



# **Engineering Six-Year Pavement Plan 2019**

## **Proposal for Street Reconstruction and Pavement Preservation**

**Engineering Division  
Community and Neighborhoods  
Salt Lake City Corporation**

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## Executive Summary

Salt Lake City's transportation network includes 1830 lane miles of Class C streets. Class C streets are maintained by the City. These streets are a mix of asphalt, concrete, and unsurfaced pavement types. The network of streets is further classified as Local/Residential streets (Local) and Arterial/Collector (Arterial) streets.

Management of a well-maintained street system requires a balanced program of pavement maintenance and preservation strategies. The objective of this six-year pavement management plan is to extend the functional life of the City's street network to the highest degree possible with available funds. This is accomplished through periodic pavement surface treatments (preservation and maintenance techniques) and major rehabilitation or reconstruction at appropriate times in the pavement life cycle. In summary, the goal of this management plan is to:

- Review previous pavement projects and successes;
- Summarize the findings from the 2017 pavement condition report review pavement condition ratings;
- Explore decision trees and suggested treatment types used for developing scenarios;
- Develop budget plan scenarios for various roadway type and construction method;
- Provide project lists including those identified within the \$87M Streets Bond which is part of Funding our Future project scope; and
- Make recommendations to address preservation methods and scenarios.

## Responsibilities

Engineering partners with the Transportation Division on the planning, design, reconstruction and day-to-day operations of the street and trail transportation system. The Streets Division, who are part of the Public Services Department, provide for the maintenance of the roadways through filling potholes, applying necessary preservation treatments, street sweeping and winter operational activities.

## Past Pavement Projects

The following is a list, by year, of pavement reconstruction projects completed by Salt Lake City Engineering. The funding over the past four years has allowed for reconstruction of 41 lane miles of roadway. A lane mile is a measurement of pavement area. It is calculated by multiplying the length of a road segment by lane width(s).

The list of these projects follows:

## 2015

Street	From	To	Surface Type
700 South	Bangerter Hwy	4400 West	Concrete
700 South	4400 West	4800 West	Concrete
1300 South	500 West	700 West	Concrete
1700 South	State St.	700 East	Concrete/Asphalt

## 2016

Street	From	To	Surface Type
1300 South (phase 2)	400 West	500 West	Concrete
Rose Park Ln.	2000 North	2200 North	Concrete
Regent St.	100 South	200 South	Concrete
Sunnyside Dr.	Guardsman Way	Foothill Dr.	Asphalt

## 2017

Street	From	To	Surface Type
900 West	400 South	950 South	3" Asphalt Overlay
900 West	North Temple	400 South	3" Asphalt Overlay
Berkeley St.	2100 South	Wilmington Ave	Concrete
Normandie Cir.	Harvard Ave.	Terminus	Concrete
900 South/Indiana Ave.	Surplus Canal	3600 West	Concrete
East Capitol Blvd.	500 North	Ensign Vista Dr.	3" Asphalt Overlay

## 2018

Street	From	To	Surface Type
S Gladiola St.	500 South	900 South	Concrete
2100 East	1700 South	2100 South	3" Asphalt Overlay
1500 East	900 South	1300 South	3" Asphalt Overlay
1200 East	600 South	800 South	Asphalt
Simpson Ave.	Wyoming St.	Broadmoor St.	Concrete
Wilmington Ave.	Highland Dr.	1300 East	Concrete
Wilmington Ave.	2000 East	2100 East	Concrete

## Pavement Condition Report Summary

A pavement condition report was funded by Salt Lake City Council and Administration in 2016 and completed in 2017. The pavement survey should be conducted every five years by the Salt Lake City Engineering group. The pavement condition survey employed a set of tools to rate existing pavement surface conditions.

Using a pavement condition analysis, a pavement condition index (PCI) was assigned to each roadway segment. A segment is a measurable portion of the roadway used for the analysis. The method used covers the process of quantifying pavement conditions and identifies pavement distress types, distress extent measurements, and distress severity.

International Roughness Index (IRI) values were also collected along the survey segments, as part of the analysis, utilizing a laser profiler.



*Figure 1 - Laser Profiler and Van Survey Equipment*

IRI indexes were obtained from measured longitudinal road profiles and provides a driver's perspective to the bumpiness and roughness of the ride.

The overall condition index (OCI) is calculated using the PCI and IRI values. This survey project used pavement management software for calculating the PCI and OCI value, as well as analyzing the network PCI and OCI ranges. An Overall Condition Index (OCI) was applied to all City-maintained roadway segments. The OCI measure is a classification of the overall pavement condition with the highest numbers representing the best roadway segments in the City. The results of the survey are presented below. In summary, the City roadway network average is

rated as poor (48 OCI). This figure was obtained by averaging all street segments, regardless of type and length to obtain an overall network average.

Table 1 - City Overall Condition Percentages

Overall Condition Index (OCI) Range	Condition Description	Percentage of Network	Legend
86 - 100	Good	1.60%	
71 - 85	Satisfactory	8.89%	
56 - 70	Fair	25.84%	
41 - 55	Poor	36.61%	
26 - 40	Very Poor	21.31%	
11 - 25	Serious	5.41%	
0 - 10	Failed	0.34%	
	<b>Total</b>	100.00%	

The survey and report are available on the Funding Our Future website [here](#). The survey summary states that approximately 63% of the roadway segments within the City are rated in the poor or worse classifications. As the table depicts, more than half of local streets, arterials and collectors are no longer candidates for preservation or rehabilitation treatments. Many pavement segments have deteriorated below a level where preservation methods are effective. Most are candidates for reconstruction. The following section explains approaches to making decisions given the current conditions of the roadway network.

### Decision Trees and Recommendations

Decision trees are a helpful mechanism to determine strategies for roadway maintenance on an overall street network scale. The Overall Condition Rating (OCI), previously mentioned, is a good fundament guide, but final decisions and prioritizations should be done with human interaction, field verification, and sound engineering judgement.

The following chart is a sample decision tree used to determine the preservation and maintenance methods meant to be used alongside the Overall Condition Rating results. Engineering will create a decision tree, in cooperation with Streets, specific to Salt Lake City.

