

Cottonwood Heights Public Works Department

October 2022 Quarterly Report

Crack Seal

- ✓ Used to seal cracks in the surface to prevent water from entering into the roadbase.
- ✓ Best completed during the Fall and Winter when the cracks are at their widest
- ✓ Used to prepare a road for future treatments such as slurry seals and chip seals



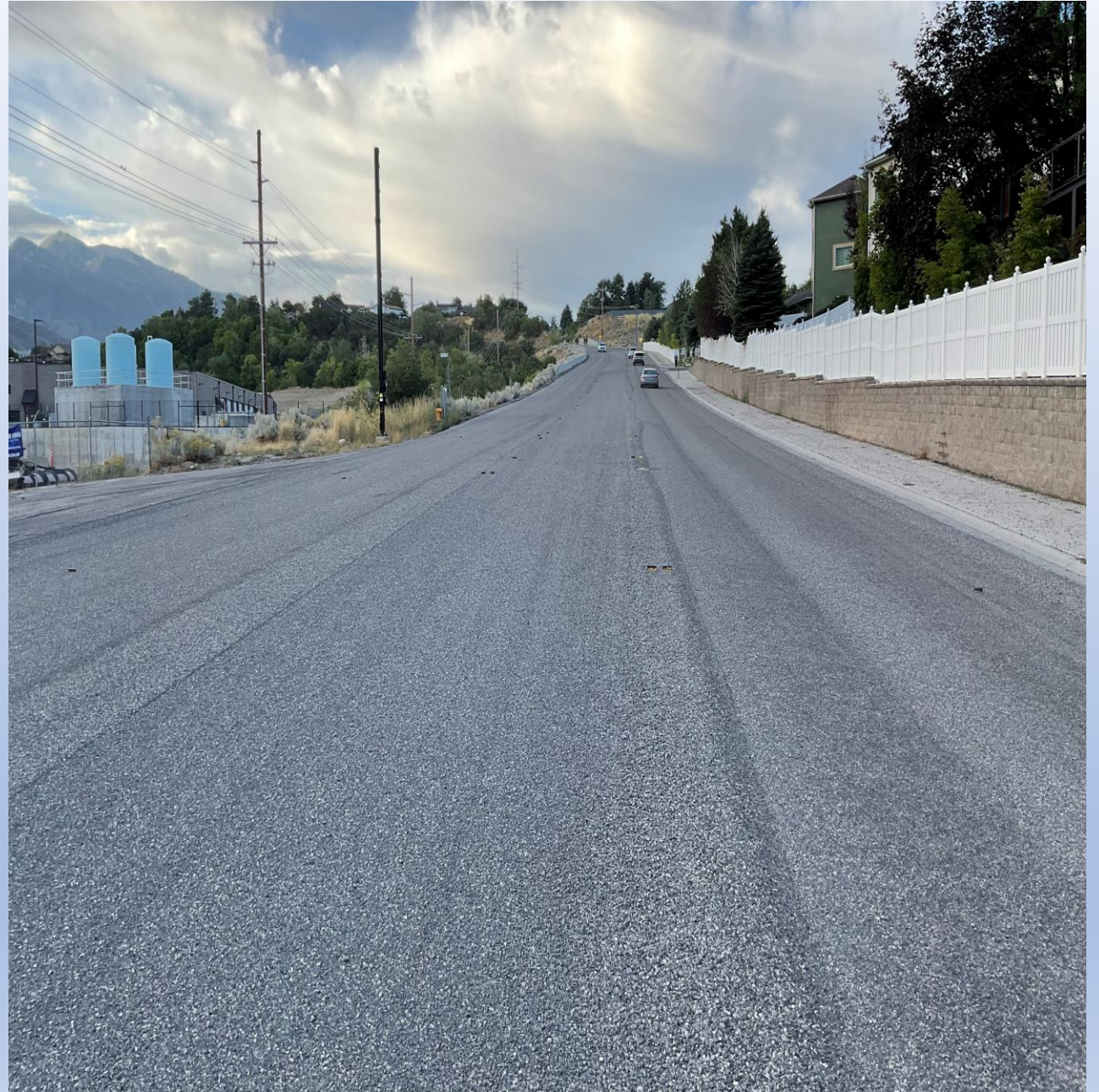
Slurry Seals

- ✓ A slurry seal is the application of a mixture of water, asphalt emulsion, aggregate (very small crushed rock), and additives to an existing asphalt pavement surface. Combining the two products is what gives it the name “slurry”. The placement of this mixture on existing pavement is the “seal” as it is intended to seal the pavement surface. Slurry seals are generally used on residential streets.
- ✓ Slurry seal is applied in order to help preserve and protect the underlying pavement structure and provide a new driving surface. Roads chosen for slurry seal applications generally have low to moderate distress and narrow crack width. Slurry seal applications serve to seal the cracks, restore lost flexibility to the pavement surface, and help preserve the underlying pavement structure.
- ✓ Gives approximately five to eight years more life of road surface
- ✓ Slurry Seal costs are approximately \$.20 / ft²



Chip Seals

- ✓ Chip seals are a highly cost-effective pavement preservation treatment that protects aging pavement surfaces, seals and waterproofs the existing pavement, and provides a new wearing surface.
- ✓ Chip seals, also known as stone seals, combine an asphalt layer and cover aggregate to provide a skid resistant wearing surface. The treatment preserves and protects the aging surface, fills minor cracks, and seals and waterproofs the existing pavement.
- ✓ Process for chip seals:
 - ☐ Crack seal roads
 - ☐ Level course of asphalt
 - ☐ Oil emulsion followed by rock (chips), compacted
 - ☐ Fog seal to lock in the rock
- ✓ Chip seals give a road an extra 8 to 10 years of life
- ✓ Chip Seal costs are approximately \$.85 / ft²



Roadway Reconstruction

- ✓ Removal of existing asphalt surface
- ✓ Removal of roadbase either all or in part
- ✓ Repair and replace curb and gutter
- ✓ New ADA ramps
- ✓ Storm drain repair and upgrade
- ✓ Reconstruction restarts the road life but road will deteriorate quickly if regular surface maintenance is not done on a regular schedule
- ✓ Reconstruction of a road ranges from \$6.25 to \$14 per square foot



