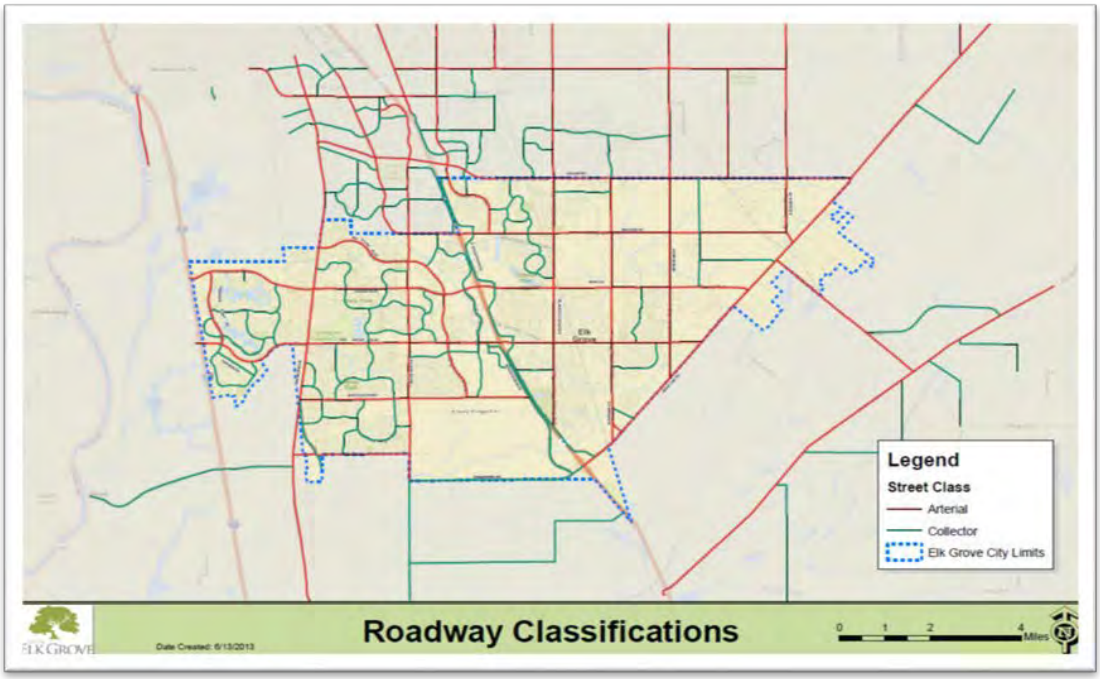


Figure-1 provides a visual display of the three main roadway classifications. It is an arterial shot of the entire City that provides color-coding for each roadway type as an illustrative example the various classifications.

FIGURE-1 – ROADWAY CLASSIFCATIONS



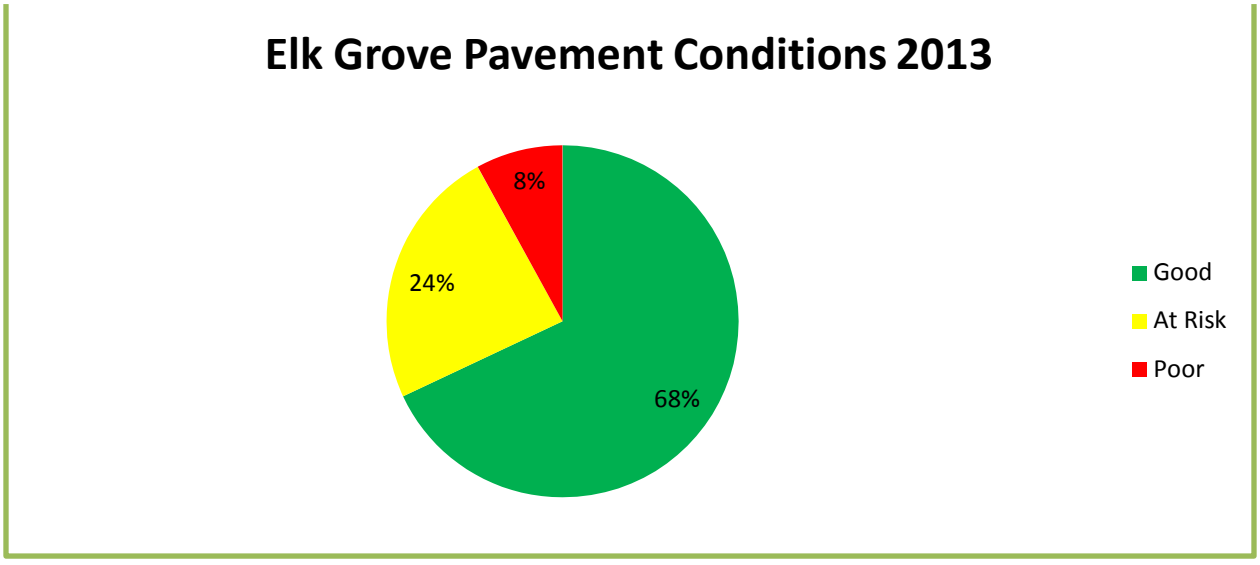
PAVEMENT CONDITION INDEX (PCI)

