

ROSEMOUNT ROAD BRIDGE 5 REPLACEMENT

OPS23001

**AS PART OF THE TAY TOWNSHIP
2024 CAPITAL BUDGET**



OPERATIONAL SERVICES



PROJECT SUMMARY

The Rosemount Road Bridge 5 Replacement project was a significant infrastructure upgrade aimed at improving safety and traffic flow. Here's a summary of the key details:

Project Timeline:

- Start Date: September 9, 2024
- Completion Date: October 7, 2024
- Paving Date: November 14, 2024, as part of the 2024 Roads Program

Scope of the Project:

- Gravel Fill & Road Base: Approximately 550 meters of gravel fill were added, and grading and widening were done to support the new bridge.
- Bridge Construction: The single-lane cast-in-place concrete bridge from 1920 was replaced with a new 15.24m (50 ft) ASTM 588 steel bridge, designed for double lanes and built in place with a crane.
- Bridge Capacity: The new bridge can support up to 350,000 lbs of weight.
- Road Widening: The road was widened to accommodate the double-lane bridge.



New steel bridge – double lane

Budget:

- The total cost of the bridge replacement and road base work was \$749,634.

This upgrade replaced an old infrastructure that had reached the end of its life cycle, ensuring safer and more efficient passage for traffic. The modern steel bridge is a significant improvement over the original, reflecting advancements in materials and construction techniques.

The earthworks portion of the Rosemount Road Bridge 5 Replacement project involved several important improvements aimed at enhancing the road's stability and drainage. Here's a breakdown of the key elements:

Earthworks Enhancements:

- **Widening on the Bend:** The road was widened around the bend at the bridge to improve visibility and ensure smoother traffic flow.
- **Grade Adjustments:** Cuts were made to the grade of the hill before the bridge, helping to improve road alignment and prevent potential future issues related to steep gradients.
- **Gravel Fill:** Gravel fill was added to areas of the road that had previously experienced low spots and groundwater damage. This fill helped to stabilize these sections and prevent further erosion or flooding.



October 2024 – Rosemount Road hill cut in grade, and bend at the bridge widened. This photo was prior to slopes on side of road being cut back.

Drainage Improvements:

- **Shoulder Grading:** The shoulders of the road were graded to direct runoff away from the road surface and towards the ditch, helping to prevent water accumulation and potential road damage.
- **Cross Culvert Replacement:** A new cross culvert was installed to replace the old one, ensuring better drainage and reducing the risk of water backing up onto the road.

- **Ditch Definition:** The ditches were redefined and shaped to improve drainage, ensuring that water runoff would flow efficiently away from the road, preventing erosion and maintaining the integrity of the road surface.



September 2024

Rosemount Road after fine grading, prior to earthworks. Overgrowth of the ditch and cross culvert causing run off from the road to create puddles and potholes over time.



November 2024

Rosemount Road widened, graded shoulders, slopes cut at the side of the road on the hill, and cross culvert installed to direct run off.



BUDGET SUMMARY

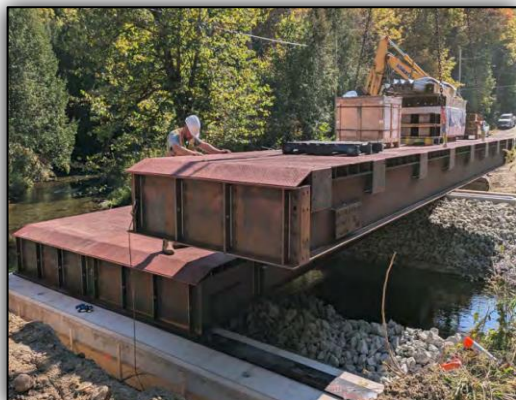
- 2024 Capital Budget Cost: \$ 1,745,000
- 2024 Actual Year to Date Cost: \$749,634
- *Remaining budget to be carried forward for the second bridge (RB004) replacement on Rosemount Road.*

Rosemount Bridge Replacement Cost Breakdown:

○ Bridge Materials – supply, mobilization, installation	\$348,306
○ Construction & Engineering Services	\$258,690
○ Earthworks – gravel, trucks, and equipment	\$103,475
○ Regulatory Approvals	\$15,570
○ Surveying	\$10,627
<i>Subtotal</i>	<i>\$736,668</i>
<u>TOTAL INCLUDING NON-REFUNDABLE HST</u>	<u>\$749,634</u>



Demolition of the existing bridge



Installing last section of steel bridge deck



Crane installing a section of the steel bridge deck