

**Municipality of Chatham-Kent**  
**Infrastructure and Engineering Services**  
**Engineering and Transportation Division**

**To:** Mayor and Members of Council  
**From:** Mark Ceppi, Engineering Technologist I  
**Date:** July 28, 2020  
**Subject:** Bridge and Culvert Weight Limit By-law Amendment

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**Recommendation**

It is recommended that:

1. Schedule II (Bridge and Culvert Weight Limits) of Chatham-Kent Traffic and Parking By-law #245-2004 be amended as outlined in Appendix A of this report.

**Background**

Ontario Regulation 104/97 (Standards for Bridges) of the *Public Transportation and Highway Improvement Act*, R.S.O. 1990 requires every bridge to be kept safe and in good repair. In addition, each bridge must be inspected once every two years under the direction of a professional engineer in accordance with the Ontario Structure Inspection Manual.

The *Highway Traffic Act*, R.S.O. 1990 allows for a municipality to pass by-laws that limit the maximum gross vehicle weight (i.e. weight of the vehicle, or combination of vehicles, plus load) permitted on a bridge. The by-law may limit a bridge to a single gross weight for all vehicles, or separate gross weight ratings for three different classes of vehicle. These classes include single vehicle (e.g. a cube truck), two vehicle combination (e.g. a tractor and trailer), and three vehicle combination (e.g. a tractor and two trailers). The appropriate weight restriction signs are installed at the bridge in accordance to Ontario Regulation 615 (Signs) of the Highway Traffic Act and Ontario Traffic Manual guidelines.

Traffic and Parking By-law #245-2004 regulates the designation of weight limits for bridges and culverts in the Municipality of Chatham-Kent. A culvert is generally defined as a type of bridge having a span of 6.0 m or less.

**Comments**

The Engineering and Transportation Division has retained a structural engineering consultant to undertake the required inspections for all bridges having a span of 3.0 m or more. Structural assessments submitted by the consultant have recommended new or updated weight limits for some bridges. In addition, some weight limit restrictions have been removed due to the rehabilitation or replacement of the bridge structure

through the bridge lifecycle program. Table 1 provides a summary of all current weight limit restrictions on bridges.

**Table 1: Current Bridge and Culvert Weight Limit Summary**

<u>BRIDGE LOCATION</u>	<u>WEIGHT LIMIT</u>	<u>NOTES</u>
Arnold Road over Skinner Drain	12.5 / 22.5 / 33	New weight limit.
Booth Road over Otter Creek	11 / 21 / 31 tonnes	No change.
Brook Line over Big Creek	<del>12 / 22 / 36 tonnes</del> <b>10 / 18 / 26 tonnes</b>	Revised weight limit.
Clachan Road over Thames River	HTA / 36 / 48	New weight limit.
Dashwheel Road over Forbes Drain	17 / 30 / 42 tonnes	No change.
Dauphin Road over Dauphin Internal Drain	<del>10 / 18 / 25 tonnes</del> <b>8 / 15 / 20 tonnes</b>	Revised weight limit.
Dover Center Line over Big Creek	8 / 14 / 20	New weight limit.
Ella Street South over Malott Diversion Drain	20 / 35 / 50	New weight limit.
Fifth Street Bridge over Thames River	<del>10 / 18 / 25 tonnes</del>	Bridge rehabilitated or replaced. Weight limit removed.
Finn Line over Government Drain 1	<del>7 / 13 / 18 tonnes</del>	Bridge rehabilitated or replaced. Weight limit removed.
Gleeson Line over McDougal Drive	<del>21 / 38 / 53 tonnes</del>	Bridge rehabilitated or replaced. Weight limit removed.
Jacob Road over Rivard Drain	<del>14 / 25 / 35 tonnes</del> <b>13 / 24 / 33 tonnes</b>	Revised weight limit.
Lord Selkirk (McNaughton Ave over Sydenham River)	<del>15 / 25 / 40 tonnes</del>	Bridge rehabilitated or replaced. Weight limit removed.
Maple Leaf Cemetery Bridge (North) over McGregor Creek	10 / 24 / 34 tonnes	No change.
Maple Leaf Cemetery Bridge (South) over McGregor Creek	0 tonnes	No change. Bridge closed to vehicular traffic.
McDougall Line over Government Drain 1	<del>7.5 / 13 / 18 tonnes</del> <b>7 / 12 / 17 tonnes</b>	Revised weight limit.
McPherson Road over Gesner McKerracher	<del>7 / 12 / 17 tonnes</del>	Bridge rehabilitated or replaced. Weight limit removed.
Mint Line over Baptiste Creek	0 tonnes	No change. Bridge closed to vehicular traffic.

