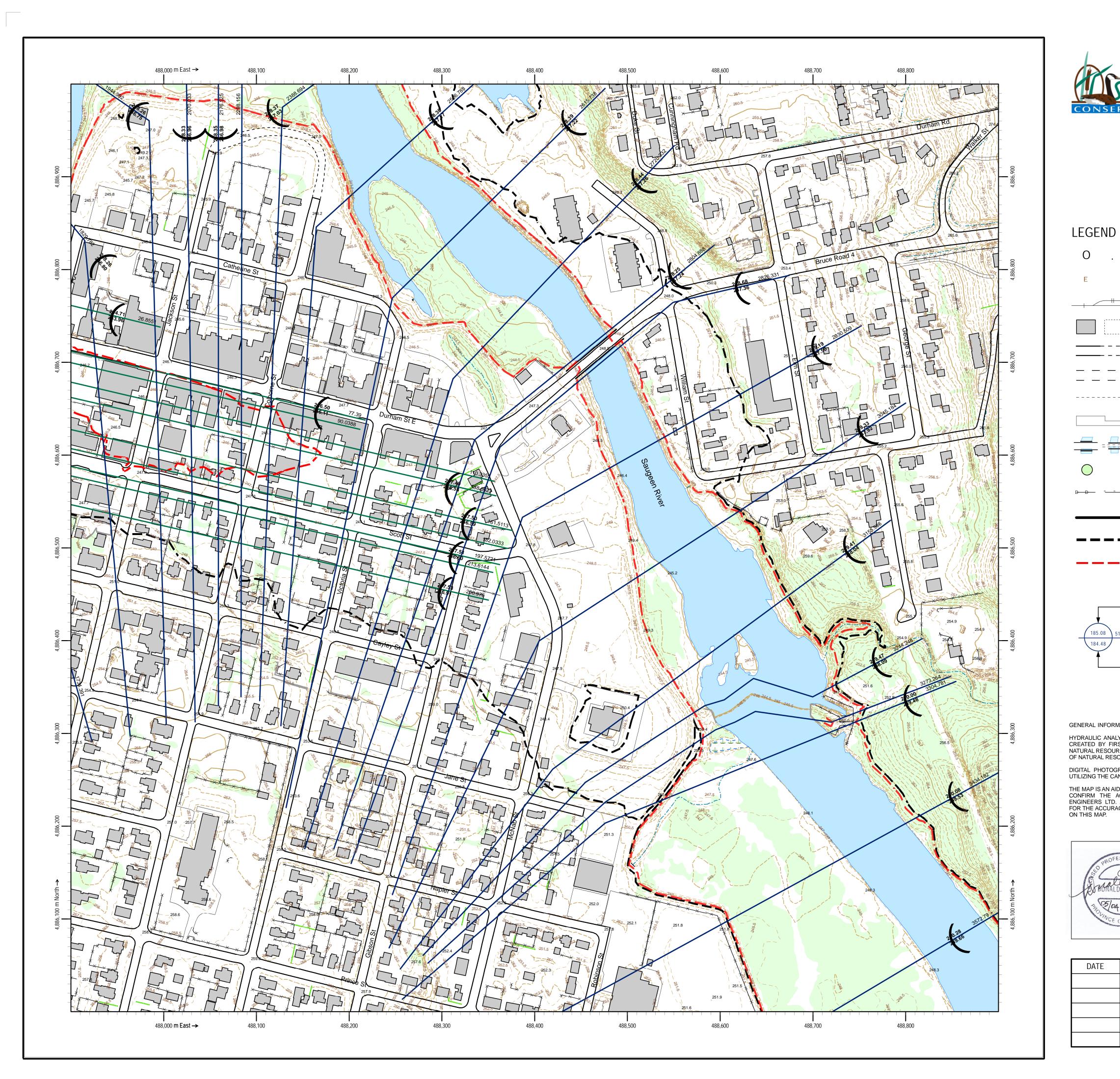
## **APPENDIX A**

## LOWER SAUGEEN RIVER WATERSHED REPORT CARD





-+\_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_

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REGULATORY FLOOD ELEVATION (HURRICANE HAZEL FLOOD EVENT STANDARD) 185.08 184.48 SECTION NUMBER 100 YEAR FLOOD ELEVATION

GENERAL INFORMATION ON THIS MAP.

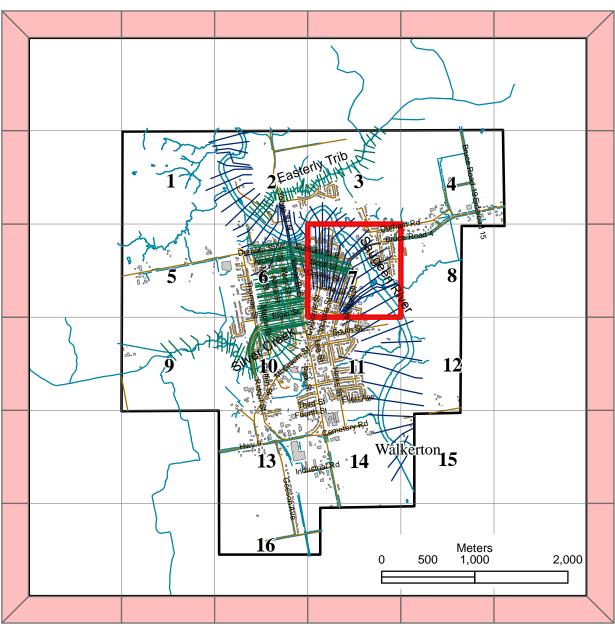


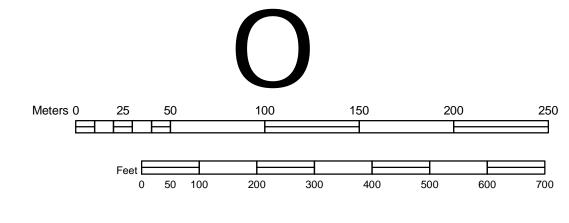
DATE	

# Saugeen Valley Conservation Authority WALKERTON FLOODPLAIN MAPPING

$\sim$	
	WATERCOURSE: DEFINITE
	WATERCOURSE: INDEFINITE / DITCH
	DAM / FALLS / RAPIDS
	WATERBODY
	SWAMP
	WOODED AREA / INDIVIDUAL TREE / HEDGE
_200200.5	CONTOUR: INDEX / INTERPOLATED / INTERMEDIATE

## SHEET INDEX





Scale: 1 : 2,000 1 cm on the map represents 20 m on the ground Contour Interval: 1.0 Meter Auxiliary Contour Interval: 0.5 Meter

All measurements are in Metric.

Vertical Datum: Mean Sea Level (G.S.C.) Horizontal Datum: North American Datum 1983 (NAD 83) Projection: Universal Transverse Mercator Zone: 17 Central Meridian: 81° West

Grid Spacing: 100 Meters

Date of Aerial Photography: April 13th, 2007

.BUILDING / RUIN / SILO OR TANK ..ROAD: PAVED / UNPAVED ROAD: UNDER CONSTRUCTION TRAI .DRIVEWAY OR PARKING LOT .BRIDGE / FOOT BRIDGE / CULVERT ...WATER TOWER

.HORIZONTAL CONTROL / VERTICAL CONTROL

...SPOT ELEVATION

..RAILWAY

..FENCE / GUARD RAIL / WALL

HURRICANE HAZEL FLOOD EVENT STANDARD FLOODLINE

RRICANE HAZEL STANDARD FLOODLINE (ENCROACHED)

.100 YEAR FLOODLINE

HYDRAULIC ANALYSIS CONDUCTED BY GREENLAND CONSULTING ENGINEERS LTD. BASE DATA CREATED BY FIRST BASE SOLUTIONS INC. OVERVIEW DATA PROVIDED BY THE MINISTRY OF NATURAL RESOURCES, © HER MAJESTY THE QUEEN IN RIGHT OF ONTARIO AND THE DEPARTMENT OF NATURAL RESOURCES, © HER MAJESTY THE QUEEN IN RIGHT OF CANADA.

DIGITAL PHOTOGRAMMETRIC MAPPING COMPLETED TO INDUSTRY ACCEPTABLE STANDARDS UTILIZING THE CANADA-ONTARIO FLOOD DAMAGE REDUCTION PROGRAM SPECIFICATIONS.

THE MAP IS AN AID TO THE DECISION MAKING PROCESSES AND IT IS RECOMMENDED THAT USERS CONFIRM THE ACCURACY OF THE INFORMATION PRESENTED. GREENLAND CONSULTING ENGINEERS LTD. AND ABOVE MENTIONED SOURCES AND AGENCIES ARE NOT RESPONSIBLE FOR THE ACCURACY OF THE SPATIAL, TEMPORAL OR OTHER ASPECTS OF THE DATA PRESENTED



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#### **FIRSTBASESOLUTIONS** MAGING EARTH

REVISION

Sheet:





## Lower Main Watershed

The Saugeen River downstream of Walkerton drains 908 square kms. This section of the river is 76 kilometres in length with an average gradient of 0.88 metres per kilometre. The main tributaries include Mill, Burgoyne, Snake, Vesta, Pearl, Deer, Otter, Willow and Silver Creeks as well as numerous smaller unnamed streams.

The watershed is predominantly agricultural and also includes the main communities of Southampton, Mildmay, Paisley and Walkerton.



## Working to Keep Your Future Green

Staff work with partners and organizations in implementing projects that aim to improve the local environment. Research, lab and field work, data analysis, observations,

testing, and so much more, is completed by staff in helping to determine the best and most applicable environmental measures to apply in each subwatershed.

Watersheds are complex systems where everything is connected. We all live downstream.







Saugeen Conservation is a proud member of Conservation Ontario

1078 Bruce Rd. 12, P.O. Box 150, Formosa ON N0G 1W0 Tel. 519-367-3040Email: publicinfo@svca.on.ca www.svca.on.ca

## **General Information**

#### Area 908 sq. km

#### **Municipalities**

Town of Saugeen Shores, Municipality of Arran-Elderslie, Municipality of Brockton Municipality of South Bruce, Howick Township, Municipality of West Grey, Township of Chatsworth, Municipality of Kincardine, Town of South Bruce Peninsula

#### Physiography

23% till plain (undrumlinized), 23% clay plain, 19% till plain (drumlinized), 12% sand plain, 11% till moraine, 5% spillway, 3% kame moraine, 2% drumlin, 1% beaches and shorecliffs, 1% water

#### Soils

33% silty clay, 23% medium to moderately fine loam, 16% fine to moderately coarse sandy loam, 12% silty loam, 6% other (may include small percentages of alluvium, breypan, bottomlands etc), 5% clay loam, 3% organic material, 1% coarse sandy loam and loamy sand

#### Dams

There are 21 dams in the watershed. of which 7 are considered large dams (greater than 3 metres in height).

#### **Sewage Treatment Facilities**

Paisley, Port Elgin, Walkerton, Mildmay (Southampton has a plant that discharges directly to Lake Huron)

#### Woodlot Size

Small and fragmented forests are largely limited to the back of farm lots, many connected by corridors - also some areas with larger forests providing forest interior conditions

#### Land Use

76% agriculture; 20% forested; 1.2% urban

#### **Provincially Significant Natural**

Areas - Murray's Bog, Glammis Bog, Kinghurst West, Edengrove Wetland, Nutley Fen, Otter Creek, Sangs Creek

#### **Groundwater Aquifer Sources**

Guelph Formation, Salina Formation, Bass Island Formation, Bois Blanc Formation; Oriskany Formation, Detroit River Group; Onondage Formation, Dromore Swamp Complex

#### Stream Flow (mean)

Mean annual flow - 59 cubic metres per second (cms)

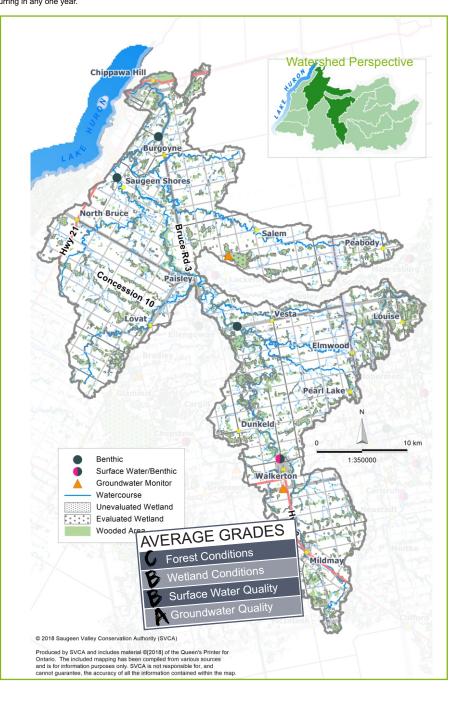
**Stream Flow (low)** \* 7Q10 flow<sup>1</sup> - 8.19 cms 7Q20 flow<sup>2</sup> - 7.71 cms

#### Rare Species (obtained from the National Heritage Information Centre

(NHIC) Website) Hungerford's Crawling Beetle, American Badger, American Beach Grass, Barn Swallow, Beach-dune Tiger Beetle, Beaked Spikerush, Black Meadowlark, Bobolink, Brush-tipped Emerald, Lake Sturgeon, Least Bittern, Loggerhead Shrike, Butternut, Dwarf Lake Iris, Eastern Ribbon Snake,

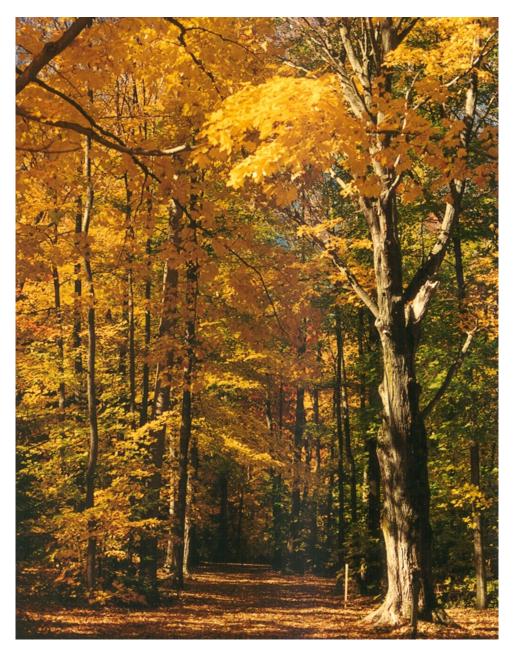
Elfin Skimmer, Golden Redhorse, Grass Carp, Great Lakes Sandreed, Greene's Rush, Green-striped Darner, Low Nutrush, Massasauga Rattlesnake, Eastern Milksnake, Northern Brook Lamprey, Northern Map Turtle, Ocellated Darner, Pugnose Shiner, Rainbow Mussel, Rainbow Smelt, Ram'shead Lady Slipper, Red-shouldered Hawk, Redside Dace, Rigid Sedge, Sand-dune Wildrye, Scarlet Beebalm, Tuberous Indianplaintain, Stiff Gentian, Short-eared Owl, Snapping Turtle, Shortnose Cisco, Southern Twayblade, Sphagnum Sprite

<sup>1</sup>7Q10 - the lowest mean flow for seven consecutive days that has a 10-year recurrence interval period, or a 1 in 10 chance of occurring in any one year. <sup>2</sup> 7Q20 - the lowest mean flow for seven consecutive days that has a 20-year recurrence interval period, or a 1 in 20 chance of occurring in any one year



	Indicators	2002 - 2006	2007 - 2011	2012 - 2016	Indicator Description
	Forest Cover (% of Area)	C 19.0	C 19.5	C 19.4	Forest cover is the percentage of the watershed that is forested or wooded. <i>Environment Canada suggests that 30% forest cover is the minimum required to support healthy wildlife habitat.</i>
Conditions	Forest Interior (% of Area)	D 3.4	D 3.5	D 3.3	Forest interior refers to the protected core area found inside a woodlot. It is the sheltered, secluded environment away from forest edges and open habitats. <i>Environment Canada recommends that a minimum</i> of 10% of a watershed should be interior forest cover to sustain healthy plant and animal species.
Forest	Riparian Cover (% of Area)	C 29.0	D 24.4	C 29.8	Riparian Cover is the percentage of forested habitat along a given waterway. Environment Canada guidelines suggest that at least 75% of stream length should have 30 metre naturally vegetated buffers. Forested vegetation represents about two-thirds with the rest being marsh, meadow, and shrub thicket.
	Average Grade	С	D	С	Grade C indicates ecosystem conditions that need to be enhanced.
Wetland Condition	Wetland Cover	No Data	В 9.1	В 9.1	Wetland cover is the percentage of existing wetland in a watershed. Environment Canada suggests that 10% wetland cover is the minimum needed for a healthy watershed. Grade B indicates good ecosystem conditions. Some areas may require enhancement.

	Indicators	2002 - 2006	2007 - 2011	2012 - 2016	Indicator Description
Quality	Benthic Invertebrates (FBI)	C 5.68	D 5.97	D 5.86	Benthos or benthic invertebrates are bottom dwelling insects, crustaceans, worms, mollusks, and related aquatic animals that live in watercourses. They are good indicators of water quality, responding quickly to environmental stressors such as pollutants. <i>The Modified</i> <i>Family Biotic Index (FBI) using New York State tolerance values</i> <i>provide stream health information and values ranging from 1</i> <i>(healthy) to 10 (degraded).</i>
Surface Water Quality	Total Phosphorus (mg/L)	C 0.04	B 0.026	A 0.018	Total phosphorus is indicative of nutrient levels within a watercourse. Phosphorus is required for the growth of aquatic plants and algae, however, concentrations above the Provincial Water Quality Objective may result in unhealthy stream conditions. <i>The Provincial Water</i> <i>Quality Objective is 0.03 mg/L.</i>
Sur	E. coli (cfu/100mL)	B 81	B 50	<b>B</b> 31	<i>E. coli</i> originate from the wastes of warm blooded animals, including humans, livestock, wildlife, pets and waterfowl. <i>The Ontario Recreational Water Quality Guidelines suggest that waters with less than 100 CFUs/100mL are safe for swimming.</i>
	Average Grade	С	С	В	Grade B indicates good ecosystem conditions. Some areas may require enhancement.
Quality	Nitrite + Nitrate (mg/L)	No Data	A 0.06	<b>A</b> 0.04	Nitrates are present in water as a result of decaying plant or animal material, the use of fertilizers, domestic sewage or treated wastewater, as well as geological formations containing soluble nitrogen compounds. <i>The Ontario Drinking Water Standard for nitrite</i> + <i>nitrate is 10 mg/L.</i>
Groundwater Quality	Chloride (mg/L)	No Data	<b>A</b> 1.0	A 1.8	While chloride can be naturally occurring, the presence of elevated chloride may indicate contamination from road salt, industrial discharges, or landfill leachate. <i>The Ontario Drinking Water Standard for chloride is only for aesthetic purposes with an objective of 250 mg/L.</i>
Ū	Average Grade	No Data	А	А	Grade A indicates excellent ecosystem conditions and protection may be required. Some areas may require enhancement to maintain this level of quality.



## **Forest Conditions**

The forest conditions of the Lower Main Saugeen River Watershed improved from a 'D' to a 'C'. However, forest cover still falls short of meeting the Environment Canada guidelines of 30%. Forest interior grades did not change with a grade of 'D'. Forested riparian cover improved from a 'D' to a 'C' grade. The recommendation is that 50% of the 30 metre wide riparian zone should have forest cover. The Lower Main Saugeen River Watershed has only 29.8% of the riparian zone forested. Tree planting along riparian zones and on marginal farmland should be considered to ensure the forest conditions are improved.

## Wetland Conditions

This report card summarizes the conditions of all wetlands. This watershed scores a 'B' grade with 9.1% wetland cover. This is just below the Environment Canada recommendation of 10% as the minimum required for a healthy watershed. It would be advisable to allow low lying or wet areas to naturalize. These are key areas for overall watershed health. It is also important to restore previously drained wetlands, where possible. Existing wetlands should be protected.

The wetland evaluation system was created to protect important wetlands valued at a provincial scale. Under the Planning Act, provincially significant wetlands are protected from development and alteration.

## Surface Water Quality

This watershed scores an average grade of 'B' for surface water quality, an improvement from the last report card. The average total phosphorus concentration is below the Provincial Water Quality Objective of 0.03 mg/L and has improved from a 'B' to an 'A' grade. E. coli continues to fall below the recreational guidelines of 100 CFU/100mL maintaining a 'B' grade. The grade for aquatic organisms or benthic invertebrates continues to be a 'D'. Increased efforts should be made to encourage landowners and the agricultural community to preserve and enhance natural land cover. In addition to managing current land use practices, climate change and invasive species pose significant threats and efforts will need to be made to address these stressors to maintain or improve the current scores.

## Groundwater Quality

The groundwater quality in the two wells in this area continues to score an 'A' grade. It should be noted that groundwater aquifers do not conform to watershed boundaries but rather flow in an east to west direction through the watershed. Note: there have been exceedences of the Ontario Drinking Water Standards for sodium and fluoride during this study period.

Ecosyste	em Grade Description
	Excellent conditions.
B	Good conditions. Some areas may require enhancement and/or improvements.
	Conditions that warrant general improvements.
	Poor conditions. Overall improvements necessary.
F	Degraded conditions, in need of considerable improvement.



Saugeen Conservation aims to improve watershed health through virtually all its programs.

✓ Saugeen Conservation is a key player in providing assistance and technical expertise to local groups, committees, ministries etc. that work to improve the local environment.

Through Saugeen Conservation's tree planting efforts and Ontario's 50 Million Tree Program, a total of 75,923 trees were planted in this watershed area during this study period.

✓ SauGREEN for the Environment is a local environmental community group focused in the Saugeen Shores area. They focus on various environmental initiatives including waste diversion, rain barrels, tree planting, Tall Tree Initiative and other eco-friendly projects. Together Saugeen Conservation and SauGREEN installed a rain garden at Fairy Lake.

Saugeen Conservation partnered with **Trout Unlimited Canada** and the Southampton Shoreline Residents Association to implement the **Yellow Fish Road Program** in Southampton. Yellow Fish Road is a nation-wide environmental education program to help Canadians understand that stormdrains are corridors to our rivers, lakes and streams.

✓ In 2016, the Hamel Dam in Mildmay was removed along Otter Creek. Aquatic life can now freely access an additional two km of coldwater stream.

✓ The Ontario Steelheader's Association and the Lake Huron Fishing Club release adult rainbow trout into this river system on an annual basis.. (This was discontinued in 2016.) The Steelheader's also operate a fish ladder (in conjunction with the MNRF), at Denny's Dam to help native fish access spawning habitat upstream.

Saugeen Conservation works closely with **local agricultural organizations** to provide ongoing workshops and seminars for farmers on a variety of different conservation topics.

✓ Grey Bruce Sustainability Network works closely with Saugeen Conservation on several different environmental and educational projects. Within this watershed, programs include WaterWORKS, which includes hands-on activities for high school students in promoting careers in related fields and facilitating appreciation of water quality issues.







✓ The Bruce Grey Woodlands Association hosts various workshops and tours on forestry related topics.

- ✓ The Forest Health Collaborative helps to educate municipalities and the public on forest health issues.
- Stewardship Grey Bruce offers funding and technical support for landowners in the watershed interested in completing habitat enhancement projects.
- ✓ Lake Huron Fishing Club actively stocks steelhead salmon in the Saugeen River. The club operates two hatcheries (Kincardine and Port Elgin), rearing young fish for the School Salmon Hatchery which has grown from 10 schools in 2012 to 47 Schools by 2016. All reared salmon are released into the Saugeen or Penetangore Rivers (fully funded by Bruce Power).
- Environmental self assessments are now available for the rural non-farm landowner with the release of The Rural Landowner Stewardship Guide for the Lake Huron Watershed. This guide provides a framework for landowners to evaluate their property and help determine best management practices.
- Saugeen Conservation offers over 50 different hands-on environmental programs to over 10,000 children annually, including the Grey Bruce Children's Water Festival and the Bruce Grey Forest Festival.
- ✓ The Brockton Fisheries Task Force (of which Saugeen Conservation is a part), works closely with several partners to educate the general public about the local fisheries resource and to help ensure sustainability along the Saugeen River.
- ✓ The Grey-Bruce ALUS program recognizes land stewardship and assists farmers in implementing and funding projects to produce ecosystem services. ALUS aims to improve the biodiversity on the agricultural landscape.
- ✓ Saugeen Nature is active in the Saugeen Watershed through education and other partnerships. They promote the wide use and conservation of natural resources and encourage the preservation of wild species and natural areas in Grey and Bruce counties.
- Unlimited Canada supported a wetland creation project in the Lower Main watershed partnering with a private landowner to allow a marginally farmed area to revert back to a wetland.
- ✓ Healthy Lake Huron is an initiative of local environmental organizations, including Saugeen Conservation. Together they coordinate actions to protect and improve overall water quality along the southeast shores of Lake Huron.



## **APPENDIX B**

## AQUATIC HABITAT ASSESSMENT

### **COUNTY OF BRUCE**

## AQUATIC HABITAT ASSESSMENT DURHAM STREET BRIDGE REPLACEMENT



#### **COUNTY OF BRUCE**

### AQUATIC HABITAT ASSESSMENT DURHAM STREET BRIDGE REPLACEMENT

December 17, 2021

B. M. ROSS AND ASSOCIATES LIMITED Engineers and Planners 62 North Street Goderich, ON N7A 2T4 Phone: 519-524-2641 www.bmross.net

File No. BR1395



B. M. ROSS AND ASSOCIATES LIMITED
Engineers and Planners
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File No. BR1395

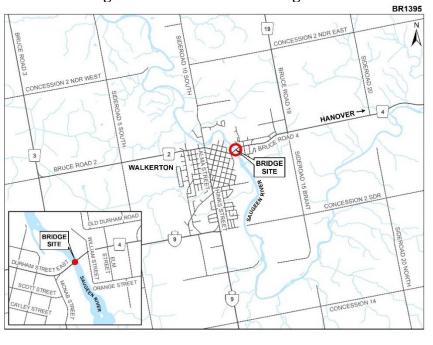
#### COUNTY OF BRUCE AQUATIC HABITAT ASSESSMENT DURHAM STREET BRIDGE REPLACEMENT

#### 1.0 PURPOSE

The County of Bruce is considering options associated with the replacement of the Durham Street Bridge in Walkerton, Ontario. Recent engineering inspections identified significant problems with deterioration of key bridge components. B.M. Ross and Associates Limited (BMROSS) were engaged to conduct a Class Environmental Assessment (Class EA) investigation on behalf of the County. To further assess the potential impacts of construction on the receiving watercourse, an aquatic habitat assessment of the Saugeen River was undertaken by technical staff from BMROSS.

#### 2.0 PROJECT STUDY AREA

The project study area is located along Bruce County Road 4 in Walkerton, Ontario in the Municipality of Brockton. The study area includes a portion of the Saugeen River and the areas under and adjacent to the existing bridge structure. The location of the bridge site is shown in Figure 1.



#### Figure 1: Location of the bridge site.



**MOUNT FOREST** 



#### 3.0 BACKGROUND REVIEW

#### 3.1 Aquatic Species

A search of Ministry of Northern Development, Mines, Natural Resources and Forestry records and reports revealed fish information for this sub-watershed area. The Saugeen River has a coldwater thermal regime and the following fish species are present: Chinook Salmon, Troutperch, Alewife, Blackside Darter, Bluntnose Minnow, Brassy Minnow, Brook Stickleback, Brook Trout, Brown Trout, Central Mudminnow, Coho Salmon, Common Shiner, Creek Chub, Eastern Blacknose Dace, Emerald Shiner, Fantail Darter, Fathead Minnow, Gizzard Shad, Golden Redhorse, Hornyhead Chub, Johnny Darter, Longnose Dace, Mimic Shiner, Muskellunge, Northern Pike, Northern Redbelly Dace, Pearl Dace, Pumpkinseed, Rainbow Darter, Rainbow Smelt, Rainbow Trout, River Chub, Rock Bass, Rosyface Shiner, Sand Shiner, Sea Lamprey, Shorthead Redhorse, Silver Lamprey, Silver Redhorse, Smallmouth Bass, Sockeye Salmon, Splake, Spotfin Shiner, Stonecat, White Sucker and Yellow Perch.

The Department of Fisheries and Oceans (DFO) aquatic species at risk map was consulted to determine if aquatic species at risk and/or critical habitat is present within the project study area. It was determined that species at risk and critical habitat are not present within the project study area.

#### **3.2** Terrestrial Species

A search of the Atlas of Breeding Birds of Ontario (2001-2005) identified bird species with confirmed, probable and possible breeding habitat in proximity to the study area. The project study area is within Square 17MJ88 in Region 8 (Bruce Region). A total of 41 birds with confirmed breeding status, 28 birds with probable breeding status and 25 birds with possible breeding status are found within the square. Of the 41 birds with confirmed breeding status, 4 of them are species at risk, including the Chimney Swift (*Chaetura pelagica*), Barn Swallow (*Hirundo rustica*), Bank Swallow (*Riparia riparia*) and Eastern Meadowlark (*Sturnella magna*).

The eBird website was also consulted to identify bird species within the Walkerton Area. A total of 75 species have been observed in the Walkerton area. Species at risk including the Bank Swallow (*Riparia riparia*), Chimney Swift (*Chaetura pelagica*), Eastern Wood-Pewee (*Contopus virens*), Barn Swallow (*Hirundo rustica*) and Bald Eagle (*Haliaeetus leucocephalus*), have been observed within the Walkerton area.

#### 4.0 METHODOLOGY

Field investigation work was carried out on September 1, 2021 by BMROSS technical staff. Data was collected within areas that will be impacted by construction of the new crossing. Water depth, substrate composition and aquatic vegetation was recorded every 2 meters along six transects (3 per side) under the structure. Transects ran parallel to the structure from the south or north pier to the central piers, as shown in Figure 2. The structure was inspected for bird nests and observed aquatic and terrestrial species were recorded.





#### 5.0 **RESULTS**

#### 5.1 Aquatic Habitat

On September 1, 2021 at 11:30 a.m., the air temperature was 19.0°C and the water temperature was 21.5°C at the project site. The weather was sunny and no clouds were visible. Prior to the field investigation, there had been no precipitation. Flows within the channel varied, with rapid flows observed within the middle of the channel and slower flows along the banks of the river. The water clarity was high and substrate was visible on the bottom of the channel.

Water depths ranged from 0.04 to 1.4 metres along transects, on the west side of the structure. Water depths were generally shallow along the bank area and gradually increased as the stream bottom sloped downwards towards the central pier. The substrate consisted of cobble, gravel and silt along the bank and transitioned into mostly large cobble adjacent to the central pier. No aquatic vegetation was observed in this section of the watercourse. Evidence of freshwater mussels (live mussel and shells) and an abundance of Rusty Crayfish (*Orconectes rusticus*) were observed in this section of the watercourse. Riparian vegetation was observed along the banks adjacent to the west pier.

On the east side of the structure, water depths ranged from 0.22 to 1.25 metres along the transects. Water depths were generally shallow along the bank and gradually sloped downwards towards the central pier. The substrate consisted of large cobble and silt along the bank, transitioning into smaller cobble and gravel mid transect and then into mostly large and small cobble adjacent to the central pier. A pocket of gravel and silt was present along the upstream transect, adjacent to the central pier. Semi-submerged rocks with attached algae were observed along the bank in this section of the watercourse. An abundance of Rusty Crayfish (*Orconectes rusticus*) was also observed. There was no evidence of freshwater mussels in this section of the watercourse. Riparian vegetation was observed along the bank areas adjacent to the east pier.

Table 1 contains information recorded along transects. Site photos, showing substrate composition and aquatic habitat, can be found in Appendix A.

Transect #	Notes	Parameters	Point 1	Point 2	Point 3	Point 4	Point 5	Point 6	Point 7	Point 8
1	- West pier - Downstream transect	Water Depth (m)	0.04	0.16	0.20	0.36	0.5	0.8	-	-
	- 7 meters north of middle transect	Substrate Composition	Cobble, Silt	Cobble, silt, gravel	Cobble, silt, gravel	Cobble	Large Cobble	Large Cobble	-	-
	-	Vegetation	Not present	Not present	Not present	Not present	Not present	Not present	-	-
2	- West pier - Middle transect	Water Depth (m)	0.1	0.24	0.42	0.77	0.96	1.2	-	-
	-	Substrate Composition	Cobble, gravel	Cobble, gravel	Large Cobble, gravel, silt	Cobble	Large Cobble	Large Cobble	-	-
	-	Vegetation	Not present	Not present	Not present	Not present	Not present	Not present	-	-
3	<ul><li>West pier</li><li>Upstream transect</li><li>7 meters south of</li></ul>	Water Depth (cm)	0.3	0.52	0.74	0.97	1.24	1.4	-	-
	middle transect	Substrate Composition	Gravel and silt	Silt	Silt	Cobble and silt	Cobble and silt	Cobble	-	-
		Vegetation	Not present	Not present	Not present	Not present	Not present	Not present	-	-

 Table 1: Saugeen River Aquatic Habitat Transect Data

4	- East pier - Downstream transect	Water Depth (cm)	0.24	0.7	1.1	1.15	1.2	1.25	1.17	1.08
	- 7 meters north of middle transect	Substrate Composition	Large cobble	Large cobble	Large cobble	Large cobble, silt	Large cobble	Small cobble, silt	Small cobble	Small cobble
		Vegetation	Algae on rocks	Not present	Not present	Not present	Not present	Not present	Not present	Not present
5	- East pier - Middle transect	Water Depth (cm)	0.22	0.38	0.8	0.89	0.83	0.73	0.83	1
		Substrate Composition	Large cobble, silt	Large cobble, silt	Cobble, silt	Small cobble	Small cobble, gravel	Large and small cobble	Large cobble	Large cobble
		Vegetation	Not Present	Algae on rocks	Not present	Not present	Not present	Not present	Not present	Not present
6	- East pier - Upstream transect - 7 meters south of	Water Depth (cm)	0.24	0.57	0.74	0.85	0.84	0.86	1	0.9
	middle transect	Substrate Composition	Cobble, silt	Large cobble, silt	Small cobble, gravel	Small cobble, gravel	Small cobble, gravel	Small cobble, gravel	Large and small cobble	Gravel, silt
		Vegetation	Algae on rocks	Not present	Not present	Not present	Not present	Not present	Not present	Not present

#### 5.2 Fish Community

During the field investigation, a live Spike (*Elliptio dilatata*) was observed under the bridge structure. Shells of other freshwater mussels including Slippershell (*Alasmidonta viridis*), Elktoe (*Alasmidonta marginata*) and Black Sandshell (*Ligumia recta*) were observed. The Rusty crayfish (*Orconectes rusticus*), which is an invasive species in Ontario, was observed under the structure. Table 2 lists species observed during the field investigation. Photos of aquatic species observed during the field investigation can be found in Appendix A.

Common Name	Scientific Name	Count	Location	Condition (live/dead/shell)
Spike	Elliptio dilatata	2	West side	1 Live, 1 Whole Fresh Shell
Slippershell	Alasmidonta viridis	1	West side	Half Fresh Shell
Elktoe	Alasmidonta marginata	2	West side	Whole Fresh Shells
Black Sandshell	Ligumia recta	1	West side	Half Fresh Shell
Rusty Crayfish	Orconectes rusticus	Abundant	East & West side	Live

**Table 2: Observed Aquatic Species** 

#### 5.3 Breeding Birds

Migratory birds and their nests are protected during the breeding season from April to September under the *Migratory Bird Convection Act*. During the field investigation, the structure was inspected for bird nests. On the east side of the structure, one bird nest was observed on top of a pipe that runs beneath the structure. The bird nest was inactive, and it is unknown which species of bird created and utilized the nest. The nest does not belong to a species at risk identified during the background review based on the size, material, and location of the nest. A photo of the bird nest can be found in Appendix A.

#### 5.4 Riparian Vegetation

Riparian vegetation adjacent to the bridge consisted mostly of common grasses, small shrubs, and wildflowers. The following species were observed: Canada Goldenrod (*Solidago Canadensis*), Grass-leaved Goldenrod (*Euthamia graminifolia*), Tall White Aster (*Symphyotrichum lanceolatum*), New England Aster (*Symphyotrichum novae-angliae*), Swamp Milkweed (*Asclepias incarnate*), Stag-horn Sumac (*Rhus typhina*), Spotted Joe Pyeweed (*Eupatorium maculatum*), Riverbank Grape (*Vitis riparia*), Wild Teasel (*Dipsacus fullonum*), Hedge Bindweed (*Calystegia sepium*) and Himalayan Impatiens (*Impatiens glandulifera*). Photos of riparian vegetation can be found in Appendix A.

#### 6.0 Conclusions and Recommendations

#### 6.1 Proposed Habitat Alteration

The proposed bridge replacement will require in-water work that will consist of removing the existing structure and installing new in-water piers. To limit habitat destruction during the bridge replacement, cofferdams contained by barriers will be installed in the channel for access and to capture materials. All cofferdam material will be removed upon completion of the works. The old piers will be removed prior to construction, and the number of piers for the new bridge will not exceed the number of existing piers.

The in-water work areas will include the section of channel from the east and west shoreline to the in-water piers. A temporary work platform (cofferdam surrounded by barriers) will be installed from each shoreline comprised of clean granular material. This will prevent sediment from entering the watercourse and prevent harm to aquatic life. Before the work area is isolated, a mussel move will be completed, and mussels will be relocated upstream to a suitable location. Before the isolated work area is dewatered, aquatic life will be salvaged and released back into the watercourse. Flow will be maintained at all times as the cofferdam will not be extended across the entire river at any one time.

#### 6.2 Conclusions and Recommended Mitigation Measures

In conjunction with the aquatic habitat assessment, the presence of freshwater mussels was confirmed. No other unique or specialized fish habitat features were identified within the project site.

It was therefore determined that removal of the structure and replacement of the in-water piers should have no measurable negative impacts to the aquatic and terrestrial environments at this site if specific site mitigation measures are followed, as described below:

- In-water work will be completed between July 15<sup>th</sup> and September 15<sup>th</sup> to prevent disturbances to spring and fall spawning fish species.
- Bird nests found on the structure will be removed prior to the breeding season (April) to prevent nesting from occurring on the structure during replacment.
- A freshwater mussel relocation will be completed when water temperatures are above 16°C within in-water work areas. The mussels will be relocated to a suitable location upstream.
- A fish salvage will be completed within the isolated in-water work areas prior to construction. Aquatic life will be released downstream of the site.
- Sediment and erosion control measures will be installed along disturbed slopes to prevent sedimentation into the watercourse.

- Disturbed riparian vegetation will be restored with native species upon project completion.
- Necessary permits will be obtained from approval agencies prior to commencement.

If you have any questions or require further information, please contact the undersigned.

Yours very truly

B. M. ROSS AND ASSOCIATES LIMITED

Per \_\_\_

Rebecca Adams, EPt Environmental Research Assistant

Per \_\_\_\_

Kelly Vader, MCIP, RPP Environmental Planner

#### References

- 1. Bird Studies Canada. Ontario Breeding Atlas. 2001-2005.
- 2. Department of Fisheries and Oceans Canada. Aquatic Species at Risk Mapping. Website. 2021.
- 3. Government of Canada. Migratory Bird Convention Act. 2017.
- 4. Ministry of Northern Development, Mines, Natural Resources and Forestry. Aquatic Resource Area Waterline Segment. Website. 2018.
- 5. Ministry of Northern Development, Mines, Natural Resources and Forestry. Species at risk in Ontario. Website. 2018.
- 6. The Cornell Lab of Ornithology. eBird. 2015-2021.

## APPENDIX A SITE PHOTOS

#### Site Photography (taken on September 1, 2021)



West side of bridge, view from bank facing east  $\uparrow$ 



Substrate under the west side of the bridge



East side of bridge, view from bank facing west  $\uparrow$ 



Substrate under the east side of the bridge  $\uparrow$ 



Downstream of bridge, facing north  $\uparrow$ 



Upstream of bridge, facing south ↑



Black Sandshell (*Ligumia recta*) right valve ↑ (external view)



Elktoe (*Alasmidonta marginata*) right valve ↑ (external view)



Black Sandshell (*Ligumia recta*) right valve ↑ (internal view)



Elktoe (Alasmidonta marginata) beak sculpture 1



Spike (*Elliptio dilatata*) left valve (external view) ↑



Spike (*Elliptio dilatata*) left valve (internal view) ↑



**South Elevation** ↑



Algae observed on rocks under east side of bridge  $\uparrow$ 



Vegetation on southwest bank of bridge  $\uparrow$ 



Bird nest observed under bridge  $\uparrow$ 



Invasive Rusty Crayfish (*Orconectes rusticus*) observed under bridge  $\uparrow$ 



Vegetation on northeast bank of bridge  $\uparrow$ 

Tall white aster (Symphyotrichum lanceolatum) **†** 



Grass-leaved Goldenrod (Euthamia graminifolia) **↑** 



Swamp milkweed (Asclepias



Riverbank grape (Vitis riparia) ↑



Staghorn Sumac (*Rhus typhina*) ↑

Wild Teasel (Dipsacus fullonum) ↑



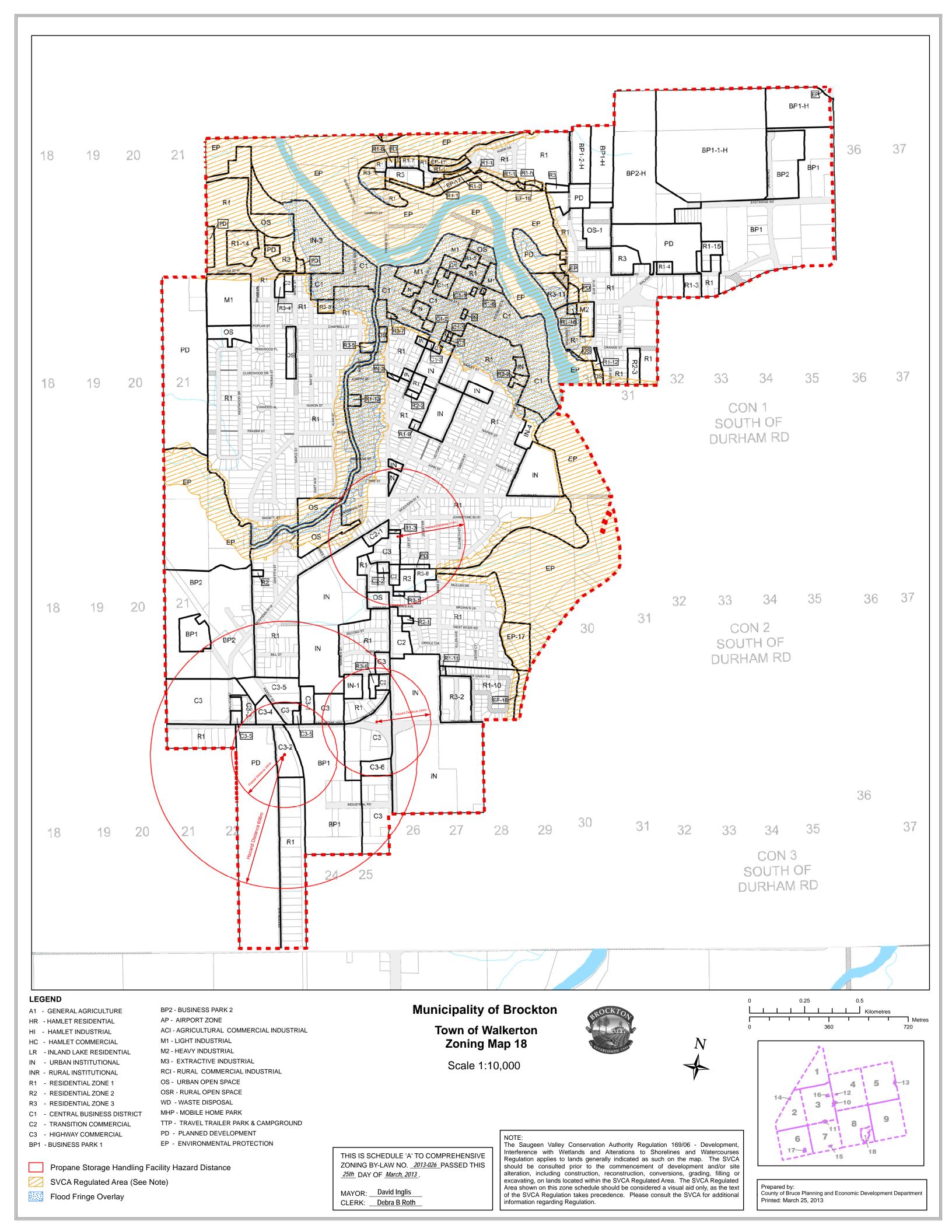
Spotted Joe Pyeweed(Eutrochium maculatum) **†** 

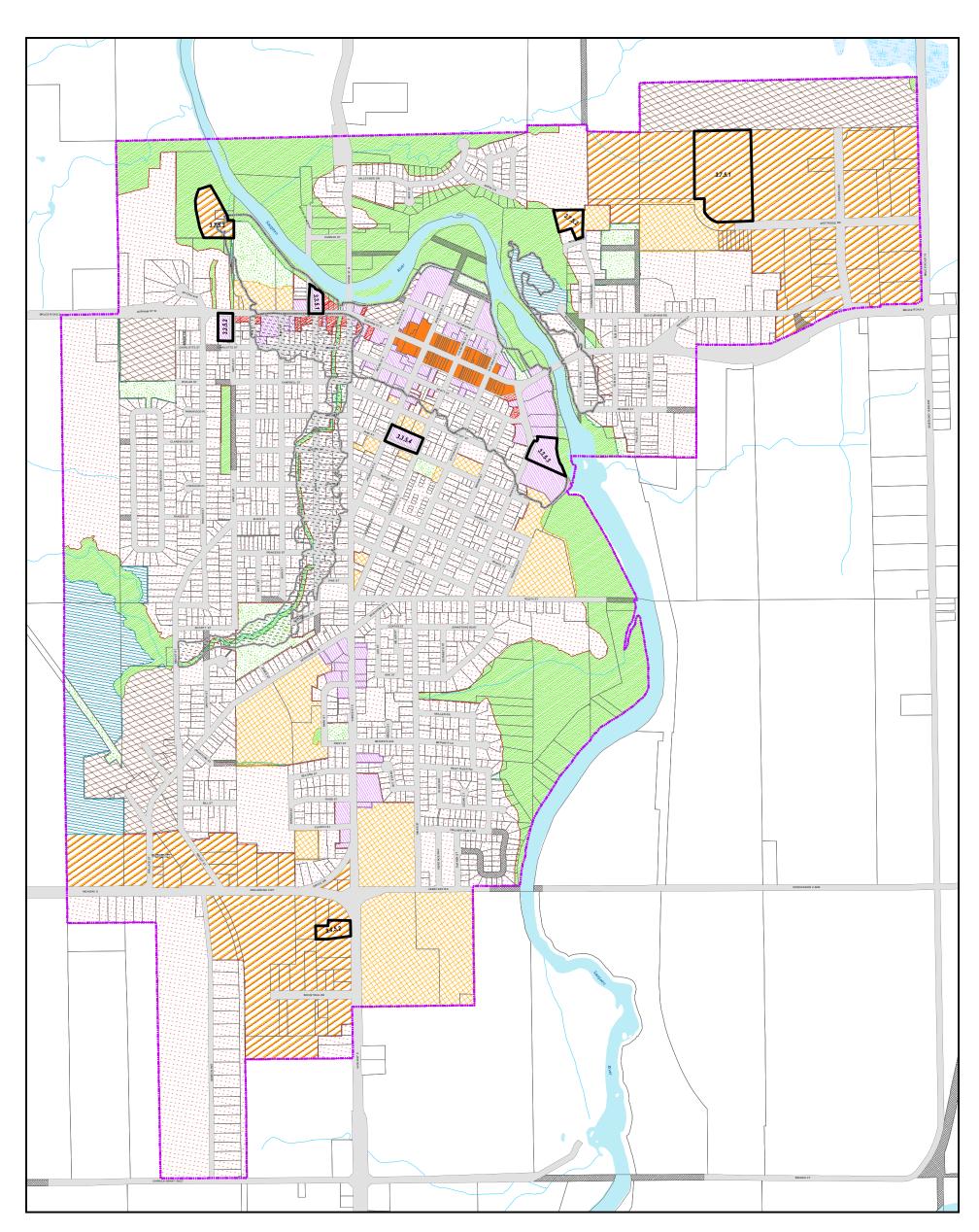


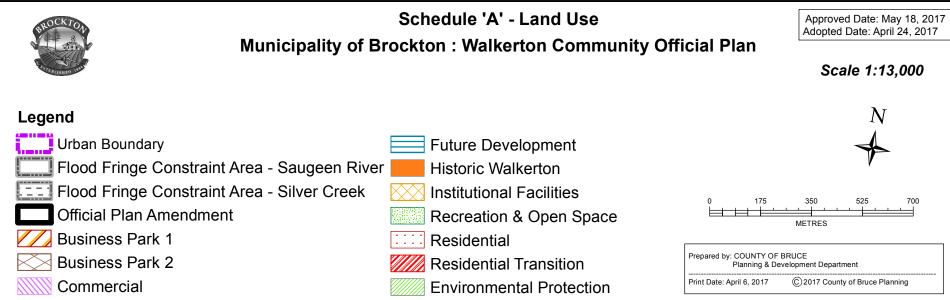
**New England Aster** (Symphyotrichum novae-angliae) ↑

## **APPENDIX C**

## **PLANNING DOCUMENTS**







## THE CORPORATION OF THE MUNICIPALITY OF BROCKTON BY-LAW NUMBER NO. 2013–26

A BY-LAW TO REGULATE THE USE OF LAND AND THE ERECTION, USE, BULK, HEIGHT, SPACING OF AND OTHER MATTERS RELATING TO BUILDINGS AND STRUCTURES AND TO RESTRICT CERTAIN USES OF LAND AND THE ERECTION AND USE OF CERTAIN BUILDINGS AND STRUCTURES IN THE MUNICIPALITY OF BROCKTON.

> *The Corporation of the Municipality of Brockton P. O. Box 68 100 Scott Street Walkerton, ON NOG 2V0 Tel: 519–881–2223*

> > Force and Effect: March 25, 2013

**Office Consolidations** 

October 2013 February 2014 December 2014, April, 2015, June, 2015, July 2015, November 2016, December 2016 This page left intentionally blank

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Table 1: Calculation of Manure Storage Setback from Watercourses + Open Municipal Drains

Table 2: Calculation of Manure Storage Setbacks from Water Wells

Table 3: Calculation of Livestock Facility Setbacks from Water Wells

 Table 4: Calculation of Livestock Facility Setbacks from Watercourses + Open Municipal Drains



# THE CORPORATION OF THE MUNICIPALITY OF BROCKTON BY-LAW NO. 2013-26

A BY-LAW TO REGULATE THE USE OF LAND AND THE ERECTION, USE, BULK, HEIGHT, SPACING OF AND OTHER MATTERS RELATING TO BUILDINGS AND STRUCTURES AND TO RESTRICT CERTAIN USES OF LAND AND THE ERECTION AND USE OF CERTAIN BUILDINGS AND STRUCTURES FOR ALL LANDS WITHIN THE BOUNDARY OF THE CORPORATION OF THE MUNICIPALITY OF BROCKTON.

**WHEREAS** the Council of the Corporation of the Municipality of Brockton consider it advisable to restrict the use of land and the erection of buildings and structures on land situated within the Municipality of Brockton.

**AND WHEREAS** The Council of the Corporation of the Municipality of Brockton further considers it advisable to restrict and regulate the use of land situated within the defined areas, as hereinafter designated, for the purpose of regulating and prohibiting development of particular lands that would create an adverse effect on the Corporation, or would jeopardize future orderly development and expansion, to produce areas of compatible characteristics, and to provide protection for the residents against undesirable uses.

**AND WHEREAS** authority is granted under Section 34 of The Planning Act, 1990, to the Council of the Municipality of Brockton to exercise such powers.

**NOW THEREFORE** the Council of the Corporation of the Municipality of Brockton amends as follows:

## SECTION 1 – ADMINISTRATION

## 1.1 TITLE

This By-Law may be cited as the Comprehensive Zoning By-Law of the Municipality of Brockton.

#### 1.2 ADMINISTRATION OF BY-LAW

This By-law shall be administered by the "Zoning Administrator".

## 1.3 AREA TO WHICH BY-LAW APPLIES

The provisions of this By-law shall apply throughout the former Township of Brant, former Township of Greenock and former Town of Walkerton, Municipality of Brockton to the extent of all lands contained within the limits of the zone boundaries as shown on the Zoning Maps forming Schedule 'A' to this By-law.

#### 1.4 APPLICATION OF BY-LAW

No building or structure shall hereafter be erected or altered, and the use of any building, structure or lot shall hereafter not be changed in whole or in part except in conformity with the provisions of this By-Law.

#### 1.5 CONTINUATION OF EXISTING MINOR VARIANCES

- .1 Notwithstanding Section 26.2 (Repeal of Former By-laws), all minor variances granting relief from the provisions of the Township of Brant Comprehensive Zoning By-law #2007-60, the Township of Greenock Comprehensive Zoning By-law #98-22 and the Town of Walkerton Comprehensive Zoning By-law #92-35 since March 25, 2011 shall remain in force and effect but shall expire in two (2) years from the date of passage of this By-law. A building permit may be issued by the CBO provided that the terms and conditions of any decision of the Committee of Adjustment or the Ontario Municipal Board have been complied with.
- .2 Any appeal(s) to the Ontario Municipal Board to a minor variance that granted relief from the provisions of the Township of Brant Comprehensive Zoning By-law #2007-60, or the Township of Greenock Comprehensive Zoning By-law #98-22 or the Town of Walkerton Comprehensive Zoning By-law #92-35 that is not in force and effect as of the date of passage of this By-law shall be litigated/reviewed/dealt with in reference to the By-law under which the minor variance was approved.
- .3 All minor variances applied for prior to the enactment of this By-law and finally approved pursuant to Section 45 of the Planning Act or its predecessor continue to apply and remain in force and effect from March 25, 2011 up to the date of passage of this By-law and for an additional two (2) years from the date of passage of this By-law as if they are variances to this By-law for lawfully existing lots, buildings or structures. The continuation of existing minor variances applies to the Township of Brant Comprehensive Zoning By-law #2007-60, the Township of Greenock Comprehensive Zoning By-law #98-22 and the Town of Walkerton Comprehensive Zoning By-law #92-35.

#### 1.6 INTERPRETATION (TEXT)

## 1.6.1 Use of Words

- .1 The particular shall control the general;
- .2 The word "shall" is mandatory and not discretionary; and the word "may" is permissive;
- .3 Words used in the present tense shall include the future; and words used in the singular number shall include the plural and the plural shall include the singular, unless the context clearly indicates the contrary;
- .4 A "Building" or "Structure" includes any part thereof.

## *1.6.2 Typographical and Section Reference Corrections*

.1 No amendment to this By-law shall be required in order for the Corporation to make typographical changes or changes to section references where, in the opinion of the Corporation, such corrections do not affect the intent of the By-law.

## *1.6.3 References to Other Legislation and Agencies*

.1 Where this By-law makes reference to legislation of the Government of Ontario or the Government of Canada, such reference shall be deemed to include any and all amendments or successors or changes in the titles, numbering, or regulations there under. Where this By-law makes reference to the jurisdiction of a public agency and where the name or responsibilities of said public agency are changed, the said reference shall be deemed to include any and all successors to such public agency or legislation. Reference to MDS I or MDS II formulae shall be deemed to include the most current standards.

## 1.7 APPLICATIONS, PLANS AND PERMITS

.1 In addition to all the requirements of the Corporation's Building By-Law or any other By-Law of the Corporation, every application for a building permit shall be made in compliance with the Ontario Building Code Act.

## 1.8 ENTRY AND INSPECTION

Upon reasonable grounds, an officer duly appointed by the Corporation may enter and inspect any property on, or in respect of which, he or she believes a contravention of this By-law is occurring subject to the requirements and prescriptions of the Planning Act

## Explanatory Note:

An officer duly appointed by the Corporation shall not enter any room or place used as a dwelling unit without the consent of the owner or without a warrant issued pursuant to The Provincial Offences Act.

## 1.9 VIOLATIONS AND PENALTIES

Every person who contravenes or who causes or permits any contravention of any of the provisions of this By-law is guilty of an offence and on conviction is liable to the penalties prescribed by Section 67 of the Planning Act, R.S.O. 1990 Chapter P.13, as amended.

Explanatory Note:

The following is an excerpt from Section 67 of The Planning Act, R.S.O. 1990:

**67.** (1) Every person who contravenes section 41, section 46, subsection 49 (4) or section 52 or who contravenes a by-law passed under section 34 or 38 or an order made under section 47 and, if the person is a corporation, every director or officer of the corporation who knowingly concurs in the contravention, is guilty of an offence and on conviction is liable,

- a) on a first conviction to a fine of not more than \$25,000; and
- **b)** on a subsequent conviction to a fine of not more than \$10,000 for each day or part thereof upon which the contravention has continued after the day on which the person was first convicted. 1994, c. 2, s. 48.

## Corporation

(2) Where a corporation is convicted under subsection (1), the maximum penalty that may be imposed is,

- a) on a first conviction a fine of not more than \$50,000; and
- **b)** on a subsequent conviction a fine of not more than \$25,000 for each day or part thereof upon which the contravention has continued after the day on which the corporation was first convicted, and not as provided in subsection (1).

## Order of prohibition

(3) Where a conviction is entered under subsection (1), in addition to any other remedy or any penalty provided by law, the court in which the conviction has been entered, and any court of competent jurisdiction thereafter, may make an order prohibiting the continuation or repetition of the offence by the person convicted. R.S.O. 1990, c. P.13, s. 67 (2, 3).

## 1.10 VALIDITY/SEVERABILITY PROVISION

Should any section, subsection, sentence, clause, phrase or provision of this By-Law be held by a court of competent jurisdiction to be invalid, the validity of the remainder of the By-Law shall not be affected.

## 1.11 LICENSES, PERMITS AND OTHER BY-LAWS

Nothing in this By-Law shall exempt any person from complying with the requirements of the Building By-Law and the Ontario Building Code or any other By-Law, Regulation, or Act in force with the Corporation, County, Provincial or Federal government or from obtaining any licence, permission, permit, authority or approval required by this or any other By-Law of the Corporation, County, Provincial or Federal government unless hereinafter specifically stated.

#### 1.12 GREATER RESTRICTIONS OF OTHERS TO GOVERN

Nothing in this By-Law shall reduce the severity of restrictions lawfully imposed by a government authority having jurisdiction to make such restrictions.

#### 1.13 PLAN OF SUBDIVISION

Notwithstanding any of the provisions of this By-law, no building permits are to be issued for any lands for which a plan of subdivision has been submitted to the County of Bruce, pursuant to Section 51 of the Planning Act, 1990, R.S.O. Chapter P.13 until such time as the plan of subdivision has been registered.

#### 1.14 EXAMPLES, ILLUSTRATIONS AND EXPLANATORY NOTES

Examples, Illustrations, Notes, and Explanatory Notes are for the purpose of clarification and convenience and do not form part of this By-law.

#### 1.15 METRIC AND IMPERIAL MEASUREMENT

All measurement figures used in the By-Law shall be metric measurement. The approximate imperial equivalents to the metric measurements used in this By-Law are shown in brackets following each such metric measurement and are provided as an 'Explanatory Note'.

#### **SECTION 2 – DEFINITIONS**

Definition Index (for convenience only, does not form part of this By-Law)

## Α

Abattoir Accessory Adventure Game Agricultural Produce Warehouse Agriculturally Related Commercial/Industrial Use Agriculture General Agritainment Aircraft Hangar Airport Alter Assembly Hall Attached Automobile Car Wash Automobile Gas Bar Automobile Repair Establishment Automobile Sales Establishment Automobile Service Station Automobile Wrecking Yard

# В

Basement Bed & Breakfast Establishment Boat House Boat Launching & Docking Building Building By-Law Building Setback Bulk Fuel Depot Bulk Sales Establishment - Agricultural Bus Depot Business or Professional Office

# С

Campground Campsite Carport Catastrophe Cellar

Cemetery Centre Line **Chief Building Official** Child Care Child Care Centre Clinic **Commercial College Commercial Motor Vehicle Commercial Motor Vehicle Repair** Establishment Commercial Use **Commercial Use Composting Facility** Computer/Data Processing Centre **Conservation Area Construction Trailer Convenience Store** Corporation Council County **Cross Country Ski Facility** 

# D

**Day Nursery** Day Care Nursery (Licensed) Daylight Triangle Driveway Dwelling Dwelling, Converted Dwelling, Duplex Dwelling, Garden Suite Dwelling, Multiple Dwelling, Non-Farm Dwelling, Seasonal Dwelling, Secondary Suite Dwelling, Semi-Detached Dwelling, Single Detached Dwelling, Townhouse Dwelling, Townhouse Street Dwelling, Townhouse Cluster Dwelling, Accessory Apartment Dwelling, Accessory Detached Dwelling, Apartment Building

## Ε

Educational Facility Erect Erected and Erection Existing Existing, Lot

## F

Factory Sales Outlet Farm Implement Establishment Farm Implement Repair Fitness Centre Flood fringe Floodplain Floodway Floor Area, Ground Floor Area, Gross First Livestock Facility Food Processing, Primary Food Processing, Secondary Forestry/Silvaculture Funeral Home

## G

Garden Centre Golf Course Golf Course, Miniature or Miniature Golf Course Golf Driving Range Grade Greenhouse Greenhouse, Commercial Gross Floor Area Ground Floor Area Group Home – Type One Group Home – Type Two Gun Club H Hazardous Substances Height Home Child Care Home Industry Home Occupation Horse-Drawn Carriage Community Hotel/Motel

## L

Industrial Use Industrial Use, Dry or Dry Industrial Use Industry, Light Institution Institutional Use

## Κ

Kennel

## L

Landscaped Open Space Lane Livestock Livestock Assembly Yard Livestock Auction Barn Livestock Facility Loading Space Lot Lot Area Lot Corner or Corner Lot Lot Coverage Lot Frontage Lot, Interior or Interior Lot Lot Line Lot Line, Exterior or Exterior Lot Line Lot Line, Front or Front Lot Line Lot Line, Rear or Rear Lot Line Lot Line, Side or Side Lot Line Lot, Through or Through Lot

## Μ

Main Building Marine, Recreation and Small Engine Establishments Manufacturing Manure or Material Storage Minimum Distance Separation Formulae Mobile Home Mobile Home Site Mobile Home Park Mobile Home Park Open Space Mobile Home Park Road Motor Home Motor Vehicle **Municipal Complex** Municipal Drain Municipal Drain, Open Municipal Drain, Enclosed

# Ν

Non-Conforming Non-Complying Non-Farm Lot Non-Residential Nuisance Nursery Nutrient Unit (NU)

# 0

Open Storage Outdoor Display Area

## Ρ

Park Model Trailer Parking Area Parking Lot Parking Space Parking Space, Angle Parking Space, Parallel Person Personal Service Establishment Pit Planting Area Portable Asphalt Plant Portable Concrete Plant Principal Principal Building or Structure Private Garage Private Street Public Garage Public Park Public Building Public Utility Public Utility Building

# Q

Quarry

# R

Recreation Centre Recycling Centre Recycling Depot Rental Establishment Research Establishment/Laboratory Residential Care Facility Residential Use Restaurant Restaurant, Take-Out Restaurant, Portable Food Outlet Retail Floor Area Retail, Large Format Retail, Large Format Retail Store Riding Stable/Equestrian Centre Rural Residential Cluster

# S

Salvage Yard Saw or Planing Mill School Bus School Bus Storage Septic Tank Service Service Establishment Setback Sewage Disposal System, Communal Sewage Disposal System Sewage Disposal System - Tertiary Sewage Treatment Unit Sewage Treatment Plant Site Plan Sight Visibility Triangle Snowmobile Club Solid Waste Disposal Site Storey Storey, Half Street Structure Swimming Pool

## т

Tavern Tent Tillable Hectares Trades Person Trades Person's Shop Transport Depot Transport Trailer Travel Trailer Travel Trailer Sales Establishment Truck-Trailer **U** Unlicensed Child Care Use

## V

Veterinary Clinic Veterinary Clinic - Small Animal Video Outlet/Rental Establishment

## W

Warehouse Warehouse, Mini Storage Watercourse Water Lot Water System, Municipal Wayside Pit or Wayside Quarry

# Y

Yard Yard, Exterior Side or Exterior Side Yard Yard, Front or Front Yard Yard, Rear or Rear Yard Yard, Side or Side Yard

# Ζ

Zone Zoning Administrator

#### DEFINITIONS

For the purposes of this By-Law, the definitions and interpretations given in this section shall govern.

<u>"ABATTOIR</u>" means a building or structure specifically designed or intended to accommodate the temporary penning/or slaughtering of live animals and the preliminary processing of animal carcasses and may include the packing, treating, storing and sale of the product on the premises.

<u>"ACCESSORY"</u> means a use, building or structure subordinate, incidental and exclusively devoted to the principal use, building or structure located on the same lot therewith and not designed or intended for human habitation unless specifically permitted elsewhere in this By-Law.

<u>"ADVENTURE GAME"</u> means lands, buildings or structures used for sport or recreation whereby the participants engage in mock battles to capture a flag, paintball games or similar activities.

<u>"AGRICULTURAL PRODUCE WAREHOUSE</u>" means a building or part of a building used for the storage of agricultural produce and may include facilities for wholesale distribution or an accessory retail commercial outlet for the sale of such agricultural produce to the general public.

<u>"AGRICULTURALLY RELATED COMMERCIAL/INDUSTRIAL USE"</u> means farm related commercial and farm related industrial uses that are small scale and directly related to a farm operation and are required to be in close proximity to a farm operation.

<u>"AGRICULTURE GENERAL"</u> means the growing of crops, including nursery and horticultural crops; raising of livestock; raising of other animals for food, fur or fibre, including poultry and fish; aquaculture; apiaries; agro-forestry; maple syrup production; and associated on-farm buildings and structures.

<u>"AGRITAINMENT"</u> means the use of land, buildings or structures for the purpose of a 'u-pick' fruit and/or vegetable operation, food preparation and service that is associated with the primary agricultural use on the land only, livestock shows/demonstrations, plowing matches, maze(s), sleigh/wagon rides, and other entertainment all of a temporary or seasonal nature, but shall not include any other use herein defined.

<u>"AIRCRAFT HANGAR"</u> means a building or structure designed and used for the storage and maintenance of aircraft.

<u>"AIRPORT</u>" means the use of land, including water, runway or other facility designed, used or intended to be used for the landing and taking off of aircraft including all necessary taxiways, aircraft storage, tie-down areas, hangar and other buildings and structures.

<u>"ALTER"</u> when used in reference to a building or part thereof, means to change any one or more of the internal or external dimensions of such building or to change the type of construction of the exterior walls or roof thereof. When used in reference to a lot, the word "alter" means to change the width, depth, or area of any required yards setback, landscaped open space or parking area, to change the location of any boundary of such lot with respect to a street, private street, lane, whether such alteration is made by conveyance or alienation of any portion of said lot, or otherwise. The word "altered" and "alteration" shall have a corresponding meaning.

<u>"ASSEMBLY HALL"</u> means a building or part of a building in which facilities are provided for such purposes as meetings for civic, educational, political or social purposes and may include functions involving the consumption of food and drink.

<u>"ATTACHED"</u> when used in reference to a building, means a building otherwise complete in itself that depends for structural support or complete enclosure upon a division wall or division walls shared in common with adjacent building or buildings.

"<u>AUTOMOBILE CAR WASH</u>" means a lot, building or structure used solely for the washing and cleaning of motor vehicles and shall not include any other automobile use defined in this By-law.

<u>"AUTOMOBILE GAS BAR"</u> means a lot containing not more than eight fuel/propane pumps and may include a structure of not greater than 18.5 m<sup>2</sup> (199 ft<sup>2</sup>) used for the sale of fuel but shall not include any other automobile use defined in this By-Law.

<u>"AUTOMOBILE REPAIR ESTABLISHMENT"</u> means a building and/or lot used for the servicing, repair, cleaning, polishing and greasing of 'motor vehicles' and may include motor vehicle body repair and painting, but shall not include any other automobile use defined in this By-Law.

<u>"AUTOMOBILE SALES ESTABLISHMENT"</u> means a building and/or lot used for the display and sale of new or used 'motor vehicles' and may include the servicing, repair, cleaning, polishing, oiling and greasing of motor vehicles, the sale of automotive accessories and related products and the leasing or renting of 'motor vehicles', but shall not include any other automobile use defined in this By-Law.

<u>"AUTOMOBILE SERVICE STATION</u>" means a building and/or lot used for the servicing, repair, cleaning, polishing, oiling and greasing of 'motor vehicles' and may include motor vehicle body repair, painting, the sale of sundry items incidental to the operation of a motor vehicle and a 'Automobile Gas Bar' but shall not include any other automobile use defined in this By-Law.

<u>"AUTOMOBILE WRECKING YARD"</u> means a building and/or lot used for the wrecking or dismantling of 'motor vehicles' and 'commercial motor vehicles' and for the storage and sale of scrap material, salvage and parts obtained therefrom but does not include any other automobile use defined in this By-Law or a 'Salvage Yard'.

<u>"BASEMENT"</u> means that portion of a building or structure partially below ground level and having at least 50% of its height above average finished grade.

<u>"BED & BREAKFAST ESTABLISHMENT</u>" means a Home Occupation operated in accordance with the provisions of <u>Section 3.10</u>.

<u>"BOAT HOUSE"</u> means a building or structure or part thereof, used for the storage of private boats and equipment accessory to their use, as an accessory use to a residential use, no part of which shall be used as a dwelling or commercial purposes. <u>"BOAT LAUNCHING & DOCKING</u>" means a structure that is used to take a boat into or out of a navigable waterway, or to moor a boat. The definition includes a launching ramp, boat lift, or dock but does not include any building or fuel pumps or any boat servicing, repair or sales facility.

<u>"BUILDING"</u> means any structure other than a fence being a permanent edifice fixed to, or supported by the soil, and used or intended to be used for the shelter, accommodation or enclosure of persons, animals or chattels.

<u>"BUILDING BY-LAW"</u> means any "Building By-Law" within the meaning of the Ontario Planning Act and the Ontario Building Code Act.

<u>"BUILDING SETBACK"</u> means the minimum horizontal distance between a lot line and the nearest part of any building or structure on the lot.

<u>"BULK FUEL DEPOT"</u> means the use of land, buildings or structures for the storage and distribution of fuels, gases, oils, and wood and may include as an accessory use a commercial card/key lock facility but shall not include any other use defined in this By-Law.

<u>"BULK SALES ESTABLISHMENT - AGRICULTURAL</u>" means the use of land, buildings or structures for the purposes of buying, selling, storing, grading and handling of seed, feed, fertilizer and other agricultural products in bulk quantities and may include a cleaning and drying facility, scales, and an administration building.

<u>"BUS DEPOT"</u> means a lot, building or structure where commercial motor vehicles pick up and discharge fare paying passengers, and may include as an accessory use a ticked office, a restaurant, luggage checking and/or parcel shipping.

<u>"BUSINESS OR PROFESSIONAL OFFICE"</u> means any building or part thereof in which one or more persons are employed in the management, direction or conducting of an agency, business, brokerage, or labour organization and includes a bank or trust company, post office, and a government office but shall not include a 'retail store', 'manufacturing', repair or display or any other use herein defined.

<u>"CAMPGROUND"</u> means a lot used year-round for the parking and use of recreational travel trailers, park model trailers or similar transportable accommodations, but not including a 'mobile home'. All sites will be used for seasonal or intermittent accommodations and will not be used as a principle residence or permanent place of residence. A Campground may include a swimming pool, convenience store, Laundromat, miniature golf course, playground, athletic play fields, tennis or badminton courts, and an administrative building for the campground. Off-season storage of travel trailers, tent trailers, or similar transportable accommodation shall be permitted.

<u>"CAMPSITE"</u> means a parcel of land within a campground intended for occupancy by motor homes, travel trailers, tents or similar transportable accommodation together with all yards and open space defined in this By-Law, but shall not include a mobile home or park model trailer.

<u>"CARPORT"</u> means a covered structure attached to the wall of the principal building and used for the storage of 'motor vehicles'.

<u>"CATASTROPHE"</u> for the purposes of Minimum Distance Separation guideline calculations means an unanticipated, disastrous loss of part, or all, of a *livestock facility* due to fire, collapse, flood, wind, or other such event.

<u>"CELLAR"</u> means the portion of a building or structure partially below ground level and having 51% or more of its height below average grade level.

<u>"CEMETERY"</u> means a cemetery, crematorium or columbarium within the meaning of The Cemetery Act of Ontario.

<u>"CENTRE LINE"</u> means the centre line of any 'street', railway, roadway, 'lane', railway right-of-way or 'private street'.

<u>"CHIEF BUILDING OFFICIAL"</u> means the officer or employee appointed by By-Law of the Corporation of the Municipality of Brockton charged with the duty of enforcing the provisions of the Building By-Law of the Corporation, Building Code Act and its applicable regulations.

#### New Definition(s) added by By-law 2016-028 (Child Care and Early Years Act)

"<u>CHILD CARE</u>' means the temporary care for, or supervision of, a child including providing for a child's safety, well-being or development, in the absence of the child's parent and for a continuous period that does not exceed 24 hours, in accordance with the Child Care and Early Years Act, 2014, including any amendments, or its successor.

'<u>CHILD CARE CENTRE'</u> means a business that has obtained the proper licensing from the Province to operate a licensed child care centre for the provision of temporary care for or supervision of a child including providing for a child's safety, well-being or development, in the absence of the child's parent and for a continuous period that does not exceed 24 hours, in accordance with the Child Care and Early Years Act, 2014 including any amendments, or its successor.

<u>"CLINIC"</u> means a lot, building, or structure that is used by physicians, dentists or all other licensed practitioners and their staff for the purpose of consultation, diagnosis and treatment of outpatients and may include administrative offices, waiting areas, treatment rooms, laboratories, pharmacies, and dispensaries directly associated with the facility.

<u>"COMMERCIAL COLLEGE"</u> means a lot, building, or structure used for a private career college operating under the Private Career Colleges Act S.O. 2005.

<u>"COMMERCIAL MOTOR VEHICLE"</u> means a vehicle having a gross weight or registered gross weight of more than 4500 kilograms, or a bus capable of carrying more than 10 passengers but shall not include an ambulance, a fire apparatus, a hearse, a motor home, travel trailers or a vehicle commonly known as a tow truck.

<u>"COMMERCIAL MOTOR VEHICLE REPAIR ESTABLISHMENT"</u> means a building and/or lot used for the servicing, repair, cleaning, washing, polishing and greasing of 'commercial motor vehicles' and 'truck-trailers' and may include body repair, welding and painting but shall not include any other automobile use defined in this By-Law.

<u>"COMMERCIAL USE"</u> means the use of land, building or structure for the purpose of buying and/or

selling commodities and supplying services, such as automotive service stations, car washes, convenience retails shops, Hotel/Motel, shopping centers and supermarkets.

<u>"COMPOSTING FACILITY"</u> means an industrial facility whose primary purpose is the composting of food, and/or organic materials, and/or sewage sludge but shall not include the composting of animal or livestock remains.

<u>"COMPUTER/DATA PROCESSING CENTRE"</u> means a building or part of a building used for the input, processing and printing of computerized data or engaged primarily in service transactions electronically or through a communication medium and without limiting the generality of the foregoing, may include such establishments as credit card information centres, virtual banking services, on-line services and telephone solicitation services, but shall not include any walk-in or off-the-street traffic or any retail or manufacturing of goods for sales.

<u>"CONSERVATION AREA"</u> means an area of land owned by a public authority and managed for the purposes of preserving and improving the natural features of the environment and without limiting the foregoing may include such uses as a picnic area, historic site, athletic fields, camping, interpretive centre, maintenance buildings and other such similar uses.

<u>"CONSTRUCTION TRAILER"</u> means a building or structure that is designed to be made mobile and drawn by a separate vehicle, and is used for the purpose of storage or administration on a site while building construction is taking place.

<u>"CONVENIENCE STORE"</u> means an establishment not exceeding 140 m<sup>2</sup> (1500 ft<sup>2</sup>) of gross floor area in which articles for sale are restricted to a limited range of primarily food items such as milk, bread, soft drinks, ice cream, canned and bottled goods, snacks and candy, frozen meat and to complement such items may include the sale of magazines, toiletries, tobacco products. A convenience store may also include a catalogue outlet, pharmacy, post office outlet or similar type uses.

<u>"CORPORATION"</u> means the Corporation of the Municipality of Brockton.

<u>"COUNCIL"</u> means the Municipal Council of the Corporation.

<u>"COUNTY"</u> means the Corporation of the County of Bruce.

<u>"CROSS COUNTRY SKI FACILITY"</u> means the use of land, buildings or structures for the purpose of providing facilities for the sport of cross country skiing and which may include a 'restaurant', maintenance buildings, and administration building(s) if located on the same property and are considered accessory uses.

## Definitions deleted by By-law 2016-028

<u>"DAY NURSERY"</u> means a premises that receives no more than five children who are not of common parentage primarily for the purpose of providing temporary care, or guidance, or both temporary care and guidance for a continuous period not exceeding twenty-four hours, where the children are:

a) Under eighteen years of age in the case of a day nursery for children with a developmental

disability, and

- b)-Under ten years of age in all other cases, but does not include
- c) Part of a public school, separate school or private school under the *Education Act*.

<u>"DAY CARE NURSERY (LICENSED)"</u> means a day nursery as defined in the Day Nurseries Act, R.S.O., as amended.

<u>"DAYLIGHT TRIANGLE"</u> means a triangular area formed by measuring from the curb lines or projection thereof at a street intersection, four (4.0m) metres along one curb line; twenty (20.0m) metres along the opposite curb line, and joining such points with a straight line.

<u>"DRIVEWAY"</u> means a vehicular passageway having at least one end thereof connected to a Class 1 or Class 2 Street and providing ingress to and/or egress from a lot.

<u>"DWELLING"</u> means one or more rooms used or intended for the domestic use of one or more individuals living as a single house-keeping unit that is provided with cooking, living, sleeping and sanitary facilities. A dwelling shall not include any mobile home, park model trailer, construction trailer, travel trailer, hotels/motels, and a home for the aged, nursing home, or hospital.

- a) <u>"DWELLING, CONVERTED"</u> means an existing dwelling constructed as a 'dwelling, single detached' or 'dwelling, semi-detached' on an existing lot in which the number of dwelling units has been increased without significant alteration to the exterior of the building except for the required fire escapes, extra windows and entrances to a maximum of 10 percent (10%) of the dwelling or 30 m<sup>2</sup> (320 ft<sup>2</sup>), whichever is the lesser, and provided that the building, when converted, complies with the provisions of this By-law.
- b) <u>"DWELLING, DUPLEX"</u> means the whole of a building that is divided horizontally into two separate dwellings each of which has an independent entrance either directly from the outside or through a common vestibule.
- c) <u>"DWELLING, GARDEN SUITE"</u> means a 'dwelling, single detached' accessory to a principal 'dwelling unit' that provides temporary accommodation to meet the housing needs of elderly parents, family members with special needs, or other similar individuals, on the same lot as the caregivers and is portable.
- d) <u>"DWELLING, MULTIPLE"</u> means a residential dwelling that is divided into three but not more than five dwelling units wherein each unit is accessed by way of a common entrance and an internal staircase or hallway from inside.
- e) "<u>DWELLING, NON-FARM</u>" means a dwelling not located on the same lot as an agricultural use.
- f) "<u>DWELLING, SEASONAL</u>" means a dwelling not located on a Class 1 Street notwithstanding that it may be designed and/or constructed for year round or permanent human habitation.
- g) <u>"DWELLING, SECONDARY SUITE"</u> means a dwelling unit subsidiary to and located in the

same building as its principal 'dwelling unit' and its creation does not result in a 'dwelling, semi-detached', 'dwelling, duplex', 'dwelling, multiple', 'dwelling, converted', 'dwelling, accessory detached' or 'dwelling, accessory apartment' as otherwise may be defined.

- h) <u>"DWELLING, SEMI-DETACHED"</u> means two attached dwellings divided vertically by a common wall, each of which has an independent entrance directly from the outside.
- i) "<u>DWELLING, SINGLE DETACHED</u>" means a dwelling constructed and used as a principle residence of the owner or occupant thereof and is intended for permanent occupancy and is designed and/or constructed for year round or permanent human habitation.
- j) <u>"DWELLING, TOWNHOUSE"</u> means a residential dwelling divided vertically into three or more residential dwelling units, each dwelling unit having an independent front and rear entrance immediately abutting the front and rear walls of each dwelling unit:
  - 1) <u>"DWELLING, TOWNHOUSE STREET"</u> means a 'Dwelling, Townhouse' on a separate lot where each dwelling unit has frontage onto a Class 1 or Class 2 Street.
  - 2) <u>"DWELLING, TOWNHOUSE CLUSTER"</u> means a 'Dwelling, Townhouse' on one lot where each dwelling unit does not have frontage onto a Class 1 or Class 2 Street.
- k) "<u>DWELLING, ACCESSORY APARTMENT</u>" means a dwelling subordinate and incidental to the principal building or structure located on the same lot therewith, and which is constructed as part of the permitted Non-Residential Use principal building or structure.
- I) "<u>DWELLING, ACCESSORY DETACHED</u>" means a dwelling detached from and subordinate and incidental to the principal use, building or structure located on the same lot therewith.
- m) <u>"DWELLING, APARTMENT BUILDING"</u> means a residential dwelling that contains five or more residential dwelling units that have a common entrance front street level and are served by a common corridor or hallway from inside.

<u>"EDUCATIONAL FACILITY"</u> means a public school, separate school, commercial or vocational school, university or college, or a private school operating under the Education Act RSO 1990.

<u>"ERECT"</u> when used in this By-Law includes building, construction, reconstruction and relocation and, without limiting the generality of the word, also includes:

- a) any preliminary physical operation, such an excavating, filling or draining;
- b) altering any existing building or structure by an addition, enlargement, extension or other structural change; and
- c) any work for the doing of which a building permit is required under The Ontario Building Code.

<u>"ERECTED</u>" AND <u>"ERECTION</u>" shall have a corresponding meaning.

<u>"EXISTING"</u> unless otherwise indicated, means legally existing on the date of passing of this By-Law.

"EXISTING, LOT" unless otherwise indicated, means existing on the date of passing of this By-

Law. For the purposes of this By-Law, any existing lot which is of a lesser size than that required by this By-Law or which has been increased in size through consent of the Bruce County Land Division Committee, shall be deemed to be an 'existing lot'. Further, any lot which is reduced in size through acquisition via a conveyance pursuant to Section 50 (3) (c) or 50 (5) (d) of the Planning Act or consent of the Bruce County Land Division Committee to a size which is less than that required by this By-Law, shall also be deemed to be an 'existing lot'.

<u>"FACTORY SALES OUTLET"</u> means an accessory use to an 'Industrial Use' in which the goods, wares, or merchandise manufactured on the premises is offered for sale.

<u>"FARM IMPLEMENT ESTABLISHMENT"</u> means the use of land buildings or structures for the sale of, storage or repair of new or used agricultural equipment and machinery directly associated with the operation of a farm and may include as an accessory use the display, sale, storage, servicing, and repair of snowmobiles, ATV's, small engines, and lawn care equipment and related products but does not include any other use(s) defined herein.

<u>"FARM IMPLEMENT REPAIR"</u> means the use of land buildings or structures for the sale of, storage or repair of new or used agricultural equipment and machinery directly associated with the operation of a farm but do not include any other use(s) defined herein.

<u>"FITNESS CENTRE"</u> means a building in which facilities are provided for recreational athletic activities including but not limited to body-building and exercise classes, and may include associated facilities such as a sauna, swimming pool and solarium.

<u>"FLOOD FRINGE</u>" means the outer portion of the 'floodplain' between the 'floodway' and the flooding hazard limit. Depths and velocities of flooding are generally less severe in the flood fringe than those experienced in the floodway.

<u>"FLOODPLAIN"</u> means the area, usually low lands adjoining a 'watercourse', which has been or may be subject to flooding hazards.

<u>"FLOODWAY"</u> means the portion of the 'flood plain' where development and site alteration would cause a danger to public health and safety or property damage.

<u>"FLOOR AREA, GROUND</u>" means the maximum area of a building measured to the outside walls at grade excluding in the case of a residential dwelling, areas such as a parking garage/structure, carport, porch and/or veranda, sun room (unless such sun room is habitable at all seasons of the year), and any other non-habitable areas.

<u>"FLOOR AREA, GROSS"</u> means the aggregate of the area of all floors measured from the inside face of exterior walls but excludes any detached accessory buildings, a breezeway, unenclosed sunroom, porch and/or veranda, attic, cellar, basement, mezzanine areas, mechanical rooms, common walls, stair wells, garbage and electrical rooms, parking garage/structures and similar service areas accessory to the main use.

<u>"FOOD PROCESSING, PRIMARY"</u> means the use of lands, buildings or structures for a 'Industrial Use, Dry' where orchard, berry, row or field crops are washed, cleaned, screened, sifted graded, waxed, or crushed but excludes any further processing. <u>"FOOD PROCESSING, SECONDARY"</u> means the use of lands, buildings or structures for a 'Industrial Use, Dry' where agricultural produce including orchard, berry, row, field crops, meat and poultry products, are washed, cleaned, dusted, waxed, cooked, steamed, fermented or otherwise prepared and packaged and may include the storage and sale of the finished product on the premises but shall not include an abattoir or any other use defined herein.

<u>"FORESTRY/SILVACULTURE"</u> means the management and care of trees and the harvesting of them or parts thereof for commercial purposes, and without limiting the generality of the foregoing includes the use of a saw mill provided the timber being milled originates on the same parcel of land the saw mill is operating.

<u>"FUNERAL HOME"</u> means a commercial use for the purpose of furnishing funeral supplies and services to the public and includes facilities for the preparation of deceased human bodies for interment or cremation.

<u>"GARDEN CENTRE"</u> means the use of land, buildings or structures where trees, shrubs, and plants are grown or stored for the purpose of transplanting or for the purpose of retail sale or wholesale, and include the sale of soil, planting materials, fertilizers or similar materials, lawn and garden equipment or lawn furnishings.

<u>"GOLF COURSE"</u> means a public or private area operated for the purpose of playing golf and may include a 'miniature golf course', 'restaurant', 'golf driving range', maintenance buildings and administration buildings.

<u>"GOLF COURSE, MINIATURE"</u> or <u>"MINIATURE GOLF COURSE"</u> means an area of land or a building, structure or premises or part thereof operated for profit or gain as a commercial place of amusement in which facilities are provided to simulate the game of golf or any aspect of the game on a small scale, but does not include a golf driving range or golf course.

<u>"GOLF DRIVING RANGE"</u> means an open air recreation facility where the sport of golf is practised from individual tees and which may include accessory structures to house the tees, a kiosk for golf balls and golf club rentals and a structure from which the golfers tee-off.

## "GRADE"

- a) When used with reference to a building or structure, means the average finished ground elevation immediately adjoining the wall or walls in question or the base of the structure exclusive of any artificial embankment.
- b) When used with reference to a 'street', means the finished elevation of such 'street', road or highway as established by the Corporation or other authority having jurisdiction.

<u>"GREENHOUSE"</u> means a building wherein the temperature and humidity can be regulated for the cultivation of vegetables, fruit, flowers, plants, shrubs, trees and similar vegetation.

<u>"GREENHOUSE, COMMERCIAL</u>" means a building for the growing of vegetables, fruit, flowers, plants, shrubs, trees and similar vegetation which are not necessarily transplanted outdoors on the same lot containing such greenhouse, but are sold directly from such building at wholesale or retail.

<u>"GROUP HOME – TYPE ONE"</u> means a building or structure in which not more than five (5) residents with special care needs such as: seniors, individuals who are developmentally and/or physically challenged or mentally ill, individuals requiring respite or convalescent care; live under responsible supervision consistent with the requirements of its residents. Residents do not include supervisory staff or a receiving family.

<u>"GROUP HOME – TYPE TWO"</u> means a building or structure in which not more than five (5) residents who have been placed on probation under the statutes of Ontario or Canada, who have been released on parole under the statutes of Ontario or Canada, individuals recovering from substance abuse, or who are admitted to the Group Home for correctional purposes reside. Residents do not include supervisory staff. A Group Home – Type Two is licensed and/or funded under Federal or Provincial Statute and in compliance with applicable Municipal By–Laws.

<u>"GUN CLUB"</u> means lands, buildings or structures used for target practice by use of a firearm. A gun club shall not include provisions for overnight accommodations or for the preparation and serving of full course meals.

<u>"HAZARDOUS SUBSTANCES"</u> means substances which, individually, or in combination with other substances, are normally considered to pose a danger to public health, safety and the environment. These substances generally include a wide array of materials that are toxic, ignitable, corrosive, reactive, radioactive, or pathological.

<u>"HEIGHT"</u> when used with reference to a building or structure means the vertical distance between the average grade at the front of such building or structure to the highest point therein exclusive of any ornamental dome, chimney, tower, cupola, steeple, Place of Worship spire, water storage tank, electrical apparatus, television or radio antenna, or structure for the mechanical equipment required for the operation of such building or structure. Without limiting the generality of the foregoing, the highest point shall be taken as:

- a) In the case of a flat roof, the highest point of the roof surface or parapet, whichever is the greater;
- b) In the case of a mansard roof, the deck roof line;
- c) In the case of a gable, hip or gambrel roof, the mean height between the eaves and the ridge.
- d) Where the height is designated in terms of storeys, it means the designated number of storeys above and including the first storey.

#### New definition added by By-law 2016–028 (Child Care and Early Years Act, 2014)

"<u>HOME CHILD CARE</u>" means 'Child Care' provided in a single detached dwelling, semi-detached dwelling or duplex dwelling by one or more child care provider(s) that is regulated by a home child care agency.

<u>"HOME INDUSTRY"</u> means an occupation or business conducted for gain or profit as a secondary use to the main permitted use within a dwelling and/or accessory building and operated in accordance with <u>Section 3.11</u>.

<u>"HOME OCCUPATION"</u> means an occupation or business conducted for gain or profit as a secondary use to the main permitted use within a dwelling and operated in accordance with <u>Section(s) 3.9</u> or <u>3.10</u>.

<u>"HORSE-DRAWN CARRIAGE COMMUNITY"</u> means a group of people whose primary mode of transportation is by the use of horse or horses and a carriage.

<u>"HOTEL/MOTEL"</u> means a building or structure used primarily for the purposes of catering to the needs of the traveling public by furnishing temporary or transient sleeping accommodation. A Hotel/Motel shall not have less than 6 guest rooms and may include permanent staff quarters, meeting rooms, recreational facilities, 'restaurant', and housekeeping units, but does not include any other establishments otherwise defined or classified in this By-Law.

<u>"INDUSTRIAL USE</u>" means the use of any land, building or structure for the purpose of manufacturing, assembling, making, packaging, preparing, inspecting, ornamenting, finishing, treating, altering, repairing, warehousing, storing or adapting for sale any goods, substance, article or thing, or any part thereof, and the storage of building or construction equipment and materials, as distinguished from the buying and selling of commodities and the supplying of onsite personal services.

<u>"INDUSTRIAL USE, DRY"</u> or <u>"DRY INDUSTRIAL USE"</u> means an 'Industrial Use' which does not utilize process waters and which does not produce waste waters from the industrial process **or** utilizes a closed loop/recycled water system which does not produce waste waters from the industrial process and includes such uses as welding shops, blacksmith shops, wood fabricating, warehousing or similar uses.

<u>"INDUSTRIAL USE, LIGHT"</u> means the use of land, buildings or structures for the purpose of an 'Industrial Use' which is wholly enclosed within a building or structure, except for parking and loading facilities and outside storage accessory to the permitted uses, and which in its operation does not result in emission from the building of odours, smoke, dust, gas, fumes, noise, cinder, vibrations, heat, glare or electrical interference.

<u>"INSTITUTIONAL USE"</u> means the use of land, buildings, structures or portions thereof, for public or social purposes and, without limiting the generality of the foregoing, may include governmental, religious, educational, charitable, philanthropic, hospitals, nursing homes, public or private schools and nursery schools, or other similar uses.

<u>"KENNEL</u>" means a place where dogs are bred and raised and are sold or kept for sale or boarded.

<u>"LANDSCAPED OPEN SPACE"</u> means an open unobstructed space at grade on a lot which is suitable for the growth and maintenance of grass, flowers, bushes and other landscaping and includes any patio or similar area but does not include any driveway, curb, or parking area.

<u>"LANE"</u> means a 'street' or 'private street' that affords only a secondary means of access to the lots abutting thereon.

<u>"LIVESTOCK"</u> means dairy, beef, swine, poultry, horses, goats, sheep, ratites, fur-bearing animals, deer & elk, game animals, birds, and other animals identified in Table 1 of the Minimum Distance Separation formulae.

<u>"LIVESTOCK ASSEMBLY YARD"</u> means a lot, building, structure or confined land area for temporarily holding livestock for shipping.

<u>"LIVESTOCK AUCTION BARN"</u> means a lot, building, structure or confined land area used as a livestock auction facility and may include the auction of agriculturally related chattels on an incidental or accessory basis only.

<u>"LIVESTOCK FACILITY</u>" means barn(s), building(s) or structure(s) where livestock are housed; including the associated 'manure or material storage' structure(s).

<u>"LOADING SPACE"</u> means an off-street space on the same lot as the building, or contiguous to a group of buildings for the temporary parking of a commercial vehicle while loading or unloading merchandise or materials.

<u>"LOT"</u> means a parcel of land that can be conveyed without further approval.

<u>"LOT AREA"</u> means the total horizontal area within the lot lines of a lot, excluding the horizontal area of such lot permanently covered by water. In the case of corner lots having a 'street' line rounding of a radius 6.0 metres (20 ft.) or less, the lot area of such lot shall be calculated as if the lot lines were produced to their point of intersection.

<u>"LOT CORNER"</u> or "<u>CORNER LOT</u>" means a Lot situated at the intersection of and abutting two or more streets, or parts of the same street, including any reserve area where the inside angle of intersection or projected angle at intersection of the tangents of the street lines is less than 135 degrees except for a Lot located at the commencement of a cul-de-sac where the angle exceeds 135 degrees.

<u>"LOT COVERAGE"</u> means that percentage of the lot area covered by buildings or structures, including accessory buildings or structures above finished grade level and permanent above or below ground swimming pools but shall not include sewage disposal systems.

<u>"LOT FRONTAGE"</u> means the horizontal distance between the side lot lines, measured along the front lot line, but where the front lot line is not a straight line or where the side lot lines are not parallel, the lot frontage is to be measured by a line set at the 'front yard setback' requirement of the applicable zone back from and parallel to the chord of the lot frontage and for the purpose of this definition the chord of the lot frontage is a straight line joining the two point where the side lot lines.

Refer to the end of Section 2 for Lot Frontage illustrations.

<u>"LOT, INTERIOR"</u> or "<u>INTERIOR LOT"</u> means a lot other than a corner lot and having frontage on one 'street' only.

<u>"LOT LINE"</u> means any boundary of a lot.

<u>"LOT LINE, EXTERIOR</u> "or "<u>EXTERIOR LOT LINE</u>" means any lot line other than a front lot line or rear lot line abutting a 'street', or 'lane'.

<u>"LOT LINE, FRONT" or "FRONT LOT LINE"</u> in the case of an interior lot, means the line dividing the lot from a 'street', or 'lane'. In the case of a corner lot, the shorter lot line abutting a 'street' shall be deemed the front lot line and the longer lot line abutting a 'street' shall be deemed an exterior lot line. In the case of a 'through lot', each lot line dividing the lot from a 'street', 'private street', or 'lane' shall be deemed to be a 'front lot line'.

<u>"LOT LINE, REAR" or "REAR LOT LINE"</u> means the lot line farthest from and opposite to the front lot line or where the lot is triangular, the point of intersection of the side lot lines.

<u>"LOT LINE, SIDE"</u> or "<u>SIDE LOT LINE"</u> means any lot line other than a front lot line or rear lot line.

<u>"LOT, THROUGH"</u> or "<u>THROUGH LOT</u>" means a lot bounded on opposite sides by a 'street', 'private street', or 'lane' but does not include a corner lot.

<u>"MAIN BUILDING"</u> means the building designed or used for the principal use on the lot.

<u>"MARINE, RECREATION AND SMALL ENGINE ESTABLISHMENTS</u>" means a building, structure and/or lot used for the display, sale, storage, servicing, repair, cleaning, polishing and lubricating of boats, motorcycles, snowmobiles, ATV's, lawn care equipment, marine engines and related products, or the leasing or renting of any of the above.

<u>"MANUFACTURING"</u> means compounding, processing, packing, crating, bottling, packing, assembling, making, preparing, inspecting, ornamenting, finishing, treating, altering, repairing, or adapting for sale any good, substance, or article, or any part thereof.

<u>"MANURE OR MATERIAL STORAGE"</u> means a permanent storage(s), which may or may not be associated with a 'livestock facility' containing liquid manure (<18% dry matter), solid manure ( $\geq$  18% dry matter), or digestate. Permanent storages may come in a variety of:

- locations (under, within, nearby, or remote from barn);
- materials (concrete, earthen, steel, wood);
- coverings (open top, roof, tarp1 or other materials);
- configurations and shapes; and
- elevations (above, below or partially above grade).

<u>"MINIMUM DISTANCE SEPARATION FORMULAE"</u> means a formulae developed by the Province of Ontario to separate uses so as to reduce incompatibility concerns about odour from livestock facilities.

<u>"MOBILE HOME"</u> means a unit constructed or manufactured to provide for year round occupancy and is designed to be transported from one site to another. A mobile home does not include a 'park model home', 'motor home', 'travel trailer' or other similar accommodation. A mobile home shall be distinguished from other forms of prefabricated transportable housing by reason of a design which permits and features ready transfer from place to place whereas the latter are intended to be moved once only to a final location. <u>"MOBILE HOME SITE"</u> means land within a mobile home park intended for occupancy by one mobile home together with all yards and open space required by this By-Law.

<u>"MOBILE HOME PARK"</u> means land containing two or more mobile home sites and which is under single management and ownership and which is designed and intended for residential or seasonal use where such residential occupancy is in mobile homes exclusively. A mobile home park may include an administrative and sales office for the mobile home park and a recreation building for the exclusive use of residents of the mobile home park.

<u>"MOBILE HOME PARK OPEN SPACE</u>" means a space within a mobile home park designed and intended as a place of recreation for the common use by the residents of such mobile home park, and which may or may not be open to the general public on an equal basis.

<u>"MOBILE HOME PARK ROAD</u>" means a space within a mobile home park designed and intended as a means of vehicular access to abutting mobile home site(s); such mobile home park road may or may not be open to the general public on an equal basis.

<u>"MOTOR HOME"</u> means a self-propelled motor vehicle used exclusively for travel, recreation and vacation and which is capable of being used for the temporary sleeping, eating and accommodation of persons.

<u>"MOTOR VEHICLE"</u> means a vehicle for which a permit has been issued under vehicle permit legislation that is: an automobile, a motor home, a bus or truck having a gross weight or registered gross weight of less than 4500 kilograms, a bus capable of carrying less than 10 passengers, or a trailer other than a 'truck-trailer'.

<u>"MUNICIPAL COMPLEX"</u> means the use of buildings and lands comprised of municipal offices, multi-purpose community centre, sports fields, arena and accessory uses.

<u>"MUNICIPAL DRAIN"</u> means a drainage work as defined by The Drainage Act, R.S.O 1990, as amended from time to time.

<u>"MUNICIPAL DRAIN, ENCLOSED"</u> means a 'municipal drain', which is enclosed as a pipe, culvert or similar means of conveyance.

<u>"MUNICIPAL DRAIN, OPEN"</u> means a 'municipal drain' that is not enclosed in a pipe, culvert or similar means of conveyance but shall not include a covered drainage work.

<u>"NON-CONFORMING"</u> means a building or structure legally existing as of the date of the passing of this By-law, which is used for purposes not permitted by this By-Law.

<u>"NON-COMPLYING"</u> means a permitted use, building or structure legally existing as of the date of the passing of this By-law, which does not comply with a provision or provisions of their respective zone.

<u>"NON-FARM LOT"</u> means a lot that is less than 4.0 hectares (9.9 ac.) in size.

<u>"NON-RESIDENTIAL"</u> means designed, intended or used for a purpose other than a dwelling or a mobile home.

<u>"NUISANCE"</u> means any condition existing that is or may become injurious or dangerous to health or that prevents or hinders or may prevent or hinder in any manner the suppression of disease.

<u>"NURSERY</u>" means land used for the growing of sod, flowers, bushes, trees, vegetables, berry fruit crops, mushrooms, plants, shrubs, or other gardening, landscaping or orchard stock together with gardening tools and implements which are sold at wholesale or retail.

<u>"NUTRIENT UNIT (NU)"</u> means an amount of nutrients that give a fertilizer replacement value of the lower of 43 kilograms of nitrogen, or 55 kilograms of phosphate as nutrient (as defined in Ontario Regulation 267/03 made under the *Nutrient Management Act*, 2002).

<u>"OPEN STORAGE"</u> means the storage of goods, merchandise or equipment, in the open air and in unenclosed portions of buildings, which are open to the air on the sides. Open Storage does not include motor vehicles, commercial motor vehicles, travel trailers, boats, recreational vehicles, tractors and other similar on or off road vehicles provided all are in working order and are displayed for retail/wholesale purposes.

<u>"OUTDOOR DISPLAY AREAS"</u> means a portion of a lot used for the display or exhibition in an orderly manner, completely assembled or finished products sold by the principle use located on the same lot.

<u>"PARK MODEL TRAILER"</u> means a recreational unit, constructed to a seasonal occupancy standard.

<u>"PARKING AREA"</u> means that part of a lot required to satisfy the Off Street Parking Regulations of this By-Law but shall not include any other parking use defined herein.

<u>"PARKING LOT"</u> means an area provided for the parking of motor vehicles and/or commercial motor vehicles and includes aisles, parking spaces and related ingress and egress lanes but shall not include any part of a 'street' 'private street', or 'lane'.

<u>"PARKING SPACE"</u> means a space enclosed in a principal or accessory building or unenclosed, that is available for the parking of a 'motor vehicle' and which is accessible from a 'street' 'private street', or 'lane'.

<u>"PARKING SPACE, ANGLE"</u> means a parking space which is accessed from an aisle or driveway and which permits the entry or exit from said parking space without the need to travel over any other parking space.

<u>"PARKING SPACE, PARALLEL"</u> means a parking space that is accessed from an aisle, street or driveway that is beside and runs the same direction as the aisle, street or driveway.

<u>"PERSON"</u> means any human being, association, firm or partnership, incorporated company, corporation, agent or trustee, and the heirs, executors or other legal representatives of a person to whom the context can apply according to law.

<u>"PERSONAL SERVICE ESTABLISHMENT"</u> means a business that is associated with the grooming or health or persons or the maintenance or repair of personal wardrobe articles and accessories and may include a barber shop, beauty parlour, aestheticians, health care clinic, shoe repair, selfservice laundry, depots for collecting dry cleaning and laundry and similar uses and where the retail sale of goods, wares, merchandise or articles is only accessory to the provisions of such services.

<u>"PIT"</u> means lands licensed under the Aggregate Resources Act where unconsolidated gravel, stone, sand, earth, clay, fill, mineral or other material is being or has been removed by means of an open excavation to supply material for construction, industrial or manufacturing purposes, but does not include a 'Wayside Pit'.

<u>"PLANTING AREA"</u> means the space on a lot upon which shrubs, trees, flowers, or grass are grown in accordance with the provisions of this By-Law.

<u>"PORTABLE ASPHALT PLANT"</u> means a facility with equipment designed to heat and dry aggregate and to mix aggregate with bituminous asphalt to produce asphalt paving material and includes stockpiling and storage of bulk materials used in the process, and which is not of permanent construction but which is to be dismantled at the completion of the construction project.

<u>"PORTABLE CONCRETE PLANT"</u> means a building or structure with equipment designed to mix cementing materials, aggregate, water and admixtures to produce concrete, and includes stockpiling and storage of bulk materials used in the process; and which is not of permanent construction, but which is designed to be dismantled at the completion of the construction project.

<u>"PRINCIPAL"</u> when used to describe a use, building or structure, means a use, building or structure, one to which any other is subordinate and constitutes the main use of a lot therewith.

<u>"PRINCIPAL BUILDING or STRUCTURE"</u> means the building or structure in which is conducted the principal use of the lot on which it is situated.

<u>"PRIVATE GARAGE</u>" means a detached accessory building or portion of a dwelling designed and used for the sheltering of private motor vehicles, travel trailers, boats, and the storage of household equipment incidental to the residential occupancy and in which no business, occupation or service is conducted.

<u>"PRIVATE STREET"</u> means a right-of-way over private property that affords access to abutting lots that is not under the jurisdiction of the Corporation, County or Province.

<u>"PUBLIC GARAGE"</u> means a lot, building or structure used by a county, municipal, provincial government or 'public utility' for the storage and servicing of 'public utility' equipment; vehicles; road construction and maintenance equipment; outdoor storage of utility poles, wire, road construction materials and other assorted materials and may include an administration office and fuel pumps.