To compare the condition of individual streets to other streets, a method of ranking has been established that takes into consideration various factors (ie, cracks, ruts, pot holes, etc.) that determine the condition of a street. This method of ranking creates a number that is called a Pavement Condition Index (PCI). The PCI is a number that ranges between 0 to 100, where 100 is a road in the best possible condition (new) and zero (0) is a road in the worse possible condition (basically un-drivable). Created by the Army Corps of Engineers, the PCI is a commonly used industry standard of measure for pavement condition.

The City, through its Public Works department, conducts routine inspections on the City Streets to assess the PCI of each street. Consistent with the *California Statewide Local Streets and Roads Needs Assessment Report,* streets with a PCI at or above 71 are considered good, while streets with a PCI between 50-70 are considered "at risk," and streets with a PCI below 50 are considered in poor condition.

CURRENT CONDITONS

As referenced above, the City of Elk Grove is a fairly young city with most streets in pretty good condition. There is total of 1,384 street lanes miles that run through the City. Roughly 68% of those street lanes have a PCI of 71 or higher. The City's current average PCI is 72. Although this is a relatively good average PCI for the City, there are insufficient funds to maintain the average PCI of 72, and over time the City will see substantially more streets falling into the at-risk and poor condition categories.



Examples of each type of pavement condition are shown below.

POOR
Condition
(0-49)

AT RISK
Condition
(50-70)

GOOD Condition
(71-100)

RESURFACING OPTIONS

There are three main types of resurfacing options for street maintenance. The first is a seal (slurry, cape) coating where the surface of the pavement is treated. This is considered a maintenance type of action and is the most inexpensive resurfacing treatment. The second is an overlay of asphalt where a new thick surface is placed over the roadway to rehabilitate the pavement. Lastly, the third type of resurfacing is a last resort option and is used when a road is in very bad condition. It is the most expensive resurfacing option. Examples of each type of resurfacing option are shown below.

SEAL (SLURRY, CAPE)

www.fcgov.com

ASPHALT OVERLAY

tti.tamu.edu

RECONSTRUCTION

Courtesy HSI Engineerin

ull Depth Rehabilitation techniques were used to rebuild Bancroft Avenue in San Leandro, Calif.

Maintaining a street with any form of a seal is typically the most cost-effective way to increase a street's lifespan and maximize its investment. Seals are the most inexpensive form of treatment. They average about $1.00 per square foot. Seals can be placed on streets with a PCI of 71 or greater. A new seal added to a street in Good condition will bump their PCI to 100, therefore increasing the lifespan of the street an additional 7-10 years. At $1.00 per square foot for a seal treatment, it is the most affordable method of maintenance. Ideally, you would prioritize maintenance and funding for seals on streets with a PCI of 71 or greater to continually maximize those investments. In comparison, if a street is in At Risk condition (range 50-70), the street may need an asphalt overlay or general overlay. This resurfacing method costs significantly more than a seal. The average cost to do an overlay is about $3.00 per square foot, more than double the cost of a seal. If a street is in Poor condition and needs to be fully reconstructed, the cost goes all the way up to almost $6.00 per square foot. To put this into financial perspective, every street mile in the city is 12 feet wide by 5,280 feet long. The area of one street lane mile is 63,360 square feet. Now take that number and multiply it by each resurfacing option. Yes, these resurfacing options are expensive, and now you can better understand the importance of pavement rehabilitation funding - it is a constant juggle of prioritization, funds management, and roadway safety.