<b><u>BRIDGE LOCATION</u></b>	<b><u>WEIGHT LIMIT</u></b>	<b><u>NOTES</u></b>
Morris Line over Government Drain 1	<del>41 / 20 / 29 tonnes</del>	Bridge rehabilitated or replaced. Weight limit removed.
Pollard Line over Government Drain 1	<del>45 / 27 / 37 tonnes</del>	Bridge rehabilitated or replaced. Weight limit removed.
Pollard Line over Government Drain 2 / 3	<del>0 tonnes</del>	Bridge rehabilitated or replaced. Weight limit removed.
Pond Line over East Otter Creek	<del>46 / 31 / 18 tonnes</del>	Bridge rehabilitated or replaced. Weight limit removed.
Stewart Line over Skinner Outlet Drain	11 / 20 / 28	New weight limit.
Third Street over Thames River	10 / 18 / 25	New weight limit.
Town Line Road over Rivard Drain	<del>49 / 34 / 47 tonnes</del>	Bridge rehabilitated or replaced. Weight limit removed.
Tramway Road over Molly Creek	<del>20 / 35 / 49 tonnes</del>	Bridge rehabilitated or replaced. Weight limit removed.
Victoria Road over Thames River (Thamesville Bridge)	<del>20 / 35 / 48 tonnes</del>	Bridge rehabilitated or replaced. Weight limit removed.

The purpose of implementing weight limit restrictions on bridges is to mitigate further damage to the structure and to prevent a structural failure involving a vehicle. Weight restrictions also allow a bridge to remain open for lighter vehicles, which typically makes up the majority of traffic on Chatham-Kent roadways.

A by-law to amend Traffic and Parking By-law #245-2004 (Schedule II - Bridge and Culvert Weight Limits) according to the summary provided in Table 1 of this report is included in the Council package for reading and approval.

### **Areas of Strategic Focus and Critical Success Factors**

The recommendation in this report supports the following areas of strategic focus:

- Economic Prosperity:  
Chatham-Kent is an innovative and thriving community with a diversified economy
- A Healthy and Safe Community:  
Chatham-Kent is a healthy and safe community with sustainable population growth
- People and Culture:  
Chatham-Kent is recognized as a culturally vibrant, dynamic, and creative community

- Environmental Sustainability:  
Chatham-Kent is a community that is environmentally sustainable and promotes stewardship of our natural resources

The recommendation in this report supports the following critical success factors:

- Financial Sustainability:  
The Corporation of the Municipality of Chatham-Kent is financially sustainable
- Open, Transparent and Effective Governance:  
The Corporation of the Municipality of Chatham-Kent is open, transparent and effectively governed with efficient and bold, visionary leadership
- Has the potential to support all areas of strategic focus & critical success factors
- Neutral issues (does not support negatively or positively)

**Consultation**

Other Engineering and Transportation Division staff contributed information for this report.

**Financial Implications**

There are no financial implications associated with the recommendation described in this report.

Prepared by:

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Reviewed by:

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Attachments: Appendix A: By-law Amendment

C: Director, Public Works

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## Appendix A

By-law Number \_\_\_\_\_

Of The Corporation  
of the Municipality of Chatham-Kent

A By-law to amend By-law Number 245-2004 of the Municipality of Chatham-Kent.

(Bridge and Culvert Weight Limits for Various Structures in the Municipality of Chatham-Kent)

Finally Passed the \_\_\_\_ day of \_\_\_\_\_, 2020.

Whereas the Corporation of the Municipality of Chatham-Kent did enact By-Law 245-2004 for the purpose of regulating traffic on highways in the Municipality of Chatham-Kent.

And Whereas the Corporation of The Municipality of Chatham-Kent now deems it expedient to amend certain provisions of said By-law 245-2004.

