



Municipal Drain No. 120

Consideration of Report
October 1, 2024

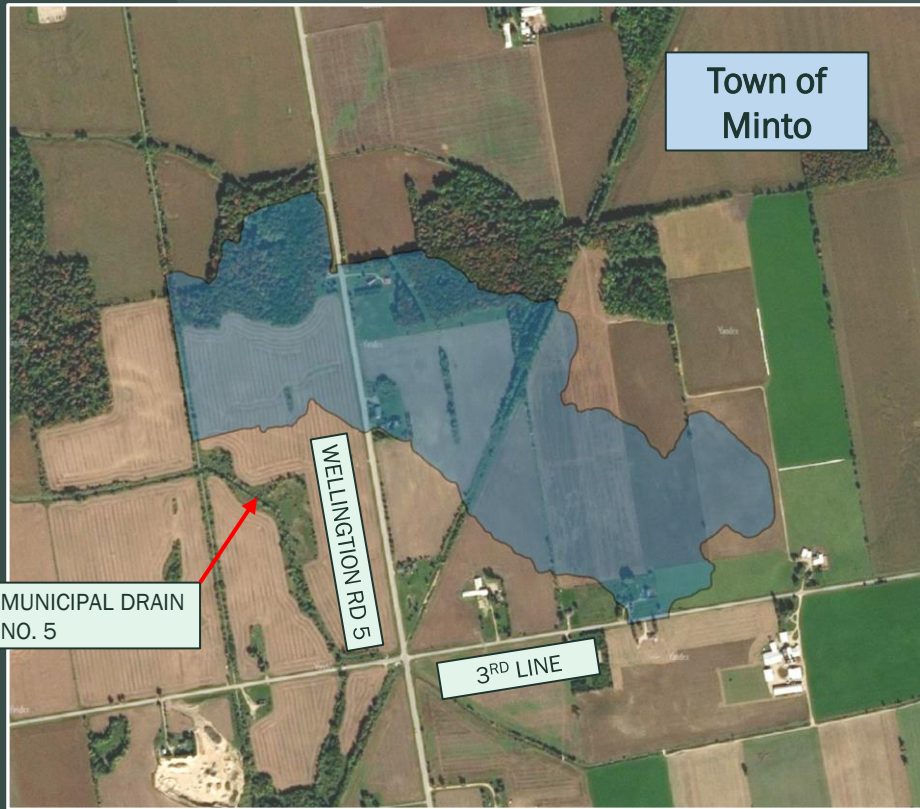


Authority

- Headway was appointed under Section 4 of the Drainage Act at the May 9, 2023, Council Meeting for the:

“Construction of a new tile drain”





Project Location



Public Engagements

Onsite Meeting
June 27, 2023

Information Meeting
May 30, 2024



Findings

- FINDINGS
- A new, deeper sufficient outlet is required for several properties in the watershed.
- There is some land outside the watershed that will be tiled into the watershed after the installation of the new drain.
- There is large ponding areas on part of Lot 20, Concession 3.
- County Road 5 needs drainage.
- Municipal Drain 5 (open ditch) to serve as the outlet for the new drain.
- High pressure gas main on the east side of County Road 5 (on private property).
- The watershed area is approximately 68 ha (168 acres), consisting of agricultural lands (primarily), woodlots, and roads.
- Watershed is currently served by private tile drains that are not of sufficient capacity, depth or size, to serve the watershed at today's standards of drainage.





Outlet Location into Drain 5

Photos





Existing Catchbasin D/S side of Wellington Rd 5

Photos



Recommendations

Recommendations:

- A new tile drainage system be installed from an outlet into Drain No. 5, just upstream of the bridge through the Town of Minto walking path, upstream approximately 1,144 metres to the property boundary between the Metzger and Pfeffer properties (Lot 19/Lot 20, Concession 3).
- The new tile drainage system consist of 350mm to 525mm dia. concrete field tile.
- A 600mm dia. smooth wall steel casing be installed through the County Road 5 road allowance by means of the boring method.
- No work be done in Drain No. 5.
- The new tile drainage system be designed using a 38mm per 24 hour Drainage Coefficient.