<u>"PUBLIC PARK"</u> means an area of land, playground or play fields which is operated by or for a public agency, and which may include therein one or more athletic fields, field houses, bleachers, swimming pools, wading pools, bandstands, outdoor ice skating rinks, tennis or badminton courts, bowling greens, fairgrounds, picnic area, historic site, interpretive centre, maintenance buildings or other such similar uses.

<u>"PUBLIC BUILDING"</u> means any building or structure owned or leased by the Corporation, County, any local board or commission of either the Corporation or the County, any Conservation Authority, any Ministry or Commission of the Province of Ontario or the Government of Canada, and in which office or general administration activities are conducted and may include a public library.

<u>"PUBLIC UTILITY"</u> means any water works, sewerage works, gas works, electric heat, light or power works, telegraph and telephone lines, cable television lines, and works for the transmission of gas, oil, water or electrical power or energy, or any similar works supplying the general public with necessary services or conveniences.

<u>"PUBLIC UTILITY BUILDING"</u> means a lot, building or structure used in conjunction with the supply of a 'public utility' including a municipal water supply well, a water or sewage pumping station, a water treatment facility, a water storage reservoir, a gas regulator building, a hydro substation, a telephone building for exchange, long distance or repeater uses.

<u>"QUARRY"</u> means lands licensed under the Aggregate Resources Act where consolidated rock has been or is being removed by means of an open excavation to supply materials for construction, industrial or manufacturing purposes, but does not include a 'Wayside Quarry'.

<u>"RECREATION CENTRE"</u> means the use of land, buildings or structures for the purpose of active leisure activities and shall include an arena, swimming pool, community centre, curling rink, outdoor ice rink, and other such similar uses.

<u>"RECYCLING CENTRE</u>" means a facility that is not a 'salvage yard' and in which recoverable resources such as electronics, newspapers, glassware, plastics, metal cans etc., are collected, stored, flattened, crushed or bundled to be taken to another site for further processing.

<u>"RECYCLING DEPOT"</u> means a building, structure or lot used for the temporary collection of recyclable materials prior to transhipment but does not include a 'recycling centre'.

<u>"RENTAL ESTABLISHMENT"</u> means a lot, building or structure where equipment generally used for residential, commercial and industrial construction and maintenance are offered for rent or lease.

<u>"RESEARCH ESTABLISHMENT/LABORATORY"</u> means a building or structure that includes facilities for scientific research, investigation, testing, or experimentation, but not facilities for the manufacture or sale of products, except as incidental to the main purpose of the laboratory.

<u>"RESIDENTIAL CARE FACILITY"</u> means a building or structure wherein lodging, meals, personal care, nursing services, and medical care and treatment may be provided for gain or profit or as a charitable public service and includes a rest home or a convalescent home, but does not include a hotel, motel or hospital as defined herein.

<u>"RESIDENTIAL USE"</u> means the use or intended use of land, buildings or structures for human habitation.

#### "RESTAURANT"

a) "<u>Restaurant"</u> means a building or structure or part thereof used to prepare food and offer

for sale for immediate consumption within the building or structure, or adjacent patio and may include an accessory take-out service.

- b) <u>"Restaurant, Take-Out"</u> means a building or structure or part thereof where food is prepared and offered for sale to the public to be taken out and/or delivered, for consumption off the premises or consumed on an adjacent patio.
- c) <u>"Restaurant, Portable Food Outlet"</u> means a trailer, tent or vehicle that is designed to be made mobile, from which food is prepared and offered for sale to the public for consumption outside. A Portable Food Outlet may only be permitted in accordance with the Corporation's Licensing By-Law if applicable.

<u>"RETAIL FLOOR AREA"</u> means the aggregate of the areas of all rooms where goods and services are made available for sale but shall not include storage areas or other commercial uses.

<u>"RETAIL, LARGE FORMAT"</u> means a structure, building or part thereof in which goods, wares, merchandise, substances, articles or things are offered or kept for sale at retail provided the building or structure in which the use is contained exceeds the 'Floor Area, Gross' of 278.7 m<sup>2</sup> (3,000 ft<sup>2</sup>) and does not include any establishment otherwise defined or classified in this By-law.

<u>"RETAIL STORE"</u> means a building or part of a building in which goods, wares, merchandise, substances, articles or things are offered or kept for sale at retail but does not include any establishment otherwise defined or classified in this By-Law.

<u>"RIDING STABLE/EQUESTRIAN CENTRE"</u> means the use of buildings or structures for the boarding of horses, exercising of horses, the training of horses and riders, a tack shop, and the staging of equestrian events, but shall not include the racing of horses.

<u>"RURAL RESIDENTIAL CLUSTER"</u> for the purposes of Minimum Distance Separation guideline calculations means four, or more, adjacent rural lots, generally one hectare or less in size, sharing a common contiguous boundary. Lots located directly across a road from one another shall be considered as having a common boundary. Rural residential clusters are not considered Settlement Areas, unless designated as such in a municipal official plan.

<u>"SALVAGE YARD"</u> means an establishment where goods, wares, merchandise, articles or things are processed for further use, and where such goods, wares, merchandise, articles or things are stored wholly or partly in the open and includes an 'Automobile Wrecking Yard'.

<u>"SAW OR PLANING MILL"</u> means a building, structure or area where timber is cut, sawed or milled, either to finished lumber or as an intermediary step and may include facilities for the kiln drying of lumber, an administrative office and the temporary storage of timber and the finished product.

<u>"SCHOOL BUS"</u> means a vehicle for transporting persons to or from school as defined in the Highway Traffic Act, R.S.O., Chapter 202, as amended.

<u>"SCHOOL BUS STORAGE"</u> includes a lot and/or premises for the storage of school buses.

<u>"SEPTIC TANK SERVICE"</u> means a lot, building or structure used for the temporary storage of septage, the storage/rental of portable toilets/privy's and the sale of holding tanks and related

materials, the parking/servicing of sewage collection vehicles and an administration office. The term septage includes septic tank solids, holding tank and portable toilet wastes from Residential, Commercial, Institutional and Industrial Uses.

<u>"SEWAGE"</u> means the waste water, septage and matter from residential, commercial, institutional, and industrial uses.

- a) "Sewage Disposal System, Communal" means a system of underground conduits operated privately which takes sewage to a place of treatment which meets with the approval of the Chief Building Official and/or the Grey-Bruce Health Unit or the Ministry of the Environment whichever has jurisdiction.
- b) <u>"Sewage Disposal System"</u> means a Class 4 or Class 6 system or any other system deemed acceptable as defined by regulations under the Ontario Building Code Act by the Chief Building Official or the Ministry of the Environment, whichever has jurisdiction.
- c) <u>"Sewage Disposal System Tertiary Sewage Treatment Unit"</u> means a treatment unit that is designed so that the effluent does not exceed the following criteria:

ParameterTertiary Effluent(")BOD515CBOD510Suspended Solids10

<sup>(1)</sup> Maximum concentration based on 30 day averages in milligrams per Litre (mg/L)

d) <u>"Sewage Treatment Plant"</u> means a facility that meets the approval of the Ministry of the Environment used for treatment of residential, commercial, institutional, or industrial sewage.

<u>"SERVICE ESTABLISHMENT</u>" shall mean a building or part of a building for the servicing or repairing of articles, goods or materials, and in which no product is manufactured, and sales are accessory to the main use; but does not include automotive or marine service establishments.

<u>"SETBACK"</u> means the shortest horizontal distance from a specified line to the nearest part of any building or structure on a lot.

<u>"SITE PLAN"</u> means a scale drawing prepared to illustrate the relation between the lot lines and the uses, buildings or structures existing or proposed on a lot, including but not limited to such details as parking areas, walkways, landscaped areas, lighting, building areas, minimum yards, floor areas, easements, drainage contours, and areas for special uses.

<u>"SIGHT VISIBILITY TRIANGLE"</u> means an area free of motor vehicles, commercial motor vehicles, buildings, planting areas or structures and which does not contain a fence, hedge or trees over 0.5 metres (20 inches) in height and which area is to be determined by measuring from the point of intersection of property lines on a corner lot, the distance required by this By-Law along such 'street' line and joining such points with a straight line and the triangular-shaped land between the intersecting 'street' lines and the straight line joining the points the required distance along the 'street' lines.

<u>"SNOWMOBILE CLUB"</u> means lands, buildings or structures used exclusively by the members and guests of a club for recreational activities. A snowmobile club is intended for recreational purposes on a seasonal basis and shall not include provisions for overnight accommodations or for the preparation and serving of full course meals.

<u>"SOLID WASTE DISPOSAL SITE"</u> means any land for which a valid Ministry of Environment Certificate of Approval has been issued, upon, into or through which solid waste is deposited or processed and any machinery or equipment or operation for the treatment or disposal of waste, but does not include the treatment or disposal of liquid commercial/industrial waste or hazardous waste.

<u>"STOREY"</u> means that portion of a building which is situated between the top of any floor and the top of the floor next above it, and if there is no floor above it that portion between the top of such floor and the ceiling above it.

<u>"STOREY, HALF</u>" means a portion of the building situated wholly or in part within a sloping roof and in which there is sufficient space to provide a height between finished floor and finished ceiling of at least seven feet, seven inches for at least one-half (1/2) but less than two-thirds (2/3) of the area of the floor below.

<u>"STREET"</u> means a roadway or highway that is under the jurisdiction of the Corporation, County or Province, that is constructed and maintained so as to allow normal vehicular access to adjacent properties.

<u>"STRUCTURE"</u> means anything constructed or erected, the use of which requires location on the ground, or on water, or attachment to something having a fixed location on the ground or on water, and without limiting the generality of the foregoing, includes walls, floors, roofs, signs and billboards, private outdoor swimming pools, and an object designed and intended to float, but does not include hedges and fences or sewage disposal systems.

<u>"SWIMMING POOL"</u> means a constructed reservoir of water having a depth of greater than 0.76 metres (2.5 ft.) at any point, and used and maintained for the purpose of swimming, wading, diving or bathing.

<u>"TAVERN"</u> means an establishment operating under the Liquor License Act R.S.O. 1990, c. L. 19, where alcoholic beverages are sold to be consumed on the premises.

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"<u>TECHNOLOGY INDUSTRY</u>" means a use that makes or creates technology products or services but is not an industrial use. Technology industry does not include wholesale or retail trade except as an activity that is accessory to the primary creative use.

<u>"TENT"</u> means a temporary structure used for temporary human shelter that is not permanently fixed to the ground and is capable of being moved.

## <u>"TILLABLE HECTARES"</u> for the purposes of Minimum Distance Separation guideline calculations

means land, including pasture that can be worked or cultivated to grow crops.

<u>"TRADES PERSON"</u> means an individual employed in the building trades/construction industry including bricklayers, stonemasons, carpenters, electricians, lathers, painters, decorators and paper-hangers, plasterers, sheet metal workers, heating, plumbing, air-conditioning, general contractor's, flooring, home decorator, or other similar trade, the like which provides an installation service.

<u>"TRADES PERSON'S SHOP"</u> means a lot, building or structure where a 'Trades Person' conducts business and may include office space and the outdoor storage of heavy equipment and building materials and the retail sale of supplies used in their trade but does not include a 'Personal Service Establishment' or 'Retail Store'.

<u>"TRANSPORT DEPOT"</u> means a lot, building, structure or place where trucks or tractor trailers are rented, leased, kept for hire, or stored or parker for remuneration, or from which trucks or transports, stored, or parked on the property are dispatched for hire as common carriers and may include as an accessory use a commercial card/key lock facility.

<u>"TRANSPORT TRAILER</u>" means any vehicle so constructed that it is suitable for being attached to a motor vehicle and capable of being used for transporting goods, materials, equipment or livestock notwithstanding that such vehicle is jacked up or that its running gear is removed.

<u>"TRAVEL TRAILER</u>" means a structure designed, intended and used exclusively for seasonal travel, recreation and vacation and which is capable of being drawn by a motor vehicle and includes tent trailers or similar transportable accommodation excepting a 'mobile home'.

<u>"TRAVEL TRAILER SALES ESTABLISHMENT"</u> means a building, structure or lot used for the display and sale of 'mobile homes', 'park model trailers', 'motor homes', and 'travel trailers' and includes the sale of accessory items and the servicing or repair of units.

<u>"TRUCK-TRAILER</u>" means any type of trailer vehicle that is hauled by a commercial motor vehicle and is used primarily for the transportation of equipment and goods and for which a permit has been issued under vehicle permit legislation including, a single or multi-axle semi-trailer where part of the load is carried on the heavy truck by means of the upper and lower coupler assembly and a full load bearing trailer

## New Definition added by By-Law 2016-028 (Child Care and Early Years Act, 2014)

"<u>UNLICENSED CHILD CARE</u>" means 'Child Care' provided in a single detached dwelling, semidetached dwelling or duplex dwelling that is not 'Home Child Care' or a 'Child Care Centre', or a private school within the meaning of the Education Act.

<u>"USE"</u> as a verb, means anything permitted by the owner or occupant of any land, building or structure, directly or indirectly, or by or through any trustee, tenant, servant or agent acting for or with the knowledge and assent of such owner or occupant, for the purpose of making use of the said land, building or structure. The phrase 'used for' includes 'arranged for', 'designed for' 'maintained for' or 'occupied for`.

<u>"USE</u>" as a noun, means any of the following depending on the context:

- a) any purpose for which land, buildings or other structures may be arranged, designated, designed, intended, maintained, or occupied, or
- b) any occupation, business, activity, or operation carried on, or intended to be carried on, in a building or other structure or on land, or
- c) the name of a tract of land or a building or other structure, which indicates the purpose for which it is arranged, designated, intended, maintained or occupied.

<u>"VETERINARY CLINIC"</u> means a building in which two (2) or more rooms are used by a veterinary surgeon for the treatment of diseases and injuries of domestic and other animals. Without limiting the generality of the foregoing, a veterinary clinic may include administrative offices, waiting rooms, treatment rooms, laboratories, pharmacies, and dispensaries directly associated with the clinic.

<u>"VETERINARY CLINIC - SMALL ANIMAL</u>" means a building in which two (2) or more rooms are used by a veterinary surgeon for the treatment of diseases and injuries of domestic pets only. Without limiting the generality of the foregoing, a veterinary clinic may include administrative offices, waiting rooms, treatment rooms, laboratories, pharmacies, and dispensaries directly associated with the clinic.

"<u>VIDEO OUTLET/RENTAL ESTABLISHMENT</u>" means the use of the lands, buildings or structures for the purpose of renting videocassette recorders and/or video disc players and/or the rental of video tapes and/or discs.

<u>"WATERCOURSE"</u> means a natural or man-made channel that carries water and includes streams, rivers and lakes and for the purpose of this By-Law, includes a channel with intermittent flow.

<u>"WATER LOT"</u> means a lot that abuts the shore of Lake Rosalind, Marl Lake, Pearl Lake, or Dankert Lake along one or more 'lot lines' or portions of a 'lot line'.

<u>"WATER SYSTEM, MUNICIPAL"</u> means a water treatment and distribution system of underground piping and related storage, including pumping and purification appurtenances operated by a municipal corporation and/or the Ministry of the Environment and/or any public utilities commission for public use and which has been approved by the Ministry of the Environment.

<u>"WAYSIDE PIT OR WAYSIDE QUARRY"</u> means a temporary pit or quarry opened and used by or for a public authority solely for the purpose of a particular project or contract of street/road construction and not located on the street/road right-of-way.

<u>"YARD"</u> means a space appurtenant to a building or structure located on the same lot therewith and which space is open, uncovered and unoccupied from the ground upward except for such accessory buildings, structures, or uses as are specifically permitted elsewhere in this By-Law.

<u>"YARD, EXTERIOR SIDE" or "EXTERIOR SIDE YARD"</u> means a side yard immediately adjoining a 'street'.

<u>"YARD, FRONT" or "FRONT YARD"</u> means a yard extending across the full width of a lot, measured

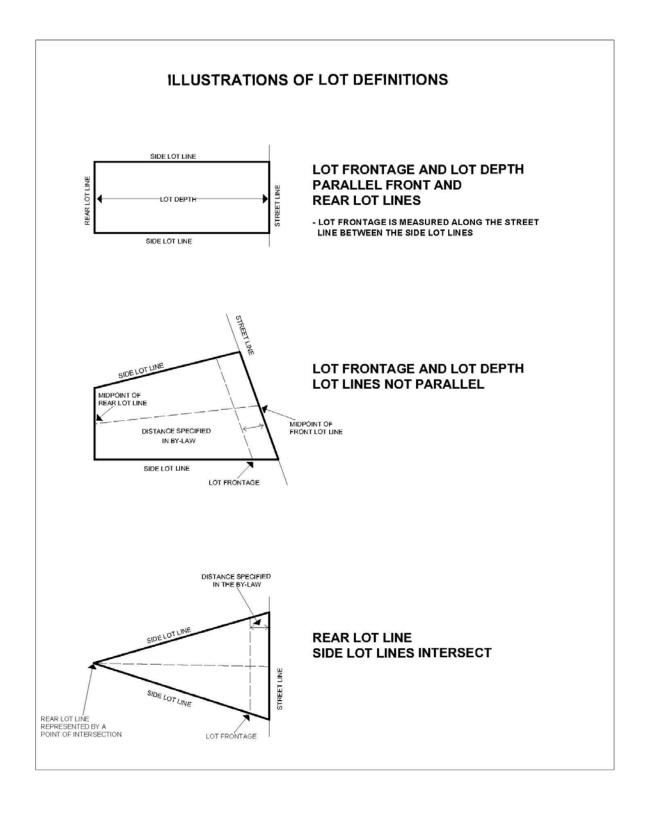
perpendicularly from the front lot line to the closest wall of any main buildings or structures on the said lot. Where a lot does not have a 'front lot line', the front yard shall be measured from edge of the 'street' from which principle access to the lot is gained.

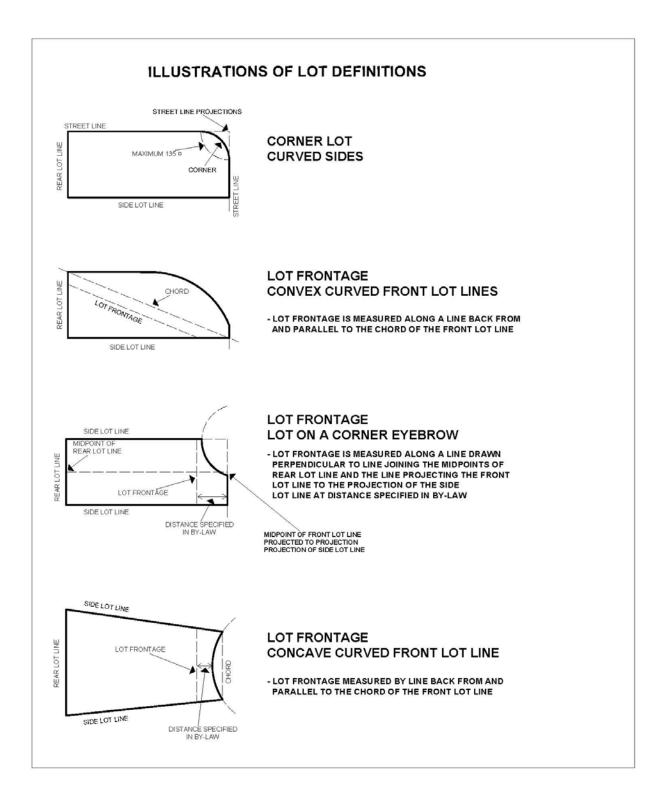
<u>"YARD, REAR or "REAR YARD"</u> means a yard extending across the full width of a lot, measured perpendicularly from the rear lot line to the closest wall of any main building or structure on the said lot.

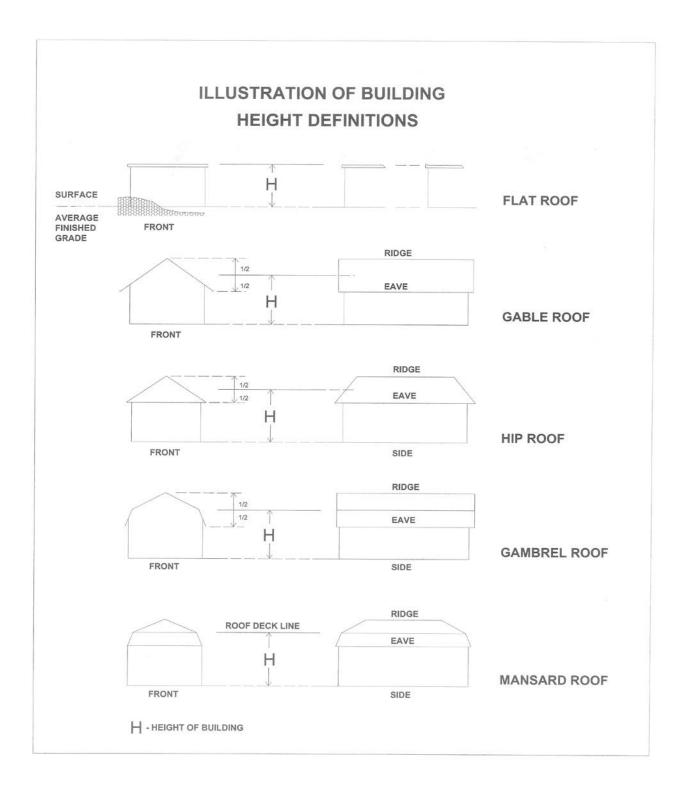
<u>"YARD, SIDE" or "SIDE YARD"</u> means the minimum required setback from an area extending from the front yard, or front lot line where no front yard is provided, to the rear yard, or rear lot line where no rear yard is provided, measured perpendicularly from the side lot line to the closest wall of any permitted building or structure on the said lot.

<u>"ZONE"</u> means an area delineated on a Zoning Map Schedule and established and designated by this By-Law for a specific use.

<u>"ZONING ADMINISTRATOR"</u> means the officer or employee of the Corporation for the time being charged with the duty of administering and enforcing the provisions of the Zoning By-Law of the Corporation.







#### SECTION 3 – GENERAL PROVISIONS FOR ALL ZONES

#### 3.1 PERMITTED USES IN ALL ZONES

#### 3.1.1 Services and Utilities

- Nothing contained in this By-Law shall prevent the Corporation; any telephone, cable or communications utility company; any agency or department of the Federal, Provincial or County Government; any company holding a Provincial license to transport or distribute natural gas; an electric service provider; a railway company and any local or County Board or Commission from: installing a watermain; sanitary sewer main; sewage or water pumping station; storm sewer main; gas main; electric power transformer/distribution station; transmission tower; communications tower; pipeline; overhead or underground electric line, cable service, or telephone line; road or street; any required accessory service buildings; or other use for the purposes of the public service subject to compliance with the provisions prescribed for the zone in which it is to be located and subject to there being no outdoor storage of goods, materials or equipment in any yard and provided that the location of any accessory building conforms to all yard, lot coverage and height provisions of the Zone in which it is located.
- .2 A sewage and/or water pumping station or 'water well' owned and operated by, or for, the Corporation, may be erected no closer than 3 metres (9.8 ft) to the lot lines and shall be exempt from all other zone provisions of the zone in which it is located.
- .3 Any electric power facilities and any receiving or transmitting tower and facilities of any radio or television station existing on the date of passing of this By-Law are permitted.

## 3.1.2 Temporary Buildings & Construction Facilities

- .1 Nothing contained in this By-Law shall prevent the erection or location of any sheds, scaffolds, construction trailers or other structures incidental to building construction on the lot for so long as the same is necessary for work in progress which has neither been finished, nor abandoned provided any necessary permits are obtained. All temporary buildings and/or construction facilities shall be noted on the Building Permit at time of issuance.
- .2 In any zone, such temporary buildings and construction facilities shall be permitted for a period lasting no longer than twelve (12) months commencing on the date on which the Building Permit is issued unless approved by the Chief Building Official.
- .3 For the purpose of <u>Section 3.1.2</u> only, an existing dwelling, mobile home, park model trailer, travel trailer or similar transportable accommodation, shall be considered to be a temporary building or construction facility when approved by the Chief Building Official.
  - i. In no instance shall an existing dwelling, mobile home, park model trailer, travel trailer or similar transportable accommodation, be used for a temporary building or construction facility for a period lasting no longer than twelve (12) months commencing on the date in which the Building Permit is issued.

- ii. An existing dwelling, mobile home, park model trailer, travel trailer or similar transportable accommodation, may only be used for a temporary building or construction facility during the construction of the principal or main use on a property.
- iii. A Building Permit issued for such construction shall note the requirement to remove and/or demolish such temporary buildings, mobile home, park model trailer, travel trailer or similar transportable accommodation as required.

## 3.1.3 Ornamental Structures

- .1 A statue, monument, fountain, cenotaph or other such memorial or ornamental structure shall be permitted in any zone.
- .2 Statues, monuments, cenotaphs or other such memorial or ornamental structures, greater than 1.0 metre (3.3 feet) in height, shall not be permitted in the front yard setback of a Residential zone.

## 3.1.4 Signs and Signals

All signs and signals shall be permitted in all zones in conformity with the Municipal Sign By-Law and the requirements of the appropriate regulatory authority.

## 3.1.5 Sewage Disposal Systems

- .1 A 'sewage disposal system' shall be permitted only in 'A1', 'ACI', 'HC', 'RCI', 'HR', 'HI', 'INR', 'OSR', 'AP' and 'M3' zones.
- .2 A 'sewage disposal system tertiary sewage treatment unit' shall be permitted in all zones.
- .3 A 'communal sewage disposal system' or a 'sewage treatment plant' must be zoned accordingly.

# 3.1.6 Multi-Purpose Use Recreational Trails

- .1 Multi-purpose recreational trails (paths) are routes owned, constructed or under reserve to the Corporation, County or other public body, and may be open to the public.
- .2 Multi-purpose recreational trails shall be permitted in all zones. Permitted uses may include hiking, horseback riding, bicycling, cross country skiing, snowmobiling, all-terrain vehicles (ATVs) in accordance with all applicable By-Laws and Regulations of the Corporation, County or other public body.
- .3 Motorized vehicles, except snowmobiles, shall be prohibited from Provincially Significant Wetlands (EP-1 zone), Areas of Natural and Scientific Interest (ANSI), and other environmentally sensitive lands as determined by a public body on multi-purpose recreational trails (paths) routes owned, constructed or under reserve to the Corporation, County or other public body.

## 3.2 PUBLIC USES, BUILDINGS AND/OR STRUCTURES

Despite <u>Section 3.1.1</u>, the erection of any building or structure designed for use as an office, storage or other uses, and the use of land for outside storage, by the Corporation; any telephone, cable or communications utility company; any agency or department of the Federal, Provincial or County Government; any company holding a Provincial license to transport or distribute natural gas; an electric service provider; a railway company and any local or County Board or Commission must conform to the provisions of this By–Law.

## 3.3 BUFFER ON LANDS ADJOINING INDUSTRIAL OR RESIDENTIAL USES/ZONES

The following buffers shall apply:

- No part of any Industrial principle use building listed in 'Table 1: Uses Classified as Class 1 Industrial' shall be located closer than 20 metres (65.6 feet) to a Residential Zone, Institutional Zone, residential use or institutional use; and
- No part of any Industrial principle use building listed in 'Table 2: Uses Classified as Class 2 Industrial' shall be located closer than 70 metres (229.7 feet) to a Residential Zone, Institutional Zone, residential use or institutional use; and
- iii. No part of any residential use or institutional use shall be located closer than 20 metres (65.6 feet) to any part of any Industrial principle use building listed in 'Table 1: Uses Classified as Class 1 Industrial'; and
- iv. No part of any residential use or institutional use shall be located closer than 70 metres (229.7 feet) to any part of any Industrial principle use building listed in Table 2: Uses Classified as Class 2 Industrial'.

Table 1: Uses Classified as Class 1 Industrial			
Computer/Data Processing	Research Establishment /		Warehouse
Centre	Laboratory		
Factory Sales Outlet	Industry, Light		Warehouse, Mini Storage
Public Utility Building	Rental Establishment		Veterinary Clinic
Technology Industry	Trades Persons' Shop		Recycling Depot
School Bus Storage	Agricultural Proc	duce	Greenhouse, Commercial
	Warehouse		
Septic Tank Service			

Table 2: Uses Classified as Class 2 Industrial			
Bulk Fuel Depot	Bulk Sales Establishment –	Contractor's Yard	
	Agriculture		
Industrial Use	Public Garage	Automobile Wrecking Yard	
Recycling Centre	Transport Depot	Industry, Dry	
Food Processing,	Abattoir	Feed Mill & Elevator	
Primary and Secondary			
Livestock Assembly Yard	Livestock Auction Barn	Salvage Yard	
Saw or Planing Mill			

#### 3.4 NON-CONFORMING USES

- .1 Nothing in this By-Law shall:
  - i. apply to prevent the use of any land, building or structure for any purpose prohibited by this By-Law if such land, building or structure was lawfully established and used for such purpose on the day of the passing of this By-Law, so long as it continues to be used for that purpose.
  - ii. prevent the erection or use for a purpose prohibited by this By-Law of any building or structure for which a permit has been issued under The Building Code Act, prior to the day of the passing of this By-Law, so long as the building or structure when erected is used and continues to be used for the purpose for which it was erected and provided that the permit has not been revoked under The Building Code Act.
  - iii. prevent the strengthening to a safe condition, or the restoration of any nonconforming building or structure or part of any such building or structure which does not conform with the provisions of this By-Law, or which has been damaged by causes beyond the control of the owner, provided such alteration, repair or restoration does not increase the height, size or volume or change the use of such building or structure and provided such building or structure was lawfully established.
- .2 The use of a lot, building or structure which is not permitted within the zone in which it is located shall not be changed except to a use which is permitted within such Zone, or such other similar uses as may be approved under Section 45 of The Planning Act.

## 3.5 NON-COMPLYING USES

## *3.5.1 Strengthening to a Safe Condition*

Nothing in this By-law shall prevent the strengthening to a safe condition of any building or structure or part of any such building or structure which does not comply with the provisions of this By-law, provided such alteration or repair does not increase the height, habitable space, size, or change the use of such building or structure.

## 3.5.2 Permitted Extensions of Non–Complying Buildings

Nothing in this By-law shall prevent an accessory use, extension or an addition being made to a building or structure, which is used for a purpose specifically permitted within the zone in which such building or structure is located and which building or structure legally existed at the date of passing of this By-law, but which buildings or structures does not comply with one or more of the Zone Provisions of this By-law, provided such accessory use, extension or addition does not contravene any of the provisions of this By-law.

## *3.5.3 Permitted Replacement of Non–Complying Buildings*

Nothing in this By-law shall prevent the replacement of any building or structure which is destroyed by fire or an act of nature, which does not conform with one or more of the

provisions of this By-law, provided that:

i. Such replacement does not increase the amount of habitable space, the height, and size or change the use of such building or structure; and such replacement shall comply, with all applicable yard provisions of the applicable zone, if possible, and does not reduce the original non-complying yard dimensions.

## 3.5.4 Existing Lots

Where an existing lot has a lesser area and/or frontage than required in the applicable zone, such lot may be used and buildings may be erected, enlarged, repaired or renovated on the lot provided that the use, and the buildings and structures, comply with all of the other provisions of the applicable zone and all other requirements of this By-Law.

## 3.6 ACCESSORY BUILDINGS AND STRUCTURES

<u>Section 3.6</u> shall apply to all Zones with the exception of the 'A1- General Agriculture' (Agriculture Lot) Zone.

#### 3.6.1 Prohibited Structures

For the purposes of <u>Section 3.6</u> only, mobile homes, travel trailers, construction trailers, transport trailers, railway cars and buses, with or without wheels or a similar undercarriage shall not be used as accessory buildings or structures except in the Extractive Industrial (M3) or Waste Disposal (WD) zones.

## *3.6.2 Use of Accessory Buildings and Structures*

Where this By-Law provides that a lot may be used or a building or structure may be erected, altered or used for a permitted use, that permitted use shall include an accessory building or structure. The accessory building or structure shall not: (1) be used for any occupation for gain or profit except as may be permitted in this By-Law; or (2) be used for human habitation/dwelling except where a dwelling is a permitted accessory use.

#### 3.6.3 Location

## (Amended by By-law 2015-039 - Housekeeping #1

Unless otherwise provided in this By-Law, the yard requirements for each zone shall apply to both main and accessory buildings. Attached buildings accessory to dwellings shall be considered as part of the main building and all yards shall be provided in accordance with the relevant yard regulations.

#### 3.6.3.1 Location - Residential Zones

#### (Amended by By-law 2015-039 - Housekeeping #1

Subject to the provisions of this By-Law, any accessory building or structure, in any Residential Zone, may be erected in any yard subject to the following restrictions:

#### i. When located in a rear yard, such accessory building or structure shall be located no

closer than 1.2 metres (4 feet) to the rear lot line. Further, any part of such accessory building or structure shall be setback 3 metres (9.8 feet) from any part of a dwelling on an adjoining lot.

- ii. When located in an interior side yard, an accessory building or structure may be positioned no closer than 1.2 metres (4 feet) to an interior side lot line. Where a mutual private garage is erected on the lot line between two lots, no interior side yard setback is required.
- iii. Where erected in an exterior side yard no accessory building or structure shall be located closer than 4.3 metres (14 feet) to any street line.
- iv. Detached garages or any part thereof, may be located in front of the principle structure provided it complies with the minimum front yard setback requirements and minimum side yard requirements.
- v. On lots which adjoin a navigable body of water, detached garages and accessory buildings may be located in the front yard provided that such garage or accessory building is not located closer than six metres from the front lot line and 1 metre from any side lot line. This also includes any lot that is separated from a body of water only by an unopened Municipal road allowance.
- vi. In the case of a Through Lot, the rear yard setback requirement of such lot for an accessory building or structure shall be equal to the front yard setback requirement of the principal building.

# 3.6.4 Height

The maximum height for all accessory buildings and structures shall be as follows:

- i. In 'AP', 'WD', 'OS', all commercial (excluding 'HC') and industrial zones, no greater than 8 metres (26 ft);
- ii. In all Residential and Institutional zones, 'MHP', 'HC', 'TTP', 'EP', and 'PD' zone, no greater than 5 metres (16 ft).

# *3.6.5 Number & Lot Coverage of Accessory Buildings & Structures*

- .1 In no case shall the number of accessory buildings or structures exceed three (3).
- .2 The total lot coverage of all accessory buildings or structures on a lot shall not exceed 5% of the lot.
- .3 Accessory buildings or structures under 1.5 m<sup>2</sup> (16 ft<sup>2</sup>) shall not be considered to be an accessory building or structure.

## 3.6.6 Establishment of an Accessory Building/Structure or Use

Notwithstanding any of the provisions of this By-Law, no accessory building, structure or use shall be erected, or used until the principal building, structure or use is erected to the satisfaction of the Chief Building Official and in compliance with the provisions of this By-

Law. This shall not apply to those uses covered under <u>Section 3.1.2</u> 'Temporary Buildings and Construction Facilities'.

#### 3.7 NUMBER OF MAIN BUILDINGS PER LOT

No person shall erect more than 1 'main building' on a lot except those lots 4.0 hectares (9.9 ac.) in size or larger in a General Agriculture (A1) zone.

#### 3.8 ACCESSORY DWELLINGS

#### 3.8.1 Dwelling, Accessory Apartment

Where permitted by this By-Law, no person shall use any part of a building or structure as a 'Dwelling, Accessory Apartment' except in accordance with the following provisions:

.1 Minimum setbacks and yards shall be provided in accordance with the minimum setback and yard provisions for the building or structure in which the 'Dwelling, Accessory Apartment' is to be located.

Dwelling consisting of single room	40 m <sup>2</sup> (430.5 ft <sup>2</sup> )
Dwelling containing one bedroom	60 m <sup>2</sup> (646 ft <sup>2</sup> )
Dwelling containing two bedrooms	70 m <sup>2</sup> (753 ft <sup>2</sup> )
Dwelling containing three bedrooms	90 m²s (969 ft²)
Dwelling containing more than three bedrooms	90 m <sup>2</sup> (969 ft <sup>2</sup> plus 10 m <sup>2</sup> (107.6 ft <sup>2</sup> ) for each bedroom in excess of three.

.2 The minimum 'Dwelling' 'floor area, gross' shall be as follows:

- .3 The 'Dwelling, Accessory Apartment' shall have a separate access/entrance distinct from the principal use.
- .4 The 'Dwelling, Accessory Apartment' shall be located at the rear of the ground floor at grade level and/or above the ground floor.
- .5 One parking space per 'Dwelling, Accessory Apartment' shall be provided, reserved and maintained for exclusive use by the 'Dwelling, Accessory Apartment'.
- .6 Accessory residential dwelling units shall not occupy more than fifty percent (50%) of the ground floor area of a building within a Commercial Zone.

## 3.8.2 Dwelling, Accessory Detached

Where permitted by this By-Law, no person shall use, erect, construct or use any part of a building as a 'Dwelling, Accessory Detached' except in accordance with the following provisions:

.1 Minimum setbacks and yards shall be provided in accordance with the minimum setback and yard provisions for the zone in which the detached dwelling is located.

- .2 The Dwelling, Accessory Detached shall be reserved for the exclusive use of the owner or caretaker of the principal use.
- .3 A 'Dwelling, Accessory Detached' shall have a minimum 'floor area, ground' of 70 m<sup>2</sup> (753 ft<sup>2</sup>) [greater than 1 storey] or 90 m<sup>2</sup> (969 ft<sup>2</sup>) [1 storey] and a maximum building height of 10 metres (33 ft).

## 3.8.3 Dwelling, Secondary Suite

Where listed as a permitted use (refer to "Uses Permitted" sections of this By-law), a 'dwelling, secondary suite' shall be permitted, subject to the following provisions:

- .1 One 'Dwelling, Secondary Suite' per lot of record shall be permitted;
- .2 Applicable permits under the Ontario Building Code have been provided by the Chief Building Official;
- .3 Minimum 'floor area, gross' for a 'Dwelling, Secondary Suite' shall be 40 m<sup>2</sup> (430.6 ft<sup>2</sup>);
- .4 The lot the 'Dwelling, Secondary Suite' is situated on has frontage on a Class 1 Street;
- .5 It only exists along with, and within the same building as, its principal dwelling unit;
- .6 It is not a stand-alone, principal unit, capable of severance;
- .7 Able to connect to water and septic or sewer services;
- .8 If 'Dwelling, Secondary Suite' is connected to private septic system, septic re-inspection shall be completed and if any upgrades are required or maintenance necessary, shall be completed to the satisfaction of the Chief Building Official;
- .9 In the case of a 'Dwelling, Semi-Detached' or 'Dwelling, Townhouse Street', each principal dwelling unit must be located on a separate lot of record;
- .10 The 'Dwelling, Secondary Suite' must share the parking and yards provided for the principal dwelling unit, and no new driveway may be created;
- .11 'Home Occupation' is not permitted in a 'Dwelling, Secondary Suite'; and,
- .12 Where a 'Dwelling, Secondary Suite' is located on an existing lot of record, a 'Dwelling, Garden Suite' is not permitted on that lot.

# 3.9 HOME OCCUPATION – DOMESTIC & PROFESSIONAL USES

Where listed as a permitted use (refer to the "Uses Permitted" sections of this By-Law), Home Occupation – Domestic and Professional Uses may be conducted within a dwelling by accountants; architects; auditors; dentists; optometrists; engineers; insurance agents; land surveyors; lawyers; medical practitioners; chiropractors; notaries; planners; realtors; editors; photographers; computer consultants; hair dressers; dressmaking; <del>day care for</del> not more than five children under ten years of age for a continuous period not exceeding twenty-four hours; instruction in music, dancing, arts and crafts to not more than six pupils or students at any one lesson; tailoring; weaving; painting; sculpting; moulding; or otherwise making or repairing of garden or household ornaments, articles of clothing, and personal effects or toys, and other such similar uses provided that: (Text deleted by *By-law 2016-028 - Child Care and Early Years Act, 2014)* 

- .1 The Home Occupation Domestic & Professional Uses shall be clearly secondary to the dwelling, or part thereof, and shall not change the character of the lot and/or dwelling or part thereof;
- .2 The said dwelling is occupied as a place of residence by the individual operating the Home Occupation – Domestic & Professional Uses;
- .3 Home Occupation Domestic & Professional Uses shall be conducted only by those residing in the dwelling except for the employment of one assistant;
- .4 All articles sold shall be produced by the individual operating the Home Occupation Domestic & Professional Uses or their assistant;
- .5 Total gross floor area utilized shall not exceed 30% of the dwelling or a maximum of 28 m<sup>2</sup> (301 ft<sup>2</sup>), whichever is lesser;
- .6 All signs shall be erected according to the Sign By-Law of the Corporation or County;
- .7 There is no external storage of goods or materials;
- .8 One off-street parking space is provided for every 14 m<sup>2</sup> (151 ft<sup>2</sup>) of floor space occupied by the Home Occupation Domestic and Professional Uses;
- .9 No mechanical equipment is used except that reasonably consistent with the use of a dwelling;
- .10 No noise, vibration, fumes, odour, dust or glare shall be emitted to the environment outside of the building shall be permitted, beyond which is normally associated with a dwelling;
- .11 Home Occupation Domestic and Professional Uses shall not include the retail sales of building or construction supplies nor any 'Automobile', 'Motor Vehicle' or 'Commercial Motor Vehicle' related use as defined in this By-Law;
- .12 A 'Certificate of Occupancy' as per <u>Section 3.32</u> shall be obtained.

## 3.10 HOME OCCUPATION – BED & BREAKFAST ESTABLISHMENT

Where listed as a permitted use (refer to the "Uses Permitted" sections of this By-Law), a Home Occupation – Bed & Breakfast Establishment may carry out business subject to the following provisions:

.1 The Home Occupation – Bed & Breakfast shall be clearly secondary to the main use of the lot and/or building, or part thereof, and shall not change the character of the lot and/or building or part thereof;

- .2 The said building, or part thereof shall be occupied as a place of residence by the individual operating the Home Occupation;
- .3 The Home Occupation Bed & Breakfast shall be conducted only by those residing on the lot except for the employment of one (1) assistant;
- .4 A Home Occupation Bed & Breakfast shall provide no more than three (3) guest rooms for overnight accommodation;
- .5 No food or drink shall be offered or kept for sale for persons who are not guests of the establishment. A Home Occupation Bed & Breakfast shall not include a 'restaurant';
- .6 A Home Occupation Bed & Breakfast shall provide one (1) additional parking space for each guest room;
- .7 All signs shall be erected according to the Sign By–Law of the Corporation or County;
- .8 A 'Certificate of Occupancy' as per <u>Section 3.32</u> shall be obtained.

#### 3.11 HOME INDUSTRY

A home industry is a limited-scale activity undertaken for financial gain, which occurs in a dwelling or an accessory building and is subordinate to the primary use of the property as a residence or farm. The activity is limited in scale. It is a sideline, and the use is secondary to the primary use of the property (e.g., an agricultural use). This means that the use is not the primary or original use for which the property was intended and by which it is zoned. The home industry provisions are intended to support the 'incubation' period for new businesses until such time as the business requires accommodations larger than permitted in this By-Law. Home industries requiring larger buildings may be required to relocate to suitable 'commercial' or 'industrial' properties.

Where listed as a permitted use a Home Industry (refer to the "Use Permitted" sections of this By-Law) may be conducted within a dwelling, or an accessory building and shall be limited to the sale of farm products produced/grown or raised on the property; 'Nursery'; 'Food Processing, Primary'; 'Food Processing, Secondary'; 'Dry Industrial Use'; 'Bulk Sales Establishment – Agricultural'; 'Farm Implement Repair; the sale and service of equestrian equipment; and a 'Trades Person's Shop' provided that:

- .1 The Home Industry shall only be located on lands designated as 'Agriculture Areas' or 'Rural Areas' in the County of Bruce Official Plan.
- .2 The Home Industry shall be clearly secondary to the main use of the lot and/or building, or part thereof and shall not change the character of the lot and/or building or part thereof;
- .3 The lot and/or dwelling is a primary place of residence by the individual operating the Home Industry;
- .4 The Home Industry shall be conducted only by those residing on the lot except for the

employment of one assistant;

- .5 Total gross floor area utilized shall not exceed 30% of the dwelling or a maximum of 28 m<sup>2</sup> (301 ft<sup>2</sup>), whichever is lesser. Where the Home Industry is located within an accessory building, not more than 100 m<sup>2</sup> (1076.4 ft<sup>2</sup>) shall be devoted to such use. The accessory building utilized for a Home Industry must be located within 30 metres (100 ft.) of the existing dwelling;
- .6 All signs shall be erected according to the Sign By–Law of the Corporation or County;
- .7 There shall be no external storage of equipment, vehicles, waste materials, raw materials, finished products/goods, or supplies unless fully enclosed by a 'Planting Area/Visual Screening' as per <u>Section 3.15</u>;
- .8 One off-street parking space shall be provided for every 19 m<sup>2</sup> (205 ft<sup>2</sup>) of floor space occupied by the Home Industry in a dwelling or accessory building;
- .9 Home Industry shall not include the retail sales of building or construction supplies nor any 'Motor Vehicle' or 'Commercial Motor Vehicle' related use as defined in this By-Law;
- .10 A 'Certificate of Occupancy' as per <u>Section 3.32</u> shall be obtained and,
- .11 Home Industry shall not create nor become a 'nuisance' in regard to noise, odours, vibrations, glare, smoke, dust, fumes, heat, traffic generated or parking.

## 3.12 HEIGHT RESTRICTIONS AROUND MUNICIPAL AIRPORT

- .1 Notwithstanding Section 3.13 'Exceptions to Maximum Height Regulations' or any other provisions of this By-Law to the contrary, within those areas identified on Schedule 'B' as Area 1, Area 2, Area 3 and Area 4, no person shall erect or construct any building or structure, or any addition to any existing building or structure, the highest point of which will exceed the following heights:
  - i. In Area 1, no building or structure may be higher than a height calculated based on the ratio of 1:30 from the end of the airport runway strip, or the height restriction of the zone in which the land lies, whichever is the lesser. (That is, for every 30 metres calculated at a right angle to the end of the runway strip, building or structure height may be increased by 1 metre, until the prescribed maximum height restriction is reached);
  - ii. In Area 2, no building or structure may be higher than a height calculated based on the ratio of 1:20 from the end of the airport runway strip, or the height restriction of the zone in which the land lies, whichever is the lesser. (That is, for every 20 metres calculated at a right angle to the end of the runway strip, building or structure height may be increased by 1 metre, until the prescribed maximum height restriction is reached;
  - iii. In Area 3, no building or structure may be higher than a height calculated based on the ratio of 1:5 from the side perimeter of the airport runway strip, or the height

restriction of the zone in which the land lies, whichever is the lesser. (That is, for every 5 metres calculated at a right angle to the side plane of the runway strip, building or structure height may be increased by 1 metre, until the prescribed maximum height restriction is reached);

- iv. In Area 4, no building or structure may be higher than a height calculated based on the ratio of 1:7 from the side perimeter of the airport runway strip, or the height restriction of the zone in which the land lies, whichever is the lesser. (That is, for every 7 metres calculated at a right angle to the end of the runway strip, building or structure height may be increased by 1 metre, until the prescribed maximum height restriction is reached.
- .2 Notwithstanding <u>Section 3.13</u> 'Exceptions to Maximum Height Regulations' or any other provisions of this By-Law to the contrary, within the area identified on Schedule 'B' as 'Outer Surface' no person shall erect or construct any building or structure, the highest point of which will exceed 331 metres (1086 ft.) Above Sea Level.

## 3.13 EXCEPTIONS TO MAXIMUM HEIGHT REGULATIONS

The regulations prescribing the maximum height of any building or structure in any zone do apply to antennas and radio or television receiving or transmitting equipment, telecommunications towers, grain elevators, farm silos, barns, assembly hall spires, belfries, cupolas, chimneys, ventilators, skylights, water tanks, scenery lofts, bulk heads, firewalls, and similar features and necessary mechanical appurtenances accessory to the building on which they are erected; provided however, that such features are erected only to such heights as is necessary to accomplish their purposes except for the following:

- i. The height restrictions as calculated in <u>Section 3.12</u> Height Restrictions Around Municipal Airport shall apply.
- ii. In no event shall any structure exceed 20 metres (65.6 feet) in a Residential Zone, or 45 metres (147.6 feet) in all other zones.

## 3.14 PERMITTED YARD ENCROACHMENTS

Except as otherwise provided, no obstruction or occupation of the space in any yard required by this By-Law shall be permitted except the following:

.1 A fireplace and chimney, sills, belt courses, chimneys, cornices, eaves, gutters, parapets, pilasters, bay windows and other ornamental architectural features may be permitted in the required setback or yard area provided such feature does not project more than 60 centimetres (2 ft.) into the setback or yard area and in no event shall such feature be closer than 1 metre (3 ft.) to any property line.

## Deleted and replaced by By-Law 2015-039 (Housekeeping #1)

.2 Unenclosed porches, covered or uncovered steps, open steel fire escapes, sundeck patios and awnings, or balconies are permitted to encroach into a required yard, but not more than 1.5 metres (5 ft.), provided that:

i. they are located no closer than 3 metres from the front lot line;

- ii. they are set back a minimum of 1 metre from the interior side lot line or rear lot line; and
- iii. they are located not closer to the exterior side lot line than the main building on the lot.
- .2 On a main building, unenclosed porches, covered and uncovered steps, open steel fire escapes, sundeck patios and awning, or balconies are permitted to encroach into a required yard, but not more than 1.5 metres (5 feet) provided that the building face on which such feature is located complies with the required yard setback.
- .3 Flag poles, garden trellises, fences, and retaining walls, shall be permitted in a required yard.
- .4 Clothes line poles shall only be permitted in an interior side or rear yard.

#### 3.15 PLANTING AREA/VISUAL SCREENING

- .1 A required Planting Area/Visual Screening shall consist of a dense screen of shrubs and/or evergreen trees planted or designed in such a manner as to provide a year round visual barrier.
- .2 A Planting Area/Visual Screening shall be in addition to the requirements of <u>Section 3.16</u> Landscaped Open Space.

## 3.15.1 Required Locations

Except as otherwise provided, a Planting Area/Visual Screening shall be provided as per <u>Section 3.15</u>, where required by this By-law and:

- i. Where the interior side lot line or rear lot line of such lot abuts any lot zoned Residential, Open Space, or Institutional; or
- ii. Where the Exterior Side Yard and/or Front Yard abuts a street line and the opposite street line abuts a Residential, Open Space or Institutional Zone, a Planting Area/Visual Screening shall be required along either the Exterior Side Yard **or** the Front Yard but not both.

## 3.15.2 Height & Width of Planting Area/Visual Screening

- .1 Except as otherwise provided, a Planting Area/Visual Screening shall have a minimum width of 1.5 metres (5 ft.).
- .2 The required Planting Area/Visual Screening shall be a minimum height of 1 metre (3 ft.) when planted and of a type that will attain a minimum height of 2 metres (6.6 ft.) at maturity to the lot line and the remainder of the ground surface shall be planted with any combination of shrubs, flower beds or grass.

- .3 Notwithstanding the above and subject to Site Plan Approval if required, a solid opaque fence, wall or other landscaping feature of equivalent height and density may be considered in place of a Planting Area. When considering such an alternative, regard shall be given to the location, height, materials, finishing and porosity of the wall or fence.
- .4 The Planting Area/Visual Screening shall be located along the boundary of the lot.

#### 3.15.3 Interruption for Driveway or Walkway

Where interrupted by walkways or driveways, a Planting Area/Visual Screening shall not be provided closer than 1.5 metres (5 ft) to a walkway or 3 metres (10 ft) to a driveway.

#### 3.15.4 Maintaining Sight Visibility Triangle

Where required on a street corner of a corner lot, a Planting Area/Visual Screening shall be located in such a way as not to form an obstruction to traffic and as required by the sight visibility triangles required by this By-Law.

#### 3.16 LANDSCAPED OPEN SPACE

(Deleted in its entirety and Replaced by By-law 2015-039 - Housekeeping #1)

.1 Except as otherwise provided, 'Landscaped Open Space' shall be provided as per <u>Section</u> <u>3.15</u>, where required by this By-Law as follows:

i.—a minimum of 3 metres (9.8 ft) in width along all Front and Exterior yards; and ii.—a minimum of 2 metres (6.6 ft) in width along all Interior and Rear yards.

- .2 No parking shall be permitted within the 'Landscaped Open Space'.
- -3 Landscaped Open Space shall be in addition to the requirements of <u>Section 3.15</u> Planting Area/Visual Screening.
- .4 The Landscaped Open Space shall be located along the boundary of the lot.
- .1 In Residential Zones
  - i. Unless otherwise specified, abutting property owners shall be responsible for the provision and maintenance of front yard landscaping to the travelled limit of the public road.
  - In HR Hamlet Residential, Residential R1 and R2 Zones, no less than fifty percent (50%) of the front yard must be landscaped and such landscaping shall not include driveways or parking areas.
  - iii. In the Residential R3 Zone, no less than thirty-five percent (35%) of the front yard must be landscaped and such landscaping shall not include driveways or parking areas.
- .2 In All Other Zones

Except as otherwise provided, 'Landscaped Open Space' shall be provided where required by this By-Law as follows:

- i. A minimum of 3 metres (9.8 feet) in width along all Front and Exterior yards;
- ii. A minimum of 2 metres (6.6 feet) in width along all Interior and Rear yards;
- iii. No parking shall be permitted within the 'Landscaped Open Space';
- iv. Landscaped Open Space shall be in addition to the requirements of Section 3.15 Planting Area/Visual Screening, where required; and,
- v. The Landscaped Open Space shall be located along the boundary of the lot.

# 3.17 OPEN STORAGE & OUTDOOR DISPLAY AREAS- INDUSTRIAL/COMMERCIAL ZONES

## 3.17.1 Open Storage Areas

- .1 'Open Storage' shall be permitted provided that:
  - i. the Open Storage Area is accessory to the principle use on the lot;
  - ii. no Open Storage Area shall be permitted in a front yard or exterior side yard;
  - iii. the Open Storage Area complies with the minimum yard requirements of the zone;
  - iv. the Open Storage Area is visually screened from the street by a 'Planting Area/Visual Screening' as per <u>Section 3.15</u>.
- .2 In the Industrial or Commercial zones, where any side or rear lot line abuts a lot also zoned Industrial or Commercial, the minimum setback of any Open Storage may be reduced to no less than 3 metres (10 ft.) from the said side or rear lot line.

## 3.17.2 Outdoor Display Areas

'Outdoor Display Areas' shall be allowed in the Front Yard and/or Exterior Side Yard provided that:

- i. the items displayed in the Outdoor Display Areas are accessory to the principle use of the lot; and
- ii. the Outdoor Display Areas shall not inhibit sight triangles nor occupy space required for a Planting Area/Visual Screening as required by <u>Section 3.15</u> and/or Landscaped Open Space as required by <u>Section 3.16</u>.

# 3.17.3 Lot Coverage

Open Storage Areas and Outdoor Display Areas shall not cover more than 35% of the lot area.

## 3.17.4 Surface Treatment

Any permitted Open Storage Area shall be constructed and maintained with a stable surface of concrete, asphalt, gravel or other hard surface adequately treated to prevent the raising of dust or loose particles and shall include provisions for adequate drainage facilities.

## 3.17.5 Parking and Loading Spaces to be Preserved

Any areas used for permitted Open Storage or Outdoor Display Areas shall be in addition to and separate from such areas as may be required by this By-Law for the provision of off-street parking or loading spaces.

#### 3.17.6 Lighting

Where lighting facilities are provided in conjunction with any permitted Open Storage or Outdoor Display Areas, such lighting shall be so arranged as to deflect light onto the open storage area and away from any adjoining properties.

#### 3.18 REDUCTION OF REQUIREMENTS

- .1 No person shall:
  - i. change the purpose for which any lot, building or structure is used, or
  - ii. erect any new building or structure, or
  - iii. add to or take away from any existing building or structure, or
  - iv. reduce any lot in area by conveyance or alienation of any portion thereof or otherwise,

if the effect of such action is to cause the original, adjoining, remaining or new building, structure or lot to be in contravention of this By-Law.

- .2 In the event that a contravention of this By-Law occurs as a result of any action described in <u>Section 3.18.1</u>, no building or structure in contravention as set out in Section 3.18.1 shall thereafter be used until the requirements of this By-Law applicable thereto are complied with.
- .3 The provision of <u>Section 3.18.1</u> and <u>3.18.2</u> shall not apply to lands severed pursuant to the provisions of the Expropriations Act or to a street widening acquired by a governmental authority.

#### 3.19 FENCING OF PRIVATELY OWNED OUTDOOR SWIMMING POOLS

The owner of every privately owned outdoor swimming pool shall erect and maintain a fence completely enclosing the pool, which fence shall conform to the specification of the applicable Municipal Swimming Pool By-Law.

#### 3.20 WATERCOURSE SETBACKS

- .1 Notwithstanding any yard provisions of this By-Law, no person shall hereafter erect any building or structure in any zone which is closer than 15 metres (50 ft.) from the top of bank of a 'municipal drain, open' or 'municipal drain, enclosed'; **or** closer than 30 metres (98 ft.) to the top of bank of any 'watercourse' **or** within an 'EP Environmental Protection' zone boundary, whichever setback is greater.
- .2 Notwithstanding any other provisions of this By-law, the geographic Town of Walkerton is exempt from top of bank setbacks from any 'watercourse'.

#### 3.21 SETBACKS FROM DISPOSAL AREAS – WASTE & SEWAGE

.1 No building or structure erected and used for human habitation shall be located closer than:

- i. 150 metres (492 ft) from any area zoned for and containing a 'sewage treatment plant' or
- ii. 50 metres (164 ft) from any area zoned for and containing a 'communal sewage disposal system'; either within or outside of the limits of the Corporation.
- .2 No building or structure erected and used for human habitation shall be located closer than 500 metres (1640 ft) from the fill area as defined in a 'Certificate of Approval' for an open municipal or private 'solid waste disposal site' or a 'composting facility', either within or outside of the limits of the Corporation.
- .3 Notwithstanding <u>Sections 3.22.1</u>, and <u>3.22.2</u>, additions, enlargements and alterations to existing buildings and structures within the required setback shall be permitted in accordance with the applicable zoning designation.

## 3.22 PROVINCIAL OR COUNTY STREET RIGHT-OF-WAY SETBACKS

.1 Buildings or structures erected adjacent to a Provincial Street shall be required to comply with the setback requirements of the Province.

#### Note:

## Ministry of Transportation

Any development located adjacent to a Provincial Highway will be subject to the setback and frontage requirements, along with the access and building permit controls, of the Ministry of Transportation. Any proposed access to a Provincial Highway will be subject to the prior approval of the Ministry of Transportation. Permits from the Ministry must be obtained prior to any construction and/or grading being undertaken on the site.

*Modified by By–law 2015–035 (Housekeeping #1)* 

- .2 No building or structure shall be erected within a distance of 22.9 metres (75 feet) from the edge of the right-of-way of any County Street outside of the Urban Area and Hamlet boundaries as identified on County of Bruce Official Plan.
- .3 Notwithstanding the provisions of <u>Section 3.22.2</u>, between two permanent dwellings on the same side of the street, separated by not more than 100 metres (328 ft), the minimum setback shall be the average of the setbacks of the two adjacent buildings plus 2 metres, or 33 metres from the centre line of any County Street, whichever is the lesser.
- .4 Notwithstanding the provisions of <u>Section 3.22.2</u>, within 30 metres of an existing permanent dwelling where <u>Section 3.22.3</u> would not apply, the minimum setback shall be the average of: the setback of the existing dwelling plus 33 metres (('x' metres + 33)/2), from the centre line of any County Street, whichever is the lesser.
- .5 The provisions of <u>Section 3.22.2</u> shall not apply where a County road is within an urban area shown on Schedule 'A' Land Use of the County of Bruce Official Plan as defined in the Highway Traffic Act, where building setbacks are regulated elsewhere in this By-law.

## 3.23 STREET

#### 3.23.1 Streets – Class 1

- .1 Class 1 Streets are shown on Schedule 'A' and are constructed and maintained so as to permit year round access to adjacent properties. For the purpose of this By-Law, County and Provincial roads are considered to be Class 1 Streets.
- .2 The Corporation, within reasonable limits, will provide a level of municipal service on Class 1 Streets within its jurisdiction as is customarily practised by the Corporation.
- .3 For the purposes of this By-Law, a 'lane' or 'private street' shall not be considered to be a Class 1 Street regardless of the level of construction or maintenance.

## 3.23.2 Streets - Class 2

- .1 Class 2 Streets under the jurisdiction of the Corporation are shown on Schedule 'A' and regardless of the level of construction or maintenance shall for the purposes of this By-Law mean that the Corporation is not obligated to provide municipal services such as snow plowing, provision of garbage/recycling collection, or fire protection on a year round basis.
- .2 For the purposes of this By-Law, a 'lane' or 'private street' shall be considered to be a Class 2 Street.

#### 3.24 FRONTAGE ON A STREET (BUILDING PERMITS

- .1 No person shall erect any building or structure in any zone unless the lot upon which such building or structure is to be erected:
  - i. fronts, and has ingress and egress upon a Class 1 Street; or
  - ii. is a lot on a Registered Plan of Subdivision and a "Subdivision Agreement" is in effect with the "Subdivision Agreement" providing for the assumption of the street as a Class
     1 Street upon completion of the subdivision; or
  - iii. is within a registered Plan of Condominium.
- .2 No person shall erect any building or structure, or increase the height, size or volume of existing structures, in any zone fronted by a Class 2 Street unless the owner of the lot upon which such building or structure is to be erected or increased in height, size or volume has entered into a 'Limited Service Agreement' with the Corporation.

#### 3.25 SIGHT TRIANGLES

In all zones, on a corner lot, no buildings, structures or Planting Area/Visual Screening shall be erected in such a manner as to materially impede vision of the intersection above a height of 0.5 metres (20 inches) and below a height of 4 metres (13 ft) above the centre line grade of the intersecting street in the triangular area bounded by the street lines of the corner lot and a line from the points along said street lines distant 10 metres (33 ft) from the point of intersection of said street lines.

#### 3.26 OFF-STREET PARKING REGULATIONS

Unless otherwise provided for in this By-Law, angle or parallel parking spaces shall be provided and maintained in accordance with the following regulations:

#### 3.26.1 Required Number of Parking Spaces

Required Number of Spaces by Use	Minimum Number of Spaces
<ul> <li>i) Dwelling, non-farm; dwelling, accessory detached; dwelling, single detached; dwelling, duplex; dwelling, semi-detached; dwelling, converted, dwelling, townhouse street or other dwelling not otherwise specified herein</li> </ul>	2 parking spaces per dwelling unit
ii) Dwelling, secondary suite; dwelling, garden suite	1 parking space per dwelling unit
iii) dwelling, apartment building; dwelling, townhouse cluster	1 parking space per dwelling unit plus 0.25 parking spaces per dwelling unit intended and clearly identified for visitor parking
iv) group home type one and two	2 parking spaces plus 0.25 parking spaces per bedroom
v) assembly hall; livestock auction barn	1 parking space for each 5 fixed seats or fraction thereof, or 1 space for each 10 m <sup>2</sup> (108 ft <sup>2</sup> ) of floor area, gross, whichever is greater
vi) commercial college; <del>day nursery</del> child care centre; educational facility	Commercial College: 1 parking space per 20m <sup>2</sup> (215 ft <sup>2</sup> ) of floor area, gross.
By-Law 2016-028	Day Nursery: 'Child Care Centre' 3 parking spaces per classroom assembly, whichever is greater.
	Education Facility – Elementary: the greater of either 1.5 parking spaces per classroom or 1 parking space per 3 m <sup>2</sup> of any auditorium or any gymnasium floor area.
	Educational Facility – Secondary: the greatest of either 3 parking spaces per classroom or 1 parking space per 3 m <sup>2</sup> of any auditorium or any gymnasium floor area.

m) bulk sales establishment – agriculture;

industry

l) campground

adventure game

vii) public park

viii)travel trailer sales establishment;

farm implement establishment;

marine, recreation and small engine establishments; school bus storage

ix) agriculture produce warehouse; bulk

pit/quarry; recycling depot; riding stable/equestrian centre; salvage yard; sewage treatment plant; solid waste disposal site; transport depot;

i) conservation area; snowmobile club;

k) abattoir; industrial use, dry; industry,

light; industrial use; food processing,

primary; food processing, secondary;

research establishment/laboratory;

saw or planing mill; technology

gun club; cross country ski facility;

fuel depot; composting facility; portable asphalt plant or concrete

plant; pit; quarry; wayside

livestock assembly yard

feed mill & elevator

n) trades person's shop; contractor's yard

2 parking spaces per 0.4 hectares (1 ac)

4 parking spaces per 0.4 hectares (1.0 ac) plus 1 parking space per service bay

4 parking spaces per use

1 parking space per 1.0 hectares (2.5 ac)

1 parking space for each 100 m<sup>2</sup> (1,076 ft<sup>2</sup>) of gross floor area plus 1 space for each 20m<sup>2</sup> (215 ft<sup>2</sup>) or fraction thereof, devoted to office use.

1 parking space for each campground site plus 1 parking space for every 4 campground sites, or fraction thereof, to be set aside for and visually identified as visitor's parking

1 parking space per 20 m<sup>2</sup> (215 ft<sup>2</sup>) gross floor area for interior space plus 1 parking space per 50 m<sup>2</sup> (538 ft<sup>2</sup>) gross floor area for outdoor sales, display or warehouse area

1 parking space per 50 m<sup>2</sup> (538 ft<sup>2</sup>) of gross floor area plus 1 parking space for each 20 m<sup>2</sup> (215 ft<sup>2</sup>) or fraction thereof, devoted to office use

0)	garden centre; greenhouse, commercial; rental establishments	1 parking space per 20 m <sup>2</sup> (215 ft <sup>2</sup> ) of gross floor area for retail or administration and 1 parking space per 50 m <sup>2</sup> (538 ft <sup>2</sup> ) of gross floor area for outdoor storage, sales and display or greenhouse
p)	public garage	2 parking spaces per service bay
q)	public utility building	1 parking space per building or structure
r)	golf course	2 parking spaces per hole
s)	miniature golf course; golf driving range	2 parking spaces per hole miniature golf; 1parking space per tee plus 1parking space per 10 m <sup>2</sup> (108 ft <sup>2</sup> ) of building gross floor area or fraction thereof
t)	hospital; residential care facility	1 parking space per patient room or resident room
u)	funeral home	1 parking space per 18 m² (194 ft²) of gross floor area with a minimum of 10 parking spaces
V)	business or professional office; clinic; fitness centre; public building; veterinary clinic; veterinary clinic - small animal	1 parking space per 20 m² (215 ft²) of gross floor area
w)	recreation centre	The greater of 1 parking space per 10 fixed seats or 1 parking space per 10 m <sup>2</sup> (108 ft <sup>2</sup> ) of gross floor area and 2 parking spaces per 0.4 hectares (1 ac.) of lot area
x)	all automobile uses; all commercial uses	1 parking space per 20 m² (215 ft²) of gross floor area plus 1 parking space per service bay, wash bay and/or fuel pump
y)	hotel/motel	1 parking space per guest room plus the greater of either 1 parking space per 4 seats or 1 parking space per 10 m <sup>2</sup> (108 ft <sup>2</sup> ) of gross floor area per 'Tavern' and/or 'Restaurant'
z)	warehouse; warehouse, mini-storage	1 parking space per 200 m <sup>2</sup> (2,153 ft <sup>2</sup> ) of gross floor area plus 1 parking space for each

	20 m <sup>2</sup> (215 ft <sup>2</sup> ) or fraction thereof, devoted to office use plus 1 parking space per 500 m <sup>2</sup> of total lot area used for open storage
aa) artisan studio; convenience store; factory outlet; personal service shop; retail store; retail, large format	1 parking space plus 1 additional parking space per m <sup>2</sup> (215 ft <sup>2</sup> )
bb) restaurant; restaurant, take-out; tavern	the greater of either 1 parking space per 4 seats or 1 parking space per 10 m <sup>2</sup> (108 ft <sup>2</sup> ) of gross floor area
cc) any 'commercial use' or 'other use' not otherwise specified herein	1 parking space per each 30 m <sup>2</sup> (323 ft <sup>2</sup> ) of gross floor area or fraction thereof
dd) any 'industrial use' not otherwise specified herein	1 parking space per each 90 m <sup>2</sup> (969 ft <sup>2</sup> ) of gross floor area or fraction thereof with a minimum of 5 parking spaces

#### 3.26.2 Barrier Free Parking Spaces

Included in the number of parking spaces required in <u>Section 3.26.1</u> for all uses, save and except for Residential uses, shall be Barrier Free parking spaces in accordance with the following:

Total Parking Spaces Required	No. of Barrier Free Spaces Required
1–25	1
26-50	2
51-75	3
76-100	4
101 +	4 plus 2% of # over 100 spaces

#### 3.26.3 Calculation of Spaces

- .1 When a building or lot accommodates more than one use or purpose the required parking spaces shall be the sum total of the required parking spaces for the separate uses or purposes. Parking facilities for one use shall not be considered as providing required parking for any other uses.
- .2 If calculation of the required parking spaces results in a fraction, the required parking spaces shall be the next higher whole number.

#### 3.26.4 Size and Accessibility of Parking Spaces

Every parking space shall maintain a minimum area and width and shall be accessible from unobstructed manoeuvring aisles and shall be in accordance with the following

## regulations:

.1 Angle Parking

Angle in Degrees	Parking Space in Length	Manoeuvring Aisle Width	Parking Space in Width
30	4.6 m (15 ft)	3.7 m (12.1 ft)	2.75 m (9.1 ft)
45	5.5 (18 ft)	4.0 m (13.1 ft)	2.75 m (9.1 ft)
60	5.8 (19 ft)	5.5 m (18 ft)	2.75 m (9.1 ft)
90	5.5 m (18 ft)	7.3 m (24 ft)	2.75 m (9.1 ft)

## .2 Parallel Parking

Parking Space Length	Parking Space Width	Manoeuvring Aisle Width
6.7 m (22 ft)	3 m (9.9 ft)	3 m (9.9 ft)

## 3.26.5 Barrier Free Parking

Notwithstanding the parking space size requirements listed in <u>Sections 3.26.4(1)</u> and <u>3.26.4(2)</u>, the minimum parking space width for Barrier Free Parking shall be 4 metres (13 ft). Where two or more angled Barrier Free Parking spaces are located together, the minimum parking space width shall be 3.2 metres (10.5 ft).

## *3.26.6 Provisions and Location of Spaces*

- .1 Parking spaces shall be provided at the time of erection of any building or structure, or at the time any building or structure is enlarged.
- .2 Parking spaces shall be located on the same lot or within the same building as the use for which said parking is required.
- .3 However, where the owner of a building or structure proposes to provide the required parking spaces and areas in a location other than on the same lot as the use that requires such spaces and areas, then such parking shall be located not more than 150 metres (492 ft) from the said lot and shall be located within the same zone as the said lot. Such parking shall not be considered as required parking for the use of the lands upon which the parking spaces are situated.
- .4 Should it not be possible to accommodate the required number of parking spaces on site or within 150 metres (492 ft) of the site, Council may, if appropriate, require the owner to enter into an agreement under Section 40 of the Planning Act for the payment of cash in lieu of parking.

#### By-Law 2015-054 - HSKP #2 -Parking - added text to Section 3.26.6.5

.5 Uncovered parking spaces may be located in the required yards. Parking in the front yard setback of a residential lot is restricted to parking on a driveway. Driveway provisions are established in <u>Section 3.26.9</u>

#### 3.26.7 Application of Parking Requirements

The parking area requirements referred to herein shall not apply to any building in existence at the date of passing of this By–Law so long as the floor area as it existed at such date is not increased and the building or structure is used for a purpose which does not require more parking spaces according to this section, than were required by its use at the date of passing of the By–Law. However, if a use is changed or a building is enlarged in floor area or there is an increase in number of employees, number of dwellings or seating capacity or otherwise as would require an additional number of parking spaces, then such additional parking spaces shall be provided based on said change of use or expansion. In the case of a change in use, the number of parking spaces required will be determined by calculating the difference between that which would be required by the new and the existing uses.

#### 3.26.8 Seating Accommodation by Benches or Outdoors

For the purposes of <u>Section 3.27.8</u>, where seating accommodation is provided by benches, 0.5 metres (20 inches) of bench space shall be considered as equivalent to one (1) seat. Where outdoor seating is provided in conjunction with a permitted use, parking spaces shall be provided in accordance with <u>Section 3.27.1</u>. For the purposes of <u>Section 3.27.1</u>, an outdoor seating area shall be considered as part of the 'gross floor area' as the case may be, for the purposes of calculating required spaces.

#### 3.26.9 Entrance [Driveways

Note: Entrances and/or Entrance Permits may also be regulated by the Province of Ontario, County of Bruce or the Municipality of Brockton for their respective road systems.

- .1 A driveway shall have a minimum width of 3 metres (9.8 feet) and maximum width of 7.5 metres (24.6 feet).
- .2 The maximum width of any joint entrance and exit driveway measured along the street line shall be 7.5 metres (24.6 feet).
- .3 The minimum distance between a driveway and an intersection of street lines measured along the street line intersected by such driveway shall be 7.5 metres (24.6 feet).
- .4 The minimum angle of intersection between a driveway and a street line shall be 45 degrees.
- .5 Every lot shall be limited to the following number of driveways:
  - i. Up to the first 30 metres of frontage measured along the street line, no more than 1

driveway; and,

- ii. For each additional 30 metres of frontage measured along the street line no more than 1 additional to a maximum of three driveways.
- .6 An entrance serving a non-residential use shall not be located closer than 3 metres (10 feet) to a lot containing a dwelling as a principal use.
- .7 An entrance serving a residential use shall not be located closer than 1 metre (3 feet) to the side property line, save and except for a joint driveway servicing two lots in which case the entrance shall not require any setback.
- .8 All driveways shall require a permit from the appropriate approval authority and shall be constructed and maintained in accordance with applicable municipal by-laws.

## 3.26.10 Surfacing and Drainage of Parking Areas and Entrances

All entrance and parking areas, except agricultural, shall be constructed of asphalt, concrete, or gravel and shall be maintained or treated so as to prevent the raising of dust or loose particles. Drainage shall be provided so as to prevent the flow of surface water on to adjoining lots.

## 3.26.11 Illumination of Parking Areas or Entrances

When parking areas and/or entrances are illuminated, lighting fixtures shall be so arranged that no part of any fixture shall be more than 9 metres (30 ft) above the adjoining finished grade and light shall be directed downward and away from adjoining lots.

## By-law 2015-054 - HSKP # 2 - Parking - added new Subsection 3.26.12

# 3.26.12 Parking /Storage of Recreational or Commercial Vehicles in a Residential Zone

Note: This section applies to the R1, R2 and R3 - Urban Residential zones, LR Lake Residential zone, and HR Hamlet Residential zone.

- .1 The parking or storage of any vehicle without current license plates within lands zoned for residential purposes shall be prohibited unless it is stored in an enclosed garage or other accessory building.
- .2 No part of any residential lot shall be used for the temporary parking or storage of any commercial motor vehicle.
- .3 No part of the required front or exterior side yard of any residential lot except for a driveway shall be used for the temporary parking or storage of any trailer, boat, bus, recreational vehicle, camper, or coach. Such vehicles parked in a driveway shall be located so no part of the vehicles on or above the ground is within 1.2 metres of the side lot line and shall be set back of a minimum of 2 metres (~ 6.5 feet) from the nearest edge of the sidewalk or paved boulevard, or 2 metres (~ 6.5 feet) from the nearest edge of the curb if there is no sidewalk, or 3 metres (~9.8 feet) from the nearest edge of the travelled portion of the road, if there is no sidewalk and no curb; and,

.4 Not more than thirty percent (30%) of the aggregate area of the side yards and rear yard of any residential lot shall be occupied by parking spaces or storage spaces for unoccupied motor vehicles, trailers, boats and motorized snow vehicles; no part of any such vehicle, on or above the ground, shall be located within 1.2 metres (~ 4feet) of the side lot line.

## 3.27 LOADING REGULATIONS

The owner or occupant of any building or structure located in the Zones identified in Table 1 below, shall provide and maintain at the premises, on the lot occupied by the building or structure and not forming part of a street or lane, within the zone in which such use is located, loading and unloading spaces in accordance with the following regulations:

#### Table 1 - Loading Space Regulation

Industrial Zones	Minimum Spaces Required
0 to 464.5 m <sup>2</sup> (5,000 ft <sup>2</sup> )	0 spaces
464.6 m <sup>2</sup> to 2,322.5 m <sup>2</sup> (5,001 ft <sup>2</sup> to 25,000 ft <sup>2</sup> )	one (1) space
greater than >2,322.5 (25,000 ft²)	two (2) spaces
Commercial Zones	Minimum Spaces Required
0 to 185.8 m <sup>2</sup> (2,000 ft <sup>2</sup> )	0 spaces
185.9 m <sup>2</sup> to 929.0 m <sup>2</sup> (2,001 ft <sup>2</sup> to 10,000 ft <sup>2</sup> )	one (1) space
greater than >929.0 (10,000 $ft^2$ )	two (2) spaces

Note: All of the above are in reference to 'Gross Floor Area' of the main use.

## 3.27.1 Access

In addition to the number of loading spaces, adequate space shall be provided for the parking of vehicles awaiting access to loading, and any additional area as is necessary for the manoeuvring of a truck-trailer either into or out of the loading space. Access to loading spaces shall be by means of a driveway at least 6 metres (20 ft) wide contained within the lot on which the spaces are located and leading to a street or lane located within or adjoining the zone in which the use is located.

## 3.27.2 Loading Space Dimensions

Each loading space shall be at least 15 metres (49.2 ft) long, at least 3.5 metres (11.5 ft) wide and shall have a vertical clearance of at least 4.5 metres (14.8 ft).

## 3.27.3 Location of Loading Space

No loading space shall be located in the required front yard nor shall any required offstreet parking space be considered in calculating the required number of off-street loading spaces. On a corner lot loading spaces may be located between the main building and the flanking street but not within the required exterior side yard.

# 3.27.4 Surface and Drainage of Spaces and Driveways

Loading spaces and driveways thereto shall be constructed of asphalt, concrete or a stable surface of crushed stone or gravel and shall be maintained or treated so as to prevent the raising of dust or loose particles. Drainage shall be provided so as to prevent the flow of surface water on to adjoining lots.

## 3.27.5 Application of Loading Space Requirements

When a building or structure has insufficient loading spaces on the date of passing of this By-Law to conform to the provisions herein, this By-Law shall not apply to require that the deficiency be made up prior to the construction of any addition. In the case of an expansion or enlargement of an existing building or structure, the requirement for the provision of additional loading spaces shall be based on said expansion or enlargement. Notwithstanding Section 3.27.1, where the building or structure is deficient in loading spaces, a loading space shall be required for an expansion of 25 m<sup>2</sup> or greater and less than 100 m<sup>2</sup>.

## 3.27.6 Landscaping

Where a loading area/space abuts any street or residential use or zone, then a Planting Area/Visual Screen as per <u>Section 3.15</u> shall be provided within the lot requiring such loading area and along the lot line adjoining such street, use or zone.

## 3.28 PROVISIONS FOR AN EXISTING MOBILE HOME NOT IN A MOBILE HOME PARK

Existing mobile homes located on an existing lot of record shall conform to the residential provisions of the zone in which it is located. If no residential provisions exist for the zone in which it is located, the mobile home shall be subject to the 'Non-Farm Lot provisions of <u>Section 6.2</u>.

## 3.29 CONFLICTING REGULATIONS OR PROVISIONS

Where there are conflicting provisions in this By-law, the most restrictive shall apply.

## 3.30 LIGHTING

Lighting fixtures designed to provide exterior illumination on any lot shall be installed with the light directed or deflected away from adjacent lots and streets and shall not be similar to traffic lights.

## 3.31 DRAINAGE OF LOTS

In all zones, other than an Agricultural zone, all lands, buildings and structures shall provide adequate drainage so as to prevent the flow of surface water onto adjoining lots.

## 3.32 CERTIFICATE OF OCCUPANCY

.1 Where a 'Certificate of Occupancy' is listed as a requirement by this By-Law, no person shall make a change in the type of use of any land, building or structure covered by this

By-Law without first obtaining such Certificate as described in the Planning Act R.S.O. 1990 from the Corporation.

.2 No 'Certificate of Occupancy' shall be refused if the proposed use is not prohibited by this By-Law.

## 3.33 SETBACKS FROM PRIVATE STREETS

A 'private street' shall be considered to be a 'street' for the purposes of determining setbacks for this By-Law.

## 3.34 MINIMUM DISTANCE SEPARATION GUIDELINES (MDS

- .1 Notwithstanding any other provisions of this Bylaw to the contrary, lands to be rezoned to permit a residential, institutional, commercial, industrial, recreational or non-farm dwelling use, will not contravene the MDS I formula developed by the Ontario Ministry of Agriculture, Food and Rural Affairs as calculated using Appendix 'A' to this By-Law.
- .2 Notwithstanding any other provisions of this By-Law to the contrary, where a dwelling is destroyed in whole, or in part, by a catastrophe, MDS I will not be applied when the dwelling is rebuilt, provided it is built no closer to livestock facilities than before the catastrophe.
- .3 Notwithstanding any other provisions of this By-law to the contrary, where a habitable dwelling is removed/demolished purposefully in whole or in part, MDS I will not be applied to a new dwelling provided that:
  - i. The new dwelling is built no closer to livestock facilities than the distance before the dwelling was removed/demolished; and,
  - ii. A building permit is issued within one (1) year of the date the original habitable dwelling was removed/demolished.
- .4 Notwithstanding any other provisions of this Bylaw to the contrary, a first or expanding livestock facility permitted in any Agricultural Zone, will not contravene the MDS II formula developed by the Ontario Ministry of Agriculture, Food and Rural Affairs as calculated using Appendix 'A' to this By-Law.
- .5 Notwithstanding any other provisions of this By-Law to the contrary, where a livestock facility is destroyed in whole, or in part, by a catastrophe, MDS II will not be applied when the livestock facility is rebuilt, provided it is built no closer to surrounding land uses and lot lines than before the catastrophe, and the values of Factor A, B and/or D have not been increased for the livestock facility.

## Modified by By-law 2015-039 (Housekeeping #1)

.6 Notwithstanding any other provision of this By-Law to the contrary, for the purposes of calculating MDS II for a first or expanding livestock facility permitted in any Agricultural Zone, those lands zoned <del>'IN-1'</del> 'INR-1'shall be treated as a Type B land use.

.7 All 'Livestock Facilities' and 'Manure or Material Storage' shall be constructed, altered and enlarged in compliance with all applicable provincial legislation, regulations and municipal By-laws, as amended from time to time.

# 3.35 ESTABLISHED BUILDING LINE

## (Modified by By-law 2015-039 Housekeeping #1

- .1 Notwithstanding any other section of this By-law to the contrary, in any Residential Zone between two existing Dwellings within 50 meters (164 feet) of each other on the same block, a new Dwelling may be built within a setback equal to the average setback of the adjacent dwellings only on an existing lot of record, but in no circumstance shall the setback be less than 4.5 meters (15 feet) from the front lot line.
- .2 Notwithstanding any other section of this By-law to the contrary, where an existing main building or structure encroaches into the required front yard or exterior yard setback as established in this By-law, additions to the existing main building or structure may be permitted from the building line to the line of occupation with an equal or greater setback, subject to all other applicable regulations of this By-law.

## 3.36 GROUP HOMES

Notwithstanding any other provisions of this By-law, a group home may be permitted only in a 'dwelling, single detached' provided that:

- .1 The group home shall occupy the whole of the 'dwelling, single detached';
- .2 The total number of individuals does not exceed as defined for Group Home Type One or Group Home Type Two;
- .3 The group home shall comply with the applicable zone regulations;
- .4 There is no other Group Home Type One or Group Home Type Two within 250 metres (820 ft) of the proposed facility in any one direction; and,
- .5 Off-street parking shall be in accordance with <u>Section 3.26</u>.

# 3.37 THROUGH LOTS

Where a lot has frontage on and vehicle access from more than one street or lane, such lot shall provide 'yards' on each street or lane with minimum distances equal to the front yard required by the zone or zones in which each yard is located.

## 3.38 FLOOD FRINGE OVERLAY

The Flood Fringe Overlay applies to a portion of the lands within the former Town of Walkerton that have the potential to flood resulting from a major storm event. Floodplain for the purposes of the Flood Fringe Overlay shall mean the Hurricane Hazel Flood Event Standard ("floodplain"). The Flood Fringe represents the outer portion of the floodplain. In portions of the former Town of Walkerton, the two zone concept is applied. The

provisions of the Flood Fringe Overlay shall be applied in addition to the regulations of the underlying zone which are identified by a zone symbol on Zoning Map 18 of the Bylaw. The lands to which the Flood Fringe Overlay applies are identified by a stipple pattern on Zoning Map 18 of this By-law. The floodway is zoned Environmental Protection (EP).

## 3.38.1 Uses Permitted

Uses permitted, including additions to existing uses, buildings and structures in the Flood Fringe Overlay shall be in accordance with the applicable underlying zone provisions of the By-law except that the establishment of new uses for the following purposes will not be permitted:

- i. Institutional uses such as 'hospital', 'residential care facility', 'day care nursery (licensed)' 'Child Care Centre' (deleted and replaced by By-law 2016-28) and 'educational facility', where there is a threat to the safe evacuation of the sick, the elderly, persons with disabilities or the young during an emergency as a result of flooding and/or failure of flood proofing measures or protection works;
- ii. Essential municipal services such as police, fire and ambulance and electrical substations, which would be impaired during an emergency as a result of flooding, the failure of flood proofing measures, and/or protection works, and,
- iii. Uses associated with the disposal, manufacturing, treatment or storage of significant amounts of hazardous substances.

## SECTION 4 – ESTABLISHMENT OF ZONES

#### 4.1 GENERAL

For the purposes of this By-Law, the land area of the Corporation is hereby divided into various generalized and specific 'Zones' to which the provisions and regulations herein shall respectively apply.

#### 4.2 ZONE SYMBOLS

.1 The following Zones are hereby established and are designated on Schedule 'A' by symbols consisting of letters and numbers, or letters only, as the case may be:

Agriculture ZonesA1General AgricultureA1Residential ZonesHRInland Lake ResidentialHRInland Lake ResidentialMHPResidential Zone 1R1Residential Zone 2R2Residential Zone 3R3Commercial ZonesHCHamlet CommercialHCTravel Trailer Park and CampgroundTTPCentral Business DistrictC1Transition CommercialC2Highway CommercialC3Industrial/Commercial IndustrialACIBusiness Park 1BP1Business Park 2BP2Light IndustrialM1Heavy IndustrialM2
Residential ZonesHamlet ResidentialHRInland Lake ResidentialLRMobile Home Park ResidentialMHPResidential Zone 1R1Residential Zone 2R2Residential Zone 3R3Commercial ZonesHamlet CommercialHamlet CommercialHCTravel Trailer Park and CampgroundTTPCentral Business DistrictC1Transition CommercialC2Highway CommercialC3Industrial/Commercial IndustrialACIBusiness Park 1BP1Business Park 2BP2Light IndustrialM1
Hamlet ResidentialHRInland Lake ResidentialLRMobile Home Park ResidentialMHPResidential Zone 1R1Residential Zone 2R2Residential Zone 3R3Commercial ZonesHCTravel Trailer Park and CampgroundTTPCentral Business DistrictC1Transition CommercialC2Highway CommercialC3Industrial/Commercial IndustrialACIBusiness Park 1BP1Business Park 2BP2Light IndustrialM1
Inland Lake ResidentialLRMobile Home Park ResidentialMHPResidential Zone 1R1Residential Zone 2R2Residential Zone 3R3Commercial ZonesK1Hamlet CommercialHCTravel Trailer Park and CampgroundTTPCentral Business DistrictC1Transition CommercialC2Highway CommercialC3Industrial/Commercial IndustrialACIBusiness Park 1BP1Business Park 2BP2Light IndustrialM1
Mobile Home Park ResidentialMHPResidential Zone 1R1Residential Zone 2R2Residential Zone 3R3Commercial ZonesKHamlet CommercialHCTravel Trailer Park and CampgroundTTPCentral Business DistrictC1Transition CommercialC2Highway CommercialC3Industrial/Commercial IndustrialACIBusiness Park 1BP1Business Park 2BP2Light IndustrialM1
Residential Zone 1R1Residential Zone 2R2Residential Zone 3R3Commercial ZonesK3Hamlet CommercialHCTravel Trailer Park and CampgroundTTPCentral Business DistrictC1Transition CommercialC2Highway CommercialC3Industrial/Commercial ZonesAgriculture Commercial IndustrialAgriculture Commercial IndustrialACIBusiness Park 1BP1Business Park 2BP2Light IndustrialM1
Residential Zone 2R2Residential Zone 3R3Commercial ZonesHamlet CommercialHamlet CommercialHCTravel Trailer Park and CampgroundTTPCentral Business DistrictC1Transition CommercialC2Highway CommercialC3Industrial/Commercial IndustrialACIBusiness Park 1BP1Business Park 2BP2Light IndustrialM1
Residential Zone 3R3Commercial ZonesHCHamlet CommercialHCTravel Trailer Park and CampgroundTTPCentral Business DistrictC1Transition CommercialC2Highway CommercialC3Industrial/Commercial ZonesAgriculture Commercial IndustrialAgriculture Commercial IndustrialBP1Business Park 1BP1Business Park 2BP2Light IndustrialM1
Commercial ZonesHamlet CommercialHCTravel Trailer Park and CampgroundTTPCentral Business DistrictC1Transition CommercialC2Highway CommercialC3Industrial/Commercial ZonesC3Agriculture Commercial IndustrialACIBusiness Park 1BP1Business Park 2BP2Light IndustrialM1
Hamlet CommercialHCTravel Trailer Park and CampgroundTTPCentral Business DistrictC1Transition CommercialC2Highway CommercialC3Industrial/Commercial ZonesC3Agriculture Commercial IndustrialACIBusiness Park 1BP1Business Park 2BP2Light IndustrialM1
Travel Trailer Park and CampgroundTTPCentral Business DistrictC1Transition CommercialC2Highway CommercialC3Industrial/Commercial ZonesC3Agriculture Commercial IndustrialACIBusiness Park 1BP1Business Park 2BP2Light IndustrialM1
Central Business DistrictC1Transition CommercialC2Highway CommercialC3Industrial/Commercial ZonesC3Agriculture Commercial IndustrialACIBusiness Park 1BP1Business Park 2BP2Light IndustrialM1
Transition CommercialC2Highway CommercialC3Industrial/Commercial ZonesC3Agriculture Commercial IndustrialACIBusiness Park 1BP1Business Park 2BP2Light IndustrialM1
Highway CommercialC3Industrial/Commercial ZonesAgriculture Commercial IndustrialACIBusiness Park 1BP1Business Park 2BP2Light IndustrialM1
Industrial/Commercial ZonesAgriculture Commercial IndustrialACIBusiness Park 1BP1Business Park 2BP2Light IndustrialM1
Agriculture Commercial IndustrialACIBusiness Park 1BP1Business Park 2BP2Light IndustrialM1
Business Park 1BP1Business Park 2BP2Light IndustrialM1
Business Park 2BP2Light IndustrialM1
Light Industrial M1
-
Heavy Industrial M2
Extractive Industrial M3
Rural Commercial Industrial RCI
Hamlet Industrial HI
Waste Disposal WD
Airport AP

Other Zones	
Institutional Rural	INR
Institutional Urban	IN
Open Space Rural	OSR
Open Space Urban	OS
Environmental Protection	EP
Planned Development	PD

.2 Whenever in this By-Law the term 'Zone' is used, preceded or followed by any symbol, as the case requires, such combination shall refer to any area delineated on Schedule 'A' and designated therein by said symbol.

## 4.3 SPECIAL USE PROVISIONS

Where any of the Zone symbols described in <u>Section 4.2.1</u> are shown on Schedule 'A' followed by a dash and a number (e.g. A1-1) then special provisions and/or uses to the normal zone provisions apply to such lands. Such special provisions will be found by reference to that section of the By-Law that deals with that particular zone. Lands designated in this manner shall be subject to all the restrictions of the zone, except as otherwise provided by the special provisions.

## 4.4 SPECIAL HOLDING PROVISIONS

- .1 The symbol **'H'** when used in conjunction with a zone designation (e.g. 'ACI-H') can denote areas in which the use of land and the erection of buildings or structures will not be permitted in accordance with provisions for such zone designation. The removal of the holding symbol 'H' by Council By-Law will permit the use of land and erection of buildings and structures in accordance with the zone designation and its provisions. Until such time as the 'H' symbol is removed, any lands so designated may be used for lawfully existing uses.
- .2 Notwithstanding the provisions of this section, alterations, additions or enlargements to existing residential building or structures and accessory structures will be permitted provided such buildings and structures were lawfully used for residential purposes on the date of the passing of this By-Law and provided such alterations, additions or enlargements conform to the relevant sections of this By-Law.
- .3 Notwithstanding their underlying zoning designation, on those lands identified as being subject to the **"H1" Holding zone**, lot grading; excavation; and/or construction shall not be permitted unless the Holding (H1) zone provision is removed. The area of the H1 zone that may be lifted shall be limited to the area included in the assessment and may only be removed by Council upon:
  - i. Approval by the Zoning Administrator of an Archaeological Assessment which has been:
    - a) conducted by an archaeologist licensed in the Province of Ontario; and,

b) confirmed by the appropriate Ministry to have been accepted into the Ontario Public Register of Archaeological Reports and,

 ii. Confirmation to the satisfaction of the Zoning Administrator that the recommendations of the archaeological report (if any) have been implemented. (Section 4.4.3 as per by By-law 2013-089, VanVuuren Z46/13)

(A1-1-H1)

*By–law 2014–046 – Clancy c/o Biesenthal, Lot 6, Con 5, Greenock* 

By-law 2014-061 - Metzger, Lot 6, Con 7, Greenock

By-law 2014-079 - Ferris c/o Kirkpatrick, Lot 19, Con 19, W 1/s Lot 9, Con 19, Greenock

By-Law 2015-019 - Heipel, Pt Lots 13 and 14, Con 6, Greenock

By-Law 2016-021 - Ackert & Maus - Lot 10, Concession 17, Greenock (A1-1-H1)

By-Law 2016-024 - Lang - Part Lots 6, 7, 8 and 9, Con 1 NDR, Brant (A1-1-H1)

*By-Law* 2016–071 – *Poechman c/o Davidson* – *Lots 54 & 55, Con 2 SDR, Brant (A1–1–H1 and A1–79–H1)* 

### 4.5 TEMPORARY USE BY-LAW

- .1 The symbol 'T' when used in conjunction with a zone designation (e.g. 'ACI-105-T') on Schedule A, indicates that a Temporary Use By-Law has been passed in accordance with the Planning Act, R.S.O. 1990, c.P.13, to permit the use of lands, buildings or structures in accordance with the zone represented by that zone symbol within the area indicated, with the term of the said temporary use set out specifically in the Temporary Use By-Law; and upon expiry of such term, the underlying zone indicated on Schedule A shall apply.
- .2 The specific temporary use provisions are denoted by the number immediately preceding the symbol "t/T" (i.e. 'A1-105-T') as shown on Schedule 'A'.

### 4.6 INCORPORATION OF ZONING MAP

The locations and boundaries of the zones established by this By-Law are shown on the maps appended hereto and which is referred to as Schedule 'A' and comprises the sectional parts of the zoning map and such maps together with everything shown therein and all succeeding amendments thereto are hereby incorporated into and are declared to form part of this By-Law.

### 4.7 ZONING MAPS

### *4.7.1 Boundaries of Zones*

Where any uncertainty exists as to the boundary of any zone as shown on Schedule 'A', the following provisions shall apply:

# .1 Where a zone boundary is indicated as following and is within the boundary of a street,

lane, railway right-of-way or watercourse, the boundary shall be deemed to be the centre line of such street, lane, railway right-of-way or watercourse.

- .2 Where a zone boundary is indicated as approximately following lot lines shown on a registered plan of subdivision or lot lines of the original Crown survey fabric, the boundary shall be deemed to follow such lot lines.
- .3 Where a zone boundary is indicated as approximately parallel to any street line and the distance from the street line is not indicated, such boundary shall be deemed to be parallel to such street line, and the distance there from shall be according to the scale shown on Schedule 'A'.
- .4 Where a zone boundary is indicated as generally following a shoreline, the boundary shall be deemed to follow such shoreline.
- .5 Where any zone boundary is left uncertain after application of the provisions of clauses
   (1), (2), (3) and (4) above, then the boundary shall be determined by the scale shown on the Zoning Map Schedule measured from the centre of the zone line.
- .6 Wherever it occurs, the municipal limit is the boundary of the zone adjacent to it.
- .7 In any zone, where the zone boundary requires a more precise definition than that permitted by the scale or detail of the zoning map, the Chief Building Official shall determine the precise location of the zone boundary and, where appropriate, may consult with other agencies or individuals as may be relevant.
- .8 Notwithstanding the provisions of <u>Section 4.7.1.7</u>, the zone boundaries of the 'EP-1' Zone shall not be altered except by a By-Law passed under Section 34 of the Planning Act, R.S.O 1990 as amended.
- .9 Notwithstanding the provisions of <u>Section 4.7.1.7</u> and <u>Section 4.7.1.8</u>, in locations where the 'Environmental Protection (EP)' Zone boundary does not coincide with Saugeen Valley Conservation Authority (SVCA)'s hazard land mapping, minor adjustments may be permitted to the 'EP' Zone boundary without an amendment to this By-law when approved in writing by the SVCA and the Chief Building Official. In a re-interpretation of the limits of the 'EP' Zone boundary, all requirements of the By-law shall be applied relative to the revised boundary including any applicable setbacks.

# *4.7.2 Other Boundary Features – Streets, Watercourses etc*

A street, lane, electrical transmission right-of-way, or watercourses shown on Schedule 'A', unless otherwise indicated, shall be included within the zone of adjoining property on either side thereof and where such street, lane, right-of-way or watercourse serves as a boundary between two or more different zones, the centre line of such street, lane, rightof-way, or watercourse, and extending in the general direction of the long dimension thereof, shall be considered the boundary between zones unless otherwise indicated.

# 4.7.3 More Than One Zone on a Lot

- .1 Where a lot has two or more of its parts classified in different zones, then the provisions for each zone shall apply to each part as if said part was a separate lot excepting the following:
  - i. Where a portion of a lot is zoned 'EP' such portion may be used to satisfy the side yard, rear yard or front yard setback requirements of the principle portion.
  - ii. Where a portion of a lot is partially within the 'EP' zone, that portion of the lot within the 'EP' zone may be used if required in calculating the Minimum Lot Area provided that the 'EP' lands comprise no more than 90% of the required Minimum Lot Area.

# 4.7.4 Notes on Schedule 'A'

Additional 'Notes' have been included in Schedule 'A' for reference and convenience purposes only. This information is subject to change without an amendment to this By-law and is limited to the following:

- i. Municipal Road Classifications;
- ii. Propane Storage and Handling Facility Hazard Distances;
- iii. Wellhead and Wellhead Intake Protection Areas;
- iv. Delineation of Lands within 120 Metres of Provincially Significant Wetlands; and,
- v. Delineation of Saugeen Valley Conservation Authority Regulated Area (Ontario Regulation 169/06).

Please consult with the Municipality for information regarding Municipal Road Classifications and Propane Storage and Handling Facility Hazard Distances; the County of Bruce for Wellhead and Wellhead Intake Protection Areas, and Lands within 120 metres of Provincially Significant Wetlands; and Saugeen Valley Conservation Authority for information regarding the Regulated Area.

# SECTION 5 - GENERAL PROVISIONS FOR ALL AGRICULTURAL ZONES - A

# 5.1 DWELLINGS

In any General Agriculture (A1) zone, a maximum of one 'Dwelling, – Accessory Detached' or 'Non-Farm Dwelling' may be erected on a lot. Two or more dwellings shall be permitted on one lot in cases where one lot, containing a dwelling(s), legally merges with an adjoining lot, containing a dwelling(s), to form one larger lot containing two or more dwellings.

# 5.2 MINIMUM LOT SIZE – LIVESTOCK

Notwithstanding their General Agriculture (A1) zoning, those lots 4.0 hectares (9.9 ac.) in size or less shall be limited to no more than 1.25 nutrient units per hectare (0.5nutrient units per acre). Minimum Distance Separation Guidelines shall apply.

# 5.3 WATERCOURSE/ENVIRONMENTAL PROTECTION ZONE SETBACK

Notwithstanding the provisions of <u>Section 3.20</u> or any other yard provisions of this By-Law, no person shall hereafter erect any 'Livestock Facility' or 'Manure or Material Storage' unless in compliance with the setback calculated in Appendix 'B' *or* within an 'EP – Environmental Protection' zone, whichever setback is greater.

# 5.4 REQUIREMENTS FOR KENNELS

- .1 New kennel buildings and structures and/or additions to existing kennel buildings and/or structures must be located at a distance of not less than 100 metres (328 ft) from an existing residential, institutional or recreational use situated on adjacent lots.
- .2 New kennel buildings and structures and/or additions to existing kennel buildings and/or structures shall be considered an accessory use or building.

# Explanatory Note:

All kennel establishments shall comply with the Municipality's current Dog Control By-law.

# 5.5 ACCESSORY BUILDINGS AND STRUCTURES – NON–FARM LOT

Section 5.5 shall apply only to an accessory building or structure to be located on a 'Non-Farm Lot' as herein defined.

# 5.5.1 Prohibited Structures

For the purposes of this section, mobile homes, travel trailers, construction trailers, transport trailers, railway cars and buses, with or without wheels or a similar undercarriage shall not be used as accessory buildings or structures on a 'Non-Farm Lot'.

# 5.5.2 Use of Accessory Buildings and Structures

No accessory building or structure, shall: (1) be used for any occupation for gain or profit except as may be permitted in this By-Law; or (2) be used for human habitation.

## 5.5.3 Location

### (Modified by By-Law 2015-039 - Housekeeping #1)

Despite any other provisions of this By-Law, any Accessory buildings or structures, in any 'Non-Farm Lot' in an Agricultural Zone, may be erected in any yard subject to the following restrictions:

- i. When located in a rear yard, such accessory building or structure shall be located no closer than <del>1 metre (3.3 feet)</del> 1.2 metres (4 feet) to the rear lot line. Further, any part of such accessory building or structure shall be setback 3 metres (9.8 feet) from any part of a dwelling on an adjoining lot.
- ii. When located in an interior side yard, an accessory building or structure may be positioned no closer than 1 metre (3.3 ft) 1.2 metres (4 feet) to an interior side lot line. Where a mutual private garage is erected on the lot line between two lots, no interior side yard setback is required.
- iii. Where erected in an exterior side yard no accessory building or structure shall be located closer than 6 metres (19.7 ft) to any street line.
- iv. Detached garages or any part thereof, may be located in front of the <del>principle</del> principal structure provided it complies with the minimum front yard setback requirements and minimum side yard requirements.
- v. Notwithstanding any of the provisions of this By-law, no accessory building, structure or use shall be erected or used until the principal building, structure or use is erected to the satisfaction of the Chief Building Official and in compliance with the provisions of this By-law. This shall not apply to those uses covered under Section 3.1.2 'Temporary Buildings and Construction Facilities'.

# 5.5.4 Height

The maximum height for all accessory buildings and structures shall be 5 metres (16 ft).

### 5.5.5 Number & Lot Coverage of Accessory Buildings & Structures

- .1 In no case shall the number of accessory buildings or structures exceed three (3).
- .2 The total lot coverage of all accessory buildings or structures on a lot shall not exceed 5% of the lot.
- .3 Accessory buildings or structures under 1.5 m<sup>2</sup> (16 ft<sup>2</sup>) shall not be considered to be an accessory building or structure.

# 5.5.6 Establishment of an Accessory Building/Structure or Use

Notwithstanding any of the provisions of this By-Law, no accessory building, structure or use shall be erected, or used until the principal building, structure or use is erected to the satisfaction of the Chief Building Official and in compliance with the provisions of this By-Law. This shall not apply to those uses covered under <u>Section 3.1.2</u> 'Temporary Buildings and Construction Facilities'.

