



Park County Public Works

2022 Project List



PREFACE

This book is intended to be the construction manual for the projects that will be completed in the 2022 construction season. For each project the estimated material quantities are listed as well as specifications, costs and a general description of work. In addition, total project costs and project budget comparison is included. In 2021 several gravel roads were improved from the 4 Mile Fishing Club to Mountain View, CR 14 and Valley of the Sun. In addition, CR 32 was improved by the addition of 2 miles of new chip seal.

Each year the goal will be to as a minimum add 2 miles of new chip seal and overlay a minimum of 4 miles of existing chip seal. Major blade patching and shoulder work will be performed on other chip seal roads so that they can be overlaid the following year. In 2022 a total of 3.7 miles of new chip seal will be added.

Project 6 is a carryover from 2021. This project was delayed due to environmental approvals from Colorado Department of Transportation, these have now been worked through and construction is planned for the spring of 2022. Project 7 is an ongoing project in Valley of the Sun to improve roads in this subdivision. Project 9 is also a carryover from 2021.

PROJECT SUMMARY FOR 2022

CHIP SEAL

ROAD NAME	DISTANCE (MILES)	PROJECT TYPE	COST	DISTRICT
CR 68	1.8	1-PIN CHIP SEAL ½"	\$35,565	D1
CR 68	1.7	NEW 2-PIN CHIP SEAL	\$62,551	D1
CR 32	2.0	NEW 2-PIN CHIP SEAL	\$73,588	D2
CR 59/92	4.0	1-PIN CHIP SEAL ½"	\$74,906	D3

TOTAL FOR CHIP SEAL \$246,610

ASPHALT PAVEMENT

ROAD NAME	TONS	PROJECT TYPE	COST	DISTRICT
APRON EXTENSION	230	EXTEND APRONS FROM HWY 9	\$12,650	D4
CUL-DE-SAC BUBBLES	272	CUL-DE-SAC BUBBLES	\$14,960	D1

TOTAL FOR ASPHALT PAVEMENT 2022 \$27,610

TOTAL FOR ALL HARD SURFACE 2022 \$274,220

2022 PLANNED PROJECTS AND BUDGET

SUMMARY OF COSTS FOR PROPOSED PROJECTS IN 2022

PROJECT	TOTAL COST	2022 PROPOSED BUDGET	OVER/UNDER
MAG STABILIZATION (DUST SUPPRESSANT) INCLUDING RE-APPLICATION) *	185,000	200,000	-15,000
ROAD OIL	245,916	230,000	+15,916
OTHER ROAD MATERIALS	40,000	50,000	-10,000
ASPHALT PATCH	100,000	100,000	0
MISC. (ADDITIONAL CULVERT/CATTLE GUARD)	8,000	0	+3,000
TOTALS	\$379,057	\$382,000	-\$6,084

*Includes the placement of the initial application of dust suppressant on 2 miles of CR 98 from the CR 403 to Wagon Tongue. Also included is the addition of 2 miles of new chip seal on CR 32 to extend the chip seal to Chief and the addition of 1.7 miles on new chip seal on CR 68.

PROJECT NUMBER 2

CR 32

LENGTH	PROJECT TYPE	COST
2 Miles	2-Pin Chip Seal	\$73,588

DESCRIPTION

This project will include placing a new 2-pin chip seal on CR 32 from the existing chip seal, which was completed in 2021 to Chief Trail.

ESTIMATED QUANTITIES

CSS-1H 31,540 gallons

REQUIRED EQUIPMENT

GRADER 1
DISTRIBUTOR 1
WATER TRUCK 1
ROLLER 1 Rubber Tire
 1 Steel Drum
CHIP SPREADER 1
TRUCKS 4

PERSONNEL REQUIRED

CREW 9 **DURATION** 8 Days

ANTICIPATED START DATE: Anticipated Start Date is June 27, 2022.