Figure 2 illustrates the rapid pavement deterioration curve at this point in the pavement life cycle; if repairs are delayed by just a few years, the cost of the proper treatment may increase significantly, as much as ten times. The financial advantages of maintaining pavements in good condition are many, including saving the taxpayers' dollars with less disruption to the traveling public, as well as environmental benefits (*California Statewide Local Streets and Roads Needs Assessment*).

FIGURE 2 – PAVEMENT CONDITION DETERIORATION CURVE

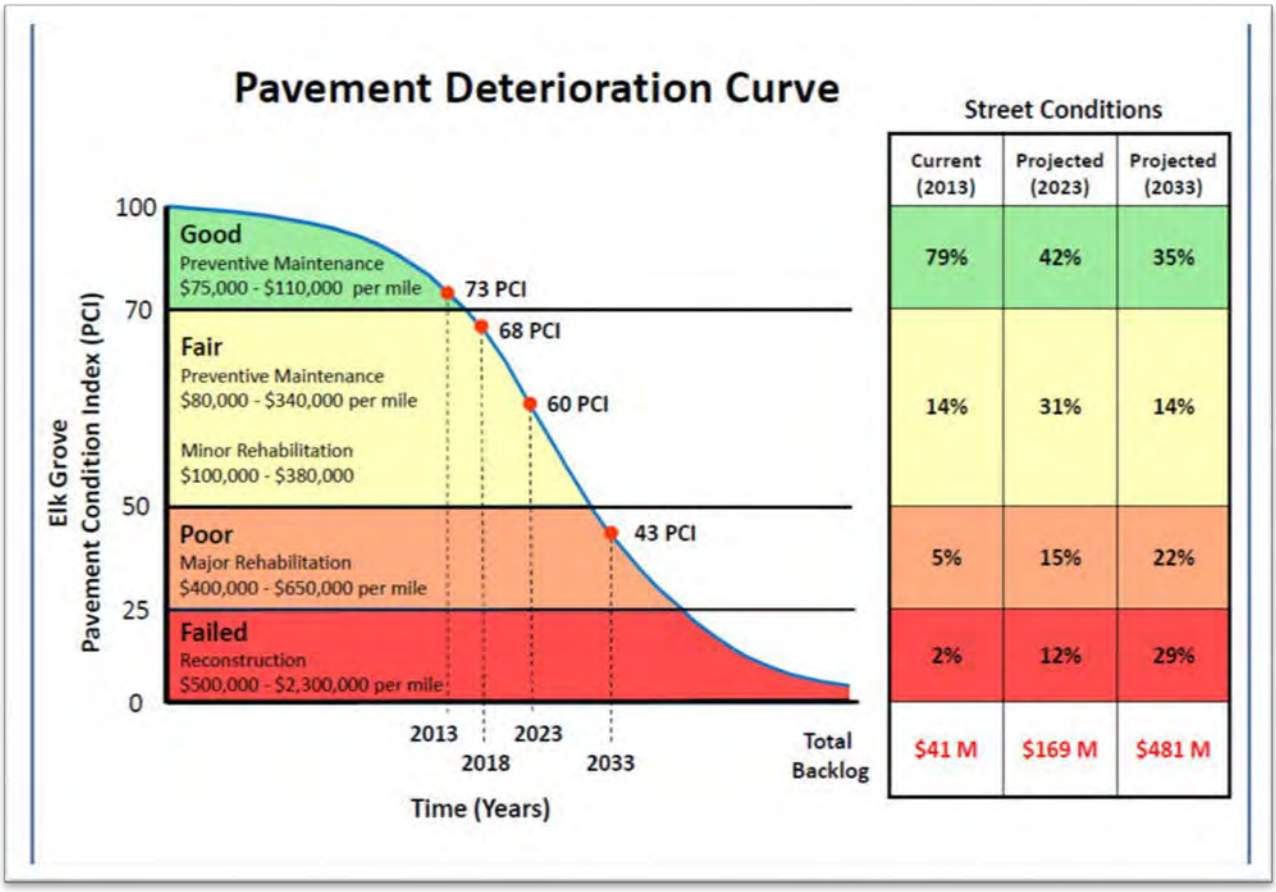
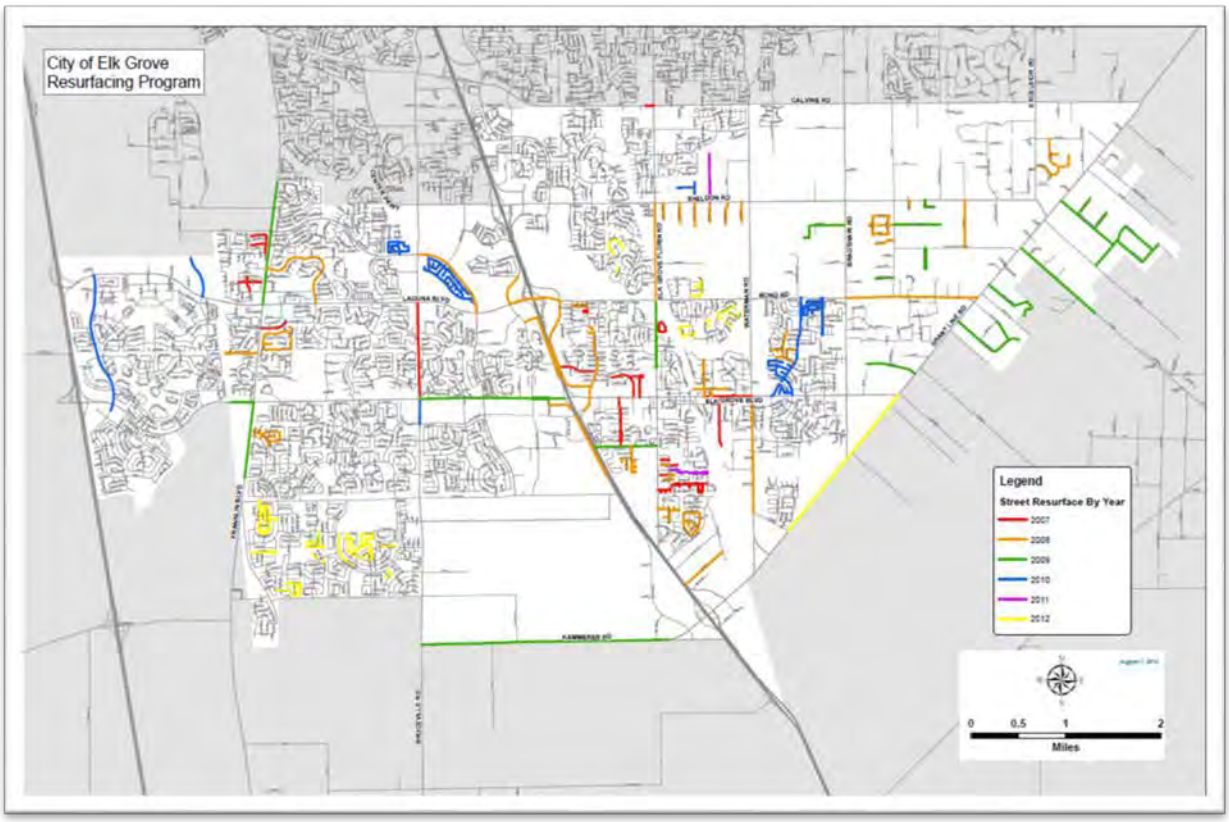