### SECTION 6 - GENERAL AGRICULTURE (A1

#### 6.1 USES PERMITTED

No person shall within the 'General Agriculture (A1)' zone use any lot or erect, alter or use any building or structure for any purpose except one or more of the following uses:

- a) <u>Non-Farm Lot</u>
  - Dwelling, Non-Farm on an existing lot of record
  - Kennel as per <u>Section 5.4</u>
  - Home Occupation Domestic and Professional Uses as per Section 3.9
  - Home Occupation Bed & Breakfast Establishment as per Section 3.10
  - Home Industry as per <u>Section 3.11</u>
  - Accessory Buildings & Structures as per <u>Section 5.5</u>

#### b) <u>Agriculture Lot</u>

- Agritainment
- Agriculture General
- Livestock Facility
- Kennel as per Section 5.4
- Dwelling, Accessory Detached as per <u>Section 3.8.2</u>
- Forestry/Silvaculture
- Greenhouse
- Home Occupation Domestic and Professional Use as per <u>Section 3.9</u>
- Home Occupation Bed & Breakfast Establishment as per Section 3.10
- Home Industry as per <u>Section 3.11</u>
- Wayside Pit, Wayside Quarry
- Portable Asphalt Plant or Portable Concrete Plant
- Riding Stable/Equestrian Centre
- Home Child Care (added by By-Law 2016-028)
- Unlicensed Child Care (added by By-Law 2016-028)

### 6.2 ZONE PROVISIONS

No person shall within the 'General Agriculture (A1)' zone use any lot or erect, alter or use any building or structure except in accordance with the following provisions:

Provisions	Agriculture Lot	Existing or New 'Non-Farm Lot' Between 0.5 ha and 4.0 ha
Minimum Lot Area	39 hectares (96 ac)	0.5 ha (1.24 ac)
Minimum Lot Frontage	100 metres (328 ft)	40 metres (131 ft)
Minimum Front Yard	20 metres (66 ft)	10 metres (33 ft)
Minimum Exterior Yard	20 metres (66 ft)	6 metres (20 ft)
Minimum Rear Yard	20 metres (66 ft)	10 metres (33 ft)
Minimum Interior Side Yard	20 metres (66 ft)	4.5 metres (15 ft)
Minimum Ground Floor Area	As per <u>Section 3.8.2</u>	70 m <sup>2</sup> (753 ft <sup>2</sup> ) [greater than 1storey],
Detached Dwelling		90 m² (969 ft²) [1 storey]
Maximum Height	Not applicable	10 metres (33 ft)

Maximum Lot Coverage	15%	15%
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Modified by By-law 2015-039 (Housekeeping #1)

Provisions: Existing 'Non-Farm Lot' with a 'Minimum Lot Area' of 0.5 hectare or less				
Minimum Lot Area	Not applicable			
Minimum Lot Frontage	Not applicable			
Minimum Front <del>or Exterior</del> Yard	7.5 metres (25 ft)			
Minimum Exterior Yard	6 metres (20 ft)			
Minimum Rear Yard	10 metres (33 ft)			
Minimum Side Yard	3 metres (10 ft) on one side & 1.5 metres (5 ft) on the other side			
Minimum Ground Floor Area	70 m <sup>2</sup> (753 ft <sup>2</sup> ) [greater than 1 storey]			
Detached Dwelling	90 m <sup>2</sup> (969 ft <sup>2</sup> ) [1 storey only]			
Maximum Height	10 metres (33 ft)			
Maximum Lot Coverage	15%			

"Explanatory Note:

Garden suites are permitted by the enactment of Temporary Use By–law as prescribed in Section 39 and 39.1 of the Planning Act, which will form an amendment to this By–law."

### 6.3 SPECIAL PROVISIONS

Various Lots

- .1 Notwithstanding their 'A1' Zoning designation, those lands delineated as 'A1-1' on Schedule 'A' to this By-Law, shall be used in accordance with the 'A1' Zone provisions contained in this By-Law excepting however that:
  - i. A 'Dwelling, Accessory Detached' shall be prohibited.

Township of Brant By-Law #86-1060 (Part of Lot 27, Concession 12)

- .2 Notwithstanding their 'A1' Zoning designation, those lands delineated as 'A1-2' on Schedule 'A' shall be used in accordance with the 'A1' Zone provisions contained in this By-Law, excepting however that:
  - i. The allowable non-farm dwelling allowed on the land shall be a 'mobile home';
  - ii. Only one 'mobile home' may be erected on the land;
  - iii. The 'mobile home' may only be occupied by persons of whom at least one is employed by the owner of the land and engaged full time in the operation of the farming business which carries on the agricultural use on the lands; and,
  - iv. No persons shall occupy the 'mobile home' until it is fully connected to an adequate and operational water and sewage disposal system and a certificate of compliance from the Bruce-Grey-Owen Sound Health Unit has been filed with the Clerk of the Township of Brant.

Township of Brant By-Law #86-1061 (Part of Lot 33, Concession 15)

.3 Notwithstanding their 'A1' Zoning designation, those lands delineated as **'A1-3'** on Schedule 'A' shall only be used for the purposes of a 'Group Home – Type One', as it existed on the date of passage of this By-Law, and in accordance with the 'A1' Zone provisions contained in this By-Law.

Township of Brant By-Law #99-84 (Part of Lot 65, Concession 2 NDR)

- .4 Notwithstanding their 'A1' Zoning designation, those lands delineated as **'A1-4'** on Schedule 'A' shall be used in accordance with the 'A1' Zone provisions contained in this By-Law, excepting however that:
  - i. The minimum side yard for buildings existing on the day of passage of this By-Law shall be 0.0 metres along the north property line;
  - ii. The minimum rear yard for buildings existing on the day of passage of this By-Law shall be 0.0 metres along the west property line;

The raising, breeding, housing or grazing of livestock or poultry shall be prohibited; and

iii. Where such building is reconstructed or rebuilt as a result of a force beyond the control of the owner, such reconstruction shall comply, as close as possible, with all applicable provisions of the By-Law provided that such compliance does not have the effect of reducing the original height, size of volume of the building or structure.

Township of Brant By-Law #86-1039, #86-1040, #88-1107 (Lot 6, Concession 4; Lot 6, Concession 6; and Lot 53 and Lot 54, Concession 1 SDR)

- .5 Notwithstanding their 'A1' Zoning designation, those lands delineated as **'A1-5'** on Schedule 'A' shall only be used for a non-farm residential use, as it existed on the date of passage of this By-Law, and in accordance with the 'A1' Zone provisions contained in this By-Law, excepting however that:
  - i. No permanent building or structure shall be erected closer than 15 metres (50 ft) to the edge of an Environmental Protection Zone.

Municipality of Brockton By-Law #2001-66 (Part Lot 36 & 37, Concession 1 NDR, former Brant)

- .6 Notwithstanding their 'A1' Zoning designation, those lands delineated as 'A1-6' on Schedule 'A' to this By-Law, shall be used in accordance with the 'A1' Zone provisions contained in this By-Law excepting however that:
  - i. The minimum lot area shall be 36 hectares (88.9 acres); and,
  - ii. A 'Dwelling, Accessory Detached' shall be prohibited.

Municipality of Brockton By-Law #2002-16 (Part Lot 51, Concession 1 SDR, former Brant)

.7 Notwithstanding their 'A1' Zoning designation, those lands delineated as 'A1-7' on Schedule 'A' to this By-Law, shall be used for non-farm residential purposes in accordance with the 'A1' Zone provisions, excepting however that <u>Section 3.20</u> Watercourse Setbacks shall not apply. Municipality of Brockton By-Law #2002-34 (Lot 9, Concession 4, former Brant)

.8 Notwithstanding their 'A1' Zoning designation, those lands delineated as 'A1-8' on Schedule 'A' to this By-Law, shall be used in accordance with the 'A1' Zone provisions contained in this By-Law excepting however that the minimum lot area shall be no less than 20 hectares.

Municipality of Brockton By-Law #2002-34 (Lot 9, Concession 4, former Brant)

- .9 Notwithstanding their 'A1' Zoning designation, those lands delineated as **'A1-9'** on Schedule 'A' to this By-Law, shall be used in accordance with the 'A1' Zone provisions contained in this By-Law excepting however that:
  - i. The minimum lot area shall be no less than 20 hectares (50 acres).
  - ii. The minimum lot frontage shall be no less than 30 feet.

Municipality of Brockton By-law #2012-63 (Part of Lots 16 and 17, Concession 1 SDR (being Parts 1, 2 and 3 on RP 3R-8066; Part 1 on RP 3R-8102 and Part 1 on RP 3R-1195, former Brant – Ernewein Farms Ltd.)

- .10 Notwithstanding their 'A1' Zoning designation, those lands delineated as **'A1-10'** on Schedule 'A' to this By-law shall be used in accordance with the 'A1' (Agriculture Lot) Zone provisions contained in this By-law, excepting however, that:
  - i. A 'Dwelling, Accessory Detached' shall be prohibited; and,
  - ii. Minimum lot area shall be no less than 27.2 ha.

Municipality of Brockton By-law #2012-63 (Part of Lots 18 and 19, Concession 1 SDR (being Parts 1, 2, and 3 on RP 3R-8340, former Brant - Ernewein Farms Ltd.)

- .11 Notwithstanding their 'A1' Zoning designation, those lands delineated as **'A1-11'** on Schedule 'A' to this By-law shall be used in accordance with the 'A1' (Agriculture Lot) Zone provisions contained in this By-law, excepting however, that:
  - i. A 'Dwelling, Accessory Detached' shall be prohibited; and,
  - ii. Minimum lot area shall be no less than 35.4 ha.

Municipality of Brockton By-Law #2000-55 (Lot 17, Concession 10, former Brant)

.12 Notwithstanding their 'A1' Zoning designation, those lands delineated as 'A1-12' on Schedule 'A' shall be used in accordance with the 'A1' (Non-Farm Lot) Zone provisions contained in this By-Law, excepting however that the minimum lot frontage shall be no less than 3.0 metres.

Municipality of Brockton By-Law #2005-29 (Part Lot 1, Concession 3 SDR, former Brant)

- .13 Notwithstanding their 'A1' Zoning designation, those lands delineated as **'A1-13'** on Schedule 'A' to this By-Law, shall be used in accordance with the 'A1' (Agriculture Lot) Zone provisions contained in this By-Law excepting however that:
  - i. The construction of any new residential buildings and/or structures shall be prohibited; and
  - ii. The setbacks for all buildings and structures shall be no less than as they existed as

of the date of passing of this By-Law. All further enlargements, expansions, construction etc, shall comply with the requirements of this By-Law; and

iii. The minimum lot area shall be 19.19 hectares.

Municipality of Brockton By-Law #2007-20 (Part Lot 7, Concession 15, former Brant)

.14 Notwithstanding their 'A1' Zoning designation, those lands delineated as **'A1-14'** on Schedule 'A' shall be used in accordance with the 'A1' Zone provisions contained in this By-Law, excepting however that the minimum lot area shall be no less than 18 hectares.

Municipality of Brockton By-Law #2007-32 (N. Pt. Lots 62 & 63, Concession 2, NDR, former Brant)

.15 Notwithstanding their 'A1' Zoning designation, those lands delineated as **'A1-15'** on Schedule 'A' to this By-Law shall be used in accordance with the 'A1' Zone provisions contained in this By-Law, excepting however that the minimum lot area shall be no less than 3.42 hectares (8.5 acres).

Municipality of Brockton By-Law #2007-102 (Part Lot 36, Concession 1 SDR, former Brant - Ernewein c/o Davidson)

- .16 Notwithstanding their 'A1' Zoning designation, those lands delineated as 'A1-16' on Schedule 'A' to this By-Law shall be used in accordance with the 'A1' (Non-Farm Lot) Zone provisions contained in this By-Law, excepting however, that:
  - i. The minimum lot area shall be no less than 0.37 hectares.
- .17 Notwithstanding their 'A1' Zoning designation, those lands delineated as 'A1-17' on Schedule 'A' to this By-Law shall be used in accordance with the 'A1' (Non-Farm Lot) zone provisions contained in this By-Law excepting however, that:
  - i. The minimum lot area shall be no less than 0.37 hectares.

Municipality of Brockton By-law # 2007-103 (Lot 28, Concession 3 NDR, former Brant - Holm c/o Ernewein)

- .18 Notwithstanding their 'A1' zoning designation, those lands delineated as **'A1-18'** on Schedule 'A' to this By-Law shall be used in accordance with the 'A1' (Non-Farm Lot) Zone provisions contained in this By-Law, excepting however, that:
  - i. The minimum lot frontage shall be no less than 12.9 m; and,
  - ii. The number of livestock units shall be limited to 1.25 units per hectare.

Municipality of Brockton By-law # 2008-35 (W Pt Lot 3, Concession 11, former Brant – White c/o Hudson)

- .19 Notwithstanding their 'A1' Zoning designation, those lands delineated as **'A1-19'** on Schedule 'A' to this By-Law shall be used in accordance with the 'A1' (Non-Farm Lot) Zone provisions contained in this By-Law, excepting however, that:
  - i. The minimum side yard setback shall be no less than 7.9 m;
  - ii. The minimum rear yard setback shall be no less than 3.66 m; and,
  - iii. The number of livestock units shall be limited to 1.25 units per hectare.

Municipality of Brockton By-law #2008-55 (Lot 4, Concession 8, former Brant - Thomson c/o Andruski)

- .20 Notwithstanding their 'A1' Zoning designation, those lands delineated as 'A1-20' on Schedule 'A' to this By-Law shall be used in accordance with the 'A1' (Non-Farm Lot) Zone provisions contained in this By-law, excepting however, that:
  - i. The minimum side yard setback shall be no less than 0.12 m (shed); and,
  - ii. The number of livestock units shall be limited to 1.25 units per hectare.

Municipality of Brockton By-Law #2008-61 (Part Lot 28, Concession 'A', former Brant - Elphick)

- .21 Notwithstanding their 'A1' Zoning designation, those lands delineated as **'A1-21'** on Schedule 'A' to this By-Law shall be used in accordance with the 'A1' (Agricultural lot) Zone provisions contained in this By-Law, excepting however, that:
  - i. The minimum 'A1' zones area shall be no less than 18.7 ha.

Municipality of Brockton By-law # 2008-66 (Lot 36 and 37, Concession 3 NDR, former Brant - Jemstar Farms Ltd)

- .22 Notwithstanding their 'A1' Zoning designation, those lands delineated as 'A1-22' on Schedule 'A' to this By-Law shall be used in accordance with the 'A1' (Non-Farm Lot) Zone provisions contained in this By-law, excepting however, that:
  - i. The number of livestock units shall be limited to 1.25 units per hectare.

Municipality of Brockton By-law #2009-24 (Lot 16, Concession 11, former Brant - Holm)

- .23 Notwithstanding their 'A1' Zoning designation, those lands delineated as **'A1-23'** on Schedule 'A' to this By-Law shall be used in accordance with the 'A1' (Non-Farm Lot) Zone provisions contained in this By-law, excepting however, that:
  - i. The minimum frontage shall be no less than 12 metres (driveway access); and,
  - ii. The number of livestock units shall be limited to 1.25 livestock units per hectare.

Municipality of Brockton By-Law # 2009-76 (Lots 3, 4 and Part Lot 5, Concession 1 NDR, former Brant - Tony Lang Farms Ltd)

- .24 Notwithstanding their 'A1' Zoning designation, those lands delineated as 'A1-24' on Schedule 'A' to this By-Law shall be used in accordance with the 'A1' (Non-Farm Lot) Zone provisions contained in this By-law, excepting however, that:
  - i. The number of livestock units shall be limited to 1.25 livestock units per hectare.
- .25 Notwithstanding their 'A1' Zoning designation, those lands delineated as **'A1-25'** on Schedule 'A' to this By-law shall be used in accordance with the 'A1' (Non-Farm Lot) Zone provisions contained in this By-Law, excepting however, that:
  - i. The number livestock units shall be limited to 1.25 livestock units per hectare.

Municipality of Brockton By-law #2010-19 (Lot 10, Concession 6 E, former Brant - Borgford / Holmdale)

- .26 Notwithstanding their 'A1' Zoning designation those lands delineated as **'A1-26'** on Schedule 'A' to this by-law shall be used in accordance with the 'A1' (Non-Farm Lot) Zone provisions contained in this By-law, excepting however, that:
  - i. The minimum MDS 1 setback from the front lot line to a neighbouring livestock facility shall be no less than 214 m.

Municipality of Brockton By-law #2011-72 (Lot 21, Concession 4, former Brant – BJ&S Enterprises Inc. and J&K Agroservices)

- .27 Notwithstanding their 'A1' Zoning designation those lands delineated as 'A1-27' on Schedule 'A' to this By-law shall be used in accordance with the 'A1' (Non-Farm Lot) Zone provisions contained in this By-law, excepting however, that:
  - i. The number of livestock units shall be limited to 1.25 livestock units per hectare.

Municipality of Brockton By-law #2011-79 (Lot 7, Concession 6, former Brant – Puhm/Eyre)

- .28 Notwithstanding their 'A1' Zoning designation those lands delineated as **'A1-28'** on Schedule 'A' shall be used in accordance with the 'A1' (Agriculture Lot) Zone provisions contained in this By-law, excepting however, that:
  - i. The minimum lot area shall be no less than 20.2 hectares.

Municipality of Brockton By-law #2011-85 (Lot 33 and Part of Lot 34, Concession 2 NDR, former Brant - Georgedale Farms c/o Larry Frieburger)

- .29 Notwithstanding their 'A1' Zoning designation those lands delineated as **'A1-29'** on Schedule 'A' shall be used in accordance with the 'A1' (Non-Farm Lot) Zone provisions contained in this By-law, excepting however, that:
  - i. Minimum Distance Separation I Formula shall be no less than 183 metres to nearest livestock facility; and,
  - ii. The number of livestock units shall be limited to 1.25 livestock units per hectare.

Municipality of Brockton By-law #2005-33 (Part of Lot 66, Concession 2 NDR, former Brant - Tanner)

- .30 Notwithstanding their 'A1' Zoning designation, those lands delineated as **'A1-30'** on Schedule 'A' shall be used in accordance with the 'A1' Zone provisions contained in this By-law, excepting however, that:
  - i. <u>Section 3.20</u> shall not apply to any development provided that the Saugeen Valley Conservation Authority reviews and approves all site plans prior to a building permit(s) being issued.

Municipality of Brockton By-law #2004-17 (Lot 51, 55 58 Plan 150 & Plan 258, Elmwood)

- .31 Notwithstanding their 'A1' Zoning designation, those lands delineated as **'A1-31'** on Schedule 'A' shall be used in accordance with the 'A1' Zone provisions contained in this By-law, excepting however, that:
  - i. The minimum 'A1-31' zoned area shall be 17 ha (42 acres).

Municipality of Brockton By-law #2007-50 (Part of Lots 72 & 73, Concession 2 NDR, former Brant)
 .32 Notwithstanding their 'A1' Zoning designation, those lands delineated as 'A1-32' on Schedule 'A' shall be used in accordance with the 'A1' Zone provisions contained in this By-law, excepting however, that:

i. The minimum lot area shall be no less than 30.35 ha (75 acres).

Municipality of Brockton By-law #2007-50 (Part of Lot 74, Concession 2 NDR, former Brant)

- .33 Notwithstanding their 'A1' Zoning designation, those lands delineated as **'A1-33'** on Schedule 'A' shall be used in accordance with the 'A1' Zone provisions contained in this By-law, excepting however, that:
  - i. The minimum lot area shall be no greater than 4.39 ha (10.8 acres).

Municipality of Brockton By-law #2008-61 (Part of Lot 28, Concession A, Eden Grove – Elphick)

- .34 Notwithstanding their 'A1' Zoning designation, those lands delineated as **'A1-34'** on Schedule 'A' shall be used in accordance with the 'A1' (Non-Farm Lot) Zoning provisions contained in this By-law, excepting however, that:
  - i. Residential uses shall be the primary uses.
- .35 Notwithstanding their 'A1' Zoning designation, those lands delineated as **'A1-35'** on Schedule 'A' to this by-law, shall be used in accordance with the 'A1' (Agricultural Lot) Zone provisions contained in this By-Law, excepting however, that:
  - ii. The minimum 'A1' zoned area shall be no less than 13.8 ha.

Municipality of Brockton By-law # 2009-29 (Part of Lot 22 and Part of Lot 23, Concession A, former Brant - Thomson)

- .36 Notwithstanding their 'A1' Zoning designation, those lands delineated as **'A1-36'** on Schedule 'A' to this By-law shall be used in accordance with the 'A1' (Non-Farm Lot) Zone provisions contained in this By-law, excepting however, that:
  - i. The number of livestock units shall be limited to 1.25 livestock units per hectare.
- .37 Notwithstanding their 'A1' Zoning designation, those lands delineated as 'A1-37' on Schedule 'A' to this By-Law shall be used in accordance with the 'A1' (Agricultural Lot) Zone provisions contained in this By-law, excepting however, that:
  - i. The minimum lot area shall be no less than 36.5 ha.

- .38 Notwithstanding their 'A1' Zoning designation, those lands delineated as **'A1-38'**on Schedule 'A' to this By-law shall be used in accordance with the 'A1' (Agricultural Lot) Zone provisions contained in this By-Law, excepting however, that;
  - i. The minimum lot area shall be no less than 36.5 ha.

Municipality of Brockton By-law #2011-55 (Part of Lots 19 and 20 Concession B and East Part of Lot 20, Concession 'A', former Brant - Stuempfle)

- .39 Notwithstanding their 'A1' Zoning designation, those lands delineated as **'A1-39'** on Schedule 'A' to this By-law shall be used in accordance with the 'A1' (Non-Farm Lot) Zone provisions contained in this By-law, excepting however, that:
  - i. The number of livestock units shall be limited to 1.25 livestock units per hectare.

Township of Greenock #83-35 (Part of Lot 51, Concession A – Christian Horizons Camp)

- .40 Notwithstanding their 'A1' Zoning designation, those lands delineated as **'A1-40'** on Schedule 'A' to this By-law shall be used in accordance with the 'A1' Zone provisions contained in this By-law, excepting however, that:
  - i. A "religious retreat" and "accessory uses" may be permitted in accordance with the zone provisions of the 'ACI' Zone;
  - ii. For the purposes of this amendment, a 'religious retreat' shall mean a use designed primarily to serve the physical, mental and spiritual needs of individuals;
  - iii. For the purposes of this amendment, 'accessory uses' of a 'religious retreat' may include sleeping accommodation, eating facilities, recreational facilities, an office for the administration of a religious retreat, accommodation for the owners/managers of the premises, a "private school" and a "nursing home".
  - iv. For the purposes of this amendment, a 'nursing home' shall mean a nursing home as defined by *The Nursing Homes Act* and licensed, established and maintained in accordance with this Act; and,
  - v. For the purposes of this amendment, a 'private school' shall mean a private school as defined by *The Education Act* and established and operated in accordance with this Act.

Township of Greenock By-law #94-16 (Part of Lot 9, Concession 4)

- .41 Notwithstanding their 'A1' Zoning designation, lands delineated as **'A1-41'** on Schedule 'A' to this By-law shall be used in accordance with the 'A1' (Non-Farm Lot) Zone provisions contained in this By-law, excepting however, that:
  - i. Minimum lot area shall be 0.9 hectares;
  - ii. Minimum lot frontage shall be 0 metres; and,
  - iii. Minimum side yard for accessory structures existing at the date of passing of this Bylaw shall be 0 metres.

Municipality of Brockton By-law #2002-33 (Lot 10 and West Part of Lot 9, Concession 4, former Greenock)

- .42 Notwithstanding their 'A1' Zoning designation, those lands delineated as **'A1-42'** on Schedule 'A' to this By-law shall be used in accordance with the 'A1' (Non-Farm Lot) Zone provisions contained in this By-law, excepting however, that:
  - i. Notwithstanding <u>Section 5.5.5.2</u>, maximum lot coverage for all accessory buildings shall not exceed 5.5% of the total lot area; and,
  - ii. The number of livestock units shall be limited to 1.25 livestock units per hectare.

Municipality of Brockton By-law #2003-61 (Part of Lots 61, 62 and 63, Concession 1 NDR, former Greenock)

- .43 Notwithstanding their 'A1' Zoning designation, those lands as delineated as **'A1-43'** on Schedule 'A' to this By-law shall be used in accordance with the 'A1' Zone provisions contained in this By-law, excepting however, that:
  - i. Minimum side yard setback from the existing detached dwelling shall be 10.6 metres; and,
  - ii. Minimum side yard setback from the existing accessory building (shed) shall be 4.5 metres.

Municipality of Brockton By-law #2003-74 (Part of Lot 8, Concession 6, former Greenock)

- .44 Notwithstanding their 'A1' Zoning designation, those lands delineated as **'A1-44'** on Schedule 'A' to this By-law shall be used in accordance with the 'A1' (Agriculture Lot) Zone provisions contained in this By-law, excepting however, that:
  - i. Minimum lot area shall be 4.6 hectares.

Municipality of Brockton By-law #2005-43 (Lot 17, Concession 3, former Greenock)

- .45 Notwithstanding their 'A1' Zoning designation, those lands delineated as **'A1-45'** on Schedule 'A' to this By-law shall be used in accordance with the 'A1' (Non-Farm Lot) Zone provisions contained in this By-law, excepting however, that:
  - i. Notwithstanding <u>Section 5.5.5.2</u>, maximum lot coverage for all accessory buildings shall not exceed 5.6% of the total lot area.

Municipality of Brockton By-law #2006-50 (Lot 11 and Part Lot 12 Concession 9 and Part Lot 12, Concession 10, former Greenock - Saugeen Valley Conservation Authority)

- .46 Notwithstanding their 'A1' Zoning designation, those lands delineated as **'A1-46'** on Schedule 'A' to this By-law shall be used in accordance with the 'A1' (Non-Farm Lot) Zone provisions contained in this By-law, excepting however, that:
  - i. The number of livestock units shall be limited to 1.25 livestock units per hectare.

Municipality of Brockton By-law #2008-34 (Lot 2 and East Part of Lot 3, Concession 14, former Greenock - Lang Farms Ltd)

- .47 Notwithstanding their 'A1' Zoning designation, those lands delineated as **'A1-47'** on Schedule 'A' to this By-law shall be used in accordance with the 'A1' (Non-Farm Lot) Zone provisions contained in this By-law, excepting however, that:
  - i. Minimum side yard setback shall be no less than 6.0 metres; and,
  - ii. The number of livestock units shall be limited to 1.25 livestock units per hectare.

Municipality of Brockton By-law #2007-70 (Lot 4, Concession 17, former Greenock - Donnelly)

- .48 Notwithstanding their 'A1' Zoning designation, those lands delineated as **'A1-48'** on Schedule 'A' to this By-law shall be used in accordance with the 'A1' (Non-Farm Lot) Zone provisions contained in this By-law, excepting however, that:
  - i. The number of livestock units shall be limited to 1.25 livestock units per hectare.

Municipality of Brockton By-law #2009-18 (Lots, G, H, I and J, Concession 25, former Greenock - 1775163 Ontario Inc.)

- .49 Notwithstanding their 'A1' Zoning designation, those lands delineated as **'A1-49'** on Schedule 'A' to this By-law shall be used in accordance with the 'A1' (Non-Farm Lot) Zone provisions contained in this By-law, excepting however, that:
  - i. The number of livestock units shall be limited to 1.25 livestock units per hectare.
- .50 Notwithstanding their 'A1' Zoning designation, those lands delineated as 'A1-50' on Schedule 'A' to this By-law shall be used in accordance with the 'A1' (Agriculture Lot) Zone provisions contained in this By-law, excepting however, that:
  - i. The construction of any new residential buildings and/or structures, new agricultural buildings and/or structures and accessory buildings and/or structures shall be prohibited.

Municipality of Brockton By-law #2009-30 (Part of Lot 8, Concession 16, former Greenock - Young)

- .51 Notwithstanding their 'A1' Zoning designation, those lands delineated as **'A1-51'** on Schedule 'A' to this By-law shall be used in accordance with the 'A1' (Non-Farm Lot) Zone provisions contained in this By-law, excepting however, that:
  - i. Minimum lot frontage shall be no less than 11.5 metres; and,
  - ii. The number of livestock units shall be limited to 1.25 livestock units per hectare.

Municipality of Brockton By-law #2011-28 (Lots 4 & 5, Concession 14, former Greenock - Margerison/Lang Farms)

.52 Notwithstanding their 'A1' Zoning designation, those lands delineated as **'A1-52'** on Schedule 'A' to this By-law shall be used in accordance with the 'A1' (Non-Farm Lot) Zone provisions contained in this By-law, excepting however, that:

- i. Notwithstanding Section 3.36.1, the Minimum Distance Separation I setback from the front lot line to a neighbouring livestock facility shall be no less than 176 metres; and,
- ii. The number of livestock units shall be limited to 1.25 livestock units per hectare.

Municipality of Brockton By-law #2011-26 (Part of Lot 5, Concession 17, former Greenock - Wagg)

- .53 Notwithstanding their 'A1' zoning designation, those lands delineated as **'A1-53'** on Schedule 'A' to this By-law shall be used in accordance with the 'A1' (Non-Farm Lot) zone provisions contained in this By-law, excepting however, that:
  - i. Minimum lot frontage shall be no less than 14.0 metres; and,
  - ii. The number of livestock units shall be limited to 1.25 livestock units per hectare.

Municipality of Brockton By-law #2011-40 (Part of Lot 7, Concession 8, former Greenock - Murray)

- .54 Notwithstanding their 'A1' zoning designation, those lands delineated as **'A1-54'** on Schedule 'A' to this By-law shall be used in accordance with the 'A1' (Non-Farm Lot) zone provisions contained in this By-law, excepting however, that:
  - i. Minimum lot frontage shall be no less than 12.2 metres; and,
  - ii. The number of livestock units shall be limited to 1.25 livestock units per hectare.

Municipality of Brockton By-law #2012-63 (Part of Lots 16 and 17, Concession 1 SDR (being Parts 1, 2 and 3 on RP 3R-8066; Part 1 on RP 3R-8102 and Part 1 on RP 3R-1195, former Brant - Ernewein Farms Ltd.)

- .55 Notwithstanding their 'A1' Zoning designation, those lands delineated as **'A1-55'** on Schedule 'A' to this By-law shall be used in accordance with the 'A1' (Non-Farm Lot) Zone provisions contained in this By-law, excepting however, that:
  - i. Minimum side yard for existing dwelling shall be no less than 3.9 metres;
  - ii. Minimum side yard for existing former livestock facility shall be no less than 4 metres; and,
  - iii. The number of livestock units shall be limited to 1.25 livestock units per hectare.

Municipality of Brockton By-law #2012-63 (Part of Lots 18 and 19, Concession 1 SDR (being Parts 1, 2, and 3 RP 3R-8340, former Brant - Ernewein Farms Ltd.)

- .56 Notwithstanding their 'A1' Zoning designation, those lands delineated as **'A1-56'** on Schedule 'A' to this By-law shall be used in accordance with the 'A1' (Non-Farm Lot) Zone provisions contained in this By-law, excepting however, that:
  - i. Minimum side yard for existing dwelling shall be no less than 7.2 metres; and,
  - ii. The number of livestock units shall be limited to 1.25 livestock units per hectare.

Municipality of Brockton By-law #2006-72 (Part of Lots 1, 2, 3 and Part of Lot 4, Concession 2 SDR, former Brant - Lang Farms)

- .57 Notwithstanding their 'A1' Zoning designation, those lands delineated as **'A1-57'**on Schedule 'A' to this By-law shall be used in accordance with the 'A1' Zone provisions contained in this By-law, excepting however that:
  - i. The minimum side yard setback shall be no less than 3 metres; and,
  - ii. The number of livestock units shall be limited to 1.25 livestock units per hectare.
- .58 Notwithstanding their 'A1' Zoning designation, those lands delineated as **'A1-58'** on Schedule 'A' shall be used in accordance with the 'A1' Zone provisions contained in this By-law, excepting however that:
  - i. The construction of any new residential buildings and/or residential structures shall be prohibited on Part of Lot 3 and Part of Lot 4.

Municipality of Brockton By-law #2012-70 (Lot 18, Concession 8, former Brant - Osterndorff)

- .59 Notwithstanding their 'A1' Zoning designation, those lands delineated as **'A1-59'** on Schedule 'A' to this By-law shall be used in accordance with the 'A1' (Non-Farm Lot) Zone provisions contained in this By-law, excepting however, that:
  - i. A reduced MDS setback from 250 m (820 ft) to 242 m (793 ft) from the barn on the adjacent lot to the west shall be permitted.

Municipality of Brockton By-law #2012-69 (Part of Lot 30, Concession 10, former Greenock - Kuepfer)

- .60 Notwithstanding their 'A1' Zoning designation, those lands delineated as **'A1-60'** on Schedule 'A' to this By-law shall be used in accordance with the 'A1' (Agriculture Lot) Zone provisions contained in this By-law, excepting however, that:
  - i. A 'quilt/fabric store' shall be permitted in accordance with <u>Section 3.9</u> and located within an accessory building, in accordance with <u>Section 5.5</u> and subject to the following:
    - a. Notwithstanding <u>Section 3.9.1</u>, the accessory building shall be located within the building cluster of the 'principle' 'dwelling unit';
    - b. Notwithstanding <u>Section 3.9.5</u>, the total gross floor area utilized shall not exceed a maximum of 93 m<sup>2</sup>; and,
    - c. Notwithstanding <u>Section 3.9.6</u>, there shall be no advertising other than a plate or sign, non-flashing and no larger than 1 m<sup>2</sup> in area.
  - ii. A second 'dwelling unit' shall be permitted subject to the following:
    - a. The second 'dwelling unit' shall be constructed in accordance with the 'A1' (Agriculture Lot) Zone provisions; and,
    - b. The second 'dwelling unit' shall be located within the building cluster of the 'principle' 'dwelling unit'.

By-law #2013-050 (Part of Lot 5, Concession 18 (Greenock - Wagg Z18/13)

- .61 Notwithstanding their 'A1' Zoning designation, those lands delineated as **'A1-61'** on Schedule 'A' to this By-law shall be used in accordance with the 'A1' (Agriculture Lot) Zone provisions contained in this By-law, excepting however, that:
  - i. Minimum lot frontage shall be 10.2 metres (33.5 feet)
  - ii. Minimum yard setback from the north property boundary for the northerly shed existing on January 1, 2013 shall be 7.8 metres (26.6 feet)
  - iii. Minimum yard setback from the south property boundary for the southerly shed existing on January 1, 2013 shall be 3 metres (10 feet)
- .62 Notwithstanding their 'A1' Zoning designation, those lands delineated as **'A1-62'** on Schedule 'A' to this By-law shall be used in accordance with the 'A1' (Agriculture Lot) Zone provisions contained in this By-law, excepting however, that:
  - i. A 'Dwelling Accessory Detached' shall be prohibited
  - ii. Minimum lot area shall be 35.4 ha (87.4ac)

By-law #2013-060 (Part of Lot 5, Concession 1 NDR Brant (O'Rourke Z22/13) as amended by By-law 2013-103 (O'Rourke Z5/13)

Notwithstanding their 'A1' Zoning designation, lands shall be used in accordance with the 'A1' (Agriculture Lot) Zone provisions contained in this By-law, excepting however, that:

- .63 On those lands delineated as **'A1-63'** on Schedule 'A' to this By-law Minimum lot area shall be 4.55 ha (11.26 ac)
- .64 On those lands delineated as **'A1-64'** on Schedule 'A' to this By-law Minimum lot area shall be 6.19 ha (13.53 ac)
- .65 On those lands delineated as **'A1-65'** on Schedule 'A' to this By-law Minimum lot area shall be 4.05ha (10 ac)

By-law #2013-089 (Part of Lot 5, Concession 18 Brant) Van Vuuren Z46/13

- .66 Notwithstanding their 'A1' zoning designation, those lands delineated as **'A1-66'** on Schedule 'A' to this By-law shall be used in compliance with the 'A1' (Non-Farm Lot) zone provisions contained in this By-law, excepting however, that:
  - i. Minimum lot area shall be 0.46 hectares (1.14 acres);
  - ii. Minimum lot frontage shall be 14.2 metres (47.0 ft);
  - iii. The number of livestock units shall be limited to 1.25 livestock units per hectare; and,
  - iv. Minimum Distance Separation I setback shall be 121 metres (397.0 ft) to a livestock facility located at 740 Concession 12, geographic Township of Brant.

By-law #2014-061 (Concession 17 Lot 6 Greenock, Metzger Z20/14)

- .67 Notwithstanding their 'A1' zoning designation, those lands delineated as **'A1-67'** on Schedule 'A' to this By-law shall be used in compliance with the 'A1' (Non-Farm Lot) zone provisions contained in this By-law, excepting however, that:
  - i. Minimum lot frontage shall be 16 metres (52.4 ft).

By-law #2014-079 (Concession 19 Lot 10 and West ½ Lot 9 Greenock, Ferris c/o Kirkpatrick Z33/14)

- .68 Notwithstanding their 'A1' zoning designation, those lands delineated as **'A1-68'** on Schedule 'A' to this By-law shall be used in compliance with the 'A1' (Non-Farm Lot) zone provisions contained in this By-law, excepting however, that:
  - i. The barn existing on the date of this by-law is permitted; however, no enlargement or extension to the barn shall be permitted;
  - ii. The number of livestock units shall be limited to 1.25 units per hectare;
- iii. Maximum lot coverage for all structures is 22%.

By-Law # 2015-015 (Part Lot 35, Concession A, Brant - Hall)

- .69 Notwithstanding their 'A1' zoning designation, those lands delineated as 'A1-69' on Schedule "A" to this By-law shall be used in compliance with the 'A1' (Non-Farm Lot) provisions contained in this By-law, excepting however, that:
  - i) the subject lands are designated as a Site Plan Control Area under Section 41 of the Planning Act, R.S.O. 1990.

By-law #2015-026 (Lot 14, Concession 15, Greenock - Alexander)

- .70 Notwithstanding their 'A1' zoning designation, those lands delineated as **'A1-70'** on schedule "A" to this By-law, shall be used in compliance with the 'A1' (Non-Farm Lot) provisions contained in this By-Law, excepting however, that:
  - i) The number of nutrient units shall be limited to 1.25 units per hectare;
  - ii) Minimum Distance Separation I (MDS I) requires shall not apply; and,
  - iii) Buildings and structures existing as of March 23, 2015 which do not comply with the provisions of this By-law are hereby recognized. All future buildings and structures, or additions to existing buildings and structures, shall comply with the provisions of this By-law.

By-Law # 2015-037 (Lots 2 and 3, Concession 'A', geographic Township of Greenock - Adams / Ikendale Farms)

- .71 Notwithstanding their 'A1' Zoning designation, those lands delineated as **'A1-71'** on Schedule "A" to this By-law, shall be used in compliance with the 'A1' (Non-Farm Lot) provisions contained in this By-law, excepting, however that:
  - i) The number of nutrient units shall be limited to 1.25 units per hectare; and,
  - ii) Buildings and structures existing as of April 27, 2015 which do not comply with

the provisions of this By-law are hereby recognized. All future buildings and structures, or additions to existing buildings and structures, shall comply with the provisions of this By-Law.

By-law # 2015-019 (Part of Lots 33 and 34, Concession 6, Greenock - Heipel) - Amended from 'A1-69' to 'A1-72' as per administrative changes permitted by Section 1.6 of this By-law.

- .72 Notwithstanding their 'A1' zoning designation, those lands delineated as **'A1-72'** on Schedule "A" to this by-Law, shall be used in compliance with the 'A1' (Non-Farm Lot) provisions contained in this By-law, excepting however, that:
  - i) The number of nutrient units shall be limited to 1.25 units per hectare;
  - ii) Buildings and structure existing as of February 17, 2015 which do not comply with the provisions of the by-law are hereby recognized. All future buildings and structures, or additions to existing buildings and structures, shall comply with the provisions of this By-law.

A1-73 (By-Law #2015-048 - Dunbar - Part Lot 74, Concession 2 NDR, Brant)

- .73 Notwithstanding their 'A1' zoning designation, those lands delineated as 'A1-73' on Schedule "A" to this by-law, shall be used in compliance with the 'A1' (Non-Farm Lot) provisions contained in this by-law, excepting however that:
  - i) The minimum lot area shall be +/-0.36 ha; and,
  - ii) Buildings and structures existing as of May 25, 2015 which do not comply with the provisions of this by-Law are hereby recognized. All future buildings or structures, or additions to existing buildings and structures, shall comply with the provisions of this By-Law.

A1-74 (By-Law # 2016-021 - Ackert/ Maus, Lot 10, Concession 17, Greenock)

- .74 Notwithstanding their 'A1' zoning designation, those lands delineated as 'A1-74' on Schedule 'A' to this By-law, shall be used in compliance with the 'A1' (Non-Farm Lot) provisions contained in this By-law, excepting, however that:
  - i) The number of nutrient units shall be limited to 1.25 units per hectare;
  - ii) That the minimum lot frontage shall be no less than 10 m; and,
  - iii) Buildings and structures existing as of March 29, 2016 which do not comply with the provisions of this By-law are hereby recognized. All future buildings and structures, or additions to existing buildings and structures, shall comply with the provisions of this By-law.

A1-75 (By-Law # 2016-024\_Lang, Part Lots 6, 7, 8 and 9, Concession 1 NDR, Brant)

.75 Notwithstanding their 'A1' zoning designation, those lands delineated as 'A1-75' on Schedule 'A' to this By-law, shall be used in compliance with the 'A1' (Non-Farm Lot) provisions contained in this By-law, excepting, however that:

- i) The number of nutrient units shall be limited to 1.25 units per hectare;
- ii) That the minimum lot frontage shall be no less than 39.5 m (129.5 ft); and,
- iii) Buildings and structures existing as of April 11, 2016 which do not comply with the provisions of the By-law are hereby recognized. All future buildings and structures, or additions to existing buildings and structures, shall comply with the provisions of this By-law.

A1-76 (By-Law #2016-046- PKW Farms Lots 46 to 49, Concession 3, Brant)

- .76 Notwithstanding their 'A1' zoning designation, those lands delineated as 'A1-76' on Schedule 'A' to this by-law, shall be used in compliance with the 'A1' (Non-Farm Lot) zone provisions contained in this By-law, excepting, however that:
  - i) The number of nutrient units shall be limited to 1.25 units per hectare;
  - The Minimum Distance Separation between the subject lands to the barn located at Lot 50, Concession 3, geographic Township of Brant, shall be no less than 140 m; and,
  - iii) Buildings and structures existing as of June 20, 2016 which do not comply with the provisions of this By-Law are hereby recognized. All future buildings and structures, or additions to existing buildings and structures, shall comply with the provisions of this By-Law.

A1-77 (By-Law #2016-052- Lang Farms Ltd - Lots 1-3 and Part Lot 4, Con 2 SDR, Brant)

- .77 Notwithstanding their 'A1' zoning designation, those lands delineated as 'A1-77' on Schedule 'A' to this By-law, shall be used in compliance with the 'A1' (Non-Farm Lot) zone provisions contained in this By-law, excepting, however that:
  - i) The number of nutrient units shall be limited to 1.25 units per hectare; and,
  - ii) Buildings and structures existing as of July 18, 2016 which do not comply with the provisions of this By-law are hereby recognized. All future buildings and structures, or additions to existing buildings and structures, shall comply with the provisions of this By-law.
- A1-78 (By-Law #2016-066 Kanters Part Lot 16, Con 10, Brant)
- .78 Notwithstanding their 'A1' zoning designation, those lands delineated as 'A1-78' on Schedule 'A' to this By-law, shall be used in compliance with the 'A1' (Non-Farm Lot) zone provisions contained in this By-law, excepting, however that:
  - i) The number of nutrient units shall be limited to 1.25 units per hectare; and,
  - ii) Buildings and structures existing as of September 12, 2016 which do not comply with the provisions of this By-law are hereby recognized. All future buildings and structures, or additions to existing buildings and structures, shall comply

with the provisions of this By-law.

A1-79 (By-Law #2016-071 -Poechman Lots 54 and 55, Con 2 SDR, Brant)

- .79 Notwithstanding their 'A1' zoning designation, those lands delineated as 'A1-79' on Schedule 'A' to this By-law, shall be used in compliance with the 'A1' (Non-Farm Lot) zone provisions contained in this By-law, excepting however that:
  - i) The number of nutrient units shall be limited to 1.25 units per hectare;
  - The Minimum Distance Separation between the subject lands to the barn located at Lot 53, Concession 3 SDR, geographic Township of Brant, shall be no less than 316 metres; and,
  - iii) Buildings and structures existing as of October 1, 2016 which do not comply with the provisions of this By-law are hereby recognized. All future buildings and structures, or additions to existing buildings and structures shall comply with the provisions of this By-law.

A1-80 (By-Law #2016-079Lippert\_Sprucedale Agromart c-o Sam Head, Part Lot 56, Conc1 NDR [Part 1, 3R-8040 and Parts 1 and 2, 3R-4222], Brant)

- .80 Notwithstanding their'A1' zoning designation, those lands delineated as 'A1-80' on Schedule 'A' to this By-law, shall be used in compliance with the 'A1' (Non-Farm Lot) zone provisions contained in this By-law, excepting however that:
  - i) The 'Minimum Lot Area' shall be 11.7 ha (28.9 ac).

A1-81 (By-Law #2017-005 Fritz - Part Lot 10, Concession 6 (Part 1, 3R-3240, Part 1, 3R-4188 and Part 1, 3R-5060), Greenock) Z-88-16.31]

- .81 Notwithstanding their 'A1' zoning designation, those lands delineated as 'A1-81' on Schedule 'A' to this by-law, shall be used in compliance with the 'A1' (Non-Farm Lot) zone provisions contained in this By-law, excepting however that:
  - i) The number of nutrient units shall be limited to 1.25 units per hectare;
  - ii) The Minimum Distance Separation between the subject lands to the barn located at Lot 9 and Part Lot 10, Concession 7, geographic Township of Greenock, be no less than 239 metres; and,
  - iii) Buildings and structures existing as of January 9, 2017, which do not comply with the provisions of this By-law, are hereby recognized. All future buildings and structures, or additions to existing buildings and structures, shall comply with the provisions of this By-law.

## SECTION 7 - URBAN RESIDENTIAL ZONES (R1, R2 & R3)

## 7.1 SCOPE

The provisions of the 'Residential Zone 1 (R1)' zone or 'Residential Zone 2 (R2)' zone or 'Residential Zone 3 (R3)' zone shall generally apply to lands designated 'Residential' on Schedule A – Land Use Plan for the Walkerton Community Official Plan.

## 7.2 USES PERMITTED

No person shall within a 'Residential Zone 1 (R1)' zone or 'Residential Zone 2 (R2)' zone or 'Residential Zone 3 (R3)' zone use any lot or erect, alter or use any building or structure for any purpose except the following:

PERMITTED USES	RESIDENTIAL: LOW DENSITY SINGLE	RESIDENTIAL: LOW DENSITY MULTIPLE	RESIDENTIAL: MEDIUM DENSITY
	(R1)	(R2)	(R3)
'Dwelling, Single Detached'	$\checkmark$	$\checkmark$	Not Permitted
'Dwelling, Semi-Detached'	$\checkmark$	$\checkmark$	Not Permitted
'Dwelling, Converted' (a)	$\checkmark$	$\checkmark$	Not Permitted
'Dwelling, Duplex'	$\checkmark$	$\checkmark$	Not Permitted
'Dwelling, Multiple'	Not Permitted	Not Permitted	$\checkmark$
'Dwelling, Secondary Suite' (b)	$\checkmark$	√	$\checkmark$
'Townhouse, Cluster' or	Not Permitted	$\checkmark$	$\checkmark$
'Townhouse Street'			
'Apartment Building'	Not Permitted	Not Permitted	$\checkmark$
<sup>•</sup> Day Nursery' (deleted by By-law 2016- 028)	$\checkmark$	≁	Not Permitted
Home Child Care (added by By-law 2016-028)	$\checkmark$	$\checkmark$	Not Permitted
Unlicensed Child Care (added by By- law 2016-028)	$\checkmark$	$\checkmark$	Not Permitted
'Home Occupation- Domestic and Professional' as per <u>Section 3.9</u> (a)	$\checkmark$	$\checkmark$	Not Permitted
'Home Occupation – Bed & Breakfast Establishment' as per	$\checkmark$	$\checkmark$	Not Permitted
<u>Section 3.10</u> (c)			
'Public Park'	$\checkmark$	√	$\checkmark$
'Group Home – Type 1'	$\checkmark$	√	$\checkmark$
'Residential Care Facility'	$\checkmark$	√	$\checkmark$
Accessory Buildings & Structures	$\checkmark$	√	$\checkmark$
as per <u>Section 3.6</u>			

#### <u>Footnotes</u>

(a) A 'Dwelling, Converted' shall be permitted in a 'Dwelling, Single Detached' and 'Dwelling, Semi-Detached' only, to a maximum of two (2) dwelling units on existing lot of record.

(b) A 'Dwelling, Secondary Suite' shall only be permitted in a 'dwelling, single detached',

'dwelling, semi-detached' and 'townhouse, street' in accordance with <u>Section 3.8.3</u>.

(c) A 'Home Occupation - Domestic & Profession', 'Home Occupation - Bed & Breakfast Establishment', and 'Group Home - Type 1' shall be permitted in a 'Dwelling, Single Detached' only.

# 7.3 ZONE PROVISIONS - 'R1 & R2'

No person shall within the 'R1' and 'R2' zones use any lot or erect, alter or use any building or structure except in accordance with the following provisions:

Provisions: Municipal Water & Municipal Sewer					
	Dwelling, Single	Dwelling, Duplex & Semi	Dwelling,	Townhouse	
	Detached	Detached	Cluster (c)	Street	
Minimum Lot Area	465 m <sup>2</sup> (5,005 ft <sup>2</sup> )	465 m <sup>2</sup> (5,005 ft <sup>2</sup> ) <b>or</b> 232.5 m <sup>2</sup> (2,502.7 ft <sup>2</sup> ) for each Semi-Detached Unit to be erected on a separate lot of record	155 m <sup>2</sup> (1,668 ft <sup>2</sup> ) per dwelling unit	155 m <sup>2</sup> (1, 668 ft <sup>2</sup> ) per dwelling unit	
Minimum Lot Frontage 15 metres (50 ft)		15 metres (50 ft) <b>or</b> 7.5 metres (24.6 ft) for each Semi-Detached Unit to be erected on a separate lot of record	15.0 metres (50 ft)	7.5 metres (25 ft) per dwelling unit	
Minimum Front Yard	6.0 metres (20 ft)	6.0 metres (20 ft)	(c)	6.0 metres (20 ft)	
Minimum Rear Yard	7.5 metres (25 ft)	7.5 metres (25 ft)	(c)	7.5 metres (25 ft)	
Minimum Exterior Side Yard	4.3 metres (14 ft)	4.3 metres (14 ft)	(c)	6.0 metres (20 ft) [End unit]	
Minimum Interior Side Yard	1.2 metres (4 ft)(a)	1.2 metres (4 ft)(b)	(c)	3.0 metres (10 ft) [End unit]	
Minimum Floor Area, Gross	Not applicable	130 m <sup>2</sup> (1,400 ft <sup>2</sup> ) <b>or</b> 65 m <sup>2</sup> (700 ft <sup>2</sup> ) for each Semi-Detached Unit to be erected on a separate lot of record	60m² (646 ft²) per dwelling unit	60m² (646 ft²) per dwelling unit	
Minimum Floor Area, Ground	70 m <sup>2</sup> (753 ft <sup>2</sup> ) [greater than 1 storey] 90 m <sup>2</sup> (969 ft <sup>2</sup> ) [1 storey]	Not applicable	Not applicable	Not applicable	
Maximum Building Height - 'Main Building'	10 metres (33 ft)	10 metres (33 ft)	10 metres (33 ft)	10.0 metres (33 ft)	

Modified by By-law 2015-039 (Housekeeping #1)

Maximum Lot Coverage	30%	30%	35%	35%	
Landscaped Open	Per <u>Section 3.16.1</u>				
Space					

<u>Footnotes</u>

- (a) With attached garage or carport. Without an attached garage or carport, the interior side yard shall be a minimum of 2.5 metres (8 ft) on one side and 1.2 metres (4 ft) on the other side.
- (b) Where a 'Dwelling, Semi-Detached' has been equally divided to provide individual ownership to each dwelling unit, the common side yard may be reduced to zero (0) metres.
- (c) A 'Dwelling, Townhouse, Cluster' shall be subject to the following Yard provisions:
  - i. The setback between the front wall of a 'Townhouse, Cluster' and an interior roadway or parking area shall be no less than 4 metres (13 ft);
  - ii. The setback between the end side walls of each 'Townhouse, Cluster' (building ends) shall be no less than 3 metres (10 ft);
  - iii. The setback between the rear walls of a 'Townhouse, Cluster' shall be no less than 3 metres (10 ft); and,
  - iv. The setback between the end side walls and/or rear walls of a 'Townhouse, Cluster' and an abutting lot and/or exterior roadway shall be no less than 7.5 metres (25 ft).

Provisions: Connected to Municipal Sewer					
	Dwelling, Semi-Detached & Duplex	Dwelling, Single Detached			
Minimum Lot Area	0.4 hectares (1 ac) <b>or</b> 0.2 hectares (0.5 ac) per each Semi-Detached Unit to be erected on a separate lot of record	0.4 hectares (1 ac)			
Minimum Lot Frontage	40 metres (131 ft) <b>or</b> 20 metres (66 ft) for each Semi- Detached Unit to be erected on a separate lot of record	40 metres (131 ft)			
Minimum Front Yard	imum Front Yard 7.5 metres (25 ft)				
Minimum Exterior Side Yard	4.3 metres (14 ft)				
Minimum Rear Yard	10 metres (	(33 ft)			
Minimum Interior Side Yard	3 metres (10 ft)	) <sup>(a)</sup> and <sup>(b)</sup>			
Minimum Floor Area, Gross	130 m <sup>2</sup> (1,400 ft <sup>2</sup> ) <b>or</b> 65 m <sup>2</sup> (700 ft <sup>2</sup> ) for each Semi-Detached Unit to be erected on a separate lot of record	Not applicable			
Minimum Floor Area, Ground	Not applicable	70 m <sup>2</sup> (754 ft <sup>2</sup> )			

### Modified by By-law 2015-039 (Housekeeping #1)

Minimum Building Height,	10 metres (33 ft)		
'Main Building'			
Maximum Lot Coverage	20%		
Landscaped Open Space	Per <u>Section 3.16.1</u>		

<u>Footnotes</u>

- (a) With attached garage or carport. Without an attached garage or carport, the interior side yard shall be a minimum of 6 metres (20 ft) on one side and 3 metres (10 ft) on the other side.
- (b) Where a 'Dwelling, Semi-Detached' has been equally divided to provide individual ownership to each dwelling unit, the common side yard may be reduced to zero (0) metres.

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Provisions: EXISTING L	OT OF RECORD – No Connectior	n to Municipal Services			
	Dwelling, Semi-Detached & Duplex	Dwelling, Single Detached			
Minimum Lot Area	Not applicable				
Minimum Lot Frontage	Not applicable				
Minimum Front Yard	10 metr	10 metres (33 ft)			
Minimum Rear Yard	10 metres (33 ft)				
Minimum Exterior Side Yard	4.3 metres (14 ft)				
Minimum Interior Side Yard	3 metres (10	) ft) <sup>(a)</sup> and <sup>(b)</sup>			
Minimum Floor Area, Gross	130 m <sup>2</sup> (1,400 ft <sup>2</sup> ) <b>or</b> 65 m <sup>2</sup> (70 ft <sup>2</sup> ) for each Semi- Detached Unit to be erected on a separate lot of record	Not applicable			
Minimum Floor Area, Ground	No applicable	70 m <sup>2</sup> (754 ft <sup>2</sup> )			
Minimum Building Height, 'Main Building'					
Maximum Lot Coverage	1	5%			
Landscaped Open Space	Per <u>Section</u>	<u>on 3.16.1</u>			

# Explanatory Note:

Uses in the R2 zone may be subject to site plan control. You will be required to receive site plan approval prior to the issuance of a building permit. You are advised to check with the Municipality.

### <u>Footnotes</u>

(a) With attached garage or carport. Without an attached garage or carport, the interior side yard

shall be a minimum of 6 metres (20 ft) on one side and 3 metres (10 ft) on the other side.

(b) Where a 'Dwelling, Semi-Detached' has been equally divided to provide individual ownership to each dwelling unit, the common side yard may be reduced to zero (0) metres.

## 7.4 ZONE PROVISIONS – 'R3'

No person shall within the 'R3' zone use any lot or erect, alter or use any building or structure except in accordance with the following provisions:

	Dwelling,	Townhouse	Dwelling, Multiple	Apartment	Apartment Building	
	Cluster (a)	Street				
Minimum Lot Area	155 m <sup>2</sup>	155 m <sup>2</sup>	155 m <sup>2</sup>	650 m <sup>2</sup>		
	(1,668 ft <sup>2</sup> )	(1,668 ft <sup>2</sup> )	(1,668 ft <sup>2</sup> )	(6,997 ft <sup>2</sup> )		
	per dwelling unit	per dwelling unit	per dwelling unit	per building		
Minimum Lot Frontage	15 metres (50 ft)	7.5 metres (25 ft) per dwelling unit	15 metres (50 ft)	15 metres (5	50 ft)	
Minimum Front Yard	(a)	6 metres (20 ft)	6 metres (20 ft)	8 metres (26	5 ft)	
Minimum Exterior Side Yard		6 metres (20 ft) [End unit]	6 metres (20 ft)	8 metres (26	5 ft)	
Minimum Interior Side Yard	(a)	3.0 metres (10 ft) [End unit] <sup>(b)</sup>	3.0 metres (10 ft)	5.0 metres (16 ft)		
Minimum Rear Yard	(a)	7.5 metres (25 ft)	7.5 metres (25 ft)	10.0 metres (33 ft)		
Maximum Lot Coverage	40%	40%	40%	45%		
Minimum Landscaped Area/Open Space	30%	30%	30%	30%		
Minimum Floor Area, Gross	60 m <sup>2</sup> (646 ft <sup>2</sup> ) per dwelling unit	60 m² (646 ft²) per dwelling unit	60 m <sup>2</sup> (646 ft <sup>2</sup> ) per dwelling unit	i) Bachelor Dwelling Unit	35 m <sup>2</sup> (377 ft <sup>2</sup> )	
				ii) One Bedroom Unit	50 m <sup>2</sup> (538 ft <sup>2</sup> )	
				iii) For each additional bedroom	10 m <sup>2</sup> (108 ft <sup>2</sup>	
Minimum Floor Area, Ground	Not applicable	Not applicable	Not applicable	Not applicat	ole	

Modified by By-law 2015-039 (Housekeeping #1)

Urban Residential Zones (R1, R2 & R3)

Maximum Height -	10 metres	10 metres	10 metres	20 metres (66 ft)	
'Main Building'	(33 ft)	(33 ft)	(33 ft)		
Landscaped Open Space	Per <u>Section 3.16.1</u>				

# Explanatory Note:

All uses in the R3 zone are subject to site plan control. You will be required to receive site plan approval prior to the issuance of a building permit. You are advised to consult with the Municipality.

parking area shall be no less than 4 metres (13 ft);

- ii. The setback between the end side walls of each 'Townhouse, Cluster' (building ends) shall be no less than 3 metres (10 ft);
- iii. The setback between the rear walls of a 'Townhouse, Cluster' shall be no less than 3 metres (10 ft);
- iv. The setback between the end side walls and/or rear walls of a 'Townhouse, Cluster' and an abutting lot and/or exterior roadway shall be no less than 7.5 metres (25 ft).
- (b) Where a 'Townhouse, Street' has been divided to provide individual ownership to each dwelling unit, the common side yard may be reduced to zero (0) metres.

# 7.5 SPECIAL PROVISIONS - R1

Town of Walkerton By-law #92-35 (Walkerton - various locations)

- .1 Notwithstanding their 'R1' zoning designation those lands delineated as 'R1-1' on Schedule 'A' to this By-law shall be used in accordance with the 'R1' Zone provisions contained in this By-Law, excepting however that:
  - i. For the purposes of this amendment, 'lot coverage' shall be defined as the percentage of the lot area covered by all buildings above ground level, but does not include that portion thereof which is completely below ground level.

Town of Walkerton By-law #92-35 (Walkerton)

- .2 Notwithstanding their 'R1' zoning designation those lands delineated as 'R1-2' on Schedule 'A' to this By-law shall be used in accordance with the 'R1' Zone provisions contained in this By-law, excepting however that:
  - i. For the purposes of this amendment, 'lot coverage' shall be defined as the percentage of the lot area covered by all buildings above ground level, but does not include that portion thereof which is completely below ground level; and,
  - ii. The minimum front yard setback shall be no less than 4.5 m (14.8 ft).

Municipality of Brockton By-Law #2001-60 (Brockton - various locations)

- .3 Notwithstanding their 'R1' Zoning designation, those lands delineated as **'R1-3'** on Schedule 'A' to this By-Law shall be used in accordance with the 'R1' Zone provisions contained in this By-law, excepting however, that:
  - i. The permitted uses shall include a 'hotel/motel'.

Municipality of Brockton By-law #2001-60 (Brockton - various locations)

- .4 Notwithstanding their 'R1' Zoning designation, those lands delineated as **'R1-4'** on Schedule 'A' to this By-law shall be used in accordance with the 'R1' Zone provisions contained in this By-law, excepting however, that:
  - i. The permitted uses shall include 'trades person's shop'.

Municipality of Brockton By-law #2006-60 (Eidt, Plan 7 Lots 63, 74 and 65 and Part of Lot 48, geographic Town of Walkerton)

- .5 Notwithstanding their 'R1' Zoning designation, those lands delineated as **'R1-5'** on Schedule 'A' to this By-law shall be used in accordance with the 'R1' Zone provisions contained in this By-law, excepting however, that:
  - i. The interior side yard and rear yard setbacks on the south east side of the property shall be as it existed on the date of passing of this By-law.

Municipality of Brockton By-law #2005-67 (Sepp, Plan 162 Part of Park Lot 44 Yonge Street North, geographic Town of Walkerton)

- .6 Notwithstanding their 'R1' Zoning designation, those lands delineated as **'R1-6'** on Schedule 'A' to this By-law shall be used in accordance with the 'R1' Zone provisions contained in this By-law, excepting however, that:
  - i. The minimum exterior side yard setback shall be no less than 1.5 metres for the dwelling unit as it exists on the day of the passing of this By-law.
- .7 Notwithstanding their 'R1' Zoning designation, those lands delineated as **'R1-7'** on Schedule 'A' to this By-law shall be used in accordance with the 'R1' Zone provisions contained in this By-law, excepting however, that:
  - i. The minimum side yard setback on the west side of the property shall be no less than 4.0 metres.

Municipality of Brockton By-law #2009-58 (Binkley c/o Popp, Plan 7 Part of Lot 35, geographic Town of Walkerton)

- .8 Notwithstanding their 'R1' Zoning designation, those lands delineated as **'R1-8'** on Schedule 'A' to this By-law shall be used in accordance with the 'R1' Zone provisions contained in this By-law, excepting however, that:
  - i. The minimum lot area shall be no less than 556 sq. metres;
  - ii. The maximum lot coverage shall be no greater than 36%; and,
  - iii. The exterior side yard setback shall be 0 metres.

Town of Walkerton By-law #92-35 (Various locations, geographic Town of Walkerton)

- .9 Notwithstanding their 'R1' Zoning designation, those lands delineated as **'R1-9'** on Schedule 'A' to this By-law shall be used in accordance with the 'R1' Zone provisions contained in this By-law, excepting however, that:
  - i. The minimum lot frontage for a corner lot shall be 17.5 metres (57.4 ft);

- ii. The minimum frontage for an interior lot shall be 12.2 metres (40 ft);
- iii. The maximum floor area of a dwelling unit shall be 102 m<sup>2</sup> (1,098 ft<sup>2</sup>); and,
- iv. For the purposes of this amendment, "floor area" shall mean the total floor area contained within the inside walls of a dwelling unit, excluding any private garage, carport, porch, veranda, unfinished attic, cellar or sun room (unless such sun room is habitable during all seasons of the year).

Municipality of Brockton By-law #2010-04 (Turner and Williams c/o IBI Group, Plan 84 Part of Park Lots 7 and 8 and Plan162 Lot 26 (being Part 2 on RP 3R-3464)

- .10 Notwithstanding their 'R1' Zoning designation, those lands delineated as **'R1-10'** on Schedule 'A' to this By-law shall be used in accordance with the 'R1' Zone provisions contained in this By-law, excepting however, that:
  - i. Minimum lot frontage shall be no less than 12.0 metres; and,
  - ii. Minimum interior side yard for both sides shall be no less than 1.2 metres.
- .11 Notwithstanding their 'R1' Zoning designation, those lands delineated as **'R1-11'** on Schedule 'A' to this By-law shall be used in accordance with the 'R1' Zone provisions contained in this By-law, excepting however, that:
  - i. Minimum lot frontage shall be no less than 12.0 metres;
  - ii. Minimum exterior side yard shall be no less than 3.0 metres; and,
  - iii. Minimum interior side yard for both sides shall be no less than 1.2 metres.

Municipality of Brockton By-law #95-10 (Judar, Plan 162 Part of Park Lot L and Plan 7 Part of Lots 2 and 3, geographic Town of Walkerton)

- .12 Notwithstanding their 'R1' Zoning designation, those lands delineated as **'R1-12'** on Schedule 'A' to this By-law shall be used in accordance with the 'R1' Zone provisions contained in this By-law, excepting however, that:
  - Prior to the issuing of a building permit, the owner of the property shall provide a site plan and enter into an agreement with the Town in accordance with by-law No. 85-52 (Site Plan Control), detailing lot grading and drainage, a building envelope and driveway location.

Municipality of Brockton By-law #2008-56 (Edinburgh Holdings Corp., Plan 185 Part of Lots 2 and 3 and Lots 4 and 5, geographic Town of Walkerton)

- .13 Notwithstanding their 'R1' Zoning designation, those lands delineated as **'R1-13'** on Schedule 'A' to this By-law shall be used in accordance with the 'R1' Zone provisions contained in this By-law, excepting however, that:
  - i. Minimum exterior side yard shall be no less than 5.1 metres;
    - ii. Notwithstanding <u>Section 3.9.3</u>, the maximum number of assistants employed in the Home Occupation who do not reside in the "dwelling" shall not exceeds three (3); and,
    - iii. Notwithstanding <u>Section 3.9.5</u>, the maximum total gross floor area utilized for the Home Occupation shall not exceed 139 m<sup>2</sup>.

Municipality of Brockton By-law #2011-98 (1221058 Ontario Inc. [Spitzig], Part of Lot 22, Concession 1 NDR; Plan 162 Part of Lots 1 and 2 and Part of Park Lots 41 and 42; Part of Unnamed Road Lying South of Plan 3R-883 and North of Durham Road, geographic Town of Walkerton)

- .14 Notwithstanding their 'R1' Zoning designation, those lands delineated as **'R1-14'** on Schedule 'A' to this By-law shall be used in accordance with the 'R1' Zone provisions contained in this By-law, excepting however, that:
  - i. Minimum lot frontage shall be no less than 12.0 metres.

Municipality of Brockton By-law #2012-27 (Walker, Part of Lot 33, Concession 1 NDR being Part 4 on RP 3R-1888, geographic Township of Brant)

- .15 Notwithstanding their 'R1' Zoning designation, those lands delineated as **'R1-15'** on Schedule 'A' to this By-law shall be used in accordance with the 'R1' Zone provisions contained in this By-law, excepting however, that:
  - i. Should a new 'dwelling' replace the existing 'dwelling' at the time of adoption of the zoning by-law, the minimum rear yard shall be no less than 70.0 metres.

Municipality of Brockton By-law #2010-58 (Price Schonstrom Inc., Part of Lot 1, Plan 7 Exp Plan 722 Part 2 and Lot 1 and Lot 2 Plan 7 William E/S, Municipality of Brockton (geographic Town of Walkerton)

- .16 Notwithstanding their 'R1' Zoning designation, those lands delineated as **'R1-16'** on Schedule 'A' to this By-law shall be used in accordance with the 'R1' Zone provisions contained in this By-law, excepting however, that:
  - i. The permitted uses shall be limited to a 'parking area', for the exclusive use of employees of the adjacent general industrial use (Price Schonstrom Inc.);
  - ii. The parking of trucks and other machinery associated with the adjacent general industrial use (Price Schonstrom Inc.) shall be prohibited;
  - iii. Outdoor storage, and all buildings and/or structures shall be prohibited; and,
  - iv. A Site Plan Control Agreement shall be registered on title with the subject lands.

#### 7.6 SPECIAL PROVISIONS – R2

Town of Walkerton By-law #92-35 (Plan 84 Part of Park Lot 12, geographic Town of Walkerton)

- .1 Notwithstanding their 'R2' Zoning designation, those lands delineated as **'R2-1'** on Schedule 'A' to this By-law shall be used in accordance with the 'R2' Zone provisions contained in this By-law, excepting however, that:
  - i. Permitted uses shall be limited to a 'funeral home' in accordance with the 'C2' zone provisions contained in this By-law.

Municipality of Brockton By-law #99-57 (Campbell, Plan 162 Part of Lot 9, geographic Town of Walkerton)

- .2 Notwithstanding their 'R2' Zoning designation, those lands delineated as **'R2-2'** on Schedule 'A' to this By-law shall be used for residential and Home Occupation – Bed and Breakfast Establishment uses in accordance with the 'R2' Zone provisions and <u>Section 3.10</u> contained in this By-law, excepting however, that:
  - i. The maximum number of guest rooms shall be six (6);
  - ii. No guest bedrooms shall be located above the second storey except in conformance with the Ontario Building Code and/or other related legislation and regulation and approved by the Chief Building Official of the Municipality;
  - iii. One guest room measuring approximately 10.2 square metres (110 square feet) shall be allowed;
  - iv. The maximum number of guests shall be limited to ten (10);
  - v. A planting strip consisting of a green hedge shall be established along the north property line extending the length of the parking area; and,
  - vi. One driveway of approximately 7.9 metres (26 feet) in width shall be allowed.

(Amended from 7.6.4 to 7.6.3 as per administrative changes permitted by Section 1.6 of this By-Law)

Municipality of Brockton By-law 2014-004 (Ernewein Z58/13, Plan 162 Part Park Lot 1, Park Lot 2 Lots A and B W Victoria St, Walkerton)

.3 Notwithstanding their 'R2' zoning, the lands zoned '**R2-3**' shall be used in accordance with the following:

Permitted Uses:

- i. Up to 35 Semi-detached and/or townhouse dwellings, fronting onto municipal streets or a private street;
- ii. accessory buildings and structures;

Provisions:

- Minimum lot area: 1.7 ha
- Minimum lot frontage: 100.7 m
- Minimum front and exterior side yard setback: 6m
- Minimum setback from paved private street: 5.1 m
- Minimum setback from rear or interior side lot line: 3.6 m

- Minimum separation between buildings: 2.4 m
- Minimum floor area, gross: 65 m2 per unit
- Maximum building height: 10 m
- Maximum lot coverage: 43%
- All other relevant provisions of the Zoning By-law shall apply.

The lands are subject to Site Plan Control under Section 41 of The Planning Act.

(Amended from 7.6.3 to 7.6.4 as per administrative changes permitted by Section 1.6 of this By-Law)

Municipality of Brockton By-law #2008-67 (Weber, Plan 162 Part of Lots F, K and A being Part 3 on 3R-4455)

- .4 Notwithstanding their 'R2' Zoning designation, those lands delineated as **'R2-4'** on Schedule 'A' to this By-law shall be used in accordance with the 'R2' Zone provisions contained in this By-law, excepting however, that:
  - i. A Site Plan Control Agreement shall be registered on title.

### 7.7 SPECIAL PROVISIONS – R3

Municipality of Brockton By-Law #2005-70 (Foreman Apartments, Plan 836 Part of Lot 1, Yonge Street E/S)

- .1 Notwithstanding their 'R3' Zoning designation, those lands delineated as '**R3-1'** on Schedule 'A' to this By-law shall be used in accordance with the 'R3' Zone provisions contained in this By-law, excepting however that:
  - i. Minimum lot frontage shall be no less than 20.5 metres (67.27 feet);
  - ii. <u>Section 3.27.1</u> (a) (ii) shall not apply;
  - iii. Parking shall be permitted in the front yard but no part of any parking space shall be located closer than 9.1 metres (30 feet) from the front property line and no closer than 3.0 metres (10 feet) to the south interior lot line and 2.74 metres (9 feet) to the north interior lot line; and,
  - iv. A 2.44 metre (8 feet) high permanent, maintenance free board fence shall be erected and maintained along the full length of the south interior lot.

Municipality of Brockton By-Law #2010-04 (Turner and Williams c/o IBI Group, Plan 84, Part Park Lots 7 and 8, and Plan 162 Lot 26 being Part 2 on RP 3R-3464)

- .2 Notwithstanding their 'R3' Zoning designation, those lands delineated as '**R3-2**' on Schedule 'A' to this By-law shall be used in accordance with the 'R3' Zone provisions contained in this By-law, excepting however, that:
  - i. Minimum rear yard shall be no less than 6 metres.

### Town of Walkerton By-law #92-35

- .3 Notwithstanding their 'R3' Zoning designation, those lands delineated as **'R3-3'** on Schedule 'A' to this By-law shall be used in accordance with the 'R3' Zone provisions contained in this By-law, excepting however, that:
  - i. Permitted use shall be limited to an 'apartment building';
  - ii. Maximum number of 'dwelling units' within 'apartment building' shall not exceed twenty-four (24);
  - iii. Minimum front yard shall be no less than 9.0 metres;
  - iv. Minimum exterior side yard shall be no less than 9.0 metres;
  - v. Minimum interior side yard shall be no less than 6.4 metres; and,
  - vi. Minimum rear yard shall be no less than 11.5 metres.

### Town of Walkerton By-law #92-35

- .4 Notwithstanding their 'R3' Zoning designation, those lands delineated as **'R3-4'** on Schedule 'A' to this By-law shall be used in accordance with the 'R3' Zone provisions contained in this By-law, excepting however, that:
  - i. Permitted use shall be limited to an 'apartment building'; Minimum lot frontage shall be no less than 28 metres;
  - ii. Minimum interior side yard to an abutting lot shall be no less than 8.2 metres;

- iii. A balcony attached to a 'dwelling unit' may project into the required side yard by no greater than 1.7 metres; and,
- iv. Minimum separation distance between 'apartment buildings' shall be no less than 4.5 metres.

## Town of Walkerton By-law #92-35

- .5 Notwithstanding their 'R3' Zoning designation, those lands delineated as **'R3-5'** on Schedule 'A' to this By-law shall be used in accordance with the 'R3' Zone provisions contained in this By-law, excepting however, that:
  - i. Permitted use shall be limited to an 'apartment building';
  - ii. Minimum lot area shall be no less than 1,740 m<sup>2</sup>;
  - iii. Minimum lot frontage shall be no less than 34.7 metres;
  - iv. Minimum front yard shall be 0 metres;
  - v. Minimum exterior side yard shall be 0 metres;
  - vi. Minimum rear yard shall be no less than 4.6 metres;
  - vii. Maximum lot coverage shall not exceed 42%; and,
  - viii. Only those buildings or structures existing on the date of passing of this By-law shall be permitted.

Town of Walkerton By-law #92-35

- .6 Notwithstanding their 'R3' Zoning designation, those lands delineated as **'R3-6'** on Schedule 'A' to this By-law shall be used in accordance with the 'R3' Zone provisions contained in this By-law, excepting however, that:
  - i. Permitted use shall be limited to a 'residential care facility';
  - ii. Maximum number of beds shall be no greater than sixty (60);
  - iii. Minimum front yard shall be no less than 7.6 metres and no parking shall be permitted in the front yard;
  - iv. Minimum westerly interior side yard shall be no less than 3.0 metres;
  - v. Maximum lot coverage shall not exceed 23%;
  - vi. Minimum landscaped area/open space shall be no less than 50%;
  - vii. Maximum Height 'Main Building' shall not exceed three (3) stories; and,
  - viii.Notwithstanding <u>Section 3.27.1</u> (xviii), the number of off-street parking spaces shall be one (1) space per three (3 beds).

Town of Walkerton By-law #92-35

- .7 Notwithstanding their 'R3' Zoning designation, those lands delineated as **'R3-7'** on Schedule 'A' to this By-law shall be used in accordance with the 'R3' Zone provisions contained in this By-law, excepting, however that:
  - i. Minimum lot area shall be no less than 828 sq. metres;
  - ii. Minimum lot frontage shall be no less than 31 metres;
  - iii. Minimum front yard for an existing structure on the date passing of this By-law shall be no less than 3.0 metres;

- iv. Minimum interior side yard for an existing structure on the date of passing of this Bylaw shall be no less than 0.4 metres;
- v. Minimum rear yard for an existing structure on the date of passing of this By-law shall be no less than 2.5 metres; and,
- vi. Maximum lot coverage shall not exceed 36%.

### Town of Walkerton By-law #92-35

- .8 Notwithstanding their 'R3' Zoning designation, those lands delineated as **'R3-8'** on Schedule 'A' to this By-law shall be used in accordance with the 'R3' Zone provisions contained in this By-law, excepting however, that:
  - i. Permitted uses shall be a 'residential care facility' and/or an 'apartment building';
  - ii. Minimum northerly interior side yard shall be no less than 7.62 metres;
  - iii. Minimum rear yard shall be no less than 7.62 metres;
  - iv. Maximum height 'Main Building' shall not exceed three (3) storeys or 11.4 metres, whichever is the lesser; and,
  - v. Notwithstanding <u>Section 3.27.1</u> (xviii), the number of off-street parking spaces for a 'residential care facility' shall be one (1) space per patient room or resident room.

### Town of Walkerton By-law #92-35

- .9 Notwithstanding their 'R3' Zoning designation, those lands delineated as **'R3-9'** on Schedule 'A' to this By-law shall be used in accordance with the 'R3' Zone provisions contained in this By-law, excepting however that:
  - i. Permitted use shall be an 'apartment building'; and,
  - ii. Minimum side yard shall be no less than 6.1 metres.

Town of Walkerton By-law #92-35

- .10 Notwithstanding their 'R3' Zoning designation, those lands delineated as **'R3-10'** on Schedule 'A' to this By-law shall be used in accordance with the 'R3' Zone provisions contained in this By-law, excepting however that:
  - i. <u>Section 3.26.9</u> of this By-law shall not apply in order to prevent the location of a parking lot in the front yard, not closer than 1.25 metres (4.1 ft) to the front lot line.

Municipality of Brockton By-law #2004-37 (Hinsperger Condominiums - old 'Spool & Bobbin' site)

- .11 Notwithstanding their 'R3' Zoning designation, those lands delineated as '**R3-11'** on Schedule 'A' to this By-law shall be used in accordance with the 'R3' Zone, excepting however, that:
  - i. The minimum exterior side yard shall be no less than 9.3 metres;
  - ii. The minimum rear yard setback shall be no less than 12.6 metres;
  - iii. That no formal Play Space for Apartments need be identified, provided that a similar amount of open space is provided on the property; and,
  - iv. Habitable rooms are not permitted below the Regional Storm Flood elevation for the Saugeen River.

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## SECTION 8 - HAMLET RESIDENTIAL (HR

# 8.1 SCOPE

## Modified by By-law 2015-039 (Housekeeping #1)

The provisions of Section 8 apply only on lands designated 'Hamlet' or 'Secondary Urban Area' on Schedule 'A': Land Use of the County of Bruce Official Plan.

## 8.2 USES PERMITTED

## Modified by By-law 2015-039 (Housekeeping #1)

No person shall within any 'Hamlet Residential (HR)' zone use any lot or erect, alter or use any building or structure for any purpose except for one or more of the following uses:

- (a) <u>Residential Uses</u>
  - Dwelling, Single Detached
  - Dwelling, Semi-Detached
  - Dwelling, Duplex
  - Dwelling, Secondary Suite as per <u>Section 3.8.3</u>
  - Group Home Type One [in a Dwelling, Single Detached only]
  - Home Occupation Domestic and Professional Uses [in a Dwelling, Single Detached only]
  - Home Occupation Bed & Breakfast Establishment [in a Dwelling, Single Detached only]
  - Public park
  - Uses, buildings and structures accessory to a permitted use as per <u>Section 3.6</u>
  - Home Child *Care (added by By-law 2016-028)*
  - Unlicensed Child Care (added by By-law 2016-028)

### 8.3 ZONE PROVISIONS

No person shall within any 'Hamlet Residential (HR)' zone use any lot or erect or use any building or structure except in accordance with the following provisions:

Provisions: NEW LOT OF RECORD – No Municipal Water Service Connected			
	Semi-Detached & Duplex	Single Detached Dwelling	
Minimum Lot Area	0.625 hectares (1.55 ac) <b>or</b> 0.313 hectares (0.77 ac) for each Semi- Detached Dwelling Unit to be erected on a separate lot of record	0.5 hectares (1.24 ac)	
Minimum Lot Frontage	50 metres (164 ft) <b>or</b> 25 metres (82 ft) for each Semi-Detached Dwelling Unit to be erected on a separate lot of record		

Minimum Front Yard and Exterior Side Yard	16 metres (52.5 ft)		
Minimum Rear Yard	50 metres (164 ft)		
Minimum Side Yard	11.5 metres (38 ft) <sup>(a)</sup>		
Minimum Floor Area,	90 m <sup>2</sup> (969 ft <sup>2</sup> ) per Semi-Detached Not applicable		
Gross	Unit or Duplex Dwelling Unit		
Minimum Floor Area,	Not applicable 70 m <sup>2</sup> (753 ft <sup>2</sup> )		
Ground	[greater than 1 storey]		
	90 m² (969 ft²) [1 storey only]		
Maximum Building	10 metres (33 ft)		
Height Main Building			
Maximum Lot	15%		
Coverage			

## <u>Footnotes</u>

(a) The abutting side yard requirement for one unit of a Semi-Detached Dwelling on a separately titled lot shall be zero metres (0 ft).

	Semi-Detached & Duplex	Single Detached Dwelling	
Minimum Lot Area	0.41 hectares (1.01 ac) or 0.205	0.325 hectares (0.81 ac)	
	hectares (0.51 ac) for each Semi-		
	Detached Unit to be erected on a		
	separate lot of record		
Minimum Lot Frontage	40 metres (131 ft) <b>or</b> 20 metres (66	40 metres (131 ft)	
	ft) for each Semi-Detached Unit to		
	be erected on a separate lot of		
	record		
Minimum Front Yard and	16 metres	16 metres (52.5 ft)	
Exterior Side Yard			
Minimum Rear Yard	30 metres	s (98 ft)	
Minimum Side Yard	10 metres	(33 ft) <sup>(a)</sup>	
Minimum Floor Area	90 m² (969 ft²) per Semi-	Not applicable	
Gross	Detached Unit or Duplex Dwelling		
	Unit		
Minimum Floor Area	, Not applicable	70 m <sup>2</sup> (753 ft <sup>2</sup> )	
Ground	[greater than 1 storey]		
		90 m² (969 ft²) [1 storey only]	
Maximum Building Heigh	10 metres (33 ft)		
Main Building			
Maximum Lot Coverage	20%		

<u>Footnotes</u>

(a) The abutting side yard requirement for one unit of a Semi-Detached Dwelling on a separately titled lot shall be zero metres (0 ft).

	Semi-Detached & Duplex	Single Detached Dwelling	
Minimum Lot Area	Not applicable		
Minimum Lot Frontage	Not applicable		
Minimum Front Yard and Exterior Side Yard	7.5 metres (25 ft)		
Minimum Rear Yard	10 metres (33 ft)		
Minimum Side Yard	3 metres (10 ft) on one side & 1.5 metres (5 ft) on the other side <sup>(a)</sup>		
Minimum Floor Area, Gross	90 m <sup>2</sup> (969 ft <sup>2</sup> ) per Semi-Detached Unit or Duplex Dwelling Unit	Not applicable	
Minimum Floor Area, Ground	Not applicable	70 m² (753 ft²) [greater than 1 storey], 90 m² (969 ft²) [1 storey only	
Maximum Building Height Main Building	10 metres (33 ft)		
Maximum Lot Coverage	15%		

### <u>Footnotes</u>

(a) The abutting side yard requirement for one unit of a Semi-Detached Dwelling on a separately titled lot shall be zero metres (0 ft).

## 8.4 SPECIAL PROVISIONS

Township of Brant By-Law #96-1239 (Part Lot 19, Concession B)

.1 Notwithstanding their 'HR' Zoning designation, those lands delineated as '**HR-1**' on Schedule 'A' shall be used in accordance with the 'HR' Zone provisions contained in this By-Law excepting however that:

A maximum of two (2) semi-detached dwellings may be permitted on the lands;

No basements or cellars shall be permitted.

Township of Brant By-Law #86-1063 (Lot 23, Concession 'A')

- .2 Notwithstanding their 'HR' Zoning designation, those lands delineated as **'HR-2'** on Schedule 'A' shall only be used for the purposes of an 'Apartment' as it existed on the date of passage of this By-Law, excepting however that:
  - i. 'Apartment' means a building or structure consisting of five (5) or more dwelling units,

which units have a common entrance from the street level and the occupants of which obtain access to their dwelling units through common halls; and,

ii. The maximum number of dwelling units shall be six (6) - two bedroom units.

Municipality of Brockton By-Law #2004-17 (Lots 51, 55 & 78, Plan 150 & Plan 258) Elmwood

- .3 Notwithstanding their 'HR' Zoning designation, those lands delineated as **'HR-3'** on Schedule 'A' to this By-law shall only be used in accordance with the 'HR' Zone Permitted Uses and Zone Provisions contained in this By-Law excepting however that:
  - i. <u>Section 3.20</u> 'Watercourse Setbacks' shall not apply to buildings and structures existing as of the date of passage of this By-law.

Municipality of Brockton By-Law # 2010-21 (Luce, Part of Lot 71, Plan 258 (Part 1 on RP 3R 5622)

.4 Notwithstanding their 'HR' Zoning designation, those lands delineated as **'HR-4'** on Schedule "A" to this by-law shall be used in compliance with the 'HR' Zone provisions contained in this by-Law, excepting however, that:

- i. The permitted uses shall be limited to an 'Apartment', as existing on the date of passage of this By-Law;
- ii. For the purposes of this by-law, 'apartment' shall be defined as a building or structure consisting of five (5) or more dwelling units, which units have independent entrances to a front and rear yard; and
- iii. Minimum lot frontage shall be no less than 26 metres.
- .5 Notwithstanding their 'HR' zoning designation those lands delineated as '**HR-5'** on Schedule "A" to this By-Law shall be used incompliance with the 'HR' Zone provisions contained in this By-law, excepting however, that:
  - i. Minimum lot frontage shall be no less than 26 metres;
  - ii. Minimum front yard shall be no less than 7.5 metres;
  - iii. Minimum rear yard shall b no less than 10 metres; and,
  - iv. Minimum side yard shall be no less than 5 metres.

Township of Greenock By-law #93-4 (Part of Lots 27 & 28, Concession 1 SDR, geographic Township of Greenock)

- .6 Notwithstanding their 'HR' Zoning designation, those lands delineated as **'HR-6'** on Schedule 'A' to this By-law shall be used in accordance with the 'HR' Zone provisions contained in this By-law, excepting however, that:
  - i. Minimum front yard shall be no less than 4.5 metres;
  - ii. Minimum westerly side yard shall be no less than 3.4 metres; and,
  - iii. Minimum rear yard shall be no less than 0.9 metres.

Municipality of Brockton By-law #2000-4 (Part of Lot 22, Concession A, being Parts 1 & 2 on 3R-7193 Cargill, geographic Township of Greenock)

.7 Notwithstanding their 'HR' Zoning designation, those lands delineated as **'HR-7'** on Schedule 'A' to this By-law shall be used in accordance with the 'HR' Zone provisions

contained in this By-law, excepting however, that:

i. Minimum lot frontage shall be no less than 9.8 metres.

Municipality of Brockton By-law #2005-76 (Hehn/Kelly, Part of Lot 60, Concession 1 SDR, being Part 1 on 3R-562, geographic Township of Greenock)

- .8 Notwithstanding their 'HR' Zoning designation, those lands delineated as **'HR-8'** on Schedule 'A' to this By-law shall be used in accordance with the 'HR' Zone provisions contained in this By-law, excepting however, that:
  - i. Minimum exterior side yard shall be no less than 6.0 metres for the 'dwelling unit' as it exists on the date of passing of this By-law;
  - ii. Minimum side yard shall be no less than 1.7 metres for the accessory building as it exists on the date of passing of this By-law;
  - iii. Minimum rear yard setback shall be no less than 5.1 metres for the accessory building as it exists on the date of passing of this By-law; and,
  - iv. Maximum lot coverage shall not exceed 12%.
- .9 Notwithstanding their 'HR' Zoning designation, those lands delineated as **'HR-9'** on Schedule 'A' to this By-law shall be used in accordance with the 'HR' Zone provisions contained in this By-law, excepting however, that:
  - i. The following residential buildings shall be permitted: 'dwelling, single detached'; 'dwelling, duplex'; and, 'dwelling, multiple'; and,
  - ii. Minimum rear yard setback shall be no less than 8.1 metres for the 'dwelling, multiple' as it exists on the date of passing of this By-law.

Municipality of Brockton By-law #2012-52 (Brunner/Becker, Part of Lot 34, Concession 10 being Part of Park Lot 1 RP 3R-1095, Part 11 3R-1856 and Part 5 3R-6863, Municipality of Brockton (geographic Township of Brant)

- .10 Notwithstanding their 'HR' Zoning designation, those lands delineated as **'HR-10'** on Schedule 'A' to this By-law shall be used in accordance with the 'HR' Zone provisions contained in this By-law, excepting however, that:
  - i. Minimum lot area shall be 1.0 hectare; and,
  - ii. Site Plan Control Agreement shall be registered on title.
- .11 Notwithstanding their 'HR' Zoning designation, those lands delineated as 'HR-11' on Schedule 'A' to this By-law shall be in accordance with the 'HR' Zone provisions contained in this By-law, excepting however, that:
  - i. Minimum lot area shall be 1.0 hectare; and,
  - ii. Site Plan Control Agreement shall be registered on title.

## SECTION 9 - INLAND LAKE RESIDENTIAL (LR

## 9.1 SCOPE

The provisions of Section 9 apply only on lands designated 'Inland Lake Development Area' on Schedule 'A': Land Use of the County of Bruce Official Plan.

## 9.2 USES PERMITTED

### Modified by By-law 2015-039 (Housekeeping #1)

No person shall within the 'Inland Lake Residential (LR)' zone use any lot or erect, alter or use any building or structure for any purpose except for one or more of the following uses:

- (a) <u>Residential Uses</u>
  - Dwelling, Single Detached
  - Group Home Type One
  - Home Occupation -Domestic & Professional Uses in accordance with <u>Section 3.9</u>
  - Home Occupation Bed and Breakfast Establishment in accordance with <u>Section 3.10</u>
  - Public Park
  - Uses, buildings and structures accessory to a permitted use as per Section 3.6
  - Home Child Care (added by By-Law 2016-028)
  - Unlicensed Child Care (added by By-law 2016-028)

### 9.3 ZONE PROVISIONS

No person shall within any 'Inland Lake Residential (LR)' zone use any lot or erect, alter or use any building or structure except in accordance with the following provisions:

Provisions	Requirement		
Minimum Lot Area	1 hectare (2.47 acres)		
	0.4 hectares (0.99 ac) <sup>(b)</sup>		
Minimum Lot Frontage	30 metres (98 ft)		
Minimum Front Yard or	6 metres (20 ft)		
Exterior Side Yard			
Minimum Rear Yard	7.5 metres (25 ft)		
Minimum Side Yard	1.5 metres (5 ft) <sup>(c)</sup>		
Minimum Floor Area,	70 m <sup>2</sup> (753 ft <sup>2</sup> ) [greater than 1 storey] <sup>(d)</sup>		
Ground	90 m <sup>2</sup> (969 ft <sup>2</sup> ) [1 storey only] <sup>(d)</sup>		
Maximum Building Height – Main Building	10 metres (33 ft) <sup>(e)</sup>		
Maximum Lot Coverage	15%		

Provisions	Requirement
Setback to Water's Edge <sup>(a)</sup>	.1 No closer than 15 metres from closest point of water's edge; or
- Existing Lot of Record <sup>(b)</sup>	.2 If an Existing Dwelling is located on the Lot and any part of the Existing Dwelling is located within 10 metres of the closest point of waters edge:
	(i) If the Existing Dwelling is demolished, a new Dwelling shall be located no closer than 15 metres from the closest point of water's edge and all other Requirements shall be fulfilled.
	(ii) An Existing Dwelling may be strengthened to a safe condition or renovated provided there is no increase in building footprint, total floor area, storeys or height. The setback to the closest point of water's edge shall be maximized.
	(iii) If there is 10% or less of the Existing Dwelling building footprint within 10 metres of the closest point of waters edge, the Existing Dwelling may be expanded/enlarged provided that no portion of the expansion/enlargement is closer to the water's edge than 10 metres and all other Requirements are fulfilled. The setback to the water's edge shall be maximized.
	(iv) If there is 11% or more of the Existing Dwelling footprint within 10 metres of the water's edge no further enlargement or expansion to the Existing Dwelling shall be permitted.
	(v) The policies of <u>Section 3.5.1</u> Enlargements, Repairs and Renovations – Legal Non–Complying shall not apply; or
	.3 If an Existing Dwelling is located on the Lot and any part of the Existing Dwelling is located within 15 metres but no closer than 10 metres of the water's edge:
	(i) If the Existing Dwelling is demolished, a new Dwelling shall be located no closer than 15 metres from the water's edge and all other Requirements shall be fulfilled.
	(ii) The Existing Dwelling may be expanded/enlarged/renovated provided that no portion of the expansion/enlargement/renovation is closer to the water's edge than the Existing Dwelling and all other Requirements are fulfilled. The setback to the water's edge shall be maximized.
	(iii) The policies of <u>Section 3.5.1</u> Enlargements, Repairs and Renovations – Legal Non–Complying shall not apply.
Setback to Waters Edge <sup>(a)</sup> –	30 metres
New Lot of Record <sup>(b)</sup>	
Watercourse Setbacks	Section 3.20 'Watercourse Setbacks' shall not apply.

## <u>Footnotes</u>

- (a) The Water's Edge shall apply to Lake Rosalind, Marl Lake, Pearl Lake and Dankert Lake.
- (b) Applies to a 'Water Lot' only.
- (c) Provided the sewage disposal system is located in the front yard and a garage, carport or similar parking structure is provided. Where the sewage disposal system is located in the rear yard and/or no garage, carport or similar parking structure is provided there shall be one side yard of at least 3 metres (10 ft.). *Modified by By-Law 2015-039 Housekeeping #1*
- (d) In no circumstance shall the 'Maximum Lot Coverage' provision exceed 15%. The 'Minimum Ground Floor Area' may be reduced without an amendment to this By-law to allow for a 'Maximum Lot Coverage' of no more than 15%.
- (e) The 'Maximum Building Height Main Building' for buildings and structures on a 'Water Lot' shall not exceed 10 metres and shall be solely measured and based on the height of the facade of the building or structure that fronts onto the water.

## 9.4 PROVISIONS FOR ISLAND DEVELOPMENT

Notwithstanding the provisions of the 'LR' zone, no person shall erect and/or use any building or structure on an island except in accordance with the following provisions:

Minimum Lot Area Above High Water Mark	2 hectares (5 acres)
Minimum Sewage Disposal System Setback	30 metres (100 ft)
from High Water Mark	
Minimum Building Setback From High Water Mark	15 metres (49.2 ft)

### 9.5 SPECIAL PROVISONS

Township of Brant By-Law #96-1231 (Part Lot 66, 67, Concession 2 NDR)

- .1 Notwithstanding their 'LR' Zoning designation, those lands delineated as 'LR-1' on Schedule 'A' shall be used in accordance with the 'LR' Zone provisions contained in this By-Law excepting however that:
  - i. The normal water level of the lake shall mean an elevation of 272 metres above sea level.
  - ii. The finished floor level of the basement of a single detached dwelling shall be no lower than 1.5 metres above the normal water level of the lake;

Township of Brant By-Law #84-990, #86-1061, #89-1052 (Pt. Lot 32, 33, Con. 6 & Con. 7)

- .2 Notwithstanding their 'LR' Zoning designation, those lands delineated as **'LR-2'** on Schedule 'A' shall only be used only for a 'seasonal dwelling' in accordance with the 'LR' Zone provisions contained in this By-Law excepting however that:
  - i. No frontage on a Class 1 or Class 2 road shall be required;
  - ii. Home Occupations and a Group Home Type One are not permitted uses.

Township of Brant By-Law #97-1248 (Part of Lot 31 & 32, Concession 4 - Lake Rosalind)

- .3 Notwithstanding their 'LR' Zoning designation, those lands delineated as **'LR-3'** on Schedule 'A' may be in accordance with the 'LR' Zone provisions contained in this By-Law excepting however that:
  - i. A 30 metre buffer, in its natural state, shall be maintained from the high water mark of Lake Rosalind.

Township of Brant By-Law #2004-31 (Part Lot 66, Concession 2 NDR)

- .4 Notwithstanding their 'LR' Zoning designation, those lands delineated as '**LR-4**' on Schedule 'A' shall be used in accordance with the 'LR' Zone provisions contained in this By-Law excepting however that:
  - i. The minimum lot area shall be 1.82 ha (4.5 acres);
  - ii. The minimum setback from the high water mark of the lake for all buildings or structures shall be no less than 30 metres (98.41 ft).

Township of Brant By-Law #2004-31 (Part Lot 66, Concession 2 NDR)

- .5 Notwithstanding their 'LR' Zoning designation, those lands delineated as 'LR-5' on Schedule 'A' shall be used in accordance with the 'LR' Zone provisions contained in this By-Law excepting however that:
  - i. The minimum lot area shall be 1.82 ha (4.5 acres
  - ii. The minimum setback from the high water mark of the lake for all buildings or structures shall be no less than 30 metres (98.41 ft).

Township of Brant By-Law #2001-45 (Lot 71 and Part Lot 71, Concession 3 NDR)

- .6 Notwithstanding their 'LR' Zoning designation, those lands delineated as **'LR-6'** on Schedule 'A' shall be used in accordance with the 'LR' Zone provisions contained in this By-Law, excepting however that:
  - i. The minimum lot area shall be 875.0 square metres;
  - ii. The minimum lot frontage shall be 25.0 metres.

Township of Brant By-Law #2001-45 (Lot 71 and Part Lot 71, Concession 3 NDR)

- .7 Notwithstanding their 'LR' Zoning designation, those lands delineated as **'LR-7'** on Schedule 'A' shall be used in accordance with the 'LR' Zone provisions contained in this By-Law, excepting however that:
  - i. The minimum lot frontage shall be 15.24 metres.

Township of Brant By-Law #97-1248 (Part Lot 31 and Part Lot 32, Concession 4)

- .8 Notwithstanding their 'LR' Zoning designation, those lands delineated as **'LR-8'** on Schedule 'A' shall be used in accordance with the 'LR' Zone provisions contained in this By-Law, excepting however that:
  - i. The minimum lot area shall be 8.9 ha (22 acres).

By-law #2014-029 (Part Lot 32 Concession 4 Brant, Parts 1, 2 and 3 RP 3R7920 and Part 1 RP 3R9501) Allen Z-5-14.34

- .9 Notwithstanding their 'LR' Zoning designation, those lands delineated as **'LR-9'** on Schedule 'A' shall be used in accordance with the 'LR' Zone provisions contained in this By-Law, excepting however that:
  - i. Minimum front yard setback shall be 4.5 metres (14.8 feet).

#### SECTION 10 - MOBILE HOME PARK RESIDENTIAL (MHP

#### 10.1 SCOPE

The provisions of Section 10 apply only on lands designated 'Hamlet' on Schedule 'A': Land Use of the County of Bruce Official Plan.

#### 10.2 USES PERMITTED

No person shall within any 'Mobile Home Park Residential (MHP)' zone use any lot or erect, alter or use any building or structure for any purpose except for one or more of the following uses:

#### (a) <u>Residential Uses</u>

- One 'Dwelling, Accessory Detached' in accordance with <u>Section 3.8.2</u> exclusively for the use of the owner, manager or a caretaker of the mobile home park.
- Mobile Home Park
- Mobile Home Park Lot
- Mobile Home
- Park Model Trailer
- Buildings, structures and uses accessory to a permitted use in accordance with <u>Section 10.4</u> Additional Provisions: Mobile Home Parks

#### 10.3 ZONE PROVISIONS

No person shall use within a 'Mobile Home Park Residential (MHP)' zone any lot or erect, alter or use any building or structure except in accordance with the following zone provisions:

Provisions	Mobile Home Park	
Minimum Lot Area	4 hectares (10 ac)	
Minimum Lot Frontage 30 m (98 ft)		
Minimum Front, Side & Rear Yards	7.5 m (25 ft)	
Maximum Building Height	10 m (33 ft)	
Maximum Density 25 mobile homes per gross hectare		
Mobile Home Park Open Space	Not less than 5% of gross Park area	

Provisions	Mobile Home Site
Minimum Lot Area	325 m <sup>2</sup> (1938 ft <sup>2</sup> )
Minimum Lot Frontage	13 m (43 ft)
Minimum Setback - Front	3 m (10 ft)
Minimum Setback - Side	2 m (7 ft)
Minimum Setback- Rear	3 m (10 ft)
Minimum Mobile Home Unit Floor Area	55 m <sup>2</sup>
Maximum Lot Coverage	35%

## 10.4 ADDITIONAL PROVISIONS – MOBILE HOME PARKS

#### .1 Access & Roads

Each mobile home site within a mobile home park shall be located on an internal mobile home park road which shall have a dust free surface and shall be a minimum traveled width of 4 metres (13 ft) for one-way traffic and 6 metres (20 ft) for two-way traffic flow.

### .2 <u>Services</u>

Each mobile home site/mobile home located within a mobile home park shall be provided with a communal or municipal water system, appropriate sewage disposal facilities, solid waste disposal, storm drainage, electrical service, street lighting, telephone and road maintenance.

### .3 <u>Parking</u>

Each mobile home site shall be provided with one car parking space and visitor parking shall be provided on the basis of one space for every three (3) mobile home sites.

## .4 Additions and Accessory Structures - Mobile Home Site

Additions to mobile homes and buildings and structures accessory to mobile homes shall be permitted provided that the yard setback and lot coverage provisions for the lot are maintained. No more than two (2) accessory buildings or structures shall be permitted on a mobile home site.

### .5 <u>Accessory Structures – Mobile Home Park</u>

Buildings and structures accessory to mobile homes shall be permitted provided that the yard and setback provisions for the mobile home park are maintained. The minimum separation between a permitted accessory use and a mobile home site shall be no less than 10 metres (33 ft).

## .6 <u>Mobile Home Site Planting Area</u>

A planting area having a minimum width of 1 metre (3 ft) and consisting of a dense screen of shrubs and evergreen trees, minimum 1 metre (3 ft) high when planted, providing a year round visual barrier, shall be planted and maintained along the side and rear lot lines of all mobile home sites.

## .7 <u>Mobile Home Park Planting Area/Visual Screening</u> A Planting Area/Visual Screening shall be provided around a mobile home park as per Section 3.15.

## .8 <u>Site Plan Control</u>

A mobile home park may be subject to Site Plan Control as per the Planning Act RSO 1990

## 10.5 SPECIAL PROVISIONS

## SECTION 11 - HAMLET COMMERCIAL (HC

## 11.1 SCOPE

## Modified by By-law 2015-039 (Housekeeping #1)

The provisions of Section 11 apply only on lands designated 'Hamlet' or 'Secondary Urban Area' on Schedule 'A': Land Use of the County of Bruce Official Plan.

### 11.2 USES PERMITTED

No person shall within the 'Hamlet Commercial (HC)' zone use any lot or erect, alter or use any building or structure for any purpose except one or more of the following uses:

- (a) <u>Residential Uses</u>
  - Dwelling, Accessory Apartment in accordance with <u>Section 3.8.1</u> exclusively for the use of the owner or a manager of a 'Hotel/Motel'.
  - Dwelling, single detached existing at the date of passage of this By-Law in accordance with <u>Section 8</u> Hamlet Residential (HR) Zone provisions.
  - Home Occupation Domestic and Professional Uses in accordance with <u>Section</u> <u>3.9</u> [in a Dwelling, Single detached only].
  - Home Occupation Bed & Breakfast Establishment in accordance with <u>Section</u> <u>3.10</u> [in a Dwelling, single detached only].

## (b) <u>Non-Residential Uses</u>

- Assembly Hall
- Automobile Gas Bar
- Automobile Repair Establishment
- Automobile Sales Establishment
- Automobile Service Station
- Business or Professional Office
- Child Care Centre' (added by By-law 2016-028)
- Fitness Centre
- Hotel/Motel
- Laundromat
- Marine, Recreation and Small Engine Establishments

- Personal Service Establishment
- Public Park
- Parking Lot
- Public Park
- Restaurant
- Restaurant, Take-Out
- Restaurant, Portable Food Outlet
- Retail Store under 139 m<sup>2</sup> (1500 ft<sup>2</sup>) in 'Retail Floor Area'
- Travel Trailer Sales Establishment
- Veterinary Clinic Small Animal
- Video Outlet/Rental Establishment
- Buildings, structures and uses accessory to a permitted use in accordance with <u>Section 3.6</u>

# 11.3 ZONE PROVISIONS

No person shall within any 'Hamlet Commercial (HC)' zone use any lot or erect, alter or use any building or structure except in accordance with the following provisions:

Provisions	Lots with Municipal Water Lots with No Municipal Water			
Minimum Lot Area	0.328 hectares (0.81 ac) 0.5 hectares (1.24 ac)			
Minimum Lot Frontage	30 metres (100 ft)			
Minimum Front Yard or	7.5 metres (25 ft)			
Exterior Side Yard				
Minimum Side Yard	5 metres (16.5 ft)			
Minimum Rear Yard	10 metres (33 ft)			
Maximum Building Height	10 metres (33 ft)			
Main Building				
Maximum Lot Coverage	25% 15%			

## 11.4 ADDITIONAL PROVISIONS -GASOLINE PUMPS, NATURAL GAS AND PROPANE FACILITIES

- .1 <u>Minimum setbacks for gasoline pumps, natural gas and/ or propane facilities</u>
   All gasoline pumps, natural gas and/ or propane facilities shall be setback a minimum of
   7.5 metres (25 ft) from the curbing of the pump island to the street line.
- .2 <u>Entry Ramps</u>

Notwithstanding the provisions of <u>Section 3.26</u>, there shall be no more than one entry ramp for each 15 metres (50 ft) of street frontage and the width of any entry ramp shall not exceed 9 metres (30 ft) at the street line.