WARD 3

MUNICIPAL DRAIN NO. 120

Watershed Plan

NOTES:

1. THIS MAP WAS CREATED USING COUNTY OF WELLINGTON GEOGRAPHIC INFORMATION SYSTEM DIGITAL DATA. THIS MAP IS A SECONDARY PRODUCT WHICH HAS NOT BEEN VERIFIED BY THE COUNTY OF WELLINGTON.
2. THE CONTOURS WERE CREATED USING IMAGERY DERIVED DIGITAL DATA (2015) FROM LAND INFORMATION ONTARIO.

BENCHMARK DESCRIPTIONS

- BENCHMARK No. 1** ELEV.=394.62
TOP NORTHEAST CORNER OF ARMORSTONE WING WALL 12m WEST OF STA. 0+000
- BENCHMARK No. 2** ELEV.=395.31
TOP UPSTREAM END OF 600mmØ CSP SURFACE CULVERT 25m SOUTH OF STA. 0+522
- BENCHMARK No. 3** ELEV.=398.76
TOP DOWNSTREAM END OF 2000mmØ CONC SURFACE CULVERT 6m SOUTH OF STA. 0+948

LEGEND

- LOT/CONCESSION LINE
- PROPERTY LINE
- MAJOR WATERSHED BOUNDARY
- MINOR WATERSHED BOUNDARY
- OVERHEAD HYDRO LINE
- BENCHMARK LOCATION
- B.M. 1 123.45
- BENCHMARK ELEVATION
- JOHN & JANE SMITH 12 345 (12.3 Ha.)
- LANDOWNER NAME(S)
- ASSESSMENT ROLL No. (ABBREVIATED)
- AREA WITHIN WATERSHED

EXISTING FEATURES:

- DRAIN NAME** OPEN DRAIN WITH CROSSING AND FLOW DIRECTION
- DRAIN NAME** CLOSED DRAIN WITH CATCH BASIN, MANHOLE AND FLOW DIRECTION
- OVERLAND FLOW PATH

PROPOSED FEATURES:

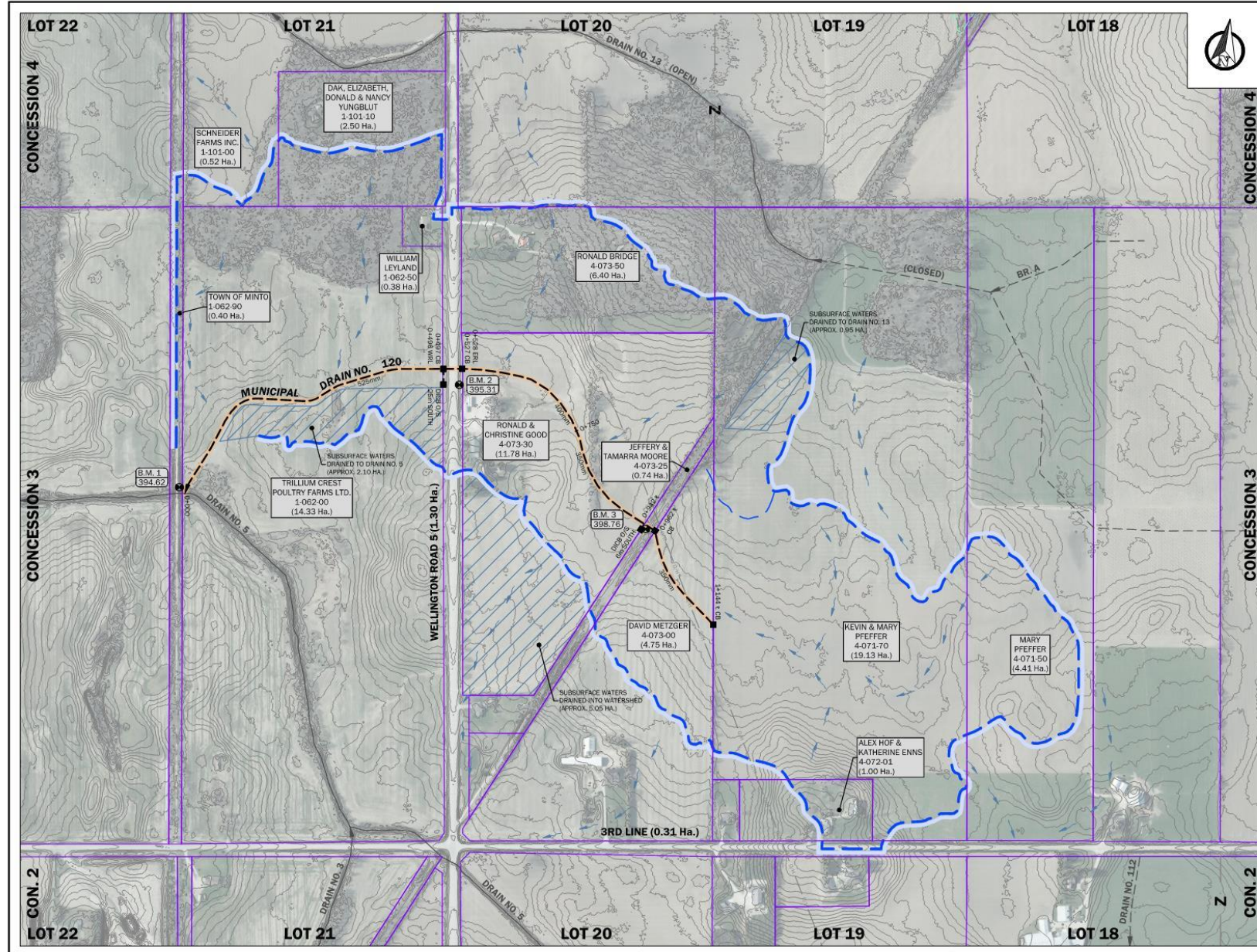
- DRAIN NAME** OPEN DRAIN WITH CROSSING AND FLOW DIRECTION
- DRAIN NAME** CLOSED DRAIN WITH CATCH BASIN, MANHOLE AND FLOW DIRECTION



No.	REVISION	DATE (Y/M/D)
3	REPORT SUBMISSION	24-08-23
2	PUBLIC INFORMATION MEETING	24-05-30
1	ONSITE MEETING	23-06-27



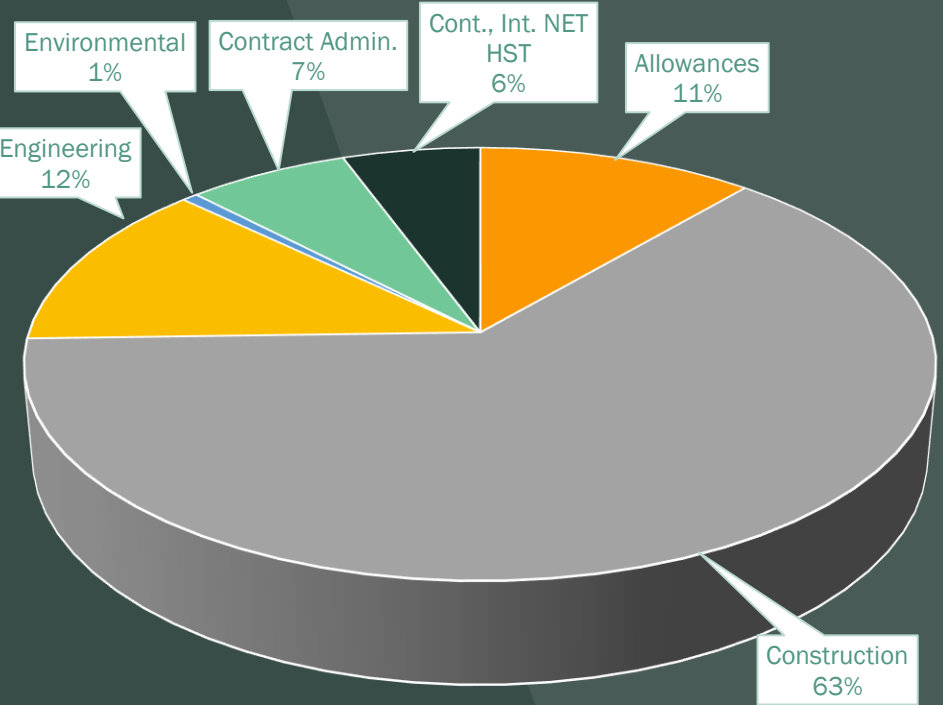
DRAWN BY:	DESIGNED BY:	CHECKED BY:
R.J.M.	Z.M.	M.T.
DATE: 2024-08-23	REFERENCE NO.: MNT-003	DRAWING NO.: 1 OF 3