## Sample Decision Tree

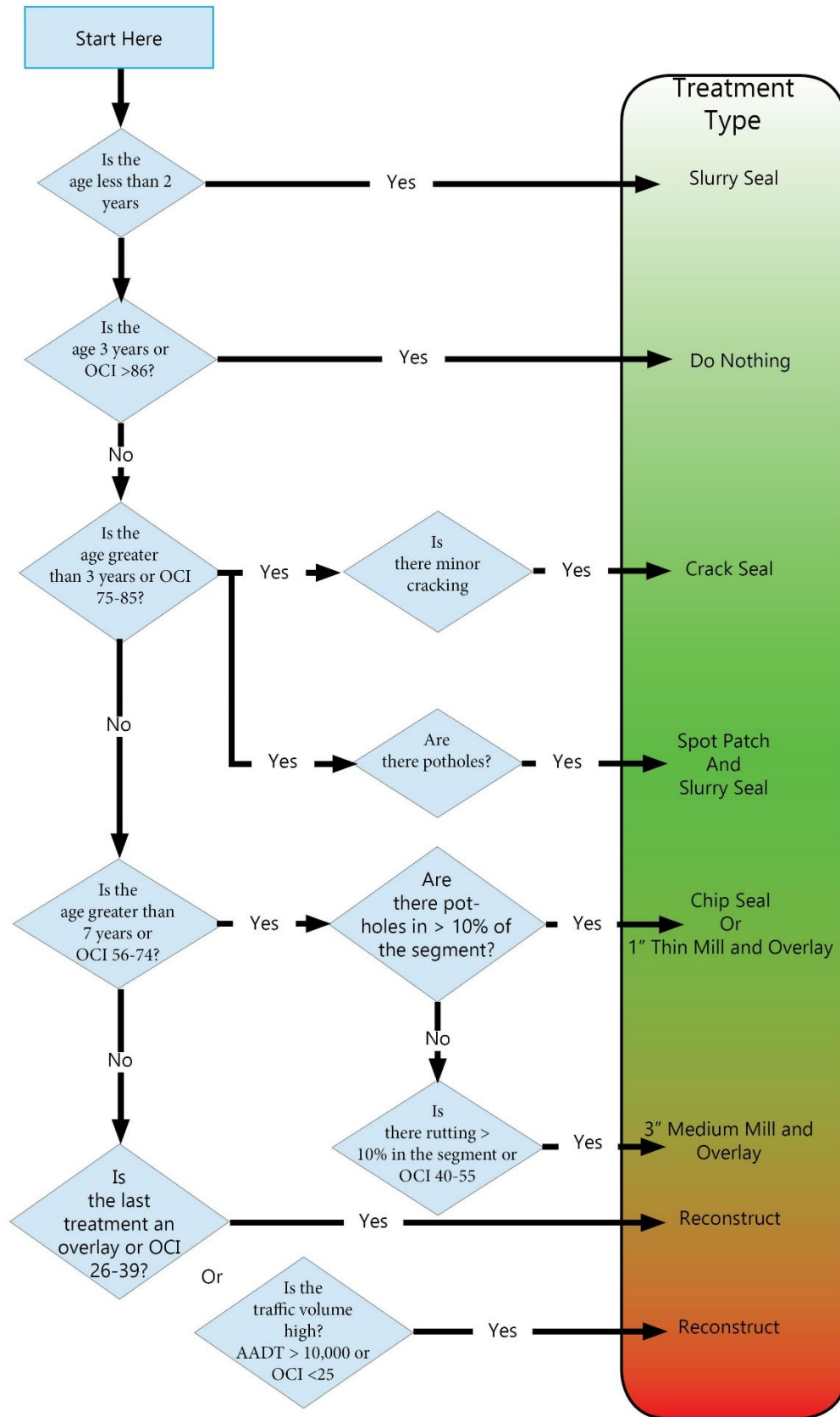


Figure 2 - Sample Preservation and Maintenance Tree



## Project Prioritization

The Engineering Division partnered with the Streets Division, Transportation Division, Public Utilities Department, and the Redevelopment Agency to produce a sound project prioritization plan. While primarily a pavement plan focused on street reconstruction needs, Engineering seeks input from many other affected groups to achieve more inclusive project prioritization results. Maintenance is a critical aspect of ensuring pavement longevity, therefore, this plan also includes recommendations for maintenance activities.

This plan will also help collaboration efforts with Public Utilities and other private utility companies as they determine their utility needs. With a moratorium of 7 years on the excavation within newly constructed streets, and 3 years on repaved (overlaid) streets, it is critical that projects are planned and prioritized while considering planned future utility improvements.

Engineering’s goal is to improve overall condition of the roadway network to a Fair condition.

In addition to the decision tree noted above, Engineering will use the general OCI guidelines below to help provide a simple framework to help guide preservation, rehabilitation and reconstruction activities.

Table 2 – OCI Maintenance Method Framework

Overall Condition Index (OCI) Range	Condition Description	Method	Legend
86 - 100	Good	Do Nothing or Slurry Seal in First Two Years	Preventative Maintenance
75 - 85	Satisfactory	Patch or Crack Seal	Preservation
56 - 74	Fair	Slurry or Chip Seal	Rehabilitation
40- 55	Poor	Rehabilitate (Overlay)	Reconstruction
26 - 39	Very Poor	Reconstruct	Reconstruction
11 - 25	Serious	Reconstruct	Reconstruction
0 - 10	Failed	Reconstruct	Reconstruction

Visual examples of pavement conditions are included in Appendix A.

## Asphalt Pavement Management and Maintenance Strategies

A brief review of pavement preservation strategies is presented below as guidance of maintenance techniques employed by the City's Divisions. Pavement maintenance strategies are accomplished through the Streets Division. Asphalt overlay and reconstruction projects are traditionally funded by the City's Capital Improvement Program and administered by the Engineering Division.

### Pothole Filling

This is an emergency type repair to fill holes in existing deteriorated roadways. Quality construction, timely maintenance activities, and proper utility cut restorations, are all components that significantly reduce the frequency of pothole repairs.

### Patching and Crack Sealing

These maintenance strategies address specific distresses in the roadway surface. Localized patching addresses significant defects in the pavement surface. Crack sealing places specialized materials into asphalt pavement cracks to prevent infiltration of water. These repair types are generally followed by a roadway surface treatment within two years to provide a cost-effective program of roadway preservation.

### Slurry Seal and Chip Seal Surface Treatments

Slurry seals and chip seals are thin surface treatments applied to the entire pavement surface of a roadway section to prevent oxidation and moisture intrusion. Slurry seals are applied to streets that are in good condition, and chip seals are applied to streets that have deteriorated to a satisfactory condition rating. Both treatments extend the pavement life and improve long-term performance.