# .3 <u>Minimum Front or Exterior Side Yard</u>

Notwithstanding the provisions of <u>Section 11.3</u>, the minimum front or exterior side yard shall be 15 metres (50 ft).

## .4 <u>Surfacing</u>

Notwithstanding the provisions of <u>Section 3.26</u> the surfaces of all ramps, driveways, service areas and off-street loading areas shall be surfaced with a capped, hard top substance such as asphalt, or other stable surface treated to prevent the raising of dust and/or loose particles.

# 11.5 OFF-STREET PARKING REGULATIONS

Notwithstanding the minimum number of off-street parking spaces required by <u>Section</u> <u>3.26.1</u>, where a dwelling is located in a non-residential building, a minimum of one parking space shall be provided for each dwelling contained therein on site.

### 11.6 SPECIAL PROVISIONS

Township of Brant By-Law #92-1142 (Part Lot 1 & 2, Plan 237, Cargill)

- .1 Notwithstanding their 'HC' Zoning designation, those lands delineated as **'HC-1'** on Schedule 'A' shall only be used for the purposes of 'Automobile Sales Establishment' as it existed on the date of passage of this By-Law, and in accordance with the 'HC' Zone provisions contained in this By-Law excepting however that:
  - i. No outside storage or display of 'Motor Vehicles' shall be permitted.

Township of Brant By-Law #87-1090 (Lang's - Part Lot 56, Plan 150, Elmwood)

.2 Notwithstanding their 'HC' Zoning designation, those lands delineated as **'HC-2'** on Schedule 'A' shall only be used for the purposes of a 'Trades Person's Shop' as it existed on the date of passage of this By-Law, and in accordance with the 'HC' Zone provisions contained in this By-Law.

Township of Brant By-Law #81-855 (Lot 34, Concession 10, Elmwood)

.3 Notwithstanding their 'HC' Zoning designation, those lands delineated as **'HC-3'** on Schedule 'A' shall only be used for the purposes of a 'Farm Implement Establishment' as it existed on the date of passage of this By-Law, and in accordance with the 'HC' Zone provisions contained in this By-Law.

Municipality of Brockton By-Law #2001-37 (Bard - Part of Lot 68, Part Lot 69, Plan 258, Elmwood)

- .4 Notwithstanding their 'HC' Zoning designation, those lands delineated as **'HC-4-H'** on Schedule 'A' shall be used in accordance with the 'HC' Zone provisions contained in this By-Law, excepting however that:
  - i. The 'Non-Residential Uses' shall be limited to a 'Convenience Store', 'Retail Store', 'Personal Service Establishment', and a 'Business or Professional Office'.
  - ii. The 'maximum retail floor area per non-residential use' shall be limited to no more than 37.16 m<sup>2</sup> (400 ft<sup>2</sup>);
  - iii. 'Section 3.15 Planting Area/Visual Screening' shall not apply;
  - iv. The 'minimum side yard' along the north side lot line shall be no less than 4.4 metres;
  - v. The 'minimum front yard' shall be no less than 7.6 metres;
  - vi. The 'minimum lot frontage' shall be no less than 23.7 metres (78 ft);
  - vii. The 'minimum lot area' shall be no less than 724.62 m<sup>2</sup> (7800 ft<sup>2</sup>).
  - viii. The 'H Holding' provision may be removed once the following condition has been met:
    - a. A statement from the Municipality indicating that a satisfactory 'cash-in-lieu' of parking arrangement has been made with the owner(s) of the subject lands.

Municipality of Brockton By-law #2011-54 (Scott - Part of Lot 19, Concession B, Eden Grove)

- .5 Notwithstanding their 'HC' Zoning designation, those lands delineated as **'HC-5'** on Schedule 'A' to this By-law shall be used in accordance with the 'HC' Zone provisions contained in this By-law, excepting however, that:
  - i. Uses permitted shall be limited to an 'automobile wrecking yard'.

Municipality of Brockton By-law #2011-86 (Scott - Part of Lot 19, Concession B, Eden Grove)

- .6 Notwithstanding their 'HC' Zoning designation, those lands delineated as **'HC-6'** on Schedule 'A' to this By-law shall be used in accordance with the 'HC' Zone provisions contained in this By-law, excepting however, that:
  - i. Uses permitted shall be limited to 'landscaped open space'.

## SECTION 12 - TRAVEL TRAILER PARK AND CAMPGROUND (TTP

## 12.1 SCOPE

The provisions of Section 12 shall generally apply to lands designated as 'Recreation & Open Space' on Schedule 'A' – Land Use of the Walkerton Community Official Plan or designated as 'Travel Trailer Park and Commercial Campground Area' on Schedule 'A': Land Use of the County of Bruce Official Plan.

#### 12.2 USES PERMITTED

No person shall within a 'Travel Trailer Park and Campground (TTP)' zone use any lot or erect, alter or use any building or structure for any purpose except one or more of the following uses.

- a) <u>Residential Uses</u>
  - 'Dwelling, Accessory Detached' in accordance with <u>Section 3.8.2</u> exclusively for the use of the owner or a caretaker.
- b) Non-Residential Uses
  - Campground

#### 12.3 ZONE PROVISIONS

No person shall within any 'Travel Trailer Park and Campground (TTP)' zone use any lot or erect, alter or use any building or structure except in accordance with the following provisions:

Provisions	Non-Residential Uses
Minimum Lot Area Campground	2 hectares (5 ac)
Maximum Lot Area Campground	12 hectares (30 ac)
Minimum Lot Frontage Campground	60 metres (197 ft)
Minimum Set Back All Uses – All Lot Lines	7.5 metres (25 ft)
Minimum Area of Campsite	235 m <sup>2</sup> (2530 ft <sup>2</sup> )
Minimum Width of Campsite	15 metres (49 ft)
Maximum Density of Campsites	30 campsites per hectare
per Campground	(12 campsites per acre)
Maximum Number of Campsites	300
per Campground	
Minimum Open Space per Campground	17%

## 12.4 ADDITIONAL PROVISIONS – TRAVEL TRAILER PARK AND CAMPGROUND

### .1 Access & Roads

Each campsite within a Travel Trailer Park and Campground shall be located on an internal access road which shall have a dust free surface and shall be a minimum travelled width of 4 metres (13 ft) for one-way traffic and 6 metres (20 ft) for two-way traffic flow.

### .2 <u>Services</u>

The Travel Trailer Park and Campground shall provide a communal or municipal water system, appropriate sewage disposal facilities, solid waste disposal, storm drainage, telephone and road maintenance.

### .3 <u>Parking</u>

Each campsite shall be provided with one car parking space and visitor parking shall be provided on the basis of one space for every three (3) campsites.

## .4 Campsite Planting Area

A planting area having a minimum width of 1 metre (3 ft) and consisting of a dense screen of shrubs and evergreen trees, minimum 1 metre (3 ft) high when planted shall be planted and maintained along the side and rear of all campsites.

# .5 <u>Travel Trailer Park and Campground Planting Area/Visual Screening</u> A Planting Area/Visual Screening shall be provided around a mobile home park as per <u>Section 3.15</u>.

## .6 <u>Site Plan Control</u>

A Travel Trailer Park and Campground may be subject to Site Plan Control as per the Planning Act RSO 1990.

## 12.5 SPECIAL PROVISIONS

## SECTION 13 - COMMERCIAL ZONES (C1, C2 & C3)

# 13.1 SCOPE

The provisions of the 'Central Business District (C1)' zone shall generally apply to lands designated 'Historic Walkerton', the provisions of the 'Transition Commercial (C2)' zone shall generally apply to lands designated 'Community Core' and the provisions of the 'Highway Commercial (C3)' zone shall generally apply to lands designated 'Highway Commercial' on Schedule 'A' – Land Use Plan for the Walkerton Community Official Plan.

## 13.2 USES PERMITTED

No person shall within a 'Central Business District (C1)' zone, 'Transition Commercial (C2)' zone or 'Highway Commercial (C3)' zone use any lot or erect, alter or use any building or structure for any purpose except the following:

RESIDENTIAL PERMITTED USES			
	Central Business District (C1)	Transition Commercial (C2)	Highway Commercial (C3)
'Dwelling, Single Detached' existing at the date of passing of this By-Law as per <u>Section 7.3</u> Provisions of the 'R1' & 'R2' Zones	~	~	1
'Home Occupation- Domestic and Professional Use' in a Dwelling, Single Detached existing at the date of passing of this By-Law and as per <u>Section</u> 3.9	~	~	1
'Home Occupation – Bed & Breakfast Establishment' in a 'Dwelling, Single Detached' existing at the date of passing of this By-Law and as per <u>Section</u> <u>3.10</u>	✓	~	~
'Dwelling, Accessory Apartment' as per <u>Section 3.8.1</u>	✓	~	✓
Accessory Buildings & Structures as per <u>Section 3.6</u>	✓	~	✓
'Home Child Care' in a 'Dwelling, Single Detached' existing at the date of passing of this by-law as	✓	✓	√

per Section 7.3 Provisions of the 'R1' and 'R2' Zones <i>(added by By- law 2016-028)</i>			
'Unlicensed Child Care' in a 'Dwelling, Single Detached' existing at the date of passing of this By-Law as per Section 7.3 Provisions of the 'R1' and 'R2' Zones (added by By-law 2016- 028)	✓	✓	✓

NON-RESIDENTIAL PERMITTED USES						
	Central Business District (C1)	Transition Commercial (C2)	Highway Commercial (C3)			
Accessory Buildings & Structures as per <u>Section 3.6</u>	√	✓	✓			
Artisan Studio	✓	✓	Not Permitted			
Assembly Hall	✓	✓	Not Permitted			
Automobile Car Wash	Not Permitted	✓	✓			
Automobile Gas Bar	Not Permitted	✓	✓			
Automobile Sales Establishment	Not Permitted	✓	✓			
Automobile Service Station	Not Permitted	✓	✓			
Bus Depot	Not Permitted	Not Permitted	✓			
Business or Professional Office	✓	✓	Not Permitted			
Clinic	$\checkmark$	$\checkmark$	Not Permitted			
Commercial Motor Vehicle	Not Permitted	Not Permitted	✓			
Repair Establishment						
Commercial Motor Vehicle Sales	Not Permitted	Not Permitted	✓			
Establishment		✓				
Convenience Store	• 	<b>▼</b>	Not Permitted			
Day Nursery (deleted by By-law 2016-028)	*	~	Not Permitted			
Child Care Centre <i>(added by By-</i> <i>law 2016-028)</i>	✓	✓	Not Permitted			
Fitness Centre	✓	✓	Not Permitted			
Funeral Home	✓	✓	√			
Garden Centre	Not Permitted	✓	✓			
Hotel/Motel	✓	✓	✓			
Parking Lot	✓	✓	✓			
Personal Service Establishment	✓	✓	Not Permitted			

Commercial Zones (C1, C2, C3)

Public Building	✓	✓	Not Permitted
Public Utility Building	Not Permitted	✓	✓
Public Park	$\checkmark$	✓	✓
Recreation Centre	✓	✓	✓
Recycling Depot	Not Permitted	✓	✓
Rental Establishment	Not Permitted	Not Permitted	✓
Restaurant	✓	✓	✓
Restaurant, Take-Out	✓	✓	✓
Retail Store	✓	✓	Not Permitted
Retail, Large Format	Not Permitted	Not Permitted	✓
Service Establishment	✓	✓	✓
Tavern	✓	✓	Not Permitted
Veterinary Clinic - Small Animal	✓	✓	$\checkmark$

## 13.3 ZONE PROVISIONS

No person shall within the 'C1', 'C2' or 'C3' zones use any lot or erect, alter or use any building or structure except in accordance with the following provisions:

Zone Provisions: Connected to Municipal Water and Municipal Sewer Service					
	Central Busine District (C1)		Transition Commercial (C2)	Highway Commercial (C3)	
Minimum Lot Area	465 m <sup>2</sup> (5,005 ft	<sup>2</sup> )	465 m <sup>2</sup> (5,005 ft <sup>2</sup> )	2,000 m <sup>2</sup> (21,529 ft <sup>2</sup> )	
Minimum Lot Frontage	15 metres (50 ft)		15 metres (50 ft)	30 metres (98 ft)	
Minimum Front Yard	0 metres (0 ft)		6 metres (20 ft)	7.5 metres (25 ft)	
Minimum Exterior Side Yard	0 metres (0 ft)		6 metres (20 ft)	7.5 metres (25 ft)	
Minimum Interior Side Yard	0 metres (0 ft)		1.2 metres (4 ft)	3 metres (10 ft) (c)	
Minimum Rear Yard	6 metres (20 ft) (a)		7.5 metres (25 ft)	7.5 metres (25 ft)	
Maximum Building Height - 'Main Building'	10 metres (33 ft)		10 metres (33 ft)	10 metres (33 ft)	
Maximum Lot Coverage	Not Applicable		35%	50%	
Landscaped Open Space	Not Applicable As per <u>Section 3.16</u> Landscaped Open Space				
Open Storage & Outdoor Display	As per <u>Section 3.17</u> Open Storage & Outdoor Display Areas				
Planting Area/Visual Screening	Not Applicable As per <u>Section 3.15</u> Planting Area/Visual Screening				

# Explanatory Note:

All uses in the C1, C2 and C3 zones may be subject to Site Plan Control. You are required to consult with the Municipality for site plan control requirements prior to requesting a building permit.

### <u>Footnotes</u>

- (a) Where the Rear Yard of a 'C1' zone abuts a lane or parking lot, the minimum rear yard may be reduced to 1.5 metres (5 ft).
- (b) Where the Interior Side Yard of a 'C1' zone abuts a Residential, Open Space or Institutional Zone, the following restrictions shall apply:
  - (i) the minimum side yard requirement for the abutting side yard within the Commercial Zone shall be 3 metres (10 ft);
  - (ii) no open storage or outdoor display shall be permitted in the abutting side yard within the Commercial Zone.
- (c) Where the Interior Side Yard of a 'C3' zone abuts a residential use or residential zone, the minimum Interior Side Yard requirement shall be 7.5 metres (25 ft).

## 13.4 ADDITIONAL PROVISIONS – AUTOMOBILE GAS BARS & AUTOMOBILE SERVICE STATIONS

- .1 <u>Minimum setbacks for gasoline pumps, natural gas and/ or propane facilities</u>
   All gasoline pumps, natural gas and/ or propane facilities shall be setback a minimum of
   7.5 metres (25 ft) from the curbing of the pump island to the street line.
- .2 <u>Entry Ramps</u>

Notwithstanding the provisions of <u>Section 3.26</u>, there shall be no more than one entry ramp for each 15 metres (50 ft) of street frontage and the width of any entry ramp shall not exceed 9 metres (30 ft) at the street line.

## .3 Minimum Front or Exterior Side Yard

Notwithstanding the provisions of <u>Section 13.3</u>, the minimum front or exterior side yard shall be 15 metres (50 ft).

.4 <u>Surfacing</u>

Notwithstanding the provisions of <u>Section 3.26</u> the surfaces of all ramps, driveways, service areas and off-street loading areas shall be surfaced with a capped, hard top substance such as asphalt, or other stable surface treated to prevent the raising of dust and/or loose particles.

## 13.5 SPECIAL PROVISIONS – C1

### Town of Walkerton By-law #92-35

- .1 Notwithstanding their 'C1' Zoning designation, those lands delineated as **'C1-1'** on Schedule 'A' to this By-law shall be used in accordance with the 'C1' Zone provisions contained in this By-law, excepting however, that:
  - i. Permitted uses shall be 'accessory apartments' in part of a 'hotel/motel', in addition

to all other permitted uses in the 'C1' zone; and,

ii. Minimum floor area, gross per dwelling unit shall be no less than 35 sq. metres.

Town of Walkerton By-law #92-35

- .2 Notwithstanding their 'C1' Zoning designation, those lands delineated as 'C1-2' on Schedule 'A' to this By-law shall be used in accordance with the 'C1' Zone provisions contained in this By-law, excepting however, that:
  - i. Permitted uses shall be a 'group home type one'; and, 'dwelling, single detached' existing at the date of passing of this By-law in addition to all other permitted uses in the 'C1' zone; and,
  - ii. Minimum side yard for an accessory building shall be no less than 0.15 metres.

Municipality of Brockton By-law #99-33 (Young, Part of Lot 73 North Side of Cayley Plan 7, Walkerton)

- .3 Notwithstanding their 'C1' Zoning designation, those lands delineated as **'C1-3'** on Schedule 'A' to this By-law shall be used in accordance with the 'C1' Zone provisions contained in this By-law, excepting however, that:
  - Permitted uses shall be limited to a 'business or professional office' and one (1) 'dwelling, accessory apartment';
  - ii. Minimum lot area shall be no less than 510 m<sup>2</sup>;
  - iii. Minimum front yard shall be no less than 4.6 metres;
  - iv. Minimum exterior side yard shall be no less than 5.2 metres; and,
  - v. Minimum rear yard shall be no less than 4.3 metres.
- .4 By-law # 2015-085 Jim McArthur Windows & Doors (28 Durham St. West) Notwithstanding their 'C1' Zoning designation, those lands delineated as 'C1-4' on Schedule 'A' to this By-law shall be used in accordance with the 'C1' Zone provisions contained in this By-law, excepting however that:
  - i. Retail, Large Format;
  - ii. An Automobile repair establishment;
  - iii. For the purposes of this by-law, an automobile repair establishment shall be defined as follows:

"An automobile repair establishment means a building and/or lot used for the servicing, repair, cleaning, polishing and general maintenance of motor vehicles, including light trucks, and may include motor vehicle repair, the interior and/or exterior display and sale of up to five (5) new or used motor vehicles as well as a motor vehicle inspection station, but shall not include any other automobile use defined in By-Law 2013-26;

- iv. Any products used in the maintenance and repair of motorized vehicles shall be stored in accordance with the applicable provisions of the Ministry of Environment and Climate Change's (MOECC) 'Environmental Protection Measures at Chemical Waste Storage Facilities;
- v. In addition to the MOECC requirements, all products used in the maintenance of

motor vehicles shall be stored indoors in sealed containers, a minimum of 1.25 metres above the ground floor level of the principal building, and disposed of in accordance with provincial and municipal by-law requirements;

vi.

Prior to receiving an occupancy certificate under Section 34(6) of the Planning Act, for the use of any portion of the land or building for an automotive repair establishment, the following provisions must be met, notwithstanding Section 3.32(2) of Zoning By-Law 2013-26:

- a) All floor drains have been sealed or connected to a retention/separator tank or similar engineered system;
- b) Notification to the Municipality of Brockton that a Ministry of Environment and Climate change approved carrier, licensed to dispose of materials from the separator noted in (vi)a) has been retained for the site; and,
- c) All products used in the maintenance of motor vehicles shall be stored indoors in seals containers, a minimum of 1.25 metres above the ground floor level of the principal building, and disposed of in accordance with provincial and municipal by-law requirements.

## 13.6 SPECIAL PROVISIONS – C2

Municipality of Brockton By-law #2001-23 (Children's Aid Society, Lots 24 and 25 and Part of Lots 23, 26 and 27 Plan 176 and Part of Lot 27 Plan 473, Walkerton)

- .1 Notwithstanding their 'C2' Zoning designation, those lands delineated as **'C2-1'** on Schedule 'A' to this By-law shall be used in accordance with the 'C2' Zone provisions contained in this By-law, excepting however, that:
  - i. Residential uses shall be prohibited;
  - ii. Minimum interior side yard shall be no less than 4.4 metres;
  - iii. Minimum exterior side yard shall be no less than 7.6 metres;
  - iv. Minimum of 10% of the total lot area shall be Landscaped Open Space as per <u>Section</u> <u>3.16</u>, in addition to <u>Section 3.15</u>; and,
  - v. All entrances to the property from Yonge Street shall be removed no later than September 2004 and the lot frontage along Yonge Street shall be landscaped; and,
  - vi. All parking located along McGivern Street between the street line and 'Main Building' shall be removed no later than September 2004 and the area shall be landscaped.

Municipality of Brockton By-law #2008–54 (Spitzig, Lot 23 Plan 373, Walkerton) (Amended from C2–1 to C2–2 as per administrative changes permitted by Section 1.6 of this By-Law

- .2 Notwithstanding their 'C2' Zoning designation, those lands delineated as **'C2-2'** on Schedule 'A' to this By-law shall be used in accordance with the 'C2' Zone provisions contained in this By-law, excepting however, that:
  - i. Permitted uses shall be limited to a 'business or professional office' and a 'dwelling, accessory apartment'; and,
  - ii. Accessory buildings and structures shall be subject to <u>Section 3.6.3.1</u>.

## 13.7 SPECIAL PROVISIONS – C3

Municipality of Brockton By-law #2011-80 and #95-06 (Frook, Part of Lot 45 Plan 162, Walkerton)

- .1 Notwithstanding their 'C3' Zoning designation, those lands delineated as **'C3-1'** on Schedule 'A' to this By-law shall be used in accordance with the 'C3' Zone provisions contained in this By-law, excepting however, that:
  - i. Permitted uses shall be a 'business or professional office'; an 'industrial bakery' in addition to all other uses permitted in the 'C3' zone; and,
  - ii. A 'business or professional office' unrelated to a 'C3' use on the subject lands shall not represent more than 35% of the 'floor area, gross' of a commercial building, up to a maximum of 464.5 m<sup>2</sup>.

Municipality of Brockton (Superior Propane Inc., Lots 5 to 11 Plan 113, Walkerton)

- .2 Notwithstanding their 'C3' Zoning designation, those lands delineated as **'C3-2'** on Schedule 'A' to this By-law shall be used in accordance with the 'C3' Zone provisions contained in this By-law, excepting however, that:
  - i. Permitted uses shall be limited to a 'bulk fuel depot';
  - ii. <u>Section 14</u> General Provisions for Industrial Zones shall apply; and,
  - iii. 'BP1' zone provisions shall apply.

Municipality of Brockton (Trillcourt Investments Inc., Lots 14, 15,& 2 and Part of Lot 13 Plan 105 and Part of Robert Street, RP 3R-4386 Parts 1 & 2, RP 3R-5174 Part 1, Walkerton)

- .3 Notwithstanding their 'C3' Zoning designation, those lands delineated as **'C3-3'** on Schedule 'A' to this By-law shall be used in accordance with the 'C3' Zone provisions contained in this By-law, excepting however, that:
  - i. Permitted uses shall be a 'business or professional office' in addition to all other 'C3' permitted uses.

Municipality of Brockton (Part of Park Lot V Plan 88 being Parts 1 & 2 on RP 3R-7722, Walkerton)

- .4 Notwithstanding their 'C3' Zoning designation, those lands delineated as **'C3-4'** on Schedule 'A' to this By-law shall be used in accordance with the 'C3' Zone provisions contained in this By-law, excepting however, that:
  - i. Permitted uses shall be a 'public building' in addition to all other 'C3' permitted uses.

Municipality of Brockton (various properties, Walkerton)

- .5 Notwithstanding their 'C3' Zoning designation, those lands delineated as **'C3-5'** on Schedule 'A' to this By-law shall be used in accordance with the 'C3' Zone provisions contained in this By-law, excepting however, that:
  - i. Permitted uses shall be a 'trades person's shop' in addition to all other 'C3' permitted uses.

Town of Walkerton By-law #92-35 (Part Lot 25, Concession 3 SDR, former Brant - Petro Canada)

- .6 Notwithstanding their 'C3' Zoning designation, those lands delineated as **'C3-6'** on Schedule 'A' to this By-law shall be used in accordance with the 'C3' Zone provisions contained in this By-law, excepting however, that:
  - i. Permitted uses shall be limited to a 'bulk fuel depot';
  - ii. <u>Section 14</u> General Provisions for Industrial Zones shall apply; and,
  - iii. 'BP1' zone provisions shall apply.

Municipality of Brockton By-law #2013-059 (Part Lot 25, Concession 3 SDR (Walkerton - Morrow Z17/13)

- .7 Notwithstanding their 'C3' zoning designation, on those lands delineated as **'C3-7'** on Schedule 'A' to this By-law, permitted uses shall include, in addition to the uses permitted in the by-law:
  - Building Supply and Sales, defined as:
     "the use of land, building or structure for the sale, storage and/or display of goods, merchandise or equipment used in building and construction but does not include the sale of appliances, audio-visual equipment, home furnishings or furniture."
  - ii. Trades Persons Shop

## SECTION 14 - GENERAL PROVISONS FOR INDUSTRIAL ZONES (BP1, BP2, HI, M2, ACI, RCI

### Explanatory Note:

Developments in an Industrial zone may be subject to site plan control, which requires submission and approval of a site plan prior to issuance of a building permit. You are required to consult with the Municipality prior to submission of a building permit application.

### 14.1 ACCESSORY BUILDINGS & STRUCTURES

Accessory Buildings & Structures shall be located as per Section 3.6.

#### 14.2 PARKING REQUIREMENTS

Parking requirements shall be determined as per Section 3.26.

#### 14.3 LOADING REQUIREMENTS

Loading requirements shall be determined as per Section 3.27.

#### 14.4 WATER AND SEWER SERVICES

All Business Park 1 (BP1), Business Park 2 (BP2), Light Industrial (M1) and Heavy Industrial (M2) uses shall be connected to a municipal water and municipal sewer system where available.

### 14.5 PLANTING AREA/VISUAL SCREENING

Planting Area/Visual Screening shall be provided as per the requirements of <u>Section 3.15</u>.

#### 14.6 LANDSCAPED OPEN SPACE

Landscaped Open Space shall be provided as per the requirements of <u>Section 3.16</u>.

#### 14.7 OPEN STORAGE & OUTDOOR DISPLAY

Open Storage & Outdoor Display shall be provided as per the requirements of Section 3.17.

### 14.8 PROVINCIAL OR COUNTY STREET RIGHT-OF-WAY SETBACKS

Provincial or County Street Right-of-Way Setbacks shall be provided as per the requirements of <u>Section 3.23</u>.

### 14.9 MULTIPLE BUILDINGS ON ONE LOT

In an Industrial Zone more than one 'Main Building' or structure shall be permitted on a lot provided that all other provisions of this By-law are adhered to.

### 14.10 OFFICES ACCESSORY TO A PERMITTED USE

A business office(s) serving the principle use(s) on a lot shall be permitted.

#### 14.11 BUFFER ON LANDS ADJOINING INDUSTRIAL OR RESIDENTIAL USES/ ZONES

Buffers shall be provided as per the requirements of <u>Section 3.3</u>.

#### 14.12 ALL OUTSIDE FUEL STORAGE & RE-FUELLING

The surfaces of all ramps, service areas, off-street loading areas used for fuel storage and/or re-fuelling shall be surfaced with a capped, hard top substance such as asphalt, or other stable surface treated to prevent the seepage of any spilled fuel and/or other potential hazardous materials.

#### 14.13 MINIMUM SETBACKS FOR GASOLINE PUMPS, NATURAL GAS AND/ OR PROPANE FACILITIES

All gasoline pumps, natural gas and/ or propane facilities shall be setback a minimum of 7.5 metres (25 ft) from the curbing of the pump island to the street line.

# SECTION 15 - URBAN INDUSTRIAL ZONES (BP1, BP2, M1, M2)

# 15.1 SCOPE

The provisions of the 'Business Park (BP1)' and 'Light Industrial (M1)' Zones shall generally apply to lands designated 'Business Park 1' and the provisions of 'Business Park 2 (BP2)' and 'Heavy Industrial (M2)' Zones shall generally apply to lands designated 'Business Park 2' on Schedule 'A' – Land Use Plan for the Walkerton Community Official Plan.

## 15.2 USES PERMITTED

# Modified by by-law 2015-039 (Housekeeping #1)

No person shall within a 'Business Park 1 (BP1)' Zone, 'Business Park 2 (BP2)' Zone, 'Light Industrial (M1)' Zone or 'Heavy Industrial (M2)' Zone use any lot or erect, alter or use any building or structure for any purpose except the following:

	Light Industrial (M1)	Business Park 1 (BP1)	Heavy Industrial (M2)	Business Park 2 (BP2)	
Residential Uses	Not Permitted				
Non-Residential Uses (deleted)	*	$\checkmark$	4	4	
Assembly Hall	Not Permitted	✓	Not Permitted	Not Permitted	
Bulk Fuel Depot	Not Permitted	Not Permitted	Not Permitted	✓	
Bulk Sales Establishment - Agriculture	✓	√	✓	✓	
Commercial Motor Vehicle	✓	√	✓	✓	
Repair Establishment					
Commercial Motor Vehicle	~	✓	✓	✓	
Sales Establishment					
Commercial College	Not Permitted	✓	Not Permitted	Not Permitted	
Computer/Data Processing Centre	Not Permitted	✓	Not Permitted	Not Permitted	

Contractor's Yard	✓	✓	✓	✓
Factory Sales Outlet	✓	✓	✓	~
Farm Implement Establishment	1	1	Not Permitted	√
Hotel/Motel	Not Permitted	✓	Not Permitted	Not Permitted
Industrial Use	Not Permitted	Not Permitted	√	✓
Industry, Light	✓	✓	✓	✓
Marine, Recreation and Small Engine Establishment	✓	✓	✓	✓
Public Building	Not Permitted	✓	Not Permitted	Not Permitted
Public Garage	✓	✓	√	✓
Public Park	✓	✓	Not Permitted	Not Permitted
Public Utility Building	✓	✓	✓	✓
Recycling Centre	Not Permitted	✓	Not Permitted	✓
Recycling Depot	Not Permitted	✓	Not Permitted	✓
Rental Establishment	Not Permitted	✓	Not Permitted	✓
Retail, Large Format	Not Permitted	✓ (added)	Not Permitted	Not Permitted
Technology Industry	✓	✓	Not Permitted	Not Permitted
Trades Persons' Shop	✓	√	√	√
Transport Depot	Not Permitted	✓	Not Permitted	✓
Travel Trailer Sales Establishment	Not Permitted	√	Not Permitted	Not Permitted
Warehouse	✓	✓	√	√
Warehouse, Mini Storage	✓	✓	✓	✓
Veterinary Clinic	Not Permitted	✓	Not Permitted	✓
Veterinary Clinic – Small Animal	Not Permitted	1	Not Permitted	Not Permitted
Funeral Home	Not Permitted	✓	Not Permitted	Not Permitted

Urban Industrial Zones (BP1, BP2, M1, M2)

Automobile Car Wash	Not Permitted	✓	Not Permitted	Not Permitted
Automobile Gas Bar	Not Permitted	✓	Not Permitted	Not Permitted
Automobile Repair Establishment	Not Permitted	✓	Not Permitted	Not Permitted
Automobile Sales Establishment	Not Permitted	✓	Not Permitted	Not Permitted
Automobile Service Station	Not Permitted	√	Not Permitted	Not Permitted
Restaurant	Not Permitted	✓	Not Permitted	Not Permitted
Research Establishment / Laboratory	Not Permitted	√	Not Permitted	✓
Fitness Centre	Not Permitted	✓	Not Permitted	Not Permitted
Business or Professional Office (see Footnote 15.3 (c))	Not Permitted	✓	Not Permitted	✓

## 15.3 ZONE PROVISIONS

No person shall within a 'Business Park 1 (BP1)' zone, 'Business Park 2 (BP2)' zone, 'Light Industrial (M1)' zone or 'Heavy Industrial (M2)' zone use any lot or erect, alter or use any building or structure except in accordance with the following provisions:

Modified by By-law 2015-039 (Housekeeping #1)

		Light Industrial (M1)	Business Park 1 (BP1)	Heavy Industrial (M2)	Business Park 2 (BP2)
Minimum Lot	Area	750 m <sup>2</sup> ( <del>807.3 ft<sup>2</sup></del> ) 1,100 m <sup>2</sup> (11 8,073 ft <sup>2</sup>		(11,841 ft²)	
Minimum Lot	Frontage	30 metres (98 ft)		30 metres (98 ft)	
Minimum Front Yard and Exterior Side Yard	(i) Abutting A Planned Development, Residential or Institutional zone or a residential or institutional use	6 metres (20 ft)		18 metres (59 ft)	
	(ii) All other cases			9 metres	(29.5 ft)

Minimum Interior Side Yard (see Footnote (a) and (b))	(i) Abutting a Planned Development, Residential or Institutional zone or a residential or institutional use	7.5 metres (25 ft)	10 metres (33 ft)
	(ii) All other uses	4 metres (13 feet) one side and 1.2 metres (4 feet) other side	4 metres (13 feet) one side and 1.2 metres (4 feet) other side
Minimum Rear Yard	(i) Abutting a Planned Development, Residential or Institutional zone or a residential or institutional use	7.5 metres (25 ft)	15 metres (49 ft)
	(ii) All other cases		7.5 metres (25 ft)
Maximum Lot	Coverage	75%	65%
Maximum Building Height	(i) Within 20 metres (66ft) of a Residential or Institutional zone or use	11 metres (36 ft)	
	(ii) All other cases	22 metre	s (72 ft)

Footnotes (Added by By-law 2015-039- Housekeeping #1)

- (a) For a 'Bulk Fuel Depot', the Minimum Interior Side Yard for all fuel storage areas and/or pumps shall be no less than 7.5 metres (25 ft).
- (b) When any portion of a main building is greater than 12 metres (40 ft) in height, the Minimum Interior Side yard and Minimum Rear Yard setbacks shall be increased by 0.5 metres (1.6 feet) for every metre over 12 metres (40 ft).
- (c) Business or Professional Offices minimum size 371.6 m<sup>2</sup> (4,000 ft<sup>2</sup>)
- 15.4 SPECIAL PROVISIONS M1

# 15.5 SPECIAL PROVISIONS – BP1

Municipality of Brockton By-law #2012-90 (Brockton Municipal Complex - Part of Lots 32 to 35, Concession 1 NDR being Part of Part 2 on RP 3R-1885, Part of Parts 2 and 3 on RP 3R-2778 and Part 4 on RP 3R-2758, Brant and Part of Park Lots 47 and 48 Plan 162, Walkerton)

## By-Law Number 2015-080 - removal of 'H-Holding' provisions

- .1 Notwithstanding their 'BP1' Zoning designation, those lands delineated as **'BP1-1-H'** on Schedule 'A' to this By-law shall be used in accordance with the 'BP1' Zone provisions contained in this By-law, excepting however, that:
  - i) Uses permitted shall include a 'municipal complex' in addition to uses permitted in the BP1 Zone; and,
  - Lands shall remain in a natural and undisturbed state where site alteration through filling, excavating or re-grading shall be prohibited, until the 'H - holding' symbol has been lifted.
  - iii) The 'H holding' symbol shall be lifted once the following conditions have been met:
    - a) Completion of an Archaeological Assessment and submission to the Ministry of Tourism, Culture and Sport; and,
    - b) Registration of a Site Plan Control Agreement, if deemed necessary by the Municipality. The Agreement may address approval of site servicing plans, storm water management plan, transportation plans, and open space connectivity, and any other site development details deemed necessary by Council, to the satisfaction of the Municipality.
- .2 Notwithstanding their 'BP1' Zoning designation, those lands delineated as **'BP1-2-H'** on Schedule 'A' to this By-law shall be used in accordance with the 'BP1' Zone provisions contained in this By-law, excepting however, that:
  - i) Uses permitted shall be limited to: 'automobile sales establishment'; 'business or professional office'; 'commercial college'; 'computer/data processing centre 'convenience store'; 'fitness centre'; 'funeral home'; 'garden centre'; 'hotel/motel'; 'restaurant'; 'restaurant, take-out'; 'research establishment/ laboratory'; 'retail, large format'; 'service establishment'; 'warehouse'; 'warehouse, mini storage'; 'rental establishment'; and, 'veterinary clinic'; and,
  - Lands shall remain in a natural and undisturbed state where site alteration through filling, excavating or re-grading shall be prohibited, until the 'H - holding' symbol has been lifted.
  - iii) The 'H holding' symbol shall be lifted once the following conditions have been met:

a) Completion of an Archaeological Assessment, and submission to the Ministry of Tourism, Culture and Sport; b) Registration of a Site Plan Control Agreement, if deemed necessary by the Municipality. The Agreement may address approval of site servicing plans, storm water management plans, transportation plans and open space connectivity and, any other site development details deemed necessary by Council, to the satisfaction of the Municipality.

## 15.6 SPECIAL PROVISIONS - M2

15.7 SPECIAL PROVISIONS – BP2

# SECTION 16 - HAMLET INDUSTRIAL (HI

# 16.1 SCOPE

# Modified By By-law 2015-039 (Housekeeping #1)

The provisions of Section 16 shall apply only on lands designated 'Hamlet' or 'Secondary Urban Area' on Schedule 'A': Land Use of the County of Bruce Official Plan.

## 16.2 USES PERMITTED

No person shall within the 'Hamlet Industrial (HI)' zone use any lot or erect, alter or use any building or structure for any purpose except one or more of the following uses:

- (a) <u>Residential Uses</u>
  - 'Dwelling, Accessory Apartment' in accordance with <u>Section 3.8.1</u>, exclusively for the use of the owner or a caretaker. A 'Dwelling, Accessory Apartment' shall not be permitted in association with a 'Bulk Fuel Depot', or 'Public Garage'.

# (b) <u>Non-Residential Uses</u>

- Agricultural Produce Warehouse
- Bulk Fuel Depot
- Bulk Sales Establishment Agricultural
- Commercial Motor Vehicle Repair Establishment
- Industry, Dry
- Farm Implement Establishment
- Food Processing, Primary and Secondary

- Greenhouse, Commercial
- Nursery
- Public Garage
- School Bus Storage
- Trades Person's Shop
- Veterinary Clinic

## 16.3 ZONE PROVISIONS

No person shall within any 'Hamlet Industrial (HI)' zone use any lot or erect, alter or use any building or structure except in accordance with the following provisions:

Provisions	Non-Residential Uses
Minimum Lot Area	0.8 hectares (2.0 ac)
Minimum Lot Frontage	30 metres (98 ft)
Minimum Front Yard or Exterior Side Yard	15 metres (49.2 ft)
Minimum Side & Rear Yard	10 metres (33 ft)
Maximum Height – Main Building	10 metres (33 ft)
Maximum Lot Coverage	15%

Minimum Separation Distance from Accessory	30 metres (98 ft)
Detached Dwelling	

## 16.4 SPECIAL PROVISIONS

Township of Greenock By-law #86-09 (Part of Lot 5, Concession 7, Greenock)

- .1 Notwithstanding their 'HI' Zoning designation, those lands delineated as 'HI-1' on Schedule 'A' to this By-law shall be used in accordance with the 'HI' zone provisions contained in this By-law, excepting however, that:
  - i. Residential uses shall be prohibited

# SECTION 17- AGRICULTURE COMMMERCIAL INDUSTRIAL (ACI

# 17.1 SCOPE

The provisions of Section 17 shall apply only on lands designated 'A – Agriculture' or 'R – Rural' on Schedule 'A': Land Use of the County of Bruce Official Plan.

## 17.2 USES PERMITTED

No person shall within the 'Agriculture Commercial Industrial (ACI)' zone use any lot or erect, alter or use any building or structure for any purpose except one or more of the following uses:

## (a) <u>Residential Uses</u>

 'Dwelling, Accessory Apartment' in accordance with <u>Section 3.8.1</u> or a 'Dwelling, Accessory Detached' in accordance with <u>Section 3.8.2</u>, exclusively for the use of the owner or a caretaker. A 'Dwelling, Accessory Apartment' or a 'Dwelling, Accessory Detached' shall not be permitted in association with an 'Abattoir' or 'Livestock Assembly Yard'.

## (b) <u>Non-Residential Uses</u>

- Abattoir
- Bulk Sales Establishment Agricultural
- Farm Implement Establishment
- Feed Mill & Elevator
- Food Processing, Primary
- Livestock Assembly Yard
- Nursery
- Portable Asphalt Plant or Portable Concrete Plant
- Veterinary Clinic
- Wayside Pit or Wayside Quarry

## 17.3 ZONE PROVISIONS

No person shall within any 'Agriculture Commercial Industrial (ACI)' zone use any lot or erect, alter or use any building or structure except in accordance with the following provisions:

Provisions	Non-Residential Uses
Minimum Lot Area	0.8 hectares (2.0 ac)
Minimum Lot Frontage	30 metres (100 ft)
Minimum Front Yard	15 metres (49.2 ft)
Minimum Side Yard	10 metres (33 ft)
Minimum Rear Yard	10 metres (33 ft)
Maximum Height – main building	10 metres (33 ft)
Maximum Lot Coverage	15%
Minimum Separation Distance From Accessory	30 metres (100 ft)
Detached Dwelling	

# 17.4 SPECIAL PROVISIONS

Township of Brant By-Law #81-855 (Lot 64, Concession 1 SDR, former Brant - Saugeen Great Escape)

.1 Notwithstanding their 'ACI' Zoning designation, those lands delineated as 'ACI-1' on Schedule 'A' shall only be used for the purposes of a 'Motel' and 'Restaurant' as they existed on the date of passage of this By-Law and in accordance with the 'ACI' Zone provisions contained in this By-Law.

Township of Brant By-Law #84-1001, #87-1078 (Lot 5, Concession 2 SDR, former Brant)

.2 Notwithstanding their 'ACI' Zoning designation, those lands delineated as **'ACI-2'** on Schedule 'A' shall only be used for an 'Automobile Service Station'; an 'Automobile Sales Establishment' and a 'Nursery' as they existed on the date of passage of this By-Law, and in accordance with the 'ACI' Zone provisions contained in this By-Law.

Township of Brant By-Law #87-1095, #89-1042, #2001-13, #2003-12 (Part of Lot 15, Concession 1 SDR, former Brant - Schaus Transport Limited)

- .3 Notwithstanding their 'ACI' Zoning designation, those lands delineated as **'ACI-3'** on Schedule 'A' shall only be used for the purposes of a 'Commercial Motor Vehicle Repair Establishment' and in accordance with the 'ACI' Zone provisions contained in this By-Law, excepting however that:
  - i. an 'Accessory Dwelling Detached' may be used by a tenant only until October 1, 2002 at which time the 'Accessory Dwelling Detached' shall be used only as the principle residence for an owner, manager or caretaker of the permitted non-residential use.
  - ii. the 'minimum lot size' shall be no less than 2.4 hectares (5.8 acres); and
  - iii. the 'maximum lot coverage (private services)' shall not exceed 5.4%; and
  - iv. the washing of 'commercial motor vehicles' shall be limited to those 'commercial motor vehicles' which are being serviced on-site or are owned and operated by 'Schaus Transport Limited' or its successors.

Township of Brant By-Law #86-1061 (Part Lot 6, Concession 2, former Brant - JC Welding)

- .4 Notwithstanding their 'ACI' Zoning designation, those lands delineated as **'ACI-4'** on Schedule 'A' shall only be used for the following purposes:
  - 'Farm Implement Establishment'
  - 'Industrial Use, Dry'
  - 'Bulk Sales Establishment Agricultural'

as they existed on the date of passage of this By-Law, and in accordance with the 'ACI' Zone provisions contained in this By-Law.

Township of Brant By-Law #95-1216 (Part Lot 2, Concession 'A', former Brant - L. Bester)

.5 Notwithstanding their 'ACI' Zoning designation, those lands delineated as **'ACI-5'** on Schedule 'A' shall only be used for the purposes of a 'Saw or Planing Mill' and uses accessory thereto, as they existed on the date of passage of this By-Law, and in accordance with the 'ACI' Zone provisions contained in this By-Law.

Township of Brant By-Law #84-991 (Part Lot 35, Concession 1 SDR, former Brant - Freiburger Welding and Machine Shop)

.6 Notwithstanding their 'ACI' Zoning designation, those lands delineated as **'ACI-6'** on Schedule 'A' shall only be used for the purposes of a 'Industrial Use, Dry' and/or 'Saw or Planing Mill' as they existed on the date of passage of this By-Law, and in accordance with the 'ACI' Zone provisions contained in this By-Law.

Township of Brant By-Law #86-1061(Part Lot 6, Concession 3 NDR, former Brant)

.7 Notwithstanding their 'ACI' Zoning designation, those lands delineated as 'ACI-7' on Schedule 'A' shall only be used for the purposes of a Upholstery Repair Shop as it existed on the date of passage of this By-Law, and in accordance with the 'ACI' Zone provisions contained in this By-Law, excepting however that the minimum lot area shall be no less than 2183.5 sq. metres (23,504 sq. ft.).

Township of Brant By-Law #96-1233, #93-1160 (Part Lot 16, Concession 1 SDR, former Brant - Freiburger Transport)

.8 Notwithstanding their 'ACI' Zoning designation, those lands delineated as 'ACI-8' on Schedule 'A' shall only be used for the purposes of a 'Commercial Motor Vehicle Repair Establishment' and an 'Automotive Repair Establishment', as they existed on the date of passage of this By-Law, and in accordance with the 'ACI' Zone provisions contained in this By-Law.

Township of Brant By-Law #81-855 (Part Lot 4, Concession B, former Brant - Dunkeld Tavern)

.9 Notwithstanding their 'ACI' Zoning designation, those lands delineated as **'ACI-9'** on Schedule 'A' shall only be used for the purposes of a 'Restaurant' and 'Golf Course, Miniature', as they existed on the date of passage of this By-Law, and in accordance with the 'ACI' Zone provisions contained in this By-Law.

Township of Brant By-Law #81-855 (Lot 5-11, Plan 113, Walkerton - Superior Propane)

.10 Notwithstanding their 'ACI' Zoning designation, those lands delineated as **'ACI-10'** on Schedule 'A' shall only be used for the purposes of a 'Bulk Fuel Depot' and 'Trades Person's Shop' as they existed on the date of passage of this By-Law, and in accordance with the 'ACI' Zone provisions contained in this By-Law.

Township of Brant By-Law #81-155 (North Part Lot 35, Concession 1 SDR, former Brant - Brant Drive-In)

.11 Notwithstanding their 'ACI' Zoning designation, those lands delineated as **'ACI-11'** on Schedule 'A' shall only be used for the purposes of a 'Take-Out Restaurant', as it existed on the date of passage of this By-Law, and in accordance with the 'ACI' Zone provisions contained in this By-Law.

Municipality of Brockton By-Law #2006-35 (Lot 9, Con 1 SDR, former Brant - Andy's Country Repairs)

.12 Notwithstanding their 'ACI' zoning designation, those lands delineated as 'ACI-12-H' on Schedule 'A' to this By-Law shall be used in compliance with the 'ACI' zone provisions contained in this By-Law, excepting however that:

- i) Permitted uses shall be limited to an 'Automobile Wrecking Yard', 'Automobile Repair Establishment' and 'Commercial Motor Vehicle Repair Establishment.
- ii) The 'H holding' symbol may be removed once the following conditions have been met:
- 1) A statement from a certified engineer stating that all floor drains which may become contaminated with materials from the repair/servicing shops, and are not directly connected to a new/existing domestic waste treatment system on the property is provided; and
- 2) A statement from a certified engineer stating that all floor drains which may become contaminated with materials from the repair/servicing shops, and have been connected to a 'total retention/separator tank' or similar engineered system is provided; and
- 3) A statement from a certified engineer stating that a 'total retention/separator tank' or a similar engineered system which separates oils, fuels, lubricants, cleaners & solvents etc. and stores all separated contaminants has been installed and is functioning according to its design specifications is provided; and
- A current contract with a MOE certified carrier engaged for the disposal of materials from the 'total retention/separator tank' or a similar engineered system is provided; and
- 5) A statement from the Fire Chief, Municipality of Brockton, stating that fire access to the property is satisfactory; and
- 6) A statement from the Chief Building Official, Municipality of Brockton, stating that a Planting area has been created as outlined in the Site Plan Control Agreement; and
- 7) A Site Plan Control Agreement has been registered on title.

Township of Brant By-Law #81-855 (Part Lot 13, Concession 1 SDR, former Brant - Pitts Produce)

.13 Notwithstanding their 'ACI' Zoning designation, those lands delineated as **'ACI-13'** on Schedule 'A' shall only be used for the purposes of a 'Agricultural Produce Warehouse' and 'Nursery' as they existed on the date of passage of this By-Law, and in accordance with the 'ACI' Zone provisions contained in this By-Law.

Township of Brant By-Law #81-855 (Lot 16, Concession 3 NDR, Brant)

.14 Notwithstanding their 'ACI' Zoning designation, those lands delineated as **'ACI-14'** on Schedule 'A' shall only be used for the purposes of a 'Salvage Yard', as it existed on the date of passage of this By-Law, and in accordance with the 'ACI' Zone provisions contained in this By-Law.

Township of Brant By-Law #86-1061 (Part of Lot 74, Concession 2, former Brant - Hanover Greenhouse & Patio Shoppe)

.15 Notwithstanding their 'ACI' Zoning designation, those lands delineated as **'ACI-15'** on Schedule 'A' shall only be used for the purposes of a 'Commercial Greenhouse' and 'Garden Centre' as they existed on the date of passage of this By-Law, and in accordance with the 'ACI' Zone provisions contained in this By-Law. Township of Brant By-Law #86-1061 (Part of Lot 55, Concession 1 NDR, former Brant - Morry's)

.16 Notwithstanding their 'ACI' Zoning designation, those lands delineated as 'ACI-16' on Schedule 'A' shall only be used for the purposes of a 'Travel Trailer Sales Establishment' as it existed on the date of passage of this By-Law, and in accordance with the 'ACI' Zone provisions contained in this By-Law.

Township of Brant By-Law #95-1207 (Part Lot 74, Concession 3 NDR, former Brant - Powerline Marine)

- .17 Notwithstanding their 'ACI' Zoning designation, those lands delineated as **'ACI-17'** on Schedule 'A' shall only be used for the purposes of a 'Marine, Recreation and Small Engine Establishment' and a 'Automobile Sales Establishment', as they existed on the date of passage of this By-Law, and in accordance with the 'ACI' Zone provisions contained in this By-Law, excepting however that:
  - i. There shall be erected and maintained along the northerly limit of the land commencing at the easterly limit and proceeding 241 feet westerly, a chain link fence having a minimum height of 4 feet. Said fence to have a continuous pipe installed along the top edge for its full length, in such a manner so as to cover the exposed top of the chain link. Said fence to provide an unlocked gate access of a minimum width of 14 feet at the approximate mid-point of the fence to allow access to the adjoining land.

Township of Brant By-Law #89-1045 (Part Lot 74, Concession 2 NDR, former Brant - Heinz Autobody)

.18 Notwithstanding their 'ACI' Zoning designation, those lands delineated as **'ACI-18'** on Schedule 'A' shall only be used for an 'Automobile Repair Establishment' as it existed on the date of passage of this By-Law, and in accordance with the 'ACI' Zone provisions contained in this By-Law.

Township of Brant By-Law #87-1098 (Lot 36, Concession 1 SDR, Brant - VW Dealership)

.19 Notwithstanding their 'ACI' Zoning designation, those lands delineated as **'ACI-19'** on Schedule 'A' shall only be used for the purposes of an 'Automobile Sales Establishment', as it existed on the date of passage of this By-Law, and in accordance with the 'ACI' Zone provisions contained in this By-Law, excepting however that the maximum total building floor area may be 557.4 m<sup>2</sup> (6000 ft<sup>2</sup>).

Township of Brant By-Law #86-1061 (Part Lot 36, Concession 1 SDR, former Brant - Reid & Schaab Heating)

.20 Notwithstanding their 'ACI' Zoning designation, those lands delineated as **'ACI-20'** on Schedule 'A' shall only be used for the purposes of a 'Trades Person's Shop' as it existed on the date of passage of this By-Law, and in accordance with the 'ACI' Zone provisions contained in this By-Law.

Township of Brant By-Law #84-984 (Part Lot 36, Concession 1 SDR, former Brant - Alf Ernewein Contracting)

.21 Notwithstanding their 'ACI' Zoning designation, those lands delineated as 'ACI-21' on

Schedule 'A' shall only be used for the purposes of a 'Trades Person's Shop', as it existed on the date of passage of this By-Law, and in accordance with the 'ACI' Zone provisions contained in this By-Law.

Township of Brant By-Law #81-855 (Lot 34, Concession 4, former Brant - JG Propane and Brant Seeds)

.22 Notwithstanding their 'ACI' Zoning designation, those lands delineated as **'ACI-22**' on Schedule 'A' shall only be used for the purposes of a 'Bulk Fuel Depot' and 'Bulk Sales Establishment – Agricultural' as they existed on the date of passage of this By-Law, and in accordance with the 'ACI' Zone provisions contained in this By-Law.

Township of Brant By-Law #81-855 (Lot 74, Concession 3 NDR, former Brant - Stuff for Sale)

.23 Notwithstanding their 'ACI' Zoning designation, those lands delineated as **'ACI-23'** on Schedule 'A' shall only be used for the purposes of a 'Retail Shop', as it existed on the date of passage of this By-Law, and in accordance with the 'ACI' Zone provisions contained in this By-Law.

Township of Brant By-Law #81-855 (Lot 74, Concession 3 NDR, former Brant - George Francis Garage)

.24 Notwithstanding their 'ACI' Zoning designation, those lands delineated as **'ACI-24'** on Schedule 'A' shall only be used for the purposes of a 'Automobile Repair Establishment' as it existed on the date of passage of this By-Law, and in accordance with the 'ACI' Zone provisions contained in this By-Law.

Township of Brant By-Law #81-855 (Lot 74, Concession 2 NDR, former Brant - North End Autobody)

.25 Notwithstanding their 'ACI' Zoning designation, those lands delineated as 'ACI-25' on Schedule 'A' shall only be used for the purposes of an 'Automobile Repair Establishment' as it existed on the date of passage of this By-Law, and in accordance with the 'ACI' Zone provisions contained in this By-Law.

Township of Brant By-Law #86-1061 (Part 74, Concession 2 NDR, former Brant - JD's Flooring)

.26 Notwithstanding their 'ACI' Zoning designation, those lands delineated as **'ACI-26'** on Schedule 'A' shall only be used for the purposes of a 'Trades Person's Shop' as it existed on the date of passage of this By-Law, and in accordance with the 'ACI' Zone provisions contained in this By-Law.

Municipality of Brockton By-Law #2010-18 (Part Lot 74, Concession 2 NDR, former Brant - Price Bros. Welding)

- .27 Notwithstanding their 'ACI' zoning designation, those lands delineated as **'ACI-27'** on Schedule 'A' to this By-law shall be used in compliance with the 'ACI' Zone provisions contained in this By-Law, excepting however, that:
  - i. Permitted uses shall be limited to a 'Retail Store', 'Trades Person's Shop', and 'Dwelling, Accessory Apartment';
  - ii. Minimum lot area shall be no less than 0.2 hectares;

- iii. Minimum front yard shall be no less than 8.2 metres; and
- iv. Minimum side yard shall be no less than 4.5 metres.

Township of Brant By-Law #2014-085 (Part Lot 36, Concession 1 NDR, former Brant - Ace N JJ)

- .28 Notwithstanding their 'ACI' Zoning designation, those lands delineated as **'ACI-28'** on Schedule 'A' shall only be used for the purposes of a 'Retail Store' and accessory uses in accordance with the 'ACI' Zone provisions contained in this By-Law, excepting however:
  - i. An accessory building located at the northeast corner of the property shall have:
    - a. A minimum side yard setback of 1.83m (6ft)
    - b. A minimum rear yard setback of 1.83m (6ft)
  - ii. Maximum Lot coverage shall not exceed 16%
  - iii. A home industry is permitted and shall be in accordance with Section 3.11 except that:
    - a. Maximum size is 82 sq. metres
    - b. No parking devoted to the home industry is required
    - c. External display area shall be permitted in accordance with Section 3.17 for commercial zones.

Municipality of Brockton By-Law # 2008-60 (Part Lot 37, Concession 1 NDR [being Part 1 on 3R-4011, Part 1 on 3R-6804 and Part 1 on 3R-7542], former Brant - Snyder)

- .29 Notwithstanding their 'ACI' zoning designation, those lands delineated as **'ACI-29'** on Schedule "A" to this by-law shall be used in compliance with the 'ACI' Zone provisions contained in this By-Law, excepting however, that:
  - i. Permitted uses shall be limited to a 'Drywall Business' and 'Construction Business';
  - ii. A 2.4 m (8 ft) solid maintenance free fence shall be provided / constructed along the eastern lot line for the full length / depth of the adjacent residential lot.
  - iii. The setbacks for all buildings and structures shall be no less than as they existed on the date of the passing of this by-law; and,
  - iv. The maximum lot coverage shall be no greater than 18.8%.

Township of Brant By-Law #86-1061 (Part of Lot 36, Concession 1 SDR, former Brant - Esso Fuels)

.30 Notwithstanding their 'ACI' Zoning designation, those lands delineated as **'ACI-30'** on Schedule 'A' shall only be used for the purposes of a 'Bulk Fuel Establishment' as it existed on the date of passage of this By-Law, and in accordance with the 'ACI' Zone provisions contained in this By-Law.

Township of Brant By-Law #84-972 (Part Lot 36, Concession 1 SDR, former Brant - Owen King)

.31 Notwithstanding their 'ACI' Zoning designation, those lands delineated as 'ACI-31' on Schedule 'A' shall only be used for the purposes of a 'Trades Person's Shop' as it existed on the date of passage of this By-Law, and in accordance with the 'ACI' Zone provisions contained in this By-Law.

Township of Brant By-Law #81-855 (Lot 36, Concession 1 SDR, former Brant - Weber Collision Repair)

.32 Notwithstanding their 'ACI' Zoning designation, those lands delineated as 'ACI-32' on

Schedule 'A' shall only be used for a 'Automobile Repair Establishment' as it existed on the date of passage of this By-Law, and in accordance with the 'ACI' Zone provisions contained in this By-Law.

Township of Brant By-Law #81-855 (Part Lot 64, Concession 1, former Brant - Country Village)

.33 Notwithstanding their 'ACI' Zoning designation, those lands delineated as 'ACI-33' on Schedule 'A' that in addition to the uses permitted in the 'ACI' zone may also be used for a 'Automobile Service Station' or 'Convenience Store' in accordance with the 'ACI' Zone provisions contained in this By-Law.

Township of Brant By-Law #81-855 (Part Lot 74, Concession 2 NDR, former Brant - Lunch Stop)

.34 Notwithstanding their 'ACI' Zoning designation, those lands delineated as **'ACI-34'** on Schedule 'A' shall only be used for the purposes of a 'Restaurant' as it existed on the date of passage of this By-Law, and in accordance with the 'ACI' Zone provisions contained in this By-Law.

Township of Brant By-Law #81-855 (Part Lot 74, Concession 2 NDR, former Brant - Praxair)

.35 Notwithstanding their 'ACI' Zoning designation, those lands delineated as **'ACI-35'** on Schedule 'A' shall only be used for 'Light Industrial' purposed as it existed on the date of passage of this By-Law, and in accordance with the 'ACI' Zone provisions contained in this By-Law.

Township of Brant By-Law #81-868 (Part Lot 59, Concession 1 SDR, former Brant)

.36 Notwithstanding their 'ACI' Zoning designation, those lands delineated as **'ACI-36'** on Schedule 'A' shall only be used for the purposes of a 'riding stable/equestrian centre' in accordance with the 'ACI' Zone provisions contained in this By-Law.

Township of Brant By-Law #86-1045, #87-1091 (Bruce County Highways, Ontario Hydro, Brant Township Garage etc.)

.37 Notwithstanding their 'ACI' Zoning designation, those lands delineated as **'ACI-37'** on Schedule 'A' shall only be used for the purposes of a 'public garage', as it existed on the date of passage of this By-Law, & in accordance with the 'ACI' Zone provisions contained in this By-Law.

Township of Brant By-Law #88-1118 (Part Lot 19, Concession B, former Brant)

.38 Notwithstanding their 'ACI' Zoning designation, those lands delineated as **'ACI-38'** on Schedule 'A' shall only be used for the purposes of a 'greenhouse, commercial', and in accordance with the 'ACI' Zone provisions contained in this By-Law.

Municipality of Brockton By-Law #2007-32 (N. Pt. Lots 62 & 63, Concession 2, NDR Brant)

- .39 Notwithstanding their 'ACI' Zoning designation, those lands delineated as **'ACI-39'** on Schedule 'A' shall be used in accordance with the 'ACI' Zone provisions contained in this By-Law, excepting however that:
  - i. The permitted uses shall be limited to 'farm implement repair'; and,
  - ii. The lands shall be subject to Site Plan Control.

Municipality of Brockton By-Law #2007-48 (Pt. Lot 59, Concession 2 SDR Brant - Walkerton Equine Clinic)

- .40 Notwithstanding their 'ACI' Zoning designation, those lands delineated as **'ACI-40'** on Schedule 'A' shall be used in accordance with the 'ACI' Zone provisions contained in this By-Law, excepting however:
  - i. Permitted uses shall be limited to 'Veterinary Clinic';
  - ii. 'Minimum lot size' shall be no less than 2,319 square metres;
  - iii. 'Minimum lot frontage' shall be no less than 30 metres;
  - iv. Setbacks shall be as they existed on the date of passage of this By-law.

Municipality of Brockton By-Law #2007-50 (Pt. Lot 74, Concession 2, NDR, former Brant - Heinz Autobody)

- .41 Notwithstanding their 'ACI' Zoning designation, those lands delineated as **'ACI-41'** on Schedule 'A' shall be used in accordance with the 'ACI' Zone provisions contained in this By-Law, excepting however:
  - i. Permitted uses shall be limited to 'Automotive Repair Establishment' and 'Automotive Sales Establishment'; and,
  - ii. Lands shall be subject to Site Plan Control.

By-law #2014-080 (Concession 1 NDR Part Lot 5, Brant - Huron Bay Z31/14)

- .42 Notwithstanding their ACI zoning, those lands delineated as 'ACI-42' and 'ACI-42-H' shall be used in compliance with the ACI zone provisions contained in this by-law, excepting however that:
  - i. An Agricultural General use shall also be permitted.
  - ii. The 'H-holding' symbol may be removed once the following conditions have been met:
    - a. A Site Plan Control Agreement has been registered on title. The Agreement may address setbacks, open space, landscaping and any other site development details deemed necessary by Council, to the satisfaction of the Municipality.

Municipality of Brockton By-law #2012-01 (Part of Lot 34, Concession 12, former Brant - Olds)

- .43 Notwithstanding their 'ACI' Zoning designation, those lands delineated as **'ACI-43'** on Schedule 'A' to this By-law shall be used in compliance with the 'ACI' Zone provisions contained in this By-law, excepting however, that:
  - i. Permitted uses shall be limited to 'automobile repair establishment', 'automobile sales establishment', and 'dwelling, accessory detached'.

*Modified by By–Law 2017–005* Municipality of Brockton By–law #2008–20 (Part of Lot 10, Concession 6, former Greenock – Fritz Concrete Inc.)

- .44 Notwithstanding their 'ACI' Zoning designation, those lands delineated as **'ACI-44'** on Schedule 'A' to this By-law shall be used in accordance with the 'ACI' Zone provisions contained in this By-law, excepting however, that:
  - i. Residential uses shall be prohibited.

- ii. In addition to the permitted uses in the 'ACI' Zone, the manufacturing of precast concrete, construction services and solar installation shall be permitted; and,
- Buildings and structures existing as of January 9, 2017, which do not comply with the provisions of this By-law, are hereby recognized. All future buildings and structures, or additions to existing buildings and structures, shall comply with the provisions of this By-law.

Township of Greenock By-law #98-22 (Part of Lot 17, Concession 13, Greenock)

.45 ACI-45 is deleted by By-law 2014-062, Lemont

Municipality of Brockton By-law #2005-30 (Part of Lot 1 and Lot 2, Concession 5, former Greenock - Graf Animal Foods Ltd.)

- .46 Notwithstanding their 'ACI' Zoning designation, those lands delineated as **'ACI-46'** on Schedule 'A' to this By-law shall be used in accordance with the 'ACI' Zone provisions contained in this By-law, excepting however, that:
  - i. Residential uses shall be prohibited;
  - ii. Non-Residential uses shall be limited to: cold storage facility; 'farm implement establishment'; turnip waxing facility; open storage and accessory uses, buildings and structures to a primary use;
  - iii. The following zone provisions apply:
    - a) Minimum lot area shall be no less than 4,000 sq. metres;
    - b) Minimum lot frontage shall be no less than 45 metres;
    - c) Minimum front yard shall be no less than 15 metres;
    - d) Minimum interior side yard shall be no less than 5 metres;
    - e) Minimum rear yard shall be no less than 10 metres;
    - f) Maximum lot coverage shall not exceed 10%; and,
    - g) Maximum height shall be no greater than 15 metres;
    - h) The number of buildings and structures including accessory buildings and structures shall be limited to four (4); and,
    - i) No part of any 'main building' shall be located closer than 20 metres to a lot used for residential use.

Township of Greenock By-law #90-16 (Part of Lot 6, Concession 10, Greenock)

- .47 Notwithstanding their 'ACI' Zoning designation, those lands delineated as **'ACI-47'** on Schedule 'A' to this By-law shall be used in accordance with the 'ACI' Zone provisions contained in this By-law, excepting however, that:
  - i. Permitted uses shall be a 'farm implement establishment' in addition to all other 'ACI' permitted uses; and,
  - ii. Accessory uses to 'farm implement establishment' shall include 'automobile sales establishment'.

By-Law 2016-079 (Part Lot 56 Con 1 NDR, including Part 1, 3R-8040 and Part 1 and 2, 3R-4222), Brant - Lippert /Sprucedale Agromart

- .48 Notwithstanding their 'ACI' zoning, those lands delineated as 'ACI-48' on Schedule 'A' to this By-law shall be used in compliance with the 'ACI' zone provisions contained in this By-law, excepting however that:
  - i. Minor Variance A-13-15.34 remains in force and effect with the except6ionof Clauses 5 and 6 which are replaced by Clause (ii) below);
  - ii. 'Maximum Lot Coverage' shall be 15% for all buildings (Main and Accessory); and,
  - iii. Buildings and structures existing as of November 14, 2016 which do not comply with the provisions of this By-law are hereby recognized. All future buildings and structures, or additions to existing buildings and structures, shall comply with the provisions of this By-law.

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# SECTION 18- RURAL COMMERCIAL INDUSTRIAL (RCI

# 18.1 SCOPE

The provisions of Section 18 shall apply only on lands designated 'R - Rural' on Schedule 'A': Land Use of the County of Bruce Official Plan.

# 18.2 USES PERMITTED

No person shall within the 'Rural Commercial Industrial (RCI)' zone use any lot or erect, alter or use any building or structure for any purpose except one or more of the following uses:

# (a) <u>Residential Uses</u>

• 'Dwelling, Accessory Apartment' in accordance with <u>Section 3.8.1</u> or a 'Dwelling, Accessory Detached' in accordance with <u>Section 3.8.2</u>, exclusively for the use of the owner or a caretaker. A 'Dwelling, Accessory Apartment' or a 'Dwelling, Accessory Detached' shall not be permitted in association with an 'Abattoir', 'Livestock Assembly Yard', 'Public Garage' or 'Bulk Fuel Depot'.

# (b) <u>Non-Residential Uses</u>

In addition to all Non-Residential Uses permitted in the 'ACI' zone the following shall also be permitted:

- Agricultural Produce Warehouse
- Bulk Fuel Depot
- Greenhouse, Commercial
- Industrial, Dry limited to welding shops, blacksmith shops, and wood fabricating
- Livestock Auction Barn
- Marine, Recreation and Small Engine Establishments
- Public Garage
- Riding Stable/Equestrian Centre
- Salvage Yard
- Saw or Planing Mill
- School Bus Storage
- Septic Tank Service
- Trades Person's Shop
- Travel Trailer Sales Establishments

# 18.3 ZONE PROVISIONS

No person shall within any 'Rural Commercial Industrial (RCI)' zone use any lot or erect, alter or use any building or structure except in accordance with the following provisions:

Provisions	Non-Residential Uses
Minimum Lot Area	0.8 hectares (2.0 ac)
Minimum Lot Frontage	30 metres (98 ft)
Minimum Front or Exterior Yard	15 metres (49.2 ft)
Minimum Side & Rear Yard	10 metres (33 ft)
Maximum Height B Main Building	10 metres (33 ft)
Maximum Lot Coverage	15%
Minimum Separation Distance from Accessory Detached Dwelling	30 metres (98 ft)

# 18.4 SPECIAL PROVISIONS

Township of Brant By-Law #2003-79 (Part Lot 50, Concession 1 NDR, former Brant)

- .1 Notwithstanding their 'RCI' Zoning designation, those lands delineated as **'RCI-1'** on Schedule 'A' to this By-Law, shall be used in accordance with the 'RCI' Zone provisions contained in this By-Law excepting however that:
  - i. The permitted use(s) shall be limited to a 'Small Engine Repair Business';
  - ii. A "Small Engine Service Shop" shall be defined as an establishment wherein small engines, such as lawnmowers, chainsaws, tillers, snow blowers, or other similar items may be repaired or serviced but may not include the repair and servicing or recreational vehicles, automobiles, and trucks,
  - iii. The following will not be permitted:
    - Automobile Car Wash;
    - Automobile Service Station;
    - Automobile Repair Establishment;
    - Automobile Sales Establishment;
    - Automobile Wrecking Yard;
  - iv. The minimum side yard setback shall be 3.8 meters (12.5 feet);
  - v. The minimum ground floor area shall be  $63.2 \text{ m}^2$  ( $680 \text{ ft}^2$ ); and
  - vi. <u>Section 3.20</u> Watercourse Setbacks (b) and (c) shall not apply.

Municipality of Brockton By-law #2001-36 (McNall, Lot 15, Concession 3, former Greenock)

- .2 Notwithstanding their 'RCI' Zoning designation, those lands delineated as **'RCI-2'** on Schedule 'A' to this By-law shall be used in accordance with the 'RCI' Zone provisions contained in this By-law, excepting however, that:
  - i. <u>Residential Uses</u> shall be limited to a 'dwelling, accessory detached' in accordance with <u>Section 3.8.2</u>;

- ii. <u>Non-Residential Uses</u> shall be limited to a commercial/wholesale use solely dedicated to the sale, installation, distribution, storage and design of after-market automotive accessories; and accessory buildings and structures for the permitted use;
- iii. No further additions to existing structures or construction/erection of new structures shall be permitted;
- iv. The maximum 'floor area, total' for the non-residential uses shall be no greater than 486 m<sup>2</sup>; and,
- v. Minimum separation distance form accessory detached dwelling shall be as it existed on the date of passing of this By-law.

# SECTION 19 – EXTRACTIVE INDUSTRIAL (M3

# 19.1 SCOPE

The provisions of Section 19 apply only on lands designated 'License Aggregate/Quarry Operation' on Schedule 'A': Land Use of the County of Bruce Official Plan.

## 19.2 USES PERMITTED

No person shall within the 'Extractive Industrial (M3)' zone use any lot or erect, alter or use any building or structure for any purpose except one or more of the following uses:

- a) <u>Residential Uses</u>
  - Prohibited
- b) <u>Non-Residential Uses</u>
  - General Agriculture
  - Pit
  - Portable Asphalt Plant
  - Portable Concrete Plant
  - Quarry
  - Buildings, structures and uses accessory to a permitted use [i.e., open storage, scales, pump buildings, administration, equipment storage, and fuel pumps]
  - Processing of natural materials extracted from the site including screening, sorting, washing, crushing, storing, and other similar operations allied to a 'Pit' or 'Quarry' operation.

## 19.3 ZONE PROVISIONS

No person shall within any 'Extractive Industrial (M3)' Zone use any lot or erect, alter or use any building or structure except in accordance with the following provisions:

Provisions	Non-Residential Uses
Minimum Lot Area	1 hectare (2.5 ac)
Minimum Lot Frontage	30 metres (98 ft)

## 19.4 ADDITIONAL PROVISIONS – EXTRACTIVE INDUSTRIAL

- .1 No excavation shall occur within:
  - i. 15 metres (50 ft) to the boundary of the licensed area.
  - ii. 30 metres (98 ft) to any part of the boundary of the licensed area that abuts:
    - a) a Class 1 or 2 Street; or
    - b) land in use for residential purposes at the time the license was issued, or land zoned Residential or Institutional when an aggregate license is issued.
  - iii. 30 metres (98 ft) of a watercourse.

- .2 All excavation faces are to be stabilized in so far as to prevent erosion into the excavation setback area and every excavation face shall be sloped to no greater than 45 degrees off horizontal.
- .3 No mineral aggregate resource, aggregate pile, topsoil pile, overburden pile, or any building or structure shall be located closer than:
  - i. 30 metres (98 ft) of the boundary of the licensed area; and
  - 90 metres (295 ft) of the boundary of the licensed area abutting a Class 1 or 2
     Street; or a residential dwelling existing at the time an aggregate license is issued, or land zoned Residential or Institutional when an aggregate license is issued

Where an interior lot line in an M3 zone abuts land held in separate ownership but is also zoned M3, no setback may be required.

- .4 All machinery employed in the processing or recycling of mineral aggregate resources and derived products such as asphalt and concrete or the production of secondary related products shall be located no closer than:
  - i. 30 metres (98 ft) of the boundary of the licensed area; and
  - ii. 90 metres (295 ft) of the boundary of the licensed area abutting a Class 1 or 2 Street; or a residential dwelling existing at the time an aggregate license is issued, or land zoned Residential or Institutional when an aggregate license is issued
- .5 Berms that are intended to screen the adjoining lands from the operation on the site are exempt from Section 19.4.3.
- .6 All berms shall be located at least three metres inside of the boundary of the licensed area.
- .7 Adequate vegetation shall be established and maintained to control erosion of any topsoil or overburden on the site.
- .8 Visual Buffering shall be provided in accordance with the following requirements:
  - i. Visual Buffering shall be planted and maintained along the boundary of the licensed area that abuts a street/road and along any boundary line within 60 metres (197 ft) of a 'Institutional Use' or a dwelling or Residential zone, except for entrances and exits; and
  - ii. Visual Buffering shall provide a year round visual barrier and shall be a minimum of 15 metres (50 ft.) in width and consist of a dense screen of shrubs and/or evergreen trees, a minimum of one metre (3 ft.) in height when planted and of a type that will attain a minimum height of 6 metres (20 ft.) at maturity; and
  - iii. Where required on a street corner of a corner lot, Visual Buffering shall be located in such a way as not to form an obstruction to traffic and as required by the sight visibility triangles required by this By-Law.

## 19.5 SPECIAL PROVISIONS

Township of Greenock By-law #96-17 (Lot 9, Concession 9)

.1 Notwithstanding their 'M3' Zoning designation, those lands delineated as **'M3-1'** on Schedule 'A' to this By-law shall be used in accordance with the 'M3' Zone provisions contained in this By-law, excepting however, that:

Minimum lot frontage shall be 0.0 metres (0.0 ft.); and,

Minimum driveway setback from any property line shall be 0.0 metres (0.0 ft.).

Township of Greenock By-law #98-06 (Part of Lots 69 and 70 and Lots 71 and 72, Concession 1 SDR - Formosa Environmental Aggregate)

- .2 Notwithstanding their 'M3' Zoning designation, those lands delineated as **'M3-2-H'** on Schedule 'A' to this By-law shall be used in accordance with the 'M3' Zone provisions contained in this By-law, excepting however, that:
  - i. A 'quarry' licensed under the Aggregate Resources Act may be permitted;
  - ii. All 'quarry' operations shall comply with the plans approved through the Class A Quarry License issued under the Aggregate Resources Act;
  - iii. Permitted accessory uses shall include, but not be restricted to, a truck scale; a scale house with and office and locker room; a pump house; and a bagging/processing plant;
  - iv. <u>Section 3.6.5</u> shall not apply;
  - v. The 'H holding' symbol may be removed once the following conditions have been met:
    - 1) The conditions of BCOPA #128 Bruce County Official Plan Amendment South are in force and effect; and,
    - 2) Class A Quarry License and Site Plan issued under the Aggregate Resources Act are in effect.

# SECTION 20 - RURAL AND URBAN INSTITUTIONAL (INR & IN)

## 20.1 SCOPE

The provisions of the Rural Institutional (INR) and Urban Institutional (IN) zones shall generally apply to institutional development located in rural and urban areas of the Municipality.

### 20.2 USES PERMITTED

No person shall within a 'Rural Institutional (INR) zone or 'Urban Institutional (IN)' zone use any lot or erect, alter or use any building or structure for any purpose except the following:

PERMITTED USES	INSTITUTIONAL- RURAL (INR)	INSTIUTIONAL - URBAN (IN)
'Dwelling, Accessory Apartment' as per <u>Section 3.8.1</u>	$\checkmark$	$\checkmark$
'Dwelling, Accessory Detached' as per <u>Section</u> <u>3.8.2</u> , used only in association with 'Assembly Hall'	$\checkmark$	$\checkmark$
Assembly Hall		
Cemetery	$\checkmark$	$\checkmark$
Clinic	Not Permitted	$\checkmark$
Day Care Nursery (Licensed)-deleted by By- law 2016-028	Not Permitted	*
Child Care Centre <i>(added by By-law 2016- 028)</i>	Not Permitted	$\checkmark$
Educational Facility	Not Permitted	$\checkmark$
Group Home - Type Two	Not Permitted	$\checkmark$
Hospital	Not Permitted	$\checkmark$
Public Building	Not Permitted	$\checkmark$
Public Park	$\checkmark$	$\checkmark$
Recreation Centre	Not Permitted	$\checkmark$
Residential Care Facility	Not Permitted	$\checkmark$
Accessory Buildings & Structures as per Section 3.6	$\checkmark$	$\checkmark$

# 20.3 ZONE PROVISIONS

No person shall within any 'Institutional – Rural (INR)' or 'Institutional – Urban (IN)' zone use any land or erect, alter or use any building or structure except in accordance with the following provisions:

Provisions	Municipal and Municipal Sewer	Municipal Water	No Municipal Services
Minimum Lot Area	550 m <sup>2</sup> (5,920 ft <sup>2</sup> )	0.4 hectares (1 ac)	0.8 hectares (2 ac)
Minimum Lot Frontage	15 metres (49 ft)	40 metres (131 ft)	40 metres (131 ft)
Minimum Front Yard	6.0 metres (20 ft)	10 metres (33 ft)	10 metres (33 ft)
Minimum Exterior Side Yard	6.0 metres (20 ft)	10 metres (33 ft)	10 metres (33 ft)
Minimum Interior Side Yard		5 metres (16 ft)	
Minimum Rear Yard		10 metres (33 ft)	
Maximum Building Height – 'Main Building'	10 metres (33 ft)		
Maximum Lot Coverage	40%	25%	20%

# 20.4 SPECIAL PROVISIONS – INR

Township of Brant By-Law #81-855 (Part Lot 17 and Part Lot 18, Concession B, Brant) Township of Brant By-Law #81-855 (Part Lot 1, Concession 8, Brant) Township of Brant By-Law #81-855 (Part Lot 25, Concession 10, Brant) Township of Brant By-Law #81-855 (Part Lot 26, Concession 10, Brant) Township of Brant By-Law #81-855 (Part Lot 74, Concession 2 SDR, Brant) Township of Brant By-Law #81-855 (Part Lot 12 & 13, Concession 1 NDR, Brant) Township of Brant By-Law #81-855 (Part Lot 31, Concession 9, Brant) Township of Brant By-Law #81-855 (Part Lot 34, Concession 9, Brant) Township of Brant By-Law #81-855 (Part Lot 34, Concession 9, Brant) Township of Brant By-Law #81-855 (Part Lot 19, Concession 14, Brant) Township of Brant By-Law #81-855 (North Lot 25, Concession 5, Brant) Township of Brant By-Law #81-855 (North Lot 25, Concession 5, Brant) Township of Brant By-Law #81-855 (Part Lot 28, Concession 4, Brant) Township of Brant By-Law #81-855 (Part Lot 28, Concession 4, Brant)

.1 Notwithstanding their 'IN' Zoning designation, those lands delineated as 'INR-1' on Schedule 'A' shall only be used for the purposes of a 'Cemetery', as it existed on the date of passage of this By-Law, and in accordance with the 'INR' Zone provisions contained in this By-Law.

Township of Brant By-Law #81-855 (Part Lot 74, Concession 2 NDR, Brant)

Township of Brant By-Law #81-855 (Part Lot 30, Concession 14, Brant)

Township of Brant By-law #81-855 (Part Lot 34, Concession 9, Brant)

.2 Notwithstanding their 'INR' Zoning designation, those lands delineated as 'INR-2' on Schedule 'A' shall only be used for the purposes of a 'assembly hall', as it existed on the date of passage of this By-Law, and in accordance with the 'INR' Zone provisions contained in this By-Law.

Township of Brant By-Law #2007-49/81-855 (Part Lot 31, Concession 5, former Brant)

.3 Notwithstanding their 'INR' Zoning designation, those lands delineated as 'INR-3' on Schedule 'A' shall only be used for a 'Place of Worship' and 'Cemetery', in accordance with the 'INR' Zone provisions contained in this By-Law excepting however that the rear lot line shall be no closer than 262 metres from neighbouring livestock facilities (MDS I).

Township of Brant By-Law #81-855 (Part Lot 66, Concession 1 SDR, Brant - Hanover Knights of Columbus Hall)

.4 Notwithstanding their 'INR' Zoning designation, those lands delineated as 'INR-4' on Schedule 'A' shall only be used for a 'Assembly Hall', as it existed on the date of passage of this By-Law, and in accordance with the 'INR' Zone provisions contained in this By-Law.

#### 20.5 SPECIAL PROVISIONS - IN

Town of Walkerton By-law #92-35 (Walkerton, Walkerton Church of Latter Day Saints)

- .1 Notwithstanding their 'IN' Zoning designation, those lands delineated as **'IN-1'** on Schedule 'A' to this By-law shall be used in accordance with the 'IN' Zone provisions contained in this By-law, excepting however, that:
  - i. Permitted uses shall be limited to an 'assembly hall' and accessory uses; and,
  - ii. No off-street parking shall be permitted in the required front yard.

Town of Walkerton By-law #92-35 (Walkerton)

- .2 Notwithstanding their 'IN' Zoning designation, those lands delineated as **'IN-2'** on Schedule 'A' to this By-law shall be used in accordance with the 'IN' Zone provisions contained in this By-law, excepting however, that:
  - i. Permitted uses shall be limited to a 'parking lot' for an 'assembly hall'.

Town of Walkerton By-law #92-35 (Walkerton Community Centre)

- .3 Notwithstanding their 'IN' Zoning designation, those lands delineated as **'IN-3'** on Schedule 'A' to this By-law shall be used in accordance with the 'IN' Zone provisions contained in this By-law, excepting however, that:
  - Permitted uses shall be the following: weekly farmer's market; community trade shows; exhibitions; auctions; agricultural society activities; 'public park'; recreational use - high intensity'; and an amusement midway in addition to all other 'IN' permitted uses.

Town of Walkerton By-law #2002-47 (Walkerton Firehall, Plan 7 Part of Lots 47, 48, 49, 50 and 54; Plan 7 Lots 51, 52 and 53; Plan 7 Lots 79, 80, 81 and 82; Plan 7 Part of Lot 83; closed portion of Robinson Street; and Plan 162 Part of Park Lot P, former Walkerton)

- .4 Notwithstanding their 'IN' Zoning designation, those lands delineated as **'IN-4'** on Schedule 'A' to this By-law shall be used in accordance with the 'IN' Zone provisions contained in this By-law, excepting however, that:
  - i. Permitted uses shall be limited to a municipal firehall.

## SECTION 21- RURAL AND URBAN OPEN SPACE (OSR & OS)

# 21.1 SCOPE

The provisions of Section 21 apply only on lands designated 'Major Open Space' on Schedule 'A': Land Use of the County of Bruce Official Plan and lands designated 'Recreation and Open Space' on Schedule 'A' – Land Use for the Walkerton Community Official Plan.

## 21.2 USES PERMITTED

No person shall within any 'Rural Open Space (OSR)' or 'Urban Open Space' zone use any lot or erect, alter or use any building or structure for any purpose except for one or more of the following uses:

PERMITTED USES	RURAL OPEN SPACE	URBAN OPEN SPACE
	(OSR)	(OS)
'Dwelling, Accessory Apartment' in	$\checkmark$	✓
accordance with <u>Section 3.8.1</u> or a	·	· ·
'Dwelling, Accessory Detached' in		
accordance with a 'golf course' by an		
owner or caretaker of the principal use		
Adventure Game	✓	Not Permitted
Agriculture General	$\checkmark$	Not Permitted
Boat Launching & Docking	$\checkmark$	✓
Conservation Area	$\checkmark$	✓
Cross Country Ski Facility	$\checkmark$	✓
Golf Course	✓	✓
Golf Course, Miniature	Not Permitted	✓
Golf Driving Range	✓	✓
Gun Club	$\checkmark$	Not Permitted
Public Park	√	✓
Snowmobile Club	✓	Not Permitted

# 21.3 ZONE PROVISIONS

No person shall within any 'Rural Open Space (OSR)' or 'Urban Open Space (OS)' zone use any land or erect, alter or use any building or structure except in accordance with the following provisions:

Provisions	For All Services (Municipal or Private)
Minimum Lot Area	0.5 hectares (1.2 ac)
Minimum Front or Exterior Yard	15 metres (49.2 ft)
Minimum Side/Rear Yard	10 metres (33 ft)
Maximum Height – Main Building	10 metres (33 ft)
Maximum Lot Coverage	5%

## 21.4 ADDITIONAL SETBACKS- GUN CLUB

No 'Gun Club' shall be permitted within 250 metres (820 ft.) of any dwelling or Residential Zone or Institutional Use.

## 21.5 SPECIAL PROVISIONS – OSR

Township of Brant By-Law #81-855 (Lot 17, Concession 1 NDR, Brant)

- .1 Notwithstanding their 'OSR' Zoning designation, those lands delineated as **'OSR-1'** on Schedule 'A' to this By-Law shall be used in accordance with the 'OSR' Zone provisions contained in this By-Law excepting however that:
  - i. Uses permitted shall be limited to a 'Golf Course' and 'Curling Club'.

Municipality of Brockton By-Law No. 2009-52 (Part Lots 68 - 70, Concession 1 NDR and Part Lots 70 and 71, Concession 2 NDR [being Parts 23 and 24 on Plan 171], former Brant - Hanover Walkerton Landfill)

- .2 Notwithstanding their 'OSR' Zoning designation, those lands delineated as 'OSR-2' on Schedule 'A' to this By-Law shall be used in accordance with the permitted uses and the regulations of the 'OSR' Zone contained in this By-Law, excepting however, that:
  - i. Uses accessory to and/or appurtenant to a 'sold waste disposal site' shall be permitted; and,
  - ii. <u>Section 3.6.1</u> Prohibited Structures (Accessory Buildings) shall not apply except (1) one construction trailer shall be permitted as an accessory building.

### 21.6 SPECIAL PROVISIONS - OS

Municipality of Brockton By-law #2003-45 (Cunningham/Zettler/Brockton, Plan 195 Lots 17-27, 30-35, Part of Lots 15, 16, 28 and 36 and Part of Frank Street (Part 1 on RP 3R-5614) and Plan 162 Part of Park Lot 47 (Part 1 on RP 3R-7721, Cunningham Road, Walkerton)

- .1 Notwithstanding their 'OS' Zoning designation, those lands delineated as **'OS-1'** on Schedule 'A' to this By-law shall be used in accordance with the 'OS' Zone provisions contained in this By-law, excepting however that:
  - i. Uses permitted shall be a 'public park' limited to passive recreation and shall not include any community centres, bleachers, swimming pools, bandstands, skating rinks, camping area, arenas, golf courses, bowling green, tennis courts or lacrosse box.

# SECTION 22 – WASTE DISPOSAL (WD)

# 22.1 SCOPE

The provisions of the Waste Disposal (WD) Zone shall generally apply on lands designated for such uses on Schedule 'A': Land Use of the County of Bruce Official Plan or on Schedule 'A' - Land Use Plan for the Walkerton Community Official Plan.

## 22.2 USES PERMITTED

No person shall within any 'Waste Disposal (WD)' zone use any lot or erect or use any building or structure for any purpose except one or more of the following uses:

- (a) <u>Residential Uses</u>
  - Prohibited
- (b) <u>Non-Residential Uses</u>
  - Communal Sewage Disposal System
  - Composting Facility
  - Portable Asphalt Plant or Portable Concrete Plant
  - Recycling Centre
  - Sewage Treatment Plant
  - Solid Waste Disposal Site
  - Uses accessory to the permitted use [open storage, scales, pump buildings, administration, equipment storage, and fuel pumps]
  - Wayside Pit, Wayside Quarry

## 22.3 ZONE PROVISIONS

No person shall within any 'Waste Disposal (WD)' zone use any lot or erect, alter or use any building or structure except in accordance with the following provisions:

Provisions	Non-Residential Uses
Minimum Lot Area	2 hectares (5 ac)
Minimum Lot Frontage	20 metres (66 ft)
Minimum Setback from all Lot Lines (Buildings/Structures)	15 metres (50 ft)
Minimum Setback from Lot Line (All other activities)	30 metres (100 ft)
Maximum Building Height	10 metres (33 ft)
Maximum Lot Coverage (Buildings/Structures)	1%

### 22.4 PLANTING AREAS

Except for entrances and exits, planting areas having a minimum width of 15 metres (49.2 ft) and consisting of a dense screen of shrubs and evergreen trees, minimum 1 metre (3 ft) high when planted and of a type that will attain a minimum height of 6 metres (20 ft) at maturity and as well provide a year round visual barrier, shall be planted and maintained along any street lot line and along any lot line abutting any Residential or Institutional zone.

#### 22.5 SPECIAL PROVISIONS

# SECTION 23 – AIRPORT ZONE (AP

### 23.1 USES PERMITTED

No person shall within the 'Airport (AP)' zone use any lot or erect, alter or use any building or structure for any purpose except one or more of the following uses:

- a) <u>Residential Uses</u>
  - 'Dwelling, Accessory Apartment' in accordance with <u>Section 3.8.1</u> used only by an airport manager/owner or caretaker.

#### b) <u>Non-Residential Uses</u>

- Airport
- Aircraft Hangar
- Industrial, Dry limited to the assembly/manufacture of complete aircraft
- Restaurant
- Buildings, structures and uses accessory to a Non-Residential Use limited to bulk fuel storage, airport service equipment maintenance garage, open storage area, parking lot, warehouse, terminal/business office and flight school.

#### 23.2 ZONE PROVISIONS

No person shall within any 'Airport (AP)' zone use any lot or erect, alter or use any building or structure except in accordance with the following provisions:

Provisions	Non-Residential Uses
Minimum Lot Area	Not applicable
Minimum Lot Frontage	30 metres (100 ft)
Minimum Building Setbacks – All lot lines	30 metres (100 ft)

## 23.3 ADDITIONAL PROVISIONS – AIRPORT ZONE

- 23.3.1 No part of any parking space shall be located closer than 3 metres (10 ft) to any street lot line; or 9 metres (30 ft.) to any lot line.
- 23.3.2 No part of any bulk fuel storage, fuel pump or open storage area for combustible materials shall be located closer than 30 metres (100 ft.) to any lot line.
- 23.3.3 'Open Storage Areas' shall be in accordance with 'Section 3.17.1 Open Storage Areas'.

## 23.4 SPECIAL PROVISIONS

Township of Brant By-Law #90-1077 (Part Lot 64 and 65, Concession 2 NDR - Airport)

.1 Notwithstanding their 'AP' Zoning designation, those lands delineated as 'AP-1' on Schedule 'A' shall only be used in accordance with the following provisions:

## i. Uses Permitted

No person shall within the 'AP-1' zone use any lot or erect, alter or use any building or structure for any purpose except one or more of the following uses:

- Industrial, Dry limited to the assembly/manufacture of complete aircraft
- Bulk fuel storage
- Maintenance garage and storage for airport service equipment
- Aircraft Hangar
- Open storage area
- Parking lot
- Flight school
- Accessory Business Office
- Dwelling, Accessory Apartment' in accordance with <u>Section 3.8.1</u>, to be used exclusively and solely in support of a Permitted Use. A 'Dwelling, Accessory Apartment' shall not be permitted in association with Bulk fuel storage, Parking lot or Open storage area.
- ii. Provisions

Minimum Lot Area	0.8 hectares (2.0 ac)	
Minimum Lot Frontage	30 metres (100 ft)	
Minimum Front Or Exterior Yard	15.24 metres (50 ft)	
Minimum Side Yard	7.62 metres (25 ft)	
Minimum Rear Yard	7.62 metres (25 ft)	
Maximum Building Height	As per ' <u>Section 3.12</u> Height Restrictions Around Municipal Airport' but no greater than 10 metres (33 ft)	
Maximum Lot Coverage	15%	
Parking Space Requirements	3 parking spaces	

## iii. Additional Provisions 'AP-1' Zone

- a) No part of any Parking Space shall be located closer than 3 metres (10 ft) to any street lot line; or 9 metres (30 ft) to any lot line.
- b) No part of any bulk fuel storage, fuel pump or storage area for combustible materials shall be located closer than 7.62 metres (25 ft) to any lot line.
- c) 'Open Storage Areas' shall be in accordance with '<u>Section 3.17.1</u> Open Storage Areas'.

# SECTION 24 - ENVIRONMENTAL PROTECTION (EP)

# 24.1 SCOPE

The provisions of the Environmental Protection (EP) Zone shall generally apply to lands designated 'Hazard' on Schedule 'A': Land Use of the County of Bruce Official Plan or designated 'Environmental Protection' on Schedule 'A' – Land Use Plan for the Walkerton Community Official Plan.

## 24.2 USES PERMITTED

No person shall within the 'Environmental Protection (EP)' zone use any lot for any purpose except for one or more of the following uses:

- (a) Non-Residential Uses
  - Agriculture, General uses existing as of the date of passage of the zoning by-law
  - Cross Country Ski Facility
  - Conservation Area
  - Public park
  - Boat Launching and Docking

## 24.3 STRUCTURES PROHIBITED

Notwithstanding any other provisions and definitions of this By-law, all buildings and structures shall be prohibited in an 'Environmental Protection (EP)' zone except for the following:

- i. Those necessary for flood and/or erosion control purposes in accordance with Section 24.3;
- ii. Unenclosed picnic shelters;
- iii. Washroom facilities associated with a Public Park or Conservation Area;
- iv. Buildings for essential public services;
- v. Boat Launching and Docking.

## 24.4 ZONE PROVISIONS

No person shall within any 'Environmental Protection (EP)' zone use any land or erect, alter or use any building or structure, except in accordance with the following provisions:

Provisions	Flood Control Buildings
Minimum Building Setback from Any Lot Line	10 metres (33 ft)
Maximum Building Size	20 m <sup>2</sup> (215ft <sup>2</sup> )
Maximum Building Height	3 metres (10 ft)

# Explanatory Note

# Ontario Regulation 169/06 Development, Interference with Wetlands and Alterations to Shorelines and Watercourses.

Some of the lands within and adjacent to the Environmental Protection zone as shown on the By-Law schedules may be subject to Saugeen Valley Conservation Authority's Ontario Regulation 169/06 – Development, Interference with Wetlands and Alterations to Shorelines and Watercourses. Where development or site works are proposed within a Regulated Area, as shown on schedules filed with the Conservation Authority where such mapping exists a permit from the SVCA may be required. The SVCA should be contacted to determine the extent of the Regulated Area. The SVCA should be consulted before development including construction, reconstruction, conversion, grading, filing or excavating occurs to determine whether the Authority Regulations apply.

# 24.5 SPECIAL PROVISIONS

Provincially Significant Wetlands

.1 Notwithstanding their 'EP' Zoning designation, those lands delineated as 'EP-1' on Schedule 'A' to this By-Law, shall only be used for existing agricultural uses and 'forestry/silvaculture' and outdoor recreational activities which are non-intensive in nature and are compatible with the surrounding natural environment including uses such as nature interpretation, hiking and walking trails, cross-country skiing, fishing and hunting in accordance with the 'EP' Zone provisions contained in this By-Law, excepting however that notwithstanding the provisions of <u>Section 4.7.1.7</u>, the boundaries and uses of the 'EP-1' Zone shall not be altered except by a By-Law passed under Section 34 of the Planning Act, R.S.O 1990 as amended.

All buildings and structures shall be prohibited in a 'EP-1' zone except those necessary for flood and/or erosion control purposes in accordance with Section 24.3. Site alteration, such as filling or excavation is not permitted within the 'EP-1' zone except to allow existing agricultural uses to continue.

Township of Brant By-Law #96-1231 (Part Lot 66/67, Con 2 NDR - Lake Rosalind)

- .2 Notwithstanding their 'EP' zoning designation, lands designated '**EP-2'** on Schedule 'A' to this By-Law, may be used for environmental protection uses in accordance with the 'EP' Zone provisions, excepting, however, that:
  - i. The maximum ground floor area shall be no more than 29.75 square metres;
  - ii. The lowest floor elevation shall not be at a level that is lower than 1.5 metres above the water's edge;
  - iii. The minimum setback from the water's edge shall be 10.7 metres.

Township of Brant By-Law #81-855 [Part Lot 66, Concession 1 SDR, former Brant - Saugeen Great Escape]

.3 Notwithstanding their 'EP' Zoning designation, those lands delineated as 'EP-3' on Schedule 'A' shall only be used for the purposes of a 'Hotel/Motel' and 'Restaurant' as they existed on the date of passage of this By-Law. No further changes, additions, and alterations to the buildings or structures shall be permitted.

Township of Brant By-Law #86-1045 (Part Lot 13, Concession 10, former Brant)

.4 Notwithstanding their 'EP' Zoning designation, those lands delineated as **'EP-4'** on Schedule 'A' shall only be used for the purposes of a non-habitable agricultural equipment and machinery storage building in accordance with the 'A1' Zone provisions excepting however than the maximum ground floor area shall be no more than 195.1 square metres. No further changes, additions, and alterations to the buildings or structures shall be permitted.

Township of Brant By-Law #97-1248 (Part Lot 31 & 32, Concession 4 - Lake Rosalind, former Brant)

.5 Notwithstanding their 'EP' Zoning designation, those lands delineated as **'EP-5'** on Schedule 'A' shall be maintained in its natural state.

Township of Brant By-Law #81-855 (Part Lot 66, Concession 1 SDR, former Brant - Hanover Knights of Columbus Hall)

.6 Notwithstanding their 'EP' Zoning designation, those lands delineated as **'EP-6'** on Schedule 'A' shall only be used for an 'Assembly Hall', as it existed on the date of passage of this By-Law. No further changes, additions, and alterations to the buildings or structures shall be permitted.

Township of Brant By-Law #83-929 (Part Lots 6 & 7, Concession 1 NDR, former Brant - Walkerton Wells)

- .7 Notwithstanding their 'EP' Zoning designation, those lands delineated as **'EP-7'** on Schedule 'A' shall only be used for the purposes of a 'public utility building' as it existed on the date of passage of this By-Law, and in accordance with the 'EP' Zone provisions contained in this By-Law, excepting however that:
  - i. The maximum height of any buildings or structures shall not exceed 3.5 metres;
  - ii. The maximum number of buildings or structures shall not exceed three (3).

Municipality of Brockton By-Law #2006-35 (Part Lot 9, Concession 1 SDR, former Brant - Andy's Country Repair)

.8 Notwithstanding their 'EP' Zoning designation, those lands delineated as **'EP-8-H'** on Schedule 'A' shall be used in accordance with the 'EP' Zone provisions contained in this By-Law, excepting however that:

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- i. Uses permitted shall be limited to an 'Automobile Wrecking Yard'.
- ii. No buildings or structures shall be permitted.

- iii. The setbacks for the outdoor storage of scrap automobiles, or commercial motor vehicles, salvage or parts shall be no less than as they existed as of the date of the passing of this By-Law;
- iv. The lands shall be subject to Site Plan Control; and
- v. The 'H' provision may be removed once the following conditions have been met:
  - 1. A statement from the Chief Building Official, Municipality of Brockton, stating that a Planting area has been created as outlined in the Site Plan Control Agreement; and
  - 2. A Site Plan Control Agreement has been registered on title.

Township of Brant By-Law #97-1248 (Part Lot 31 and Part Lot 32, Concession 4, former Brant)

.9 Notwithstanding their 'EP' Zoning designation, those lands delineated as **'EP-9'** on Schedule 'A' shall be used in accordance with the 'EP' Zone provisions contained in this By-Law, excepting however that the minimum lot area shall be 16.2 ha. (40 acres).

Pearl, Dankert, Rosalind and Marl Lakes

.10 Notwithstanding their 'EP' Zoning designation, those lands delineated as **'EP-10'** on Schedule 'A' shall be used in accordance with the 'EP' Zone provisions contained in this By-Law, excepting however that 'Agriculture, General', 'Cross Country Ski Facility' and 'Snowmobile Club' and 'Gun Club' shall not be permitted.

Township of Brant By-Law #86-1046 (Lot 74, Concession 2 SDR, former Brant - Hanover Recreational)

- .11 Notwithstanding their 'EP' Zoning designation, those lands delineated as **'EP-11'** on Schedule 'A' shall be used in accordance with the 'EP' Zone provisions contained in this By-Law excepting however that:
  - i. The permitted use(s) shall be limited to a 'Recreation Centre';
  - ii. A "Recreation Centre" means the use of land for such uses as public or private parks, playgrounds, playfields, racquetball club, tennis courts, lawn bowling greens, indoor and outdoor skating rinks, curling facilities, hockey arenas, athletic fields, field houses, recreational trails and similar uses together with necessary and accessory buildings and structures, but does not include a track for the racing of animals, motor vehicles, snowmobiles, all-terrain vehicles or motor cycles.

Township of Greenock By-law #91-07 (Part of Lot 51, Concession A and Part of Lot 33 Plan 7, former Greenock - former Stark Mill)

- .12 Notwithstanding their 'EP' Zoning designation, those lands delineated as **'EP-12'** on Schedule 'A' shall be used in accordance with the 'EP' Zone provisions contained in this By-law, excepting however that:
  - i. The following uses are permitted within the existing building: 'Restaurant' with a maximum 'Floor Area, Total' of 111.5 sq. metres; 'Hotel/Motel'; 'Tavern'; generation of electricity via the rehabilitation of hydraulic wheels; and 'Dwelling, Accessory Apartment' for the exclusive use of the owner, manager or caretaker of the primary use; and,

ii. The surrounding lands may be utilized for parking facilities, lighting facilities and walkways intended to provide public viewing of the subject lands.

Township of Greenock By-law #99-85 (Part of Lot 5, Concession 7, Chepstow - Mullin's Farm Supply)

- .13 Notwithstanding their 'EP' Zoning designation, those lands delineated as **'EP-13'** on Schedule 'A' shall be used in accordance with the 'EP' Zone provisions contained in this By-law, excepting however that:
  - i. Permitted uses shall be limited to a 'Farm Implement Establishment' and a 'Dwelling, Accessory Detached';
  - ii. Maximum number of buildings on the subject lands shall be three (3);
  - iii. Maximum 'Ground Floor Area, Total' for the 'Farm Implement Establishment' shall be 475.7 sq. metres; and,
  - iv. Maximum 'Ground Floor Area, Total' for storage of farm implement machinery shall be 557.4 sq. metres.

Municipality of Brockton By-law #2001-36 (Lot 15, Concession 3, Greenock - McNall)

- .14 Notwithstanding their 'EP' Zoning designation, those lands delineated as **'EP-14'** on Schedule 'A' to this By-law shall be used in accordance with the 'EP' Zone provisions contained in this By-law, excepting however, that:
  - i. Permitted uses shall be limited to a pump house for a private water well; and,
  - ii. Any filling, grading and/or excavation that would change the landform and/or natural vegetation characteristics of the zone are prohibited.

Municipality of Brockton By-law #2007-68 (Lot 11 and Part of Lot 12, Concession 9 and Part of Lot 12, Concession 10, former Greenock - Tony Lang Farms Ltd.)

- .15 Notwithstanding their 'EP' Zoning designation, those lands delineated as **'EP-15'** on Schedule 'A' to this By-law shall be used in accordance with the 'EP' Zone provisions contained in this By-law, excepting however, that:
  - i. Permitted uses shall be limited to an existing 'dwelling' and an existing accessory building.

Municipality of Brockton By-law #2009-18 (Lots G, H, I and J, Concession 25, former Greenock - 1775163 Ontario Inc.)

- .16 Notwithstanding their 'EP' Zoning designation, those lands delineated as **'EP-16'** on Schedule 'A' to this By-law shall be used in accordance with the 'EP' Zone provisions contained in this By-law, excepting however, that:
  - i. The construction of any new non-habitable buildings and/or structures for the purposes of flood and/erosion control, parks, conservation and sporting activities shall be prohibited; and,
  - ii. No filling, grading, excavating or site alteration shall be permitted except for the widening of the driveway upon approval from Saugeen Valley Conservation Authority.

Town of Walkerton By-law #92-35 (various properties)

- .17 Notwithstanding their 'EP' Zoning designation, those lands delineated as **'EP-17'** on Schedule 'A' to this By-law shall be used in accordance with the 'EP' Zone provisions contained in this By-law, excepting however, that:
  - i. Private indoor/outdoor swimming pool uses shall be prohibited.

Municipality of Brockton By-law#2010-04 (Part Park Lots 7 and 8 Plan 84 and Lot 26 Plan 162 (being Part 2 on RP 3R-3464), former Walkerton)

- .18 Notwithstanding their 'EP' Zoning designation, those lands delineated as **'EP-18'** on Schedule 'A' to this By-law shall be used in accordance with the 'EP' Zone provisions contained in this By-law, excepting however, that:
  - ii. Private indoor/outdoor swimming pool uses and unenclosed decks shall be prohibited.