Figure-3 illustrates resurfacing activities for the past six years. The enclosed legend identifies the resurfacing treatment and number of miles treated each year. A detailed table of numbers reflecting the number of miles resurfaced per year is provided below in **Figure-4**.

FIGURE-4 – TOTAL ANNUAL RESURFACING TREATMENTS IN MILES (2007-2012)

YEAR	2007	2008	2009	2010	2011	2012
Resurfaced Streets Accomplished Each Year (in miles)	6.59 miles	21.91 miles	15.36 miles	9.53 miles	.93 miles	8.08 miles

FIGURE-3 – STREET RESURFACING MAP (PAST SIX YEARS OF TREATMENT)



STREET MAINTAINENCE FUNDING

The expenses of pavement resurfacing can be costly, so it is important to take a look at the total funding pot and sources of those funds. The city's street pavement resurfacing funds come from a portion of the Gas Tax, Measure A, and Street Maintenance allocation from organized Community Facilities District (CFD) fees. If a subdivision was created with a CFD, money from that CFD could be used towards routine maintenance on those streets only. There are several older establishments within the City that do not have a CFD and are therefore underfunded for street maintenance in that area. The City needs $15.3 million annually to keep the average PCI above 70. Current budgets provide about $3.2 million annually for pavement surfacing projects. This leaves a shortfall of $12.1 million.