### Asphalt Pavement Mill and Overlay

Asphalt mill and overlay projects remove the top 1" to 3" of the existing pavement and replace it with a new asphalt overlay, which adds structural strength to the existing pavement. This pavement maintenance strategy is generally applied to roadways that have a poor condition rating. In accordance with City's commitment to the elimination of pedestrian barriers in the public way, ADA accessibility ramps are installed in conjunction with all overlay projects. Curb and gutter are also evaluated, and appropriate repairs are included in the overlay project to enhance safety and alleviate drainage problems. Per the State Code, overlays less than and including 2" in thickness are considered a maintenance activity while overlays over 2" are considered a construction project.

### Pavement Reconstruction

Roadway pavements that have exceeded their functional life are programmed for reconstruction through the City's Capital Improvement Program. Pavement reconstruction projects involve

removal of the existing failed roadway section and replacement with a new roadway structural system using new or recycled materials. Reconstruction projects address all necessary street repairs, including roadway base materials, asphalt or concrete pavement, curb and gutter, sidewalks, accessibility ramps, and drainage improvements.

To insure our investment in road reconstruction, maintenance should be funded at a level that prevents further degradation and delays or avoids the need for reconstruction. The most efficient maintenance strategy is to keep good roads in good condition. With proper and timely application of surface treatments on new roads, it is feasible that the pavement can be kept in good condition for a very long time – 25 to 35 years or longer. The current range of pavement conditions requires careful planning to select the best pavement treatment options.

As a comparison, for the cost of every lane mile that is reconstructed, roughly 50 miles can receive a surface treatment. Street maintenance is closely coordinated between the Engineering and Streets divisions utilizing the Cartegraph asset management system.

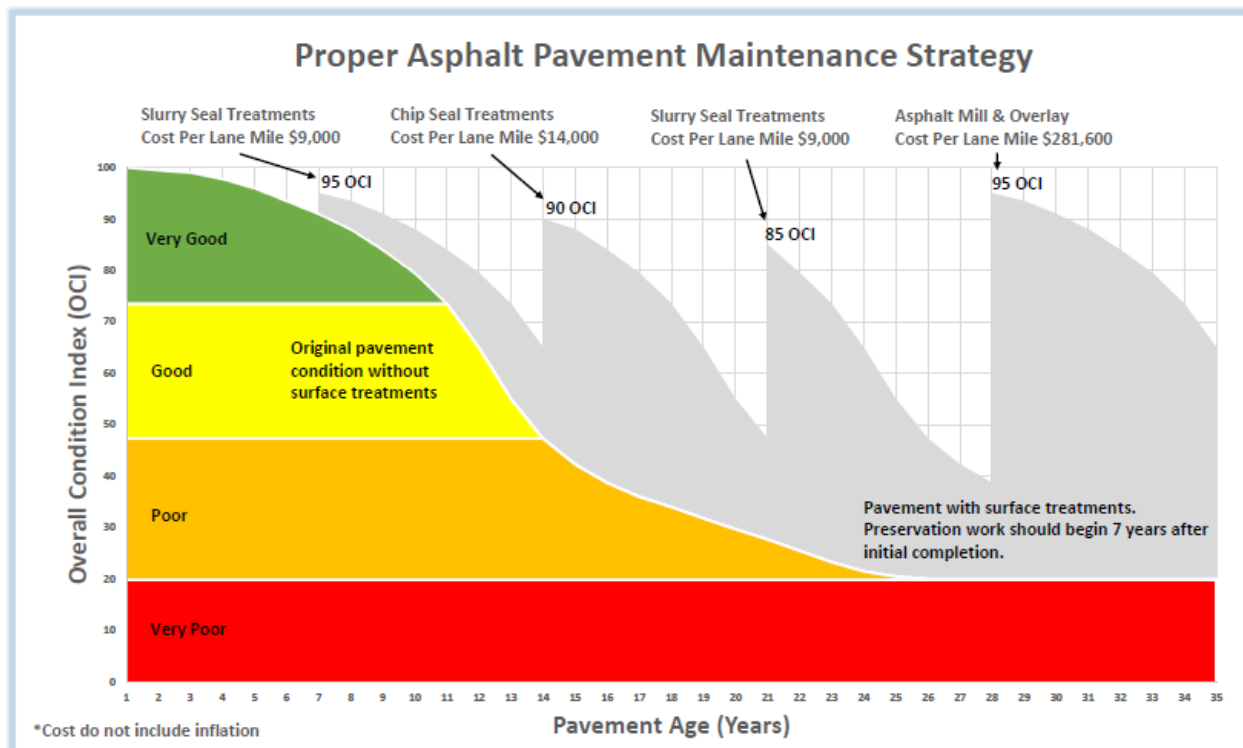


Figure 3 - Asphalt Pavement Maintenance Strategy

Graphics Source: Salt Lake City Streets Team 2018

The Streets Division looks at roads city-wide, but also segments City work into zones. By using zones, Streets can focus activities more efficiently and minimize disruption throughout the city. This insures work is done throughout the city on a rotating schedule and allows for better long-term planning. Typically, work is planned three years in advance.

- One zone is evaluated every year, and roads outside the zone city-wide that are ideal candidates to receive a surface treatment at the proper time are tracked and added to the year's schedule.

- Within the zone, priority is given to roads in good condition; however, roads that are rapidly deteriorating need also be addressed. Streets balances the competing priorities within budget and weather constraints.
- Areas outside the zone that are unusually impacted are considered, for example, sections of roads in the Sugarhouse area that are heavily impacted by the amount of new construction received inlays to keep them passable until reconstruction funds are available.
- Chip seal is sometimes used on very poor roads to keep them pothole free.
- In-lays are also used to smooth out bumpy/uneven roads caused by heavy traffic.