#### SECTION 25- PLANNED DEVELOPMENT (PD)

#### 25.1 USES PERMITTED

No person shall within a 'Planned Development (PD)' zone use any lot or erect, alter or use any building or structure, for any purpose except the following:

- i) Uses, buildings and structures existing at the date of passing of this By-Law.
- ii) Alteration and/or enlargement of an existing 'dwelling' and/or accessory structures shall be as follows:

a) On lands designated 'Hamlet' on Schedule 'A': Land Use of the County of Bruce Official Plan in accordance with the provisions of the 'HR' zone.

b) On lands designated 'Inland Lake Development Area' on Schedule 'A': Land Use of the County of Bruce Official Plan in accordance with the provisions of the 'LR' zone.

- iii) New 'Dwellings, single detached' and accessory structures on an existing lot not located in a Hamlet in accordance with the provisions of the 'A1' zone.
- iv) Expansions to 'Livestock Facilities', 'Manure or Material Storage' or other agricultural buildings designed for housing livestock shall be prohibited.
- v) On lands in Walkerton in accordance with the provisions of the 'R1' zone.

#### 25.2 SPECIAL PROVISIONS

#### SECTION 26 – ENACTMENT

#### 26.1 CONFLICT WITH OTHER BY-LAWS

In the event of any conflict or inconsistency between this By-Law and any other general or special By-Law of the Corporation, the provisions of this By-Law shall prevail.

#### 26.2 REPEAL OF EXISTING BY-LAWS

From the coming into force of this By-law, all previous By-laws passed under Section 34 of the Planning Act, R.S.O. 1990 as amended, or a predecessor thereof, pertaining only to the lands identified on Schedule 'A' to this By-law, shall be deemed to have been repealed except to the extent that any of the said By-laws prohibits the use of any land, building or structure for a purpose that is also prohibited by this By-law.

#### 26.3 EFFECTIVE DATE

This By-Law shall come into effect on the date it is passed by Council subject to compliance with the provisions of The Planning Act, R.S.O. 1990 as amended.

READ A FIRST & SECOND TIME THIS 25<sup>TH</sup> DAY OF MARCH, 2013.

READ A THIRD TIME & FINALLY PASSED THIS 25<sup>TH</sup> DAY OF MARCH, 2013.

Original Signed by Mayor Inglis

Original Signed by Clerk Roth

Debra Roth

David Inglis

MAYOR

CLERK

#### Appendix 'B' MANURE STORAGE AND LIVESTOCK FACILITY CALCULATIONS

#### Table 1: Calculation of Manure or Material Storage Setback from Watercourses + Open Municipal Drains

- Step #1: Determine the distance from the proposed manure storage to the watercourse/open municipal drain in metres.
- Step #2: Calculate a 'Final Score' using Table 1, by adding the 'Potential for Surface Water Contamination' rating to the 'Distance Rating' and divide by 2. If the answer is a fraction, round up to the next whole number to get the final rating (for example, 2.5 becomes 3).
- Step #3: If the 'Final Score' is less than 3 **or** the proposed manure storage is less than 50 metres from the nearest watercourse/open municipal drain, then the distance from the proposed manure storage to the nearest watercourse/open municipal drain must be increased and Step 2 re-calculated.

Potential for Surface Water Contamination		ice from proposed manure st urse/open municipal drain <sup>1</sup> i	-		Final Score
(from Table 5)					
	If above is 150 m. $+$	If above is 76-150 m.	If above is 50-75 m.		
	add	add	add		
	4	3	2		

Note #1: Watercourse & Open Municipal Drain is defined in the definitions section of the Comprehensive Zoning By-Law.

#### Table 2: Calculation of Manure or Material Storage Setback from Water Wells

- Step #1: Determine the distance from the proposed Manure or Material Storage to the nearest water well in metres.
- Step #2: Calculate a 'Final Score' using Table 2, by adding the 'Potential for Ground Water Contamination' rating to the 'Distance Rating' and divide by 2. If the answer is a fraction, round up to the next whole number to get the final rating (for example, 2.5 becomes 3).
- Step #3: If the 'Final Score' is less than 3 **or** the proposed storage is less than 15 metres from a drilled well or less than 30 metres from a bored/dug well, or less than 100 metres from a municipal well then the distance from the proposed manure storage to the water well must be increased.

Potential for Ground Water Contamination (from Table 6)				Final Score			
		If above is 90 m. + from any private well or greater than 300 m from any municipal well add 4	· · · · · · · · · · · · · · · · · · ·	If above is 15–23 m. (drilled well) or 30–46m. (bored/dug well) or 100–150 m. (municipal well) add 2			
	+				=	÷2	=

Note #1: Water Well is defined in the definitions section of the Comprehensive Zoning By-Law.

#### Table 3: Calculation of Livestock Facility Setbacks from Watercourses + Open Municipal Drains

- Step #1: Determine the distance from the proposed Livestock or Poultry Facility to the nearest watercourse/open municipal drain in metres.
- Step #2: Calculate a 'Final Score' using Table 3, by adding the 'Potential for Ground Water Contamination' rating to the 'Distance Rating' and divide by 2. If the answer is a fraction, round up to the next whole number to get the final rating (for example, 2.5 becomes 3).
- Step #3: If the Final Score is less than 3 or the proposed Livestock or Poultry Facility is less than 50 metres from the nearest watercourse/open municipal drain, then the distance from the proposed Livestock or Poultry Facility to the nearest watercourse/open municipal drain must be increased.

Potential for Surface Water Contamination		om proposed Livestock or Poul urse/open municipal drain <sup>1</sup> is			Final Score
(from Table 5)					
	If above is 150+	If above is 76–150 m.	If above is 50–75.		
	add	add	add		
	4	3	2		

Note #1: Watercourse & Open Municipal Drain is defined in the definitions section of the Comprehensive Zoning By-Law.

#### Table 4: Calculation of Livestock Facility Setbacks from Water Wells

- Step #1: Determine the distance from the proposed Livestock or Poultry Facility to the nearest water well in metres.
- Step #2: Calculate a 'Final Score' using Table 4, by adding the 'Potential for Ground Water Contamination' rating to the 'Distance Rating' and divide by 2. If the answer is a fraction, round up to the next whole number to get the final rating (for example, 2.5 becomes 3).
- Step #3: If the 'Final Score' is less than 3 **or** the proposed Livestock or Poultry Facility is less than 15 metres from a drilled well or less than 30 metres from a bored/dug well, or less than 100 metres from a municipal well then the distance from the proposed Livestock or Poultry Facility to the well must be increased.

Potential for Ground Water		Distance from proposed	Livestock or Poultry Facility to ne metres.	earest water well <sup>1</sup> is			Final Score
Contamination (from Table 6)		If above is 90 m. + from any private well or greater than 300 m from any municipal well add 4	, , , , , , , , , , , , , , , , , , ,	If above is 15-23 m. (drilled well) or 30-46m. (bored/dug well) or 100-150 m. (municipal well) add 2			
	+				=	÷2	=

Note #1: Water Well is defined in the definitions section of the Comprehensive Zoning By-Law

Hydrologic Soil	T	opography (slope o	lass)	Potential for Surface
Group	Level (less than 2%)	Sloping (2–5%)	Hilly (greater than 5%)	Water Contamination
Fast (Sand)	4 – Very Low	4 – Very Low	3 – Low	
Moderate (Loam)	3 – Low	3 – Low	2 – Mod	
Slow (Clay Loam)	2 – Mod	2 – Mod	1 – High	
Very Slow (Clay)	1 – High	1 – High	1 – High	

Table 6: Potential for Gro	ound Water Contami	nation			
Hydrologic Soil Group		Depth t	o Water Table		Potential for
	Less than 0.9 m.	0.9-4.6 m.	4.7-13.7 m.	More than 13.7 m.	Ground Water Contamination
Bedrock (within 0.9 m.)	1 – High	1 – High	1 – High	1 – High	
Muck/Organic	1 – High				
Fast (Sand)	1 – High	1 – High	1 – High	2 – Mod	
Moderate (Loam)	1 – High	1 – High	2 – Mod	3 – Low	
Slow (Clay Loam)	1 – High	2 – Mod	3 – Low	4 – Very Low	
Very Slow (Clay)	1 – High	3 – Low	4 – Very Low	4 – Very Low	

#### Guidelines for Table 6:

1. If bedrock or ground water is within 0.9 metres of the soil surface or the soil type is muck/organic, the potential for ground water contamination will always be high.

2. To determine the 'hydrologic soil group' (soil texture) for the soil at the site either obtain the soil texture from soil maps or conduct a field evaluation and select one of the four types listed.

3. The following methods may be used to determine ground water depth (water table):

+ digging a post hole in early spring often reveals the depth to the water table where a high water table exists. The depth to the water level in a dug well is a good indicator but do not use the static level in drilled wells.

+ if the water table cannot be found, use the 0.9-4.6 metre 'depth to ground water'.

**Reference**: Adapted from the "Environmental Farm Plan, Second Edition, 1996" Ontario Farm Environmental Coalition, Toronto, ON.



#### Adopted: October 26, 2009 Approved: December 17, 2009 5 Year Review 2017 Office Consolidations: November 2012 October 2013, January 2015, December 2015, January 2016. March 2016, May 2016, Sept. 2016, July 2017, Sept 2017



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## **SECTION 1 - INTRODUCTION**

#### 1.1 GENERAL

This Plan is entitled "The Walkerton Community Official Plan."

The Walkerton Community Official Plan consists of the following text, together with the following schedules.

- Schedule 'A' Land Use
- Schedule 'B' Roads
- Schedule 'C' Natural Heritage System
- Schedule 'D' Community Improvement Area

#### 1.2 MUNICIPAL SETTING

Walkerton is a thriving centre of 5,000 people situated in the southeast corner of Bruce County along the banks of the Saugeen River. In 1999 the Town of Walkerton amalgamated with the Townships of Brant and Greenock to form the new Municipality of Brockton.

The Walkerton community is centrally located in the heart of some of Bruce-Grey's most fertile farmland, at the junction of County Road 4 and Highway No. 9. Functioning as a regional service centre and the county seat, Walkerton has a diverse economy with a strong manufacturing base, government administration and numerous institutional services.

Walkerton has a long-standing tradition of land use planning, extending back to 1962 when the first Walkerton Planning Area was defined. In 1965, the Town adopted its first Official Plan, followed by its first restricted area zoning by-law in 1966.

In 2001, the Municipality of Brockton adopted its first Official Plan for the Walkerton Community. In 2009 the Walkerton Community Official Plan was reviewed and updated. The 2016 update represents a Five Year Review of the Official Plan as required by the Planning Act.

Walkerton is bisected by the Saugeen River valley which provides scenic beauty, recreation, and tourist opportunities to the community.

Adjacent to the Saugeen River, the downtown provides a focus to the community. There is an opportunity to improve downtown retail and other facilities and increase attraction from the surrounding area.

As an urban centre, Walkerton has a full complement of municipal services including water supply and sewage treatment systems. The ongoing maintenance and improvement of these facilities is required for continued community growth.

#### 1.3 PURPOSE OF THE PLAN

The general purpose of the Official Plan is to provide for the orderly development of the community. The Plan contains policies regarding the distribution of land uses, the provision of community services, and the classification of the road pattern.

The Plan contains goals, actions and policies intended to assist Municipal Council, municipal staff, developers, government agencies and the public in their efforts to strengthen the economic, environmental and social fabric of the Community. The Plan will additionally guide private business and citizens when making decisions concerning future land use, development and investment.

The Plan proposes an active program of municipal improvement to enhance the function, form and amenities of the downtown area,

The Official Plan is intended to function as a major policy document to the year 2026.

#### 1.4 VISION STATEMENT

Walkerton's Vision is based on ensuring the highest quality of life possible for all its residents.

Walkerton will continue to play a prominent regional role and create a positive economic climate for new investment and employment opportunities. These new opportunities will capitalize on the Community's tourism potential, the retention and attraction of industry, community support of its institutional employers, downtown revitalization and record of environmental leadership.

Future growth in Walkerton will complement its small town character and heritage identity.

The Saugeen River, the major natural feature in the community, is to be protected and enhanced and utilized for recreation, tourism, and appreciation of its scenic beauty.

#### 1.5 COMMUNITY GOALS

This Plan contains goals, objectives and policies established primarily to manage and direct physical change and the effects on the social, economic, built and natural environment of the municipality".

- a) To strengthen the downtown area as the commercial, entertainment and administrative centre of Brockton and the surrounding area.
- b) To ensure sufficient lands are provided for highway commercial uses and provide a balanced commercial base that serves the need of area residents and visitors.
- c) To promote a mixed and affordable supply of housing to meet the present and future needs of all segments of the community.
- d) To provide a positive economic climate to attract industry, encourage private investment, create a wide range of employment opportunities, and enhance a balanced municipal assessment base.
- e) To promote the attraction and retention of light and environmentally clean industry

to diversify the economic base and provide employment opportunities.

- f) To support and maintain Walkerton's position as a focal point in Bruce County by enhancing existing regional and community institutions for their economic, social and cultural importance.
- g) To protect and preserve lands exhibiting sensitive natural heritage features.
- h) To protect and preserve lands having inherent physical and environmental constraints to development, in order to avoid potential danger to life or property from the use of such lands.
- i) To ensure a broad range of recreation and open space opportunities are available for all residents and visitors.
- j) To protect and enhance Walkerton's built, landscape and archaeological heritage, for its cultural, historic, aesthetic and economic value.
- k) To protect and enhance Walkerton's healthy environment by minimizing air, water and land pollution, and through the wise use of the area's natural resources.
- I) To improve community facilities and infrastructure to address social, environmental and economic needs of the community.
- m) To provide a full range of affordable municipal services to meet the economic, social and environmental needs of the community.
- n) To provide a transportation network which allows for the efficient movement of goods and people, and facilitates economic activities within the community.
- o) To encourage the enhancement and, where possible, protect and preserve those lands comprising the Walkerton Natural Heritage System.

### 1.6 PLANNING PERIOD AND POPULATION FORECASTS

The Official Plan is based on a planning period to the year 2026. The designation of lands in this Plan should allow an ample surplus to provide for effective market operation, competition and choice.

The population forecast for the Walkerton community is set out as follows:

2006	4,905 (actual)
2016	4,778 (estimated)
2026	5,778

Population growth will be monitored regularly. Periodic updates to the above population forecasts may occur without amendment to this Plan. If major variances emerge between observed growth rates and the population forecasts, a review of this Plan may be initiated by Council.

## **SECTION 2 - INTERPRETATION OF THE PLAN**

#### 2.1 RELATIONSHIP TO THE COUNTY PLAN

The Walkerton Community Official Plan must conform to the Official Plan of Bruce County. The County Plan contains broad policies involving County responsibilities, and provincial interests, and deals with planning matters affecting two or more local municipalities.

The Walkerton Community Official Plan addresses the unique characteristics, special needs and social and economic aspirations and goals of the local Municipality.

The Walkerton Community Official Plan provides the needed additional policy detail to ensure effective and practical application of the broad County policies. In order to ascertain the full scope of Official Plan policies, both the Bruce County Official Plan and the Walkerton Community Official Plan should be consulted.

In the event of a conflict between the County of Bruce Official Plan and the Walkerton Community Official Plan, the County Official Plan prevails to the extent of the conflict, but in all other respects the Walkerton Community Official Plan remains in effect.

#### 2.2 CONFORMITY TO THE OFFICIAL PLAN

No municipal or public work shall be undertaken and no by-law passed for any purpose that does not conform to this Plan.

All public works undertaken by all other levels of government and other public agencies shall conform with this Plan, except where exempted under provincial or federal legislation.

#### 2.3 INTERPRETATION

The external boundaries of the Walkerton community are fixed. Expansions to the Walkerton urban area are not permitted without a comprehensive review of this Plan.

The boundaries between land use designations on Schedule "A" Land Use Plan are to be considered approximate, except where they coincide with property lines, roads, former railway corridors, rivers or streams, or other similar geographic barriers. Amendments to this Plan shall not be required to make minor adjustments to the approximate land use boundaries, provided the general intent of the Plan is maintained

It is recognized that the boundaries of the Environmental Protection designation may be imprecise and subject to change. The Municipality shall determine the extent of the environmental areas on a site-by-site basis when considering development proposals, in consultation with the appropriate agencies. Any minor refinement to the Environmental Protection designation shall not require an amendment to this Plan.

Where a lot is within more than one designation on the Schedules to this Plan, each portion of the lot shall be used in accordance with the applicable policies of that designation.

The location of roads as indicated on Schedule B shall be considered as approximate. Amendments to this Plan will not be required in order to make minor adjustments or deviations of the locations of roads provided the general intent of the Plan is maintained.

Whenever a use is permitted in a land use designation, it is intended that uses, buildings or structures normally incidental, and accessory to that use are also permitted.

It is intended that all figures and quantities contained within this Plan be considered as approximate only. Amendments to this Plan shall not be required to permit any reasonable deviation from any of the figures and quantities, provided the general intent of the Plan is maintained.

Specific policies of this Plan should not be viewed in isolation but rather should be interpreted along with the intent of the Walkerton Vision Statement, Community Goals, and relevant actions and policies contained within the Plan. When determining whether a development proposal conforms to the Plan, <u>Section 1.5</u> Community Goals may be used to assist in the review process.

Additional 'Notes' and 'Boxes' may be included in the text and on the Schedules for reference, clarification and convenience purposes. Information of this nature is subject to addition, change and/or deletion without an Amendment to this Plan.

Changes and corrections to spelling, grammatical errors, references including references to other legislation or documents and/or internal referencing and the renumbering of sections and subsections shall not require an Amendment to this Plan.

#### 2.4 MONITORING AND REVIEW

The Walkerton community will continue to change. As a result, this Plan should be seen as an evolving document, requiring review and revision every five years to ensure the policies reflect changing economic, social and financial circumstances.

- a) In order to assess the effectiveness of the Plan, the Municipality shall initiate an ongoing monitoring program which may include an assessment of:
  - i) The adequacy of lands available to support anticipated development;
  - ii) Demographic, social and physical changes to the community;
  - iii) Effectiveness of the community improvement, land use and servicing policies of the Plan;
  - iv) Changes in County or Provincial policies which impact upon the relevance of the Plan;
  - v) The quality of the community's environment; and
  - vi) The capacity and operational efficiency of municipal water supply and sewage treatment facilities to accommodate anticipated growth.
- b) In addition to the ongoing monitoring program, the Municipality shall carry out a formal public review of the Official Plan at least every 5 years. As part of the Five

Year Review, the Municipality shall hold at least one public meeting and open house to obtain the public's views, in accordance with the Planning Act.

The Municipality shall notify all agencies and ministries involved in the review of planning decisions as part of conducting the Five Year Review.

The Municipality shall prepare a report which summarizes the comments received from government agencies and ministries and the general public, along with the components of the Official Plan that the Municipality believes are in need of revision, as determined by the monitoring program. This report shall be available at the public meeting.

## **SECTION 3 - LAND USE POLICIES**

#### 3.1 RESIDENTIAL

This Plan forecasts a population of approximately **5,778** by the year 2026. To accommodate this growth, the Community requires approximately **417** new housing units between 2016 and 2026.

Given the current aging population and the desire to attract new families, it is the intent of the Municipality to satisfy a range of market needs ranging from accommodating the young to the elderly. The Community has a residential land supply sufficient to meet projected needs to 2026 within the settlement area boundaries as they existed in 2016.

#### 3.1.1 Goal

To provide opportunities for a range of housing types and densities to accommodate a diversity of lifestyles, age groups, income levels and persons with special needs in order to create a complete community.

#### 3.1.2 Actions

- a) Ensure a reasonable supply of building lots and blocks for future residential development.
- b) Encourage a wide range of housing types and designs to accommodate persons with diverse social and economic backgrounds, needs and desires while promoting the maintenance and improvement of existing housing.
- c) Promote a range of single detached residential lot sizes.
- d) Establish a process whereby a commitment to sewage treatment and water supply capacity only occurs upon registration of plans of subdivision.
- e) Promote the efficient use of existing and planned infrastructure by creating the opportunity for various forms of residential intensification, where appropriate, in character with the built form of the community.
- f) Encourage the conversion of single detached dwellings, in appropriate locations, into multiple residential units and the recreation of new residential units on vacant or underdeveloped lots.
- g) Co-ordinate the provision of parks and open space and pedestrian connections to promote liveable neighbourhoods.
- h) Provide housing opportunities for community members with special needs, including people having lower incomes, seniors and support housing for the physically and developmentally challenged.
- i) Ensure that new development, redevelopment, infilling and intensification projects are designed to complement the character of existing residential neighbourhoods.
- j) The Municipality may consider Alternative Development Standards (ADS) for new residential development and redevelopment.

#### 3.1.3 Permitted Uses

- a) Lands designated Residential shall be predominantly used for singledetached, semi-detached, duplex, three-plex, street, block and stacked townhouse, apartment dwellings, long term care facilities, seniors/retirement homes and special needs housing.
- b) Rooming, boarding and lodging houses, may be permitted.
- c) Secondary Suites and Garden Suites shall be permitted in accordance with the provisions of <u>Section 3.1.15</u>.
- d) Other uses compatible with residential neighbourhoods may also be permitted including such uses as public parks, bed and breakfast operations, home occupations, group homes, day schools and local commercial uses.
- e) The following Institutional and Community Facilities may be permitted in the Residential designation without amendment to this Plan:
  - Fire, police, ambulance stations, municipal services, places of worship and public libraries. All of the foregoing Permitted uses shall be subject to the policies of <u>Section 3.4.4</u> Institutional and Community Facility Policies; and,
  - 'Child Care' subject to the policies of <u>Section 3.4.3.1</u> Permitted Uses
     Child Care (Institutional and Community Facilities).
- f) The policies of <u>Section 3.7.7</u> ' Flood Fringe Constraint Areas' shall apply to the establishment of new uses, new secondary suites and garden suites, conversions of existing uses and/or enlargement of existing uses on lands within the Flood Constraint Ares as shown on Schedule 'A'.

#### 3.1.4 Housing Supply

- a) The Municipality shall strive to maintain at all times a 3 year supply of serviceable draft approved and registered lots to accommodate residential demand.
- b) The Municipality shall seek to improve access to housing for people with special needs, including assisted housing, seniors housing and housing for physically and developmentally challenged individuals.
- c) The Municipality shall maintain a ten (10) year supply of lands designated for residential development.

#### 3.1.5 Density and Tenure Targets

a) The Municipality of Brockton hereby sets the following Targets for new Housing:

Housing Unit Type:	70% low density
	30% medium and high density
Housing Tenure:	70% ownership housing
	30% rental housing
Housing Affordability:	30% of all NEW housing to meet the
	requirements of <u>Section 3.1.6</u>
	'Affordable Housing'.

- b) The Municipality shall encourage housing forms and densities designed to be affordable to moderate and low income households.
- c) The Municipality shall target 20 percent of all new housing to be created through intensification. Intensification shall be encouraged in areas where full municipal services are available, roads and utilities currently exist and in areas within close proximity to the downtown. The Municipality shall support a wide range of housing types, zoning standards and subdivision design standards to provide a full range of housing types and opportunities.
- d) The Municipality shall encourage intensification in areas where existing and planned services can support new households, where such development is compatible with existing built form, where there is potential demand and where there is opportunity for residential above commercial establishments.
- e) The Municipality shall, in the implementing Comprehensive Zoning By-law, include single detached, semi-detached and duplex housing types in the same zone category and shall apply similar provisions in regard to minimum lot size, building setbacks, parking etc. for those developments to be serviced by municipal sewer and municipal water services.
- f) The residential portion of all subdivisions, condominiums or multi-unit/multilot developments that are serviced by municipal sewer or communal sewer shall have a minimum density of no less than 15 'dwelling units' per 'gross developable' hectare (6.1 dwelling units per 'gross developable' acre). The County of Bruce, as the approval authority, may grant a reduced density when justified and appropriate. Gross developable shall mean the total area of the proposed development minus the area of any lands designated or zoned Hazard, Natural Environment or similar in the Official Plan and/or Comprehensive Zoning By-law.
- g) The Municipality shall review their progress in meeting the Housing Targets at the time of a new Official Plan or during a future review of this Official Plan.

#### 3.1.6 Affordable Housing

a) Affordable Housing means:

1)

- i) In the case of ownership, the least expensive of:
  - Housing for which the purchase price results in annual accommodation costs which do not exceed 30% of gross household income for 'low and moderate income households'; or
  - 2) Housing for which the purchase price is at least 10% below the average purchase price of a resale unit based on a housing market area comprised of the Municipalities of Brockton, Hanover, South Bruce, Arran-Elderslie and West Grey.
- ii) In the case of rental housing, the least expensive of:
  - A unit for which rent does not exceed 30% of gross annual household income for 'low and moderate income households'; or

- 2) A unit for which the rent is at or below the average market rent of a unit in the regional rental housing market area comprised of the settlement areas of Mildmay, Hanover, Durham, and Chesley.
- iii) Low and moderate income households mean:
  - In the case of ownership housing, households with incomes in the lowest 60% of the income distribution based on a housing market area comprised of the Municipalities of Brockton, Hanover, South Bruce, Arran-Elderslie and West Grey.
  - 2) In the case of rental housing, households with incomes in the lowest 60% of the income distribution for renter households in the Municipalities of Brockton, Hanover, South Bruce, Arran-Elderslie and West Grey.
- b) The Municipality shall:
  - i) Encourage, and assist where possible, the development of 'Affordable Housing' initiatives;
  - ii) Expedite the development approvals process and other administrative requirements for 'Affordable Housing' initiatives;
  - iii) Apply more innovative and flexible zoning to 'Affordable Housing' initiatives if required;
  - iv) Implement senior government housing programs for 'Affordable Housing';
  - v) Work with the County of Bruce to enact a Municipal Housing Facilities By-law under Section 110 of the Municipal Act to enable the provision of incentives to the public and private sectors to create new 'Affordable Housing' initiatives.
- c) The Municipality may:
  - Give initial consideration to the provision of 'Affordable Housing' where Municipal owned lands are deemed surplus to the needs of the Municipality and are being considered for sale and/or alternate use;
  - ii) Consider providing surplus lands at no charge, or a reduced charge to 'Affordable Housing' initiatives, or portions of housing initiatives, which can be certified as 'Affordable Housing';
  - iii) Waive fees, such as building permit fees, water and sewer service connection fees, and other development related fees in order to promote initiatives, which can be certified as 'Affordable Housing'.

#### 3.1.7 Low Density Residential

Low density residential development includes single detached, semi-detached and duplex dwellings, and converted dwellings with no more than 2 units.

A range of housing densities but the density of development shall be no less than

that required by Section 3.1.5(f).

#### 3.1.8 Medium Density Residential

Medium density residential development includes tri-plexes, four-plexes, townhouses, low profile apartments of no more than two (2) storeys, and converted dwellings of three or more units.

a) Medium density residential development shall have a maximum net density of 35 units per net hectare (14 units per net acre).
 'Net Density' shall be defined as the density of the residential development

on the site proposed for development, not including roads, parks and schools.

- b) Medium density residential proposals shall address the following criteria:
  - i) Respects the character of abutting residential properties-in terms of height, massing and setbacks;
  - ii) Is compatible with existing land uses in the immediate area;
  - iii) Provides adequate off-street parking and appropriate access and circulation for vehicular traffic, including emergency vehicles;
  - iv) Location on a site that has adequate land area to incorporate the building, an outdoor amenity area, and appropriate buffering such as setbacks, landscaping and fencing to ensure the compatibility of the use with adjacent land uses;
  - v) Shall not cause traffic hazards or an unacceptable level of congestion on surrounding roads;
  - vi) Location in close proximity to community facilities such as parks, schools and open spaces;
  - vii) Can be easily accessed by transit if available;
  - viii) Suitable setbacks from abutting uses; and
  - ix) Suitable, lot grading, and drainage.
- c) Medium density residential development may be subject to Site Plan Control under <u>Section 7.14</u> of this Plan.

#### 3.1.9 High Density Residential

a) High density residential development includes apartment buildings with a maximum net density of 50 units per net hectare (20 units per net acre) and a maximum height of five storeys above grade.

'Net density' shall be defined as the density of the residential development on the site proposed for development, not including roads, parks and schools.

- b) In considering rezoning applications for new high density residential development, Council shall consider the following criteria in addition to those criteria identified in <u>Section 3.1.8</u> (b) of this Plan:
  - i) The density and character of adjacent development and compatibility with land uses in the immediate area;
  - ii) The adequacy of municipal services to serve the proposed development;
  - iii) The adequacy of the local street network to accommodate traffic from

the development;

- iv) The proximity of the proposed development to convenient access to collector or arterial roads as shown on Schedule 'B' of this Plan, locations adjacent to public open space, parks, and commercial facilities'
- v) The availability of adequate off-street parking and appropriate access and circulation for vehicular traffic, including emergency vehicles;
- vi) Suitable landscaping, lot grading, drainage and onside amenities.
- c) High density residential development shall be subject to Site Plan Control under <u>Section 7.14</u> of this Plan.

#### 3.1.10 Intensification

- a) It shall be the policy of the Municipality to encourage the Intensification of existing residential areas on vacant lots and underdeveloped lots. The scale of an Intensification proposal shall take into consideration the size of the vacant or underdeveloped lot.
- b) Intensification Infill\_proposals requiring a zoning by-law amendment or minor variance should take into consideration existing building heights on abutting properties, massing, density, lot coverage, parking and yard setbacks in order to mitigate impacts on immediate neighbouring property owners.
- c) A suitable transition in lot sizes, densities, building forms and heights should be provided from adjacent developments.
- d) Existing trees, vegetation and open space should be retained and enhanced where possible and additional landscaping provided to integrate the proposed development with the existing neighbourhood.
- e) Intensification proposals may require a lot grading and drainage plan which addresses potential impacts on abutting properties.
- f) Intensification projects in excess of four dwelling units shall be subject to site plan control under <u>Section 7.14</u> of this Plan.

#### 3.1.11 Residential Conversions

The conversion of existing single detached residential dwellings to apartment dwellings, rooming, boarding or lodging houses provides affordable housing and may be permitted in the Residential designation subject to the following:

a) In considering rezoning or minor variance applications for residential conversions Council shall, in addition to the requirements of the Comprehensive Zoning By-law consider the following criteria:

- i) The density and character of adjacent development and compatibility with land uses in the immediate area;
- ii) The adequacy of municipal services to serve the proposed conversion;
- iii) The adequacy of the local street network to accommodate traffic from the conversion;
- iv) The availability of adequate off-street parking and appropriate access and circulation for vehicular traffic, including emergency vehicles;
- v) Suitable landscaping, lot grading, drainage and onside amenities.
- Residential conversions may be subject to Site Plan Control under <u>Section</u> <u>7.14</u> of this Plan.

#### 3.1.12 Bed and Breakfast Uses

Bed and breakfast operations may be permitted within single detached homes in the Residential designation subject to the requirements of the Comprehensive Zoning By-law.

- a) The Comprehensive Zoning By-law may provide regulations for bed and breakfast operations which including:
  - i) the establishment of such uses shall not change the residential character of the area;
  - ii) all requirements of the zoning by-law are met, including adequate offstreet parking, and no more than four guest rooms;
  - iii) such uses shall only be permitted in buildings which constitute the principal residence of the operator; and,
  - iv) any other regulation deemed necessary by the Municipality
- b) Bed and breakfast operations may be subject to Site Plan Control under <u>Section 7.14</u> of this Plan.

#### 3.1.13 Home Occupations

Home occupations are an important means of realizing small business start-ups and self-employment. Home occupations may be permitted within the Residential designation subject to the requirements of the Comprehensive Zoning By-law.

- a) The Comprehensive Zoning By-law *shall* provide regulations for home occupations which:
  - i) Include a list of permitted home occupation uses and their location on a lot;
  - ii) Restrict the number of people which may be employed in the home occupation;
  - iii) Provide a maximum percentage of the floor area of the residence or accessory building which may be used for the home occupation;
  - iv) Ensure the maintenance of the external appearance of the residence, regulate outside storage and control exterior signs; and,
  - v) Provide appropriate parking standards for such uses.

#### 3.1.14 Special Needs Housing

- a) The Municipality shall seek to improve access to housing for people with special needs, including assisted housing for low income earners, seniors housing, supportive housing (housing for developmentally disabled) etc.
- b) The Municipality shall work with local groups to determine special housing needs and support local efforts for appropriate applications and proposals for special needs housing.
- c) The Municipality shall consider alternative approaches to providing housing specifically targeted to the future senior population.

#### 3.1.15 Secondary Suites and Garden Suites

- Secondary Suite means a second or additional self-contained dwelling unit with bathroom and kitchen facilities built/incorporated within the structural envelope of a primary dwelling.
- b) Garden Suite means a second, or additional, one-unit self-contained dwelling unit with bathroom and kitchen facilities that is separate and distinct from the structural envelope of the existing primary dwelling on a lot.
- c) 'Secondary Suites' and 'Garden Suites' are permitted in the Residential designation without Amendment to this Official Plan subject to the policies of this Section.
- d) The Comprehensive Zoning By-law shall establish the following provisions for a 'Secondary Suite':
  - i) One (1) 'Secondary Suite' within any detached, semi-detached, or rowhouse dwelling shall be permitted;
  - ii) A 'Secondary Suite' shall not be permitted when a 'Garden Suite' or a similar detached ancillary/accessory dwelling unit exists on the lot;
  - iii) In addition to the parking requirements of the Comprehensive Zoning By-law for the existing dwelling, one (1) additional off-street parking space shall be provided. A second driveway may not be created;
  - iv) No business or commercial enterprise, including but not limited to a home occupation, Bed & Breakfast, Home Child Care, Unlicensed Child Care or a Child Care Centre, shall take place in a dwelling that includes a 'Secondary Suite';
  - v) Sufficient water service and sewer capacity exists or shall be made available;
  - vi) The lot shall have access to, and frontage onto, an open and yearround maintained municipal road of adequate construction;
  - vii) A 'Secondary Suite' is not permitted within any detached, semidetached, or rowhouse dwelling where the lot is legally nonconforming with respect to lot width or lot area;
  - viii) The Secondary Suite shall occupy no more than 40% of the detached, semi-detached, or rowhouse dwelling Total Habitable Floor Area. Total Habitable Floor Area includes all floor levels but does not include a cellar, crawl space, attic, enclosed porches/balconies or similar.
- e) The Comprehensive Zoning By-law shall establish the following provisions

- for a 'Garden Suite':
- i) One (1) 'Garden Suite' shall be permitted per lot provided all of the provisions of this Section are met;
- A 'Garden Suite' shall be a non-permanent structure. A mobile home, manufactured home, or similar non-permanent moveable housing shall be used. The mobile home, manufactured home, or similar nonpermanent housing shall meet the certification provisions of Canadian Standards Association (CSA) documents CAN/CSA-Z240 or CAN/CSA-Z241 standards as amended;
- iii) A By-law authorizing the temporary use of a 'Garden Suite' shall be required. As a condition to passing the By-law authorizing the temporary use, the Municipality under the powers of the Planning Act, shall enter into an Agreement with the owner or occupant of the Garden Suite to cover at a minimum such issues as:
  - 1) Conditions for removal of the 'Garden Suite' from the lot; and
  - 2) The need for bonding or other financial security to ensure that conditions of the Agreement are met.
- iv) A 'Garden Suite' shall not be permitted when a 'Secondary Suite' or similar unit exists within the existing primary dwelling unit;
- In addition to the parking requirements of the Comprehensive Zoning By-law for the existing dwelling, one (1) additional off-street parking space shall be provided;
- vi) No business or commercial enterprise, including but not limited to a home occupation, Bed & Breakfast, Home Child Care, Unlicensed Child Care or a Child Care Centre, shall take place in the principle dwelling that includes a 'Garden Suite' on the lot;
- vii) No business or commercial enterprise, including but not limited to a home occupation, Bed & Breakfast or Licensed/Unlicensed Day Nursery, shall take place in a 'Garden Suite';
- viii) A 'Garden Suite' shall conform to the yard setbacks and lot coverage provisions of the zone in which it is located excepting however that a 'Garden Suite' shall be set back a minimum of 1.5 metres from any interior side yard. The site specific Zoning By-law amendment may vary the provisions of the zone in which the Garden Suite is to be located;
- ix) Sufficient water service and sewer capacity exists or shall be made available;
- x) The lot shall have access to, and frontage onto, an open and yearround maintained municipal road of adequate construction;
- xi) A 'Garden Suite' may be subject to Site Plan Control.
- f) A consent shall not be granted for a Garden Suite unless said consent meets the applicable policies of the Official Plan and conforms to the Comprehensive Zoning By-law requirements.
- g) The Comprehensive Zoning By-law may not require, dictate or direct any additional regulations/policies more stringent than those above for the creation of a Secondary Suite or a Garden Suite.

#### 3.1.16 Garden Suites

The term Garden Suite is used to describe a temporary detached residential unit accessory to a primary residence and designed to meet the housing needs of elderly parents, family members with special needs, or other similar individuals.

Garden Suites may be permitted within the Residential designation subject to the adoption of a site-specific temporary use by-law pursuant to the Planning Act and the requirements of the Comprehensive Zoning By-law.

- a) The Comprehensive Zoning By-law may provide regulations for Garden Suites which:
  - i) Require the Garden Suite to be located in the rear yard, to be detached and accessory to a primary dwelling unit and to be appropriately buffered and sited relative to adjacent properties;
  - ii) Require adequate parking on the lot for both the single detached dwelling and Garden Suite;
  - iii) Restrict any business or commercial enterprise from taking place within the Garden Suite;
  - iv) Set out the lot line setbacks and/or other restrictions i.e. minimum lot size, regulating the location of the Garden Suite on any lot; and,
  - v) Prohibit the use of a mobile home.
- b) Under the powers of the Municipal Act, the Municipality may enter into an agreement with the property owner, occupant and/or Canada Mortgage and Housing, or similar government agencies or private sector providers to cover issues such as:
  - i) Conditions for removal of the Garden Suite from the property;
  - ii) The Garden Suite shall not be used as a rental dwelling unit for profit or gain;
  - iii) The Garden Suite meets all health, safety, servicing, fire and building code standards;
  - iv) The need for bonding of security to ensure that certain conditions of the agreement are met; and,
  - v) Other issues deemed important by the Municipality.
- c) Garden Suites may be subject to Site Plan Control under <u>Section 7.14</u> of this Plan.

#### 3.1.17 Day Schools

The term day school is used to describe a facility that receives no more than ten (10) students for the purpose of providing educational instruction for children over the age of 5 years and under the age of 18 years. Day Schools may be permitted within the Residential designation subject to the requirements of the Comprehensive Zoning By-law.

- a) The Comprehensive Zoning By-law may provide regulations for day school which require:
  - i) A demonstrated community need for the facility;
  - ii) The establishment of the facility does not negatively impact upon the

- residential character of the neighbourhood;
- iii) A safe area for the drop-off and pick-up of children; and,
- iv) Appropriate yard setbacks, outdoor recreational space, signage and parking.
- b) The facility shall be licensed by the Ministry of Education.
- c) The facility shall meet all health, safety and building and fire code standards.
- d) Day schools may be subject to Site Plan Control under <u>Section 7.14</u> of this Plan.

#### 3.1.18 Conversion of Institutional Uses

- a) In the event that all or part of an existing school site should no longer be required by a School Board, Council will initiate a public community meeting prior to determining the future uses(s) of this property and prior to considering any potential rezoning of the lands.
- b) The following alternate uses may be permitted without the need for an amendment to this Plan. Alternate uses may include:
  - i) Open space uses.
  - ii) Compatible institutional uses based on specific evaluation of each site, and which may include religious institutions, community recreational facilities.
- c) In the event of such a conversion Council will ensure that the open space and parkland function provided by the former institutional uses is maintained in future development plans through parkland dedication or other means available to Council.

#### 3.2 HISTORIC WALKERTON

Historic Walkerton is the vintage commercial area of Walkerton. The buildings and street block fabric exhibit an older established style with buildings built up to the street line. Historic Walkerton contains a large part of the community's retail and service businesses that serve residents within and beyond Walkerton itself. The Historic Walkerton policies are intended to promote and enhance the viability of this vibrant commercial area.

#### 3.2.1 Goal

## To encourage the strengthening of Historic Walkerton as the commercial, retail and service centre of the community.

#### 3.2.2 Actions

Actively promote Historic Walkerton as the focus for retail and service activity within the Community and Municipality.

Encourage the development of a compact and pedestrian friendly area.

Provide for suitable opportunities for pedestrian access, visual connectivity and functional interaction with the Saugeen River valley.

Prepare design guidelines accordingly for use in improvement programs such as the following:

- Develop programs as empowered through the Planning Act, Municipal Heritage Preservation Act, Municipal Act, other legislation and municipal expenditures, that ensures that new development complements the existing Victorian character of Durham Street and associated side streets within Historic Walkerton;
- ii) Promote the development of programs that encourage the co-operation of the property owners and business operators to embrace the themed image of Historic Walkerton in their promotional programs.

Improve the streetscape of Historic Walkerton by undertaking improvements such as lighting, regulation of signage, the provision of street furniture and rest areas, and the co-ordination/provision of tree planting.

Encourage the provision of a sufficient supply of safe and convenient parking for the uses within Historic Walkerton.

Encourage infill on vacant or under-utilized sites in a manner which is compatible with the existing built form.

The Municipality, in conjunction with other community groups, agencies and service clubs, will promote festivals and community events to be programmed on suitable lands within Historic Walkerton and shall specifically work towards

improvements to the physical infrastructure to facilitate such events and festivals. It is recognized that such events and festivals are effective in maintaining a healthy and viable community core. It is further recognized that certain existing land uses would be impacted by such activities so they shall be managed in a manner that minimizes any negative impact.

#### 3.2.3 Permitted Uses

The predominant use of lands shall be for a wide variety of commercial, retail (large and small formats), office, personal service, administrative, cultural, institutional, health/medical and entertainment uses. Other uses which are supportive such as seasonal/temporary outdoor uses such as farmer's market, street festivals/events, etc. shall also be permitted.

Residential uses shall also be permitted provided they are in the form of apartments above or behind the predominant use of the building.

The implementing Comprehensive Zoning By-law may prohibit those land uses which, by virtue of their potential emission(s) of noise, odour, dust, vibration, or light, create a nuisance.

The policies of <u>Section 3.7.7</u> 'Flood Fringe Constraint Areas' shall apply to the establishment of new uses, conversion of existing uses and/or enlargement of existing uses on lands.

#### 3.2.4 Historic Walkerton Policies

- a) The continuation of the existing building style found in Historic Walkerton designation shall be required for any new development or redevelopment with the exception of measures required to meet any flood or other regulatory provision.
- b) Development and redevelopment within the Historic Walkerton designation shall be compatible with cultural heritage resources, which include significant buildings, structures, landscapes, vistas and/or archaeological sites of historic value and shall be assessed based on <u>Section 4.2</u> of this Plan.
- c) The Municipality shall coordinate, with the Business Improvement Area, property owners and/or operators of businesses, the improvement of the streetscape including public lanes, provision of street furniture and rest areas, the identification of pedestrian crossings, the planting of trees, the improvement of facades, and the regulation of signage.
- d) The Victorian image of Durham Street shall be enhanced through the use of planning powers and public works programs. Private developments shall be encouraged to comply with this themed image for the area and to coordinate their own promotional programs around this theme.

- e) The Municipality shall encourage the strengthening of linkages between the downtown and the Saugeen River to enhance the attractiveness of these two community resources.
- f) The Municipality shall encourage the location of off-street parking facilities to the rear and side of buildings.
- g) Off-street parking, driveways and/or loading areas adjacent to residential uses shall be suitably screened or buffered through the use of fences, berms or other appropriate landscape treatment as detailed in the Comprehensive Zoning By-law.
- h) The Municipality, in conjunction with the Business Improvement Area shall work together to improve the management and supply of public parking within the Historic Walkerton designation.
- The Municipality may enter into an agreement with an owner of a building which is being developed or redeveloped within the Historic Walkerton designation, to provide for payment-in-lieu of in accordance with <u>Section</u> <u>7.12</u>.
- j) The Municipality may waive the off-street parking requirements for new or expanding uses, including waiving payment-in-lieu of parking within the Historic Walkerton designation on a site-by-site basis if satisfied that sufficient alternative parking areas are available.
- k) <u>Section 4.3.4</u> (a) establishes Historic Walkerton as a Community Improvement Area.

#### 3.2.5 Urban Design

- a) New buildings in the Historic Walkerton designation shall be designed to maintain the historic character of the downtown.
- b) Commercial buildings shall be designed according to the following guidelines:
  - i) Buildings should be a minimum of two storeys in height and a maximum of four storeys;
  - ii) Building materials shall be primarily brick or stone that matches the colour and texture of existing buildings;
  - iii) Building front facades shall include the following elements:
    - -base panel;

-display window on the first floor;

-transom windows

-sign band;

-horizontal courses between floors;

-sills and lintel window details;

- cornice at the roof line;
- iv) Buildings shall be built to the front, exterior and interior lot lines where appropriate
- v) Required parking shall be located to the rear of buildings; and,
- vi) Signs shall be externally lit, not internally illuminated.

## 3.3 COMMERICAL

Walkerton's 'Commercial' designation is not a single contiguous area but is comprised of multiple areas that surround 'Historic Walkerton' and extend along the Yonge Street South corridor. Unlike 'Historic Walkerton', the building structures in the 'Commercial' designation are typically set back from both the street line and the property lines.

The 'Commercial' designation includes a wide variety of commercial uses. The area is essentially built out in that there are few vacant lots available. Any change to an existing use may be constrained due to abutting residential uses in some cases.

#### 3.3.1 Goal

To ensure future development and redevelopment in the 'Commercial' designation compliments the 'Historic Walkerton' designation while providing for additional commercial opportunities.

To ensure that the Commercial designation, together with the Historic Walkerton designation, remains the prime commercial area within Walkerton.

#### 3.3.2 Actions

- a) Encourage the development of commercial uses which foster a more pedestrian–oriented environment oriented to both the Saugeen River and the historic downtown.
- b) Ensure site development standards shall achieve high quality development that is in keeping with the existing scale, density, nature and character of existing development.
- c) Recognize that the Commercial areas are part of the major entranceways into Walkerton and should be enhanced through appropriate signage and landscape features.

## 3.3.3 Permitted Uses

Commercial Permitted Uses will compete directly with those in Historic Walkerton and other designations but the Permitted Uses may in many cases be able to provide for on-site parking and a building style that is distinct from Historic Walkerton.

The predominant use of lands shall be for a wide variety of commercial, retail (large and small formats), office, personal service, administrative, cultural, institutional, health/medical and entertainment uses. Other uses which are supportive such as seasonal/temporary outdoor uses such as farmer's market, street festivals/events, etc. shall also be permitted.

'Child Care Centre', in accordance with <u>Section 3.4.3.1</u>. 'Home Child Care', shall be permitted.

Residential uses, in the form of an apartment(s) above or behind the predominant use of the building, shall be permitted.

Motor vehicle related uses such as repair, servicing, fueling stations etc. that are more ideally located within the Business Park 1 or Business Park 2 designation shall not be permitted in the Commercial designation.

The implementing Comprehensive Zoning By-law may prohibit those land uses which, by virtue of their potential emission(s) of noise, odour, dust, vibration, or light, create a nuisance.

The implementing Comprehensive Zoning By-law may prohibit those land uses which use flammable, corrosive or noxious materials in any process due to their potential impact on public health and/or safety.

The policies of <u>Section 3.7.7</u> 'Flood Fringe Constraint Areas' shall apply to the establishment of new uses, conversion of existing uses and/or enlargement of existing uses on lands.

## 3.3.4 Commercial Policies

- a) A variety of urban forms may be built including plazas, free standing stores and mixed use buildings. On properties abutting Historic Walkerton the continuation of the Historic Walkerton façade and building style shall be encouraged where appropriate.
- b) In a mixed use building, residential uses shall be located at the rear of the first storey or on the second storey and above, and the façade of the building shall predominantly be the location of commercial uses.
- c) To ensure Commercial lands develop as attractive entrances to the Walkerton the following site development standards shall apply:
  - i) Landscaping shall be provided along the road frontage of the proposal;
  - ii) Off-street parking, driveways and/or loading areas adjacent to residential uses shall be suitably screened or buffered through the use of fences, berms or other appropriate landscape treatment as detailed in the Comprehensive Zoning By-law;
  - iii) Buffer planting shall be provided between the Commercial use and any adjacent residential and/or institutional use as detailed in the Comprehensive Zoning By-law;
  - iv) Safe traffic circulation utilizing turning lanes, consolidation of vehicular access points, a provision of a common internal traffic circulation between parcels and safe, well-defined pedestrian walkways should be provided from the street to the store entrances;
  - v) The implementing By-law shall require a consistency of building setbacks from the road;

- vi) Developers shall be encouraged to construct new/renovate buildings with regard to the design policies of <u>Section 3.2.5</u> Urban Design;
- vii) Building heights shall be limited to four storeys.
- d) The Municipality shall encourage the strengthening of linkages, physical and visual, between the Commercial area abutting the Saugeen River in the McNab Street vicinity to enhance the attractiveness of this location; and
- e) The Municipality, in conjunction with the Business Improvement Area (BIA), shall work together to improve the management and supply of public parking within the area(s) which fall under the BIA.
- f) The Municipality may enter into an agreement with an owner of a building which is being developed or redeveloped within the Commercial designation, to provide for payment-in-lieu of parking in accordance with <u>Section 7.12</u>.
- g) The Municipality shall coordinate, with the Business Improvement Area, property owners and/or operators of businesses, the improvement of the streetscape including public lanes, provision of street furniture and rest areas, the identification of pedestrian crossings, the planting of trees, the improvement of facades, and the regulation of signage.
- h) <u>Section 4.3.4</u> (a) may establish all, or portion of, the Commercial designation as a Community Improvement Area.
- i) The policies of <u>Section 3.7.7</u> 'Flood Fringe Constraint Areas' shall apply to the establishment of new uses, conversions of existing uses and/or enlargement of existing uses on lands within the Flood Constraint Area as shown on Schedule 'A'.
- j) Commercial uses may be subject to Site Plan Control under <u>Section 7.14</u> of this Plan.

## 3.3.5 Exceptions - Commercial

Reuber Car Care/McArthur Windows & Doors (BRKOPA #12-15.36)

- 3.3.5.1 Notwithstanding the policies of <u>Section 3.3</u> Commercial and <u>3.7.7</u> Flood Fringe Constraint Areas, the following provisions apply to the lands identified as Site Specific Policy Area 3.3.5.1 on Schedule 'A' – General Land Use Plan:
  - A By-law may be passed and approved that recognizes limited automobile related uses and large format retail or wholesale uses on the property;
  - ii) All required permits and/or approvals required for the expansion of any principal structure shall be obtained from the Saugeen Valley Conservation Authority (SVCA); and,
  - iii) All other applicable policies of <u>Section 3.3</u>. Commercial and, <u>3.7.7.1</u> Flood Fringe Constraint Area – Saugeen River shall apply.

## Motel/Apartments

3.3.5.2 Notwithstanding the policies of <u>Section 3.3</u> Commercial and <u>3.7.7</u> Flood

Fringe Constraint Areas, the following provisions apply to the lands identified as Site Specific Policy Area 3.3.5.2 on Schedule 'A' – General Land Use Plan:

- i) May be used for a combination of motel and apartment units with up to 12 one bedroom apartments provided that the total number of apartment and motel units does not exceed 17; and
- ii) Such uses shall be subject to site plan control.

Heritage Senior's Communities

- 3.3.5.3 Notwithstanding the policies of <u>Section 3.3</u> Commercial and <u>3.7.7</u> Flood Fringe Constraint Areas, the following provisions apply to the lands identified as Site Specific Policy Area 3.3.5.3 on Schedule 'A' - General Land Use Plan:
  - In addition to those uses permitted in the Commercial designation medium and/or high density residential uses, developed as a standalone use(s) or as part of a mixed-use development shall also be permitted.
  - ii) Medium and/or high density residential uses shall satisfy the urban design guidelines and parking requirements of this Plan.
  - iii) All other applicable policies of <u>Section 3.3</u> Commercial and <u>3.7.7</u> Flood Fringe Constraint Area shall apply.

#### Walkerton Jail

- 3.3.5.4 Notwithstanding the policies of <u>Section 3.3</u> Commercial the following provisions apply to the lands identified as Site Specific Policy Area 3.3.5.4 on Schedule 'A' General Land Use Plan:
  - i) Residential uses shall be prohibited.
  - ii) All other applicable policies of <u>Section 3.3</u> Commercial shall apply.

# 3.4 INSTITUTIONAL AND COMMUNITY FACILITIES

The wide range of institutional and community facilities located in Walkerton help define the community's role as a regional service centre. Not only do these facilities draw people into the community because of their various functions, they also provide a large number and wide range of employment opportunities.

Within Walkerton, institutional and community facilities are located throughout the Community because they have traditionally been permitted within residential neighborhoods and commercial areas.

#### 3.4.1 Goal

#### Maintain and enhance the existing regional and community Institutional and Community facilities for their economic, social and cultural importance.

#### 3.4.2 Actions

- a) Promote the use of schools and community institutions as community centres.
- b) Encourage the establishment of regional and community institutions and programs which address the changing needs of the community.
- c) Promote the location of special need housing complexes close to community facilities and support services.

#### 3.4.3 Permitted Uses

The Institutional and Community Facility designation shall permit uses associated with public health, welfare and education such as hospitals, nursing homes, public libraries and schools.

Other permitted uses shall include community centres, arenas, farmer's market, tourist information centres, museums, places of worship, daycare facilities, fraternal association halls and other similar places of assembly, government offices, detention centres, police or fire stations and related uses and activities.

## 3.4.3.1 Child Care

'Child Care' means the temporary care for or supervision of a child including providing for a child's safety, well-being or development, in the absence of the child's parent and for a continuous period that does not exceed 24 hours, in accordance with the Child Care and Early Years Act, 2014 including any amendments, or its successor.

The Comprehensive Zoning By-Law shall establish the following 'Child Care' facilities:

- i) 'HOME CHILD CARE' means 'Child Care' provided in a single detached dwelling, semi-detached dwelling or duplex dwelling by one or more child care provider(s) that is regulated by a home child care agency.
- ii) 'UNLICENSED CHILD CARE' means 'Child Care' provided in a single

detached dwelling, semi-detached dwelling or duplex dwelling that is not 'Home Child Care' or a 'Child Care Centre', or a private school within the meaning of the Education Act.

iii) 'CHILD CARE CENTRE' means a business that has obtained the proper licensing from the province to operate a licensed child care centre for the provision of temporary care for or supervision of a child including providing for a child's safety, well-being or development, in the absence of the child's parent and for a continuous period that does not exceed 24 hours, in accordance with the Child Care and Early Years Act, 2014 including any amendments, or its successor.

'Child Care' may be permitted subject to the requirements of the Comprehensive Zoning By-Law and the following:

- i) The lands and buildings/structures may be subject to Site Plan Control under <u>Section 7.14</u> of this Plan;
- ii) The establishment of the facility does not negatively impact upon the character of the neighbourhood;
- iii) A safe area is provided for the drop-off and pick-up of children;
- iv) Appropriate yard setbacks and signage are provided; and,
- v) The facility shall meet all health, safety and building and fire code standards.

## 3.4.4 Institutional and Community Facility Policies

Council may permit the redevelopment of surplus institutional sites for housing that meets identified needs in the community without an amendment to this Plan, provided that the use is compatible with surrounding uses. The following policies shall apply to all lands designated Institutional and Community Facility within Walkerton.

- a) It shall be the policy of the Municipality to ensure that new Institutional and Community Facilities are designed and located so as to allow for a broad, shared use of the facility.
- b) It shall be the policy of the Municipality that the following location criteria be satisfactorily addressed by all new Institutional and Community Facility proposals:
  - i) That the proposal is of a scale which is compatible with surrounding uses and should be able to function as a focal point for the neighborhood or community;
  - ii) That the proposed site is within close proximity to an arterial or collector road and that an adequate level of both vehicular and pedestrian access is available;
  - iii) The site area is adequate to accommodate buildings, future expansions, accessory off-street parking and landscaping;
  - iv) The proposed site should be adjacent or near Open Space or other institutional or community facilities;
  - v) The proposed site is strategically located in order to minimize travel time for the existing and anticipated service area population.
- c) Adequate buffer planting or fencing shall be established between the

Institutional and Community Facility land use and adjacent land uses.

- d) Adequate off-street parking facilities shall be provided and shall be encouraged to be located to the rear and side yards. Development wishing parking in the front yard must demonstrate that no other feasible option exists for accommodating the needed parking.
- e) All Institutional and Community Facility development may be subject to Site Plan Control under <u>Section 7.14</u> of this Plan.
- f) Legal non-conforming uses within the Institutional and Community Facility designation shall be subject to <u>Section 7.7</u> of this Plan.
- g) Legal non-complying uses within the Institutional and Community Facility designation shall be subject to <u>Section 7.8</u> of this Plan.
- h) The creation of Institutional and Community Facility lots shall be subject to <u>Section 7.15</u> Plans of Subdivision or <u>Section 7.16</u> Consent to Sever Land of this Plan.
- i) The policies of <u>Section 3.7.7</u> ' Flood Fringe Constraint Areas' shall apply to the establishment of new uses, conversions of existing uses and/or enlargement of existing uses on lands within the Flood Constraint Areas as shown on Schedule 'A'.

## 3.5 BUSINESS PARK

The retention and attraction of commercial and industrial businesses is important to the long term economic health of the community. The Business Park designation has been created to accommodate the needs of commercial/retail, highway commercial, or industrial uses:

- 1. Commercial/retail uses which are space extensive such that they require large single purpose buildings or large parking and/or storage requirements;
- 2. Highway commercial uses which are dependent upon a high degree of visibility to vehicular traffic and rely on highway access for economic existence; and,
- 3. Industrial uses.

These uses are generally to be located near the highway entrances to the community.

It is not the intent of this Plan to promote the establishment of small scale commercial/ retail uses in, or relocation from the Historic Walkerton or Commercial designation to, the Business Park designation.

#### 3.5.1 Goals

To promote the attraction and retention of commercial and environmentally clean industry to diversify the economic base and provide employment opportunities.

To promote new business uses that complement the existing established Historic Walkerton and Commercial areas.

To encourage new and existing business to adopt attractive, efficient and innovative design through the use of Site Plan Control.

#### 3.5.2 Actions

- a) Pursue innovative and creative approaches to encouraging commercial and environmentally clean business to locate within Walkerton.
- b) Encourage the re-use and/or redevelopment of vacant and underutilized buildings and properties to uses appropriate for the area in which they are located.
- c) Encourage the relocation of highway commercial uses and industry located in commercial and residential areas to more appropriate lands within Walkerton.
- d) Restrict the movement of small-scale commercial/ retail uses from either the Historic Walkerton or Commercial designations to the Business Park.

#### 3.5.3 Permitted Uses - Business Park

The permitted uses within the Business Park designation are sub-divided as per the following:

## 3.5.3.1 Permitted Uses - Business Park 1

The predominant use of land within the Business Park 1 designation shall be for: single purpose buildings devoted to Retail Commercial uses; Business Park Commercial uses; Light Industrial uses, and Complementary Uses.

- 1. Retail Commercial Uses which are space extensive such that they require large buildings, parking and/or storage requirements. The Retail Commercial use must:
  - a) Be located in a single use, self-contained building, in excess of 278.7 square metres (3,000 square feet). Retail Commercial building shall not be divided into retail spaces smaller than 278.7 square metres (3,000 square feet); and,
  - b) Require large parking and/or outdoor storage or display requirements; and,
  - c) Represent a use not consistent with the nature of the Historic Walkerton or Commercial designation.

Examples of space extensive Retail Commercial uses include:

- building supply outlets;
- fitness centres; and,
- offices accessory to an above permitted use.
- 2. Business Park Commercial: Uses which are dependent upon a high degree of visibility to vehicular traffic and rely on highway access for economic existence. Examples of Business Park Commercial uses include:
  - Automotive service stations and gas bars;
  - Automotive and recreational vehicle sales;
  - Rental establishments;
  - Agricultural & industrial equipment sales & service establishments;
  - Fuel storage depots;
  - Restaurants; and,
  - Offices accessory to an above permitted use.
- 3. Light Industrial: Uses which are conducted and wholly contained within an enclosed building and which is not, nor will become, obnoxious, offensive or dangerous by reason of the presence, emission or production of odour, dust, noise, smoke, fumes, glare, radiation or corrosive gases and which is not detrimental in appearance or effect to surrounding uses.

Examples of Light Industrial uses include:

- Light processing, manufacturing, or dismantling;
- Warehousing/storage facilities;
- Contractors/builders yards;
- Tradespersons shop;
- Printing plants;
- Commercial motor vehicle repair and wash facilities;

- Transportation and communication facilities;
- Research and development facilities;
- Education and training centres;
- Computer, electronic or data processing establishments;
- Scientific, technological or communication establishments; and,
- Offices accessory to an above permitted use.
- 4. Complementary: Other uses which are complementary to the main permitted uses may also be permitted within the Business Park 1 designation such as:
  - Municipal services;
  - Business and professional offices located in a single use, self-contained building, in excess of 278.7 square metres (3,000 square feet) in gross floor area;
  - Large and small animal veterinary clinics;
  - Fire, police and ambulance services;
  - Fraternal associations; and,
  - Banquet halls.
- 5. Prohibited Uses in the Business Park 1 designation: Shopping centres/plazas, strip malls/plazas, professional medical services and other associated health care facilities, are prohibited.

## 3.5.3.2 Permitted Uses - Business Park 2

The permitted uses within the Business Park 2 designation shall be limited to heavy manufacturing/industrial uses as defined in the Comprehensive Zoning Bylaw.

1) Prohibited Uses in the Business Park 2 designation: All uses as described in <u>Section 3.5.3.1</u> Business Park.

## 3.5.4 Business Park Policies

- a) Servicing shall be by municipal water and municipal sewage system.
- b) No use shall be permitted which, from its nature of operation or materials used therein, is considered to be obnoxious and/or a nuisance. All uses shall comply with the relevant requirements of the Ministry of the Environment.
- c) Development on lands not currently used for Business Park uses shall proceed by Registered Plan of Subdivision (<u>Section 7.15</u> of this Plan) or by Consent, to Sever Land (<u>Section 7.16</u> of this Plan) based on a site plan approved by the Municipality.
- d) Municipally owned lands within the Business Park designation may be subdivided in accordance with the Planning Act.
- e) The establishment of the East Ridge Business Park for development shall ensure an efficient and coherent pattern of development and appropriate municipal servicing. The lot arrangement and road pattern shall be designed to ensure access to an internal road system to minimize individual

road access onto arterial or collector roads.

- f) Business Park development proposals shall be subject to Site Plan Control under <u>Section 7.14</u> of this Plan. The following site development standards shall be satisfactorily addressed by all proposed uses in the submitted Site Plan:
  - i) Landscaping shall be provided along both the interior and exterior road frontages of the proposed use;
  - ii) Outdoor storage should be located to the rear or side of the main building on the lot and shall be fenced or suitably screened from adjacent uses;
  - iii) Signs shall be limited in number and designed to be functional and avoid visual clutter and distraction, and where possible, should be consolidated on shared sign structures;
  - iv) Lighting facilities and signs shall be arranged to minimize impact on adjacent sensitive uses;
  - Adequate off-street motor vehicle parking, loading facilities, driveways etc. shall be provided and shall be suitably screened or buffered from adjacent uses through the use of buffer planting, or other appropriate landscape treatment;
  - vi) Sensitive land uses adjacent to proposed uses or expanding uses shall be protected by providing adequate physical separation between the uses. A planting area, or other means of buffering as defined in the Comprehensive Zoning By-law, may be required between all residential uses/dwellings or other sensitive land uses and new or expanding Business Park uses; and,
  - vii) All storm, surface and waste-water from the proposed use shall be disposed of according to accepted engineering principles.
- g) Ministry of Environment & Climate Change Guideline D-6 'Compatibility between Industrial Facilities and Sensitive Land Uses' shall be applied to the lands designated as Business Park 2.

## 3.5.5 Exceptions - Business Park

## Brockton Sports Complex (BRKOPA #7-12.36)

3.5.5.1 Notwithstanding the policies of <u>Section 3.5</u> Business Park, those lands identified as Site Specific Policy Area 3.5.5.1 on Schedule 'A' – General Land Use Plan may be used for a Municipal Complex comprising municipal offices, multi-purpose community centre, sports fields, arena, and ancillary uses. All other applicable policies of <u>Section 3.5</u> Business Park shall apply.

#### Walkerton Water Tower

3.5.5.2 Notwithstanding the policies of <u>Section 3.5</u> Business Park, those lands identified as Site Specific Policy Area 3.5.5.2 on Schedule 'A' – General Land Use Plan may be used solely for a Water Tower and ancillary uses. All other applicable policies of <u>Section 3.5</u> Business Park shall apply.

## Walkerton Sewage Treatment Plant

3.5.5.3 Notwithstanding the policies of <u>Section 3.5</u> Business Park, those lands identified as Site Specific Policy Area 3.5.5.3 on Schedule 'A' – General Land Use Plan may be used for a Sewage Treatment Plan and ancillary uses. All other applicable policies of <u>Section 3.5</u> Business Park shall apply.

# 3.6 RECREATION AND OPEN SPACE

Walkerton is fortunate to have a range of neighbourhood, community and regional scale parks. As the community grows, the quantity and quality of parks and open spaces should continue to improve.

Recreation facilities are often co-located at school sites. The Saugeen River Valley provides a major open space/recreation feature through the community.

## 3.6.1 Goal

# To ensure a broad range of recreation and open space opportunities are available for all residents and visitors.

## 3.6.2 Actions

- a) Encourage the use of the Saugeen River for the recreational and passive enjoyment of area residents and visitors. This should include trail linkages, functional links between the river and the downtown, and accessibility for canoeing, fishing and passive recreation.
- b) Establish a diverse range of recreation opportunities for individuals and groups of all ages, lifestyles and abilities.
- c) Locate new parkland within new residential areas and create pedestrian linkages to the open space system.
- d) Promote the protection of lands which are important scenic vistas, possess important natural qualities, or are needed for public works.
- e) Encourage the co-ordination and provision of recreation facilities between the Community and other agencies such as school boards.
- f) Continue to improve the local park system and recreation facilities as identified in the Recreation Master Plan.

## 3.6.3 Permitted Uses

In areas designated Recreation and Open Space, the predominant use of land shall be oriented towards active and passive recreation and conservation activities. Permitted uses shall include public parks, pedestrian walkways and bicycle paths, playgrounds, picnic areas, swimming pools, sport fields, and other similar public or private recreation uses. Municipal services, cemeteries, golf courses and municipally owned and operated campgrounds may also be permitted within the Recreation and Open Space designation.

## 3.6.4 Recreation and Open Space Policies

- a) It is a policy of the Municipality to develop and maintain a system of parkland and recreation facilities to meet the needs of the community.
- b) The establishment of future parkland areas shall be coordinated with the school boards to achieve the integration of facilities and to maximize recreation opportunities and the use of the facility.
- c) Proposals for new parkland shall be evaluated relative to the following criteria:

- i) The site shall be of sufficient size and planned for appropriate facilities to meet the needs of the service area.
- ii) Neighbourhood and community parks should be located adjacent or near school sites where possible.
- iii) Parks shall be centrally located to the neighbourhood being served to minimize walking distance to the parks and maximize potential use of the park.
- iv) The design of new development areas should promote pedestrian linkages by means of walking trails and drainage systems.
- d) Recreation and Leisure Services Master Plan (2011) provides a coordinated plan for the delivery of park and recreation programs and facilities. The Master Plan may be updated from time to time to address changing circumstances and to implement the policies of this Official Plan.

# 3.7 ENVIRONMENTAL PROTECTION

Lands designated Environmental Protection have inherent environmental hazards such as flood susceptibility, erosion susceptibility, instability and other physical conditions which pose a risk to occupants of loss of life, property damage and social disruption.

In addition, the Saugeen River, its tributaries, the floodway and treed valley slopes contain locally significant natural features, including fish and wildlife habitat and vegetation communities.

It is the intent of the Municipality to protect life and property by respecting natural and man-made hazards and constraints in land use development. These lands should be left in a natural state.

The Saugeen River floodplain includes all lands susceptible to flooding during a Hurricane Hazel Flood Event (formerly called the Regional Storm Flood) as shown on the 2009 floodplain mapping. Generally the floodplain consists of a floodway and a flood fringe.

However, there are existing developed areas particularly in the downtown area and along Silver Creek, which have occurred within the floodplain. This Plan applies an Environmental Protection designation along the floodway portion of the Saugeen River and Silver Creek and recognizes constraints to development within the flood fringe of the Saugeen River and Silver Creek.

## 3.7.1 Goals

To protect and preserve lands having inherent physical and environmental constraints to development, in order to avoid potential danger to life or property from the use of such lands.

To protect and preserve lands which contain locally significant natural features, including fish and wildlife habitat and vegetation communities.

## 3.7.2 Actions

- a) Limit the development of lands with poor drainage, potential for flooding and erosion, steep slopes or other physical limitations which could endanger human life, cause property damage and/or social disruption.
- b) Recognize areas of existing development for potential redevelopment within the Flood Fringe Constraint Area subject to the flood proofing requirements of the Saugeen Valley Conservation Authority.

## 3.7.3 Permitted Uses

On lands designated Environmental Protection, permitted uses shall be limited to essential flood, erosion and sediment control structures undertaken by a public authority, and open space uses not requiring closed buildings or major alterations to the landscape such as non-intensive conservation, outdoor recreation, public parks, and essential municipal services.

Certain buildings and structures that must be located within the Environmental Protection designation by the nature of their use, such as for flood or erosion control, are permitted. Nonetheless, any building or structure which could be located outside the Environmental Protection designation is not permitted. Non-habitable buildings connected with public parks, such as picnic shelters, may be permitted.

Those uses which could be adversely affected by, or which could increase the potential risk associated with the inherent physical hazards, shall be prohibited. Approval of the Saugeen Valley Conservation Authority shall be obtained for any permitted use, where required by SVCA Regulations.

#### 3.7.4 Environmental Protection Policies

- a) Development and site alteration shall not be permitted within the floodway portion of the floodplain. The location of the boundaries of the floodway portion of the floodplain shall be delineated in the Comprehensive Zoning By-law.
- b) No new development, structures, including enlargements or additions shall be permitted within 6.0 metres (20 feet) of the top of bank, on both sides of Silver Creek downstream of Ridout Street.
- c) The erection of buildings and structures or the placing or removal of fill of any kind, whether originating on the site or elsewhere, within an Environmental Protection designation is generally prohibited.
- d) Uses that require site modifications, such as parking lots, are not permitted in areas of environmental sensitivity or significance.
- e) Extensions or enlargements of existing buildings and structures shall be discouraged. Replacement of existing buildings or structures damaged by natural causes may be permitted if the hazard risk does not increase from the original condition and provided such replacement does not increase the height, size, volume or change the use. Extensions or enlargements may be subject to the requirements of <u>Section 3.7.6</u>.
- f) Where any land designated as Environmental Protection is held under private ownership, this Plan shall not be construed as implying that such areas are free and open to the general public nor that the lands will be purchased by the Municipality or other public agency. There is no public obligation to either redesignate or to purchase any such lands if there is an existing or potential hazard that would be difficult or costly to overcome.
- g) The boundaries of the Environmental Protection designation are delineated in a conceptual manner on Schedule A. The exact location of the boundaries of the Environmental Protection designation shall be delineated in the Comprehensive Zoning By-law.
- h) The boundaries of the Environmental Protection designation are flexible to a certain degree and may be subject to revision through consultation with the Municipality and the Saugeen Valley Conservation Authority. Minor adjustments to the boundaries shall not require an amendment to this Plan.

If more detailed mapping becomes available and is recognized by the Municipality, or should flood control or similar works be undertaken, to the satisfaction of the Municipality and the Saugeen Valley Conservation Authority, which result in changes in areas designated Environmental Protection, then this Plan may be amended as required.

- i) Where development or site alteration within the Environmental Protection designation is proposed and detailed mapping is not available, the proponent shall be required to produce the necessary mapping.
- j) It shall be the policy of this Plan that in considering an application for the redesignation of lands designated Environmental Protection for other purposes, Council will consider redesignation, if an Environmental Impact Study prepared according to <u>Section 3.7.6</u> indicates that impacts from the proposed use or re-use are minor and can be successfully mitigated: and,
  - i) The hazards can be safely addressed and new hazards are not created or existing ones aggravated. This may include preparation of an engineering study to the satisfaction of Council and the Saugeen Valley Conservation Authority; and
  - ii) Vehicles and people have a way of safely entering and exiting at all times; and
  - iii) The development does not include institutional uses or essential emergency services or involve hazardous substances; and,
  - iv) The advice, or approval where required, of the Saugeen Valley Conservation Authority has been obtained.
- k) It shall be the policy of this Plan that the areas designated Environmental Protection shall be zoned in a separate and restrictive classification in the Comprehensive Zoning By-Law and/or appropriately protected through the use of Saugeen Valley Conservation Authority Regulations.

## 3.7.5 Valleylands

Development which may have a significant impact on valleylands may require the preparation of an Environmental Impact Study, by the proponent, to ensure that lands are not negatively impacted by the proposed development. An Environmental Impact Study shall be prepared in accordance with <u>Section 3.7.6</u>.

For the purpose of this subsection, the valleylands shall be defined as the slopes that are predominantly in a natural state and the relatively level land measured 30 metres (98.4 feet) back from the top of these valley slopes.

## 3.7.6 Environmental Impact Study (EIS)

An Environmental Impact Study (EIS):

- a) Is required for new development proposed within the Environmental Protection designation;
- b) Is required for development adjacent to, and within, valleylands;
- c) Is required prior to an application to redesignate land within the Environmental Protection designation; and,
- d) May be waived by the Municipality upon recommendation of the Saugeen

Valley Conservation Authority if the proposal is of a minor nature or site conditions are such that the preparation of an EIS would serve no useful purpose for the protection of the significant environmental features.

## 3.7.6.1 Scoped Site EIS versus Full Site EIS

- a) The type of EIS will vary with the scale and type of development proposed.
- b) A Scoped Site EIS is generally required in situations where the nature of the natural feature or hazard is well documented, similar development has been previously proposed, modeled and analyzed, impacts are not expected due to the location or nature of a proposed development and mitigation options have been developed.
- c) A Full Site EIS is generally required in situations which are more complex, where information is lacking, or where the risk or significance of the impact is high.
- d) The type of EIS and parameters of the Study shall be determined in preconsultation with the Municipality and the Saugeen Valley Conservation Authority prior to the EIS proceeding.

## 3.7.6.2 EIS Review and Approval Process

- a) An EIS shall be completed by a qualified professional with expertise in the appropriate environmental sciences.
- b) An EIS shall be subject to peer review by the Saugeen Valley Conservation Authority and/or other outside parties, at the applicant's expense.
- c) The EIS must be completed and approved before the principle of development is established, either through an official plan amendment, a rezoning, or by draft approval of development.

## 3.7.6.3 Minimum EIS Requirements

An EIS shall include, as a minimum, the requirements as set out in Appendix 'B' or as Scoped in pre-consultation with the Municipality and the Saugeen Valley Conservation Authority prior to the EIS proceeding.

## 3.7.7 Flood Fringe Constraint Areas

The Flood Fringe Constraint Areas shown on Schedule "A" Land Use Plan, apply to all lands within the Hurricane Hazel Flood Event Standard between the limit of the Environmental Protection designation and the Hurricane Hazel Flood Event Standard for the Saugeen River and Silver Creek.

Development in the flood fringe may be permitted by this Plan but does not imply that the flood risk is completely absent. Development could still experience flood damage and disruption from major flood events despite flood control dykes and flood proofing measures, with resulting consequences for landowners.

The boundaries of the Flood Fringe Constraint Areas as shown on Schedule 'A' Land Use Plan have been established based on an engineering survey completed

on behalf of the Municipality. The boundaries of the Flood Fringe Constraint Areas may not be changed or modified except by Amendment to this Plan.

Public works, which must locate in the floodplain by nature of their use, and roads that appropriate planning studies have determined must be located in the floodplain, shall be permitted.

## 3.7.7.1 Flood Fringe Constraint Area - Saugeen River

In the Flood Fringe Constraint Area - Saugeen River (FFCA-SR) the following policies apply:

- a) Regardless of the underlying Official Plan designation the following uses are not permitted within the FFCA-SR:
  - i) Sewage treatment plant;
  - ii) Seniors care facility/seniors home/long term care home, pre-schools, school nurseries, child care centres, hospital, schools;
  - iii) Emergency services such police, fire, ambulance, emergency operations centre, major electrical substation;
  - iv) Any use which manufactures or treats "hazardous substances";
  - v) Any use which stores for retail sale and/or wholesale "bulk quantities" of "hazardous substances"; and
  - vi) Any use which utilizes "bulk quantities" of "hazardous substances" in any process.

"Hazardous substances" means substances which individually or in combination with other substances are normally considered to pose a danger to public health, safety and the environment. These substances generally include a wide array of materials that are toxic, ignitable, corrosive reactive, radioactive or pathological.

"Bulk quantity/quantities" shall be defined as 201 litres [44.2 Imp gallons, 53.1 US gallons]; or more of a "hazardous substance" measured by volume or dry equivalent in a single tank or container.

## Explanatory Note - Examples:

*"Hazardous substance" stored in 140 containers with each container being 5 litres in total volume would <u>not be</u> considered <i>"bulk quantity".* 

A facility stores "hazardous substances" in multiple 201 litre tanks. The tanks would <u>not</u> <u>be</u> considered "bulk quantity" even though they contain more than 201 litres in total volume.

A facility stores "hazardous substances" in one 300 litre tank and two other tanks each capable of holding 150 litres. The 300 litre tank would be considered "bulk quantity" and therefore not permitted. The two 150 litre tanks would <u>not be</u> considered "bulk quantity" even though they contain more than 201 litres in total volume. "Hazardous substance"

stored in one container being 202 litres in total volume would be considered "bulk quantity".

*"Hazardous substance" stored in one container being 200 litres in total volume would <u>not</u> <u>be</u> considered <i>"bulk quantity".* 

A single 10,000 litre tank of "hazardous substance" would be considered to be "bulk quantity".

- b) An amendment to this Official Plan shall be required to permit any of these uses outlined in clause (a) above. If after careful consideration a use is to be permitted, a higher level of flood protection and/or additional flood proofing precautions may be required by the Saugeen Valley Conservation Authority.
- c) Within the FFCA-SR lands may be used according to their underlying land use designation, with the exception of those uses outlined in clause (a) above.
- d) All development or redevelopment including new building/structure construction, expansion/enlargement of a building/structure, conversion of a building/structure to a new permitted use, or reconstruction/renovation of existing buildings/structures shall be permitted provided that sufficient flood proofing measures and/or flood damage reduction measures, are incorporated into the building/structure to the satisfaction and approval of the Saugeen Valley Conservation Authority.
- e) Notwithstanding the policies of subsection (d) above, some types of new development or expansions of existing uses may not be permitted within the Constraint Area due to the increased risk to life and/or property damage or risk of pollution.
- f) The restoration/reconstruction of any building/structure damaged or destroyed by fire, or any act of nature including flooding, shall be permitted subject to approval of Saugeen Valley Conservation Authority and may require flood damage reduction measures to their satisfaction.
- g) The Municipal Comprehensive Zoning By-law shall include policies implementing the FFCA-SR policies of this Plan.
- h) Lands designated within the FFCA-SR shall be zoned according to their underlying land use designation, except that every zone shall include a reference to the Flood Fringe Constraint Area – Saugeen River policies of this Plan by using an appropriate zone symbol.
- All development, or redevelopment, including new building/structure construction, expansion/enlargement of a building/structure, conversion of a building/structure to a new permitted use, or reconstruction/renovation of existing buildings/structures, MAY be subject to the Site Plan Control requirements of <u>Section 7.14</u> at the sole discretion of the Chief Building Official for the Municipality.

## 3.7.7.2 Flood Fringe Constraint Area - Silver Creek

The Silver Creek Constraint Area designation applies to those lands located

between the Silver Creek Environmental Protection designation and the Hurricane Hazel Flood Event Standard.

This Plan recognizes the need to permit the minor expansion of existing buildings and the creation of a limited number of new lots for low density residential purposes by consent. It is the intent of this Plan therefore that the Silver Creek area shall retain its present character and that any new development which could adversely impact on the storage capacity of the Silver Creek floodplain shall not be permitted.

In addition to all of the policies of <u>Section 3.7.7.1</u>, the following additional policies also apply to the Silver Creek Flood Fringe Constraint Area:

- 1) Residential uses permitted in the Silver Creek Constraint Area shall be limited to low density uses. If medium or high density development is proposed within the Silver Creek Policy Area an amendment to the Official Plan shall be necessary.
- 2) The maximum lot coverage for all lots shall be 40 per cent.
- 3) Where site conditions make the attainment of flood proofing to the Hurricane Hazel Flood Event Standard elevation unfeasible, a variance to this elevation may be considered in the following circumstances:
  - a) Where the existing building is being changed from a residential to a non-residential use;
  - b) Where an addition to an existing building is intended for nonhabitable use; and,
  - c) Where in the opinion of the Saugeen Valley Conservation Authority the difference in the above-ground floor elevation between the existing floor and a proposed floor, if above the Regional Flood level, would be excessive.

## 3.8 RESIDENTIAL TRANSITION

#### 3.8.1 Goal

The 'Residential Transition' designation shall provide an opportunity for non-retail commercial uses as well as other community services. The designation is not intended to accommodate intensive commercial development as is intended for Commercial designations such as 'Business Park' or 'Commercial'.

#### 3.8.2 Actions

- a) Provide opportunities for the conversion of select residential dwellings located along high traffic roadways to small scale commercial and personal service uses.
- b) Require site development standards that address landscaping, signage, location and screening of motor vehicle parking etc. that could mitigate negative offsite impacts on abutting existing residential uses.
- c) Require new commercial buildings/structures to adhere to the existing residential zone provisions where feasible.

#### 3.8.3 Permitted Uses

The primary use in the Residential Transition designation shall be Residential uses in accordance with <u>Section 3.1</u> Residential.

Limited commercial uses shall be permitted. Being a transition area, the types of Commercial uses permitted shall be limited to those which are compatible with the existing residential character of the area. Examples of such uses are: business or professional offices, studios, medical clinics, personal service shops, and child care centres. Ancillary retail uses secondary to a permitted commercial use may also be permitted. A permitted commercial use may also include an apartment(s) provided it is above or behind the principle commercial use of the building.

'Child Care Centre' shall be permitted in accordance with <u>Section 3.4.3.1</u>. 'Home Child Care' and 'Unlicensed Child Care' shall be permitted in accordance with <u>Section 3.4.3.1</u>, but shall be permitted only in an existing 'Dwelling, Single Detached'.

Automobile related uses; uses proposing outdoor storage or outdoor display and sales; retail uses; commercial uses requiring extensive parking or unloading areas; or uses requiring large floor areas shall not be permitted in the Residential Transition designation.

#### 3.8.4 Policies

a) Parcels in the Residential Transition designation shall be zoned for a Residential use in accordance with <u>Section 3.1</u> Residential.

- b) A Zoning Amendment shall be required in order to permit a Commercial use. The Zoning Amendment shall have regard to the following criteria:
  - i) The proposed commercial use is suitable for the subject property with regard to the shape of the lands and the intensity of the use proposed. Consideration shall be given to the scale and layout of the buildings, parking areas, unloading areas, exterior lighting, garbage storage, etc.
  - ii) The proposed commercial use is compatible with adjacent land uses, with consideration given to the height, location and spacing of any buildings involved in the property development, lighting, signage, noise and odour emitted from the proposed use, potential loss of privacy for neighbours, and effect on heritage resources;
  - iii) The existing traffic patterns are not significantly impacted and potential conflicts with pedestrians are avoided;
  - iv) Adequate measures are taken to mitigate potential adverse impacts on surrounding land uses including the provision of buffer landscaping and/or fencing between the commercial use and abutting residential uses where required;
  - v) The applicant shall provide data on the commercial vacancy rate in other designations prior to the rezoning and reasons as to why the proposed commercial use cannot be accommodated in these designations;
  - vi) External advertisements and signs shall be designed and sized to maintain the appearance of the area;
  - vii) Existing residential zone provisions, including building setbacks, lot coverage, height etc. shall be retained, where appropriate, with the exception of parking and unloading provisions;
  - viii) Other relevant matters of concern identified by Council are addressed.
  - ix) The policies of <u>Section 3.7.7</u> 'Flood Fringe Constraint Areas' shall apply to the establishment of new uses, conversions of existing uses and/or enlargement of existing uses on lands within the Flood Constraint Ares as shown on Schedule 'A'.
- c) 'Residential Transition' uses may be subject to Site Plan Control.

# **SECTION 4 - GENERAL COMMUNITY POLICIES**

## 4.1 ECONOMY

The economic policies of this Official Plan encourage industrial retention and attraction, home occupations, commercial and service employment opportunities, tourism, and support for the Municipality's institutional employment base.

As a regional service centre, Walkerton's economic health is very important to those living within the community, as well as those living in the surrounding municipalities. A healthy, growing economy allows for improvements in the services available, attracts new residents and provides jobs for the young people growing up in the community.

## 4.1.1 Goal

To provide a positive economic climate to attract industry, encourage private investment, create a wide range of employment opportunities, and enhance a balanced municipal assessment base.

## 4.1.2 Actions

- a) Promote Walkerton as a regional service centre and tourist destination within an agricultural setting.
- b) Provide opportunities to improve and enhance the quality of tourist facilities and the variety of tourist related business in Walkerton.
- c) Provide sufficient suitable lands and necessary municipal services for a broad range of economic activities and job opportunities to meet the needs of residents of Walkerton.
- d) Strengthen Historic Walkerton downtown as the community's commercial focal point.
- e) Advocate municipal co-operation with private enterprises.
- f) Participate with business groups, tourism organizations and service groups in the coordinated promotion of Walkerton.
- g) Participate with local agencies in providing retraining and continuing education opportunities for the local labour force.
- h) Recognize home occupations as an important economic activity.
- i) Promote the Community in terms of its tourism potential and access to the Saugeen River Valley.
- j) Promote a coordinated and co-operative approach to regional economic development initiatives.
- k) Continue to support the many institutions and public agencies which diversify the local economy.

# 4.2 HERITAGE RESOURCES

Council recognizes the importance of cultural heritage resources within the Municipality. The historical character of the community comprises those features which are unique or representative of past human activities or events. These include built heritage features such as buildings, structures, monuments or remains of historical, cultural and/or architectural value, and cultural heritage features such as landscapes, vistas, sites and areas of archaeological and historic value and urban areas that are of historic and scenic interest.

## 4.2.1 Goal

To identify, protect, preserve and enhance Walkerton's built, landscape and archaeological heritage for its cultural, historic and economic value to the community.

## 4.2.2 Action

- a) Encourage private and public sector initiatives for the protection, restoration and enhancement of existing heritage buildings, structures, streetscapes or areas which contribute to the identity, character and history of the Walkerton community, particularly those of historic, architectural, or archaeological significance, pursuant to the Ontario Heritage Act.
- b) Encourage and foster public awareness, participation and involvement in the conservation of cultural heritage resources, in co-operation with local historical groups or the Brockton Heritage Committee.
- c) Ensure that their cultural heritage resources are protected during land use development processes.
- d) Lead the community in restoring, rehabilitating, enhancing and maintaining any cultural heritage properties owned by the Municipality or projects involving municipal public works, as examples of proper stewardship and conservation approaches in fulfillment of the heritage goals and policies of this Plan.

## 4.2.3 Heritage Policies

- a) Council shall encourage the identification, restoration, protection, maintenance and enhancement of cultural heritage resources. Cultural heritage resources include but are not necessarily restricted to:
  - i) Properties, areas or cultural landscapes of historical value or interest, including properties associated with significant historical local, national or international personalities, and properties which serve to provide insights into the history and past development of the Town;
  - ii) Properties, areas or cultural landscapes of architectural value or interest including properties representative of a certain style or period of architecture and/or building construction, important landmarks of the Town, and properties or areas which make an important contribution to the streetscape of the community;
  - iii) Properties, areas or cultural landscapes which have been identified

to contain significant archaeological remnants of prehistoric habitation and/or important archaeological evidence of historic activities;

- iv) Properties, areas or cultural landscapes considered to be important to the Town as a result of their location and setting; and,
- v) Natural features including trees and hedgerows considered to be of significant historical cultural or archaeological value.
- b) The Municipality shall work with local historical groups, the Ontario Ministry of Culture and any other interested groups or individuals in establishing a list of documented heritage features within the Community.
- c) It shall be a policy of the Municipality to encourage organizations such as the Business Improvement Area (BIA) to establish an ongoing facade improvement program, promoting the use of facade design guidelines through annual design awards, design workshops and pamphlets, the display of old photos, and before and after pictures.
- d) Council may by by-law designate cultural heritage resources, such as individual properties and conservation districts pursuant to the Ontario Heritage Act and the policies of this Section. Prior to the passage of such a by-law, Council shall be satisfied that:
  - i) The building or property is strongly associated with the life of a person who played an integral role in the development of the Municipality and/or is well-known locally, nationally or internationally; and/or,
  - ii) The building or property is the location of, or is associated in a significant way, with a significant local, national or international event; and/or,
  - iii) The building embody the distinguishing characteristics or an architectural type recognized for its style or period of construction, or it is a notable example of workmanship by an early master builder, designer, or significant architect. It is not imperative that antiquity alone be the basis for selection, however, it should be an important consideration if other more significant examples have disappeared.
  - iv) The building or property is considered to be an easily recognizable landmark in the Municipality and contributes to the character of the community; and/or,
  - v) The potential for illustrating the heritage value should be such that it will be possible for visitors to gain from the building an appreciation for the architecture or history with which it is associated.
  - vi) In considering the designation of a building, the extent of the original materials and workmanship remaining should be important to that designation.
  - vii) Intangible elements such as feeling, association and aesthetics shall be considered as important as the physical appearance of the building or structure.
  - viii) Architectural character should be considered on the basis of style, plan and sequence of spaces, uses of materials and surface

treatment and other detail including windows, doors, lights, signs and other fixtures of such buildings and the relation of such factors to similar features of the buildings in the immediate surroundings.

- ix) The neighbourhood contains a collection of buildings and properties described in Sections i), ii), iii), and iv), above and which collectively contribute to the character of the Municipality.
- e) Council may pass by-laws under provincial legislation to protect designated buildings and properties pursuant to the Ontario Heritage Act and may pass by-laws to protect significant archaeological sites.
- f) All new development permitted by the land use policies and designations of this Plan, and infrastructure projects, shall have regard for cultural heritage resources and encourage, wherever possible, the incorporation of these resources into any plans which may be prepared for such development and/or conserve such resources by removal and documentation. New structures built in the area of these resources shall be designed to reflect the surrounding landscape and built form. Council shall use Site Plan Control to ensure that new development is sited and designed to complement the historic and natural character of the Municipality.
- g) Council shall appoint a Heritage Committee to assist in the identification, promotion and protection of heritage resources.
- h) The Municipality recognizes that there may be archaeological remains of prehistoric and historic habitation, or areas containing archaeological potential within the boundaries of the Community. Council may therefore require Archaeological Assessments conducted by archaeologists licensed under the Ontario Heritage Act, as a condition of any development proposal affecting these resources. Archaeological assessment reports conducted by licensed archaeologists are to be in compliance with licensing requirements established under the Ontario Heritage Act.
- i) When an identified human cemetery, marked or unmarked human burial is affected by land use development, the Municipality shall consult appropriate government agencies, including the Ministry of Culture and the Ministry of Government Services (MGS). The provisions under the Heritage Act and the Cemeteries Act (Revised) shall apply.
- j) Where feasible, relevant by-laws, programs and public works undertaken by the Municipality shall conform to and further the heritage goals and policies of this Plan and the Ontario Heritage Act.
- k) The Municipality recognizes and supports the creation of a heritage resource information base, resulting in a comprehensive heritage site inventory and/or heritage master plans according to the Ontario Heritage Act.
- Council may investigate and initiate various methods to provide planning incentives such as bonusing provisions, transfer of density, special zoning by-laws, site plan control provisions, etc. for the purposes of cultural heritage conservation.
- m) Council shall maintain a Community Heritage Trust Fund, in compliance with Municipal By-laws, to encourage heritage conservation and to promote

the conservation and stabilization of properties and areas of architectural and historical value in the Community. The revolving nature of the fund is intended to finance activities which both fulfill the mandate of the fund and also return money to the fund for further related activities. Financial assistance may be in the form of grants, loans and loan guarantees to owners of heritage designated properties for restoration projects, or purchasers of heritage designated properties under Part IV and Part V of the Ontario Heritage Act.

 n) Council may exercise its legislative authority to control the alteration and demolition of heritage resources on individual properties or in identified Districts designated under Part IV or Part V of the Ontario Heritage Act, or by establishing an area of Demolition Control under Section 33 of the Planning Act.

## 4.2.4 Cultural Heritage Master Plan

Council may prepare a Cultural Heritage Master Plan (CHMP). Such a Master Plan would survey, inventory, examine and study the Municipality's cultural heritage resources. The purpose of the CHMP is to make recommendations on how the cultural heritage resources of the Municipality should be enhanced and protected in accordance with the goals and objectives of this Plan.

## 4.2.5 Ontario Heritage Act

One of the main options available to the Municipality in achieving its heritage goals, actions and policies is the Ontario Heritage Act. This Act enables the Municipality to protect properties of historic or architectural value from demolition or unsympathetic alteration. Appendix 'B' provides an outline of the Ontario Heritage Act.

## 4.2.6 Role of Public Authorities

Public authorities have the ability to make decisions affecting the public realm that can have a positive impact on cultural heritage resources.

- a) On this basis, the carrying out of any public work by any Public Authority shall have regard to the retention and protection of significant cultural heritage resources in accordance with the goals and objectives of this Plan and the CHMP. Pursuant to the Ontario Heritage Act, all public works within Heritage Conservation Districts shall conform to the applicable Heritage Conservation District Plan.
- b) Council may impose as a condition of any development approval the retention and conservation of cultural heritage resources identified in a CHMP, or the implementation of appropriate mitigation measures, to minimize the impact of the development on the cultural heritage resource.
- c) The inventory of heritage buildings and structures within the Municipality shall be maintained. Inventoried heritage resources may be considered for designation under the Ontario Heritage Act and/or conservation through the

review of any proposed development, subject to all relevant legislation. The inventory may be included within the CHMP described in the Plan.

d) Council may prepare an inventory of cultural heritage landscapes. This inventory may form a component of a Cultural Heritage Master Plan for the Municipality. A cultural heritage landscape is a defined geographical area of heritage significance that has been modified by human activities.

# 4.3 COMMUNITY IMPROVEMENT

Community Improvement may be generally defined as encompassing all those activities, both public and private, which maintain, rehabilitate and redevelop the existing physical environment to accommodate the social, economic and environmental priorities within the community. These activities will improve the general appearance and economic viability of a Community Improvement Area.

Community Improvement Plans identify the specific projects that need to be carried out in a particular area to improve the quality of life and the built environment in an area. Community Improvement Areas may be established by Council and designated by bylaw, in accordance with the provisions of the Planning Act.

## 4.3.1 Goal

Improve community facilities and infrastructure to address social, environmental and economic priorities and needs of the community.

#### 4.3.2 Actions

- a) Maintain or improve municipal services, public utilities and social and recreational facilities.
- b) Identify and prioritize public works projects and funding programs which assist in stimulating economic activity in the Community.
- c) Coordinate public projects and expenditures to optimize their benefit to the community.
- d) Promote community improvements which address existing environmental concerns or sustainability goals.
- e) Maintain community standards for the maintenance of private property.
- f) Promote the redevelopment of vacant or underutilized properties and buildings and improve conditions in older, residential neighbourhoods.
- g) Improve the property and business tax base by encouraging economic expansion and new development by both the private and public sectors.
- h) Encourage investment and improvement in the maintenance and rehabilitation of existing commercial, industrial, institutional and residential buildings and structures.
- i) Promote revitalization for Historic Walkerton.
- j) Improve parking facilities in Historic Walkerton.
- k) Improve stormwater management and treatment in the Municipality.

#### 4.3.3 Criteria for Community Improvement Area Designation

The Municipality may consider the following criteria in selecting a Community Improvement Area:

- a) Existence of incompatible or conflicting land uses;
- Buildings in need of maintenance, repair or rehabilitation due to age, appearance and inability to meet current energy efficiency and structural standards;
- c) Inadequacies in municipal services including sanitary sewer, water, or

stormwater systems and parking facilities which may be in need of repair;

- d) Deficiencies in the road network;
- e) Inadequate supply of parkland, cultural or social facilities;
- f) Susceptibility to flooding and poor drainage;
- g) Deterioration and appearance of building facades, streetscape, parking facilities, pedestrian access or signage;
- h) Areas which contain environmental issues such as soil contamination or concerns;
- i) Deficiencies exist in screening, buffering, streetscaping or landscaping;
- j) Cultural heritage resources in area warranting protection and/or enhancement;
- k) Opportunity exists to achieve economic growth in an area as a result of building improvement, repair and/or replacement; and,
- I) Brownfield sites, which include vacant or underutilized lands that have previously been used for industrial or commercial purpose that may have left the site with a degree of contamination.

## 4.3.4 Community Improvement Area Designation

- a) This Plan establishes portions of multiple land use designations in the downtown area, as a Community Improvement Area, as shown more precisely on Schedule 'D'.
- b) Council may by by-law establish other Community Improvement Plan Areas as appropriate, in accordance with this Section of this Plan.

## 4.3.5 Phasing

- a) In the phasing of community improvements it is the policy of Council to:
  - i) Integrate community improvement projects into other municipal improvement programs.
  - ii) Determine specific community improvement project priorities and the budget allocation as part of the municipal budgeting process
  - iii) To undertake improvements in the community improvement project areas based on the number and severity of the deficiencies, the benefits of the improvement to the project area and the Municipality, the degree of municipal commitment and public support for the project, and the financial resources available.

## 4.3.6 Consultation with the County of Bruce

- a) The Municipality shall consult with the County of Bruce when Community Improvement Plans are being prepared to ensure the co-ordination of improvements to sewer, water, and other County services with municipal improvements. Where possible, the Municipality may create partnerships for Community Improvement projects and funding.
- b) Based on the above, the Municipality, from time to time, may identify a Community Improvement Area.
- c) In order to carry out the community improvement goals and actions of this Plan, the Municipality may:

- i) Prepare and carry out a Community Improvement Plan which itemizes and prioritizes the community improvement projects;
- ii) Participate and coordinate with senior levels of government; and,
- iii) Co-operate with groups and organizations whose objectives include community improvement.

## 4.4 ENVIRONMENT

The Walkerton community's primary natural feature is the valley of the Saugeen River and its tributary, Silver Creek. The river valley has shaped the location of land uses as well as the topography and layout of the Municipality.

Comments received during the public meetings for the Official Plan reflect a desire to protect the environment in numerous ways, including protecting and improving the features of the Saugeen River and ensuring tree planting in the downtown as well as in new subdivisions.

## 4.4.1 Goal

To protect and enhance Walkerton's healthy environment by minimizing air, water and land pollution, and through the wise use of the area's natural resources.

## 4.4.2 Actions

- a) Review all development proposals to ensure that environmental concerns are addressed, including land use compatibility between sensitive land uses and transportation, utility and industrial facilities.
- b) Improve the water quality of Silver Creek and the Saugeen River through wise land use practices and the efficient treatment of sewage and the management of storm water.
- c) Protect the Saugeen River Valley for its ecological, visual, recreational, and economic importance to Walkerton.
- d) Review all development proposals to minimize flooding potential and ensure no net loss of fish habitat.
- e) Review all development proposals to promote the conservation of energy, water and other natural resources.
- f) Consider preparing a waste management plan that ensures the reduction, re-use and recycling of waste materials from households, businesses, institutional uses and industry.
- g) Initiate a municipal urban tree policy for the removal and planting of trees on municipal property, and the removal of trees on private property prior to receiving development approvals.
- Encourage the continuous improvement of air quality by strengthening relevant By-laws and promoting the reduction of greenhouse gas emissions by all sources.
- i) Protect the night-time environment and the Municipality's position as a natural retreat destination and Bright Star community by requiring dark sky lighting standards in new development.

## 4.4.3 Environmental Review Policies

a) Environmental studies, as determined by the Municipality or various government agencies, may be required prior to the Municipality making a decision on development proposals, depending on the scale, intensity and

type of development being proposed.

- b) Where the Municipality has determined that an environmental review is required, the review of development proposals shall assist in determining whether the development should be approved by the Municipality and if so, what environmental safe-guards shall be required.
- c) If an Environmental Impact Statement is required, it shall be completed in accordance with Appendix 'B' of this Plan.

#### 4.4.3.1 Land Use Compatibility and Sensitive Land Uses

- a) The Municipality shall consider the land use compatibility between sensitive land uses such as residential, and transportation, utility and industrial facilities.
- b) Land uses which are incompatible because of noise, dust, odour, vibration and other adverse environmental impacts should generally be kept separate from sensitive land uses, as defined in the Provincial Policy Statement, such as (but not limited to) residential uses, educational facilities and health facilities, including long term care facilities.
- c) The Municipality shall strive to maintain compatibility between sensitive land uses and industrial facilities. Measures including land use separation, buffering, screening and site design measures shall be provided between incompatible land uses in accordance with the guidelines of the Ministry of the Environment. Distances shall vary depending on the nature of the industrial facility and the intervening land use.

### 4.4.3.2 Water Quality and Quantity

- a) The Municipality shall consider the potential impact a development may have on the quality and quantity of the Community's water resources. Such an assessment should not only involve the individual development but should also take into account the cumulative effects that such a development may create.
  - b) Development shall be assessed based on:
    - i) Protection, maintenance and enhancement of water resources;
    - ii) Impact on the quality and quantity of surface and groundwater resources; and,
    - iii) Promotion of water conservation and the efficient use of water resources.

#### 4.4.3.3 Site Redevelopment/ Soil Quality Assessment

- a) All persons acquiring land for any purpose are expected to satisfy themselves with respect to any potential hazardous waste.
- b) The Municipality shall require residential and commercial development proposals involving the redevelopment of industrial, transportation or utility sites to include investigations into the potential contamination of the site as a result of the previous use. In these instances a Record of Site Condition completed by a qualified engineer shall be required with all development applications.

c) Contaminated sites must be thoroughly investigated and a clean-up plan prepared in accordance with Ministry of the Environment guidelines, prior to the Municipality's consideration of the redevelopment proposal.

#### 4.4.3.4 Fish Habitat

a) It shall be a policy of the Municipality that development only be permitted where there will be no net loss of fish habitat. Where possible, proposed developments shall create a net gain in fish habitat.

#### 4.4.4 Water Conservation Policies

- a) The Municipality shall encourage water conservation by the residents, businesses and industry connected to the municipal water system. This may include the promotion of water conservation practices such as water meters, changes in daily habits and retrofits to plumbing fixtures.
- b) The Municipality shall promote a water conservation educational program to assist users in undertaking reasonable steps to reduce water consumption. Such a program may include the following:
  - i) Research into water conservation products and techniques that are effective and available for households, businesses and industries;
  - ii) Distribution of information on products and techniques to households;
  - iii) Periodic presentations on water conservation so that residents can learn about water conservation techniques.

#### 4.4.5 Energy Conservation Policy

- a) The Municipality shall encourage measures to conserve energy resources in new development. These measures may include:
  - i) Maintaining a compact urban form;
  - ii) Establishing an efficient transportation network;
  - iii) Providing neighbourhood services and facilities in close proximity to residential development to reduce travel by motor vehicle;
  - iv) Avoiding the extensive loss of sunlight to adjacent land uses;
  - v) Encouraging the energy efficient design of buildings and the installation of energy conserving appliances, fixtures and systems;
  - vi) Encouraging the proper siting of buildings and appropriate landscaping for wind shelter in the winter and the prevention of overheating in the summer; and,
  - vii) Encouraging walking and bicycling use and facilities to accommodate such uses including trails and bicycle parking and storage facilities.

#### 4.4.6 Tree Planting Program and Tree Removal Guidelines

- a) The Municipality shall continue its tradition of street beautification through a tree planting program.
- b) The Municipality will establish tree removal guidelines. These guidelines should identify heritage trees and nuisance trees, notification procedures

for residents affected by the removal of the tree, and the replacement of nuisance trees in more appropriate locations.

#### 4.4.7 Waste Management Policies

a) The Municipality shall endorse and implement reasonable waste diversion strategies, including reduce, reuse and recycle techniques from the Bruce County Waste Management Master Plan Study.

#### 4.4.8 Bright Star Community Policies

- a) The Municipality is a "Bright Star" community committed to protecting the night-time environment. This is achieved by eliminating hazardous and annoying glare from poorly designed light fixtures, reducing stray light through shielding and directing light fixtures to prevent light from unnecessarily falling outside the boundaries of the property on which a light fixture is installed.
- b) Development shall enhance and complement the Municipality's Bright Star status by using dark sky/bright star-compliant exterior light fixtures and layouts to reduce light pollution.