Design



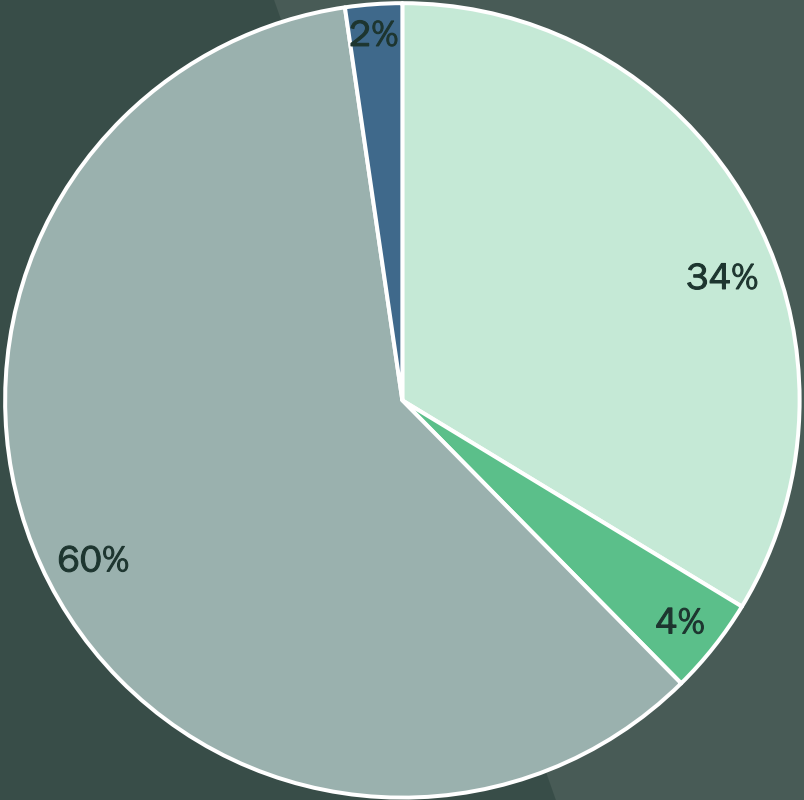
Estimated Project Costs



-  Allowances
-  Construction Costs (including Provisional items)
-  Meetings/Correspondence, Survey, Design, Cost Estimates, Reporting, etc.
-  Environmental Consultations/Approvals
-  Contract Documents, Administration, Supervision & Inspection
-  Contingencies, Interest & NET HST
-  **Total Estimated Costs: \$315,900**



Assessment of Costs (Summary)



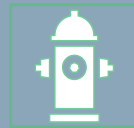
Municipal Lands: \$106,410 (34%)



Private Non-Agricultural Lands: \$12,428 (4%)



Private Agricultural Lands: \$189,762 (60%)



Public Utilities: \$7,300 (2%)



Total Assessment

MUNICIPAL DRAIN NO. 120: \$315,900





Tile Installation by means of Wheel Machine

Photos





Catchbasin Installation

Photos





**Smooth Wall Steel Casing Installation
(Jack and Bore Method)**

Photos





Working Corridor After Completion

Photos



Questions