PROJECT NUMBER 3

CR 59/92

LENGTH	PROJECT TYPE	COST
4 miles	1-Pin Chip Seal Overlay	\$74,906

DESCRIPTION

This project will include placing a 1-pin chip seal overlay on 4 miles of CR 59 and CR 92 near 11 Mile Reservoir. Heavy patching was completed on these roads in 2021. These patches will be fully cured by the 2022 season, making it possible to place the overlay.

ESTIMATED QUANTITIES

CSS-1H 34,918 gallons

REQUIRED EQUIPMENT

DISTRIBUTOR 1

ROLLER 1 Rubber Tire

CHIP SPREADER 1

TRUCKS 4

PERSONNEL REQUIRED

CREW 9

DURATION 8 Days

ANTICIPATED START DATE: Anticipated Start Date is July, 2022.

PROJECT NUMBER 4

CR 4, 6, 1, 12

LENGTH	PROJECT TYPE	COST
400 feet	Hot Mix Asphalt Apron Extension	\$12,650

DESCRIPTION

This project will include extending the existing asphalt aprons on various county roads. These existing aprons will be extended to improve drainage at their intersections. The extensions will consist of 4-inch hot mix asphalt pavement. The asphalt pavement will be placed once the subgrade has been reshaped and compacted.

ESTIMATED QUANTITIES

HOT MIX ASPHALT 230 Tons

REQUIRED EQUIPMENT

DISTRIBUTOR 1

ROLLER 1 Rubber Tire
 1 Steel Drum

ASPHALT PAVER 1

TRUCKS 4

PERSONNEL REQUIRED

CREW 7

DURATION 8 Days

ANTICIPATED START DATE: Anticipated Start Date is late May to be coordinated around Chip Seal Projects.

PROJECT NUMBER 5

Mill Iron D Cul-De-Sacs

AREA	PROJECT TYPE	COST
1,260 SY	Hot Mix Asphalt Apron Extension	\$12,650

DESCRIPTION

This project will consist of placing hot mix asphalt pavement on the cul-de-sac bubbles in the Mill Iron D Subdivision. The subgrade will be scarified, mixed and re-compacted and then a 4-inch matt of hot mix asphalt will be placed.

ESTIMATED QUANTITIES

HOT MIX ASPHALT 320 Tons

REQUIRED EQUIPMENT

DISTRIBUTOR 1
GRADER 1
ROLLER 1 Rubber Tire
 1 Steel Drum
ASPHALT PAVER 1
TRUCKS 4

PERSONNEL REQUIRED

CREW 7 DURATION 8 Days

ANTICIPATED START DATE: Anticipated Start Date is late May to be coordinated around Chip Seal Projects.

PROJECT NUMBER 6

CR 64 Bridge

LENGTH	PROJECT TYPE	COST
NA	Bridge Rehabilitation	\$3,000

DESCRIPTION

The project was anticipated to be completed in the fall of 2021, however, due to timing of environmental approvals from Colorado Department of Transportation (CDOT) the project was postponed until the spring of 2022. In discussions with CDOT they now feel it can go to add in January 2022 with an awarded project in March and begin construction late April. The project will include necessary repairs to the bridge on CR 64 at Highway 285. A shotcrete liner will be placed in the three culverts that comprise this bridge. The majority of this work will be performed by contractors.

ESTIMATED QUANTITIES

REQUIRED EQUIPMENT

Vac Truck 1

Excavator 1

End Dump 1

PERSONNEL REQUIRED

CREW 4

DURATION 15 Days

ANTICIPATED START DATE: Anticipated Start Date is late April 2022.

PROJECT NUMBER 7

CR 14, MOUNTAIN VIEW, CR 1, CR 12

LENGTH	PROJECT TYPE	COST
NA	Road Resurfacing	\$25,000

DESCRIPTION

This project is ongoing from 2021 and will include the resurfacing of these roads to create an improved thoroughfare for traffic. It will consist of utilizing the rock crusher to crush rocks as ditches and back slopes are cleaned to provide cover material on these rocky roads. In addition, surface material will then be added to provide a smooth maintainable road surface with proper shape.