## Project Plan and Budget Methodology

From the data collected, Engineering developed a six-year project list. This plan provides a framework for planning and budgeting purposes with the goal of improving pavement condition to a fair condition network-wide. The plan, discussed in detail below, identifies and prioritizes the following:

- Selecting roadway reconstruction candidates
- Selecting roadway rehabilitation candidates
- Ranking candidates according to needs as identified by other City divisions
- Specifying roadway treatments to be performed by the Streets Division
- Developing an annual budget framework for decision-makers and stakeholders

Engineering created a proposed project list, as a first step in the planning process. The list utilized OCI data to identify the worst local/residential 200 roadway segments in the City. Engineering developed an in-house geospatial application to curate the list of 200 local/residential street segments. This application allowed other divisions and departments to rank, by degree of importance, these street segments. This refined list was combined with some of the worst arterial/collector roadway segments previously identified in a combined effort between Engineering, Streets, Public Utilities, and Transportation Divisions. The arterial/collector list includes some roadway segments that do not meet the “worst” criteria as determined by OCI. Instead, these segments met other critical needs as identified by other departments.

In addition, a subset of roadway candidates falling into a middle classification having an OCI of 50 to 51 was selected. This group comprises a list of roadways qualified to receive a mill/overlay rehabilitation.

## Budget Strategy

Engineering in consultation and agreement with Transportation recommends that the funding sources for street reconstruction and overlays be distributed 80% for arterials/collectors and 20% for local streets. For the purposes of planning, the Engineering Division adopted this hierarchy as an approach to budgeting for future pavement construction. Support for prioritizing arterials and collectors in this hierarchy follows:

- These are the primary emergency response routes to hospitals and snow removal routes and should be maintained at the highest level possible.
- Greatest value for the \$/mile – though the average cost to reconstruct an arterial/collector street is higher than a local street, a much larger segment of the community will benefit from the upgraded arterial/collector street. Most everyone in the community uses the arterial/collector streets on a daily basis whereas each local street serves a smaller segment of the community.
- Local roads have much less Average Annual Daily Trips (AADT of less than 2,000) versus arterial/collector streets (AADT of 5,000 – 15,000). The slower posted speeds, and shorter travel distances makes it much easier for drivers on local streets to tolerate pavement distresses such as potholes.
- Inclusion of the Transit Master Plan priorities, such as enhanced bus corridors, occurs along arterial and collector routes such as 200 S.
- Economic activity, movement of people, goods and services rely on a well-maintained transportation network with arterials and collectors as its core that connects population hubs and council districts.

Based on the issuance of \$87 million in bonds over the next six years along with \$3.0 million of Class C funds received each year (\$18 million over 6 years), the 80/20 breakout is shown below.

## 80/20 Funding Scenario

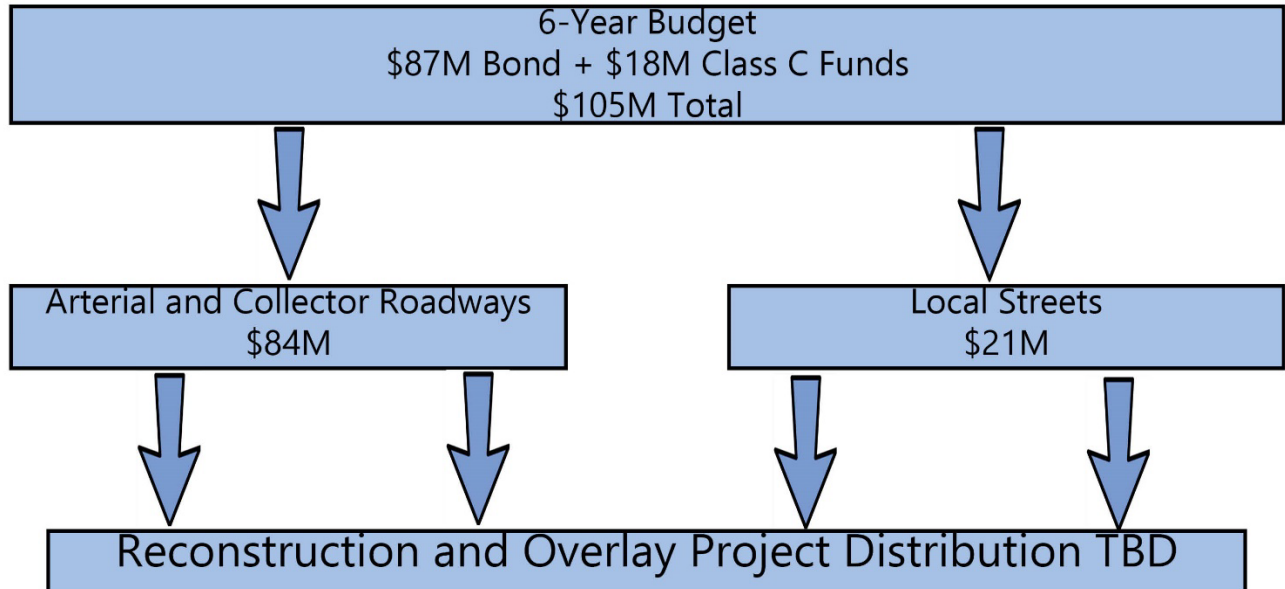


Figure 4 - Fund Distribution Scenario

The capital budget plan does not include City-wide roadway maintenance, which is funded through other programs.

Engineering also recommends continuing to fund the pavement condition survey every 5 years. We will also reevaluate this plan annually based on funding received and new priorities.

## Project Breakout

The following pages detail the planned project lists for the next six years. Items on this list include funding from the \$87 million Bond issuance and \$18 million Class C funds. The project priorities for these projects are listed below:

- Worst First
  - Data driven
  - Based on OCI from pavement condition survey
- Transportation Priorities
  - Safety needs
  - Multimodal and Complete Streets needs
- Public Utilities Priorities
  - Curb/Gutter/Storm Drain study
  - Impacts to Public Utility project budgets
  - East West Aqueduct alignment
- Overlap with Current Plan where Available
  - Impact fees, capital facility plans
  - 9-line plans
  - The list does not include provisions for new roads in Northwest Quadrant