#### 4.4.9 Air Quality Policies

- a) The Municipality will encourage measures to improve air quality. These measures may include:
  - i) Maintaining a compact urban form;
  - ii) Establishing an efficient transportation network;
  - iii) Providing neighbourhood services and facilities in close proximity to residential development to reduce vehicular travel;
  - iv) Strengthening By-laws governing idling, camp fires and open-air burning;
  - v) Encouraging alternatives to motorized yard care products;
  - vi) Encouraging proper vehicle maintenance; and,
  - vii) Encouraging walking and bicycle use.

#### 4.4.10 Natural Heritage System

The Walkerton Natural Heritage System (WNHS) is comprised of natural heritage features and areas linked together where feasible with natural corridors which are intended to provide connectivity and support natural processes which are necessary to maintain biological and geological diversity, natural functions and viable populations of indigenous species and ecosystems.

The WNHS may include a variety of natural heritage features and areas including conservation areas, parks, rivers, streams, wetlands, fish habitat, woodlands, valleylands, habitat of endangered species and threatened species, significant wildlife habitat, and significant areas of natural and scientific interest, all of which are important for their environmental and social values as a legacy of the natural landscape of Walkerton.

- a) The Walkerton Natural Heritage System is shown on Schedule 'C'. The WNHS is not a Land Use designation, therefore the policies of the under lying land use designation shown on Schedule A 'Land Use Plan' i.e. Environmental Protection, Recreation & Open Space etc. remain in effect.
- b) Lands identified as part of the WNHS may include both private and public owned lands. Where any land identified as part of the WNHS is held in private ownership this Plan shall not be construed as implying that such areas are free and open to the general public nor that the lands will be purchased by the Municipality or other public agency.
- c) The Municipality shall encourage the long term protection of the Walkerton Natural Heritage System as shown on Schedule 'C' and it's associated ecological and hydrologic functions.
- d) Where Schedule 'C' overlays lands that are subject to a development proposal under the Planning Act, the Municipality shall request the developer to mitigate any potential impacts on the WNHS through the use of unique development design or engineering, and/or the use of buffering. Where it is demonstrated that the impacts on the WNHS can be mitigated, the Municipality may request the applicant enhance the existing natural heritage feature(s) on the property, and/or request a monetary contribution to be used for the enhancement or protection of natural features elsewhere in Walkerton.
- e) Where Schedule 'C' overlays lands that are subject to a development proposal under the Planning Act, the Municipality may require a developer to submit an Environmental Impact Study in order to determine if unidentified natural heritage features and areas exist on the remainder of the development lands. In accordance with the Provincial Policy Statement, the Municipality may apply the natural heritage protection policies of this Section to such identified features.

### 4.5 SUSTAINABILITY

Council recognizes the importance of promoting development that is designed to be sustainable. Sustainable development refers to development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs.

Supporting community sustainability requires the Municipality to consider the interrelationship between the environment, economy and community when reviewing development proposals and public works.

#### 4.5.1 Goal

To protect and enhance the community of Walkerton for its current residents and future residents through the development of sustainable practices and to promote the sustainability concepts through the review and approval of development projects.

#### 4.5.2 Actions

- a) Encourage and foster public awareness on sustainability and sustainable practices.
- b) Ensure that planning and development to be undertaken in a context which recognizes the interactions of all parts of ecosystems and protects the integrity and vitality of natural systems and processes.
- c) Ensure that future development shall recognize cumulative impacts by not exceeding the capacity of air, land and water to absorb the impact of human use.
- d) Ensure that past environmental degradation shall be remediated and natural systems regenerated through redevelopment.
- e) Ensure that future development shall contribute to the reduction of per capita energy consumption
- f) Ensure that the stewardship of land and resources will be a shared responsibility of government, corporations and owners.

#### 4.5.3 Sustainability Policies

- a) Council shall ensure decisions related to future land use, public works and capital expenditures shall be made having consideration for the long term impacts on the environment, economy and the community.
- b) The sustainability of a development shall be considered with respect to impacts on:
  - i) Climate change and air quality;
  - ii) Energy conservation;
  - iii) Ecological integrity and biodiversity;
  - iv) Financial impact on the Municipality and community quality of life;
  - v) Community cohesion and character; and,
  - vi) Reducing of waste.
- c) New development projects shall be encouraged to utilize local goods,

services and materials wherever possible.

- d) Buildings shall be designed to minimize energy consumption, and wherever possible utilize green energy sources.
- e) Facilities and site design that encourage walking and cycling shall be incorporated in public and private works.
- f) New uses that provide goods, services, facilities and employment specifically targeted for youth is strongly encouraged in the community.
- g) The Municipality shall maximize waste reduction and recycling programs wherever possible.
- In an effort to maintain and enhance water quality the Municipality may consider placing limits on the use of pesticides, herbicides and fertilizers for cosmetic purposes.
- i) The Municipality may consider the development of a water conservation awareness and rebate program.
- j) The Municipality will create a trail master plan to ensure connectivity throughout the community without the need for automobiles.
- k) The Municipality will review all its activities and policies to ensure that sustainability concerns are appropriately considered and addressed.

# **SECTION 5 – MUNICIPAL SERVICES**

Services and utilities such as the provision of a potable water supply, disposal of wastes and energy supply, are essentials of life. The provision of such utilities is often an important means of implementing planning and directing urban growth and economic development.

#### 5.1 GOAL

To provide a full range of affordable municipal services to meet the economic, social and environmental needs of the community.

#### 5.2 ACTIONS

- a) Continue the efficient use of municipal sewer, water and electrical services through the appropriate prioritization and upgrading of municipal service improvements.
- b) Provide sufficient sewage treatment and water reserve capacity and adequate collection and distribution facilities to accommodate future growth.
- c) Consider a wide range of options for paying for municipal services such as taxes, user fees, front ending, privatization, and prioritizing service delivery.
- d) Ensure new development incorporates best management practices for storm water management.
- e) Establish a process whereby a commitment to sewage treatment and water supply capacity only occurs upon registration of Plans of Subdivision and execution of a Subdivision or Condominium Agreement with the Municipality.

### 5.3 WATER SUPPLY AND SEWAGE DISPOSAL POLICIES

- a) The Walkerton Water Treatment System (WTS) has a capacity of 7,500m<sup>3</sup>/day and the current average use is around 2,300m<sup>3</sup>/day (2016 data). The WTS has sufficient capacity to handle the projected increase in population to 2026.
- b) The Walkerton Sewage Treatment Plant (STP) has a capacity of 7,550m<sup>3</sup>/day and the current average is around 2,500m<sup>3</sup>/day (2016 data). The STP has sufficient capacity to handle the projected increase in population to 2026.
- c) Full municipal water and sewage services are the preferred form of servicing. In areas serviced by full municipal sewage and water services development will be permitted only if sufficient reserve water and sewage plant capacity will be available to accommodate the development, and other approved development.

- d) Partial services are generally discouraged, but may be used in the following circumstances:
  - Where they are necessary to addressed failed individual on-site sewage services and individual on-site water services in existing development; or
  - ii) To allow for 'Infilling' and 'Minor Rounding Out' only within the existing settlement area boundary on partial services provided that site conditions are suitable for the long-term provision of such services with no negative impacts. 'Infilling' shall be defined as the creation of a new vacant lot(s) of record when the new lot is to be created between two existing dwellings, such dwellings being separated by not more than 30 metres (98.4 feet), on the same side of the road where both dwellings are currently partially serviced. 'Minor Rounding Out' shall be defined as the creation of a new vacant lot of record where the new lot to be created will immediately abut an existing lot of record that is currently partially serviced.
- e) The Municipality shall require development and redevelopment projects to demonstrate that surface water originating from the site is not entering the sanitary sewer system and is adequately treated for quantity and quality.
- f) The Municipality shall continue to upgrade its sanitary sewer system to reduce infiltration and extraneous flows from storm water.

# 5.4 STORM WATER MANAGEMENT POLICIES

- a) The Municipality shall require at source best management practices and techniques to maintain storm water quality and quantity. This shall assist in controlling flooding, ponding, erosion and sedimentation and enhance the water quality and fish habitat of Silver Creek and the Saugeen River.
- b) Development proposals shall be accompanied by a storm water management report which meets the quality and quantity requirements of the Municipality of Brockton, and the Saugeen Valley Conservation Authority.
- c) Where appropriate, new development shall incorporate the major-minor system concept and:
  - i) The storm water management system shall be designed to control run-off from the site to predevelopment levels, and where necessary, shall require detention or storage facilities to control discharge rates. Where feasible, detention must be provided onsite.
  - ii) The minor system shall accommodate run-off from more frequent storms up to the design capacity of the existing receiving system and, where necessary, shall require detention or storage facilities. New collection systems shall be designed in accordance with the Municipality's municipal servicing standards.
  - iii) Wherever possible natural infiltration of storm water shall be encouraged, provided that areas of standing water are minimized.
- d) Natural drainage systems used in the design of new subdivisions and major water courses should be left, in their natural state, including existing

vegetative buffers. Channelization shall be discouraged. Detention and retention facilities may be permitted in open space areas to ensure controlled run-off to receiving streams and maximum natural infiltration.

- e) Any modification to an existing natural water course shall preserve floodplain storage capacity and shall require approval from the Saugeen Valley Conservation Authority.
- f) The Municipality shall assume ownership and/or maintenance responsibilities for new storm water management facilities and structures serving more than one property. The Municipality may require the developer to provide an up-front cash payment to offset on-going maintenance costs of storm water management facilities.

# **SECTION 6 - TRANSPORTATION**

The transportation system provides an important component of the framework for municipal growth and development and is a vital municipal service.

### 6.1 GOAL

To provide a transportation system which allows for the efficient movement of goods and people, and facilitates economic activities within the Community.

### 6.2 ACTIONS

- a) Promote and improve the system of arterial and collector roads to provide for the safe and efficient movement of local and through traffic.
- b) Establish uniform signage to identify the location of major community facilities, historic features and recreation opportunities.
- c) Promote bicycle and pedestrian travel.

# 6.3 ROAD CLASSIFICATION POLICIES

- a) The Municipality shall classify roads according to their predominant function. Schedule B Roads Plan identifies the designation of roads by classification. Road classifications are as follows:
  - Provincial Highways: Provincial Highways are under the jurisdiction of the Provincial Ministry of Transportation (MTO) Walkerton is served by Provincial Highway #9. The primary function of the Provincial Highways is to move relatively large volumes of traffic efficiently through the community. The MTO will determine the minimum right-ofway widths for those sections of Highway #9 under their jurisdiction.
  - ii) <u>Arterial County (Urban)</u>: Arterial County (Urban) roads are under the jurisdiction of the County of Bruce. There are two County roads serving Walkerton: County Road #4 and County Road #2. The primary function of the Arterial County (Urban) road is to move relatively large volumes of traffic efficiently through the community. Roads identified as 'County Arterial (Urban) on Schedule 'B' shall generally have a minimum rightof-way of 20 metres (65.61 feet).
  - iii) <u>Arterial</u>: Arterial roads are designed to handle high volumes of traffic on two to four lanes of pavement, while providing access to abutting properties. Right-of-way widths shall, where possible, have a minimum width of 26 metres (85.30 feet).
  - iv) <u>Collector</u>: Collector roads are designed to collect and carry local traffic to the arterial roads or distribute traffic to the local roads on two to four lanes of pavement, as well as to provide land access to abutting properties. The minimum road right-of-way for collector roads shall generally be 20 metres (65.61 feet).
  - v) Local: Local roads are designed to handle predominantly local traffic at lower operating speeds on two traffic lanes. Local roads shall generally

have a minimum right-of-way width of 20 metres (65.61 feet).

# 6.4 ROAD NETWORK POLICIES

- a) The Municipality shall integrate the planning of the municipal road network with the existing and proposed road networks under the jurisdiction of the Province, the County of Bruce and surrounding municipalities.
- b) No new development and/or redevelopment shall be permitted unless such lands are accessible by an improved public road, maintained year round and which meets the Municipality's design standards and is of an acceptable standard of construction to accommodate the traffic to be generated. For the purposes of this Plan, laneways shall not be considered to be a public road.
- c) Condominium roads may be constructed to a lesser standard than municipal public roads provided that the roads are designed to accommodate emergency service vehicles and safe operation of vehicles.
- d) The Municipality shall require, as a condition of approval of any development or redevelopment that sufficient lands be conveyed to the Municipality to provide for a road right-of-way width in accordance with the road classification identified on Schedule B Road Plan, and defined in <u>Section 6.3</u>, Road Classification Policies.
- e) The Municipality shall require, as traffic conditions warrant, improvements in the form of jog eliminations, regulation of turning movements, proper signing, installation of traffic signals, marking of traffic lanes and channelization to be undertaken.
- f) In considering development proposals, the Municipality shall ensure that new intersections are properly located and designed to ensure traffic safety. Where existing intersections are significantly affected by new development, the Municipality may require improvements to such intersections.
- g) In considering development proposals adjacent to arterial, collector or local roads, the Municipality may regulate the number, location and design of entrances.
- h) Development along Arterial County (Urban) roads that would detract from their primary traffic function may be discouraged. The County of Bruce is the approval for entrances/access on to an Arterial County (Urban) and may grant or refuse access. Where a development is likely to generate significant traffic volumes on an Arterial County (Urban), the applicant may be required to prepare a traffic impact study to demonstrate how the transportation impacts of a proposed development or redevelopment can be mitigated and addressed in a manner consistent with the objectives of the County.
- Development along Provincial Highway #9 that would detract from its primary traffic function may be discouraged. Development within the MTO's Permit Control Areas, as defined under the Public Transportation and Highway Improvement Act, shall be subject to the approval of the MTO. Permits for access, signs, buildings and utility encroachments within the MTO Permit Control Area may be required from the MTO. Where a

development is likely to generate significant traffic volumes on Provincial Highway #9 the applicant may be required to prepare a traffic impact study to demonstrate how the transportation impacts of a proposed development or redevelopment can be mitigated and addressed in a manner consistent with the objectives of the MTO.

# 6.5 ROAD WIDENING POLICIES

- a) Road widening shall take place in conformity with the standards outlined in <u>Section 6.3</u> of this Plan. Privately owned land required for road allowance widening may be acquired by the appropriate road authority through purchase or by dedication as a condition of subdivision, severance, or site plan approval, or other appropriate means.
- b) Road widening and greater road allowance requirements may be required at any intersection for the purpose of providing daylight triangles, lane channelization, and locations for traffic control devices. They may also be required along any arterial road to accommodate auxiliary turning lanes intended to provide better access to land uses that are major traffic generators.
- c) Generally, road widening shall be taken equally on both sides of a road as measured from the centre line of the road allowance. Where physical or other conditions necessitate a widening on one side in excess of an equal amount, only that portion of the widening that represents an equal amount shall be required as dedication under the Planning Act.
- d) The Comprehensive Zoning By-law may establish setback requirements from the centre line or the limit of the required road allowance. The Comprehensive Zoning By-law may also recognize, as legal uses, properties which do not conform to lot area or setback requirements due to road widening.

# 6.6 PEDESTRIAN AND BICYCLE TRAFFIC POLICIES

An important component of any transportation system is the establishment of a safe and efficient pedestrian and bicycle system. People should be encouraged to walk and ride bicycles within the Community.

- a) The Municipality shall develop a pedestrian walkway system which links major commercial, residential, community facilities and open space areas in a continuous system.
- b) Pedestrian access from the downtown to the Saugeen River Valley shall be improved to stimulate the function of the waterfront as a major attraction within the Community.
- c) The Municipality shall require all new development to include the construction of adequate sidewalks.
- d) The Municipality shall strive to establish proper signage and traffic controls to allow for the safe movement of pedestrian traffic across arterial or collector roads.

# 6.7 TRAFFIC IMPACT ASSESSMENT POLICY

a) Where development will add significant volumes of traffic to the road system or where it is proposed in an area with recognized road deficiencies, the Municipality shall require a traffic impact assessment or intersections and turning movements, or other matters as may be required.

### 6.8 PARKING AREAS

- a) All parking areas shall be designed to ensure an appropriate flow of internal traffic, service and emergency access.
- b) Development of drive-through facilities shall not be permitted in the Historic Walkerton Area. Where permitted such facilities shall ensure that there is sufficient queuing space so as not to interfere with internal traffic or external traffic on municipal roads.
- c) Parking areas shall be designed to minimize 'heat island' impacts by providing landscaped areas integrated into the parking area with shade trees and maximize natural infiltration.
- d) Adjacent parking areas shall provide vehicular and pedestrian connectivity to provide for short vehicle trips wherever possible.

# **SECTION 7 - IMPLEMENTATION**

# 7.1 INTRODUCTION

This Section provides a guide to those who wish to participate in the planning process or who wish to propose developments within the Community. The following policies explain the various planning tools available to the Municipality, when they may be used, and the type of issues they can address.

# 7.2 AMENDMENTS TO THE OFFICIAL PLAN

Circumstances may arise where a development does not conform to the policies or land use designations of the Official Plan. The Municipality shall give consideration to all applications to amend the Official Plan, and notify the general public and government agencies and ministries of the nature of the proposed amendment, in accordance with the requirements of the Planning Act.

The submission of an Official Plan amendment application shall be accompanied by a plan of the proposed development and a report which addresses the following:

- a) The proposed amendment complies with the Vision for the Historic Walkerton community, if applicable.
- b) The proposed amendment furthers the Goals and Actions of the Plan. The Amendment is in keeping with Provincial and County policy.
- c) The demonstrated need for the proposed development.
- d) The suitability of the lands for the proposed use.
- e) The compatibility of the proposal with the existing and planned land uses in the surrounding area.
- f) An assessment of how lands affected shall be adequately serviced to accommodate the proposed development.
- g) An assessment of the impacts the proposed development shall have on surrounding land uses, traffic movements, servicing, built heritage and natural environment.
- h) An assessment of the impacts the proposal shall have on municipal capital works and services.

# 7.3 PRE-CONSULTATION

Prior to the submission of any development application for which the Municipality is the approval authority, applicants shall pre-consult with the Municipality in accordance with the provisions of this Plan and the Municipality's Pre-consultation By-law. The County of Bruce is encouraged to participate in the Municipality's preconsultation process as appropriate. The pre-consultation process is intended to address the requirements for a completed application and may require more than one pre-consultation meeting and involve other agencies and Municipal Departments.

### 7.4 COMPLETE APPLICATION

In accordance with the provisions of Sections 22, 34, 51 and 53 of the Planning Act, any application submitted to the Municipality of Brockton in support of a development proposal must be deemed to be a complete application and be accompanied by the appropriate fee before processing any application. Any required background reports, studies documents and materials must be prepared and submitted to the satisfaction of the Municipality.

Should it be determined through the review process that the submission is incomplete, inadequate or further issues need to be addressed, additional information may be required. The authority to deem an application complete may be delegated to the Chief Building Official by by-law.

To be considered complete under the *Planning Act*, Official Plan Amendment, Zoning By-law Amendment, Plan of Subdivision, and Consent applications must be accompanied by the following:

- a) A completed application form(s);
- b) Any information or material prescribed by the *Planning Act* and relevant Ontario Regulations;
- c) Prescribed application fee(s); and,
- d) A completed pre-consultation form setting out the applicable information requirements.

In addition to the requirements specified above, this section sets out the supplementary information or material in the form of studies that is required in support of an application for Official Plan Amendment, Zoning By-law Amendment, Plan of Subdivision or Consent. Some of the studies identified below may also be requested in order to allow for the proper evaluation of an application for Site Plan Approval.

The supplementary information requirements may include, but shall not be limited, to the following:

- a) <u>Land Use Planning Report.</u> The intent of such a report would be to describe the proposal in detail and provide an opinion on how the proposal shall conform to the Goals and Actions of this Plan.
- b) <u>Environmental Impact Study (EIS).</u> The purpose, intent, and content of such a study is set out in <u>Section 3.7.6</u> of this Plan.
- c) <u>Geotechnical Assessment.</u> Such an assessment shall be required to support development on private or partial services and, if necessary, to assess slope stability and erosion hazards.
- d) <u>Stormwater Management Report.</u> Such an assessment provides recommendations on stormwater quality and quantity that ensures that post-development peak flow shall not be greater than predevelopment flows, as well as addressing possible impacts on watershed flow regimes, and identifying site management measures required during construction.

- e) <u>Servicing Study</u>. The purpose of such a study is to identify specific sanitary and water supply needs for individual development proposals.
- f) <u>Traffic Impact Assessment.</u> Such an assessment may be required to determine what impact a development proposal shall have on roads adjacent to a proposed development and roads in the general area.
- g) <u>Archaeological Assessment.</u> Such an assessment determines the existence of archaeological remnants requiring preservation, excavation or protection.
- h) <u>Cultural Heritage Impact Statement.</u> The intent of the study is to determine what impacts the development shall have on the identified or significant cultural heritage resource and whether the application conforms to the Goals and Actions of this Plan.
- i) <u>Tree Preservation Plan/Study.</u> The intent of such a Plan/Study is to inventory trees on a development site and make recommendations on how trees can be retained and/or replanted as a condition of development.
- j) <u>Environmental Site Assessment (Phase I and II).</u> The intent of a Phase I study is to determine whether or not a property is contaminated. In the event that a Phase I investigation shows evidence of contamination, a Phase II investigation that includes matters such as surface and subsurface soil sampling and groundwater and surface water sampling is required.
- k) <u>Land Use Compatibility Assessment.</u> The intent of such an assessment is to describe and review the potential impacts of proposed sensitive land uses on existing industrial uses or the impacts of existing industrial uses on proposed sensitive land uses, in terms of noise, dust, odour and similar items in accordance with Ministry of Environment Guidelines. Such an assessment may include a Noise Impact and Vibration Study. The intent of this study is to identify noise and vibration mitigation requirements proposed for development involving sensitive land uses that are adjacent to or in proximity to a highway, arterial road, industrial use or railway.

The list of information or material specified in this section is not intended to be exclusive. Other information or material may be required by the Municipality, in consultation with the County, and other applicable agencies in response to a particular development proposal. All studies shall be:

- a) Carried out by qualified professional consultants retained by and at the expense of the proponent. The Municipality shall require peer reviews of the studies by an appropriate public agency or by a professional consultant retained by the Municipality at the proponent's expense; or,
- b) Carried out by a qualified professional consultant retained by the Municipality at the expense of the proponent.

All recommendations contained in all studies shall be implemented by the proponent to the satisfaction of the Municipality, the County and other applicable agencies.

### 7.5 THE COMPREHENSIVE ZONING BY-LAW

- a) A review of the Municipality's Comprehensive Zoning By-law shall be undertaken to ensure that it properly implements the policies of this Plan.
- b) It is the policy of the Municipality to refuse amendments to the Comprehensive Zoning By-law which do not conform to the Official Plan.
- c) Existing legal non-conforming land uses may be placed in zones that do not correspond with the Land Use designation of the Official Plan. The Comprehensive Zoning By-law may recognize existing uses, provided the following criteria are met:
  - The applicable zone does not permit as-of-right, changes in the use of the building(s), structure(s) or lot that would result in significant impacts on adjacent uses;
  - ii) The recognition of the legal non-conforming use does not represent a danger to surrounding uses and/or persons; and,
  - iii) The legal non-conforming use does not interfere with the desirable development or enjoyment of the adjacent area.
- d) Vacant land within the Community may be placed in a Planned Development zone. A Planned Development zone restricts the use and development of vacant land until an appropriate development proposal is submitted. A Planned Development zone may permit the continued use of existing buildings and structures, but all new uses shall require an amendment to the Zoning By-law.
- e) It is not the intent of this Plan to zone all lands in accordance with the land use designations until such time as the policies of this Plan can be met. However lands may be pre-zoned in accordance with the land use designations provided that Council is satisfied that it will further the goals and strategic objectives, and other relevant objectives and policies of this Plan.

### 7.6 MINOR VARIANCES

In certain instances, a proposal to construct a new structure or expand an existing structure may not be able to meet one or more of the provisions of the Comprehensive Zoning By-law (e.g. an addition to a house cannot meet the side yard requirements). In such cases, the individual may request the Committee of Adjustment to grant a minor variance from one or more of the requirements of the Zoning By-law to permit the development to proceed.

- a) The Committee of Adjustment may consider granting a minor variance to a proposed development which cannot reasonably meet one or more of the provisions of the Zoning By-law, provided the development meets sound planning principles.
- b) Prior to considering an application for minor variance, the Committee of Adjustment may require the applicant to demonstrate that the development is:
  - i) In keeping with the character and environment of the surrounding neighbourhood;
  - ii) In keeping with the intent of the Comprehensive Zoning By-law;

- iii) In keeping with the intent of the Official Plan;
- iv) An appropriate and desirable use of land; and,
- v) Minor in nature.
- c) If a minor variance application is approved, the Committee of Adjustment may impose conditions which shall ensure the development has minimal impact on surrounding uses and satisfies reasonable planning criteria.
- d) The Chief Building Official for the Municipality shall be satisfied that all the conditions of the minor variance are met prior to the issuance of a building permit.

# 7.7 LEGAL NON-CONFORMING USES

Certain uses that legally existed prior to the adoption of a Comprehensive Zoning By-law but are not permitted in that same By-law are referred to as legal nonconforming uses.

Legal non-conforming uses are allowed to continue to exist, provided no alterations, expansions or changes of use are made. All alterations, expansions or changes in use require approval by the Committee of Adjustment.

- a) It is the policy of the Municipality that legal non-conforming uses should cease to exist in the long run. Additions, expansions or changes in use which do not meet the requirements of the Comprehensive Zoning By-law should be discouraged.
- b) The Municipality recognizes that circumstances may exist where changes to legal non-conforming uses may be desirable given their economic, cultural, social or historical importance to the Community. In such cases, the Committee of Adjustment may grant permission for an addition, expansion or change in use.
- c) A change in use of a legal non-conforming use to a use which is still not in compliance with the Comprehensive Zoning By-law, but which is more compatible than the existing use, may be permitted by the Committee of Adjustment.
- d) The Committee of Adjustment shall use the following criteria to assess such proposals. Failure to meet one or more of these criteria may provide grounds for refusal of the application by the Committee of Adjustment.
  - i) The proposed addition, expansion or change in use shall not worsen the non-conforming nature of the property.
  - ii) The proposed addition, expansion or change in use shall be in an appropriate proportion to the size of the existing use.
  - iii) The proposed addition, expansion or change in use shall have minimal impact on the surrounding built environment in terms of projected levels of noise, vibration, fumes, smoke, dust, odours, lighting and traffic generation.
  - iv) The proposed addition, expansion or change in use shall include the protection of surrounding uses through the provision of landscaping, buffering, or screening, appropriate setbacks for buildings and structures, or other measures which improve compatibility with the

surrounding area.

- v) The traffic and parking conditions shall not be adversely affected by the proposed addition, expansion or change in use. Appropriately designed ingress and egress points to and from the site and improvement to sight conditions shall be considered in order to promote maximum safety for pedestrian and vehicular traffic.
- vi) The site shall include adequate provision for off-street parking, loading and unloading facilities.
- vii) The development has appropriate municipal services such as storm drainage, water supply, sanitary sewers and roads, which are available or can be made available through the conditions of approval.
- e) The Committee of Adjustment may place conditions on the approval for the addition, expansion or change in use of non-conforming uses. These conditions may include, but are not limited to, application of Site Plan Control, cash-in-lieu of parking, the installation of services and bonding.

# 7.8 LEGAL NON-COMPLYING USES

Situations may exist where the present use of a parcel of land is permitted in the zone in which it is located, but the buildings located on the property do not meet one or more of the provisions of the zone (e.g. a house located too close to the lot line). These situations are known as legal non-complying uses.

- a) It is the policy of the Municipality to permit the expansion, alteration and addition to a legal non-complying use, without Committee of Adjustment approval, provided that:
  - i) The expansion, alteration or addition does not further aggravate the existing non-compliance of the use; and,
  - ii) The expansion, alteration or addition does not create another noncompliance with the By-law.

# 7.9 INCREASED HEIGHT & DENSITY PROVISIONS

The Municipality has the authority to pass a By-law which authorizes increases in the height and/or density of a specific development proposal permitted under the Comprehensive Zoning By-law, in return for the developer providing facilities, services or other matters which are deemed beneficial to the community.

a) Increased height and density provisions shall only be awarded to developments where adequate municipal services are available and such increased height and density does not have a negative impact on surrounding uses or places a financial burden on the Municipality and where one or more of the following criteria are fulfilled:

- The development provides for assisted housing, seniors housing or special need housing in accordance with identified needs in the community;
- ii) The development incorporates the preservation and restoration of buildings of historic or architectural value that shall serve to meet the heritage resource goals and actions of this Plan;
- iii) The development incorporates a comprehensive redevelopment plan for lands within the Historic Walkerton area, which provide for intensification of land use and serves to reinforce the economic viability of the downtown commercial core;
- iv) The development includes the provision of significant community amenities and recreational facilities in locations which serve the identified needs of the community as a whole.

### 7.10 INTERIM CONTROL BY-LAWS

The Municipality has the authority to place a freeze on development, as permitted under the Comprehensive Zoning By-law, where they have serious concerns with allowing development to continue.

In such cases, the Municipality may put a hold on development permitted under the Comprehensive By-law, for a maximum period of two years through an Interim Control By-law. The initial Interim Control By-law can be in effect for a one year period, with a one year extension if required. This hold on development allows the Municipality to undertake a thorough review of its policies and take the necessary action to address the problem.

The Municipality should only use Interim Control in limited circumstances, where the development of certain lands pose serious problems and require study.

- a) It is the policy of the Municipality to use Interim Control in circumstances where an immediate policy review of specific issues is required.
- b) Prior to the passage of an Interim Control By-law the Municipality shall arrange for a study of the issues associated with the lands forthwith.

### 7.11 HOLDING PROVISIONS

The Municipality may place a Holding (H) provision on the zone which prevents any development from taking place until the Municipality is satisfied that certain conditions have been met. In such instances, the Municipality can indicate its support for the principle of the development but also identify the need for additional actions prior to development proceeding.

The use of a Holding provision is seen as an effective tool in the streamlining of the approval process. There is no appeal period with such by-laws and rights to appeal are limited only to the applicant in the event of refusal or neglect by Council to make a decision within 120 days to remove the Hold, thereby allowing development to proceed quickly once the conditions have been satisfied.

a) The Municipality may utilize the Symbol "H" or "h" in all zones in the

Comprehensive Zoning By-law as a means of ensuring that certain conditions have been met prior to development proceeding.

- b) When lands are subject to a Hold the use of the lands and buildings shall be limited to those that existed prior to the Holding Symbol being placed on the property, or those uses as may be specified in the By-law. In some circumstances, the Municipality may allow additions or alterations to existing uses, or may partially or temporarily remove a Hold to allow for limited new development or site alteration to occur.
- c) The Municipality may adopt a by-law under Section 36 of the *Planning Act* removing the Holding Symbol from the applicable lot when satisfied that the conditions specified in the By-law are met and/or agreements executed that ensure for the orderly development of the lands.
- d) Conditions that maybe imposed by the Municipality may include:
  - i) The owner/developer entering into a Site Plan Control or Subdivision or Consent Agreement to the satisfaction of the Municipality;
  - ii) The owner/developer making satisfactory arrangements for the installation of sanitary or storm sewer, water and road services;
  - iii) The owner/developer receiving final approval for a plan of subdivision or condominium, and that all the conditions have been met such that the lots or units are ready for release;
  - iv) The owner/developer submitting all necessary technical studies;
  - v) The owner/developer satisfying all financial requirements of the Municipality;
  - vi) The owner/developer ensuring all measures to protect natural areas have been implemented;
  - vii) The owner/developer undertaking an archaeological assessment, to the satisfaction of the Province, by an archaeologist licensed under the Ontario Heritage Act, and conserving any significant archaeological resources and/or removal and documenting or preserving on site, to the satisfaction of the Province;
  - viii) The owner/developer addressing any site contamination or other environmental constraints on site;
  - ix) The owner/developer making satisfactory arrangements for parking;
  - x) The development/redevelopment within commercial and industrial lands is in accordance with the design and site criteria established by the Municipality.
  - xi) Any other condition or requirement as deemed necessary by the Municipality.

# 7.12 PARKING, PAYMENT-IN-LIEU REQUIREMENTS

The Comprehensive Zoning By-law contains provisions prescribing a minimum number of parking spaces for specific land uses. In some circumstances, a development proposal is unable to accommodate the required number of parking spaces.

If a development is unable to provide enough parking spaces, the Municipality has

the authority to offer an exemption from the parking requirements of the Comprehensive Zoning By-law, and accept a Payment-in-Lieu of each parking space not provided.

- a) The Municipality may adopt a Payment-in-Lieu By-law enabling it to accept cash payments in compensation for insufficient parking spaces involving development/ redevelopment proposals.
- b) The Municipality considers Payment-in-Lieu of parking as an effective mechanism for encouraging a compact, efficient and viable downtown core.
- c) Monies raised through Payment-in-Lieu shall be placed in a special reserve fund, separate from general revenues, dedicated to managing existing public parking resources and/or establishing new parking facilities.
- d) In order to determine the actual costs of providing a parking space, and the appropriate fee to be charged for each space levied, the Municipality may undertake a parking study.
- e) In order to encourage development/redevelopment within the downtown core, the Municipality may wish to have a Payment-in-Lieu fee which is less than the true cost of providing new parking spaces.
- f) In order to encourage the development/redevelopment of 'Affordable Housing' initiatives, or portions of housing initiatives, which can be certified as 'Affordable Housing', the Municipality may waive a Paymentin-Lieu fee or reduce the Payment-in-Lieu fee to less than the true cost of providing new parking spaces. The Comprehensive Zoning By-law shall establish parking provisions/requirements for 'Affordable Housing' that reflect this Policy.

# 7.13 PARKLAND DEDICATION

As a condition of development or redevelopment or the approval of a plan of subdivision of land in the Municipality, land shall be conveyed or dedicated to the Municipality for park or other public recreational purposes.

The conveyance or dedication of land to the Municipality for park or other public recreational purposes shall be in accordance with the following:

- a) For industrial or commercial development, redevelopment, a conveyance or dedication of-2% of the land;
- b) For all other land uses (including residential development, redevelopment or plans of subdivision providing for low, medium and/or high density uses), conveyance or dedication shall be either equal to 5% of the land proposed for development, redevelopment or subdivision or 1 hectare per 300 dwelling units, whichever is greater;
- c) For mixed-use development or redevelopment, conveyance or dedication requirements shall only apply to the residential portion of the development proposal in the amount equal to 1 hectare per 300 dwelling units. However, in no instance shall the contribution be less than 2% of the land area or the equivalent Payment-in-Lieu value;

- For conversion of non-residential buildings to residential uses, dedication shall be in accordance with Subsection (b) with appropriate credit to be made for any previous dedication; and,
- e) For residential plans of subdivision, the standard of 1 hectare per 300 dwelling units may be applied to non-residential, non-commercial and non-industrial blocks within the plan of subdivision, provided such blocks are excluded from the calculation for the 5% of the land proposed for subdivision.

Council may waive the land conveyance requirement in favour of Payment-in-Lieu of parkland dedication or require a combination of cash and land where:

- a) The use of alternative parkland dedication policy consumes more than 10% of the site area thereby rendering the site undevelopable; or,
- b) The amount of land for parkland dedication does not result in a sufficient area for park development; or,
- c) The dedication of land is not deemed necessary.

In all cases of Payment-in-Lieu, the value of the land shall be determined in accordance with the provisions of the Planning Act.

In order to encourage the development/redevelopment of 'Affordable Housing' initiatives, or portions of housing initiatives, which can be certified as 'Affordable Housing', the Municipality may waive the requirement for either parkland dedication and/or Payment-in-Lieu of parkland.

Valleylands, lands required for drainage purposes or stormwater management, lands susceptible to flooding or otherwise unsuitable for development shall not be accepted as statutory parkland dedication.

Lands to be dedicated for park purposes shall be in a condition acceptable to the Municipality. The timing of such conveyance shall be determined by the Municipality.

Where a development or redevelopment proposal includes non-developable land, Council may request that such land be dedicated to the Municipality. However, these lands shall not be included as part of the parkland dedication.

### 7.14 SITE PLAN CONTROL

The Municipality has the authority, under Site Plan Control, to require development proposals to include a site plan which identifies such things as finished elevations, site landscaping, lot grading and drainage, etc.

The Municipality can also require that an individual/ developer enter into an agreement to ensure that work is carried out in accordance with the site plan.

- a) All lands within the limits of the Official Plan of the Walkerton community as delineated on Schedule 'A' Land Use Plan shall be designated as a Site Plan Control Area. Residential buildings containing up to two dwelling units, shall be exempt from this requirement except for lands designated or formerly designated, Environmental Protection or shown as Flood Fringe Constraint Area.
- b) The Municipality may require the signing of a Site Plan Agreement as a condition of development. Such agreements shall be required prior to the issuance of a building permit.
- c) Upon the execution of a Site Plan Agreement, the agreement may be registered on title of the lands and be binding on all future landowners.
- d) No person shall undertake any development in the area designated under subsection (a) unless Council has approved one or both, as Council may determine, of the following:
  - i) Plans showing the location of all buildings and structures to be erected and showing the location of all facilities and works to be provided in conjunction therewith and of all facilities and works required under subsection (f)(1), including facilities designed to have regard for accessibility for persons with disabilities.
  - ii) Drawings showing plan, elevation and cross-section views for each building to be erected, which drawings are sufficient to display,
    - 1) the massing and conceptual design of the proposed building;
    - the relationship of the proposed building to adjacent buildings, streets, and exterior areas to which members of the public have access;
    - the provision of interior walkways, stairs, elevators and escalators to which members of the public have access from streets, open spaces and interior walkways in adjacent buildings;
    - 4) matters relating to exterior design, including without limitation the character, scale, appearance and design features of buildings, and their sustainable design, but only to the extent that it is a matter of exterior design, provided a by-law that contains provisions relating to such exterior design matters is in effect in the municipality;
    - 5) the sustainable design elements on any adjoining highway under a municipality's jurisdiction, including without limitation trees, shrubs, hedges, plantings or other ground cover, permeable paving materials, street furniture, curb ramps, waste and recycling containers and bicycle parking facilities, provided a by-law contains provisions relating to such sustainable design elements is in effect in the municipality; and

- 6) facilities designed to have regard for accessibility for persons with disabilities.
- e) The following matters relating to buildings described in subsection (d) (2) are not subject to site plan control:
  - i) Interior design.
  - ii) The layout of interior areas, excluding interior walkways, stairs, elevators and escalators.
  - iii) The manner of construction and standards for construction.
- f) As a condition to the approval of the plans and drawings referred to in subsection (d) (2), the Municipality may require the owner of the land to:
  - i) Provide to the satisfaction of and at no expense to the municipality any or all of the following:
    - 1) Subject to the provisions of <u>Section 6.5</u>, widenings of highways that abut on the land.
    - Subject to the Public Transportation and Highway Improvement Act, facilities to provide access to and from the land such as access ramps and curbings and traffic direction signs.
    - Off-street vehicular loading and parking facilities, either covered or uncovered, access driveways, including driveways for emergency vehicles, and the surfacing of such areas and driveways.
    - 4) Walkways and walkway ramps, including the surfacing thereof, and all other means of pedestrian access.
    - 5) Facilities designed to have regard for accessibility for persons with disabilities.
    - 6) Facilities for the lighting, including floodlighting, of the land or of any buildings or structures thereon.
    - 7) Walls, fences, hedges, trees, shrubs or other groundcover or facilities for the landscaping of the lands or the protection of adjoining lands.
    - 8) Vaults, central storage and collection areas and other facilities and enclosures for the storage of garbage and other waste material.
    - 9) Easements conveyed to the municipality for the construction, maintenance or improvement of watercourses, ditches, land drainage works, sanitary sewage facilities and other public utilities of the municipality or local board thereof on the land.
    - 10) Grading or alteration in elevation or contour of the land and provision for the disposal of storm, surface and waste water from the land and from any buildings or structures thereon;
  - Maintain to the satisfaction of the municipality and at the sole risk and expense of the owner any or all of the facilities or works mentioned in paragraphs ii), iii), iv), v), vi), vii), viii), ix) and x) of clause f (1), including the removal of snow from access ramps and driveways, parking and loading areas and walkways;

- iii) Enter into one or more agreements with the municipality dealing with and ensuring the provision of any or all of the facilities, works or matters mentioned in clause f(1) and the maintenance thereof as mentioned in clause f(2) or with the provision and approval of the plans and drawings referred to in clause 2 of subsection d);
- iv) Enter into one or more agreements with the municipality ensuring that development proceeds in accordance with the plans and drawings approved under subsection d (2);
- g) Plans and drawings in respect of any development proposed to be undertaken in the area shall not be approved until the County of Bruce has been advised of the proposed development and afforded a reasonable opportunity to require the owner of the land to:
  - i) Provide to the satisfaction of and at no expense to the County of Bruce any or all of the following:
    - 1) Subject to <u>Section 6.5</u>, widenings of highways that are under the jurisdiction of the County of Bruce and that abut on the land,
    - 2) Subject to the Public Transportation and Highway Improvement Act, where the land abuts a highway under the jurisdiction of the County of Bruce, facilities to provide access to and from the land such as access ramps and curbings and traffic direction signs,
    - 3) Where the land abuts a highway under the jurisdiction of the County of Bruce, off street vehicular loading and parking facilities, either covered or uncovered, access driveways, including driveways for emergency vehicles, and the surfacing of such areas and driveways,
    - 4) Where the land abuts a highway under the jurisdiction of the County of Bruce, grading or alteration in elevation or contour of the land in relation to the elevation of the highway and provision for the disposal of storm and surface water from the land,
    - 5) Where the land abuts a highway under the jurisdiction of the County of Bruce, facilities designed to have regard for accessibility for persons with disabilities;
  - ii) Enter into one or more agreements with the County of Bruce dealing with and ensuring the provision of any or all of the facilities, works or matters mentioned in clause 1) and the maintenance thereof at the sole risk and expense of the owner, including the removal of snow from access ramps and driveways and parking and loading areas;
- h) Any agreement entered into under subsection (f)(3) or under subsection (g)(2) may be registered against the land to which it applies and the municipality is entitled to enforce the provisions thereof against the owner and, subject to the provisions of the Registry Act and the Land Titles Act, any and all subsequent owners of the land.

# 7.15 PLANS OF SUBDIVISION AND CONDOMINIUM

The County of Bruce has the authority for creating lots by Plan of Subdivision. Prior to approval of a Plan of Subdivision, a developer must satisfy all conditions placed upon the development by the Municipality or by the various government agencies and ministries. This process usually involves the developer entering into a Subdivision Agreement with the Municipality.

Subdivision Agreements provide the Municipality with a legal mechanism to ensure the design and servicing of the subdivision meet municipal standards, as well as allow for some type of performance bond should any costs be incurred by the Municipality in the development of the subdivision.

Subdivision Agreements usually cover such issues as lot grading and drainage, the construction of roads and the installation of sewer and water lines, and the establishment of parkland.

- a) The Municipality shall not support Plans of Subdivision that do not conform to the policies of the Official Plan and/or the provisions of the Comprehensive Zoning By-law.
- b) Prior to permitting the development of a Plan of Subdivision, the Municipality shall be satisfied that the development can be supplied with municipal services such as schools, fire protection, water supply, storm drainage, sewage disposal facilities and roads. Such development should not adversely affect the finances of the Municipality.
- c) The Municipality shall enter into a Subdivision Agreement as a condition of the approval of Plans of Subdivision. Such agreements shall ensure that the developer provides the necessary internal or external services to the development to the specifications established by the Municipality.
- d) Where new development is proposed on a site, part of which has physical or environmental hazards, then such land will not necessarily be acceptable as part of the dedication for open space purposes required under the Planning Act. All lands dedicated to the Municipality shall be conveyed in a physical condition satisfactory to the Municipality. Where an open watercourse is dedicated to the Municipality, adequate space shall be provided for maintenance operations. If necessary, the Municipality may request a maintenance easement, at no cost to the corporation, in its favour.
- e) In order to encourage the development of 'Affordable Housing', the Municipality shall require developers to indicate in their applications potential opportunities to provide 'Affordable Housing'.
- f) Prior to the submission of an application for a Draft Plan of Subdivision, Draft Plan of Condominium or application for Exemption for a Plan of Condominium, the developer shall confer/consult with the Municipality on opportunities to provide 'Affordable Housing' within the proposed development.
- g) As part of the submission the Municipality requires the owner to demonstrate how the proposed design and the site and buildings:
  - i) Implements good urban design guidelines;

- ii) Contributes to compact, urban and pedestrian-oriented form and function that enhances pedestrian accessibility;
- iii) Safely addresses vehicular traffic impacts;
- iv) Implements sustainable development objectives including protection of the natural heritage system, energy efficiency, minimizing light pollution and water consumption, stormwater management controls, tree planting and other enhancements to the natural environment;
- v) Enhances and complements the Municipality's "Bright Star Community" status by using dark sky/bright star-compliant exterior light fixtures and layouts to reduce light pollution;
- vi) Protects, enhances or restores the Municipality's built heritage;
- vii) Integrates with surrounding ultimate land uses and addresses impacts due to noise, traffic, overshadowing, and wind effects;
- viii) Provides landscaped areas and urban amenities consistent with the context of the planned land uses and the Municipality's landscaping design and amenity requirements;
- ix) Makes appropriate provision for sequential staging of services including the construction of infrastructure to service the site; and,
- x) Implements any other relevant policies of this Plan.

# 7.16 CONSENT TO SEVER LAND

The County of Bruce has the authority for creating lots by consent and granting rights-of-way and easements. However, the Municipality has a large degree of control over the creation of lots by consent and can request that conditions be placed on the approval of such lots, similar to the conditions it may ask for with a Plan of Subdivision.

- a) The Municipality shall support applications to create lots by consent when:
  - i) The scale of development proposed or the total development potential of the property would not require a plan of subdivision;
  - ii) The application represents infill in an existing built up and serviced area, and the proposed lots are in keeping with the lot area, frontage and density pattern of the surrounding neighbourhood;
  - iii) The creation of lots would not create or worsen traffic, access or servicing problems;
  - iv) The application represents an orderly and efficient use of land, and its approval would not hinder the development of the retained land; and,
  - v) The severed and retained lots shall front on an existing road allowance which is opened and maintained on a year-round basis and is constructed to a standard of construction adequate to provide for the additional traffic generated by the proposed development. Consents shall not be granted where access to either the retained or severed parcel is proposed to be via a municipal laneway.
- b) The Municipality shall not support Consent applications that do not conform with the policies of the Official Plan and/or the provisions of the Comprehensive Zoning By-law.

- c) Prior to permitting the creation of lots by Consent, the Municipality shall be satisfied that the development can be supplied with municipal services such as schools, fire protection, water supply, storm drainage, sewage disposal facilities and road access. Such development should not adversely affect the finances of the Municipality.
- d) The Municipality may enter into a Subdivision Agreement as a condition of the approval of Consent applications. Such agreements shall ensure that the necessary internal or external services be provided by the developer to the specifications established by the Municipality.
- e) The Municipality shall support residential intensification where full municipal water and sewer services are available and provided the proposed scale of development is appropriate to the size and characteristics of the lot on which it is to be constructed.

# 7.17 PROPERTY MAINTENANCE AND OCCUPANCY

The Municipality has the authority to enact a by-law under the Building Code Act which prescribes minimum standards for the maintenance of land and buildings, and the occupancy of buildings within the community. Through a Property Maintenance and Occupancy By-law, the Municipality can legally require the repair of buildings or the cleaning up of properties that do not meet acceptable Municipal standards.

- a) It is the policy of the Municipality to maintain a Property Maintenance and Occupancy By-law, affecting all lands within the Municipal boundaries, regulating such matters as:
  - i) Garbage disposal, pest prevention, structural maintenance of buildings, and cleanliness of buildings;
  - ii) Excavation and stabilization of soils;
  - iii) The safety and maintenance of buildings;
  - iv) Services of buildings (plumbing, heating, electricity); and,
  - v) Maintenance of yards, removal of weeds, debris, rubbish, unlicensed or wrecked motor vehicles, trailers, and other structures not permanently fixed to the ground.
- b) The Municipality shall appoint a Property Standards Officer who shall be responsible for administering and enforcing the Property Maintenance and Occupancy By-law.
- c) The Municipality shall appoint a Property Standards Committee for the purpose of hearing appeals against an order by the Property Standards Officer.
- d) In addition to the enforcement of minimum standards on private properties, the Municipality shall undertake to keep all municipally owned properties and structures in a fit and well maintained condition, and to maintain in good repair municipal services such as roads, sidewalks, water and sewage facilities, etc.

### 7.18 SIGN BY-LAW

The Municipality has the authority to regulate, through a by-law and permit system,

the placement of signs, notices, placards, or other advertising devices on private and public lands. Under such a By-law, the Community may require the removal of signs not in compliance with the By-law, levy fines against contravention to the sign by-law, and require licensing of those persons supplying mobile signs.

### 7.19 PUBLIC CONSULTATION

Brockton Council actively encourages public participation on land use planning matters within Walkerton. The following represent the goals of the Municipality in terms of public participation:

- To adhere to the public notification requirements prescribed in the Planning Act, as amended, including holding public open houses where required.
- b) Council may extend the area of notification and timing of notification to residents and property owners of public meetings held by Council, in accordance with the maximum time limit requirements of the Planning Act and its regulations, without amendment to this plan.
- c) To encourage the organization of an open house or similar event over and above those minimums required under the Planning Act by applicants/developers for those applications or development proposals which may impact multiple residents and property owners.
- d) To ensure that the public is adequately consulted in the context of all land use decisions including official plan amendments, zone change applications, minor variances, plans of subdivision, and consents.
- e) To encourage public participation in planning matters and provide appropriate access to applicable planning information.
- f) To consider, and implement where appropriate, innovative methods of public facilitation and participation, involving both methods of communication of planning information, and methods of information gathering from the public
- g) To encourage applicants to consult with the Municipality before submitting applications under the Planning Act.
- h) Council may forego public notification and public meetings in connection with Official Plan, community improvement plan, and zoning by-law amendments if such amendments relate to matters that will not affect the policies and intent of the Official Plan or community improvement plan, or the provisions of the zoning bylaw in any material way, and may include the following matters:

- i) Altering punctuation or language to obtain a uniform mode of expression;
- ii) Correcting clerical, grammatical, dimensioning or typographical errors;
- iii) Altering the number and arrangement of any provision;
- iv) Inserting historical footnotes or similar annotations to indicate the origin and approval of each provision;
- v) Changing the format of a document;
- vi) Consolidating amendments;
- vii) Transferring official plan, community improvement plan and zoning by-law information to new base maps; and
- viii) Dealing with such matters as outlined in <u>Section 2.3</u> Interpretation.
- i) To consult with the public prior to finalizing the adoption or update of the following initiatives:
  - i) A Sign By-law;
  - ii) A Community Improvement Plan;
  - iii) A Property Standards By-law;
  - iv) A Payment-in-Lieu for Parking Study;
  - v) A Development Charges By-law; and,
  - vi) Any other initiative that may affect the Community.

# 7.20 FINANCE

This Plan makes reference to a number of community initiatives under the responsibility of the Municipality. However, the Municipality should provide and improve services in a fiscally responsible manner.

It must be understood that the Official Plan has a life expectancy of 15 to 20 years and that all of the projects and priorities referred to in the Plan cannot be initiated or implemented as soon as the Plan is adopted.

It is the intention of the Municipality, therefore, to only carry out those expenditures and public works that are affordable, given the Municipality's financial abilities.

- a) The Municipality shall not grant approval to any development unless it is in a financial position to provide the services required by such development.
- b) The Municipality shall promote the establishment of a diverse and stable economic base both in terms of job opportunities and tax revenue.
- c) The Municipality may undertake a Development Charges Study to determine the cost of providing services to new developments, and may implement a Development Charges By-law enabling the recovery of the costs of servicing new development.
- d) The Municipality shall use the following guidelines in making financial decisions:
  - i) Capital expenditures shall be guided by a Five Year Capital Forecast, reviewed annually;
  - ii) Outstanding debenture debt shall be limited to a percentage of

taxable assessment and assessment eligible for grants-in-lieu of taxes - this percentage figure shall be reviewed annually in light of changing circumstances and responsibilities; and,

- iii) Capital expenditures from current funds may be limited to a predetermined mill rate for each year
- e) The Municipality may establish and maintain a Historic Walkerton Community Re-investment Fund and make annual contributions to pay for capital improvements and public service upgrades within the area. Funds may be expended without the guidance of a Community Improvement Plan.

# 7.21 STATUS/SPOT ZONING

At the sole discretion of the Municipality uses of land that existed legally at the date of adoption of this Official Plan, or a corresponding amendment to the Official Plan, may be zoned to recognize its existing status regardless of the Official Plan designation of the land. Such uses may be zoned to reflect their present use and standards provided:

- a) The use to be zoned was established legally;
- b) The use to be zoned is not located in an Environmental Protection designation or similar zone, or in a floodway;
- c) The use to be zoned will not be unduly impacted by neighboring incompatible uses;
- d) The zone will not permit any significant change of use or zone provisions that will aggravate any situation detrimental to adjacent conforming uses;
- e) The use shall be zoned in such a way that any significant enlargement, expansion or change of use must be by amendment to the Zoning By-law;
- f) The use to be zoned does not constitute a danger to surrounding uses and persons by virtue of their hazardous nature or the generation of significant traffic;
- g) The use to be zoned does not pollute air and/or water to the extent of interfering with the ordinary enjoyment of neighboring properties; and
- h) The use to be zoned does not interfere with the desirable development or enjoyment of the adjacent area.

#### APPENDIX 'A' THE CONSERVATION & MAINTENACE OF STOREFRONTS (NOTE #8 Archaeological Conservation Notes)

### APPENDIX 'B'

### Minimum Environmental Impact Study Requirements

An Environmental Impact Study (EIS) shall include, as a minimum, the following:

#### Section A: Description of Existing Natural Environment

#### 1) Site Description and Landscape Context

A general description of the existing natural environment. This includes the specific biological and terrain characteristics and ecological and physical functions and processes occurring on and through the site.

Environmental impacts also include off-site effects. A similar, but more general description of the landscape context of the site or planning area is required.

#### 2) Summary of Development Proposal

A concise summary of the development proposal or application.

#### Section B: Anticipated Environmental Effects

#### 1) Characteristics of the Features and Functions Affected by the Proposal

Central to an EIS is the assessment of whether a development proposal negatively impacts the features or the ecological functions of an area. The broad scope of the assessment is balanced by the requirement that the EIS deal with the impacts that might reasonably be expected to occur.

Because of this, an initial focus is necessary to outline the key features or ecological functions of the specific natural heritage feature and area identified at the site. These key functions and features constitute the functions and features of concern to the EIS.

The EIS should also assess the environmental impacts of development in relation to the system, in this case of natural heritage features and areas.

#### 2) Sensitivity Assessment (Degrees and Extent of Impacts on Feature and Function)

The sensitivity of the features and functions to the development proposal should be assessed as a method of focusing on the extent and degree of environmental effects that might reasonably be expected to occur.

#### 3) Predicted Effects (Direct and Indirect)

The specific environmental effects that are expected to occur on the key features and functions of areas are to be documented in the EIS. These include both direct and indirect impacts.

#### Section C: Proposed Mitigation

#### 1) Mitigation Methods Proposed

The identification of alternative methods and measures that would mitigate any predicted environmental impacts must be identified.

Where mitigation through avoidance is not possible, alternative methods must include measures to minimize impacts, conditional on subsequent monitoring of effects to ensure successful implementation. Restoration, remediation, improvement and enhancement are also encouraged.

If mitigation methods or measures cannot be designed to ensure the proposal does not negatively impact the features, or the ecological functions for which the area is identified, the no-development option should be considered.

#### 2) Mitigation Methods Selected

The development alternative that is selected should be the alternative that does not negatively impact the features or the functions of the particular areas, or which appropriately mitigates the potential environmental effects.

#### Section D: Monitoring Plan

The purpose of the monitoring plan is to measure effects over time. In some situations, this will require subsequent changes to site conditions if the environmental effects are found to exceed predicted effects or targets, or if there are identifiable negative effects.

Where mitigation is achieved through avoidance of negative impacts, a simplified monitoring plan to ascertain the success of the project is all that is required. Where mitigation is achieved by methods or measures to minimize but not eliminate environmental effects, the predicted net effects after mitigation shall be described, and a monitoring plan designed to measure those effects shall be implemented.

### APPENDIX 'C' Ontario Heritage Act

The Ontario Heritage Act allows the Municipality to:

- a) Pass by-laws to designate individual properties as being of historic, architectural or archaeological significance to the community. The by-law shall include a description of the property and a statement of the reasons for designation.
- b) Pass by-laws to designate Heritage Conservation Districts in order to protect the heritage resources of an area. Prior to designating a Heritage Conservation District pursuant to the Ontario Heritage Act, Council may:
  - i) Pass a by-law to define an area to be studied for possible future designation;
  - ii) Consider passing a by-law to impose interim control of alteration, demolition or removal of cultural heritage resources in the area defined as under study for possible future designation pursuant to the Ontario Heritage Act;
  - iii) Prepare and adopt a Heritage Conservation District Plan; and,
  - iv) Establish a Heritage District Committee to advise Council on matters pertaining to the designated district. The by-law shall be based on a study identifying the heritage resources of the area.

Within a heritage conservation district, development proposals must give consideration to protecting the character of the area.

- c) A Brockton Heritage Committee shall be established pursuant to Section 28 of the Ontario Heritage Act to advise and assist Council on matters related to Parts IV and V of the Act. In addition, Council may wish to expand the role of the heritage advisory committee to advise and assist Council on other matters of cultural heritage conservation, including the identification, promotion and protection of heritage resources.
- d) Pursuant to the Ontario Heritage Act, and as part of an overall strategy to conserve built heritage resources, Council may refuse to permit the demolition of heritage buildings or structures that have been designated under the Ontario Heritage Act

# **APPENDIX D**

# **CULTURAL HERITAGE DOCUMENTS**

#### Municipal Heritage Bridges Cultural, Heritage and Archaeological Resources Assessment Checklist Revised April 11, 2014

This checklist was prepared in March 2013 by the Municipal Engineers Association to assist with determining the requirements to comply with the Municipal Class Environmental Assessment. View all 4 parts of the module on Structures Over 40 Years at <u>www.municipalclassea.ca</u> to assist with completing the checklist.

Project Name: Class EA for Replacement of the Durham Street Bridge

Location: Bruce Road 4, Walkerton

Municipality: Municipality of Brockton

Project Engineer: Ryan Munn, P. Eng., M. Eng.

Checklist completed by: Kelly Vader, RPP, MCIP

Date: January 25, 2022

# NOTE: Complete all sections of Checklist. Both Cultural Heritage and Archaeological Sections must be satisfied before proceeding.

#### Part A - Municipal Class EA Activity Selection

Description	Yes	No
Will the proposed project involve or result in construction of new water crossings? This includes ferry docks.	□ Schedule B or C	⊠ Next
Will the proposed project involve or result in construction of new grade separation?	□ Schedule B or C	⊠ Next
Will the proposed project involve or result in construction of new underpasses or overpasses for pedestrian recreational or agricultural use?	□ Schedule B or C	⊠ Next
Will the proposed project involve or result in construction of new interchanges between any two roadways, including a grade separation and ramps to connect the two roadways?	□ Schedule B or C	⊠ Next

Description	Yes	No
Will the proposed project involve or result in reconstruction of a water crossing where the structure is less than 40 years old and the reconstructed facility will be for the same purpose, use, capacity and at the same location? (Capacity refers to either hydraulic or road capacity.) This include ferry docks.	□ Schedule A+	Ø Next
Will the proposed project involve or result in reconstruction of a water crossing, where the reconstructed facility will not be for the same purpose, use, capacity or at the same location? (Capacity refers to either hydraulic or road capacity). This includes ferry docks.	☑ Schedule B or C	☐ Next
Will the proposed project involve or result in reconstruction or alteration of a structure or the grading adjacent to it when the structure is over 40 years old where the proposed work will alter the basic structural system, overall configuration or appearance of the structure?	Ø Next	Assess Archaeological Resources

#### Part B - Cultural Heritage Assessment

Description	Yes			No
Does the proposed project involve a bridge construction in or after 1956?	□ Next			pare CHER ndertake HIA
Does the project involve one of		Next		pare CHER
these four bridge types?	Precast with Concrete Deck	Vext	Ur	ndertake HIA
	Concrete Deck	NEXL		
		Next		
	□ Steel Bean/			
	Concrete Deck	Vext		

Description	Yes	No
Does the bridge or study area contain a parcel of land that is subject of a covenant or agreement between the owner of the property and a conservation body or level of government?	Prepare CHER Undertake HIA	□ Next
Does the bridge or study area contain a parcel of land that is listed on a register or inventory of heritage properties maintained by the municipality?	Prepare CHER Undertake HIA	□ Next
Does the bridge or study area contain a parcel of land that is designated under Part IV of the Ontario Heritage Act?	Prepare CHER Undertake HIA	□ Next
Does the bridge or study area contain a parcel of land that is subject to a notice of intention to designate issued by a municipality?	Prepare CHER Undertake HIA	□ Next
Does the bridge or study area contain a parcel of land that is located within a designated Heritage Conservation District?	Prepare CHER Undertake HIA	□ Next
Does the bridge or study area contain a parcel of land that is subject to a Heritage Conservation District study area by-law?	Prepare CHER Undertake HIA	□ Next
Does the bridge or study area contain a parcel of land that is included in the Ministry of Tourism, Culture and Sport's list of provincial heritage properties?	Prepare CHER Undertake HIA	□ Next
Does the bridge or study area contain a parcel of land that is part of a National Historic Site?	Prepare CHER Undertake HIA	□ Next
Does the bridge or study area contain a parcel of land that is part of a United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage Site?	Prepare CHER Undertake HIA	<b>*⊡</b> Next

Description	Yes	No
Does the bridge or study area contain a parcel of land that is designated under the Heritage Railway Station Protection Act?	Prepare CHER Undertake HIA	□ Next
Does the bridge or study area contain a parcel of land that is identified as a Federal Heritage Building by the Federal Heritage Building Review Office (FHBRO)	Prepare CHER Undertake HIA	☐ Next
Does the bridge or study area contain a parcel of land that is the subject of a municipal, provincial or federal commemorative or interpretive plaque that speaks to the Historical significance of the bridge?	Prepare CHER Undertake HIA	□ Next
Does the bridge or study area contain a parcel of land that is in a Canadian Heritage River watershed?	Prepare CHER Undertake HIA	□ Next
Will the project impact any structures or sites (not bridges) that are over forty years old, or are important to defining the character of the area or that are considered a landmark in the local community?	Prepare CHER Undertake HIA	□ Next
Is the bridge or study area adjacent to a known burial site and/or cemetery?	Prepare CHER Undertake HIA	□ Next
Is the bridge considered a landmark or have a special association with a community, person or historical event in the local community?	Prepare CHER Undertake HIA	□ Next
Does the bridge or study area contain or is it part of a cultural heritage landscape?	Prepare Cher Undertake HIA	Assess Archaeological Resources

#### PART C - HERITAGE ASSESSMENT

Description	Yes	No
Does the Cultural Heritage Evaluation Report identify any Heritage Features on the project?	Undertake HIA	Part D - Archaeological Resources
Does the Heritage Impact Assessment determine that the proposed project will impact any of the Heritage Features that have been identified?	Schedule B or C	Part D - Archaeological Resources

#### PART D - ARCHAEOLOGICAL RESOURCES ASSESSMENT

Description	Yes	No
Will any activity, related to the project, result in land impacts/significant ground disturbance?	🗊 Next	□ Schedule A - proceed
Have all areas, to be impacted by ground disturbing activities, been subjected to recent extensive and intensive disturbances and to depths greater than the depths of the proposed activities?	□ Schedule A - proceed	☑ Next
Has an archaeological assessment previously been carried out that includes all of the areas to be impacted by this project?	□ Next	Archaeological Assessment
Does the report on that previous archaeological assessment recommend that no further archaeological assessment is required within the limits of the project for which that assessment was undertaken, and has a letter been issued by the Ministry of Tourism, Culture and Sport stating that the report has been entered into the Ontario Public Register of Archaeological Reports?	Schedule A - proceed	<ul> <li>Obtain satisfaction letter - proceed</li> </ul>

\*\* Include Documentation Summary in Project File\*\*

Cultural Heritage Evaluation Report & Heritage Impact Assessment Durham Street Bridge, Walkerton Municipality of Brockton, Ontario

**Prepared for:** 

Kelly Vader Senior Environmental Planner B.M. Ross and Associates Ltd. 62 North Street Goderich, ON N7A 2T4

Prepared by: TMHC Inc. 1108 Dundas Street, Unit 105 London, ON | N5W 3A7 519-641-7222 <u>tmhc.ca</u>



Project No: 2020-284

Revised Final:

July 4, 2024



## **EXECUTIVE SUMMARY**

B.M. Ross and Associates Limited (B.M. Ross) engaged TMHC Inc. (TMHC) to produce a Cultural Heritage Evaluation Report (CHER) and Heritage Impact Assessment (HIA) that considers the potential cultural heritage value or interest of the Durham Street Bridge, also known as the Walkerton Bridge, in Walkerton, Municipality of Brockton, Bruce County (the "Subject Site") and the potential heritage impacts of the bridge's proposed rehabilitation.

Section 4.2 of the Walkerton Community Official Plan identifies the following relevant heritage objectives:<sup>1</sup>

- To identify, protect, preserve and enhance Walkerton's built, landscape and archaeological heritage for its cultural, historic and economic value to the community (4.2.1);
- Encourage private and public sector initiatives for the protection, restoration and enhancement of existing heritage buildings, structures, streetscapes or areas which contribute to the identity, character and history of the Walkerton community, particularly those of historic, architectural, or archaeological significance, pursuant to the *Ontario Heritage Act* (4.2.2a); and,
- All new development permitted by the land use policies and designations of this Plan, and infrastructure projects, shall have regard for cultural heritage resources and encourage, wherever possible, the incorporation of these resources into any plans which may be prepared for such development and/or conserve such resources by removal and documentation. New structures built in the area of these resources shall be designed to reflect the surrounding landscape and built form. Council shall use Site Plan Control to ensure that new development is sited and designed to complement the historic and natural character of the Municipality.

This CHER/HIA was triggered through the completion of the *Municipal Heritage Bridges Cultural, Heritage and Archaeological Resources Assessment Checklist* (revised April 11, 2014) as part of ongoing bridge evaluation conducted under O.Reg. 160/02 and O.Reg. 104/97. The CHER/HIA is intended to provide a heritage evaluation of the Subject Sites against the criteria set out by the *Ontario Heritage Act* (*OHA*)'s O.Reg. 9/06 (as amended by O.Reg. 569/22), an assessment of the proposed development's impact on identified heritage attributes, and strategies for mitigating that impact. The HIA portion of this report follows the general format set out in the Ministry of Citizenship and Multiculturalism's (MCM) *InfoSheet #5: Heritage Impact Assessments and Conservation Plans*, which is included in the resource *Heritage Resources in the Land Use Planning Process* within the Ontario Heritage Toolkit.

The Subject Site is a five-span, rigid frame concrete T-beam/girder design including a drop-in center span with half-joints and cantilevered end spans. The bridge carries County Road No. 4/Durham Street East over the Saugeen River in Walkerton in the Municipality of Brockton, Bruce County. The bridge is owned by Bruce County.

The Durham Street Bridge is not included on the heritage inventory of the Municipality of Brockton, nor has it been designated under Part IV or Part V of the OHA. There are no National Historic Sites, Ontario Heritage Trust-owned properties, conservation easements, or Provincial Heritage Properties present on or adjacent to the Subject Site as verified by the Ontario Heritage Trust and the MCM The bridge does not appear on the Ontario Heritage Bridge List.

<sup>&</sup>lt;sup>1</sup> Municipality of Brockton



Evaluation of the Subject Site against the O.Reg. 9/06 criteria concluded that the Durham Street Bridge meets the criteria on the basis of its physical/design value, historical/associative value, and contextual value.

In order to address structural deterioration, B.M. Ross considered three alternatives as part of the environmental assessment process which included consultation with local stakeholders:

- Alternative I Replacement in the Same Location
- Alternative 2 Rehabilitate the Existing Bridge
- Alternative 3 Do Nothing

B.M. Ross indicated that the preferred approach was Alternative 2 – Rehabilitate the Existing Bridge.<sup>2</sup> This alternative involves rehabilitation of deteriorated concrete, including half-joints, and reinforcing steel components on the bridge deck, piers, abutments and sidewalks. The railings would be replaced with a similar design. The location and general appearance of the bridge would remain unchanged.

All alternatives were considered using the *Ontario Heritage Bridge Guidelines* (*OHBG*) and the following mitigation strategies were recommended based on the preferred alternative:

- 1) In keeping with OHBG Option 2, described in Section 10.1, TMHC recommends that where possible and appropriate, the final design of the rehabilitated the Subject Site include restoration of previously removed heritage elements including:
  - a) New railings of a reconfiguration and darker colour resembling the original railings; and
  - b) If the preferred reinstatement of more recent flower boxes and decorative fish proves unfeasible, consider reinstating ornate light standards resembling the original design.
- 2) In keeping with OHBG Option 3, described in Section 10.1, TMHC recommends that where possible and appropriate, the final design of the rehabilitated the Subject Site include sympathetic modification or repair of any rehabilitated components and especially of heritage attributes, including:
  - a) stylized pile caps/piers;
  - b) embossed stanchions/pillars;
  - c) arched T-beams;
  - d) railing posts; and
  - e) cantilevered end spans.
- 3) The retention and restoration (or enhancement/replacement) of the river traffic sign on the upriver side of the bridge will be necessary to preserve the bridge's link to historically significant river navigation. Any signage related to the Saugeen River Trail that could be impacted by the replacement should also be preserved and restored upon completion.
- 4) This report will be submitted to the Bruce County Archives, copying MCM on the accompanying cover letter.

Further discussions with Bruce County are recommended to gauge the desirability of this possible mitigation strategy as a whole as well as the need for additional assessments such as archaeology.

<sup>&</sup>lt;sup>2</sup> A previous version of this report was premised on Alternative I as the preferred alternative, however subsequent public engagement and technical reports resulted in the selection of Alternative 2.



Prior to implementing these recommendations, discussions with the Municipality of Brockton are recommended to gauge the desirability of this mitigation strategy. Resulting changes to this strategy should be forwarded to MCM. The following schedule outlines when each recommendation should be implemented:

- Mitigation Recommendations I and 2 be considered as part of the detailed design of the rehabilitated bridge.
- Mitigation Recommendation 3 be undertaken before and after construction.
- Mitigation Recommendation 4 be completed prior to construction.
- Mitigation Recommendation 5 be considered within one year of project completion.



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Cultural Heritage Evaluation Report & Heritage Impact Assessment Durham Street Bridge, Walkerton, Municipality of Brockton, ON

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Ontario Heritage Trust	Kevin DeMille



### **TERRITORIAL ACKNOWLEDGEMENT**

The Subject Site is within the traditional territory of Chippewas of Nawash Unceded First Nation and Saugeen First Nation, collectively Saugeen Ojibway Nation (SON). SON's Traditional Territory is bounded on the south by the Maitland River system from Goderich to past Arthur, on the west by the Canada/USA border in the middle of Lake Huron, on the north by a line along the midpoint of the channel between the Saugeen (Bruce) Peninsula and Manitoulin Island, and on the east by a line down the middle of Georgian Bay. The SON also asserts Aboriginal title over that portion of Lake Huron and Georgian Bay within their Territory.

The people of the Chippewas of Nawash and Saugeen First Nations have lived, fished, hunted, and traded throughout these lands for generations and continue to do so today. They have a deep connection to the lands within their traditional territory. This includes cultural heritage: spiritual and sacred sites, artifacts and archaeological sites, built heritage, and cultural heritage landscapes. It also includes care and protection for the Ancestors and their resting places.



## **ABOUT TMHC**

Established in 2003 with a head office in London, Ontario, TMHC Inc. (TMHC) provides a broad range of archaeological assessment, heritage planning and interpretation, cemetery, and community consultation services throughout the Province of Ontario. We specialize in providing heritage solutions that suit the past and present for a range of clients and intended audiences, while meeting the demands of the regulatory environment. Over the past two decades, TMHC has grown to become one of the largest privately-owned heritage consulting firms in Ontario and is today the largest predominately woman-owned Cultural Resource Management (CRM) business in Canada.

Since 2004, TMHC has held retainers with Infrastructure Ontario, Hydro One, the Ministry of Transportation, Metrolinx, the City of Hamilton, the City of Barrie, and Niagara Parks Commission. In 2013, TMHC earned the Ontario Archaeological Society's award for Excellence in CRM. Our seasoned expertise and practical approach have allowed us to manage a wide variety of large, complex, and highly sensitive projects to successful completion. Through this work, we have gained corporate experience in helping our clients work through difficult issues to achieve resolution.

TMHC is skilled at meeting established deadlines and budgets, maintaining a healthy and safe work environment, and carrying out quality heritage activities to ensure that all projects are completed diligently and safely. Additionally, we have developed long-standing relationships of trust with Indigenous and descendent communities across Ontario and a good understanding of community interests and concerns in heritage matters, which assists in successful project completion.

TMHC is a Living Wage certified employer with the <u>Ontario Living Wage Network</u> and a member of the <u>Canadian Federation for Independent Business</u>.

## **KEY STAFF BIOS**

#### Holly Martelle, PhD., Principal

Holly Martelle earned a Ph.D. from the University of Toronto for on her research on Wendat populations in southern Ontario. In addition to 16 years of experience in the road building and aggregate industries, Holly has worked as a Heritage Planner at the now MHSTCI and has taught at several universities throughout the province. Over her career Holly has managed the archaeology for a number of high-profile projects on behalf of various municipalities, ministries and their agencies in Ontario.

Holly is an active member of the heritage community in Ontario and a Past-President of the Ontario Archaeological Society.

Joshua Dent, PhD, CAHP – Project Manager and Cultural Heritage Specialist; Manager – Community Engagement & Heritage Division

Joshua (Josh) has worked extensively on cultural heritage and archaeological assessments in Ontario and Western Canada. Josh's role at TMHC has involved background research, community consultation, report production, and project management. Josh specializes in multi-faceted heritage studies including large-scale inventories, environmental assessments, and complex institutional assessments. In his role at TMHC, he regularly communicates with Indigenous communities and a variety of heritage stakeholders. These efforts were recently recognized as part of the Oakville Harbour Cultural Heritage Landscape Strategy



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Implementation which received the Canadian Association of Heritage Professionals' 2021 Award of Merit for Documentation & Planning. He has volunteered extensively with the heritage community in London, Ontario, in both municipal and not-for-profit roles. Josh is professional member of the Canadian Association of Heritage Professionals (CAHP).



## STATEMENT OF QUALIFICATIONS AND LIMITATIONS

The attached Report (the "Report") has been prepared by TMHC Inc. (TMHC) for the benefit of the Client (the "Client") in accordance with the agreement between TMHC and the Client, including the scope of work detailed therein (the "Agreement").

The information, data, recommendations and conclusions contained in the Report (collectively, the "Information"):

- is subject to the scope, schedule, and other constraints and limitations in the Agreement and the qualifications contained in the Report (the "Limitations");
- represents TMHC's professional judgment in light of the Limitation and industry standards for the preparation of similar reports;
- may be based on information provided to TMHC which has not been independently verified;
- has not been updated since the date of issuance of the Report and its accuracy is limited to the time period and circumstances in which it was collected, processed, made or issued;
- must be read as a whole and section thereof should not be read out of such context; and
- was prepared for the specific purposes described in the Report and the Agreement.

TMHC shall be entitled to rely upon the accuracy and completeness of information that was provided to it and has no obligation to update such information. TMHC accepts no responsibility for any events or circumstances that may have occurred since the date on which the Report was prepared and, in the case of subsurface, environmental or geotechnical conditions, is not responsible for any variability in such conditions, geographically or over time.

TMHC agrees that the Report represents its professional judgement as described above and that the Information has been prepared for the specific purpose and use described in the Report and the Agreement, but TMHC makes no other representations, or any guarantees or warranties whatsoever, whether express or implied, with respect to the Report, the Information or any part thereof.

Except (1) as agreed to in writing by TMHC and Client; (2) as required by-law; or (3) to the extent used by governmental reviewing agencies for the purpose of obtaining permits or approvals, the Report and the Information may be used and relied upon only by Client.

TMHC accepts no responsibility, and denies any liability whatsoever, to parties other than Client who may obtain access to the Report or the Information for any injury, loss or damage suffered by such parties arising from their use of, reliance upon, or decisions or actions based on the Report or any of the Information ("improper use of the Report"), except to the extent those parties have obtained the prior written consent of TMHC to use and rely upon the Report and the Information. Any injury, loss or damages arising from improper use of the Report shall be borne by the party making such use.

This Statement of Qualifications and Limitations is attached to and forms part of the Report and any use of the Report is subject to the terms hereof.



### **QUALITY INFORMATION**

Report prepared by:

Joshua Dent, PhD, CAHP Project Manager and Cultural Heritage Specialist

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Report reviewed by:

Holly Martelle, PhD

Principal



## I INTRODUCTION

### I.I Report Scope and Purpose

B.M. Ross and Associates Limited (B.M. Ross) engaged TMHC Inc. (TMHC) to produce a Cultural Heritage Evaluation Report (CHER) and Heritage Impact Assessment (HIA) that considers the potential cultural heritage value or interest of the Durham Street Bridge, also known as the Walkerton Bridge, in Walkerton, Municipality of Brockton, Bruce County (the "Subject Site") and the potential heritage impacts of the bridge's proposed rehabilitation.

Section 4.2 of the Walkerton Community Official Plan identifies the following relevant heritage objectives:<sup>3</sup>

- To identify, protect, preserve and enhance Walkerton's built, landscape and archaeological heritage for its cultural, historic and economic value to the community (4.2.1);
- Encourage private and public sector initiatives for the protection, restoration and enhancement of existing heritage buildings, structures, streetscapes or areas which contribute to the identity, character and history of the Walkerton community, particularly those of historic, architectural, or archaeological significance, pursuant to the *Ontario Heritage Act* (4.2.2a); and,
- All new development permitted by the land use policies and designations of this Plan, and infrastructure projects, shall have regard for cultural heritage resources and encourage, wherever possible, the incorporation of these resources into any plans which may be prepared for such development and/or conserve such resources by removal and documentation. New structures built in the area of these resources shall be designed to reflect the surrounding landscape and built form. Council shall use Site Plan Control to ensure that new development is sited and designed to complement the historic and natural character of the Municipality.

This CHER/HIA was triggered through the completion of the *Municipal Heritage Bridges Cultural, Heritage and Archaeological Resources Assessment Checklist* (revised April 11, 2014) as part of ongoing bridge evaluation conducted under O.Reg. 160/02 and O.Reg. 104/97. The CHER/HIA is intended to provide a heritage evaluation of the Subject Sites against the criteria set out by the *Ontario Heritage Act* (*OHA*)'s O.Reg. 9/06 (as amended by O.Reg. 569/22), an assessment of the proposed development's impact on identified heritage attributes, and strategies for mitigating that impact. The HIA portion of this report follows the general format set out in the Ministry of Citizenship and Multiculturalism's (MCM) *InfoSheet #5: Heritage Impact Assessments and Conservation Plans*, which is included in the resource *Heritage Resources in the Land Use Planning Process* within the Ontario Heritage Toolkit.

### I.2 Methodology

This CHER/HIA was prepared in accordance with the Ontario Heritage Toolkit's guide to Heritage Property Evaluation and the Ontario Heritage Act O.Reg. 9/06 (as amended by O.Reg. 569/22). The HIA portion of this report follows the general format set out in the MCM's InfoSheet #5: Heritage Impact Assessments and Conservation Plans, which is included in the resource Heritage Resources in the Land Use Planning Process within the Ontario Heritage Toolkit.

<sup>&</sup>lt;sup>3</sup> Municipality of Brockton



For the purposes of preparing this report, Joshua Dent of TMHC visited the Subject Site in March 2021. The CHER/HIA was updated in 2024 to reflect a shift in the preferred approach.

A full list of sources is included in Section 11.0 of this CHER/HIA.

### I.3 Client Contact Information

Kelly Vader Senior Environmental Planner B.M. Ross and Associates Limited 62 North Street, Goderich, ON N7A 2T4 kvader@bmross.net



## **2 SITE DESCRIPTION**

### 2.1 Location and Physical Description

The Subject Site is a five-span, rigid frame concrete T-beam/girder design including a drop-in center span with half-joints and cantilevered end spans. The bridge carries County Road No. 4/Durham Street East over the Saugeen River in Walkerton in the Municipality of Brockton, Bruce County. The bridge is owned by Bruce County. County Road No. 4 was previously known as the Durham Road and represented a significant throughfare and point of departure for the survey of the former Township of Brant's lot and concession fabric. The bridge is within the boundaries of the formerly independently incorporated Town of Walkerton.

#### 2.2 Heritage Status

The Durham Street Bridge is not included on the heritage inventory of the Municipality of Brockton, nor has it been designated under Part IV or Part V of the OHA. There are no National Historic Sites, Ontario Heritage Trust-owned properties, conservation easements, or Provincial Heritage Properties present on or adjacent to the Subject Site as verified by the Ontario Heritage Trust and the MCM. The bridge does not appear on the Ontario Heritage Bridge List.



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Map I: General Location of Subject Site on 2020 Aerial Photograph





Map 2: Location of Subject Site on 2020 Aerial Photograph

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### **3 HISTORICAL RESEARCH & ANALYSIS**

This section includes a historical overview for the Subject Site. The Subject Site was originally part of the Township of Brant and later the Town of Walkerton, Bruce County; the early historical context discussion refers to this previous jurisdiction.

### 3.1 Historic Context: Indigenous Settlement and Treaties

Indigenous peoples have used the lands that are now known as Bruce County for thousands of years. Prior to the displacement caused by early European settlement, this area was actively used by Anishinaabe peoples, including the Odawa, Ojibwa, and Potawatomi nations of the Three Fires Confederacy. The Confederacy reassumed control over what known as the Saugeen Peninsula following a 17<sup>th</sup> century incursion by the Haudenosaunee which also displaced the neighbouring Tionontate (Petun).<sup>4</sup>

Municipal settlement in Bruce County was facilitated by the signing of various treaties between the Crown and local Indigenous communities.<sup>5</sup> The lands within Bruce County were acquired under two major treaties. Treaty No. 45 <sup>1</sup>/<sub>2</sub>, also referred to as the Saugeen Tract Purchase, was signed by representatives of the Saugeen Nation and Lieutenant-Governor Francis Bond Head on August 9, 1836. The treaty established a line between the villages of Saugeen and Nawash near the base of the Saugeen Peninsula at Owen Sound. South of that line, Brant, Carrick, Elderslie, Greenock, Huron, Kincardine, Kinloss, and Saugeen Townships were considered ceded territory. The townships to the north of the line-Amabel, Albemarle, Eastnor, Lindsay, and St. Edmunds-became the Saugeen and Owen Sound Reserve. Treaty 72, signed on October 13, 1854 by the Crown and Saugeen and Chippewa peoples living in the Saugeen and Owen Sound Reserve, released the majority of the reserve lands on the Peninsula but established formal reservations - Saugeen First Nation Reserve #29 north of the Saugeen River, Chief's Point Reserve No. 28, the Nawash - Owen Sound First Nation Reserve (subsequently surrendered in 1857 under Treaty No. 82), the Cape Crocker or Neyaashiinigmiing Reserve No. 27 and a reserve around the Colpoy's Bay (subsequently surrendered in 1861 under Treaty No. 82). Shortly after the signing of these documents the Indigenous signatories questioned their validity and Crown commitments to both compensation and protection from encroachment from European settlement.<sup>6</sup> Today, legal challenges to these treaties continue.

### 3.2 Historic Context: Early Settlement

Lieutenant-Governor Bond Head's motivation for the treaties was the gathering and opening up of lands for settlement to European and other non-Indigenous settlers. In 1849, the lands north of Huron District known as the "Queen's Bush"<sup>7</sup> were surveyed, the new area was named after the Governor General of Canada at the time, James Bruce. This new county was created by an Act of Parliament in 1849, dividing the district of Huron into three counties: Huron, Perth and Bruce.<sup>8</sup> Bruce County included 12 townships, including Brant Township, and the Peninsula (which was still under control of the Saugeen at the time). It is reported that the first European settlers to establish homes in Bruce County were William Withers and Allan Cameron who settled at the mouth of Penetangore River in present day Kincardine during the spring of 1848. Penetangore is

<sup>&</sup>lt;sup>4</sup> Copway 1850; Schmalz 1977, 1991

<sup>&</sup>lt;sup>5</sup> Canada 1891; Surtees 1984

<sup>&</sup>lt;sup>6</sup> Surtees 1984

<sup>&</sup>lt;sup>7</sup> The Queen's Bush was an extensive tract of land surrender by local Ojibwa populations through Treaty 45 ½ in 1836.

<sup>&</sup>lt;sup>8</sup> Robertson 1906 [1960]



believed to be a corruption of the Algonquin word "Na-Benem-tan-gaugh," meaning "the river with sand on one side," which reflected the fact that the river's mouth was marked by a clay bluff on one side and a sand dune on the other.<sup>9</sup>

#### 3.2.1 Bruce County

The earliest surveys in Bruce County (e.g., the first concession in Huron and Kinloss) were those created to provide access to the Queen's Bush. These were followed by those to establish colonization roads, lots adjacent to these, and along the shore in the Lake Huron townships of Huron, Kincardine, Bruce and Saugeen. One of the earliest "Free Grant" or colonization roads was the Durham Road, cut through the southern Bruce townships in 1848-49, the majority of which were surveyed ca. 1851-1852. The northern townships were surveyed only after the signing of Treaty 72 in 1854.

The earliest European settlers arrived via river routes and from the lake, or along the colonization roads. Prior to the cutting of substantial thoroughfares, access to the Bruce was otherwise via Indigenous land trails or waterways. The latter were dotted with small taverns and inns, strategic stopping points for families heading north and westward from earlier settled counties to the south. The earliest foci for settlement were the Lake Huron shores, settlement roads, river mouths and riverside locales that made effective mill sites and strategic crossroads. Saw and grist mills were the focal points for some of the earliest communities in Bruce County which by the mid-19<sup>th</sup> century also included taverns, churches, schools, stores and post offices.

The census of 1851 reported that there were no more than 499 recent settler families living in Bruce County, many of whom lived in shanties - small, rough built early pioneer dwellings that were erected to create temporary shelter and meet the Crown requirements for a land grant. The County's population grew quickly into the 1860s, hastened by the construction of a series of stone roads that provided access between the County's various settlements and much improved land travel.

#### 3.2.2 Brant Township

The largest township in Bruce County, Brant Township was originally surveyed by A.P. Brough in 1848.<sup>10</sup> Like the Township of Kinloss, the first available lands consisted of free grants in Concessions I and 2 north and south of the Durham Road in 1849. The remainder of the township was made available through a land sale in 1851. Lack of road access to much of the township meant settlement was slow during the early 1850s.<sup>11</sup> The settlement of the northern portions of the township did not materialize until 1853, after Carrick Township was largely occupied. It has been suggested that as many as one third of early settlers in Brant were of German origin.<sup>12</sup>

Originally part of the United Townships, Brant joined with Carrick after dissolution until January 1, 1856, when it became a distinct municipality with a developing hub at Walkerton.<sup>13</sup>

In addition to the hub of Walkerton, several smaller hamlets and villages emerged in the township. Gaffaney's Corners included a tavern, a hotel, and a store in the 1850s.<sup>14</sup> Early communities such as Maple Hill, Dunkeld

<sup>&</sup>lt;sup>9</sup> Robertson 1906 [1960]

<sup>&</sup>lt;sup>10</sup> Robertson 1906 [1960]:293

<sup>&</sup>lt;sup>11</sup> Robertson 1906 [1960]

<sup>&</sup>lt;sup>12</sup> Robertson 1906 [1960]:286

<sup>&</sup>lt;sup>13</sup> Robertson 1906 [1960]:286

<sup>&</sup>lt;sup>14</sup> Robertson 1906 [1960]:289



and Ellengowan, which were built away from the railways that eventually bracketed the township, did not survive, with the exception of the village of Malcolm. Brant's portion of Cargill at the border with Greenock Township and Hanover in Grey County thrived along the railways. Eden Grove (post office established 1875) and Elmwood (post office established 1864) would also enjoy relative success due to the railways.<sup>15</sup>

#### 3.2.3 Town of Walkerton

Walkerton was first settled by Europeans when William Jasper and Edward Boulton arrived in 1849.<sup>16</sup> Walkerton derives its name from Joseph Walker, who arrived at the site in 1850. He developed a dam across the Saugeen to power saw and grist mills in the early 1850s and surveyed many of the original town plots by 1857 around which time the town received its current name. A tannery, oatmeal mill, planing mill, woollen factory, machine shop, and foundry followed over the subsequent decade.<sup>17</sup> Additional and varied manufacturers proliferated in the 1880s when a "municipal bonus" was available to assist developers.<sup>18</sup> In 1857, 1860, and 1865, Walkerton was proclaimed the county town of Bruce County, prior to its incorporation in 1871.<sup>19</sup> Shortly thereafter, the Wellington, Grey and Bruce Railway began operating out of Walkerton providing support to local farms and industry. In 1906-07, the Canadian Pacific Railway (CPR) also completed a branch that terminated in Walkerton after crossing the Saugeen River just north of the Subject Site.<sup>20</sup> Both the Wellington, Grey and Bruce Railway (later the Canadian National Railway) and the CPR gradually discontinued services through Walkerton beginning in the 1930s. Both lines were closed by the late 1980s.<sup>21</sup>

Though Walkerton remained a manufacturing hub into the late-20<sup>th</sup> century, the rise of conservation planning including the development of the Saugeen Valley Conservation Authority in the mid-20th century further refined Walkerton's role as an administrative centre for Bruce County.<sup>22</sup>

In 1999, Brant and Greenock townships and the Town of Walkerton were amalgamated to create the incorporated Municipality of Brockton, whose name was derived from combining those of the amalgamated areas.<sup>23</sup>

### 3.3 Local Property History

The location of the Durham Street Bridge placed it in close proximity to the proliferation of Walkerton during the 19<sup>th</sup> and 20<sup>th</sup> centuries, however, much of the immediately adjacent historical fabric is no longer present.

One of the most expansive of these former developments was the Canada Spool Bobbin Co. factory once located immediately northeast of the current bridge. The company was originally known in Walkerton as Kerr & Harcourt before it briefly relocated to Wiarton in the late-19<sup>th</sup> century. By 1902, the company had returned to Walkerton, obtaining funding for a large complex east of the Saugeen River.<sup>24</sup> The area is now the site of a contemporary set of condominiums.

<sup>&</sup>lt;sup>15</sup> Robertson 1906 [1960]:290-1

<sup>&</sup>lt;sup>16</sup> Robertson 1906 [1960]:294

<sup>&</sup>lt;sup>17</sup> Robertson 1906 [1960]:298

<sup>&</sup>lt;sup>18</sup> Robertson 1906 [1960]:299

<sup>&</sup>lt;sup>19</sup> Robertson 1906 [1960]

<sup>&</sup>lt;sup>20</sup> Cooper n.d.

<sup>&</sup>lt;sup>21</sup> Cooper n.d.

<sup>&</sup>lt;sup>22</sup> Gateman 1979

<sup>&</sup>lt;sup>23</sup> Municipality of Brockton 2015

<sup>&</sup>lt;sup>24</sup> Robertson 1906 [1960]



West of the bridge are two restaurants: a contemporary Tim Horton's on redeveloped industrial land and a converted mid-to-late 20th century garage now The Old Garage Wood Fired Pizza. The Tim Horton's is located on the former site of the R. Truax Son & Company door factory and, earlier, the site of Joseph Walker's original 1852 sawmill.<sup>25</sup> A raceway, originating from the dam to the south, once passed immediately west of the former millsite. In 1871, the sawmill was upgraded by Stephen Noxon and his brothers into a millwork plant. The original building was torn down and replaced in 1913.<sup>26</sup> That plant operated as a door and sash factory until it was closed in 1980.

East and southeast of the bridge are several late 19th or early 20th century residences whose lot fabric was formed by an 1867 subdivision (Plan 7 Walkerton Book 14A, 277). These lots were owned by a succession of mill operators across the river. They included Joseph Walker, John Saylor, Stephen Noxon, and David Moore.<sup>27</sup> In 1890, the last of these owners, Reuben and Phillip Truax sold lots 3,4 and 5 likely marking the development of the separate residences.<sup>28</sup> That same year Reuben Truax's home at 415 Scott Street was completed.<sup>29</sup> The Truaxes retained the property immediately adjacent to the Subject Site, Lots 1 and 2 (103 William Street) until 1896 when it was sold to Joseph Lindsay who later sold it to Amos Dennie in 1921. In 1957, then owner Harry Beninger provided the Saugeen Valley Conservation Authority with an easement to construct a dyke.



#### Image 1: 1850s Walker House on McNab Street, West of Subject Site

<sup>&</sup>lt;sup>25</sup> Truax n.d.

<sup>&</sup>lt;sup>26</sup> Truax n.d.

<sup>&</sup>lt;sup>27</sup> Truax n.d.

<sup>&</sup>lt;sup>28</sup> Ontario Land Registry

<sup>&</sup>lt;sup>29</sup> Brockton Heritage Committee n.d.

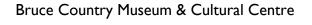


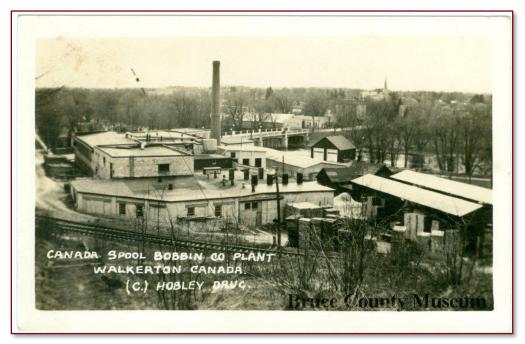
#### Image 2: Aerial Image of Industrial Areas of Walkerton, c.1919-22



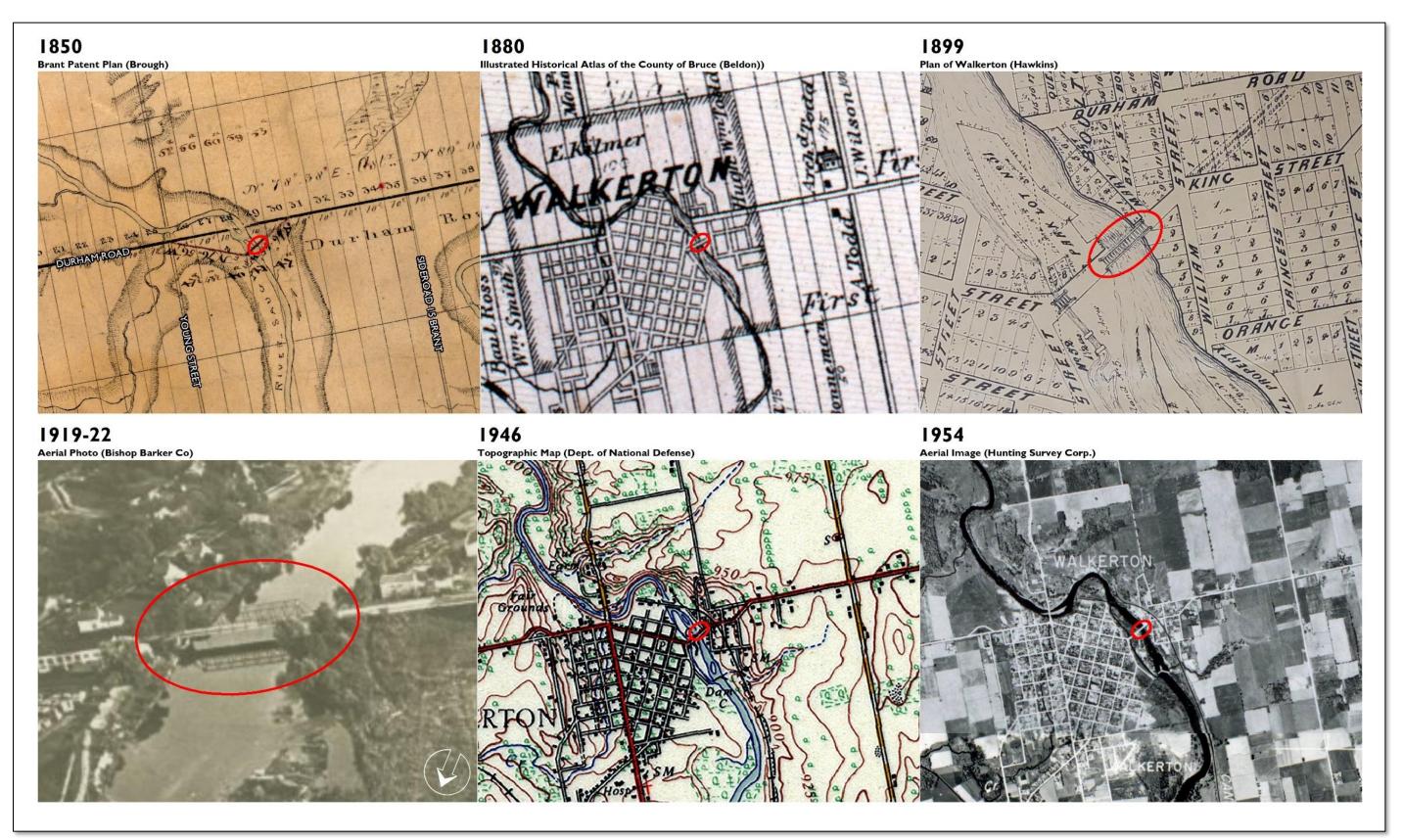
Bruce County Museum & Cultural Centre

Image 3: Canada Spool Bobbin Co. After the Construction of the Current Bridge Visible in Background









Map 3: Historic Maps and Aerial Photograph of Subject Site

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### 3.4 History of the Subject Site

The location of the Subject Site along the historically significant Durham Road made it an integral link with Hanover, Grey County, and other parts of Ontario including Toronto.

While surveying the Durham Road in the late 1840s, A.P. Brough made these notes when he encountered the Saugeen River for the second time (the first being near Hanover):<sup>30</sup>

When the Saugeen is met, the river is crossed obliquely, and at the crossing-point is intersected by an alluvial island standing six feet over the water, thus forming two channels in the river, the east one of which is shallow, with a rapid current, and is 185 feet in width. The west channel is also rapid and is four feet in depth and 87 feet in width. The island is crossed at its northern extremity, and is 177 feet in width; it will form a convenient resting-place for piers in erecting a bridge; the total distance across the river, including the island, is 449 feet.

Until the Durham Road's bridges were added in 1850, many settlers travelling west of Hanover resorted to floating down the Saugeen River as far as its mouth.<sup>31</sup> The original bridge at what would become Walkerton was built during this period by Joseph Walker who had recently arrived at the town that would bear his name.<sup>32</sup> This earliest bridge would have been made of rough-cut logs and timber consistent with the first bridges on much of Ontario's developing road systems. This first bridge was short-lived, being rebuilt by 1855.<sup>33</sup> A bridge is visible in the 1880 H. Belden & Co. map of Brant Township in the same location as the current structure. This location was notable because it departed from the original Durham Road right-of-way eventually resulting in a realignment of the Durham Road to meet the bridge. The orientation of Walkerton's streets is also at an angle relative to the concession roads, resulting in what is now Durham Street running obliquely through Walkerton before resuming its original trajectory once west of town.

Despite the bridge's exclusion from the Brant Township history, an early picture of a wooden iteration of the bridge was included in that book and in a later work by Peter Schmalz (Image 4).<sup>34</sup> By the early 20th century, the bridge had been replaced with a steel truss bridge likely as part of a township-wide program to modernize their bridge inventory (Image 5).<sup>35</sup> In 1929, Walkerton experienced significant flooding which may have impacted this steel bridge's integrity as it would be replaced with the current bridge in the 1930s.<sup>36</sup>

The current bridge dates to 1937, according to the Ontario Department of Highways report of its completion to the legislature the following year.<sup>37</sup> Also known as the East End Bridge and the Walkerton Bridge, this structure continued to link Walkerton's eastern and western/central areas. According to Ontario's Public Accounts records, the bridge construction was likely contracted to W. G. Campbell, Engineering & Construction Co., Ltd. for \$25,000, however, little more is available about this company, other than that they also worked on the Gamesbridge and Beaverton bridges during the late 1920s.<sup>38</sup> Construction on the bridge

<sup>&</sup>lt;sup>30</sup> Quoted in Robertson 1906[1960]:294

<sup>&</sup>lt;sup>31</sup> Robertson 1906[1960]:53

<sup>&</sup>lt;sup>32</sup> Robertson 1906[1960]:49

<sup>&</sup>lt;sup>33</sup> Robertson 1906[1960]:296

<sup>&</sup>lt;sup>34</sup> Gateman 1979

<sup>&</sup>lt;sup>35</sup> Robertson 1906[1960]:287

<sup>&</sup>lt;sup>36</sup> Gateman 1979

<sup>&</sup>lt;sup>37</sup> Ontario Department of Highways 1939

<sup>&</sup>lt;sup>38</sup> Ontario 1930, 1937; Schmalz 1983:43



occurred in 1936-37 with approximately eighty-five percent of construction work carried out by Walkerton residents; this represented a significant relief project in the midst of the Great Depression.<sup>39</sup>

The Durham Street Bridge and County Road No. 4 were the responsibility of the provincial government and the Department of Highways later the Ministry of Transportation. In 1966, the approach slabs were replaced and the bridge deck was re-paved; additional deck repairs were completed in 1995.<sup>40</sup> In 1998, responsibility over this portion of the highway, including the bridge at Walkerton, was transferred from the province to Bruce County.<sup>41</sup>

#### Image 4: Undated Image of Earlier Wooden bridge at the Subject Site's Location



Schmalz 1983b

<sup>&</sup>lt;sup>39</sup> Schmalz 1983a:43

<sup>&</sup>lt;sup>40</sup> B.M. Ross 2019 <sup>41</sup> MTO pers. comm.



#### Image 5: Previous Truss Bridge, 1908

Bruce County Museum & Cultural Centre



### 3.5 Structural Typology

One year after its construction, the Durham Street Bridge was described as:<sup>42</sup>

...a multiple span reinforced concrete rigid frame girder bridge with cantilever end spans and without abutments. The new structure replaces an old steel structure over the Saugeen River on Highway No. 4 in the town of Walkerton.

The Subject Site's general rigid frame design was first conceived in Germany but was popularized by Arthur Hayden in New York State during the 1920s.<sup>43</sup>

The strength of a rigid frame concrete bridge originated from the rigid connection of the vertical abutment walls with the horizontal deck slab, resulting in a shallow midspan section. This bridge type had a unique ability to redistribute loads throughout the structure until it reached a balance, if any one element of the bridge was overstressed. Their immense strength and rigidity provided an additional safety in the structure. The result was a bridge that provided greater structural strength than reinforced concrete girder bridges.

During the 1930s and 1940s, the rigid frame had become an efficient, low-cost choice for grade separations and water crossings across North America.<sup>44</sup> The earliest rigid frame bridges in Canada date to the 1930s.<sup>45</sup>

The T-beam spans include a center drop-in span with half-joints.<sup>46</sup> The historical use of cantilevered approach spans was noted as a common late-1930s practice in a photo history shared by the Ministry of

<sup>&</sup>lt;sup>42</sup> Ontario Department of Highways 1939

<sup>&</sup>lt;sup>43</sup> Mergel and Almansour 2010:1

<sup>&</sup>lt;sup>44</sup> Mergel and Almansour 2010:1

<sup>&</sup>lt;sup>45</sup> Golder Associates 2010:4; University of Waterloo Heritage Resource Centre 2005:8

<sup>&</sup>lt;sup>46</sup> B.M. Ross 2019



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Transportation.<sup>47</sup> Also noted were the embossed concrete stanchions/pillars (Image 6), which were highlighted as a once-common feature on provincially-designed bridges in 1935-37, however, only one other known example, the Jordan Bridge near Beamsville, was said to remain intact. Although the Durham Street Bridge is not recorded on the bridge conservation website, Historicbridges.org, the Jordan Bridge is and its rare concrete posts were identified as contributing to the bridge's aesthetic value.<sup>48</sup> The half-joints in the drop-in span are historically associated with bridge integrity concerns, most notable being the 2006 collapse of the De la Concorde Overpass in Laval, Quebec.<sup>49</sup>

Early images of the Subject Site show ornate lightstands once stood on the large stanchions/pillars where the current wooden planters are located; the original railings have also been replaced (Image 6-7).<sup>50</sup>

#### Image 6: Current Bridge Shortly After Construction, late 1930s



Bruce County Museum & Cultural Centre

<sup>&</sup>lt;sup>47</sup> Bevers 2004

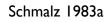
<sup>&</sup>lt;sup>48</sup> Historicbridges.org 2012

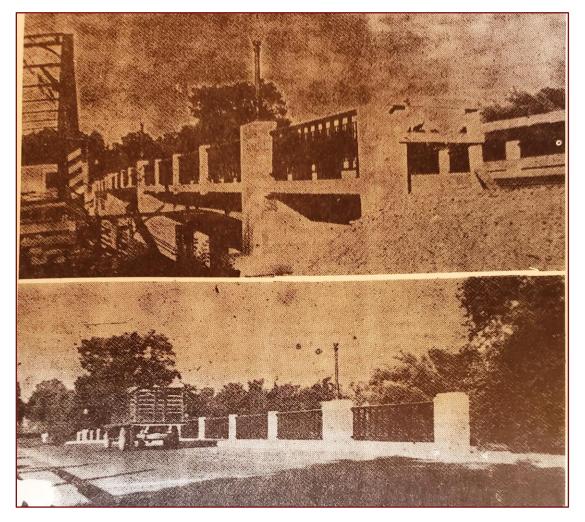
<sup>&</sup>lt;sup>49</sup> B.M. Ross 2019

<sup>50</sup> Schmalz 1983a:43



### Image 7: Current Bridge During and Shortly After Construction, c.1937







### **4 EXISTING CONDITIONS**

A site visit to the Durham Street Bridge was undertaken by TMHC on March 16, 2021. The photographs in this section document the site's current conditions and nearby areas of interest.