ESTIMATED QUANTITIES

NEW SURFACE 8,500 Tons

REQUIRED EQUIPMENT

CRUSHER 1

GRADER 2

WATER TRUCK 1

TANDEM TRUCK 4

PERSONNEL REQUIRED

CREW 4

DURATION 30 Days

ANTICIPATED START DATE: Anticipated Start Date is May 2022.

PROJECT NUMBER 8

Silverheels Drainage Improvements

LENGTH	PROJECT TYPE	COST
NA	Drainage Improvements in Silverheels	\$3,000

DESCRIPTION

This project is a carryover from 2021 and will include the cleaning and repair of key culverts in the Silverheels Subdivision. In addition, 3 new culverts are planned for installation. A bog area on Silverheels Road will also be repaired by removing material and placing drainage rock and fabric to allow this area to drain.

ESTIMATED QUANTITIES

24 INCH CULVERT 80 Feet

REQUIRED EQUIPMENT

LOADER 1

EXCAVATOR 1

BACKHOE 1

GRADER 1

VAC TRUCK 1

PERSONNEL REQUIRED

CREW 4

DURATION 15 Days

ANTICIPATED START DATE: Anticipated Start Date is early May 2022.

PROJECT NUMBER 9

CR 98 for CR 403 to Wagon Tongue

LENGTH	PROJECT TYPE	COST
2.2 Miles	Mag Chloride Application	\$15,797

DESCRIPTION

This project will include the placement of mag chloride on CR 98. Mag chloride was placed on CR 98 from the county line to CR403 in 2021. This project would extend the mag chloride to Wagon Tongue. The crew is currently placing clay on this section of road and will do prep work as weather allows in the early part of spring. The mag chloride will then be applied at a rate of 0.6gallons/SY and the material will be shaped to maintain a 4% crown. Compaction will then be achieved with a steel drum roller and rubber tire roller. Anticipated duration will be 5 days.

ESTIMATED QUANTITIES

MAG CHLORIDE 27,035 gallons

REQUIRED EQUIPMENT

GRADER 2

DISTRIBUTOR 1

WATER TRUCK 1

ROLLER 2 Rubber Tires

PERSONNEL REQUIRED

CREW 4

DURATION 5 Days

ANTICIPATED START DATE: Anticipated Start Date is May 15, 2022.

CONTINGENCY PROJECTS 2022

There are 6 Contingency Projects currently scheduled for the 2022 construction season. These projects are dependent upon time and available funds. In addition to the 6 listed Contingency Projects other additional in-house small-scale projects will be completed as necessary. These small-scale projects mainly include drainage improvements on various roads as well as adding and mixing clay into other gravel roads. The 6 primary projects are listed on the following pages.

CONTINGENCY PROJECT NUMBER 1

Coil and CR 18

LENGTH	PROJECT TYPE	COST
2.56 Miles	1 - Pin Chip Seal Overlay	\$44,127

DESCRIPTION

This project will include the placement of a chip seal overlay from the intersection at US 285 and CR 18 and extending a distance of 1.21 miles to the intersection of Coil Dr., then continue on Coil Dr. for 1.35 miles to the surface change. Additional areas requiring patching will be patched with hot mix asphalt (HMA) in May of 2022.

ESTIMATED QUANTITIES

CHIP AGGREGATE 725 Tons
ROAD OIL 14,420 Gallons
FOG OIL 4,327 Gallons

REQUIRED EQUIPMENT

CHIP SPREADER 1
DISTRIBUTOR 1
WATER TRUCK 1
ROLLER 2 Rubber Tires
BROOM 1
TANDEM DUMP TRUCK 5

PERSONNEL REQUIRED

CHIP CREW 8

DURATION 4 DAYS

ANTICIPATED START DATE:

CONTINGENCY PROJECT NUMBER 2

CR 33 and CR 50

LENGTH	PROJECT TYPE	COST
5 Miles	Surface Repair	In House

DESCRIPTION

This project will include utilizing the on-road rock crusher to crush rocks from the road, ditches and back slopes. Clay will then be added to the crushed material and it will be laid back onto the road surface and compacted.