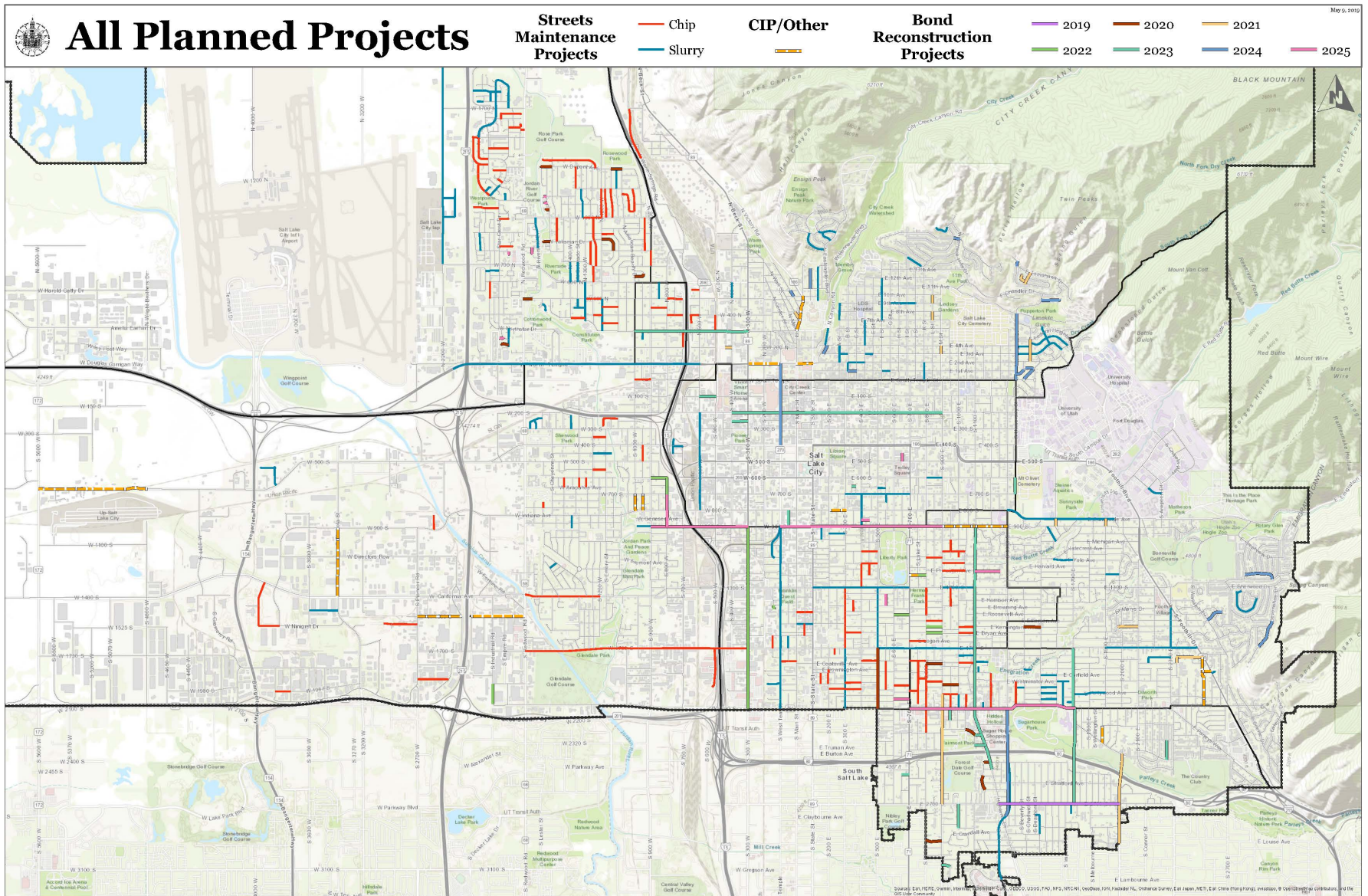
It should be noted that this list is only a current snapshot in time of the priorities at the time of the revision of this document. Roadways do not deteriorate at the same pace due to many competing factors. As mentioned, Engineering expects to revisit this list, and the priorities, annually during the Roadway Selection Committee to insure the current needs of the City are being addressed.

## Plan Implementation

As the plan is executed, Engineering acknowledges that there are variables affecting the actual cost of projects. The following will help staff manage the expected differences between the actual project costs versus staff's estimated costs:

- Every fall, staff will revisit the plan with the Roadway Selection Committee. Based on the past summers actual cost of construction, adjustments to the plan will be made adding or deleting projects as necessary. In addition, another year of projects will be added to the plan, so it remains a 6 year look ahead.
- The current plan shows an estimated \$100 million to be spent. The Bond and Class C funds total \$105 million. The \$5 million contingency will be managed as follows:
  - If staff finds that final project costs exceed the estimated budgets, the contingency funds will be used to cover the overruns;

- Once the contingency funds are spent, projects will need to be removed from the plan;
- If final project costs are coming in lower than the estimated budget, staff will be adding projects to the list;
- At the end of the six-years, all \$87 million plus earned interest of the bond funds will be spent.





## Proposed Street Listing by Year and Reconstruction Type

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## Current Projects 2018 and 2019

Year	Street	From	To	Job Number
2018	1700 South	1700 East	1900 East	102281
	2500 East	Foothill Drive	2100 South	102281
	Downington Ave	2500 East	Foothill Drive	102281
2019	1000 West	700 South	800 South	102286
	1300 East	1300 South	2100 South	102265
	1500 South	Redwood Road	2700 West	102297
	2700 South	Highland Drive (1300 E)	1930 East	102282
	700 South	5000 West	5600 West	102240
	900 South	950 East	1300 East	102280
	Post Street	700 South	800 South	102286
2020	1900 East	Wilmington Ave	Parleys Canyon Blvd	102289

## Arterial & Collector Reconstruction Candidates

Year	Street	From	To	Cost	Total for Year
2020	500 East*	1700 South	2100 South	\$1,500,000	\$4,800,000
	2000 East	Parley's Way	City Limit	\$1,300,000	
	700 West	1600 South	2100 South	\$2,000,000	
2021	300 West - Phase 1	900 South	1300 South	\$8,650,000	\$16,250,000
	900 East*	Hollywood Drive	2700 South	\$2,600,000	
	100 South	North Campus	900 East	\$3,000,000	
	1700 East	1700 South	2700 South	\$2,000,000	
2022	300 West - Phase 2	1300 South	2100 South	\$8,600,000	\$14,600,000
	200 South - Phase 1	400 West	900 East	\$6,000,000	
2023	200 South - Phase 2	400 West	900 East	\$6,000,000	\$14,400,000
	1100 East / Highland Dr	Ramona Ave	Warnock Ave	\$2,900,000	
	1100 East	900 South	Ramona Ave	\$3,900,000	
2024	300 North	300 West	1000 West	\$1,600,000	\$8,300,000
	Virginia St	South Temple St	11th Ave	\$1,300,000	
	1300 East**	2100 South	City Limit	\$3,000,000	
2025	West Temple	North Temple	400 South	\$4,000,000	\$10,000,000
	900 South	900 West	300 West	\$1,250,000	
	900 South	West Temple	900 East	\$1,250,000	
	2100 South	700 East	1700 East	\$7,500,000	

This plan will be reevaluated annually based on funding and City priorities.