Field observations of the bridge structure noted the previously identified embossed stanchions/pillars, 1930sera railings, and concrete posts (Images 22-33). Also noted were several areas of concrete spalling and cracking in the stanchions and post, as well as multiple sites of impact/stress damage along the railings. Deterioration at the site of the half joints was visible from the riverbank (Image 20). A 2019 Condition Report for the bridge's drop-in span half joints concluded that rehabilitation of the bridge would require reconfiguration of the structure with a continuous link to replace these deteriorating half joints which are no longer permitted in current bridge construction due its single load path nature and history of failure. The report recommended replacement of the bridge within five years. The report dismissed reconfiguration as available option since that approach still necessitated significant traffic alteration but only achieved a 20-year service life extension based on the condition of the remaining bridge components. The report also noted current bridge code expects a service life of 75 years and the Durham Street Bridge was already 83 years old at the time of the inspection.

Concrete deterioration was also visible on the underside of the bridge (Images 34 and 35). This deterioration was consistent with previously identified damage along the soffit and north diaphragm (Image 46).

According to B.M. Ross, given the background of sudden collapses of other bridges with half-joint connections, the Ontario Ministry of Transportation has encouraged the removal or replacement of all bridges with this feature. In the interest of public safety, the County of Bruce has chosen bridge replacement as the preferred alternative for this structure.



#### Image 10: Eastward Approach to Durham Street Bridge



Image 9: West Side of Durham Street Bridge





Image II: East Side of Durham Street Bridge







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Image 13: North Side (Interior) of Durham Street Bridge





# Image 14: South Side (Exterior) of Durham Street Bridge with Trail Sign



Image 15: South Side (Interior) of Durham Street Bridge



Image 16: Bridge Soffit

Image 17: North Piers and Stanchions









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Image 18: South Piers

Image 19: Short Cantilevered West Approach Span







Image 25: Planters Box in Former Light Standard Location on Top of Stanchion

Image 20: Drop-in Centre Span with Visible Deterioration of Half-joints



Image 21: Bridge Deck at Drop-in Centre Span

Image 22: Exterior View of Stanchion/Pillar with Embossed Detailing





Image 23: Interior View of Stanchion/Pillar with Embossed Detailing





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## Image 24: Representative Image of Stanchion Deterioration Particularly at Railing Joints



Image 26: Concrete Railing Post



Image 27: Concrete Railing Post Deterioration North Side -One

Image 28: Concrete Railing Post Deterioration North Side -Two



Image 29: Concrete Railing Post Deterioration North Side -Three









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Image 30: Railing Detail

Image 31: Railing Damage Southeast Side





Image 32: Railing Damage Northeast Side

Image 34: Concrete Deterioration - One



Image 33: Railing Impact Damage North Side



Image 35: Concrete Deterioration - Two





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#### Image 36: 85 William Street North

(Northeast of Durham Street Bridge)



Image 37: 103 William Street (Southeast of Durham Street Bridge)





#### Image 40: Durham Street into Historic Walkerton

Image 42: River Traffic Wayfinding Sign on South Side of Bridge

### Image 38: Tim Horton's

(Southwest of Durham Street Bridge)



Image 39: The Old Garage (Northwest of Durham Street Bridge)



(West of Durham Street Bridge)



Image 41: Saugeen Valley Conservation Authority Plaque with Durham Street Bridge in Background





Image 43: Saugeen River Trail Information Signage at West End of Bridge



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## Image 44: Nearest Bridge Upriver – South Durham Road/Concession 2

### Image 46: North Diaphragm and Soffit

B.M. Ross



Image 45: Nearest Bridge Downriver – Yonge Street (Lobie's) Bridge in Walkerton





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### **5 POLICY CONTEXT**

#### 5.1 The Walkerton Community and Bruce County Official Plans

The Municipality of Brockton adopted an Official Plan for Walkerton in 2006, and completed its 5-year review and consolidation in 2017.

Section 4.2 of the Walkerton Community Official Plan identifies the following relevant heritage objectives:<sup>51</sup>

- To identify, protect, preserve and enhance Walkerton's built, landscape and archaeological heritage for its cultural, historic and economic value to the community (4.2.1);
- Encourage private and public sector initiatives for the protection, restoration and enhancement of existing heritage buildings, structures, streetscapes or areas which contribute to the identity, character and history of the Walkerton community, particularly those of historic, architectural, or archaeological significance, pursuant to the *Ontario Heritage Act* (4.2.2a); and,
- All new development permitted by the land use policies and designations of this Plan, and infrastructure projects, shall have regard for cultural heritage resources and encourage, wherever possible, the incorporation of these resources into any plans which may be prepared for such development and/or conserve such resources by removal and documentation. New structures built in the area of these resources shall be designed to reflect the surrounding landscape and built form. Council shall use Site Plan Control to ensure that new development is sited and designed to complement the historic and natural character of the Municipality.

Section 4.2.3a also outlines the qualities of cultural heritage resources of significance to the Municipality including:

- i) Properties, areas or cultural landscapes of historical value or interest, including properties associated with significant historical local, national or international personalities, and properties which serve to provide insights into the history and past development of the Town;
- ii) Properties, areas or cultural landscapes of architectural value or interest including properties representative of a certain style or period of architecture and/or building construction, important landmarks of the Town, and properties or areas which make an important contribution to the streetscape of the community;
- iii) Properties, areas or cultural landscapes which have been identified to contain significant archaeological remnants of prehistoric habitation and/or important archaeological evidence of historic activities;
- iv) Properties, areas or cultural landscapes considered to be important to the Town as a result of their location and setting; and,
- v) Natural features including trees and hedgerows considered to be of significant historical cultural or archaeological value.

The Subject Site also abuts the area known as Historic Walkerton which is specifically referenced in the Official Plan including provisions related to "...the strengthening of linkages between the downtown and the Saugeen River..." (3.2.4e).

<sup>&</sup>lt;sup>51</sup> Municipality of Brockton 2017



The Bruce County Official Plan includes the following policies:<sup>52</sup>

4.10.1.1 Encourage the conservation of land, buildings and sites of historic, architectural and archaeological value.

4.10.1.2 County Council encourages the identification, acquisition, restoration and conservation of the historical, cultural, architectural and archaeological assets of the County.

#### 5.2 Environmental Assessment Act (1990)

This CHER/HIA has been completed as part of the Class EA process in accordance with the *Environmental* Assessment Act. The Act includes within its definition of "environment" (1.1):

(c) the social, economic and cultural conditions that influence the life of humans or a community

(d) any building, structure, machine or other device or thing made by humans.

#### 5.3 Provincial Policy Statement (PPS) 2020

Deriving authority from the *Planning Act*, the PPS 2020 guides planning decisions related to or affecting cultural heritage resources in several sections:

1.7.1 Long-term economic prosperity should be supported by:

e) encouraging a sense of place, by promoting well-designed built form and cultural planning and by conserving features that help define character, including built heritage resources and cultural heritage landscapes.

2.6.1 Significant built heritage resources and significant cultural heritage landscapes shall be conserved.

2.6.3 Planning authorities shall not permit development and site alteration on adjacent lands to protected heritage property except where the proposed development and site alteration has been evaluated and it has been demonstrated that the heritage attributes of the protected heritage property will be conserved.

Within the PPS, conserved is defined as:

...the identification, protection, management and use of built heritage resources, cultural heritage landscapes and archaeological resources in a manner that ensures their cultural heritage value or interest is retained. This may be achieved by the implementation of recommendations set out in a conservation plan, archaeological assessment, and/or heritage impact assessment that has been approved, accepted or adopted by the relevant planning authority and/or decision-maker. Mitigative measures and/or alternative development approaches can be included in these plans and assessments.

#### 5.4 Ontario Heritage Act (2005)

The OHA provides a framework for municipalities in Ontario to ensure the conservation of properties with cultural heritage value or interest, including through the capacity to designate heritage properties:

<sup>&</sup>lt;sup>52</sup> Bruce County 2017



29 (1) The council of a municipality may, by by-law, designate a property within the municipality to be of cultural heritage value or interest if:

(a) where criteria for determining whether property is of cultural heritage value or interest have been prescribed, the property meets the prescribed criteria; and

(b) the designation is made in accordance with the process set out in this section.

Under the OHA, O.Reg. 9/06 (as amended by O.Reg. 596/22) provides the criteria for determining a property's cultural heritage value or interest:

(3) In respect of a property for which a notice of intention to designate it is given under subsection 29 (1.1) of the Act on or after the day subsection 3 (2) of Schedule 6 to the *More Homes Built Faster Act*, 2022 comes into force, the property may be designated under section 29 of the Act if it meets two or more of the criteria for determining whether it is of cultural heritage value or interest set out in paragraphs 1 to 9 of subsection 1 (2).

Designated properties appear on a municipality's register of heritage properties:

27 (1) The clerk of a municipality shall keep a register of property situated in the municipality that is of cultural heritage value or interest.

This register also may include so-called listed properties:

27(3) In addition to the property listed in the register under subsection (2) [designated properties], the register may include property that has not been designated under this Part if,

(a) the council of the municipality believes the property to be of cultural heritage value or interest; and

(b) where criteria for determining whether property is of cultural heritage value or interest have been prescribed for the purposes of this subsection, the property meets the prescribed criteria.

According to Part V of the OHA, a municipality may also undertake studies regarding (OHA s.40), designate (OHA s.40), and develop plans for (OHA s.41) heritage conservation districts (HCDs). These are areas of heritage significance composed of multiple properties.

Part VI of the OHA addresses the protection of archaeological resources.

As of January 2023, at least 25% of properties within the proposed HCD must meet two or more of the O.Reg. 9/06 criteria (as amended under O.Reg. 569/22).

Under the OHA, O.Reg. 10/06 provides the criteria for determining if a property has provincial heritage significance:

(2) A property may be designated under Section 34.5 of the Act if it meets one or more of the following criteria for determining whether it is of cultural heritage value or interest of provincial significance.



#### 5.5 Standards and Guidelines for the Conservation of Historic Places in Canada (2010)

Parks Canada produced the Standards & Guidelines for the Conservation of Historic Places in Canada to provide guidance to governments, property owners, developers, and heritage practitioners across the country. This document outlines the conservation decision process and establishes pan-Canadian conservation principles. Section 4.4 of the Standards & Guidelines provides "Guidelines for Engineering Works, Including Civil, Industrial & Military Works." This section notes that "Civil works, such as bridges, dams and canals, present a different challenge. These works often remain fully functional and so must meet stringent contemporary safety codes that did not exist at the time of their construction. Their continued use is contingent on meeting these standards, often necessitating significant rehabilitation."



### **6 COMMUNITY ENGAGEMENT**

#### 6.1 General Engagement

B.M. Ross published a noticed of commencement on May 7, 2021, beginning a series of public and Indigenous consultations. Public meetings were held on October 4, 2022, and May 1, 2024. An information session for local businesses was also held on May 11, 2023. One comment related to heritage that was received noted the heritage value of the Subject Site's piers. Saugeen Ojibway Nation (SON) was provided with information throughout the project. In addition, the following individuals and organizations were specifically consulted as part of the completion of this CHER/HIA.

#### 6.2 Municipality of Brockton

Staff with the Municipality of Brockton were contacted in March 2021 seeking information about the municipal heritage status of the Subject Site and any other heritage concerns. Sarah Johnson responded noting several listed and designated heritage properties along Durham Street. The designated property at 15 McNab Street (Walker House) was identified as having of particular concern because of its proximity to the Subject Site.

#### 6.3 Ontario Heritage Trust

The Ontario Heritage Trust (OHT) was contacted in March 2021 to determine if the Subject Site or adjacent properties appeared on any OHT-maintained registers. Kevin DeMille responded that there were no such properties.

#### 6.4 Ministry of Citizenship and Multiculturalism

Karla Barboza with the Ministry of Citizenship and Multiculturalism (MCM) was contacted in March 2021 to determine if the Subject Site or adjacent properties were listed as Provincial Heritage Properties. The Ministry indicated that they were not aware of any provincial heritage properties within the study area.

#### 6.5 Ministry of Transportation

The Ministry of Transportation (MTO) was contacted in March 2021 regarding the potential heritage of the Subject Site as part of a previously provincially maintained highway. Michelle Hedges responded indicating the highway had been downloaded to the municipality in 1998, however the bridge itself was likely historically owned by the municipality. Michelle also indicated that MTO had upgraded the bridge in the 1930s and provided a link to history website about the King's Highway.

#### 6.6 Future Engagement

This CHER/HIA should be included in materials shared with the municipality, including the local municipal heritage committee.



### 7 EVALUATION AGAINST O.REG. 9/06 CRITERIA

The Subject Site is not included on the Municipality of Brockton's municipal heritage inventory, nor has it been designated under Part IV or Part V of the OHA. There are no National Historic Sites or Provincial Heritage Properties present on or adjacent to the Subject Site. The bridge does not appear on the Ontario Heritage Bridge List.

Based on the research summarized in Section 3, the following table considers the Subject Site with respect to the OHA's Ontario Regulation 9/06: Criteria for Determining Cultural Heritage Value or Interest.

A property may be designated under section 29 of the OHA if it meets one or more of the following criteria for determining cultural heritage value or interest.

Criterion	Summary of Response
I. The property has design value or physical value	Yes; the property is a rare example of what was
because it is a rare, unique, representative or early	once a common concrete rigid frame T-beam
example of a style, type, expression, material or	bridge design with embossed stanchions/pillars,
construction method.	railing posts, arched T-beams, and cantilevered end
	spans associated with late 1930s provincial bridge
	construction.
2. The property has a design value or physical value	No; while the property is an example of a concrete
because it displays a high degree of craftsmanship or artistic merit.	rigid frame bridge, it does not demonstrate a high
arusuc ment.	degree of craftsmanship or artistic merit relative to
	what is typical for this typology.
3. The property has a design value or physical value	No; while the property is an example of a concrete
because it demonstrates a high degree of technical or scientific achievement.	rigid frame bridge, it does not demonstrate a high
or scientific achievement.	degree of technical or scientific achievement
4. The supercuty has bistopical value on seas sisting	relative to what is typical for this typology.
4. The property has historical value or associative value because it has direct associations with a	Yes; the bridge is historically associated with the provincial response to and local experience of the
theme, event, belief, person, activity, organization or	Great Depression. The immediate vicinity also
institution that is significant to a community.	holds direct associations with the Saugeen River
,	and historic Walkerton industry.
5. The property has historical value or associative	No; the property is not known to yield information
value because it yields, or has the potential to yield,	that contributes to an understanding of a
information that contributes to an understanding of	community or culture.
a community or culture.	
6. The property has historical value or associative	No; the property is not known to demonstrate the
value because it demonstrates or reflects the work	work or ideas of an architect, builder, designer or
or ideas of an architect, artist, builder, designer, or	theorist who is significant to a community.
theorist who is significant to a community.	
7. The property has contextual value because it is	Yes; the bridge is a key access point to the area
important in defining, maintaining or supporting the character of an area.	known as Historic Walkerton.
Character Or all al ea.	

#### Table I: O.Reg. 9/06 Evaluation of the Subject Site



Criterion	Summary of Response
8. The property has contextual value because it is physically, functionally, visually or historically linked	Yes; although historically disassociated with earlier nearby residences and later commercial and
to its surroundings.	condominium developments, the bridge remains
	historically linked with the current alignment of
	historic Durham Street. The bridge is also physically
	and visually linked to the Saugeen River Trail and
	canoe traffic on the Saugeen River.
9. The property has contextual value because it is a	No; the property is not currently known or
landmark.	believed to be considered a landmark.

Based on the research and analysis summarized in this CHER/HIA, the Durham Street Bridge was found to meet four of nine O.Reg. 9/06 criteria (as amended by O.Reg. 569/22) based on its design/physical, historical/associative, and contextual value.

#### 7.1 Durham Street Bridge – Draft Statement of Cultural Heritage Value or Interest

Durham Street Bridge is a five-span, rigid frame concrete T-beam/girder design including a drop-in center span with half-joints and cantilevered end spans. The bridge carries County Road No. 4/Durham Street East over the Saugeen River in Walkerton in the Municipality of Brockton, Bruce County. This route was a particularly important with Hanover, Grey County, and other parts of Ontario including Toronto. Once common in Ontario, Durham Street Bridge is a rare example of an intact reinforced concrete rigid frame girder bridge with embossed concrete stanchions/pillars that was completed in 1937 as a provincial response to and local experience of the Great Depression. It also provided a historic link to Walkerton's development, including its former industrial plants that were located northeast and west of the bridge. The current Durham Street Bridge is the last in a series of bridges that have been aligned at this location since at least 1880.

Heritage attributes associated with the Durham Street Bridge:

- Late 1930s provincial concrete rigid frame T-beam bridge design, including:
  - stylized pile caps/piers;
  - embossed stanchions/pillars;
  - arched T-beams;
  - railing posts; and
  - $\circ$  cantilevered end spans.
- Location at eastern gateway to Historic Walkerton;
- Alignment with historic Durham Street; and
- Physical and visual links to the Saugeen River Trail and canoe traffic on the Saugeen River.



### 8 DESCRIPTION OF PROPOSED DEVELOPMENT

The proposed development at the Subject Site will consist of the rehabilitation of deteriorated concrete and reinforcing steel components on the bridge deck, piers, abutments and sidewalks. The railings will be replaced with a similar design. The location and appearance of the bridge will remain unchanged. The rehabilitation is required after a 2019 Condition Report for the bridge's drop-in span half-joints concluded that the bridge should be replaced within five years. These deteriorating half-joints are no longer permitted in current bridge construction due to their single load path nature and history of failure.

The decorative fish and flower boxes will be replaced on the bridge upon completion of the rehabilitation work.

B.M. Ross had originally considered replacement of the bridge, however that approach was discarded based on community feedback and after a technical report indicated the half-joints could be removed.

#### 8.1 Alternative I – Replacement in the Same Location

Replacement of the existing bridge with a new bridge built to current standards. This alternative would involve the removal of the existing structure and its replacement with a new bridge in the same alignment. This originally preferred alternative was discarded after public input and a technical report indicating the half-joints could be removed.

#### 8.2 Alternative 2 – Rehabilitate the Existing Bridge (Preferred Alternative)

Repair of the existing structure would involve rehabilitation of deteriorated concrete, including half-joints, and reinforcing steel components on the bridge deck, piers, abutments and sidewalks. The railings would be replaced with a similar design. The location and general appearance of the bridge would remain unchanged. This is the preferred alternative.

#### 8.3 Alternative 3 - Do Nothing

This option proposes that no improvements or changes be made to address the identified problem. The result would be eventual structural failure to the point where even temporary repairs could not be made to maintain the bridge and the crossing becomes too dangerous to leave open.



### 9 IMPACT ASSESSMENT

According to the MCM's InfoSheet #5: Heritage Impact Assessments and Conservation Plans, "Any impact (direct or indirect, physical or aesthetic) of the proposed development or site alteration on a cultural heritage resource must be identified. The effectiveness of any proposed conservation or mitigative or avoidance measures must be evaluated on the basis of established principles, standards and guidelines for heritage conservation."

#### 9.1 Durham Street Bridge Impact Assessment

Negative impact on a heritage resource	Assessment for proposal at Subject Site
Destruction of any, or part of any, significant	The proposed rehabilitation is not anticipated to
heritage attributes or features	result in the destruction of any, or part of any,
	significant heritage attributes or features.
Alteration that is not sympathetic, or is	The proposed rehabilitation may result in
incompatible, with the historic fabric and appearance	alterations to heritage attributes that are not
	sympathetic or incompatible with the historic fabric
	and appearance. This potential loss of heritage
	fabric should be addressed by mitigation measures,
	as discussed in Section 10 of this report.
Shadows created that alter the appearance of a	The proposed rehabilitation will not result in
heritage attribute or change the viability of a natural	shadows that alter the appearance of a heritage
feature or plantings, such as a garden;	attribute or change the viability of a natural feature
	or plantings.
Isolation of a heritage attribute from its surrounding	The proposed rehabilitation will not result in the
environment, context or a significant relationship	isolation of a heritage attribute from its surrounding
	environment, context, or a significant relationship.
Direct or indirect obstruction of significant views or	No significant views or vistas within, from, or of
vistas within, from, or of built and natural features	built and natural features related to the Subject Site
	have been identified that would be affected by the
	replacement of the bridge.
A change in land use such as rezoning a battlefield	No change in land use will occur as a result of the
from open space to residential use, allowing new	proposed development.
development or site alteration to fill in the formerly	
open spaces	
Land disturbances such as a change in grade that	The Subject Site is not known to contain
alters soils, and drainage patterns that adversely affect an archaeological resource	archaeological resources. Consultation with Bruce
	County planners would determine the need for
	archaeological assessment.
Other potential impacts	No other impacts have been identified.

#### Table 2: Durham Street Bridge Impact Assessment

Overall, the proposed development may result in the alteration of heritage attributes on the Subject Site. This impact should be addressed by mitigation measures, as discussed in Section 10 of this report.



### **10 CONSIDERED ALTERNATIVES AND MITIGATION STRATEGIES**

While not directly applicable to the Subject Site, the Ministry of Transportation's (MTO) Ontario Heritage Bridge Guidelines (OHBG) (2008) offers a relevant and useful discussion of considerations for conservation and/or mitigation options to direct and indirect impacts to the cultural heritage value or interest of both Subject Sites as identified in Section 7 of this report. The preferred alternative (Section 8, Alternative 3) corresponds with OBHG Option 8 in the tables below.

OBHG Option	Discussion	Result
<ol> <li>Retention of existing bridge with no major modifications undertaken.</li> </ol>	Retaining the existing bridge without major modifications would avoid direct and indirect impacts to the identified heritage attributes in the short term but largely fail to address the primary problem triggering the EA project.	Not viable; not selected as preferred alternative.
	Structural deterioration of the bridge, including its heritage attributes, would continue. Eventually, the bridge would no longer be able to carry vehicular traffic and Durham Street would be forced to close. Therefore, this option, corresponding with Alternative 3 above, is not considered viable.	
2) Restoration of missing or deteriorated elements where physical or documentary evidence (e.g., photographs or drawings) exists for	Repairing the existing bridge including restoration of deteriorated elements would minimize direct and indirect impacts to the identified heritage attributes. Missing heritage attributes, such as new interpretations of original light standards and railings, could also be restored.	Viable; contributes to preferred alternative and suggested as part of mitigation strategy.
their design.	This option was ultimately selected as part of the preferred alternative (Alternative 2) following community feedback and technical reporting supported its viability.	

#### 10.1 Durham Street Bridge – OBHG Conservation and Mitigation Options



0	BHG Option	Discussion	Result
	Retention of existing bridge with sympathetic modification.	Retaining the existing bridge with sympathetic modifications would limit direct and indirect impacts to the identified heritage attributes. This option would also reintroduce components to the existing bridge which may represent new interpretations of previously removed heritage attributes, such as the original railing and light standards.	Viable; contributes to preferred alternative and suggested as part of mitigation strategy.
		This option was ultimately selected as part of the preferred alternative (Alternative 2) following community feedback and technical reporting supported its viability.	
4)	Retention of existing bridge with sympathetically designed new structure in proximity.	Pairing the existing bridge with a new structure in close proximity would avoid direct and indirect impacts to the identified heritage attributes in the short term but fail to address the structural deterioration triggering the EA project.	Not viable; not selected as preferred alternative.
		The land acquisition necessary, changes to the road alignment, deleterious effects of maintaining two crossings, potential erosion concerns, and overall costs contribute to this being a prohibitive and non-viable option. One significant reason for discarding the originally preferred alternative of replacement was public pushback against a temporary bridge in an alternative location.	
5)	Retention of existing bridge no longer in use for vehicular purposes but adapted for a new use (e.g., pedestrian walkways, cycle paths, scenic viewing, etc.).	Retaining the existing bridge in an alternative capacity would avoid direct and indirect impacts to the identified heritage attributes in the short term but fail to address the structural deterioration triggering the EA project. The need for a vehicular bridge at this location would require the construction of a new bridge, including land acquisition and road realignment. A primary reason for discarding the originally preferred alternative of replacement was public pushback against a temporary bridge in an alternative location.	Not viable; not selected as preferred alternative.



0	BHG Option	Discussion	Result
6)	Retention of bridge as a heritage monument for viewing purposes only.	eritage monument for would avoid direct and indirect impacts to the identified	
7)	Relocation of smaller,	require the construction of a new bridge, including land acquisition and road realignment. The existing bridge is neither a small nor single span	Not viable; not
• )	lighter single span bridges to an appropriate new site for continued use (see 4) or adaptive re-use (see 5).	structure and therefore relocation is not a viable option.	selected as preferred alternative.
8)	Bridge removal and replacement with a sympathetically designed structure.	<ul> <li>Demolishing the existing bridge would result in the loss of the identified heritage attributes of the Subject Site.</li> <li>A new structure meeting current minimum width design requirements and accompanied by commemoration of the heritage attributes of the previous bridge possibly including salvaged components would help mitigate the loss of heritage design value.</li> <li>B.M. Ross had originally considered replacement of the bridge as the preferred option (Alternative I), however that approach was discarded based on community feedback and after a technical report indicated the half-joints could be removed.</li> </ul>	Viable; not selected as preferred alternative
	a) Where possible, salvage elements/members of bridge for incorporation into new structure or for future conservation work or displays.	N/A; the existing bridge will be retained. Section 10.2 considers the maintenance and retention of heritage attributes.	N/A
	b) Undertake full recording and documentation of existing structure.	N/A; the existing bridge will be retained therefore full recording and documentation of the structure is not required. The documentation provided in this report, including historic photographs, should be used to inform the maintenance and/or reintroduction of heritage attributes.	N/A

 Table 3: Durham Street Bridge OBHG Conservation and Mitigation Options



As discussed in Section 8, the preferred alternative for Durham Street Bridge is consistent with Options 2 and 3 of the OHBG. Deciding factors included deterioration of bridge components, minimum design requirements, limitations imposed by the bridge's environment contributing to cost and accessibility concerns, and public input regarding the feasibility of alternative and temporary bridge locations.

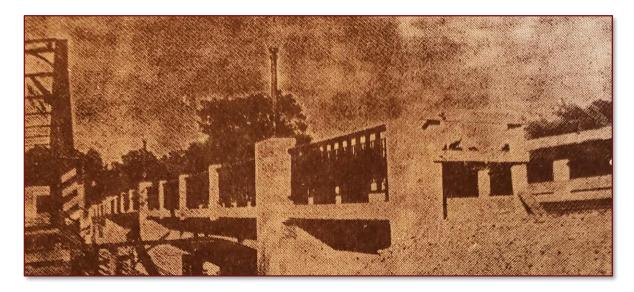
Option 2 and 3 may result in direct impacts (through alteration) to heritage attributes which should be mitigated.

#### 10.2 Mitigation Strategies for Preferred Option

- 1) In keeping with OHBG Option 2, described in Section 10.1, TMHC recommends that where possible and appropriate, the final design of the rehabilitated the Subject Site include restoration of previously removed heritage elements including:
  - a) New railings of a configuration and darker colour resembling the original railings (Image 47); and
  - b) If the preferred reinstatement of more recent flower boxes and/or decorative fish proves unfeasible, consider reinstating ornate light standards resembling the original design (Image 47).

#### Image 47: Original Railings and Light Standards, c.1937

Schmalz 1983a



- 2) In keeping with OHBG Option 3, described in Section 10.1, TMHC recommends that where possible and appropriate, the final design of the rehabilitated the Subject Site include sympathetic modification or repair of any rehabilitated components and especially of heritage attributes, including:
  - a) stylized pile caps/piers;
  - b) embossed stanchions/pillars;
  - c) arched T-beams;
  - d) railing posts; and
  - e) cantilevered end spans.
- 3) The retention and restoration (or enhancement/replacement) of the river traffic sign on the upriver side of the bridge will be necessary to preserve the bridge's link to historically significant river



navigation. Any signage related to the Saugeen River Trail that could be impacted by the replacement should also be preserved and restored upon completion.

4) This report will be submitted to the Bruce County Archives, copying MCM on the accompanying cover letter.

Further discussions with Bruce County are recommended to gauge the desirability of this possible mitigation strategy as a whole as well as the need for additional assessments such as archaeology.

Prior to implementing these recommendations, discussions with the Municipality of Brockton are recommended to gauge the desirability of this mitigation strategy. Resulting changes to this strategy should be forwarded to MCM. The following schedule outlines when each recommendation should be implemented:

- Mitigation Recommendations I and 2 be considered as part of the detailed design of the rehabilitated bridge.
- Mitigation Recommendation 3 be undertaken before and after construction.
- Mitigation Recommendation 4 be completed prior to construction.
- Mitigation Recommendation 5 be considered within one year of project completion.



### **II CONCLUSION**

The Durham Street Bridge is proposed for replacement in the near future due to structural deterioration. This CHER/HIA provided a heritage evaluation of the bridge against the criteria set out by the *Ontario Heritage Act* (*OHA*)'s O.Reg. 9/06, an assessment of the proposed development's impact on identified heritage attributes, and strategies for mitigating that impact.

Evaluation of the Subject Sites against the O.Reg. 9/06 criteria concluded that the Durham Street Bridge meets the criteria on the basis of its design/physical, historical/associative, and contextual value.

In order to address structural deterioration, B.M. Ross considered three alternatives as part of the environmental assessment process which included consultation with local stakeholders:

- Alternative I Replacement in the Same Location
- Alternative 2 Rehabilitate the Existing Bridge
- Alternative 3 Do Nothing

B.M. Ross indicated that the preferred approach was Alternative 2 – Rehabilitate the Existing Bridge.<sup>53</sup> This alternative involves rehabilitation of deteriorated concrete, including half-joints, and reinforcing steel components on the bridge deck, piers, abutments and sidewalks. The railings would be replaced with a similar design. The location and general appearance of the bridge would remain unchanged.

All alternatives were considered using the OHBG and the following mitigation strategies were recommended based on the preferred alternative:

- 1) In keeping with OHBG Option 2, described in Section 10.1, TMHC recommends that where possible and appropriate, the final design of the rehabilitated the Subject Site include restoration of previously removed heritage elements including:
  - a) New railings of a reconfiguration and darker colour resembling the original railings; and
  - b) If the preferred reinstatement of more recent flower boxes and decorative fish proves unfeasible, consider reinstating ornate light standards resembling the original design.
- 2) In keeping with OHBG Option 3, described in Section 10.1, TMHC recommends that where possible and appropriate, the final design of the rehabilitated the Subject Site include sympathetic modification or repair of any rehabilitated components and especially of heritage attributes, including:
  - a) stylized pile caps/piers;
  - b) embossed stanchions/pillars;
  - c) arched T-beams;
  - d) railing posts; and
  - e) cantilevered end spans.
- 3) The retention and restoration (or enhancement/replacement) of the river traffic sign on the upriver side of the bridge will be necessary to preserve the bridge's link to historically significant river

<sup>&</sup>lt;sup>53</sup> A previous version of this report was premised on Alternative I as the preferred alternative, however subsequent public engagement and technical reports resulted in the selection of Alternative 2.



navigation. Any signage related to the Saugeen River Trail that could be impacted by the replacement should also be preserved and restored upon completion.

4) This report will be submitted to the Bruce County Archives, copying MCM on the accompanying cover letter.

Further discussions with Bruce County are recommended to gauge the desirability of this possible mitigation strategy as a whole as well as the need for additional assessments such as archaeology.

Prior to implementing these recommendations, discussions with the Municipality of Brockton are recommended to gauge the desirability of this mitigation strategy. Resulting changes to this strategy should be forwarded to MCM. The following schedule outlines when each recommendation should be implemented:

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- Mitigation Recommendation 3 be undertaken before and after construction.
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## **APPENDIX E**

### ONTARIO STRUCTURAL INSPECTION MANUAL REPORT

Site Number:

#### 0419550

#### Summary Report:

Structure Name: Durl Main Hwy / Road #: Road Name: Cou	nty Road 4	Image: Sector	734 Eastin	2 Km 150.000 A 150.000 A 150.00
Structure Location: 9.0	km West of Hanover	Nex	t Inspection:	2024-01-01
Condition Summary: Rep	lacement recommended Recomm	nended Timing: 1-5 Years Current	Load Limit:	N/A
Repair / Rehabilitation:	icture is in overall fair condition; replaceme	nt recommended.		
Element:	W	ork Required	Period	Cost
	Re	place structure	1 to 5 yrs.	\$9,500,000 \$0 \$0 \$0 \$0 \$0 \$0 \$0
Various	As	sociated Work	Total	\$4,200,000 \$13,700,000
Additional Investigation	د.			
Maintenance Needs:				



Inventory Data:						
Structure Name:	Ourham Street Bridge			Crossing Type:		
Main Hwy / Road #:			On 🔲 Under 📃			
Road Name: C	County Road 4		Northing:	4886734		
Structure Location: 9	0.0 km West of Hanover		Easting:	488486		
Owner(s): C	County Of Bruce		Heritage Designation:	Not Designated		
MTO Region: S	South Western		Road Class:	Arterial		
MTO District: C	Owen Sound		Posted Speed:	50	No. of Lanes:	2
Current County: E	Bruce		AADT:		% Trucks:	
Geographic Twp.: E	BRANT		Special Routes:			
Structure Group: E	Beam/Girder		Surface Type:	Asphalt		
Structure Type: T	-Beam	Detour	Length Around Bridge:		(km)	
Total Deck Length: 6	67.0 (m)		Fill on Structure:	0	(m)	
Overall Str. Width: 1	2.6 (m)		Skew Angle:	0	(Degrees)	
Total Struct. Area: 8	344.2 (sq.m)		Direction of Structure:	East/West		
Roadway Width: 9	9.1 (m)		Min. Vert. Clearance:		(m)	
Number of Spans:	5	E	Bridge Condition Index:	53		
Span Length(s):	5.7 (m) 18.5 (m) 18	.6 (m) 18.5 (m)	5.7 (m)			
MTO Number:				BMROSS F	File Number: BR545	
Historical Data:						
Year Built	: 1930		Last Biennial Inspectio	n: 2020		
Current Load Limit	t:	(tonnes)	Last Evaluatio			
Load Limit By-Law #	t:	L	ast Enhanced Inspectio	n:		
By-Law Expiry Date	:	Enha	nced Access Equipmer	nt:		
Rehabilitation / Inve	estigation History:					
Year Work Type		Descrip	tion		Cost	
2018					0	
2019		Inspection and report	of drop-in joints			0
1995	Reha	bilitated. New abutmer	nts and expansion joints	3		0



0419550

Site Number:

**CI.** 

Date of Inspection: 2022	2-08-23 I	nspection Type: C	SIM Inspectio	n	Next Detailed Inspect	ion: 2024
Inspector: Basi	Leitch					
Inspecting Firm: BMR	oss & Associates Limit	ted				
Others in Party: Andr	ew McGarvey					
Equipment Used: Ham		ng Tape, Chain				
Weather: Partl						
Temperature: 25	°C					
Additional Investigations						
	gation Description			Note	Priority	Estimated Cost
Detailed Deck Condition or Co	orrosion Potential Surve	әу	<u>µ</u>		N/R	\$0
Non-destructive Delamination	Survey of Asphalt-Cov	vered Deck			N/R	\$0
Concrete Substructure Condit	ion Survey				N/R	\$0
Detailed Coating Condition Su	ırvey				N/R	\$0
Detailed Timber Investigation					N/R	\$0
Post-Tensioned Strand Invest	igation				N/R	\$0
Underwater Investigation					N/R	\$0
Fatigue Investigation					N/R	\$0
Seismic Investigation					N/R	\$0
Structure Evaluation					N/R	\$0
Monitoring Deformations, Set	tlements, or Movements	s of Crack Widths			N/R	\$0
					Total Cost	\$0
Overall Structure Notes:						
Bridge Condition Summary:	Replacement recomme	ended	R	ecommended Tim	ning: 1-5 Years	
Overall Comments:	Structure is in overall fa	air condition; repla	cement recom	mended.		
Replacement Value:						
Structure Type:	Bridg	ge Structure	Area:		844 (sq.m)	
Replacement Cost:	\$ 8,018,00	0 Complexit	y Factor:		1	
		Price per	sq. m.:	\$	9,500.00	
Note: Replacement cost cal						ng structure and
the chosen complexity factor	. This cost may not be	a suitable value w	hen budgeting	to replace a struc	ture.	
Suspected Performance De	eficiencies					
		06 Bearing	not uniformly	loaded/unstable	12 Slippery surfaces	
01 Load carrying capacity		07 Jammed	l expansion jo	int	13 Flooding/channel blo	ockage
02 Excessive deformations (	deflections and rotation	ns) 08 Pedestri	an/vehicular h	azard	14 Undermining of foun	dation
03 Continuing settlement		-	ding surface		15 Unstable embankme	ents
04 Continuing movements		10 Surface	ponding		16 Other	

05 Seized bearings

#### **Maintenance Needs**

- 01 Lift and Swing Bridge Maintenance
- 02 Bridge Cleaning
- 03 Bridge Handrail Maintenance
- 04 Painting Steel Bridge Structures
- 05 Bridge Deck Joint Repair
- 06 Bridge Bearing Maintenance

- 11 Deck drainage
- 07 Repair to Structural Steel
- 08 Repair of Bridge Concrete
- 09 Repair of Bridge Timber
- 10 Bailey bridges Maintenance
- 11 Animal/Pest Control
- 12 Bridge Surface Repair

- 13 Erosion Control at Bridges 14 Concrete Sealing 15 Rout and Seal 16 Bridge Deck Drainage 17 Scaling (Loose Concrete or ACR Steel) 18 Other



Site Number:

0419550

Repair / Rehabilitation:			
Element:	Work Required	Period	Cost
	Replace structure	1 to 5 yrs.	\$9,500,000
			\$0
			\$0
			\$0
			\$0
			\$0
			\$0
	Repair	r/Rehabilitation Sub-Total:	\$9,500,000

Associated Work Req	ssociated Work Required:			
Mobilize / Demobilize	included in structure cost			
Approaches		\$0		
Traffic Control / Detours	Road closed, detour	\$2,200,000		
Utilities		\$0		
Right of Way		\$0		
Environmental Study	Class EA	\$300,000		
Engineering		\$1,700,000		
Other		\$0		
Contingencies		\$0		

#### Associated Work Sub-Total: \$4,200,000 Total Cost: \$13,700,000

#### Justification:

Temporary vehicle/pedestrian bridge excluded from costs. Discussion with utility owners required to establish budget for utilities.



Site Number:

0419550

Element Group:	Abutments				Length:	0.9
Element Name:		Abutme	nt Walls		Width:	11.9
Location:					Height:	1
Material:		Cast-in-pla	ce Concrete		Count:	2
Element Type:		Conventio	nal Closed		Total Quantity:	23.8 m2
Environment:		Mod	erate		Limited / Not Inspected:	
Protection System:		No	one			
Condition Data:	Excellent	Good	Fair	Poor	TEV	CEV
		100% (23.8)			\$21,420	\$16,065
Comments:						
Performance Deficiencies	s:					
	Replace structur	e		_		
				R	ecommended Timing:	
Maintenance needs:						
Maintenance work:				N	laintenance Priority:	
Element Data:						
Element Group:		Bar	riers		Length:	67
Element Name:		Railing	Systems		Width:	0.13
Location:					Height:	1.05
Material:		St	eel		Count:	2
Element Type:		Concrete Post	and Steel Panel		Total Quantity:	134 m
Environment:		Mod	erate		Limited / Not Inspected:	
Protection System:		Galva	anized		<b>BCI - Element Condi</b>	tion Values:
Condition Data:	Excellent	Good	Fair	Poor	TEV	CEV
			75% (100.5)	25% (33.5)	\$26,800	\$8,040
Comments:		th bridge repair. C panels damaged			nated. Soffit of concrete po	sts spalled. Two
Performance Deficiencies	5:					
Recommended Work:	Replace structur	e		R	ecommended Timing:	
Maintenance needs:					<b></b>	
Maintenance work:				IV	laintenance Priority:	
Element Data:			<u></u>		• .•	
Element Group:			s/MLE's		Length:	67
Element Name:		Gir	ders		Width:	0.72
_ocation:					Height:	0.9
Material:			ce Concrete		Count:	6
Element Type:			уре		Total Quantity:	1013 m2
Environment:		Bei	nign		Limited / Not Inspected:	]
Protection System:		No	one		<b>BCI - Element Condi</b>	
Condition Data:	Excellent	Good	Fair	Poor	TEV	CEV
			85% (861.05)	15% (151.95)	\$202,600	\$68,884
Comments:	Spalling at north	girder near west	abutment, centre	span joints and	east end diaphragms.	
Performance Deficiencies	s:					
Recommended Work:	Replace structur	e		R	ecommended Timing:	1-5 years
Maintenance needs:				L	l	
Maintenance work:				N	laintenance Priority:	



Site Number:

0419550

Element Group:		De	cks	Length:	67			
Element Name:		Deck Top	- Thin Slab	Width:	12.6			
Location:				Height:				
Material:		Cast-in-place	ce Concrete	Count:	1			
Element Type:		Cast-in-place Cor	crete on Supports	Total Quantity:	844.2 m2			
Environment:		Sev	vere	Limited / Not Inspected:	✓			
Protection System:		No	one	BCI Element Condition Values:				
Condition Data:	Excellent	Good	Fair	Poor	TEV	CEV		
		80% (675.36)	10% (84.42)	10% (84.42)	\$101,304	\$64,835		
Comments:	Covered with asphalt, rating assumed.							
Performance Deficiencies	•							
Maintenance needs:	Replace structure Recommended Timing:							
Maintenance work:	Maintenance Priority:							
Element Data:								
Element Group:		De	cks		Length:	0.15		
Element Name:			nage		Width:	0.15		
Location:		Biai	ilago		Height:	1		
Material:		St	eel	Count:	22			
Element Type:			ain Pipes	Total Quantity:	22 Each			
Environment:			vere	Limited / Not Inspected:				
Protection System:			one	BCI - Element Condition Values:				
Condition Data:	Excellent	Good	Fair	Poor	TEV	CEV		
Condition Data.	Excellent	100% (22)	Fall	FUU	\$0	\$0		
Comments:								
Performance Deficiencies								
Recommended Work: Maintenance needs:	Replace structure Recommended Timing:							
Maintenance work:								
				141	aintenance Priority:			
Element Data: Element Group:		Πο	cks		Length:	64.5		
Element Name:			Thin Slab		Width:	8.28		
Location:				Height:	0.20			
Material:		Cast in play	ce Concrete		Count:	1		
		Cast-III-plat			Total Quantity:	534.1 m2		
Element Type: Environment:		Mad	oroto		534.1 III2			
			erate	Limited / Not Inspected:				
Protection System:	<b>Event</b>	-	-	Deen				
Condition Data:	Excellent	Good	Fair 95% (507.4)	Poor 5% (26.7)	<b>TEV</b> \$64,092	CEV \$24,355		
Comments:	Some small dela	aminations at each				¥2 ,,000		
Performance Deficiencies	:							
Recommended Work:	Replace structure Recommended Timing: 1-5 years							
Maintenance needs:								
Maintenance work:				м	aintenance Priority:			



Site Number:

0419550

Element Data:	1					1			
Element Group:		Joi		Length:	12.6				
Element Name:		Seals/S	ealants	Width:	0.05				
Location:	Height:								
Material:				Count:	4				
Element Type:		Strip	Seal	Total Quantity:	4 Each				
Environment:			rere	Limited / Not Inspected					
Protection System:		No	-		BCI - Element Condition Values:				
Condition Data:	Excellent	Good	Fair	Poor	TEV	CEV			
Comments:	Image: 100% (4)     \$0     \$0       Filled with debris.     \$0     \$0								
Performance Deficiencies:									
	Replace structure Recommended Timing:								
Maintenance needs:									
Maintenance work:				N	laintenance Priority:				
Element Data:		Di			h	44.0			
Element Group:		Pie		Length:	11.9				
Element Name:		Shafts/Colum	ns/Pile Bents	Width:	1.22				
Location:		<b>2</b>			Height:	3.3			
Material:		Cast-in-plac			Count:	4			
Element Type:	Concre	ete Rectangular C		Beam	Total Quantity:	346.4 m2			
Environment:		Ber	lign		Limited / Not Inspected				
Protection System:					BCI - Element Cond				
Condition Data:	Excellent	Good	Fair	Poor	TEV	CEV			
	o	80% (277.12)	15% (51.96)	5% (17.32)	\$311,760	\$205,762			
Comments:		capitals. South pi	er spalling on sou	ith face.					
Performance Deficiencies:									
<b>.</b>	Replace structure Recommended Timing:								
Maintenance needs:					Delevite				
Maintenance work:				IV	laintenance Priority:				
Element Data: Element Group:	Sidewalks/curbs Length: 67								
Element Name:		Sidewalk ar			Length: Width:	67			
Location:		Both		Height:	0.27				
Material:		Cast-in-plac		Count:	2				
Element Type:		Cast-III-plat	ce Concrete		Total Quantity:	170.2 m2			
Environment:		Mode	arata	Limited / Not Inspected					
		No			BCI - Element Condition Values:				
Protection System: Condition Data:	Excellent	Good	Fair	Poor	TEV	CEV			
Condition Data.	Excellent	50% (85.1)	49% (83.4)	1% (1.7)	\$25,530	\$14,578			
Comments:		30 % (03.1)	4378 (03.4)	176 (1.7)	φ23,330	ψ1 <del>1</del> ,570			
Performance Deficiencies:									
Recommended Work:	Replace structure         Recommended Timing:         1-5 years								
Maintenance needs:									
Maintenance work:				N	laintenance Priority:				



Site Number:



1-Facing East

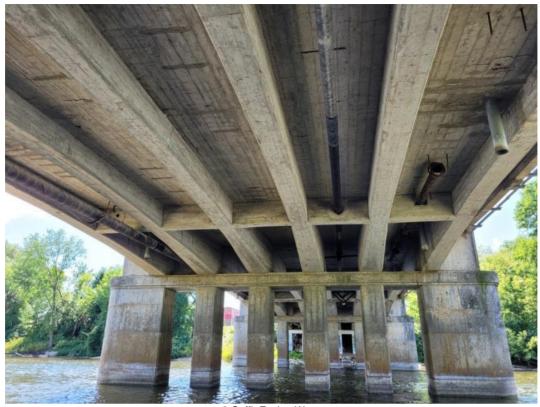


2-South Elevation



Site Number:





3-Soffit Facing West



4-Soffit Facing East



Site Number:

#### 0419550



5-North Elevation



6-South Railing Spall







7-East Abutment and Soffit



8-West Abutment and Soffit







B. M. ROSS AND ASSOCIATES LIMITED Engineers and Planners 62 North Street, Goderich, ON N7A 2T4 p. (519) 524-2641 • f. (519) 524-4403 www.bmross.net

File No. BR545A

June 17, 2019

Jim Donohoe, P. Eng. Transportation & Environmental Services Corporation of the County of Bruce 30 Park St., Box 398 Walkerton, ON N0G 2V0

Dear Sir:

#### Re: Durham Street East Bridge County Structure 0419550 Condition of Half Joints

By way of this letter, we wish to report on the condition of the half-joints for the drop-in span of this bridge. This type of half-joint connection has been proven to be a problem because of sudden collapses with little or no warning. This style of bridge is no longer allowed to be built because it is a single load path structure. That is, failure of one element would result in a collapse. There is no redundancy in the structural support. A good analogy is the weak link in a chain causing a full and sudden breakage of the chain.



Elevation of connection showing support corbel on the right and dapped end of beam on the left

Three examples of bridges demonstrating problems with half joints are as follows:

- 1. De la Concorde Overpass in Laval, Quebec collapsed in 2006, killing 5 people. This tragic event brought the problem to light and resulted in code changes. The style of bridge was discontinued for new designs and authorities were reviewing any existing bridges of this type. The province of Quebec replaced all of these bridges in the following years. The drop-in span of this bridge was 27.4 m.
- 2. The Crediton Bridge in Huron County was reviewed in light of the Laval tragedy. This bridge was found to have significant cracks in the problem area. A rehabilitation was made in 2008 to fuse the problem area in new reinforced concrete and introduce additional support. No collapse had happened and the bridge is still in service. The drop-in span of this bridge was 15.2 m.
- 3. The Margaret Avenue Bridge in Kitchener was closed and demolished in 2013 because it had design features similar to the bridge in Laval. No collapse had happened. This was done even though the bridge had been rehabilitated in 2004 with new drop-in span girders. The drop-in span of this bridge was 11.0 m.

Considering these concerns, the County requested a more thorough investigation and analysis of the half joints of the Durham St. E. Bridge.

#### **Site Investigation**

On April 24, 2019, a detailed inspection was made of just the two half joints of this bridge. For the purposes of the field observations, the bridge was assumed to span east-west, with the river flow from south to north.

Site access was provided with a hydraulic Hydra-Platform from the south side of the bridge only. Aerial electric lines prevented access on the north side. The work platform could be extended to fully access the southerly 4 T-beams and the south face of the 5<sup>th</sup> beam from the south. The north edge beam and the north face of the 5<sup>th</sup> beam (from the south) were not able to be reached. The south face and soffit of the north beam were visible at close range from the access platform.



Access platform before turning under bridge deck

Visual and tactile observations were made by Andrew Ross, P.Eng. Andrew has completed the biennial OSIM inspections for this bridge in recent years and was involved in the 1995 deck repairs.

Ground Penetrating Radar (GPR) observations were made of select vertical elevations of some beam stems and the diaphragms between beams, in order to confirm reinforcing steel. The scans were performed by Canadian Cutting and Coring (Toronto) Ltd.

#### Background

Drawings of the bridge are available and are dated January, 1936. It is assumed that the year of construction is also 1936. The drawings were not marked "as-constructed" to indicate confirmation of the details and dimensions of the drawings. Details of the half-joints show the reinforcing steel and pavement sealant over the joint that included an asphalt plank and filler to prevent water leakage.

	έ C
, Ca Ce C7 Ce.	$C_{5}$ $C_{4}$ $C_{7}$ $C_{7}$ $C_{2}$ $C_{2}$ $C_{1}$ $C_{1$
	2-3, 4F5 5-14, B20-21-22 2 Stirre 12 o.c. Horiz: F3, Vert F4 between ribs F1-3-34 Stirr Horiz, F2-3-34 Vert

Detail from 1936 drawings

In 1966 some repairs were made to the bridge which included replacement of the approach slabs, re-paving the deck including a compression seal and paraplastic joint sealer in the half-joints.

In 1995 the concrete deck was milled and overlaid with new concrete, waterproofing membrane and Class 3 strip seals at the half-joints. Prior to the design of the repairs, a detailed deck condition survey was completed, (Trow 1993). Three concrete compressive cores were taken and showed compressive strengths of 76.9 MPa, 77.7 MPa, and 92.2 MPa. The contract tender was set up forecasting concrete removals and repairs in the deck and end diaphragms of 11 m<sup>3</sup>. Only 5.125 m<sup>3</sup> was paid for this item, indicating that actual conditions were better than forecast. The contract called for milling 10 mm of the original deck and overlaying with 60 mm of new concrete.

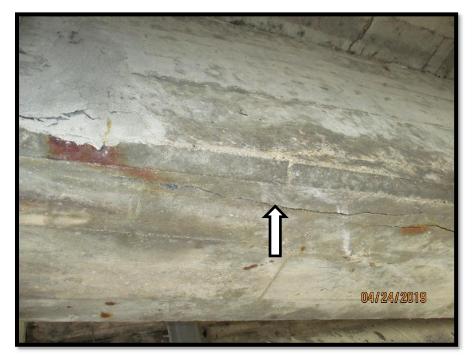
The 1995 repair contract also included covering thin spalls with a fibre-reinforced nonshrink grout (Gemite Fibre-Patch). This was typically used where concrete cover was so thin over the reinforcing steel that even mild rusting of the bars would cause a spall (cover 20 mm or less). At completion, this patch material gave a good appearance, but many repaired areas showed spalls or delaminations within 2 years. The 1995 repairs removed enough concrete from the half-joints to seat the anchorage assemblies of the new expansion joints. There did not appear to be any concentration of concrete deterioration at these joints.

#### **Observations**

From the close observations on April 24, a number of small delaminations and spalls were evident. Cracks were observed that were related to spall or delamination defects. We did not observe any cracks that appeared to be related to principal stresses. That is, no cracks were observed in tensile zones of the beams.

Some small spalls were located at the bottom corners of the half-joints. These corner spalls did expose some of the reinforcing steel of the joints.

The second cantilevered beam (from the south edge) on the west side of the west joint did exhibit longitudinal cracks indicating concrete splitting and spalling due to corrosion of the lower longitudinal reinforcing rod. This may develop into a spall about 1.7 m long, 0.12 m wide and 0.18 m high.



Corner delamination on Beam #2, west side

Field sketches of concrete defects are available in Appendix A.



Typical pop-outs, corner spall from insufficient cover



Soffit of west joint



Typical cantilever beam face in good condition

The exterior faces of the edge girders are exposed to salt spray from the open railing system. These areas exhibit the worst of the delaminations due to rust swelling of the reinforcing steel and the bearing plates.



South exterior beam face – after scaling loose concrete

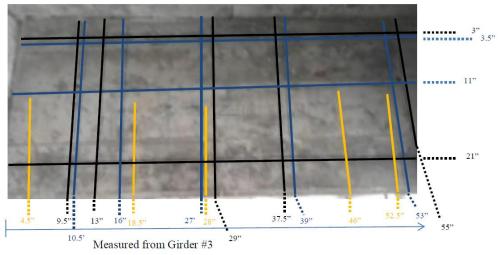
#### **Ground Penetrating Radar**

GPR scans were made of available vertical surfaces in order to confirm reinforcing steel placement. The full report by Canadian Cutting and Coring is available as Appendix B. In total, 6 cross beams (diaphragms) were scanned and two faces of girder stems were scanned.

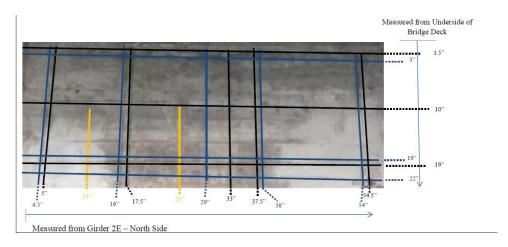
The scans have limitations. The scanning unit cannot detect bars within about 150 mm of inside corner such as exist between beam stems and diaphragms. The scan does not indicate the level of corrosion of the bars.



GPR scan method



Scan results at a diaphragm segment: Black lines: near surface bars Blue lines: far surface bars Yellow Lines: partial height stirrups



Scan results at a beam segment: Black lines: near surface bars Blue lines: far surface bars Yellow Lines: partial height stirrups

The scan results confirm the arrangement of reinforcing bars shown in the 1936 drawings. Although the bar placement is irregular, the total number of bars matches the quantity indicated on the drawings.

#### **Structural Analysis**

A structural analysis was done of the cantilevered corbel of the beams, using the simplified method from the evaluation section of CAN/CSA S6-14, the Canadian Highway Bridge Design Code. A factored shear load was determined from the existing dead loads of the structure, combined with live loads from the prescribed evaluation truck loading for Ontario.

For the analysis, the following material strengths were used: Compressive strength of concrete: 30 MPa. The Trow report measured much stronger values, but it was felt that a typical strength of 30 MPa should be used conservatively and account for some deterioration near the expansion joints. Yield strength of hard grade reinforcing steel: 345 MPa Yield strength of soft grade reinforcing steel: 230 MPa

The factored shear force per beam is 547 kN. The calculated resistance of the beam section and diaphragm section is 829 kN.

The factored bending moment of the corbel cantilever calculates to 109.4 kNm. The combined bending moment resistance of the beam and diaphragm segments of the corbel is 150 kNm.

The bending moment resistance governs. If the strength of the steel bars was reduced by 27% due to corrosion, then the resistance would equal the factored load effects.

The shear and moment methods would have been used at the time of design. The analysis included additional dead load from the deck and sidewalk overlays in 1995 and applied

the live loads as prescribed in the current Bridge Code. Another, more refined analysis would be the strut-and-tie model.

The geometry of the corbel connection lends itself well to strut-and-tie modelling. Preliminary results with this modelling gave results more favourable than the conventional shear and moment methods. To be conservative, the shear and moment values were used.

Details from the drawings indicate that the dimensions and reinforcement for the dapped beam ends are identical to the corbel, but inverted. The webs of the drop-in beams also have some diagonal shear reinforcement.

#### Considerations

In preparing conclusions and recommendations, the following matters were considered:

- The 1936 drawings show asphalt being used to seal the joint against water damage. The 1966 drawings of repairs also show a detail to seal the half-joints against water. The 1995 drawings of repairs show a Class C strip seal used to protect the joint against water. These details demonstrate an effort to keep the half-joints sealed from corrosive elements throughout the entire service life. It can be expected that some leakage has happened in that time.
- 2. Comparing the condition photos from 1993 to those of 2019, there appears to be only minor increase in staining and spalling of concrete in the areas of the half-joints.
- 3. Of the 3 example bridges with half-joint failures, two were solid slab arches with no shear reinforcement in the concrete. The Durham Street East Bridge is made of T-beam sections with significant shear stirrups in the stems of the beams. If there was over-stress in shear, it would most likely show evidence of diagonal cracking on the beam webs. The inspector specifically looked for this pattern of cracking and observed none. The slab style of bridge would have shear cracks hidden within the depth of the slab.
- 4. Despite the hands-on surface observations and the ground-penetrating radar scans, there is no way to visually inspect the deterioration that is happening at the interior surfaces of the joints. It is possible that shear cracks exist within the corbel, but are not evident at the underside.
- 5. The structural analysis indicates that the design is adequate for the current load conditions with no deterioration of reinforcing steel. If the bar section is reduced by 27% or more, the factors of safety would be reduced below recommended values.
- 6. The ground-penetrating radar did confirm the existence of steel reinforcement, where it was expected, based on design drawings. It could not confirm the condition or size of the bars.

### **Conclusions and Recommendations**

- 1. It is our opinion that the half-joint of this bridge is still in a safe condition and no immediate repairs or load restrictions are warranted.
- 2. It is recommended that any Permit Vehicles be reviewed so that the axle load effects on the central drop-in span do not exceed those resulting from the evaluation loads from the Bridge Code. This may allow heavy vehicles over a longer length or may require exclusion of other traffic.
- 3. The half-joint detail is to be avoided because it is a single load path element. For this reason, it is recommended that the County schedule this bridge for replacement within 5 years and do not spend money on rehabilitation.

The recommendation for bridge replacement instead of rehabilitation is also based on the age of the bridge at 83 years. The current bridge code expects a service life of 75 years. The rehabilitation in 1995 was expected to have a service life of about 30 years. A rehabilitation at this time to re-configure the bridge with a continuous link to replace the half joints would likely cost in the range of \$800,000 to \$1,000,000 and require detour of all traffic. This work may only result in a service life extension of about 20 years before other elements of the original bridge require the entire bridge to be replaced with further capital costs and traffic disruptions.



**APPENDIX A** 



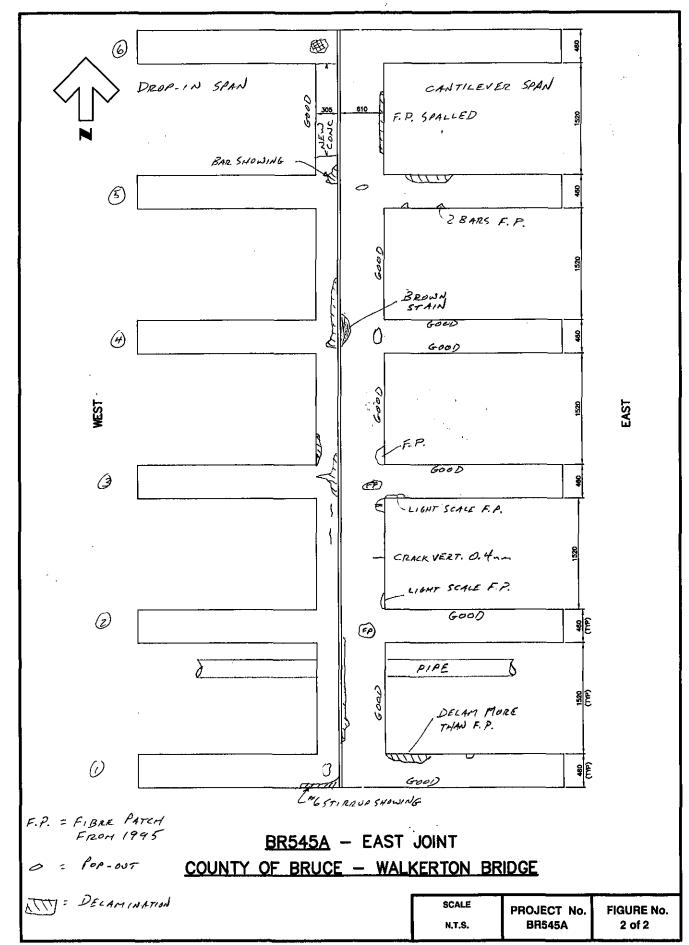
1993 PHOTOS

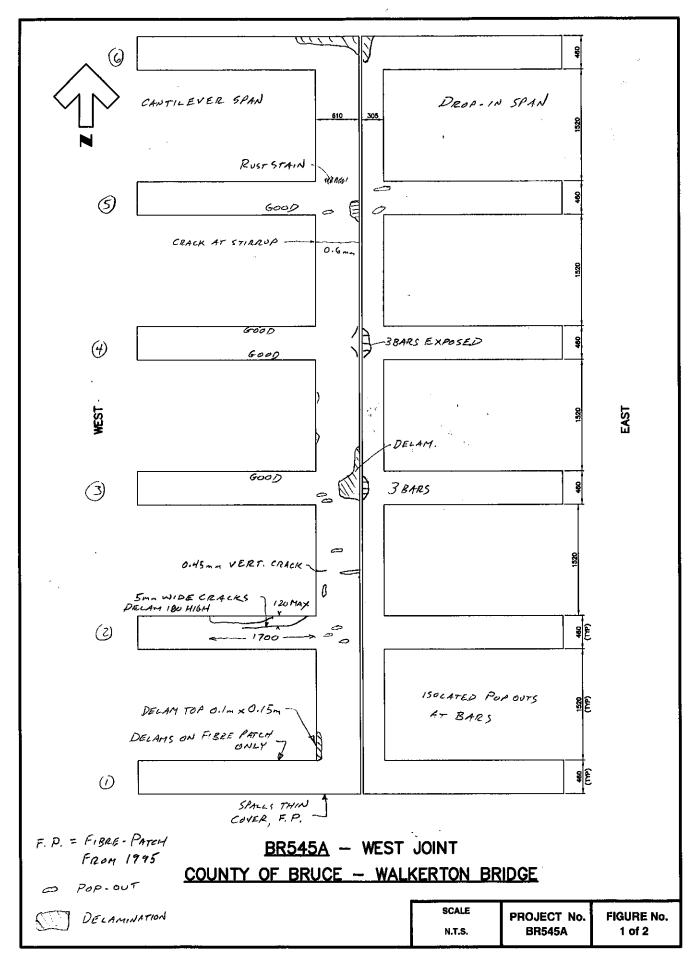
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-



**APPENDIX B** 





**APPENDIX C** 



# **B. M. Ross and Associated Limited** Engineers and Planners 62 North Street N7A 2T4

# GROUND PENETRATING RADAR SURVEY AT DURHAM STREET BRIDGE, WALKERTON ONTARIO.

ATTN: Andrew Ross P.Eng

May 15, 2019





**B. M. Ross and Associates Limited** Engineers and Planners 62 North Street Goderich ON N7A 2T4

ATTN: Andrew Ross P.Eng aross@bmross.net

# **RE: GPR Survey at Durham Street East Bridge, Walkerton ON.**

Mr. Ross,

As requested, Canadian Cutting & Coring (Toronto) Limited (CCC) completed a high frequency Ground Penetrating Radar (GPR) survey at the Durham Street East Bridge in Walkerton Ontario. The purpose of survey was to map the spatial position of embedded objects in concrete. This work was completed on April 24, 2019 and this information will be used by B. M. Ross and Associates Limited (BM Ross) to assist in an assessment of the structure.

# Scope of Work

CCC was retained to collect GPR data, as directed and where accessible along the underside centre section of bridge along two beams (East & West). Access was provided using a bridge platform (hydra-platform) on the south side of the bridge (east-bound lane) and traffic control provided by others.

A total of eight locations were surveyed and each measured approximately 55"x24" in size, all survey areas are referenced with the attached site reference drawing. All GPR anomalies indicative of embedded reinforcing steel bars (rebar) were marked on the surface of the concrete at the time of the survey. In addition to real time GPR interpretation, 1'x1' data grids were used to collect data at three (3) areas for post processing, interpretation and data quality assurance.

# **Equipment & Field Procedures**

The survey was completed using a 1600MHz high frequency GPR operating system designed for concrete inspection and near surface/ shallow geophysical applications. Prior to data acquisition, GPR equipment was calibrated to enhance data quality and data collection/ position accuracy. GPR line data was collected in both directions of each survey area to map the inferred spacing and depth of cover for horizontal and vertical rebar.

# **Survey Results**

All results and observations for the GPR survey was marked on site and at the time of the survey. Upon completion of each GPR survey a photograph of the area and associated markings was taken and used as the main deliverable for this survey (attached).

# Interpretation

# Colour Group

Each linear feature inferred to represent rebar was marked using a specific colour that had similar/ typical depth of cover and location characteristics. Each colour represented a group as follows:



May 15, 2019



Black Lines -	Typically represented rebar that was consistently near surface/ shallow embedment from survey surface.
Blue Lines -	Typically represented rebar that was consistently the deepest embedment from
Dide Lines	survey surface.
Yellow Lines -	Typically represented rebar that was consistently coincident of stirrups in the structure.

Depth of Cover

Depth of Cover determination was provided using a range of depths for each group/ survey area as follows: Vertical Black Lines Vertical Yellow Lines Vertical Blue Lines Horizontal Black Lines Horizontal Yellow Lines Horizontal Blue Lines

Spacing

Spacing for each colour group was measured at the time of the survey. For distance control the spacing was measured from a fixed point/ edge of the survey area (typically a perpendicular edge of Girder/ Beam or underside of bridge deck). Each measuring point is labelled on the associated interpretation map/ photo of the results.

#### Limitations of the Survey

The following conditions and limitations were observed at the time of the survey and may impact the accuracy of these results:

- Surface obstructions limited the amount of data to be collected near any obstruction (adjacent beams and girders, utilities/ pipes etc.).
- Limited survey space to complete/ collect larger 2'x2' Grid mapping techniques.
- Approximate Depth of Penetration of the GPR was observed at approximately 12".
- Corescan Terms and Conditions and manufacturing/ technology limitations may apply.

All interpretations are inferred and solely based on the observations collected at the time of the survey. All results are subject to the Service/ and manufacturing limitations of the equipment and technology used. If you have any questions regarding the information provided in this report please contact the undersigned at your earliest convenience.

Regards,

Bryan Grieve Manager - CORESCAN Division Canadian Cutting & Coring

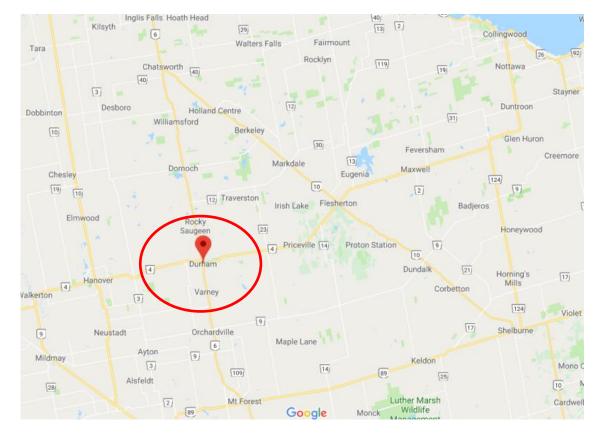




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# Site Map & Photographs















East Beam Joint



West Beam Joint



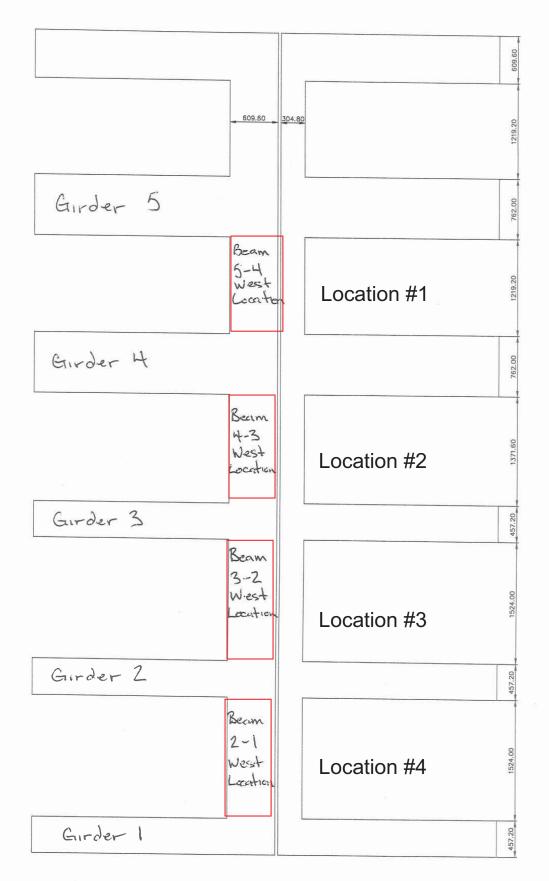
**Canadian Cutting and Coring (Toronto) Ltd.** 77 Ward Road Brampton Ontario L6S 6A8 Tel: (905) 624-1414

# Site Reference Drawings East and West Beam Survey Locations

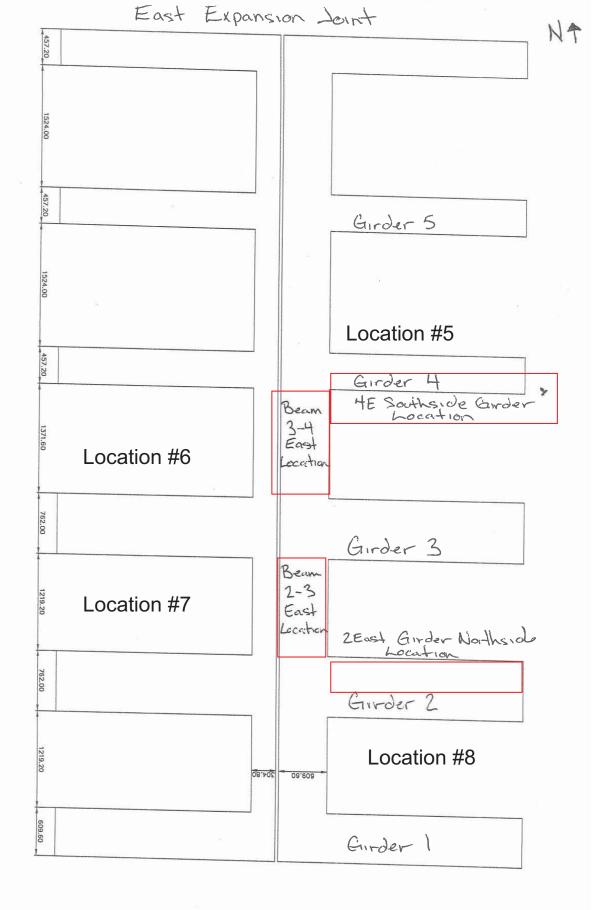


West Expansion Joint

N4









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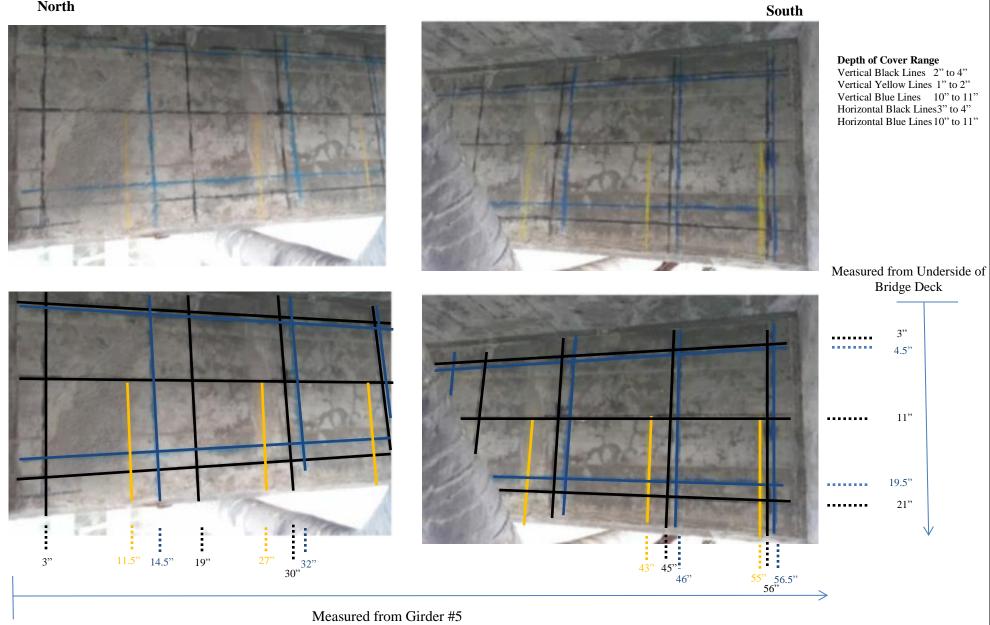
# **Results and Interpretation**





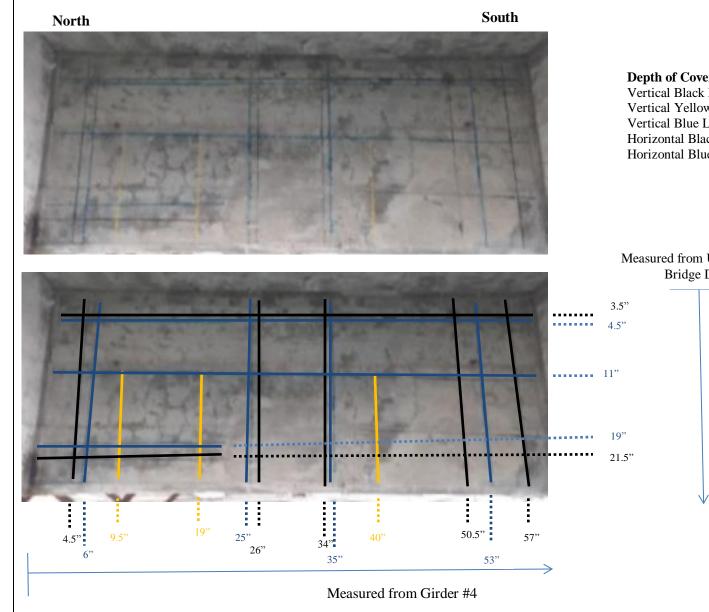
#### Location #1 5-4 West Beam

#### North





Location #2 4-3 West Beam



th of Cover Range	
ical Black Lines	1" to 2"
ical Yellow Lines	2" to 3"
ical Blue Lines	10" to 12"
zontal Black Lines	2" to 3"
zontal Blue Lines	4" to 10"

Measured from Underside of Bridge Deck



Location #3 3-2 West Beam

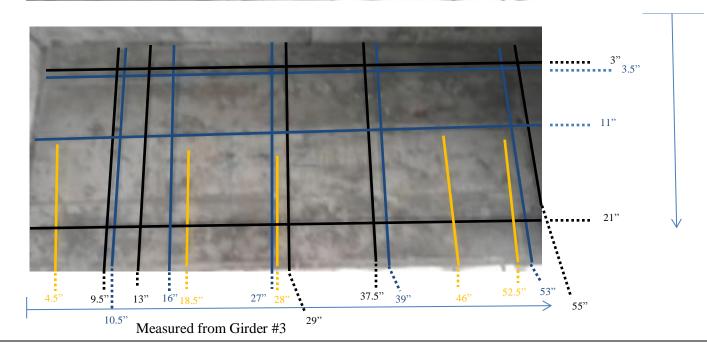


South

#### **Depth of Cover Range**

Vertical Black Lines Vertical Yellow Lines Vertical Blue Lines Horizontal Black Lines Horizontal Black Lines Horizontal Blue Lines

1" to 2" 2" to 3" 10" to 11" 2" to 3" (Top) 5" (Bottom) 6" to 9"



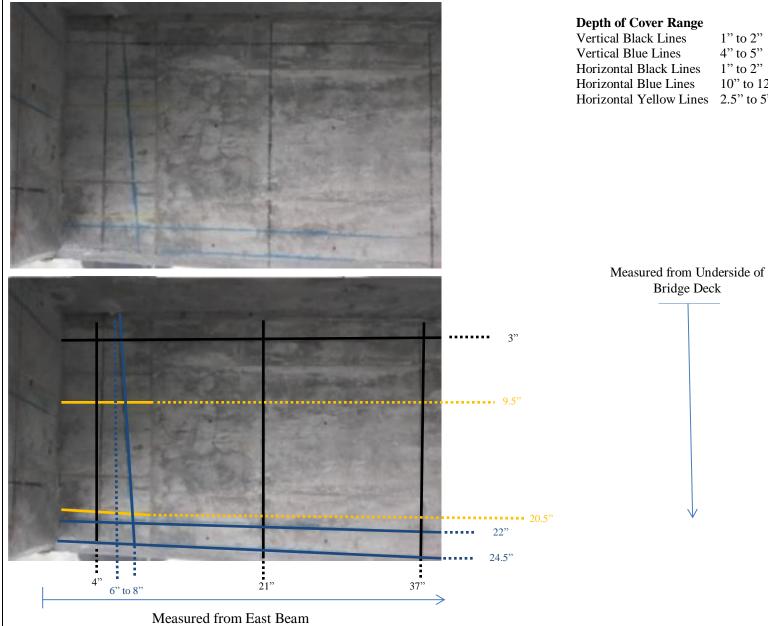


Location #4 2-1 West Beam

North South **Depth of Cover Range** 1" to 2" Vertical Black Lines 1" to 2.5" Vertical Yellow Lines Vertical Blue Lines 10" to 11" 3" to 4" Horizontal Black Lines Horizontal Blue Lines 10" to 11" Measured from Underside of Bridge Deck Note: No Spacing information for horizontal objects was taken at the time of the survey. 1 ٠. **5**4" 48" 48.5" i 21.5" 42.5" 22.5" 7" 30.5"  $\rightarrow$ 31.5" 47.5" 9" Measured from Girder #2



### Location #5 Girder 4 East South Side



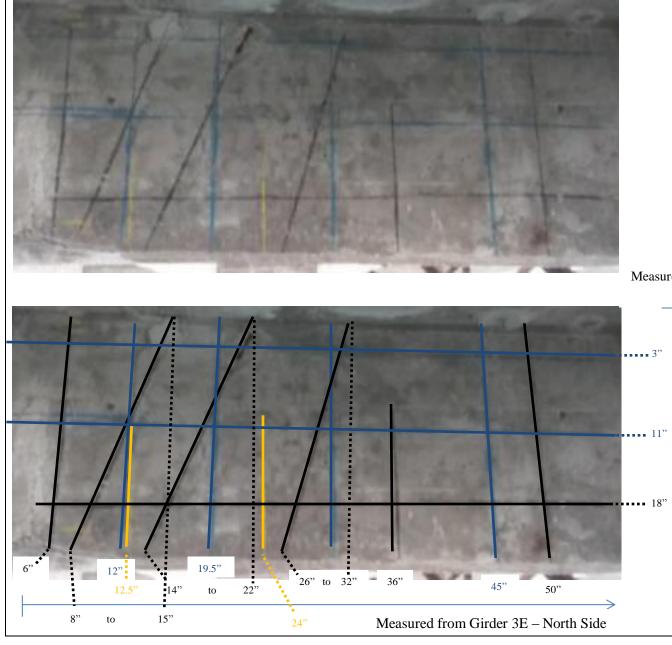
West

East

Vertical Black Lines	1" to 2"
Vertical Blue Lines	4" to 5"
Horizontal Black Lines	1" to 2"
Horizontal Blue Lines	10" to 12"
Horizontal Yellow Lines	2.5" to 5"



Location #6 3-4 East Beam



North

### Depth of Cover Range

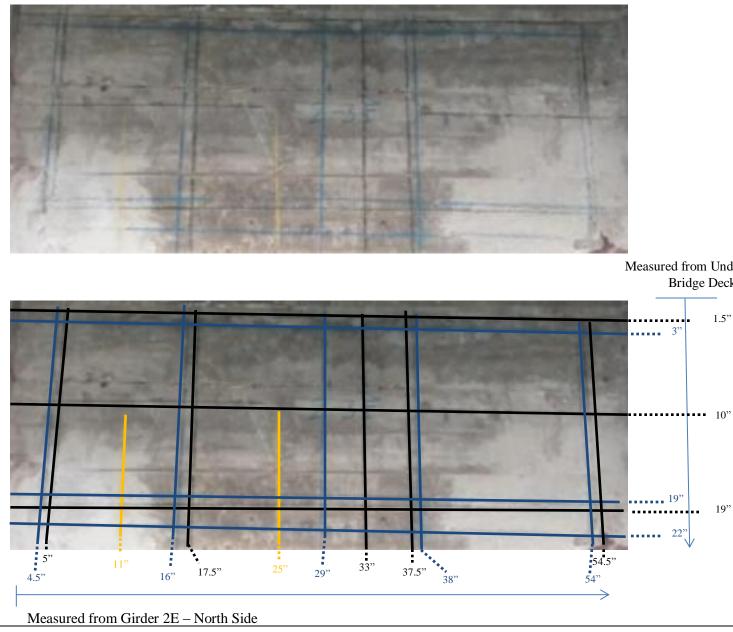
Vertical Black Lines	1" to 2"
Vertical Blue Lines	9" to 11"
Vertical Yellow Lines	2" to 3"
Horizontal Black Lines	3" to 4"
Horizontal Blue Lines	6" to 7"

Measured from Underside of Bridge Deck

South



Location #7 2-3 East Beam



North

### **Depth of Cover Range**

Vertical Black Lines 0.5" to 1.5" Vertical Blue Lines 10" to 11.5" Vertical Yellow Lines Horizontal Black Lines Horizontal Blue Lines

1" to 2" 3" to 4" 8" to 11"

Measured from Underside of Bridge Deck

South



### Location #8 2 East Girder Northside

0.5" to 1"

6" to 7" (at bottom of Girder only)

7" to 8"

West

**Depth of Cover Range** Vertical Black Lines Vertical Blue Lines Could not determine depth of features observed at top of Girder. Horizontal Blue Lines Measured from Underside of Bridge Deck 2" 3" 23" 25" 18" to 1" 7" 37" 9" to 3" Measured from 2-3 East Beam

East

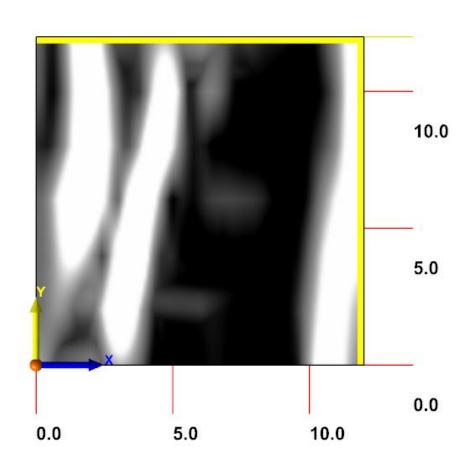


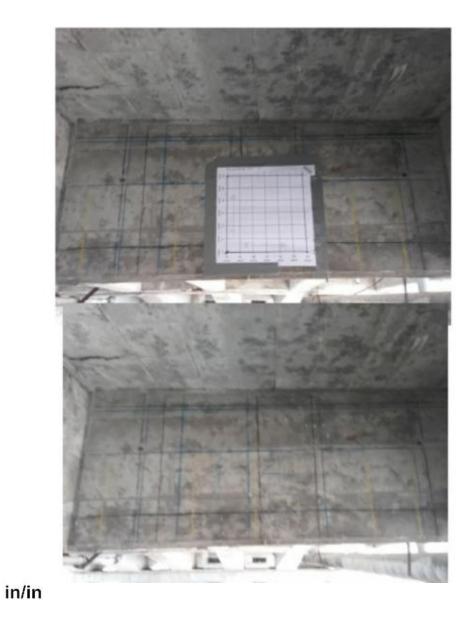
## **GPR Processed Data** Data Acquisition Quality Assurance





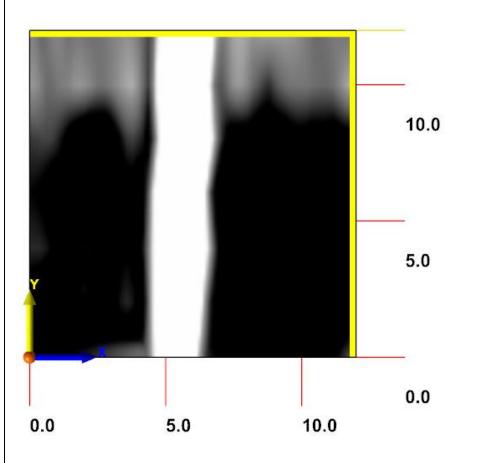
Location #3 3-2 West Beam



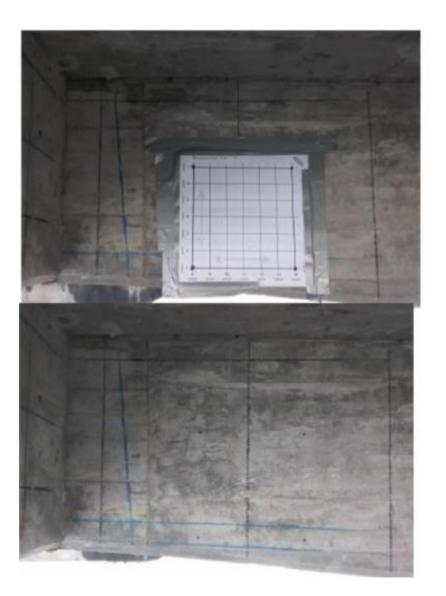




Location #5 Girder 4 East South Side

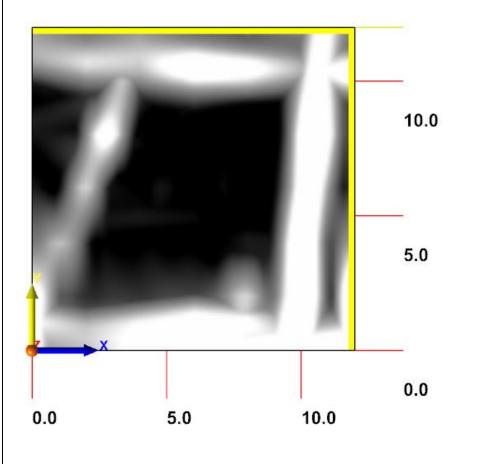


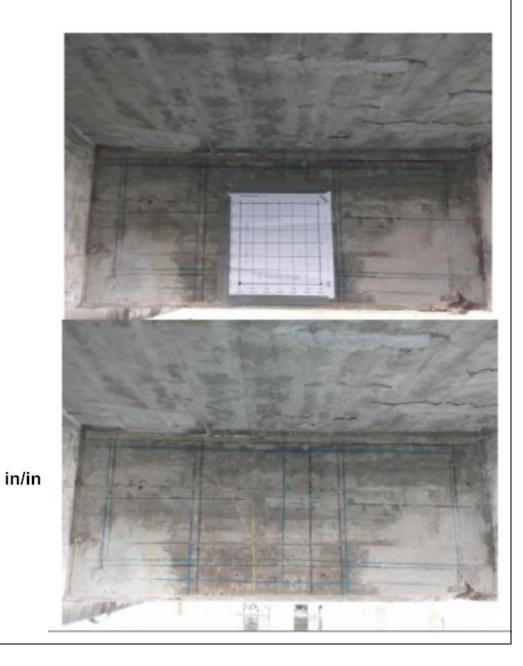
in/in





Location #7 2-3 East Beam







**Canadian Cutting and Coring (Toronto) Ltd.** 77 Ward Road Brampton Ontario L6S 6A8 Tel: (905) 624-1414

# **Field Report**



Canadian Cutting and Corin 77 Ward Rd., Brampton, ON L6 Phone: 905-624-1414 www.cancut.ca		Page <u>1</u> of <u>14</u> W/O# <u>51081</u> Truck# <u>83</u> PO# <u>BR545A</u>
Company Name: <u>B.M</u> Job Location:	. Ross And Associates Limited Company Contact: Durham St Bridge - Walkerton Ontario	Andy
Reason for Survey:	GPR Survey to locate inferred depth and space	cing of rebar.
Description of Work Area	· · · · · · · · · · · · · · · · · · ·	
•	Marker / Crayon 🖌 Stakes / Flags 🗌 Colour: Black, Blue and Ye	
Limitations Obstruction/ of Survey: Limited Space Recommendations: X-Ra NOTE: • CONCRETE SCANNI • PRIVATE LOCATES:	Undetectable Congestion EM Distortion Signal Venetice Hand Dig Remove/De-Energise Utilities NO WORK F ING: To avoid damage stay clear by a minimum of m (3.28 ft) measured horizon	Access to Other: Tration Other: POST SCAN MEETING Other: Ntally on either side of field markings.
PUBLIC UTILITIES: I	Must be marked / cleared by others prior to this survey.	
LEGEND Limits of Work Area Bore Hole / Drill Location SURVEY INTERPRETATION Electrical - E - Water Line - W - Sewer - S - Gas - G - Telecom - T - CATV - TV- Conduit - C - Rebar - R - Unknown Utility - ? -	Survey Results & Sketch (not to scale) High frequency Ground Penetrating Rada concrete bridge structure to locate approx spacing and depth of embedded rebar. Areas of concentration for survey were al expansion joints throughout the centre po The joints run north/south. GPR surveye run through that are also north/south and	ximate inferred long the 2 ortion of the bridge. ed beams that joints
GPR Anomaly – GPR –	that run east/west.	
Hand Dig/	Collected as much data as possible withi	n work window.
SITE FEATURES	Please note that radar unable to accurate	ely detect
Light Standard Transformer Pedestal Valve Hydrant Catch Basin Column Clean Out Fence Line Curb Line - CL -	placement and depth of objects within 4"- surface. Line data collected as well as 3D grids. A surveyed mapped with crayon on beams Line data and 3D data saved. Pictures ta and attached.	All locations and/or girders. Iken of all locations
Wall Line	For Post Scan Meeting and/ or Clarification of this Report contact the Te	ecnnician at:

CORE DRILL RE	PORT		Date	04-24	-2019	Technici	<b>an</b> Colin Forbes	Assistant	
NO. OF HOLES	DIA	WALL	FLOOR	DEPTH	MATERIAL	Login:	7:45am	Login:	
						OnJob:	9:00am	OnJob:	
						OffJob:	6:15pm	OffJob:	
						LogOut:	7:30pm	LogOut:	
						Radar Time	Allotment:		hrs
						Core Drill Ti	me Allotment:		hrs

Any subsequent damage to any utilities based on this survey please call 905-624-1414 immediately.

Accepted By (print): Andy

Signature: \_

Customer Acknowledgement: I have read and understood the Corescan Terms & Conditions and I hereby accept these conditions as stated on the reverse of this report. WHITE COPY – CUSTOMER CANARY COPY – FILE/INVOICING GREEN COPY – PAYROLL



### COMMERCIAL GENERAL LIABILITY FORM CORESCAN DISCLAIMER - TERMS AND CONDITIONS

#### The Service

The Corescan service employs electromagnetic (EM) equipment and technologies for the purpose of locating embedded or subsurface objects for our client or client' representative (Client). This service is provided as a guide and no guarantee is made or implied that it represents anything other than the inferred interpretation of acquired data in an attempt to locate anomalies/ features as requested by the Client.

Canadian Cutting and Coring (Toronto) Limited (The Company), Corescan, affiliated companies and their employees are not liable for any damages that result in the disturbance of any buried or embedded service(s) or objects(s) based on the information provided by this service. Every attempt is made to ensure the accuracy of this service; however, there are limitations that can inherently affect the results of the survey. Therefore it is The Company' responsibility to inform our Client that these results may be rendered inconclusive or inaccurate due to these limitations and not due to The Company' negligence.

#### **Service Limitations - GPR**

The Corescan service includes the use of Ground Penetrating Radar (GPR) which emits high frequency EM radio emissions that are used to interpret and observe features of survey materials either embedded or in the subsurface. Due to the required interpretation, physical properties, operating aspects and multiple conditions outside of our control the results from using this technology may be inconclusive by the following factors (but not limited to):

**Moisture Content/ Conductivity** – water and a survey material with high conductivity (clay, new concrete that hasn't fully hydrated or cured etc...) attenuate GPR signals and may limit signal penetration less than the target depth.

**Restricted Survey Space** - GPR requires adequate survey space to acquire and interpret data, surface obstructions such as walls, pipes etc.... will limit the ability of GPR to locate embedded/target objects.

**Masking** - metal filings, rebar, metal lathe, steel wire mesh, anvil topping etc... may interfere, block and/ or reflect GPR signals away from the target object(s).

Survey Surface - surface must be flat & smooth to allow GPR to couple to the surface and observe subsurface or embedded objects.

**Data Resolution** - objects spaced closely together or within the top 2.5" of the surface may not be individually resolved and/ or may appear as one object (i.e. PVC conduit tied to rebar).

**Congestion** - multiple subsurface or embedded objects spaced closely together may not be isolated/ located and objects below this layer may not be located. **Target Composition** - target objects with a low contrasting dielectric constant such as PVC conduit may not be detected or masked by higher dielectric objects such as rebar/ wire mesh.

Target Geometry/ Orientation - embedded/ subsurface objects that vary in orientation/ direction may not be located (coreflex/ PVC conduit etc...).

#### Service Limitations – EM Utility Locator

The Corescan service includes the use of an EM Utility Locator to locate EM fields that concentrically surround an embedded or buried conductor that can be measured. Due to the required interpretation, physical properties, operating aspects and multiple conditions outside of our control, the results from using this technology may be inconclusive by the following factors (but not limited to):

Distortion/Signal Cancellation - multiple EM fields/ conductors within the work area may distort the target field and result in an inaccurate locate and/or cancellation of the target EM field.

Composition - nonconductive utilities cannot be located unless access to the inside of the pipe/ drain is provided for transmitting sondes.

Restricted Survey Space - the measurement of EM fields requires adequate space to determine the inferred location, distortion and accuracy of the field measurement.

Metal Objects - induction properties of metallic materials may cause distortion or interfere with the target EM field.

Detectable Services - conductors that are not under load and do not have significant current running through it may not be located.

DIRECT ACCESS TO ALL UTILITIES THAT ARE LOCATED WITHIN THE SURVEY AREA MUST BE PROVIDED BY THE CLIENT (ELECTRICAL/ UTILITY ROOMS ETC...).

Electrical Interference – all electrical devises, transformers, surface mounted conductors etc... could interfere with the ability to adequately locate the target field.

Intermitted Power - conductors that require intermitted power supply such as pumps, locks, electric motors, backup power etc... may not be detected at the time of the service.

**Documentation** - All available site drawings, pictures and documentation on the location of all utilities (public & private) within the work area must be provided prior to the start of the survey.

ALL PUBLICLY OWNED UTILITIES MUST BE LOCATED/ CLEARED BY OTHERS PRIOR TO THIS SERVICE.

### <u>Expiry</u>

The results of the Corescan service will not be valid/ expire based on the following:

- 30 days has passed from the day the service was provided.
- Any site markings have been removed or worn down.
- The stakeout/ field report has been lost or removed from the job site.
- The intended scope of work has changed since the completion of this service.

### Indemnification

Based on the information provided by this service the Client must hereby indemnify and holds harmless the Company against any and all claims, demands, actions, suits, losses, associated costs, charges, expenses, damages and liabilities whatsoever.

#### Subrogation

The Client/ clients' representative hereby waive their right to subrogate against The Company with respect to the work order number for this survey for "bodily injury", "property damage", "personal and advertising injury" and "business interruption and/ or any financial losses" for which a claim has been paid under this form & service. Except as otherwise provided in this waiver of subrogation statement, all terms, provisions and conditions of the Commercial General Liability Form shall have full force and effect.

It is understood and agreed upon that The Company, affiliated companies and/ or any employee will not be held liable for any damage to property and / or personal injury / death associated with this service. This service is not valid without the consent of the Client/ Client's representative prior to the commencement of the survey.

### Date: 04-24-2019

Initials: 🔨



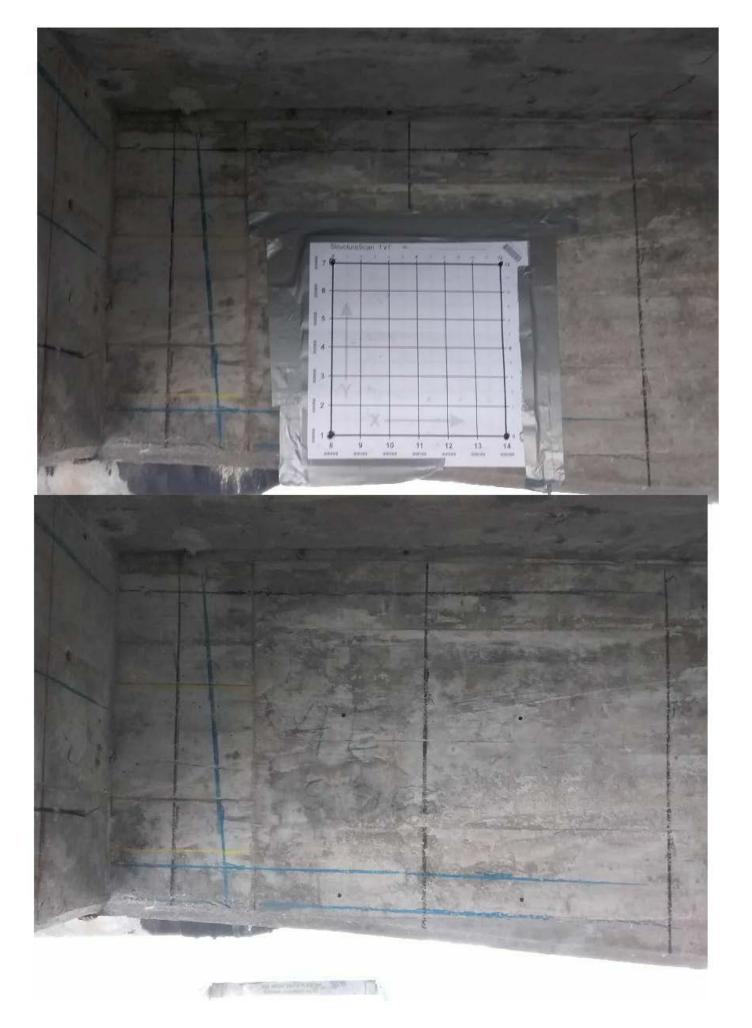


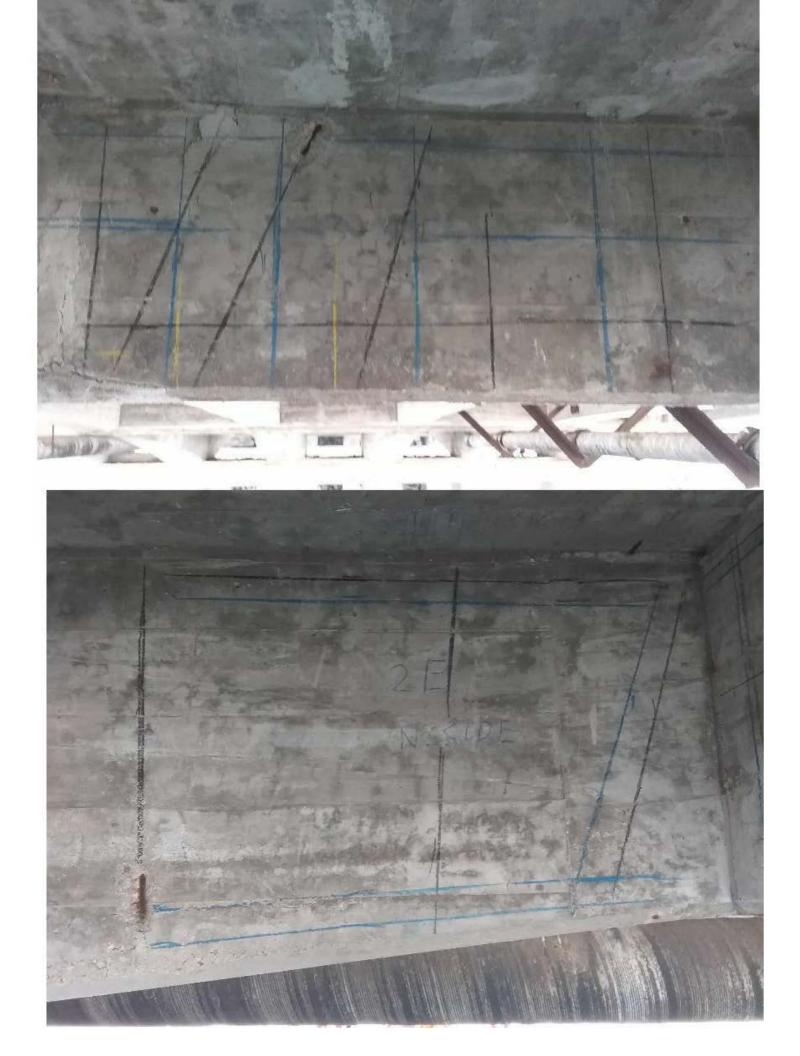














Rebar marked on beams and girders with black, blue and yellow crayon. Black markings are objects that appear closest to face of areas scanned. Blue markings are objects that appear deeper in areas scanned. Yellow markings are those that appear to be stirrup type reinforcing. Please note that in this application radar unable to detect objects deeper than approximately 10"-12". Please also note that locations and depths of rebar are approximate only and that rebar that appears at 1"-2" depth may in fact has less coverage. Location 1: West Beam location 5-4. Line data file 1&2. Depth: Vertical black markings =  $2^{-4}$  depth approximately. Vertical yellow markings =  $1^{-2}$  depth approximately. Vertical blue markings  $= 10^{\circ}-11^{\circ}$  depth approximately. Horizontal black markings = 3"-4" depth approximately. Horizontal blue markings =  $10^{-11}$  depth approximately. Spacing: Horizontal's measured from underside of deck down. Black markings = 3", 11" & 21" approximately. Blue markings =  $4.5^{\circ}$  &  $19.5^{\circ}$  approximately. Vertical's measured from girder 5-4. Black markings = 3", 19", 30", 45" h 56" approximately. Blue markings =  $14.5^{\circ}, 32^{\circ}, 46^{\circ} \& 56.5^{\circ}$  approximately. Yellow markings =  $11.5^{\circ}, 27^{\circ}, 43^{\circ} \& 55^{\circ}$  approximately. Location 2: West Beam location 4-3. Line Data file 3&4. Depth: Vertical black markings =  $1^{-2}$  depth approximately. Vertical blue markings =  $10^{-12}$  depth approximately. Vertical yellow markings =  $2^{-3}$  depth approximately. Horizontal black markings =  $2^{-3}$  depth approximately. Horizontal blue markings = 4"-10" depth approximately.

```
Spacing:
Horizontal's measured from underside of deck down.
Black markings = 3.5" & 21.5"
Blue markings = 4.5", 11", 19"
Vertical's measured from girder 4-3.
Black markings = 4.5",26"-34",50.5" & 57"
Blue markings = 6", 25",35" & 53"
Yellow markings = 9.5",19",29" & 40"
Location 3:
West Beam location 3-2.
Line Data file 5.
3D Grid 1
Depth:
Horizontal black markings = top marking 2"-3" & bottom marking 5"
approximately.
Horizontal blue markings = 6"-9" approximately.
Vertical black markings = 1^{-2^{\circ}} depth approximately.
Vertical blue markings = 10^{-11} depth approximately.
Vertical yellow markings = 2^{-3} approximately.
Spacing:
Horizontal's measured from underside of deck down.
Black markings = 3" \& 21" approximately.
Blue markings = 3.5" & 11" approximately.
Vertical's measured from girder 3-2.
Black markings = 9.5",13",29",37.5" & 55" approximately.
Blue markings = 10.5",16",27",39" & 53" approximately.
Yellow markings = 4.5^{\circ}, 18.5^{\circ}, 28^{\circ}, 46^{\circ} & 52.5^{\circ} approximately.
Location 4:
West Beam location 2-1.
Line Data file 6 & 7.
Depth:
Horizontal black markings = 3^{-4} depth approximately.
Horizontal blue markings = 10^{-1} depth approximately.
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Vertical black markings = 1"-2" depth approximately.
Vertical blue markings = 10"-11" depth approximately.
Vertical yellow markings = 1^{-2.5} depth approximately.
Spacing:
Measured from girder 2-1.
Vertical black markings = 7",21.5",30.5",48" \& 54" approximately.
Vertical blue markings = 9",22.5",31.5" & 47.5" approximately.
Vertical yellow markings = 3.5", 17", 32.5", 42.5", 48.5" & 52.5" approximately.
Location 5:
Girder 4 East South Side.
Line Data file 8.
3D Grid 2.
Depth:
Vertical black markings = 1^{-2^{\circ}} depth approximately.
Vertical blue markings = 4"-5" depth approximately.
Horizontal black markings = 1^{-2} depth approximately.
Horizontal blue markings = 10"-12" depth approximately.
Horizontal yellow markings = 2.5"-5" depth approximately.
Spacing:
Measured from beam to east.
Vertical black markings = 4",21" \& 37" approximately.
Vertical blue marking moves from 6" to 8" away from beam approximately.
Horizontal's measured from underside of deck down.
Horizontal black marking = 3^{-7.5} approximately on angle.
Horizontal blue markings = 22" & 24.5" approximately.
Horizontal yellow markings = 9.5" & 20.5" approximately.
Location 6:
Beam 3-4 East.
Line Data file's 9 & 10.
Depth:
Vertical black markings = 1"-2" depth approximately.
Vertical blue markings = 9"-11" depth approximately.
Vertical yellow markings = 2^{-3} depth approximately.
```

Horizontal black markings = 3"-4" depth approximately. Horizontal blue markings =  $6^{-7}$  depth approximately. Spacing: Horizontal's measured from underside of deck down. Horizontal black marking = 18" approximately. Horizontal blue markings =  $3^{\circ}$  &  $11^{\circ}$  approximately. Vertical's measured from 3E N.Side - 4E S.Side. Vertical blue markings = 12", 19.5" & 45" approximately. Vertical yellow markings = 12.5" & 24" approximately. Vertical black markings = 6", 15"-8" angle, 22"-14" zangle, 32"-26" angle, 36" & 50" approximately. Location 7: East Beam location 2-3. Line Data file 11. 3D Grid 3. Depth: Horizontal black markings =  $3^{-4}$  depth approximately. Horizontal blue markings =  $8^{-11}$  depth approximately. Vertical black markings = .5"-1.5" depth approximately. Vertical blue markings =  $10^{-11.5}$  depth approximately. Vertical yellow markings = 1"-2" depth approximately. Spacing: Measured from 2E North side - 3E South side. Vertical black markings = 5", 17.5", 33", 37.5" & 54.5" approximately. Vertical blue markings = 4.5, 16, 29, 38, 854, approximately. Vertical yellow markings = 11" & 25" approximately. Depth: Measured from underside of deck down. Horizontal black markings =  $1.5^{\circ}$ ,  $10^{\circ}$  &  $19^{\circ}$  approximately. Horizontal blue markings = 3",19" & 22" approximately.