Five Year Maintenance Plan

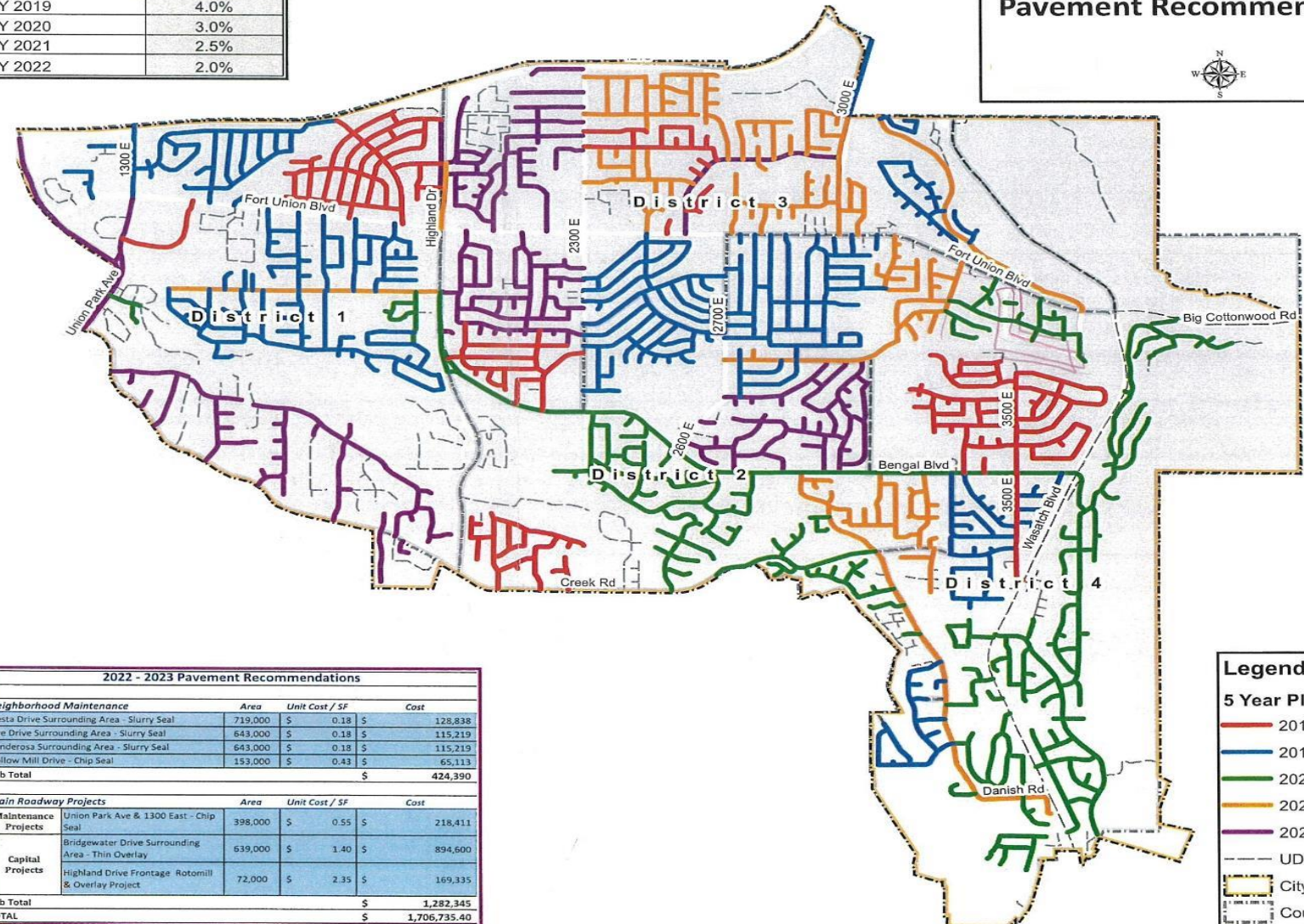
2018 - 2019 Pavement Recommendations				
Neighborhood Maintenance		Area	Unit Cost / SF	Cost
Willow Stream Drive Surrounding Area - Slurry Seal		305,000	\$ 0.16	\$ 48,800
Butler Hills Drive Surrounding Area - Slurry Seal		375,880	\$ 0.18	\$ 67,658
7710 South Surrounding Area - Slurry Seal		230,000	\$ 0.16	\$ 36,800
3500 East Surrounding Area - Slurry Seal		715,300	\$ 0.16	\$ 114,448
Greenfield Surrounding Area - Slurry Seal		544,500	\$ 0.16	\$ 87,120
Greenfield Way - Chip Seal		112,500	\$ 0.43	\$ 48,375
Prep Work for 2019 - 2020 Projects		1	\$ 186,361.20	\$ 186,361
Sub Total				\$ 566,045
Main Roadway Projects				
		Area	Unit Cost / SF	Cost
Maintenance Projects	3500 East - Chip Seal	252,000	\$ 0.45	\$ 113,400
Capital Projects	Park Centre Drive - 2.5 Inch Rotomill and Overlay with Pavement Fabric	74,500	\$ 2.25	\$ 167,625
Sub Total				\$ 281,025
TOTAL				\$ 847,070.00

2019 - 2020 Pavement Recommendations			
Neighborhood Maintenance	Area	Unit Cost / SF	Cost
BCC Road Surrounding Area	238,000	\$ 0.17	\$ 39,603
Parkridge Drive Surrounding Area	668,000	\$ 0.17	\$ 113,135
1300 East Surrounding Area	610,000	\$ 0.17	\$ 103,504
1700 East Surrounding Area	440,000	\$ 0.17	\$ 73,216
2200 East Surrounding Area	1,650,000	\$ 0.17	\$ 278,545
3500 East Surrounding Area	455,000	\$ 0.17	\$ 77,312
Prep Work for 2020 - 2021 Projects	1	\$ 125,465.50	\$ 125,466
Sub Total			\$ 792,896
Main Roadway Projects	Area	Unit Cost / SF	Cost
Capital Projects			
Scottish Drive - 2.5 Inch Rotomill/Fabric Overlay	229,000	\$ 2.60	\$ 595,400
3000 East (Half) & Public Works Intersection - 2 Inch Rotomill and Overlay	74,000	\$ 2.18	\$ 161,616
Sub Total			\$ 757,016
TOTAL			\$ 1,549,912.00