FIGURE-5 – CURRENT CITY STREET CONDITIONS

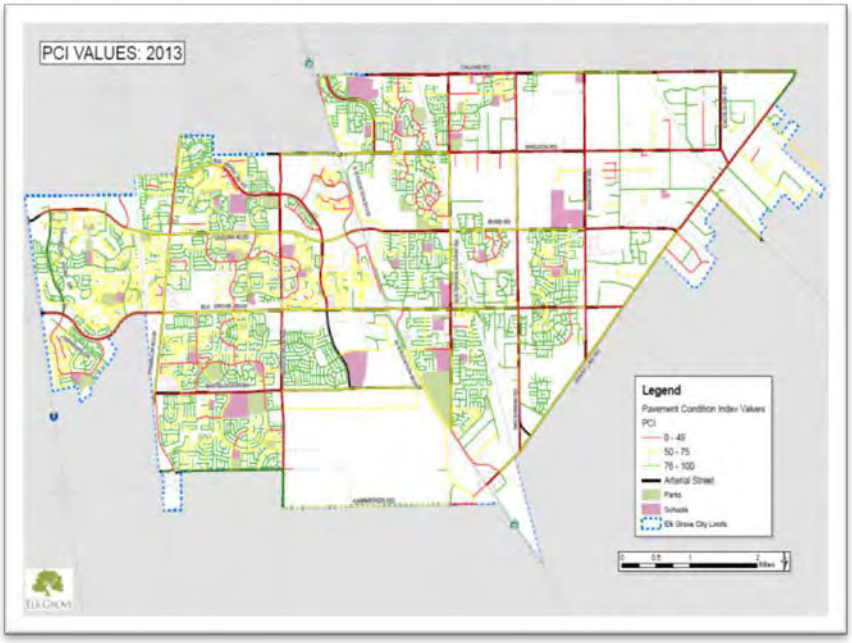


Figure-5 current road PCI's. Green are streets considered *good* (PCI above 70). Yellow are streets *at risk* (PCI 50-75), and Red are streets in *poor* condition (PCI below 49).

FIGURE-6 – 20-YEAR PROJECTION OF CITY STREET CONDITIONS

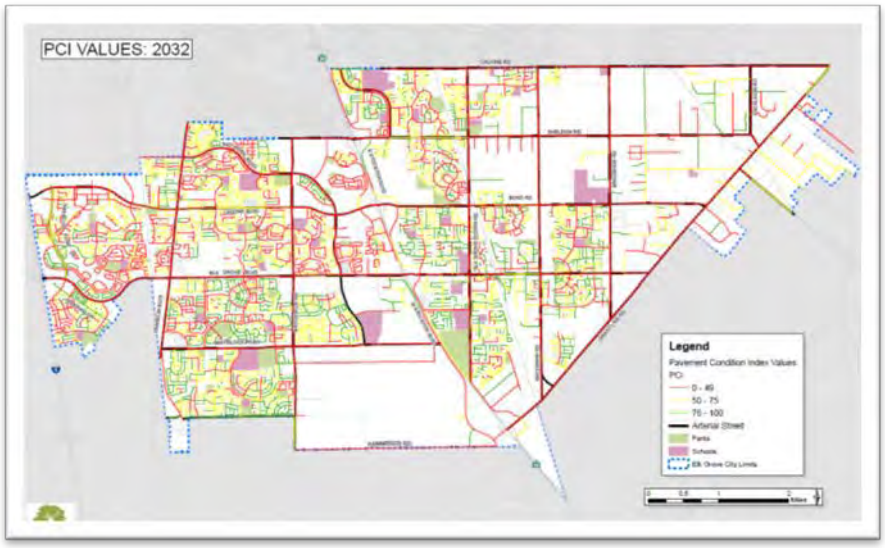


Figure-6 City's road network in 20 years assuming no additional funding. This indicates where the condition of the streets are heading if the City does nothing with its current revenue and practices.

POLICY OPTIONS FOR FUNDING SHORTFALL

With the challenge of funding a $12.1 million dollar shortfall, there are various policy options on the table for consideration.

Policy Options

1) Generate New Revenue

Examples: Bond Sales, Parcel Tax, Sales Tax Alternative, CFD Assessment, General Obligation Bonds, New Measure A Funding, etc.