\*Coordinate with Public Utilities

\*\*1300 East (2100 South to City Limit) is receiving federal funding.

<b>Total</b>	<b>\$68,350,000</b>
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## Arterial & Collector Overlay Candidates

Year	Street	From	To	Cost	Total for Year
2020	1700 North	2200 West	I-215 Overpass	\$202,600	\$526,560
	2200 West	470 North	600 North	\$323,960	
2021	11th Ave	Terrace Hills Dr	Virginia St	\$385,760	\$2,693,160
	200 East	200 South	400 South	\$490,960	
	300 South	West Temple St	Main St	\$91,160	
	400 East	200 South	400 South	\$434,680	
	600 East	200 South	400 South	\$321,240	
	800 South	600 West	500 West	\$197,320	
	900 East	200 South	500 South	\$628,400	
	1700 South	1100 East	1200 East	\$143,640	
2022	Amelia Earhart Dr	5600 West	Admiral Byrd Rd	\$184,200	\$1,491,040
	Harold Gatty Dr	Challenger Rd	Wright Brothers Dr	\$251,600	
	Main St	2100 South	Hartwell Ave	\$219,160	
	200 West	600 South	500 South	\$137,120	
	2100 South	200 East	500 East	\$416,560	
	2100 South	3480 West	3730 West	\$282,400	
2023	Emigration Canyon Rd	Rotary Glen Park	City Limit	\$473,080	\$1,645,240
	200 South	1500 West	Navajo St	\$306,120	
	200 South	500 West	400 West	\$328,320	
	400 South	1000 West	900 West	\$206,680	
	700 East	South Temple St	100 South	\$331,040	
2024	400 West	400 North	500 North	\$220,080	\$1,259,960
	500 South	500 East	600 East	\$303,880	
	900 West	400 North	500 North	\$123,120	
	900 East	900 South	800 South	\$194,520	
	1300 South	600 East	700 East	\$174,200	
	2100 South	2100 East	Berkley St	\$244,160	

This plan will be reevaluated annually based on funding and City priorities.

<b>Total</b>	<b>\$7,615,960</b>
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## Local Street Reconstruction Candidates

Year	Street	From	To	Cost	Total for Year
2020	500 N	JORDAN RIVER	REDWOOD RD	\$186,274	<b>\$3,039,606</b>
	ARIES CIR	CULDESAC END	NEW STAR DR	\$193,975	
	BRIARCLIFF AVE	AMERICAN BEAUTY DR	AUTUMN AV	\$147,286	
	COATSVILLE AVE	800 E	900 E	\$251,049	
	DUPONT AVE	CAPISTRANO DR	AMERICAN BEAUTY DR	\$209,736	
	DUPONT AVE	CAROUSEL ST	1500 W	\$229,937	
	ELIZABETH ST	CRYSTAL AV	STRATFORD AV	\$122,209	
	ELIZABETH ST	STRATFORD AV	WHITLOCK AV	\$132,387	
	HASLAM CIR	CULDESAC END	GARNETTE ST	\$75,267	
	KENSINGTON AVE	1400 E	1500 E	\$223,691	
	PARKWAY AVE	ELIZABETH ST	HIGHLAND DR	\$121,678	
	RAMONA AVE	900 E	LINCOLN ST	\$86,240	
	RAMONA AVE	LINCOLN ST	1000 E	\$133,535	
	SIMPSON AVE	MCCLELLAND ST	1100 E	\$245,425	
	TALISMAN DR	800 N	1200 W	\$288,113	
	TALISMAN DR	CULDESAC END	CORNELL ST	\$139,477	
	ZENITH AVE	800 E	900 E	\$253,329	

## Local Street Reconstruction Candidates

Year	Street	From	To	Cost	Total for Year
2021	1900 E	SUNNYSIDE AV	900 S	\$140,801	<b>\$2,979,663</b>
	200 N	400 W	W TERMINUS END	\$180,606	
	ALTA ST	2ND AV	3RD AV	\$108,932	
	ALTA ST	3RD AV	FEDERAL HEIGHTS DR	\$212,668	
	BLAINE AVE	NEVADA ST	FOOTHILL DR	\$514,874	
	CAMBRIDGE CIR	CAMBRIDGE WY	N TERMINUS END	\$149,863	
	CAMBRIDGE WAY	PERRY'S HOLLOW RD	TOMAHAWK DR	\$270,696	
	GREENWOOD TER	900 S	SUNNYSIDE AV	\$105,601	
	KENSINGTON AVE	1400 E	1500 E	\$223,691	
	KENSINGTON AVE	KEN REY ST	2100 E	\$385,770	
	L ST	7TH AV	8TH AV	\$155,347	
	L ST	9TH AV	10TH AV	\$149,095	
	M ST	3RD AV	4TH AV	\$163,352	
	NEVADA ST	WILSON AV	BLAINE AV	\$111,276	
	WALL ST	COLUMBUS ST	400 N	\$107,091	

## Local Street Reconstruction Candidates

Year	Street	From	To	Cost	Total for Year
2022	600 S	900 W	800 W	\$746,984	<b>\$3,080,006</b>
	800 W	ARAPAHOE AV	600 S	\$191,476	
	800 W	ARAPAHOE AV	700 S	\$218,109	
	900 S	1100 E	1200 E	\$501,825	
	BRYAN AVE	800 E	900 E	\$310,153	
	INDUSTRIAL RD	2100 S	ASSOCIATED AV	\$401,643	
	JEFFERSON ST	S TERMINUS END	1400 S	\$80,300	
	KENSINGTON AVE	800 E	900 E	\$308,933	
	LIBERTY AVE	LAKE ST	800 E	\$81,454	
	ROOSEVELT AVE	600 E	700 E	\$239,128	
2023	100 S	600 W	500 W	\$696,337	<b>\$3,042,677</b>
	1000 E	ATKIN AV	2700 S	\$327,363	
	640 S	IVERSON ST	CONWAY CT	\$49,804	
	ASHTON AVE	1100 E	HIGHLAND DR	\$228,845	
	DALLIN ST	COUNTRY CLUB DR	STRINGHAM AV	\$371,763	
	GREGSON AVE	900 E	LINCOLN ST	\$127,494	
	LINCOLN ST	ELM AV	2100 S	\$244,435	
	MEADOW LN	GREEN ST	700 E	\$61,644	
	PIERPONT AVE	400 W	300 W	\$182,269	
	RICHARDS ST	900 S	800 S	\$405,280	
	SIMPSON AVE	1100 E	HIGHLAND DR	\$164,211	
UNIVERSITY ST	600 S	700 S	\$183,231		