2020 - 2021 Pavement Recommendations				
Neighborhood Maintenance		Area	Unit Cost / SF	Cost
Oak Creek Drive Surrounding Area		1,107,000	\$ 0.17	\$ 188,191
Kings Hill Surrounding Area		1,771,000	\$ 0.17	\$ 300,315
Prep Work for 2021 - 2022 Projects		1	\$ 241,013.94	\$ 241,014
Sub Total				\$ 734,280
Main Roadway Projects		Area	Unit Cost / SF	Cost
Maintenance Projects	Bengal Blvd Reclaimite	704,000	\$ 0.14	\$ 98,560
	Highland Drive Onyx	161,000	\$ 0.75	\$ 120,724
Capital Projects	1950 East Surrounding Area Overlay w/ rotomill	83,000	\$ 2.25	\$ 186,710
	Reindeer Drive Surrounding Area Overlay w/ rotomill	261,000	\$ 2.25	\$ 587,125
Sub Total				\$ 992,595
TOTAL				\$ 1,726,875.46

2021 - 2022 Pavement Recommendations				
Neighborhood Maintenance	Area	Unit Cost / SF	Cost	
6600 South Area - Slurry Seal	221,000	\$ 0.18	\$	39,822
Bankbury Drive Area - Slurry Seal	471,000	\$ 0.18	\$	82,744
Pine View Area - Slurry Seal	270,000	\$ 0.18	\$	47,431
Sundown Ave. Area - Slurry Seal	200,000	\$ 0.18	\$	35,135
Deer Creek Area - Slurry Seal	341,000	\$ 0.18	\$	59,906
Stone Mill Area - Overlay	194,000	\$ 2.31	\$	447,137
BCC Road Slurry Seal	186,000	\$ 0.18	\$	32,676
Prep Work for 2022 - 2023	1	\$ 230,040.00	\$	230,040
Sub Total			\$	974,075
Main Roadway Projects				
Maintenance Projects	Area	Unit Cost / SF	Cost	
7200 South & 3000 East Chip Seal	302,000	\$ 0.42	\$	126,840
Capital Projects	Chip Seal & Slurry Seal - Danish Road	329,000	\$ 0.42	\$ 137,269
	Highland Drive - Rotomill and Overlay	210,000	\$ 2.58	\$ 541,853
Sub Total			\$	805,127
TOTAL			\$	1,779,201.94

UDOT Construction Recommended Inflation Rate	
FY 2019	4.0%
FY 2020	3.0%
FY 2021	2.5%
FY 2022	2.0%



Five Year Pavement Recommendations

Legend

5 Year Plan

- 2018 - 2019
- 2019 - 2020
- 2020 - 2021
- 2021 - 2022
- 2022 - 2023
- UDOT & Private Roads
- City Boundary
- Council Districts

Cottonwood Heights

Year Four of the Five-Year Maintenance Plan

Slurry Seal Projects: Completed approximately 2 million Square Feet

- Sundown Ave.
- 6600 S. Area
- Banbury Drive
- Nutree Drive
- Walnut Way Area
- Deer Creek Road
- Danish Ridge Way Area

Chip Seal Projects: Completed approximately 780,000 Square Feet

- Big Cottonwood Canyon Road
- Danish Road
- 7200 South

Cottonwood Heights

Year Five of the Five-Year Maintenance Plan

Slurry Seal Projects: Completed approximately 555,000 Square Feet

- Nye Drive Area

Chip Seal Projects: Completed approximately 150,000 square feet

- Hollow Mill Drive

Slurry Seals



Slurry Seals



Chip Seals



Chip Seals



Bengal Blvd Round About



Bengal Blvd Round About





Ferguson Canyon Park