

## **Timber Ridge Road Maintenance Plan Updated: January 2023**

The CTR Metro District Board developed a projected plan/budget for our roads in 2020 for both short and long term. The plan is to inspect and assess the roads every year with Rich Bechtolt, Road Consultant Engineer and adjust the plans and future projected cash flow accordingly and communicate that info to all the lot owners .

Please see the CTRMD website under Road Maintenance for more information including the 2022 Updated 20 year cash flow projection:<https://ctrmd.org/road-maintenance/>

### **2022 Updated Timber Ridge Road Maintenance Plan.**

**2021** CTRMD hired Rocky Mountain Chip Seal to perform a Chip Seal with a Fog Seal top layer on all 8 miles of roads in Timber Ridge in 2021. The Cost of the Chip/fog seal was \$309,657. Should last 6-8 years.

### **SHORT TERM Estimated Annual Cost:**

	<b><u>2022(Actual)</u></b>	<b><u>2023-2027 (Estimated Annual Cost)</u></b>
Chip Seal/Fog Seal -	\$0.	\$400,000 (2027 only)
Crack Fill	\$1,593	\$10,000
Patching-Seal Coat	\$3,453	\$15,000
Ditch Work/Special Projects.	<u>\$420</u>	<u>\$4,000</u>
Total Estimated Road Cost	\$5,456 =====	\$29,000 =====

### **Annual Road Maintenance Needed:**

1. Crack fill exposed cracks over 1/4 inch in diameter each year.
2. Patch asphalt road sections that have alligator cracks where the road is sinking down each year as needed.
3. Clear ditches as needed for proper drainage.
4. Chip Seal roads as needed estimated every 6 to 8 years.
5. Once a road has deteriorated beyond reasonable repair then do a Full Depth Reclamation.(See attached video on website)
6. Inspect and assess the roads every year with Rich Bechtel, Engineer and adjust the plans and future budgets accordingly.

**LONG TERM Estimated Cost:**

**Full Depth Reclamation - \$4,275,000(2023 price) 3 inches of Asphalt** - Estimated Cost \$37 per Square Yard (2023 prices) (115,500 S.Y. of asphalt roads) per Strohecker Asphalt & Paving

- 2031 \$850,000
- 2032 \$850,000
- 2033 \$575,000
- 2034 \$500,000
- 2035 \$500,000
- 2036 \$500,000
- 2037 \$500,000

**Road Reserves:** We have \$1,375,000 at end of January, 2023 in our reserve account presently it is earning an average of 3.8 % interest annually. We will need reserves at today's prices of \$4,275,000 to do Full Depth Reclamation(FDR) on our roads once they are deteriorated beyond reasonable repair. The interest rates have risen in 2022 but so has the cost of asphalt and a FDR. So, with the extra interest earned and the increase in property tax from the 5 mill increase approved in 2021 it kind of broke even with the \$1,275,000 increase in an estimated cost of a FDR for our 8 miles of roads. That's \$25 to \$37 per square yard increase from 2020 to 2022. The plan is to continue to update the projected long term cash flow each year. As inflation and interest rates fluctuated greatly in 2022 it is challenging to project long term cash flow.

**Note A:**Assumptions on Forecast:

1. 2% annual inflation on costs, 2% APR on reserve investments and 2% increase in property tax annually are included in the forecast.
2. Projecting that Chip Sealing roads will defer the FDR our roads to start in 8 years(2031) No guarantee.
3. We will inspect and assess the roads every year with Rich Bechtolt, Engineer and adjust the plans and future budget/forecast accordingly.

**NOTE B:**

Annual Income Assumption Highway Use Tax Shared Funds	\$46,000
Specific Ownership Tax Shared Funds	\$12,000

Property Tax 15 Mill Levy	\$146,000
Interest Income	<u>\$20,000</u>
Total	<b>\$224,000</b> =====

**NOTE C:** Our Timber Ridge paved asphalt roads are the most important and largest asset to our community. They are important to maintain our property values and to help make Timber Ridge a premier subdivision in Archuleta County. The goal is to maintain our Timber Ridge roads at a reasonable cost level. We believe to accomplish this, we need to do regular annual maintenance on our roads and adequately fund our road reserve for long term cost. This way all present and future lot owners will pay their share of the road maintenance cost.

Asphalt roads need oil and sealant to prevent further oxidation and water seepage. Oxidation causes the roads to get brittle and deteriorate more quickly. Water seepage gets into the roads, especially during the winter, where it freezes, then melts and deteriorates our asphalt roads. Our consultant recommended performing a Chip Seal rather than a sand seal or seal coat. This is because it lasts longer, provides more protection to our roads, more bang for our bucks and extends the life of the road compared to a seal coat or sand seal coat. The cost between a sand seal and chip seal was not that much for the extra benefits of a chip seal per Rich Bechtolt. Mr. Bechtolt stated in 2020 if we do not do a chip seal on Bristlecone we would need a Full Depth Reclamation in 5 years. By chip sealing our roads we might get 10 years before a FDR. Other roads with less traffic may last longer. No Guarantee, though. We would also prefer to have most Timber Ridge houses built out before performing Full Depth Reclamation on our roads.(see video on FDR on website).

Rich Bechtolt recommended in 2020 not to do a 1.5", 2" or 3" overlay of asphalt because the cost and results would not be beneficial in the long term. Putting an overlay on our existing road base is not recommended. When a road is deteriorated beyond repair it is advised to do a FDR, which rebuilds the base with existing pulverized asphalt and provides new asphalt. See attached Video.

Chip Seal, which has 3/8 inch rocks, will make our roads a little rougher. It will also make the roads have better grip for vehicles which is good in the winter. It will make roads a little more rough for bikes. Snow plowing could scrape some chips which may require a small adjustment to the snow plows used on our roads.