Be it Therefore Enacted by the Municipal Council of the Municipality of Chatham-Kent as follows:

1. Schedule "II" (Bridge and Culvert Weight Limits) of By-law 245-2004 be and the same is hereby amended by deleting therefrom;

<b>COLUMN 1</b>	<b>COLUMN 2</b>	<b>COLUMN 3</b>
<b><u>BRIDGE LOCATION</u></b>	<b><u>BRIDGE INVENTORY NUMBER</u></b>	<b><u>WEIGHT LIMIT</u></b>
a) Brook Line over Big Creek	4701837N17396646E	12 / 22 / 36 tonnes
b) Dauphin Road over Dauphin Internal Drain	4687448N17387037E	10 / 18 / 25 tonnes
c) Fifth Street Bridge over Thames River	4695606N17402429E	10 / 18 / 25 tonnes
d) Finn Line over Government Drain 1	4681743N17392859E	7 / 13 / 18 tonnes
e) Gleeson Line over McDougal Drive	4683379N17390628E	21 / 38 / 53 tonnes
f) Jacob Road over Rivard Drain	4694724N17387256E	14 / 25 / 35 tonnes

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g)	Lord Selkirk (McNaughton Ave over Sydenham River)	4716423N17386144E	15 / 25 / 40 tonnes
h)	Maple Leaf Cemetery (North)	469479N1705077E	10 / 24 / 34 tonnes
i)	Maple Leaf Cemetery Bridge (South)	4694592N17405092E	Closed to Vehicular Traffic
j)	McDougall Line over Government Drain 1	4685603N17391111E	7.5 / 13 / 18 tonnes
k)	McPherson Road over Gesner McKerracher	4710158N17438189E	7 / 12 / 17 tonnes
l)	Morris Line over Government Drain 1	4683158N17392402E	<del>11 / 20 / 29 tonnes</del> Closed to traffic
m)	Pollard Line over Government Drain 1	4679336N17392746E	15 / 27 / 37 tonnes
n)	Pollard Line over Government Drain 2 / 3	4680436N17386580E	Closed
o)	Pond Line over East Otter Creek	4718747N17392905E	46 / 31 / 18 tonnes
p)	Town Line Road over Rivard Drain	4693618N17384111E	19 / 34 / 47 tonnes
q)	Tramway Road over Molly Creek	4719004N17404713E	20 / 35 / 49 tonnes
r)	Victoria Road over Thames River (Thamesville Bridge)	4710751N17420532E	20 / 35 / 48 tonnes

2. Schedule "II" (Bridge and Culvert Weight Limits) of By-law 245-2004 be and the same is hereby amended by adding thereto and inserting therein;

COLUMN 1	COLUMN 2	COLUMN 3
<u>BRIDGE LOCATION</u>	<u>BRIDGE INVENTORY NUMBER</u>	<u>WEIGHT LIMIT</u>
a) Arnold Road over Skinner Drain	4718045N17382506E	12.5 / 22.5 / 33 tonnes
b) Brook Line over Big Creek	4701837N17396646E	10 / 18 / 26 tonnes
c) Clachan Road over Thames River	4717624N17431537E	- / 36 / 48 tonnes
d) Dauphin Road over Dauphin Internal Drain	4687448N17387037E	8 / 15 / 20 tonnes

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e)	Dover Center Line over Big Creek	4705923N17392752E	8 / 14 / 20 tonnes
f)	Ella Street South over Malott Diversion Drain	4679274N17382613E	20 / 35 / 50 tonnes
g)	Jacob Road over Rivard Drain	4694724N17387256E	13 / 24 / 33 tonnes
h)	Maple Leaf Cemetery Bridge (North) over McGregor Creek	469479N1705077E	10 / 24 / 34 tonnes
i)	Maple Leaf Cemetery Bridge (South) over McGregor Creek	4694592N17405092E	0 tonnes (Closed to Vehicular Traffic)
j)	McDougall Line over Government Drain 1	4685603N17391111E	7 / 12 / 17 tonnes
k)	Stewart Line over Skinner Outlet Drain	4718061N17382491E	11 / 20 / 28 tonnes
l)	Third Street over Thames River	4695547N17402078E	10 / 18 / 25 tonnes

3. By-law 245-2004 of the Corporation of the Municipality of Chatham-Kent as heretofore amended from time to time are hereby ratified and confirmed in all respects save and except as amended hereby.

This By-law shall come into full force and effect upon the final passing thereof.

Read a First, Second and Third Time this \_\_\_\_ day of \_\_\_\_\_, 2020

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Mayor – Darrin Canniff

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Clerk - Judy Smith