ESTIMATED QUANTITIES

REQUIRED EQUIPMENT

CRUSHER	1
WATER TRUCK	1
GRADER	1
ROLLER	1 Steel Drum
TANDEM	1

PERSONNEL REQUIRED

CREW 3

DURATION 2 Weeks

CONTINGENCY PROJECT NUMBER 3

CR 102

LENGTH	PROJECT TYPE	COST
4 Miles	Pavement Rehabilitation	\$8,000

DESCRIPTION

This project will consist of rehabilitating portions of CR 102 in preparation for a 1-pin chip seal overlay the following year. The rehabilitation will consist of utilizing the reclaimer with tack oil and/or the infrared heater and a hot box to repair failing areas of the existing asphalt pavement. In addition, hot mix asphalt patching will be conducted. By using the infrared heater and hot box the amount of fresh hot mix asphalt will be minimized.

ESTIMATED QUANTITIES

HOT MIX ASPHALT 100 Tons
TACK OIL 2500 Gallons

REQUIRED EQUIPMENT

RECLAIMER 1
INFRARED HEATER 1
HOT BOX HEATER 1
ROLLER 1 Steel Drum
TANDEM 1

PERSONNEL REQUIRED

CREW 4

DURATION 2 WEEKS

CONTINGENCY PROJECT NUMBER 4

Will-O-the-Wisp

TONS	PROJECT TYPE	COST
1120 Tons	Hot Mix Asphalt Pavement	\$56,000

DESCRIPTION

This project will include the placement of 4-inch thick hot mix asphalt pavement to be placed on the cul-de-sac bubbles in the subdivision.

ESTIMATED QUANTITIES

Hot Mix Asphalt **1,200 Tons**

REQUIRED EQUIPMENT

GRADER	1
WATER TRUCK	1
PAVER	1
ROLLER	1 Steel Drum 1 Rubber Tire
TANDEM	5

PERSONNEL REQUIRED

CREW **7**

DURATION **1 WEEK**

CONTINGENCY PROJECT NUMBER 5

Breakneck Pass

LENGTH	PROJECT TYPE	COST
0.5 Miles	2-Pin Chip Seal	\$18,000

DESCRIPTION

This project will include the placement of a new 2-pin chip seal from the intersection at CR 5 to the gate at Warm Springs. The road surface would be prepped and shaped then the chip seal placed. The increased traffic volumes on this section of Breakneck Pass have increased to a point that dust suppressant alone is now insufficient.

ESTIMATED QUANTITIES

CHIP AGGREGATE 250Tons
ROAD OIL 7040 Gallons
FOG OIL 850 Gallons

REQUIRED EQUIPMENT

CHIP SPREADER 1
DISTRIBUTOR 1
WATER TRUCK 1
ROLLER 2 Rubber Tires
BROOM 1
TANDEM DUMP TRUCK 5
GRADER 1

PERSONNEL REQUIRED

CHIP CREW 8

DURATION 4 DAYS

ANTICIPATED START DATE:

CONTINGENCY PROJECT NUMBER 6

CR 64

LENGTH	PROJECT TYPE	COST
1.5 Miles	Dust Suppressant	\$10,800

DESCRIPTION

This project is to alleviate excessive dust for residents on CR 64 at both ends when accidents occur on US 285 between Shawnee and Bailey when traffic is diverted onto CR 64. The project would include placing mag chloride at the rate of 0.6 gallons per square yard on these portions of CR 64 to alleviate excess dust.

ESTIMATED QUANTITIES

REQUIRED EQUIPMENT

DISTRIBUTOR	1
GRADER	1
ROLLER	1 Steel Drum
TANDEM	1

PERSONNEL REQUIRED

CREW 4

DURATION 3 Days