## Local Street Reconstruction Candidates

Year	Street	From	To	Cost	Total for Year
2024	18TH AVE	LITTLE VALLEY RD	TERRACE HILLS DR	\$156,924	<b>\$2,989,776</b>
	1ST AVE	B ST	C ST	\$188,556	
	CANYON (E) RD	4TH AV	220 N	\$45,665	
	DE SOTO ST	GIRARD AV	N TERMINUS END	\$317,145	
	DEVONSHIRE DR	SUNSET OAKS DR	LANCASTER DR	\$623,231	
	KENSINGTON AVE	WASATCH DR	INDIAN HILLS CIR	\$274,482	
	KRISTIANNA CIR	VIRGINIA ST	E CULD AC END	\$292,344	
	OQUIRRH DR	OAK HILLS WY	ST MARYS WY	\$581,727	
	PERRY AVE	TRAFFIC -Y-	SIGBEE TRAF CIR	\$116,446	
	PERRY AVE	VIRGINIA ST	LAUREL ST	\$144,856	
	PERRYS HOLLOW RD	TOMAHAWK DR	NEW BONNEVILLE PL (PVT)	\$75,171	
	SIGSBEE AVE	SIGSBEE TRAF CIR	SIGSBEE TRAF CIR INCLUSIVE	\$112,534	
	WEST CAPITOL ST	ZANE AV	GIRARD AV	\$60,695	
2025	800 W	800 S	700 S	\$399,162	<b>\$2,220,335</b>
	800 W	900 S	800 S	\$423,512	
	EMILY CIR	S TERMINUS END	800 N	\$48,876	
	GARNETTE CIR	W CULDESAC END	GARNETTE ST	\$65,516	
	GOODWIN CIR	W CULDESAC END	GARNETTE ST	\$54,420	
	GREEN ST	FULLER AV	500 S	\$146,682	
	IRVING ST	S CULDESAC END	800 N	\$96,787	
	NEBULA WAY	W TERMINUS END	SILVER STAR DR	\$70,430	
	PARK ST	BROWNING AV	SHERMAN AV	\$222,546	
	PRINCETON AVE	1100 E	DOUGLAS ST	\$389,756	
	REDONDO AVE	600 E	700 E	\$210,658	
VAN NESS PL	400 E	E TERMINUS END	\$91,990		
				<b>Total</b>	<b>\$17,352,064</b>

This plan will be reevaluated annually based on funding and City priorities.



## Local Street Overlay Candidates

Year	Street	From	To	Cost	Total for Year
2020	Beverly St	Claybourne Ave	2700 South	\$58,280	<b>\$1,790,680</b>
	C St	7th Ave	9th Ave	\$135,520	
	Crandall Ave	1400 East	1500 East	\$98,680	
	Driggs Ave	Highland Dr	1300 East	\$116,120	
	Glenmare St	2700 South	Stratford Ave	\$161,280	
	J St	13th Ave	Northcrest Dr	\$13,920	
	Jeremy St	600 South	500 South	\$119,920	
	Lynwood Dr	2500 East	Parleys Way	\$113,600	
	Mary Dott Way	Melbourne St	Preston St	\$91,480	
	5th Ave	C St	E St	\$131,680	
	6th Ave	D St	E St	\$70,120	
	8th Ave	E St	G St	\$134,480	
	12th Ave	J St	K St	\$55,680	
	800 West	100 South	South Temple St	\$158,400	
	800 West	Paxton Ave	California Ave	\$124,200	
	1300 East Frontage Rd	Stratford Ave	1300 East	\$68,240	
	1400 East	3000 South	Hudson Ave	\$42,320	
1900 East	Parleys Canyon Blvd	Wilmington Ave	\$96,760		
2021	Belmont Ave	900 East	1000 East	\$126,640	<b>\$1,120,320</b>
	Bryan Ave	600 East	700 East	\$107,160	
	Glenmare St	Harrison Ave	Sherman Ave	\$45,640	
	Herbert Ave	1000 East	McClelland St	\$29,000	
	Kelsey Ave	200 East	300 East	\$112,480	
	Lake St	Belmont Ave	Princeton Ave	\$155,960	
	Westmoreland Dr	1500 East	Filmore St	\$83,960	
	800 East	Harrison Ave	1300 South	\$95,920	
	1200 East	Gilmer Dr	900 South	\$50,960	
	1400 East	1700 South	Kensington Ave	\$147,640	
	1600 East	Bryan Ave	Emerson Ave	\$130,520	
	1600 East	Harrison Ave	Sherman Ave	\$34,440	

## Local Street Overlay Candidates

Year	Street	From	To	Cost	Total for Year
2022	Cannon Ave	Natura St	1000 West	\$49,960	<b>\$1,694,360</b>
	Emery St	Dalton Ave	Mead Ave	\$76,480	
	Glandale Dr	Navajo St	Bell Ave	\$106,360	
	Michigan Ave	1500 East	Fairview Ave	\$108,600	
	Park St	Ramona Ave	Downington Ave	\$125,360	
	Rosewood Ave	200 East	300 East	\$91,960	
	Wilson Ave	300 East	400 East	\$126,000	
	Yale Ave	1900 East	2000 East	\$91,640	
	400 East	2100 South	Hollywood Ave	\$107,840	
	900 South	Foothill Dr	2000 East	\$43,840	
	2100 South	Redwood Rd	Empire Rd	\$376,400	
	3200 West	Directors Row	California Ave	\$389,920	
2023	Glen Oaks Dr	Scenic Dr	Belaire Dr	\$94,280	<b>\$1,580,880</b>
	Federal Heights Dr	Alta St	Federal Heights Cir	\$272,960	
	J St	South Temple St	1st Ave	\$69,520	
	M St	4th Ave	5th Ave	\$53,880	
	Pierpont Ave	1200 West	1100 West	\$84,280	
	Promontory Dr	Summit Cir	Scenic Dr	\$84,400	
	Pueblo St	Terminus	900 South	\$39,320	
	Q St	South Temple St	1st Ave	\$50,400	
	Sigsbee Ave	Sigsbee Traffic Circle	Military Traffic Circle	\$41,960	
	T St	3rd Ave	4th Ave	\$55,240	
	U St	1st Ave	2nd Ave	\$45,160	
	Yuma St	Emerson Ave	St Marys Dr	\$74,880	
	1st Ave	O St	P St	\$65,600	
	1st Ave	T St	U St	\$64,920	
	2nd Ave	N St	O St	\$67,160	
	2nd Ave	P St	Q St	\$66,560	
	2nd Ave	U St	Virginia St	\$54,320	
	4th Ave	K St	L St	\$55,600	
1000 West	200 South	100 South	\$116,680		
1000 West	500 South	400 South	\$123,760		

