



Town of Blue River

Memorandum

TO: Mayor Babich & Members of the Board of Trustees

FROM: Town Manager Michelle Eddy; Road Contractor Kacey Grosskreuz

DATE: January 31, 2024

SUBJECT: **Road Maintenance and Planning**

Total Miles of Roads: 30.620
 Unpaved: 20.620
 Paved: 10

Process for evaluation and development of proposed projects

- The Capital Improvement Plan provides a breakdown of priorities that were identified by citizens and Trustees throughout the development of the plan. When the Town is approached about a need for work on a specific road or area, the request is measured up next to the Capital Improvement Plan for potential capital improvements.
 - Examples:
 - Spruce Creek Road
 - Sherwood Forest Area
- For road maintenance. Information is gathered from the road maintenance crews, residents, and Police Officers on areas needing attention. The Road Contractor evaluates road conditions noting where additional drainage, grading or road base is needed to bring the road up to condition.
- A road maintenance request form was developed and approved by the Board of Trustees in 2023. This webform is available on the Town website and information has been published in town newsletters.

Provided by G & G Services

General Overview:

Beginning in the spring: Once the snow melts, we can promptly attend to immediate road concerns through spot grading. Spot grading entails identifying specific areas, such as severely potholed sections of the road, where targeted improvements can be made without grading the entire road.

Mid-summer is when we begin full-scale operations. We like to start with a dry grade, an important component in our overall operations that we'll elaborate on in the following paragraphs.

Dry grading is performed without the use of products like mag chloride. Although the dry grade process may result in a dusty surface compared to applying mag, it plays a crucial role in our operations and serves as the initial step each year.

Dry grading serves multiple purposes:

1. Pothole Mitigation: Quickly addressing any significant road damage or concerns to reduce complaints.
2. Material Assessment: Evaluating the materials at our disposal and early assessment of all Town roads enable us to understand current conditions, prioritizing areas for attention throughout the season. This is crucial for identifying roads in need of new base material.
3. Road Reshaping: Creating a road crown and clearing shoulder vegetation significantly enhances drainage, contributing to the quality and longevity of the roads.

Returning for the final grade and mag is more efficient after completing the initial dry grade.

Following a dry grade, we tackle projects such as ditch work and culverts, prioritizing them before grading and stabilization to avoid disturbing recently completed roads.

Once special projects conclude, we import new base material to the areas identified and prioritized within the budget. Ensuring efficient scheduling when bringing in new material is crucial. The grader can handle a significant amount of new base, allowing us to coordinate with multiple trucks and haul in over 500 tons a day.

Grading and stabilization: Grading involves reshaping the road surface to address irregularities and improve drainage, while stabilization focuses on enhancing durability through the application of binding agents like mag chloride, ensuring a smooth, resilient, and long-lasting road surface, with a reduction in dust. During these operations, we prioritize side roads before main roads. This minimizes the need to maneuver heavy equipment on freshly graded surfaces.

In the fall, we return to address any issues and clean out culverts before winter, preparing for the impending spring runoff.

Now that we have outlined the overall process, let's delve into the progress achieved in 2023 and our recommendations for 2024.

In 2023, our team dedicated 31 days to Blue River. The initial phase of work began in early spring with spot grading to address immediate road concerns as the snow thawed.

Full operations commenced in mid-June. We initiated road assessments through a dry grade, considering the Town budget and evaluating high-priority roads. My recommendation focused on prioritizing main roads and specific problem areas for road base applications. We prefer a systematic approach, resurfacing complete sections of the road strategically. This method allows us to track the resurfacing and continue the process annually until all roads are resurfaced as needed.

In 2023, we completed ditch work, imported 1,782 tons of new base material, and applied 44,150 gallons of mag chloride solution for road stabilization. During the meeting, I will share a map depicting resurfaced roads and my recommendations moving forward. Additionally, we conducted an experiment on Spruce Creek Rd, introducing a new product called Earthbind, designed to enhance mag chloride's effectiveness for a more durable road surface. Despite two issues (one near the asphalt off Hwy 9 and the other involving washboards on the first corner) during the summer, the road demonstrated overall resilience.

Based on lessons learned, I suggest that for future Earthbind applications, we consider temporary road closures to allow the product sufficient time to cure without the interference of ongoing traffic, potentially improving its performance over time.

Looking ahead to 2024 road maintenance, I've outlined suggestions below for discussion during the meeting:

Snowbanks/Snowpack: Remove snowpack and push back the snowbanks to enable melt-off to enter ditches instead of sitting on the road.

1. Road/Ditch: Regular checks throughout the summer and after/during large rain events can prevent major road damage. Simple measures like directing water off the road or clearing clogged culverts during heavy rainstorms can make a significant difference.
2. Drainage: Emphasize a concentrated effort on drainage (ditches and culverts) due to its pivotal role in gravel road maintenance. Standing water on a road leads to potholing, especially during spring runoff and heavy rain.
3. Road Base: Prioritize a couple main roads but put a strong effort into side roads this year. Side roads may not have received sufficient attention in recent years, resulting in little to no remaining material.
4. Earthbind: Consider trying Earthbind on flatter roads like Blue River Rd and Spruce Creek Rd again. Closing the road to traffic during these applications may enhance results.
5. Soft Spots/Springs: Address natural springs by redirecting them with a French drain to prevent them from emerging in the middle of the road.