One policy option is to generate new revenue. If the solution to the budget shortfall is to bring in additional revenue to close the gap, than there are many different avenues of creating new money. Various revenue generating strategies are commonly seen through bond sales, a proposed parcel tax, creation of a new Community Facilities District (CFD) Assessment, or through a general obligation bond. Any of these revenue streams should be considered as means to filling the budget shortfall. Another potential influence on revenue is a new measure coming from the Sacramento Transportation Authority (STA) office that aims to increase the allocated portion of sales tax revenue to existing Measure A funding. This increase to cities and counties would go up an additional half-cent. If approved, Elk Grove in particular would receive an additional $6.8 million in funding that could be applied to street maintenance and resurfacing, which would have a significant impact in reducing the $12.1 million shortfall. Even after making a significant contribution to the shortfall, there would still be a remaining balance of $5.3 million, so other revenue generating strategies would still need to be reviewed. Any action of generating new revenue would require voter approval to move forward and therefore would not be decided upon until the November 2014 election.

FIGURE-7 – 20-YEAR PROJECTION OF STREET CONDITIONS WITH NEW MEASURE A FUNDING

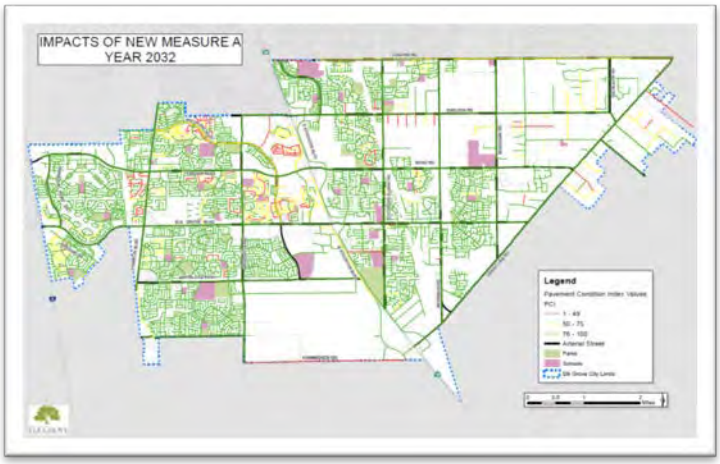


Figure-7 displays a 20-year projection of the city's pavement conditions if the proposed New Measure A funding comes to fruition. This additional funding would have a significant beneficial impact on resurfacing treatments and overall conditions of city streets.

2) Re-strategize Priority Projects to Maximize Current Investments

Examples: re-prioritize projects, evaluate current investments, seek new strategies, etc.

Another policy option is to re-strategize current investments to maximize the return of investments (ROI) on projects. This would require the project management team to take a closer look at existing funds, projects in the pipeline, the ROI per project, and then determine the best strategy to capitalize on current investments.

3) Green House Gas Emissions and Climate Action Plan

Examples: consider using high-albedo products on pavement resurfacing projects and use concrete instead of asphalt when feasible to meet reduction targets for 2020

The last policy option is to discuss Green House Gas (GHG) Emissions and their impact on the City's Climate Action Plan (CAP or "Plan"). The City adopted the CAP in March 2013 and one of the main priorities of the Plan is to reduce GHG levels by 15% below the 2005 baseline by 2020. The CAP strongly encourages the use of high-albedo material for all roadway improvements. Because Albedo is the measure of an objects' reflectivity, and is made of light-colored material, it absorbs less heat by reflecting the heat off the ground and into the air. The benefit is a cool pavement with increased nighttime visibility, pavement durability, and a higher albedo ratio to deter the heat from being absorbed at the surface level. Using albedo products, such as concrete, helps reduce GHG levels when resurfacing pavement. The cost of high-albedo products is significantly higher in comparison to regularly used materials, but it is a more cost-effective solution for long term GHG reduction and sustainability efforts. The City's CAP indicates that future projects will take into consideration the goals and strategies of the Plan and implement them through design and construction of Public Works projects. This is one method of lowering GHG levels and helping sustain the quality of life for residents in Elk Grove.

SUMMARY

The majority of streets in Elk Grove are in good condition. However, this scenario will not last forever, and streets will continue to deteriorate over time if proper treatment isn't provided. Annual routine maintenance, along with increased funding, and future planning for long term sustainability, will be the key ingredients to maintaining a high quality road network for the residents of Elk Grove. This process needs to start now to sustain a viable future.