## Local Street Overlay Candidates

Year	Street	From	To	Cost	Total for Year
2024	Connor St	Westminster Ave	Downington Ave	\$102,600	<b>\$1,093,480</b>
	Crestview Dr	Oak Hills Way	Vista View Dr	\$281,080	
	Denver St	Gudgell Ct at 729 South	800 South	\$36,040	
	Dickens Pl	Donner Way	Terminus	\$46,480	
	East Capitol Blvd	Edgecombe Dr	South Sandrun Rd	\$237,280	
	Kensington Ave	2300 East	Foothill Dr	\$86,760	
	Northvale Way	Terrace Hills Dr	Terminus	\$30,560	
	Wilton Way	Canterbury Dr	Sherwood Dr	\$206,680	
	600 North	600 West	600 North Overpass	\$66,000	
This plan will be reevaluated annually based on funding and City priorities.				<b>Total</b>	<b>\$7,279,720</b>

<b>Summary</b>					
	<b>Arterial &amp; Collector Reconstruction</b>	<b>Arterial &amp; Collector Overlay</b>	<b>Local Street Reconstruction</b>	<b>Local Street Overlay</b>	<b>Yearly Totals</b>
<b>2020</b>	\$4,800,000	\$526,560	\$3,039,606	\$1,790,680	<b>\$10,156,846</b>
<b>2021</b>	\$16,250,000	\$2,693,160	\$2,979,663	\$1,120,320	<b>\$23,043,143</b>
<b>2022</b>	\$14,600,000	\$1,491,040	\$3,080,006	\$1,694,360	<b>\$20,865,406</b>
<b>2023</b>	\$14,400,000	\$1,645,240	\$3,042,677	\$1,580,880	<b>\$20,668,797</b>
<b>2024</b>	\$8,300,000	\$1,259,960	\$2,989,776	\$1,093,480	<b>\$13,643,216</b>
<b>2025</b>	\$10,000,000		\$2,220,335		<b>\$12,220,335</b>
<b>Method Totals</b>	<b>\$68,350,000</b>	<b>\$7,615,960</b>	<b>\$17,352,064</b>	<b>\$7,279,720</b>	<b>\$100,597,744</b>

This plan will be reevaluated annually based on funding and City priorities.

## Appendix A: Descriptions and Photos of Pavement Condition Classifications

### Overall Pavement Condition (OCI) Ratings Examples

The following pages present examples of roadway maintenance strategies that would be recommended based on the stated roadway pavement condition.

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**Pavement Condition:** Good

**Recommended Maintenance Strategy:** Pavement requires only minor or no maintenance activities over the next five years



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**Pavement Condition:** Satisfactory (Minor cracking and oxidation)

**Recommended Maintenance Strategy:** Slurry Seal



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**Pavement Condition:** Fair (Significant cracking and oxidation)

**Recommended Maintenance Strategy:** Chip Seal



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**Pavement Condition:** Poor (Major cracking, rutting, and oxidation)

**Recommended Maintenance Strategy:** Rehabilitation (Overlay)



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**Pavement Condition:** Very Poor (Major cracking, patches, and sunken pavement)

**Recommended Maintenance Strategy:** Reconstruction










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**Pavement Condition:** Serious and Failed (Pavement has failed – ongoing repairs needed to maintain the roadway in a safe passable condition)

**Recommended Maintenance Strategy:** Reconstruction





DESCRIPTION	PERCENT OF NETWORK	LEGEND
Good	1.60%	
Satisfactory	8.89%	
Fair	25.84	
Poor	36.61%	
Very Poor	21.31%	
Serious	5.41%	
Failed	0.34%	

## Good

OCI Range: 86-100



## Satisfactory

OCI Range: 71-85



## Fair

OCI Range: 56-70



# Poor

OCI Range: 41-55



# Very Poor

OCI Range: 26-40



# Serious

OCI Range: 11-25



# Failed

OCI Range: 0-15



Typical Pavement Distress Conditions Seen Within Pavement Classifications

**Block  
Cracking**



**Edge  
Cracking**



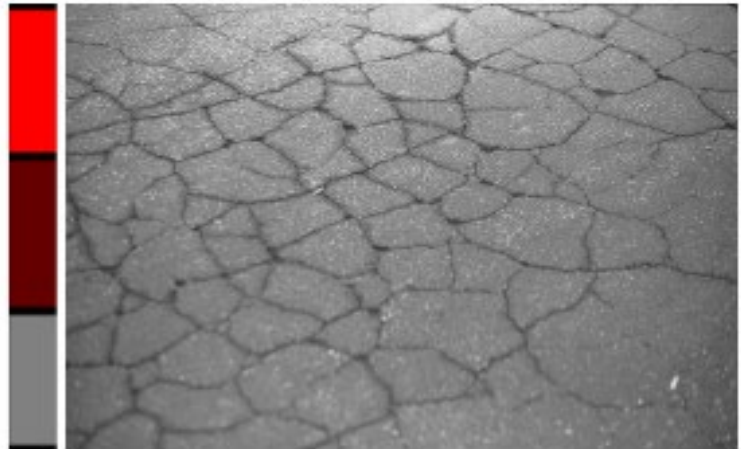
**Potholes**



**Shoving**



**Alligator  
Cracking**



**Rutting**



## Crack Sealing

Hot rubberized sealant to prevent water intrusion.



## Slurry Sealing

Mixture of small rock, asphalt, cement and water.



## Chip Sealing

Fine gravel, evenly spread, covered by liquid asphalt.



## Asphalt Overlay

Removal of top layer and replaced with new asphalt.



## Reconstruction

Rebuild of entire road structure.