Location 8:

Girder 2 East Northside.

Line Data file 12.

Depth:

Vertical black markings =

.5"-1" depth approximately.

Vertical blue markings = 7"-8" depth approximately.

Horizontal markings just under deck cannot give approximate depth. Horizontal blue marking at bottom of girder approximately 6"-7" depth. Spacing:

Horizontal's measured from underside of deck down

Horizontal black markings = 2" approximately.

Horizontal blue markings = 3",23" & 25" approximately.

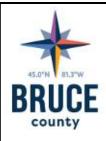
Vertical's measured from 2-3 east.

Vertical black markings = 1"-7" on angle & 18" & 37" approximately.

Vertical blue markings = 3"-9" on angle approximately.

### **APPENDIX F**

### **CONSULTATION PROGRAM**



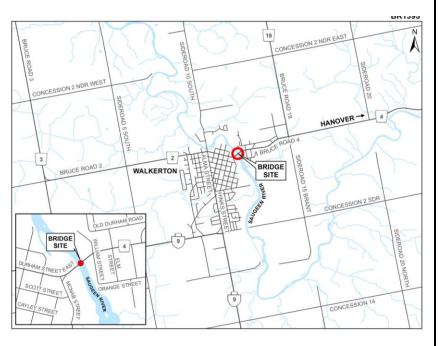
### CLASS EA FOR THE DURHAM STREET BRIDGE MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT COUNTY OF BRUCE

### NOTICE OF STUDY COMMENCEMENT

The County of Bruce has initiated a Class Environmental Assessment (Class EA) process to consider options associated with replacement of the Durham Street Bridge which spans the Saugeen River along Bruce Road 4 in the community of Walkerton, Ontario (as shown on the accompanying key plan). Recent inspections of the structure have identified deterioration with several bridge components. The County is considering alternatives associated with the new bridge design as well as detour alternatives to allow traffic to detour around the site during construction of the new crossing.

### THE ENVIRONMENTAL ASSESSMENT PROCESS:

The planning for this project is following the planning process established for Schedule 'C' activities the Municipal under Class Environmental Assessment (Class EA) document. Schedule 'C' projects must complete all five phases of the Class EA, which is undertaken in order to identify potential environmental impacts associated with the proposal and to plan for appropriate mitigation of any impacts. The process includes consultation with the public, First Nation and Métis communities, project stakeholders and review agencies. This notice is being issued to advise of the start of study investigations.



There will be additional opportunities for public input and involvement as the study progresses.

### **PUBLIC INVOLVEMENT:**

Public input and comments are invited for incorporation into the planning and design of this project and will be received until **March 19, 2021**. Any comments collected in conjunction with the study, will be maintained on file for use during the project and may be included in project documentation. With the exception of personal information, all comments will become part of the public record. For further information regarding this project, please contact the project engineers: B.M. Ross and Associates: 62 North Street, Goderich, Ontario, N7A 2T4. Telephone (Toll Free): (888) 524-2641. Kelly Vader, Environmental Planner (e-mail: kvader@bmross.net), within 30 days from the date of this Notice.

This Notice First Issued February 10, 2021

County of Bruce Jim Donohoe, Engineering Manager



B. M. ROSS AND ASSOCIATES LIMITED
Engineers and Planners
62 North Street, Goderich, ON N7A 2T4
p. (519) 524-2641 <u>www.bmross.net</u>

VIA EMAIL ONLY

File No. BR1395

February 10, 2021

Ministry of the Environment, Conservation and Parks Barb Slattery, EA Coordinator 119 King Street West, 12<sup>th</sup> Floor Hamilton, ON L8P 4Y7

### **RE:** Class EA to Replace the Durham Street Bridge County of Bruce (Walkerton)

The County of Bruce has initiated a Class Environmental Assessment (Class EA) process to consider options associated with replacement of the Durham Street Bridge which spans the Saugeen River along Bruce Road 4 in the community of Walkerton, Ontario (as shown on the accompanying key plan). Recent inspections of the structure have identified deterioration with several bridge components. The County is considering alternatives associated with the new bridge design, as well as detour alternatives to allow traffic to detour around the site during construction of the new crossing.

The planning for this project is following the planning process established for Schedule 'C' activities under the Municipal Class Environmental Assessment (Class EA) document. Schedule 'C' projects must complete all five phases of the Class EA, which is undertaken in order to identify potential environmental impacts associated with the proposal and to plan for appropriate mitigation of any impacts. The process includes consultation with the public, First Nation and Métis communities, project stakeholders and review agencies.

Your organization has been identified as possibly having an interest in this project and we are soliciting your input. Please forward your response to our office by March 19, 2021. If you have any questions or require further information, please contact the undersigned at <u>kvader@bmross.net</u> or by phone at 1-888-524-2641.

Yours very truly

B. M. ROSS AND ASSOCIATES LIMITED

Per

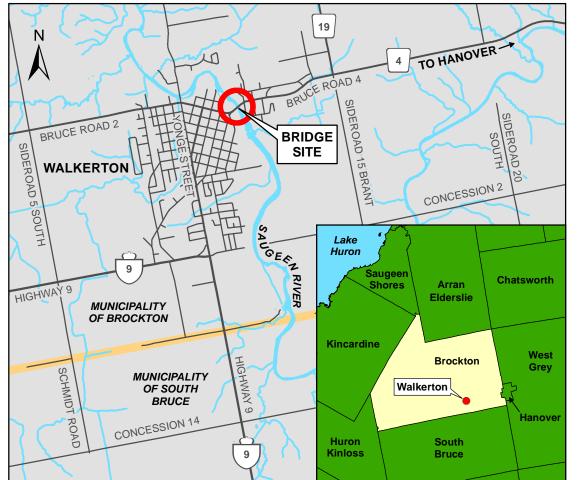
Kelly Vader, MCIP, RPP Environmental Planner

KV:hl Encl.

cc. Jim Donohoe, County of Bruce

Z:\BR1395-Bruce\_County-Replace\_Durham\_St\_Bridge\WP\Class EA\2021 Agency\BR1395 - 2021-02-10-MECP.docx

**MOUNT FOREST** 







DURHAM STREET LOOKING WEST









EXPOSED SOFFIT REINFORCEMENT

SITE PHOTOS TAKEN IN OCTOBER 2018



INCLUDES MATERIAL ©2020 OF THE QUEEN'S PRINTER FOR ONTARIO. ALL RIGHTS RESERVED



AERIAL PHOTOGRAPHY OF PROJECT A SCALE 1 : 3,500

> COUNTY O MUNICIPAL CLASS ENVIRC FOR THE DURHAM COMMUNITY OF WALKERTON, I GENERAL LOC

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	D DURHAM ROAD	R
EIM STREET NORTH DURHAM STREET EAST MULLAM STREET	4	GEORGE STREET
NILLIAM STREET SOUTH		THE THEFT
AREA DF BRUCE		5 50 100 METRES PROJECT No.
ONMENTAL ASSESSMENT	FEB. 09, 2021	BR1395

<b>OF BRUCE</b> ONMENTAL ASSESSMENT M STREET BRIDGE	DATE FEB. 09, 2021	PROJECT No. BR1395
MUNICIPALITY OF BROCKTON CATION PLAN	SCALE AS SHOWN	FIGURE No.

### COUNTY OF BRUCE CLASS EA TO REPLACE DURHAM STREET BRIDGE PROJECT: BR1395

### **REVIEW AGENCY CIRCULATION LIST**

REVIEW AGENCY	INVOLVEMENT
Ministry of the Environment, Conservation & Parks Barb Slattery - EA Coordinator Slattery, Barbara (MECP) <barbara.slattery@ontario.ca></barbara.slattery@ontario.ca>	Mandatory Contact
Ministry of Natural Resources and Forestry - Guelph	Potential Impact on Natural Features
Ministry of Tourism, Culture and Sport – Toronto <u>neil.mackay@ontario.ca</u>	Potential Impact to Cultural Heritage Features
Ministry of Transportation (Owen Sound)	Potential Impact on Transportation Network
Municipality of Brockton John Strader CRS-I (jstrader@brockton.ca)	Adjacent Municipality
Municipality of South Bruce clerk@southbruce.ca	Adjacent Municipality
Bruce County - Planning & Development Department <u>JVanDorp@brucecounty.on.ca</u>	- Proponent - General Information
Grey Bruce Health Unit Jason Weppler (J.Weppler@publichealthgreybruce.on.ca)	Impact on Health
Saugeen Valley Conservation Authority Jayden Shelton <j.shelton@svca.on.ca></j.shelton@svca.on.ca>	Potential Impact on Natural Features
Department of Fisheries and Oceans Canada	Burlington
Bruce Grey Catholic District School Board Transportation Services	Impact on Transportation
Bluewater District School Board	Impact on Transportation

From: Barboza, Karla (MHSTCI) [mailto:Karla.Barboza@ontario.ca]
Sent: February 12, 2021 5:18 PM
To: Becky Adams <<u>badams@bmross.net</u>>; <u>kvader@bmross.net</u>
Cc: Harvey, Joseph (MHSTCI) <<u>Joseph.Harvey@ontario.ca</u>>
Subject: FW: Class EA to Replace the Durham Street Bridge

Hi Becky (and Kelly),

The notice of commencement for the Durham Street Bridge was forwarded to the Ministry of Heritage, Sport, Tourism and Culture Industries (MHSTCI).

Please note that there has been some changes in our unit (see full MHSTCI contact below). For this project, (MHSTCI File 0013726), please continue to send any notices and/or information to Joseph Harvey, MHSTCI Heritage Planner, and me. Joseph will review and provide preliminary comments. You may also want to contact the Ministry of the Environment, Conservation and Parks for an updated Government Review Team List at 416-314-8001 or 1-800-461-6290.

In the meantime, please let us know if you have any questions.

### Regards, Karla

Karla Barboza MCIP, RPP, CAHP | (A) Team Lead, Heritage Ministry of Heritage, Sport, Tourism and Culture Industries Heritage, Tourism and Culture Division | Programs and Services Branch | Heritage Planning Unit T. 416.314.7120 | Email: <u>karla.barboza@ontario.ca</u>

Ministry of Heritage, Sport, Tourism and Culture Industries				
Heritage, Tourism and Cu	ulture Divisi	on		
Name, Position, Agency and Address	Document Form	Phone, Fax and Email	Types of EA Projects to be Circulated	
Karla Barboza, Team Lead(A), Heritage Heritage Planning Unit Programs and Services Branch Ministry of Heritage, Sport, Tourism and Culture Industries 401 Bay Street, Suite 1700 Toronto ON M7A 0A7	1 electronic/ email copy each (preferred)	T: 416-314 7120 <u>karla.barboza@ontario.ca</u>	Receives the initial circulations for all individual and site- specific Class EAs for all regions of the province. The Team Lead will assign to a Heritage Planner for review. EA matters of province-wide significance (including Parent Class EAs and Environmental Assessment policies and guidelines).	
Heritage Planners: Site-specific individual and Class EA projects – Heritage Planners review site-specific EAs impacts on cultural heritage resources.				
Katherine Kirzati, Heritage		T: 416-728-3494	Contact Karla Barboza	

Planner Heritage Planning Unit Programs and Services Branch Ministry of Heritage, Sport, Tourism and Culture Industries 401 Bay Street, Suite 1700 Toronto ON M7A 0A7	email copy each (preferred)	katherine.kirzati@ontario.ca	as initial step prior to circulating documents. All individual and site-specific Class EAs for South-western Ontario which covers upper- and single-tier municipalities from Grey, Wellington, Waterloo, Brant and Norfolk, westward, plus Northern Ontario (Kenora, Rainy River, Thunder Bay, Cochrane Algoma).
Laura Hatcher, Heritage Planner Heritage Planning Unit Programs and Services Branch Ministry of Heritage, Sport, Tourism and Culture Industries 401 Bay Street, Suite 1700 Toronto ON M7A 0A7	1 electronic/ email copy each (preferred)	T: 437-239-3404 laura.e.hatcher@ontario.ca	Contact Karla Barboza as initial step prior to circulating documents. All individual and site-specific Class EAs in Central Ontario, which covers upper- and single-tier municipalities of: Hamilton, Halton, Niagara, Peel, Dufferin; Durham, York, Toronto, Simcoe, Muskoka, Kawartha Lakes, Haliburton, Peterborough and Northumberland.
Dan Minkin, Heritage Planner Heritage Planning Unit Programs and Services Branch Ministry of Heritage, Sport, Tourism and Culture Industries 401 Bay Street, Suite 1700 Toronto ON M7A 0A7	1 electronic/ email copy each (preferred)	T: 416-786-7553 dan.minkin@ontario.ca	Contact Karla Barboza as initial step prior to circulating documents. All individual and site-specific Class EAs in Central Ontario, which covers upper- and single-tier municipalities of: Hamilton, Halton, Niagara, Peel, Dufferin; Durham, York, Toronto, Simcoe, Muskoka, Kawartha Lakes, Haliburton, Peterborough and Northumberland.
Joseph Harvey, Heritage Planner(A) Heritage Program Unit Programs and Services Branch Ministry of Heritage, Sport,	1 electronic/ email copy each (preferred)	T. 613-242-3743 joseph.harvey@ontario.ca	Contact Karla Barboza as initial step prior to circulating documents.

Tourism		
and Culture Industries		
401 Bay Street, Suite		
1700		
Toronto ON M7A 0A7		

From: Becky Adams <<u>badams@bmross.net</u>> Sent: February 12, 2021 4:07 PM To: Mackay, Neil (MMAH) <<u>Neil.Mackay@ontario.ca</u>> Subject: Class EA to Replace the Durham Street Bridge

### CAUTION -- EXTERNAL E-MAIL - Do not click links or open attachments unless you recognize the sender.

To Mr. MacKay,

The County of Bruce has initiated a Class Environmental Assessment to replace the Durham Street Bridge in Walkerton, Ontario.

Please review the attached documents which include project details and a general location plan.

If you have any questions or comments, please contact Kelly Vader, Environmental Planner at kvader@bmross.net.

Kind regards,

Becky Adams B. M. Ross and Associates Limited Engineers and Planners 62 North Street Goderich, ON N7A 2T4

Ph: (519) 524-2641 <u>badams@bmross.net</u> <u>https://link.edgepilot.com/s/f4ff1bb3/H2nnXw98JEaQI2EJbKOM4Q?u=http://www.bmross.net/</u>

### **Kelly Vader**

From:	John Strader <jstrader@brockton.ca></jstrader@brockton.ca>
Sent:	February 16, 2021 9:58 AM
To:	Gregory Furtney; kvader@bmross.net
Cc:	Sonya Watson; Fiona Hamilton
Subject:	RE: Class EA to Replace the Durham Street Bridge

Kelly

Further to Gregg's comment's I am interested in the detour routes, as our roads are not built to withstand that amount of traffic and are not built to full load rated roads. The Municipality may require some kind of compensation for damages to our roads, or possibly help to improve them before the detour takes place. I would like to be involve in these discussions

Thanks John

From: Gregory Furtney
Sent: Tuesday, February 16, 2021 9:48 AM
To: kvader@bmross.net
Cc: John Strader <jstrader@brockton.ca>; Sonya Watson <swatson@brockton.ca>; Fiona Hamilton <fhamilton@brockton.ca>
Subject: Class EA to Replace the Durham Street Bridge

Good Morning Ms. Vader:

Thank you for the opportunity to comment.

The Municipality of Brockton is aware of this project and certainly supports it. This bridge structure is an important part of Brockton, Walkerton specifically. It is a main arterial road in and out of our Municipality. Traffic access around this structure, during construction, will be very important to Brockton and we'd like to participate in that discussion as it will impact and affect both residents and businesses.

Please keep us updated as the project continues. We look forward to working with you and Bruce County on this project.

Most Sincerely,

Gregg Furtney B.Sc., C.Tech, PMP Director of Operations



Ministry of the Environment, Conservation and Parks	Ministère de l'Environnement, de la Protection de la nature et des Parcs
Environmental Assessment Branch	Direction des évaluations environnementales
1 <sup>st</sup> Floor	
135 St. Clair Avenue W	Rez-de-chaussée
Toronto ON M4V 1P5	135, avenue St. Clair Ouest
<b>Tel.</b> : 416 314-8001	Toronto ON M4V 1P5
<b>Fax</b> .: 416 314-8452	<b>Tél.</b> : 416 314-8001
	<b>Téléc.</b> : 416 314-8452

365-366-8185 Via email only

February 26, 2021

Ms. Kelly Vader BM Ross and Associates

Jim Donohoe Bruce County

### Re: Response to Notice of Commencement Durham Street Bridge, Walkerton, Bruce County

This letter is in response to the Notice of Commencement for the Durham Street Bridge Environmental Assessment issued by Bruce County. The Ministry of the Environment, Conservation and Parks (MECP) acknowledges that Bruce County will follow the requirements for Schedule "C" projects in the identification and assessment of alternatives associated with the replacement of the Durham Street Bridge which spans the Saugeen River along Bruce Road 4 in the community of Walkerton due to deterioration of this structure.

In the completion of this environmental study report (ESR) it is expected that the County will consider impacts to source protection, climate change adaptation and mitigation and impacts to species at risk and their habitats. It is also expected that the ESR will include commitments to utilize best management practices for works in and around surface water during any work (i.e. demolition and repairs, reconstruction) that will be undertaken. Similarly, the ESR should describe how demolition waste will be addressed. Resources to assist in meeting these expectations are included with this letter.

The Crown has a legal duty to consult Aboriginal communities when it has knowledge, real or constructive, of the existence or potential existence of an Aboriginal or treaty right and contemplates conduct that may adversely impact that right. Before authorizing this project, the Crown must ensure that its duty to consult has been fulfilled where such a duty is triggered. Although the duty to consult with Aboriginal Peoples is a duty of the Crown, the Crown may delegate procedural aspects of this duty to project proponents while retaining oversight of the consultation process.

Your proposed project may have the potential to affect Aboriginal or treaty rights protected under Section 35 of Canada's *Constitution Act* 1982. Where the Crown's duty to consult is triggered in relation to your proposed project, the MECP is delegating the procedural aspects of rights-based consultation to you through this letter. The Crown intends to rely on the delegated consultation process in discharging its duty to consult and maintains the right to participate in the consultation process as it sees fit.

Based on information you have provided to date and the Crown's preliminary assessment you are required to consult with the following communities who have been identified as potentially affected by your proposed project:

- Chippewas of Nawash First Nation\*
- Saugeen First Nation\*
  - \*These communities have indicated that they wish our notices to be provided to the SON Environment office with a copy to the Chiefs of both communities.
- Six Nations of the Grand River (Both Six Nations Elected Chief and Council and the Haudenosaunee Confederacy Chiefs Council)

Steps that you may need to take in relation to Aboriginal consultation for your proposed project are outlined in the "Code of Practice for Consultation in Ontario's Environmental Assessment Process" which can be found at the following link: <u>https://www.ontario.ca/document/consultation-ontarios-</u> <u>environmental-assessment-process</u> Additional information related to Ontario's Environmental Assessment Act is available online at: www.ontario.ca/environmentalassessments

You must contact the Director of Environmental Approvals and Permissions Branch under the following circumstances after discussions with the communities identified by MECP:

- Aboriginal or treaty rights impacts are identified to you by the communities
- You have reason to believe that your proposed project may adversely affect an Aboriginal or treaty right
- Consultation has reached an impasse
- A Part II Order request or elevation request is expected

The Director of the Environmental Assessment and Permissions Branch can be notified either by email with the subject line "Potential Duty to Consult" by mail, email or fax at the addresses provided below:

Email: <u>enviropermissions@ontario.ca</u>

	Subject: Potential Duty to
	Consult
Fax:	416-314-8452
Address:	Environmental Approvals and Permissions Branch 135 St. Clair Avenue West,
	1 <sup>st</sup> Floor Toronto, ON, M4V 1P5

The MECP will then assess the extent of any Crown duty to consult and will consider whether additional steps should be taken, including what role you will be asked to play in them.

Royal Assent was given on July 22<sup>nd</sup> to Bill 197 which made changes to the provincial environmental assessment process. Proponents are still required to submit a Notice of Completion providing a minimum 30-day period during which documentation may be reviewed and comment and input can be submitted to the Proponent.

Now however, the Notice of Completion is to advise that outstanding concerns are to be directed to the proponent for a response, and that in the event there are outstanding concerns regarding **potential adverse impacts to constitutionally protected Aboriginal and treaty rights,** Part II Order requests on those matters should be addressed in writing to:

Minister Jeff Yurek Ministry of Environment, Conservation and Parks 777 Bay Street, 5<sup>th</sup> Floor Toronto ON M7A 2J3 minister.mecp@ontario.ca

and

Director, Environmental Assessment Branch Ministry of Environment, Conservation and Parks 135 St. Clair Ave. W, 1<sup>st</sup> Floor Toronto ON, M4V 1P5 ClassEAnotices@ontario.ca

Please note that the County cannot proceed with any of the projects until at least 30 days after the end of the comment period provided for in the Notice of Completion. Further, the County may not proceed after this time if:

- a Part II Order request has been submitted to the ministry regarding potential adverse impacts to constitutionally protected Aboriginal and treaty rights, or
- the Director has issued a Notice of Proposed order regarding some aspect of the project.

If other concerns with the ESR are made known to the minister, or determined following a review of the ESR, the Minister reserves the right to issue an

order on his or her own initiative within a specified time period. Within the 30 days following the Notice of Completion, the Director would first issue a Notice of Proposed Order to the City if the Minister is considering an order for the project. At this time, the Director may request that additional information be submitted. Once the requested information has been received, the Minister will have 30 days within which to make a decision or impose conditions on your project.

Please note that it is now the Ministry's practice to review all Schedule "C" ESRs. Therefore, would you please provide a draft of the ESR to the ministry for review and provide a minimum of 30 days for our review and comment.

If you have any questions or require clarification on any of the points provided herein, please contact Mark Badali, the REAC that has taken over for all EA and land use planning within the ministry's Southwest Region.

With best regards,

Barbara Slattery

EA/Planning Coordinator Encl.

# **Alex Jackman**

From:	Mark Coleman <mcoleman@brockton.ca></mcoleman@brockton.ca>
Sent:	March 10, 2021 2:07 PM
То:	Kelly Vader
Subject:	RE: Class EA to Replace the Durham Street Bridge

We would likely be interested in new planters on the bridge and continue with the fish. We do not do winter maintenance on the trail, however it may be suggested in the public consultation process/update of our Master Recreation Plan later this year.

Mark Coleman Director of Community Services Phone: 519-881-0625 Ext. 202 Email: <u>mcoleman@brockton.ca</u>

Municipality of Brockton, Parks and Recreation 290 Durham street West, P.O. Box 850, Walkerton, ON NOG 2V0

Toll-Free: 1-877-885-8084 Fax: 519-881-4445

The Municipality of Brockton is taking extra precautions to protect the health and well-being of our staff and residents during the COVID-19 outbreak, while continuing to deliver essential services. Brockton staff are available by email or phone and working diligently to serve the community and respond to the COVID-19 outbreak. Updated information about the coronavirus is available on our website, at

https://link.edgepilot.com/s/94434dd8/t4SgMPmb8U\_aPkuh38r14g?u=http://www.brockton.ca/COVID-19. Please continue to practice social distancing, wear a mask and follow all health measures recommended by Health Canada, check in on your neighbours, and support local businesses where possible. Thank you for your understanding and cooperation.

#### Brockton.ca



From: Kelly Vader <kvader@bmross.net>
Sent: March 10, 2021 2:00 PM
To: Mark Coleman <mcoleman@brockton.ca>; Gregory Furtney <gfurtney@brockton.ca>
Cc: Rebecca Adams (badams@bmross.net) <badams@bmross.net>
Subject: RE: Class EA to Replace the Durham Street Bridge

#### Thanks Mark:

Yes I could see from the County mapping that the trail's do not line up on the south side of the bridge. Access to the area behind Tim Horton's might be difficult during construction of the new bridge. We will need to confirm the limits of the work area at the south end of the bridge to be sure. Is it possible that a temporary access could be arranged during construction?

Do you currently maintain the trails in winter? If we are going to provide a temporary pedestrian crossing that is accessed from the trail, we would need to maintain it in some way to provide year-round access. We are working on a map of a possible location that we can send to you for your input.

As to the planters on the bridge, are you wanting to reuse the existing planters on the new bridge or are you wanting to incorporate new planters into the bridge design? What about the fish attached to the railing?

Kelly Vader, MCIP, RPP B. M. Ross and Associates Limited Engineers and Planners 62 North Street Goderich, ON N7A 2T4

Ph: (519) 524-2641 C: (519) 525-2170 <u>kvader@bmross.net</u> <u>https://link.edgepilot.com/s/53c0bd62/VBQIBvpakEe6Fkww7km\_Nw?u=http://www.bmross.net/</u>

From: Mark Coleman [mailto:mcoleman@brockton.ca]
Sent: March 10, 2021 1:37 PM
To: Kelly Vader <<u>kvader@bmross.net</u>>; Gregory Furtney <<u>gfurtney@brockton.ca</u>>
Subject: RE: Class EA to Replace the Durham Street Bridge

Hi Kelly,

- 1) We are interested in the pedestrian crossing considerations between the bridge and the intersection to the west as the trail heads on the north and south sides of Durham St. do not align.
- 2) The access to the trail/river between Tim Horton's and the river on the SW corner of the bridge is off concern.
- 3) We maintain and have an interest in the planters on the bridge railings.
- 4) Would have to check with our Clerk's Depart for any easements for the trail.

Mark Coleman Director of Community Services Phone: 519-881-0625 Ext. 202 Email: mcoleman@brockton.ca

#### Municipality of Brockton, Parks and Recreation

290 Durham street West, P.O. Box 850, Walkerton, ON NOG 2V0

Toll-Free: 1-877-885-8084 Fax: 519-881-4445 The Municipality of Brockton is taking extra precautions to protect the health and well-being of our staff and residents during the COVID-19 outbreak, while continuing to deliver essential services. Brockton staff are available by email or phone and working diligently to serve the community and respond to the COVID-19 outbreak. Updated information about the coronavirus is available on our website, at

<u>https://link.edgepilot.com/s/527fa1a1/IEeFx0owakClO0hiTQaV0g?u=http://www.brockton.ca/COVID-19</u>. Please continue to practice social distancing, wear a mask and follow all health measures recommended by Health Canada, check in on your neighbours, and support local businesses where possible. Thank you for your understanding and cooperation.

Brockton.ca



From: Kelly Vader <<u>kvader@bmross.net</u>>
Sent: March 8, 2021 11:18 AM
To: Gregory Furtney <<u>gfurtney@brockton.ca</u>>
Cc: Mark Coleman <<u>mcoleman@brockton.ca</u>>
Subject: RE: Class EA to Replace the Durham Street Bridge

#### Thanks Greg.

There will be sidewalks on the new bridge, although the width will need to be confirmed during the design stage and will be partly determined based on the feedback we receive during the EA.

I didn't know if the trail group had plans for a dedicated pedestrian crossing at some point in the future. At this stage we are just completing the research to see if a temporary crossing would be feasible during construction of the new bridge. We have received several emails from individuals who walk across the bridge on a regular basis and were concerned about access during construction.

Kelly Vader, MCIP, RPP B. M. Ross and Associates Limited Engineers and Planners 62 North Street Goderich, ON N7A 2T4

Ph: (519) 524-2641 C: (519) 525-2170 <u>kvader@bmross.net</u> https://link.edgepilot.com/s/b84b1985/BCep6QuSJkSZ0UhOj4mp2g?u=http://www.bmross.net/

From: Gregory Furtney [mailto:gfurtney@brockton.ca]
Sent: March 8, 2021 10:17 AM
To: Kelly Vader <<u>kvader@bmross.net</u>>
Cc: Mark Coleman <<u>mcoleman@brockton.ca</u>>
Subject: RE: Class EA to Replace the Durham Street Bridge

Good Morning Ms. Vader:

The trail is maintained by our Community Services Department (Parks and Rec). The Director's name is Mark Coleman. He is cc'd on this email. His email address is mcoleman@brockton.ca

He may know about the easement. I'm not sure off the top of my head. I assume it does, but I have nothing to confirm that.

As for a permanent pedestrian crossing, I was under the understanding that the new bridge would have wider sidewalks on both sides. The sidewalks on the current bridge are narrow and cause us a lot of problems in the winter. Our Sidewalk Snow Plow just barely fits. We push the snow off and then the County Plow fills it back in. We have a number of residents that cross there to get to town. A permanent crossing would be essential.

#### Gregg

From: Kelly Vader <<u>kvader@bmross.net</u>> Sent: Friday, March 5, 2021 4:24 PM To: Gregory Furtney <<u>gfurtney@brockton.ca</u>> Subject: RE: Class EA to Replace the Durham Street Bridge

#### Hi Greg:

I wondered if you could help me out with information on the Saugeen River Trail that goes by the Bridge Site.

Do you know who maintains the trail? Is there an easement for the trail along the river banks? We might be looking at installing a temporary pedestrian bridge during construction of the new bridge and a location along the trail might be the best location. Not sure who I should contact to ask about this. If you could forward a contact that would be appreciated.

Also, wondered if Brockton has an interest in making a pedestrian crossing permanent if we do install a temporary structure during construction.

Thanks for your help with this.

Kelly Vader, MCIP, RPP B. M. Ross and Associates Limited Engineers and Planners 62 North Street Goderich, ON N7A 2T4

Ph: (519) 524-2641 C: (519) 525-2170 <u>kvader@bmross.net</u> <u>https://link.edgepilot.com/s/be2595a2/uyl14qiwKkSxsEjD4YwyzQ?u=http://www.bmross.net/</u>

From: Gregory Furtney [mailto:gfurtney@brockton.ca]
Sent: February 16, 2021 9:48 AM
To: kvader@bmross.net
Cc: John Strader <jstrader@brockton.ca}; Sonya Watson <<u>swatson@brockton.ca</u>>; Fiona Hamilton
<<u>fhamilton@brockton.ca</u>>
Subject: Class EA to Replace the Durham Street Bridge

Good Morning Ms. Vader:

Thank you for the opportunity to comment.

The Municipality of Brockton is aware of this project and certainly supports it. This bridge structure is an important part of Brockton, Walkerton specifically. It is a main arterial road in and out of our Municipality. Traffic access around this structure, during construction, will be very important to Brockton and we'd like to participate in that discussion as it will impact and affect both residents and businesses.

Please keep us updated as the project continues. We look forward to working with you and Bruce County on this project.

Most Sincerely,

Gregg Furtney B.Sc., C.Tech, PMP Director of Operations

Phone: 519-881-2223 Ext. 134 Email: <u>gfurtney@brockton.ca</u>

# Municipality of Brockton

100 Scott Street, P.O. Box 68, Walkerton, ON N0G 2V0

Toll-Free: 1-877-885-8084 Fax: 519-881-2991

Brockton.ca



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Individuals who submit letters and other information to Council should be aware that any personal information contained within their communications may become part of the public record and may be made available through the Council Agenda process.

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# **Kelly Vader**

From:Mark Coleman <mcoleman@brockton.ca>Sent:March 10, 2021 2:07 PMTo:Kelly VaderSubject:RE: Class EA to Replace the Durham Street Bridge

We would likely be interested in new planters on the bridge and continue with the fish. We do not do winter maintenance on the trail, however it may be suggested in the public consultation process/update of our Master Recreation Plan later this year.

Mark Coleman Director of Community Services Phone: 519-881-0625 Ext. 202 Email: <u>mcoleman@brockton.ca</u>

Municipality of Brockton, Parks and Recreation 290 Durham street West, P.O. Box 850, Walkerton, ON NOG 2V0

Toll-Free: 1-877-885-8084 Fax: 519-881-4445

The Municipality of Brockton is taking extra precautions to protect the health and well-being of our staff and residents during the COVID-19 outbreak, while continuing to deliver essential services. Brockton staff are available by email or phone and working diligently to serve the community and respond to the COVID-19 outbreak. Updated information about the coronavirus is available on our website, at

https://link.edgepilot.com/s/94434dd8/t4SgMPmb8U\_aPkuh38r14g?u=http://www.brockton.ca/COVID-19. Please continue to practice social distancing, wear a mask and follow all health measures recommended by Health Canada, check in on your neighbours, and support local businesses where possible. Thank you for your understanding and cooperation.

#### Brockton.ca





1078 Bruce Road 12, P.O. Box 150, Formosa ON Canada NOG 1W0 Tel 519-367-3040, Fax 519-367-3041, publicinfo@svca.on.ca, www.svca.on.ca

Sent via email only

March 17, 2021

Kelly Vader B.M. Ross and Associates Ltd. 62 North Street Goderich, ON N7A 2T4

Dear Ms. Vader:

RE: Municipal Class Environmental Assessment Durham St. Bridge Geographic Town of Walkerton <u>Municipality of Brockton</u>

The Saugeen Valley Conservation Authority (SVCA) is interested to receive additional information and reports, as they are made available, associated with this Environmental Assessment throughout the course of the Assessment. An SVCA Permit will be required for the proposed works. The preferred proposal is acceptable to the SVCA in principle pending the review of detailed reports and plans yet to be provided to the SVCA for the purpose of applying for an SVCA permit.

The SVCA and Municipality have 2009 Engineered Floodplain Mapping available for the project area (entirely within the 100 yr and Hurricane Hazel Flood Event Standard). The SVCA also manages the flood control Dyke System for the Town of Walkerton which does interact and integrate with the Durham St. bridge and this detail will be crucial in the proposed design and construction access.

We trust these comments are helpful. Should questions arise, please do not hesitate to contact this office.

Yours Sincerely,

Erik Downing
Manager, Environmental Planning & Regulations
Saugeen Conservation
ED/
cc: Dan Gieruszak, Authority Member, via email
Jim Donohoe, County of Bruce, via email

Jo-Anne Harbinson, SVCA, via email



#### Watershed Member Municipalities

Municipality of Arran-Elderslie, Municipality of Brockton, Township of Chatsworth, Municipality of Grey Highlands, Town of Hanover, Township of Howick, Municipality of Morris-Turnberry, Municipality of South Bruce, Township of Huron-Kinloss, Municipality of Kincardine, Town of Minto, Township of Wellington North, Town of Saugeen Shores, Township of Southgate, Municipality of West Grey Ministry of Heritage, Sport, Tourism and Culture Industries

Programs and Services Branch 401 Bay Street, Suite 1700 Toronto, ON M7A 0A7 Tel: 613.242.3743

March 11, 2021

Ministère des Industries du Patrimoine, du Sport, du Tourisme et de la Culture

Direction des programmes et des services 401, rue Bay, Bureau 1700 Toronto, ON M7A 0A7 Tél: 613.242.3743



EMAIL ONLY

Kelly Vader, MCIP, RPP Environmental Planner B. M. Ross and Associates Limited 62 North Street Goderich, ON N7A 2T4 <u>kvader@bmross.net</u>

MHSTCI File	:	0013726
Proponent	:	County of Bruce
Subject	:	Notice of Commencement – Schedule C – Municipal Class EA
Project	:	Class EA to Replace the Durham Street Bridge County of Bruce
Location	:	Walkerton, County of Bruce

Dear Kelly Vader:

Thank you for providing the Ministry of Heritage, Sport, Tourism and Cultural Industries (MHSTCI) with the Notice of Commencement for the above-referenced project. MHSTCI's interest in this environmental assessment (EA) project relates to its mandate of conserving Ontario's cultural heritage.

#### **Project Summary**

The County of Bruce has initiated a Class Environmental Assessment (Class EA) process to consider options associated with replacement of the Durham Street Bridge which spans the Saugeen River along Bruce Road 4 in the community of Walkerton. The planning for this project is following the planning process established for Schedule 'C' activities under the Municipal Class Environmental Assessment (Class EA) document.

#### Identifying Cultural Heritage Resources

While some cultural heritage resources may have already been formally identified, others may be identified through screening and evaluation. Indigenous communities may have knowledge that can contribute to the identification of cultural heritage resources, and we suggest that any engagement with Indigenous communities includes a discussion about known or potential cultural heritage resources that are of value to these communities. Municipal Heritage Committees, historical societies and other local heritage organizations may also have knowledge that contributes to the identification of cultural heritage resources.

#### Municipal Heritage Bridges: Cultural, Heritage & Archaeological Resources Assessment Checklist

Under the EA process, the proponent is required to determine a project's potential impact on cultural heritage resources. The Municipal Engineers Association provides screening criteria for work on bridges that falls under the Municipal Class EA with a <u>checklist</u> and <u>background material</u> available online, developed in coordination with MHSTCI.

#### Part A – Municipal Class EA Activity Selection

The <u>checklist</u> and <u>background material</u> can be used to help determine the Municipal Class EA schedule (A, A+, B or C) for the project. Completing the remainder of this checklist determines what technical cultural heritage studies may be required.

#### Part B - Cultural Heritage Assessment

If Part B of the checklist determines that the bridge or study area warrants the preparation of a Cultural Heritage Evaluation Report (CHER), and the undertaking of a Heritage Impact Assessment (HIA), our ministry's <u>Info Sheet #5: Heritage Impact Assessments and Conservation</u> <u>Plans</u> outlines the scope of HIAs. CHERs and HIAs are to be prepared by qualified consultants. Please send HIAs to MHSTCI for review and make copies available to local organizations or individuals who have expressed an interest in cultural heritage.

#### Part C – Heritage Assessment

If Part C of the checklist determines that the CHER has identified heritage features on the project and recommends that a Heritage Impact Assessment (HIA) be undertaken, our Ministry's <u>Info</u> <u>Sheet #5: Heritage Impact Assessments and Conservation Plans</u> outlines the scope of HIAs. CHERs and HIAs are to be prepared by qualified consultants. Please send HIAs to MHSTCI for review and make copies available to local organizations or individuals who have expressed an interest in cultural heritage.

#### Part D – Archaeological Resources Assessment

If Part D of the checklist establishes that an archaeological assessment is required, it is to be conducted by an archaeologist licenced under the *Ontario Heritage Act* (*OHA*), who is responsible for submitting the report directly to MHSTCI for review. MHSTCI archaeological sites data are available at <u>archaeology@ontario.ca</u>.

After completing the checklist, please update MHSTCI on the project Class EA schedule and whether any technical cultural heritage studies will be completed for the project. Please provide all technical heritage studies to MHSTCI before issuing a Notice of Completion or commencing any of work on site.

#### **Environmental Assessment Reporting**

All technical cultural heritage studies and their recommendations are to be addressed and incorporated into EA projects. If the screening has identified no known or potential cultural heritage resources, or no impacts to these resources, please include the completed checklists and supporting documentation in the EA report or file.

Thank you for consulting MHSTCI on this project. Please continue to do so through the EA process, and contact me with any questions or clarification.

Sincerely,

Joseph Harvey Heritage Planner joseph.harvey@Ontario.ca

Copied to: Becky Adams, B. M. Ross and Associates Limited

It is the sole responsibility of proponents to ensure that any information and documentation submitted as part of their EA report or file is accurate. MHSTCI makes no representation or warranty as to the completeness, accuracy or quality of the any checklists, reports or supporting documentation submitted as part of the EA process, and in no way shall MHSTCI be liable for any harm, damages, costs, expenses, losses, claims or actions that may result if any checklists, reports or supporting documents are discovered to be inaccurate, incomplete, misleading or fraudulent.

Please notify MHSTCI if archaeological resources are impacted by EA project work. All activities impacting archaeological resources must cease immediately, and a licensed archaeologist is required to carry out an archaeological assessment in accordance with the Ontario Heritage Act and the Standards and Guidelines for Consultant Archaeologists.

If human remains are encountered, all activities must cease immediately and the local police as well as the Registrar, Burials of the Ministry of Government and Consumer Services (416-326-8800) must be contacted. In situations where human remains are associated with archaeological resources, MHSTCI should also be notified to ensure that the site is not subject to unlicensed alterations which would be a contravention of the *Ontario Heritage Act*.



B. M. ROSS AND ASSOCIATES LIMITED
Engineers and Planners
62 North Street, Goderich, ON N7A 2T4
p. (519) 524-2641 www.bmross.net

VIA EMAIL ONLY

File No. BR1395

February 10, 2021

Saugeen Ojibway Nation (SON) - Chippewas of Saugeen & Chippewas of Nawash Land Use Planning: Juanita Meekins 25 Maadookii Subdivision Neyaashiinigmiing, ON N0H 2T0

# **RE:** Class EA to Replace the Durham Street Bridge County of Bruce (Walkerton)

The County of Bruce has initiated a Class Environmental Assessment (Class EA) process to consider options associated with replacement of the Durham Street Bridge which spans the Saugeen River along Bruce Road 4 in the community of Walkerton, Ontario (as shown on the accompanying key plan). Recent inspections of the structure have identified deterioration with several bridge components. The County is considering alternatives associated with the new bridge design, as well as detour alternatives to allow traffic to detour around the site during construction of the new crossing.

The planning for this project is following the planning process established for Schedule 'C' activities under the Municipal Class Environmental Assessment (Class EA) document. Schedule 'C' projects must complete all five phases of the Class EA, which is undertaken in order to identify potential environmental impacts associated with the proposal and to plan for appropriate mitigation of any impacts. The process includes consultation with the public, First Nation and Métis communities, project stakeholders and review agencies.

Your community has been identified as possibly having an interest in this project. For your convenience, a response form is enclosed. Please forward your response to our office by March 19, 2021. If you have any questions or require further information, please contact the undersigned at 519-524-2641 or by e-mail at <u>kvader@bmross.net</u>.

Yours very truly

B. M. ROSS AND ASSOCIATES LIMITED

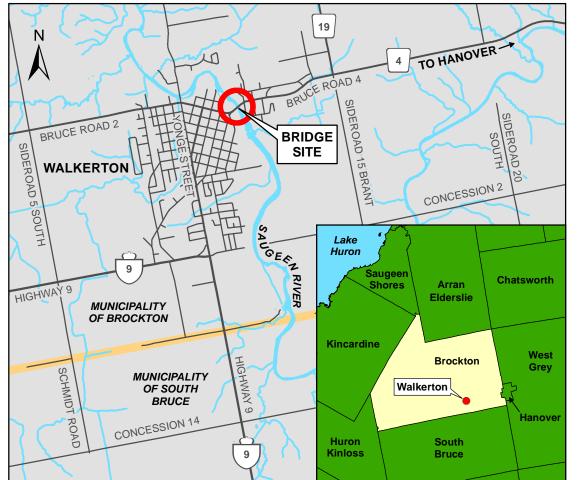
Per

Kelly Vader, MCIP, RPP Environmental Planner

KV:hl Encl.

cc. Jim Donohoe, County of Bruce

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DURHAM STREET LOOKING WEST









EXPOSED SOFFIT REINFORCEMENT

SITE PHOTOS TAKEN IN OCTOBER 2018



INCLUDES MATERIAL ©2020 OF THE QUEEN'S PRINTER FOR ONTARIO. ALL RIGHTS RESERVED



AERIAL PHOTOGRAPHY OF PROJECT A SCALE 1 : 3,500

> COUNTY O MUNICIPAL CLASS ENVIRC FOR THE DURHAM COMMUNITY OF WALKERTON, I GENERAL LOC

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MUNICIPALITY OF BROCKTON CATION PLAN	SCALE AS SHOWN	FIGURE No.

# **Response Form**

Project Name: Durham Street Bridge Class EA

Project Description: Class EA to Replace Bridge spanning the Saugeen River in Walkerton

Project Location: Municipality of Brockton, County of Bruce

(Key Plan of Project Location attached)

Please Detach and Return in Envelope Provided

Name of Aboriginal Community: \_\_\_\_\_

#### Please check appropriate box

Please send additional information on this project

We would like to meet with representatives of this project.

We have no concerns with this project and do not wish to be consulted further

# COUNTY OF BRUCE CLASS EA TO REPLACE DURHAM STREET BRIDGE PROJECT: BR1395

#### **ABORIGINAL CIRCULATION LIST**

Chippewas of Nawash Unceded First Nation Chief Gregory Nadjiwon R.R. #5 Wiarton, ON N0H 2T0 executiveassistant@nawash.ca

Chippewas of Saugeen First Nation Chief Lester Anoquot 6493 Hwy. 21, R.R. # 1 Southampton, ON N0H 2L0 <u>sfn@saugeen.org</u>

Saugeen Ojibway Nation (SON) – Chippewas of Saugeen & Chippewas of Nawash Land Use Planning: Juanita Meekins 25 Maadookii Subdivision Neyaashiinigmiing, ON N0H 2T0 juanita.meekins@saugeenojibwaynation.ca

Historic Saugeen Métis Chris Hachey, Assistant Coordinator, Lands, Resources and Consultation 204 High Street, Box 1492 Southampton, ON N0H 2L0 hsmasstlrcc@bmts.com

Métis Nation of Ontario Suite 1100 – 66 Slater Street Ottawa, ON K1P 5H1 info@metisnation.org

Great Lakes Métis Council 380 9th Street East Owen Sound, ON N4K 1P3 greatlakesmetis@gmail.com

#### **Kelly Vader**

From:Chris Hachey <hsmlrcc@bmts.com>Sent:March 10, 2021 1:44 PMTo:Kelly VaderSubject:Request for Comments - Brockton (projects) - Durham Street Bridge Class EA

Your File: BR1395 Our File: Bruce County - Brockton (projects)

Ms. Vader,

The Historic Saugeen Métis (HSM) Lands, Resources and Consultation Department has received the notice that the County of Bruce has initiated a Class Environmental Assessment for the Durham Street Bridge in Walkerton. HSM appreciates the opportunity to be consulted for this project and we would like to receive updates as the project precedes.

Thank you for the opportunity to review this matter.

Regards,

Chris Hachey

Coordinator, Lands, Resources & Consultation Historic Saugeen Métis email: <u>hsmlrcc@bmts.com</u> phone: 519-483-4000 site: <u>saugeenmetis.com</u> address: 204 High Street Southampton, ON

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B. M. ROSS AND ASSOCIATES LIMITED
Engineers and Planners
62 North Street, Goderich, ON N7A 2T4
p. (519) 524-2641 www.bmross.net

File No. BR1395

February 22, 2021

Dear Property Owner

#### **RE:** Class EA to Replace the Durham Street Bridge County of Bruce (Walkerton)

The County of Bruce has initiated a Class Environmental Assessment (Class EA) process to consider options associated with replacement of the Durham Street Bridge, which spans the Saugeen River along Bruce Road 4 in the community of Walkerton, Ontario (as shown on the accompanying key plan). Recent inspections of the structure have identified deterioration with several bridge components. The County is considering alternatives associated with the new bridge design as well as detour alternatives to allow traffic to detour around the site during construction of the new crossing.

The planning for this project is following the planning process established for Schedule 'C' activities under the Municipal Class Environmental Assessment (Class EA) document. Schedule 'C' projects must complete all five phases of the Class EA; which is undertaken in order to identify potential environmental impacts associated with the proposal and to plan for appropriate mitigation of any impacts. The process includes consultation with the public, First Nation and Métis communities, project stakeholders and review agencies.

As a property owner located in the vicinity of the bridge, you have been identified as possibly having an interest in the project and we are soliciting your input. Please forward any concerns or comments to our office by March 19, 2021. Be advised that the study is just beginning. There will be additional opportunities for public input and comment as the study progresses.

If you have any questions or require further information, please contact the undersigned at 519-524-2641 or by e-mail at <u>kvader@bmross.net</u>.

Yours very truly

B. M. ROSS AND ASSOCIATES LIMITED

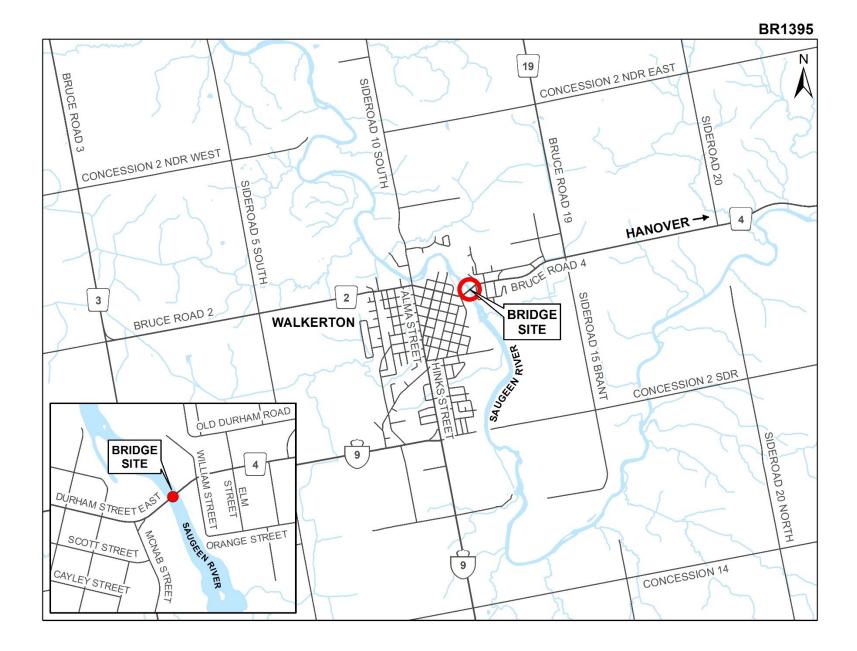
Per

Kelly Vader, MCIP, RPP Environmental Planner

KV:hv Encl.

cc. Jim Donohoe, County of Bruce

Z:\BR1395-Bruce\_County-Replace\_Durham\_St\_Bridge\WP\Class EA\BR1395-2021-02-22-Property Owner Let.docx



# County of Bruce: Class Environmental Assessment (Class EA) for Replacement of the Durham Street Bridge

# **Consultation Summary**

# 1.0 Consultation resulting from Meeting with Business Owners and Residents

On Thursday May 11, 2023 a meeting was arranged for Walkerton Area businesses owners to hear their concerns related to the proposed bridge replacement project and preliminary preferred detour approach. The meeting was held at the Walkerton Community Centre on the arena floor at 6:30 p.m. A presentation which summarized work completed to date on the Class EA, was presented by B.M. Ross & Associates staff followed by a question and answer session. Attendance at the meeting was estimated at 135 residents and business owners. Meeting notes are appended to this document along with a copy of the presentation in Appendix A. Following the meeting, a break-out session was held with interested business owners and representatives from the Bruce County Economic Development Department to review potential economic development initiatives that could be implemented during construction to minimize economic impacts to downtown businesses.

# 2.0 Meeting Notification

Contents:	Purpose of meeting, time, date and location of meeting
Issued:	May 3 <sup>rd</sup> , 2023
Placed In:	Walkerton Herald Times
Circulated To:	400+ property owners
Emailed To:	Residents who had previously commented on the EA
Input Period:	June 9 <sup>th</sup> , 2023

# 3.0 Comments

Table 3.1 summarizes the feedback received from residents and business owners as a result of the meeting. Comments were received via phone calls, emails, comment sheets, and an online petition created by community members. A copy of the petition can be found in Appendix B.

Member of Public	Comments	Action Taken
Walkerton Resident (via email) June 5, 2023	- When they replaced the main bridge in Wasaga Beach, they did one side at a time. Maybe this could be looked into as an option.	<ul> <li>Comments noted and filed.</li> <li>Response provided.</li> </ul>
Walkerton Business Owner (via email) June 5, 2023	<ul> <li>My suggestion is to build a new bypass bridge and road to connect Cemetery Road to the South Line of Brant. After it is built a 25 tonne load limited should be placed on the current bridge to allow cars and local truck deliveries and extend</li> </ul>	<ul> <li>Comments noted and filed.</li> <li>Response provided.</li> </ul>

 Table 3.1

 Summary of Public/Business Owner Comments

Member of Public	Comments	Action Taken
	the life of the structure. Some rehabilitation	
	would be required to reinforce the drop-in	
	section but the repairs could be staged to keep	
	one lane open at all times.	
Resident,	- Indicated a need for an economic impact study	- Comments
(via discussion with	for how businesses may be affected during the	noted and filed.
Jeffrey Loney, Bruce	closure of the Durham Street Bridge.	
County Economic	- Discussed the specific impact of mileage.	
Development)	Believes there will be a significant impact on	
June 15, 2023	choosing the detour. Based on a 0.50\$/km rate	
	and approximately 12,000 movements across the	
	bridge, the detour has the potential to make up	
	\$34 million in costs to the taxpayer.	
	- Inquired about the impact of similar projects in	
	other communities.	
	- Inquired about the process to provide input on	
	the proposed solution and where is best to	
	advocate to ensure that his comments regarding a	
	negative economic impact are considered in the	
	decision making process.	
	- Requested to see Economic Development	
	advocate for an option selected by the local	
	community throughout the internal County	
	processes, prior to a report being brought	
	forward to committee for consideration.	
	- Requested a discussion on a committee and a	
	liaison during this process and when that should	
	occur. This assumes the committee goal is to	
	focus on what supports are needed for the	
	business community, regardless of options	
	selected by council moving forward.	
Walkerton Resident	- A Bailey bridge needs to be placed for motorists	- Comments
(via email)	and walkers to access downtown Walkerton and	noted and filed.
June 15, 2023	allow travellers to pass through the Main Street	
	of Walkerton while the main bridge is being	
	replaced.	
Walkerton Business	- I have additional comment/question I would like	- Comments
Owner	to ask in regards to the Environmental	noted and filed.
(via email)	Assessment.	- Response
June 15, 2023	- Although the economic impact portion has not	provided.
	really been evaluated.	1
	- Does the County of Bruce take into consideration	
	that 2 of their municipalities are currently	
	experiencing financial losses in the retail small	
	business sector. The communities being Paisley	

Member of Public	Comments	Action Taken
	<ul> <li>+ Kincardine (I understand Kincardine is a municipal project)</li> <li>- However, that being said if Walkerton's bridge project doesn't include vehicle movement by means of a bailey bridge, is the County of Bruce measuring the long term financial effects on the County as a whole?</li> <li>- Unemployment Rates</li> <li>- Business retention</li> <li>- Business growth + new business opening</li> <li>- Donation amounts small business contribute back to the community.</li> <li>- Wouldn't the economic downturn be detrimental and the recovery long term as a County, with three municipalities being hit back to back essentially?</li> </ul>	
Walkerton Resident (via email) June 11, 2023	- A detour is not fair for Walkerton business owners build them a bridge similar to Paisley	<ul> <li>Comments noted and filed.</li> <li>Confirmed receipt.</li> </ul>
Walkerton Resident (via email) June 11, 2023	- Need bridge there for the safety of other people on the other side in case of fire and health reasons too far to go around. A life could be lost by the time they get there.	<ul> <li>Comments noted and filed.</li> <li>Confirmed receipt.</li> </ul>
Walkerton Resident (via email) June 10, 2023	<ul> <li>Dear Walkerton Bridge Replacement Committee; Please accept this as my objection to your current proposal of detouring traffic 7 kms during the replacement of the main vein bridge in Walkerton. Your current plan will no doubt put all of us at risk if we don't have another bridge, regardless of which side of the bridge we're on. It doesn't just cut us in two. There are a number of serious concerns both economically and/or life threatening.</li> <li>Fire/Paramedics would have an extra 7 kms to travel to get to an emergency East of the bridge and if we have a big fire on either side of the bridge that requires assistance from other fire departments, that's a long detour when seconds count.</li> <li>We have 2 doctors and at least one nurse living east of the bridge who would also be delayed at getting to the hospital in an emergency.</li> <li>What happens when County Road 19 is closed during winter storms? Or if/when Lobbies Park/Yonge St. North floods out in the</li> </ul>	<ul> <li>Comments noted and filed.</li> <li>Response provided.</li> </ul>

Member of Public	Comments	Action Taken
Member of Public	<ul> <li>Comments</li> <li>spring? How do people get to work or to the hospital or grocery stores for basic needs if the roads are closed? No shuttle can help with that.</li> <li>Yonge St. North is a 40 km zone as a child was killed at the Valleyside intersection some years ago (RIP Molly McDonald). North of that is a steep hill. Although there is a proposed truck route, I\'m sure some trucks will attempt this detour to save time. What happens when they can\'t make that hill in the winter? It's a single lane in both directions and could cut off traffic for hours. They get stuck on the west and east hills as it is, and they're 50 km zones.</li> <li>Our local businesses would take a huge loss given no traffic flow for 18 months - 2 yrs. It would be economical suicide.</li> <li>How do people get to work on either side of the bridge if they don't drive or have a car? There's no taxi services in town anymore and a shuttle would have to run 24/7 to accommodate those who work shifts but again, if the roads are closed due to weather conditions, it wouldn't help anyways.</li> <li>Causing thousands of dollars of extra expense (especially to east side residents) per household/driver in vehicle wear &amp; tear, gas and time for them to get to work, access schools, basic needs and medical care, is unjust to say the least.</li> <li>A temporary or permanent bridge is a MUST for both pedestrians and vehicles. We've had over 80 yrs to prepare for this. A better plan has to be implemented without putting lives and</li> </ul>	Action Taken
Worker in		- Comments
Worker in Walkerton, (via email) June 8, 2023	- Wow does Walkerton make themselves sound like entitled brats. Who cares what paisley did! Walkerton should be its own identity. For the amount it's going to cost to fix the bridge I most certainty hope Walkerton doesn't have any future repairs or costs the town would require to spend money on in the future. I am not a resident of Walkerton but I work there and this seems like a waste of your tax paying dollars. Not only is this a ridiculous request for the amount of money it's going to cost it will cause huge delays. Big trucks will not be able to use	- Comments noted and filed.

Member of Public	Comments	Action Taken
Walkerton Resident (via Council Meeting) June 6, 2023	<ul> <li>the bridge; a detour will still be required.</li> <li>Remember when the truck went on the bridge in paisley what if that happens again? Not only is this request a bigger structure, it was also pointed out to me the bridges are not bot policed at least until someone is injured or dies because they don't read a sign and/or follow rules! Since big trucks can't be on the bridge many vehicles will still be detoured and what happens in the winter? That's a large slippery bridge and I can't imagine having a plow on a temporary bridge.</li> <li>Instead of wasting literally millions of dollars take some of that money and use it to maintain and plow (seasonal) current roads and a future detour. This would get the bridge repaired a lot quicker, efficiently and save some money.</li> <li>I have driven back and forth to Walkerton at least 5 days a week (20 times approx a week) for 9 years. Not once have I complained about gas, (which I am not reimbursed for) or about the amount it costs me. If people need to go to or through Walkerton a detour will not prevent that. Stop your complaining! Let's get the bridge fixed quickly and efficiently without spending ridiculous amounts of your tax paying money!</li> <li>Advised that the Walkerton Homecoming is taking place in 2026.</li> </ul>	- Comments noted and filed.
Concerned party (via email) June 7, 2023	<ul> <li>I saw the news story about your bridge replacement for 2025. It seems "carbon-unfriendly" to force people to make a 7 km detour because someone's too cheap to put in a Bailey bridge.</li> <li>Here's an idea. Can they build the new bridge to one side, and when it is ready, tear down the old one and slide the new one into place? It has been done before, as long ago as the 1970s when they built a very large bridge in Europe and slid it over when it was ready. That would cut the closure to a week, or less!!</li> <li>Yukon did it also, sliding one section of an old bridge sideways while the new bridge was built on the same road alignment, 2009-2010.</li> <li>I sent this message on Monday but it had an</li> </ul>	<ul> <li>Comments noted and filed.</li> <li>Response sent.</li> </ul>

Member of Public	Comments	Action Taken
	attachment, and I'm worried you probably didn't get it or it went to spam because of that. It was an article about a construction project where an existing bridge was moved to a temporary detour while the new bridge was built. I haven't heard a reply, so I am resending this without the document.	
Walkerton Resident (via email) June 8, 2023	<ul> <li>Good morning! I can't believe it's even being considered to cut our town in half for a minimum of 18 months!!!</li> <li>A temporary bridge needs to be erected during the replacement period. Yes it will cost \$6.5 million but it's worth it. Our town is thriving right now but cutting it in half will set us back 10 years!! Not to mention how inconvenient it will be for all those people on the other side to get to downtown. You will be encouraging them to shop in Hanover instead of driving the back roads to get to downtown. Absolutely ridiculous! We need a temporary bridge!!</li> <li>Concerned citizen and taxpayer</li> </ul>	<ul> <li>Comments noted and filed.</li> <li>Comments acknowledged.</li> </ul>
Walkerton Resident (via email) June 8, 2023	- Keep Walkerton connected. They need a temporary bridge while the new bridge is being constructed.	<ul> <li>Comments noted and filed.</li> <li>Comments acknowledged.</li> </ul>
Walkerton Resident (via email) June 7, 2023	- Please keep us connected to the downtown by installing a temporary bridge. Thank you	<ul> <li>Comments noted and filed.</li> <li>Comments acknowledged.</li> </ul>
Walkerton Resident (via email) June 7, 2023	- Walkerton needs to stay connected	<ul> <li>Comments noted and filed.</li> <li>Comment acknowledged.</li> </ul>
Walkerton Resident (via email) June 6, 2023	<ul> <li>Since the county has known that this bridge needed to be replaced for many years, they can DO BETTER for Walkerton residents and businesses then an out-of-town bypass as a solution while the bridge is being replaced. What's wrong with building the new bridge RIGHT BESIDE the old bridge?? And why aren't we being asked what we would like?</li> <li>Small businesses are hanging on by a thread after COVID and now because of the economy. WE CANNOT TAKE ANOTHER HIT.</li> <li>Do not make us suffer because of your poor planning.</li> </ul>	<ul> <li>Comments noted and filed.</li> <li>Comments acknowledged.</li> </ul>

Member of Public	Comments	Action Taken
Walkerton Resident	- When they replaced the main bridge in Wasaga	- Comments
(via email)	Beach, they did one side at a time. Maybe this	noted and filed.
June 5, 2023	could be looked into as an option	- Comment
		acknowledged.
Walkerton Business	- My concern as a resident and small business	- Comments
Owner (via email)	owner of Walkerton	noted and filed.
May 11, 2023	- I clean houses all around town, going to be very	- Comments
	inconvenient if there is no route through town. I live on Old Durham Road. It will affect time	acknowledged.
	management & scheduling.	
	- Concerned for emergencies both fire and	
	medical. It will be a nightmare for everyone to	
	come out at lobbies bridge what if lobbies	
	floods that will be a disaster. Just will be a huge	
	inconvenience all around.	
Concerned party	- As this has been brought to my attention via	- Comments
(via email)	social media, it is not just Walkerton businesses	noted and filed.
May 9, 2023	that will feel the effects of this disruption. I'm	- Comments
	employed at Becker Shoes, Kincardine. Our	acknowledged.
	supply truck travels to the Hanover location and	
	other locations weekly for our shoe deliveries.	
	As our Kincardine downtown is going thru a Big	
	Dig presently to update our water and sewer lines, we understand the necessity for repairs.	
	It's other businesses that will have to adjust to	
	this repair/detour. UPS depot is located in	
	Hanover, our business deals with them daily.	
Walkerton Resident	- How will people with disabilities ride the bus	- Comments
(via comment sheet)	and will they be able to transport the scooters?	noted and filed.
May 11, 2023		
Walkerton Resident	- Right at Cemetery Road across river (New	- Comments
(via comment sheet)	Bridge)	noted and filed.
May 11, 2023	- To South Line	
	- Left to Volkswagen corner with stop lights then	
	right to Hanover	
W-11	- Old bridge - walking bridge.	Commente
Walkerton Business Owner	- Old Garage – will there always 100% of the time be access to my business	- Comments noted and filed.
(via comment sheet)	<ul> <li>Dust and blowing dirt blowing on my customers</li> </ul>	
May 11, 2023	enjoying the patio eating	
	- Noise/vibrations for customers enjoying the	
	patio.	
	- Vibrations to the Old Building	
	- Truck + equipment parked in front of the store	
	- Will there be signage saying there is access to	
	the Old Garage.	

Member of Public	Comments	Action Taken
	- What steps can I take if trucks, equipment etc., are affecting my business.	
Walkerton Resident (via comment sheet) May 11, 2023	- Why is the community meeting in July when many people are away on vacation.	- Comments noted and filed.
Brockton Councillor (via comment sheet) May 11, 2023	<ul> <li>Bruce County env impact study</li> <li>Have you considered that 2,000,000 extra litres of detour gas emits 5,000 tonnes of CO2 in our area. 1 litre = 2.5 kg of CO2.</li> </ul>	- Comments noted and filed.
Walkerton Resident (via comment sheet) May 11, 2023	<ul> <li>Will the bridge replacement include a pedestrian crossing on Durham Street to connect the two sections of the Saugeen River Trail?</li> <li>At present, there is no provision for pedestrians to cross Durham Street safely.</li> </ul>	- Comments noted and filed.
Brockton Councillor (via comment sheet) May 11, 2023	- I support a pedestrian bridge but also strongly suggest a permanent bridge from the South Line to Cemetery Road. This could be used for truck traffic during construction but also plan for the growth of Walkerton.	- Comments noted and filed.
Walkerton Resident (via comment sheet) May 11, 2023	<ul> <li>The difficulties of a temporary bridge were well presented. But the costs of failure to provide a temporary bridge were also very well presented.</li> <li>I believe that needs much more of a careful look.</li> </ul>	- Comments noted and filed.
Walkerton Business Owner (via comment sheet) May 11, 2023	- If a detour bridge costs 6.3 m and a new bridge 9 m I think we should build a permanent bridge at the detour location and have 2 crossings.	- Comments noted and filed.
Business Owner (via email) May 17, 2023	<ul> <li>I'm submitting comments on the replacement of the Saugeen River Bridge in Walkerton and I would like these comments added to the public record.</li> <li>After attending the business meeting on May 11<sup>th</sup> 2023 at the Walkerton Arena I have several concerns about the County of Bruce's detour plans. The whole plan to detour tens of thousands of cars for months at a time is poorly thought out. Here are the reasons why.</li> <li>Firstly, Adam Stanley, Engineering Manager, spoke to the audience about the "hefty cost" of the bridge replacement as well as the "hefty cost" of the bridge replacement as well as the "hefty cost" of a temporary bridge. Allow me to do some math.</li> <li>The normal route from Bruce Road 19 to the end of the bridge in town is 1.34 km.</li> <li>The detour route from Bruce Road 19 to the end</li> </ul>	- Comments noted and filed.

Member of Public	Comments	Action Taken
	of the bridge in town is 6.84 km.	
	- The difference is 5.5 km.	
	- Adam Stanley told us that 12,000 cars a day on	
	average, use Durham St in Walkerton and Bruce	
	Road 4. Adam is Engineering Manager for the	
	Department of Transportation and	
	Environmental Services and he knows the facts.	
	- The additional km driven per day, on average	
	will total 66,000 km.	
	- Using the Canadian Revenue Agency mileage	
	rates for 2023 at \$.68 per kilometre that will add	
	up to \$44,800 per day in extra expense for	
	residents and visitors.	
	- Over a 18 month period, assuming no delays, the	
	total EXTRA transportation cost for residents	
	will be \$24,528,000.	
	- There is no way that local residents and visitors	
	should carry this burden of cost on themselves,	
	when a temporary bridge will cost \$6.3 million	
	even without a grant from another level of	
	government.	
	- The lack of consideration for local residents is	
	appalling.	
	- Secondly, there is no alternative for people who	
	do not drive if they cannot walk downtown.	
	Bruce County itself admits there is no public	
	transit in the county.	
	- Page 11 of the Plan the Bruce: Business –	
	discussion paper says directly "transportation	
	networks are lacking, no public transit".	
	- PTB Business Draft Discussion Paper (002).docx	
	(ehq-production-canada.s3.ca-central-	
	1.amazonaws.com)	
	- Adam mentioned a shuttle service that would	
	run 12 hours a day. He did not say what 12	
	hours, what the cost would be or how it would	
	work during winters with Bruce Road 19 closed	
	from or springtime when Yonge St North can be flooded.	
	- Wishful thinking does not make a good solution	
	to the detour. A temporary bridge will allow	
	people to walk and things in town to remain	
	mostly normal.	
	- Lastly, no one at the meeting from the County of	
	Bruce mentioned anything about the economic	
	impact of disconnecting one side of Walkerton	
	from the other side. It appears as though, for	

Member of Public	Comments	Action Taken
Resident (via email) May 15, 2023	<ul> <li>now, they don't regard any economic impact as important since it was not mentioned.</li> <li>Jeff Loney, Economic Development Manager was present, spoke briefly and asked that everyone there come up with ideas to market the disconnected town with an "activity". It was a failure. His job, as referenced in his job title is to manage economic development and he had no ideas how to do that. He suggested a passport stamp used other times in the county but had no information on its effectiveness, when used in other areas.</li> <li>The best solution for economic development is to install a temporary bridge and allow commerce to continue its natural pace.</li> <li>The meeting was time limited and questions from the audience were ignored and then halted. Adam repeatedly said there will be no more questions allowed and then made himself unavailable.</li> <li>Thank you for taking the time to add this to the record.</li> <li>I am a resident of Walkerton and, full disclosure, I live on the west side of the Saugeen River. The impact of the bridge being out does not affect me as much as it will affect those people living on the east side of the river.</li> <li>I attended the first meeting in October 2022 and also the meeting on May 11<sup>th</sup>. I was very happy that a more efficient microphone system was used – it was almost impossible to hear. I recognize that questions from the floor was not part of the agenda and it should have stayed that way. Questions from the floor should be an option at the next meeting – with appropriate guidelines in place.</li> <li>There is an overwhelming need for continued discussion regarding a temporary pedestrian bridge and a temporary vehicle bridge. The discussion on May 11<sup>th</sup> began with excellent presentations from the floor should be an option at the next meeting – with appropriate guidelines in place.</li> </ul>	- Comments noted and filed.

Member of Public	Comments	Action Taken
	needed to be answered.	
	- Has there been any considerations to building a	
	temporary single lane vehicle bridge combined	
	with a pedestrian bridge? Could a single lane	
	vehicle bridge be built with stop lights at either	
	end? I believe that most people would be	
	happier with a stop light situation than the	
	proposed detour route around County Rd. 19,	
	Concession 2 and Young St.	
	- Could a temporary bridge be built to the south of	
	Tim Horton's, through the vacant lot on McNab	
	Street crossing over to Orange Street? If a	
	temporary bridge could be built, could it be	
	restricted to passenger type vehicles, not	
	transport trucks or farm machinery? If a single	
	lane vehicle bridge could be built with a	
	pedestrian walkway, most of the concerns from	
	the residents on the east side of the river would	
	be solved.	
	- I have more concerns and questions as a result of attending this meeting.	
	- Shuttle bus schedule, pick up locations and	
	cost need to be reviewed and explained.	
	- The truck detour route needs to be	
	determined and explained to the public.	
	- Where will be contractor's equipment be	
	stored?	
	- More information about possible grants is	
	needed. Could some of the possible grants be	
	used to offset the cost of a temporary	
	vehicle/pedestrian bridge?	
	- When will the Fire Department concerns be	
	explained and dealt with?	
	- Maintaining open roads during the winter	
	season and flooding season could be	
	challenging. The impact for first responders	
	is a significant issue. More information about	
	plans for keeping roads open needs to be	
	provided.	
	- I would like to express my concern about the	
	timing of the next public meeting. Waiting until	
	July when many residents will be on vacation	
	means that providing information to residents is	
	difficult. Planning for a public meeting in July	
	means that the opportunity to attend, ask	
	questions and express concerns may be limited.	

Member of Public	Comments	Action Taken
	- Thank you for the opportunity to ask questions and express concerns.	
Resident (via email) May 29, 2023	<ul> <li>Inquired about if a wooden bridge installation for the permanent vehicular replacement bridge has been considered.</li> <li>Stated that they heard that Grey County has done some and the installation timeframe is less than 18 months but that the environmental parameters could take longer through the approval process.</li> </ul>	<ul> <li>Comments noted and filed.</li> <li>Response provided.</li> </ul>
Resident, (via email) May 19, 2023	<ul> <li>Was unable to attend the meeting on May 11 the concerning the closure of the bridge in Walkerton but would like to voice my concerns.</li> <li>Closing this bridge with no connecting bridge in place would very definitely heap more hardships on our businesses in the community. This following the many hardships felt during the Covid closures. I really think this would be totally unfair to our community.</li> <li>No connecting bridge would also place undue hardships on the people who live on the east side of the river denying them direct access to health care professionals. In an emergency situation this could prove critical.</li> <li>Anyone could maybe put up with this situation for a short term but this proposal is not for a short timeframe. The proposed closure is at least 18 months with the possibility of it being even longer.</li> <li>I truly feel this proposal is entirely unacceptable and would like to see this matter addressed with a temporary bridge replacement.</li> </ul>	<ul> <li>Comments noted and filed.</li> <li>Response provided.</li> </ul>
Resident (via online petition) June, 2023	- In addition to points made above: what happens if lobbies park floods in the spring? Or the detour road is closed for multiple days in the winter? I can't see the detour being able to handle the volume of traffic seen on a daily basis between Walkerton and Hanover.	- Comments noted and filed.

Member of Public	Comments	Action Taken
Resident (via online petition) June, 2023	<ul> <li>Aside from the obvious concerns of Emergency Services being re-routed such a long distance when seconds count, we also have 2 Doctors and at least one nurse living on the East side who may need to get to the Hospital quickly as well. What happens when County Rd. 19 is closed in the Winter due to storms, or when Lobies Park area floods in the Spring? It could be days before these roads open. Not all people drive, but they work on both sides of the bridge, some of which work shift work. A shuttle service would have to run 24/7 to provide the demand for transportation but it still won't help if the roads are closed. We've had over 80 years to come up with a viable plan to replace the bridge. We have to do better than this. Allowing the current proposal to move forward would be economical suicide. At the very least, a temporary bridge for both pedestrians &amp; vehicles is necessary in order to avoid putting lives and livelihoods at risk.</li> </ul>	- Comments noted and filed.
Resident (via online petition) June, 2023 Resident	<ul> <li>It's not simply about inconvenience. It's a safety concern and puts additional pressure on an already understaffed and overworked emergency services system; a solution should absolutely be a priority to Bruce County.</li> <li>A 7km detour is not acceptable.</li> </ul>	- Comments noted and filed. - Comments
(via online petition) June, 2023	1	noted and filed.
Resident (via online petition) June, 2023	- The community just assumed that the county would take care of us, and put the temporary bridge in. No one realized that the "best option" would be a 7km detour. We need to find a way to keep Walkerton connected!	- Comments noted and filed.
Resident (via online petition) June, 2023	<ul> <li>This Community NEEDS access to both sides of the Saugeen River. A temporary bridge has worked well in Paisley. A 7 km. Detour is not the answer, especially for Emergency Vehicles.</li> </ul>	- Comments noted and filed.
Resident (via online petition) June, 2023	- I work in Hanover and it will add to my work day as well as getting my granddaughter to and from activities. Not to mention, extra cost to me for wear and tear on my vehicle and gas.	- Comments noted and filed.
Resident (via online petition) June, 2023	- The path you put on the table isn't going to cut it.	- Comments noted and filed.

Member of Public	Comments	Action Taken
Resident (via online petition) June, 2023	- It is a terrible idea.	- Comments noted and filed.
Resident (via online petition) June, 2023	<ul> <li>- I'm concerned for the industry that relies on timely shipping and receiving. Industry that helps employ people in the area. Having direct access to the job allows for more time with businesses, medical, groceries. If there's no alternative that is quick then these people will start going to other accessible locations.</li> <li>- Please RETHINK YOUR DECISION! We are taxpayers who pay you to do the right thing.</li> </ul>	- Comments noted and filed.
Resident (via online petition) June, 2023	- Both sides of the township need to be connected especially for emergencies!!!	- Comments noted and filed.
Resident (via online petition) June, 2023	- Our trucks drive multiple times per day over this bridge. Having to drive around will cost our business extra time on labour, fuel, tires. Which is not environmentally conscious either.	- Comments noted and filed.
Resident (via online petition) June, 2023	- Business cannot exist with out a supply chain. The citizens of Walkerton and area require continued access.	- Comments noted and filed.
Resident (via online petition) June, 2023	- I believe there is a better solution then what is being put forth at this time.	- Comments noted and filed.
Resident (via online petition) June, 2023	- Concerned primarily with emergency vehicles having to take precious time on an alternate route!!	- Comments noted and filed.
Resident (via online petition) June, 2023	- Just doesn't make sense for the community and it's residents!	- Comments noted and filed.
Concerned Party (via online petition) June, 2023	- I know this town and it is unreasonable to expect people to drive all the way around.	- Comments noted and filed.
Resident (via online petition) June, 2023	- I agree that small businesses should not be impacted for that long.	- Comments noted and filed.
Resident (via online petition) June, 2023	- I was born in Walkerton & this seems ridiculous!	- Comments noted and filed.

Member of Public	Comments	Action Taken
Resident (via online petition) June, 2023	- Despite the arguments on both sides of this debate, I do not see why Walkerton should be denied a temporary bridge when Paisley was given that benefit, given that there were detour options in Paisley as well.	- Comments noted and filed.
Resident (via online petition) June, 2023	- A baily bridge is essential to local businesses who will suffer greatly if not put in. If Paisley can put one in, so can Walkerton!	- Comments noted and filed.
Resident (via online petition) June, 2023	- They put a temporary bridge in paisley what makes us different? That's a ridiculous detour!	- Comments noted and filed.
Resident (via online petition) June, 2023	- Emergency responders, those who don't drive, local businesses will be tough to survive.	- Comments noted and filed.
Resident (via online petition) June, 2023	- A 7 km detour is unacceptable	- Comments noted and filed.
Resident (via online petition) June, 2023	- Another source of travel needs to be examined before the bridge can be repaired. A road created from valley side to soccer fields. A bridge put back on cemetery road connecting to the south line.	- Comments noted and filed.
Resident (via online petition) June, 2023	- It will be very inconvenient if I need to travel around through Carlsruhe when my hair stylist is downtown.	- Comments noted and filed.
Resident (via online petition) June, 2023	- Our road is dangerous enough without added traffic	- Comments noted and filed.
Resident (via online petition) June, 2023	- Find an alternative other than a 7 km detour. This detour will have devastating effects to the community in general.	- Comments noted and filed.
Resident (via online petition) June, 2023	- The loss of revenue for the main street community will be horrendous and the additional travel for the local residents will be costly with the price of extra fuel for an additional 1-2 years.	- Comments noted and filed.
Resident (via online petition) June, 2023	- I live on the south side of Walkerton. My shop/business is on the other side of town I make several trips to my shop daily. This is going to cost me large to make the detour around, not to mention the time.	- Comments noted and filed.

Member of Public	Comments	Action Taken
Resident (via online petition) June, 2023	<ul> <li>It will be difficult for medical personal, ambulances, fire fighters, &amp; people in general we did a bailey bridge in Paisley, surely you can do it there with some thought.</li> </ul>	- Comments noted and filed.
Resident (via online petition) June, 2023	- Without a temporary bridge, there will be many safety issues.	- Comments noted and filed.
Resident (via online petition) June, 2023	- We need to be able to get to both sides of Walkerton. I do not wanna see all or even some of the business close do to this bridge replacement project.	- Comments noted and filed.
Resident (via online petition) June, 2023	- By not adding a temp bridge, you are disconnecting a town not only from the businesses but from each other.	- Comments noted and filed.
Resident (via online petition) June, 2023	- Not having a way to get downtown is ridiculous.	- Comments noted and filed.
Resident (via online petition) June, 2023	- It's important to our business sector to stay connected and would cause a strain on our emergency resources to those on the east side of the bridge.	- Comments noted and filed.
Resident (via online petition) June, 2023	- This is the most ridiculous plan of them all.	- Comments noted and filed.
Resident (via online petition) June, 2023	- Everything listed above is accurate, we need to think of all of our people. And accommodate everyone as best we can.	- Comments noted and filed.
Resident (via online petition) June, 2023	<ul> <li>I'm concerned about emergency response times since Fire and EMS are on one side of bridge and OPP is on the other (especially in winter). Also the economic impact on local businesses would be devastating and will affect the whole community one way or another.</li> </ul>	- Comments noted and filed.
Resident (via online petition) June, 2023	- I am concerned about the citizens living on the east side of the bridge who walk daily to stores. Some do not have a mode of transportation to get around a detour or to the next town over.	- Comments noted and filed.
Walkerton Resident November 7, 2023 (via email)	<ul> <li>States that they have been following this project since the sign was posted on the bridge.</li> <li>Visited website and found no information regarding the project.</li> </ul>	- Information filed and noted.

Member of Public	Comments	Action Taken
	- Stated it would be useful to formulate a cost	
	estimate for the shuttle service.	
	- From the public meeting, they heard that the	
	cost of a temporary bridge would be \$6.3	
	million. Believes that this cost is very high	
	since the structure would only be temporary	
	and removed after construction. States that	
	residents will not be happy to pay for this.	
	- States that small bridges and larger culverts	
	are typically replaced in the summer months	
	in rural and urban areas without the use of	
	temporary structures. Inquired why it would	
	be needed for this project.	
	- Believes that the detour will not add a	
	significant amount of costs for residents that	
	commute to work or for other activities	
	compared to the cost of a temporary bridge.	
	- Believes that the business community would	
	benefit the most from a temporary bridge.	
	The taxpayers would pay for the temporary	
	bridge.	
	- States that years ago the addition of a bridge	
	across the Saugeen River was considered	
	joining South Line and Cemetery Road.	
	Downtown business owners were opposed to	
	this idea since they were concerned that	
	traffic would bypass the downtown and	
	business would be impacted. A bypass would	
	be useful for the delivery of emergency	
	services and would allow larger trucks and	
	farm equipment to avoid travelling down the	
	downtown area.	
	- Concerned about the life expectancy of	
	Lobies Bridge and believes it is a higher	
	priority than the Durham Street Bridge. They	
	remember sand bagging on the dikes of the	
	Saugeen River back in the day to try to keep	
	the high water levels from over flowing the	
	dike and flooding the better prepared part of	
	the downtown business area which has	
	occurred many years ago. They remember	
	high water level threats to Lobies Bridge as	
	water level was only three to four inches	
	below the base of the deck. Trees were	
	getting struck as they tried to go under the	
	bridge deck. The bridge was acting like a	

Member of Public	Comments	Action Taken
Resident (via email) November 27, 2023	<ul> <li>dam for the rising waters. I was told at the time that the bridge was never designed to act as a dam and if damming occurred then maybe Lobies Bridge might be taken out. It is a major entrance access point to our little valley town.</li> <li>With severe weather, rising water levels and severe flooding projections of even worse weather to come, should we be concerned that we could lose Lobies Bridge? This could be a major disaster for Walkerton.</li> <li>Last meeting regarding the Durham Street Bridge scheduled for July did not occur. When can we expect to see that public meeting? They hope it is better advertised than the prior public meeting and that staff are better prepared to answer questions.</li> <li>Supports the plans for the new Durham Bridge and believes that years of experience and engineering training are valuable assets.</li> <li>Inquired about who would pay the bulk of the costs for a temporary bridge. Since the business downtown will benefit the most, are they willing to help pay for the cost of the temporary bridge?</li> <li>They have reviewed all the public comments and attended the public meetings. They would like to see a more informative presentation at the next meeting.</li> <li>Concerned that Highway 4 will be interrupted since there is no space at the existing bridge to provide a temporary crossing during construction.</li> </ul>	- Comments filed and noted. - Responded and stated that a temporary
	<ul> <li>Suggests that a second bridge be constructed reaching West from Orange Street/William Street connecting to McNab North at the NAPA dealership.</li> <li>States that the function of the bridge on Highway 4 is too important to lose, even temporarily due to community safety and emergency response time.</li> <li>Attached a sketch showing the suggested location of the bypass bridge.</li> <li>Suggested that the second bridge be kept as an emergency and/or recreational route if it is undesirable to have it for regular vehicle traffic.</li> </ul>	temporary crossing in this location has been considered. - Additional comment received on November 28, 2023.

Member of Public	Comments	Action Taken
	It would be a good place for fishing. The	
	location would be far enough from the main	
	bridge that construction of the bypass bridge	
	<ul> <li>would not impede traffic at the existing bridge.</li> <li>Grading on both banks of the Saugeen River</li> <li>would make a temporary bridge feasible.</li> <li>As activity expands in the Eastridge Road area</li> <li>of Walkerton, an efficient traffic connection</li> <li>across the river near Highway 4 is needed.</li> </ul>	
	- A secondary bridge could result in future	
	savings if there is another disruption on the main	
	Highway 4 route.	

# 2.0 Review of Media Coverage

Media coverage of the Business Owners Meeting and related activities.

Article Title	Link	
Brockton mayor proposes	Brockton mayor proposes another solution	June 9, 2023
another solution for the Durham	for the Durham Street bridge replacement	
Street bridge replacement	project (msn.com)	
project		
Walkerton bridge project raises	Walkerton bridge project raises concerns	June 5, 2023
concerns for business owners	for business owners   CTV News	
Walkerton business community	Walkerton business community fights back	June 9, 2023
fights back against planned	against planned detour during bridge	
detour during bridge	replacement project (msn.com)	
replacement project		
Bruce County warden floats the	Bruce County warden floats the idea of	June 23, 2023
idea of exploring additional	exploring additional options for Durham	
options for Durham Street	Street bridge replacement (yahoo.com)	
bridge replacement		
Walkerton businesses	Walkerton businesses concerned about	June 6, 2023
concerned about impact of	impact of bridge replacement   Owen	
bridge replacement	Sound Sun Times	
Bridge replacement plans have	The Walkerton Herald-Times	
business community concerned		
Businesses balk at Walkerton,	Walkerton bridge project raises concerns	June 5, 2023
Ont. Bridge project	for business owners   CTV News	
Walkerton Businesses form	Walkerton Businesses form "Keep	June 6, 2023
"Keep Walkerton Connected"	Walkerton Connected" Facebook Group	
Facebook Group	The Ranch 100.1 FM	



# **Bluewater District School Board**

P.O. Box 190, 351 1<sup>st</sup> Avenue North Chesley, Ontario N0G 1L0 Telephone: (519) 363-2014 Fax: (519) 370-2909 www.bwdsb.on.ca

March 19, 2021

Kelly Vader Environmental Planner B.M. Ross and Associates Limited 62 North Street, Goderich, ON N7A 2T4

Delivered by Email to kvader@bmross.net

Dear Kelly Vader:

RE: Class EA to Replace the Durham Street Bridge County of Bruce (Walkerton)

Bluewater District School Board (BWDSB) has reviewed your circulated letter outlining the initiation of the Class Environmental Assessment (Class EA) process to consider options associated with replacement of the Durham Street Bridge which spans the Saugeen River along Bruce Road 4 in the community of Walkerton.

BWDSB requests inclusion in the process of determining detour alternatives to allow traffic and pedestrians to detour around the site during the construction of the new crossing. It would affect 23 bus routes as well as walking students for schools in the area.

Should you require additional information, please do not hesitate to contact this office.

Thank you,

Shelley Crummer Business Analyst, BWDSB

c.c.: Rob Cummings, CPA, CMA, Superintendent of Business Services Dylan Birley, Supervisor of Transportation Steve Lustig, Manager of Transportation and Purchasing Consortium Jayme Bastarache, Supervisor Project Development Charlotte McFarlan, Principal of Walkerton District Community School



# MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT FOR REPLACEMENT OF THE DURHAM STREET BRIDGE IN WALKERTON - COUNTY OF BRUCE

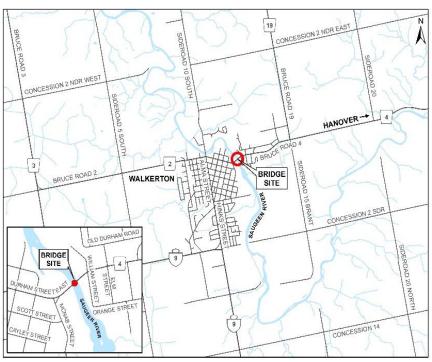
# NOTICE OF PUBLIC INFORMATION MEETING

# THE PROJECT

The County of Bruce is planning to replace the bridge which spans the Saugeen River along Bruce Road 4 in the community of Walkerton, Ontario (as shown on the accompanying key plan). Recent inspections of the structure have identified deterioration with a number of bridge components. The County is considering alternatives associated with the new bridge design as well as detour alternatives to allow traffic to detour around the site during construction of the new crossing.

# THE ENVIRONMENTAL ASSESSMENT PROCESS:

The planning for this project is following the environmental planning and design process set out for Schedule 'C' activities under the Class Municipal Environmental Assessment (Class EA) process, which is an approved process under the Environmental Assessment Act. The purpose of the Class EA process is to identify any potential environmental impacts associated with the proposed works and to plan for appropriate mitigation of any identified impacts. This process includes consultation with the general public, government review agencies, indigenous communities and affected property owners.



# PUBLIC INVOLVEMENT:

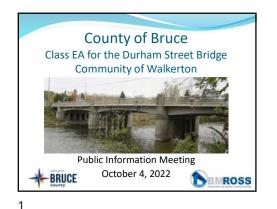
Public consultation is a key component of this study. A Public Information Meeting is being organized by the County to update residents on the current status of the project. The meeting will provide project details, including the preliminary findings of a hydrology study, bridge design alternatives, and a review of detour alternatives for pedestrian and vehicular traffic. This meeting will also provide residents with the opportunity to provide additional comments on the project. Details of the meeting are as follows:

# Date:Tuesday October 4, 2022Place:Walkerton Community Centre (290 Durham St. W, Walkerton)Time:Open House from 6:00 to 6:30 p.m.Formal Presentation at 6:30 p.m.

Following the meeting, input into this project will be accepted until November 4, 2022. Any comments collected in conjunction with this Class EA process will be maintained on file for use during the project and may be included in project documentation. With the exception of personal information, all comments will become part of the public record. For further information on this project, or to review the Class EA process, please contact the project engineers: B.M. Ross and Associates: 62 North Street, Goderich, Ontario, N7A 2T4. Telephone (Toll Free): (888) 524-2641. Kelly Vader, Environmental Planner (e-mail: kvader@bmross.net).

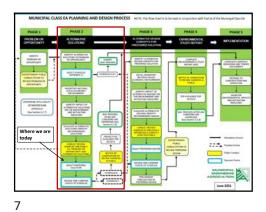
Adam Stanley, Engineering Manager Transportation & Environmental Services Corporation of the County of Bruce

This Notice Issued September 21, 2022

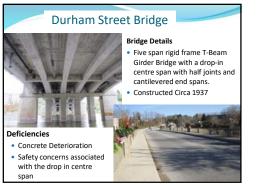


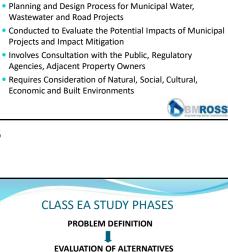


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**EVALUATION OF DESIGN CONCEPTS** 

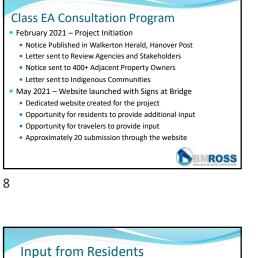
PREPARE ENVIRONMENTAL STUDY REPORT

PROJECT IMPLEMENTATION

BMROSS

**Municipal Class Environmental** 

Assessment (Class EA)



Comments Related to the New Bridge Design
Wider sidewalk would be preferred
Better lighting on the new bridge
Comments Related to Longer Detour during Construction
Concerned with impacts to downtown businesses during construction.
Want pedestrian access over the river during construction.
Traffic concerns on Bruce Road 4 at Bruce Road 19
Suggestions that another bridge crossing of the Saugeen River is needed

Questions about timing of the work



# Input from Agencies Ministry of Environment, Conservation and Parks Adequate consultation must occur with residents, stakeholders, First Nation and Métis Communities Impacts associated with Climate Change and Source Water Protection need to be considered Saugeen Valley Conservation Authority (SVCA) Ontario Regulation 169/06, Development, Interference with Wetlands, and Alterations to Shorelines and Watercourses. Approval from SVCA will be required for the new bridge

- SVCA owns and maintains flood control dyke system in Walkerton
- Floodplain modeling and mapping is available





# Input from Agencies

### Municipality of Brockton

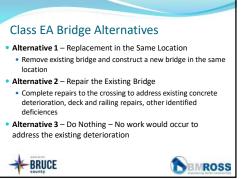
- Want to salvage and maintain fish symbols on bridge as well as the planter boxes
- Ensure access to trail system is maintained
- Want input on detour routes, particularly routes using local roads

### Ministry of Tourism, Culture and Sport

- Concerns related to archaeological resources, built heritage resources, and cultural heritage landscapes
- Potential impacts should be screened as part of EA process and be documented in the final report





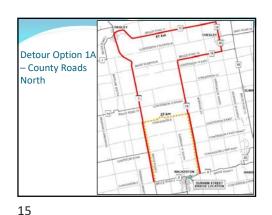




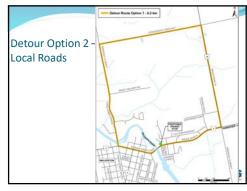


# Class EA Detour Alternatives Alternative 1A & 1B – Detour using County Roads County Road detour north and south of Walkerton Alternative 2 – Detour using local roads Detour north of Walkerton using Bruce Road 19 and local roads and provide a transit stop for pedestrians Alternative 3 – Temporary Vehicle Bridge Install a temporary vehicle bridge upstream of the bridge adjacent to Orange Street, connecting to McNab Street Alternative 4 – Temporary Pedestrian Bridge A pedestrian bridge installed upstream of the bridge adjacent to Orange Street, connecting to the trail network

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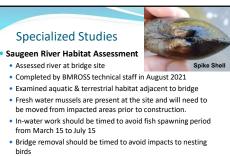
# Preferred Detour Option

### Local Detour – Option 2

- Local traffic to use local detour to the north via Bruce Road 19, Concession 2 and Yonge Street
- Transit stop to be created on the north side of the river to convey pedestrians into Walkerton
- Truck traffic encouraged to use truck detour routes
- Concession 2 and Yonge Street to be upgraded with additional lift of asphalt to improve road base
- Improvements planned for intersections of 19/Conc. 2, Yonge/Conc. 2 to improve turning radius
- Improvements at Yonge/Durham Street to improve turning radius and provide temporary signals

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22





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# Specialized Studies

## Built Cultural Heritage

- Cultural Heritage Evaluation Report (CHER) and Heritage Impact Assessment (HIA) completed by Timmins Martelle Heritage Consultants in May 2021
- · Assessment required by Ministry due to age of bridge
- First bridge at site built circa 1850 wooden bridge
- A steel truss bridge was constructed in early 1900's
- Current bridge replaced the iron bridge in 1937

### Statement of Cultural Heritage Value

The bridge is a rare example of what was once a common concrete rigid frame T-beam bridge design with embossed stanchions/ pillars, railings, and cantilevered end spans associated with late 1390's provincial bridge design



# Additional Investigations

### Hydraulic Investigation

- Walkerton is protected with a syster of flood dykes owned and maintained by SVCA, providing protection up to a <u>100 yr return</u> <u>event</u>.
- Floodplain mapping has recently been completed in 2009.
- Floodplain mapping indicates overtopping of the flood dykes for the regulatory Hurricane Hazel eve
- Recent changes include partial Removal of Truax Dam in 2019.
- Removal of Truax Dam In 2

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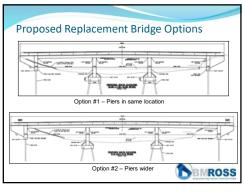
# Hydraulic Investigation

- Assessment of the Proposed Durham Street Bridge and Potential Temporary Bridge Included:
- Floodplain model updates with new survey data and the partial removal of the Truax Dam
- Ensuring no flooding impacts to properties or dyke system
- Cut and fill assessment for impacts on flood storage, particularly detour route bridge options
- Scour Assessment for determining rock protection
- Ice jam and ice flow considerations

BMROSS

# Hydraulic Investigation Proposed Replacement Bridge Two hydraulic design options considered for the proposed bridge. Existing bridge includes 4 piers and arch beam design. Proposed bridge options include 2 piers and varying span alternatives Both options improve the efficiency of structure for flow and ice movement. Option 1 has the middle piers in the same location as the existing structure Option 2 has piers offset to create a wider middle span



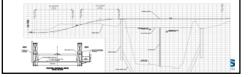


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# Hydraulic Investigation

# Temporary Detour Bridge Option

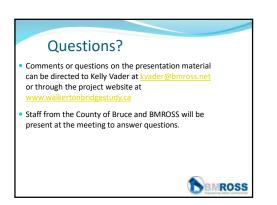
- Designed to 100 year return event, with negligible impacts on flooding up to 100 year.
- Construction contingency plans to include stockpiling of sandbags or steel sheet piling to fill any breach in the dyke due to construction
- Full restoration of dyke proposed post construction.





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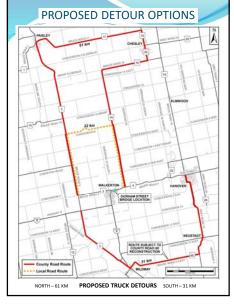


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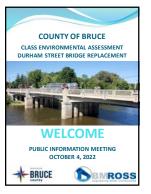


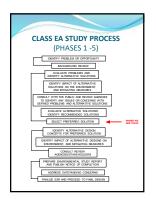


















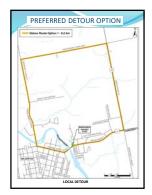


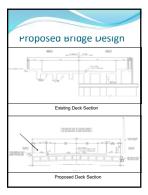










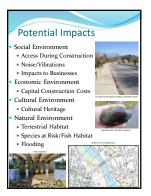


Hydrology Study











B. M. ROSS AND ASSOCIATES LIMITED Engineers and Planners 62 North Street, Goderich, ON N7A 2T4 p. (519) 524-2641 www.bmross.net

File No. BR1395

# **COUNTY OF BRUCE**

# CLASS ENVIRONMENTAL ASSESSMENT FOR DURHAM STREET BRIDGE – WALKERTON

# **PUBLIC MEETING NOTES**

Details:	October 4, 2022 Walkerton Communi	ty Centre (290 Durham St. W, Walkerton)
	Open House:	6:00 – 6:30 p.m.
	Presentation:	6:30 - 7:15 p.m.
	Questions:	7:15 - 7:30 p.m.
	Open House:	7:30 – 8:00 p.m.
T 4.4 T		
In Attendance:	Adam Stanley	County of Bruce
	Amanda Froese	County of Bruce
	Kelly Vader	B.M. Ross and Associates (BMROSS)
	Ryan Munn	BMROSS
	Becky Adams	BMROSS
Soveral staff and cou	nail mombars from the l	Municipality of Producton wars present at the

Several staff and council members from the Municipality of Brockton were present at the meeting.

Members of the public: ~46 persons

# 6:00 p.m. – 6:30 p.m. – Open House

- Public Arrival
  - Members of the public signed in upon arrival.
  - Poster boards were on display for the public to view.
  - BMROSS and County of Bruce Staff were available to talk to the public as they arrived.
  - o Coffee and timbits were provided for those attending the meeting.

# 6:30 p.m. - 7:15 p.m. - Presentation

# **Power Point Presentation**

- Adam Stanley welcomed those in attendance on behalf of the County of Bruce and introduced the representatives from BMROSS.
- Kelly Vader began the presentation by reviewing the agenda for the meeting and then discussing the scope of the Durham Street Bridge project and explaining what was involved in the Class EA process.
- Ryan Munn explained the bridge details and current deficiencies present at the Durham Street Bridge.
- Kelly elaborated on the Class EA consultation process and explained who was contacted and reviewed some of the responses received following publication of the initial Notice for the project.
- Kelly discussed the potential species at risk (SAR) located in the study area and what would have to be done to address potential impacts through the regulatory approval process. She then discussed the bridge alternatives and indicated that the preferred alternative is to replace the bridge in the same location as the existing crossing.
- Ryan reviewed the potential detour routes identified for the project including; i) A truck detour using County Roads, ii) A local detour route using County and local roads, iii) a temporary vehicle bridge, and iv) a temporary pedestrian bridge crossing. He then provided details related to the preferred detour option, which is the local detour route. Since no temporary vehicle or pedestrian bridge is proposed, the County would provide a transit option which would convey residents around the detour.
- Ryan then provided additional details associated with the proposed design for the new bridge. He indicated that the proposed replacement bridge would have wider sidewalks (6 feet in width) and three spans. The new bridge will look similar to the existing from the road surface.
- Kelly reviewed two of the specialized studies that were completed including the Saugeen River habitat assessment and Cultural Heritage Evaluation Report (CHER). She discussed potential impacts and suggested mitigation measures identified in the two reports.
  - Ryan provided details of the Hydraulic Investigation that has been completed for the project and the different bridge designs reviewed for the proposed replacement bridge and possible temporary detour bridge.
  - Kelly concluded the presentation by reviewing the project timelines and the next steps in the process.

# 7:15 p.m. – 7:30 p.m. – Questions

• After concluding the presentation, questions were invited from the public.

# **List of Questions**

- Q: How long will construction of the bridge replacement take?
- A: Ryan indicated that it would take approximately 16 months from start to finish including periods of time when construction is not occurring (i.e. winter months).

# County of Bruce – October 4, 2022 Public Meeting Notes

- Q: What is involved with deciding if a temporary bridge is selected as the preferred detour route?
- A: Adam stated that the estimated cost of the temporary bridge is a major factor that has been considered due to the anticipated cost (\$6.6 million). Ryan also noted that construction requirements also make a temporary bridge less desirable than the Paisley temporary bridge. A middle pier would need to be installed within the watercourse and to comply with fish timing windows, construction of the new bridge and the temporary bridge may need to start at the same time. This could potentially cause a 3 month lag where there is no detour, if construction of the new bridge was to commence in 2025.
- Q. A resident in attendance suggested that the temporary bridge be installed in 2025 and the new bridge be constructed in 2026.
- A. Ryan indicated that considerations related to rental of the temporary bridge for the additional year have not been included in anticipated costs for construction.
- Q: What are the current traffic counts over the Durham Street Bridge?
- A: Ryan stated that approximately 12,000 vehicles cross the bridge per day.
- Q: Do you consider traffic delays for ambulances and fire services when considering detour options? How does the timing of the proposed routes compare to the current timing of routes?
- A: Adam stated that this is considered when determining a preferred detour route. The current preferred route would add an additional 8-10 minutes to the response time. This is a better option compared to the routes that only utilize County Roads.
- Q: Can you modify the bridge design to make it less dangerous to turn onto the County Road from William Street, just north of the bridge?
- A: Adam stated that this would require additional land acquisition (additional costs) and the structural design of the bridge would need to be changed.

An attendee acknowledged a former County Engineer that recently passed away and stated he provided an important legacy and served the County of Bruce for a long time.

- Q. An attendee stated that they were concerned about the loss of heritage bridges in the County. They stated that the heritage bridges were constructed using local labour and there are only a few remaining in the County. They think that replicating historical details on the new bridge is not a good idea.
- A: Adam acknowledged that historical bridges are being replaced in the County. There is no specific study completed to date that reviews historic Bruce County Bridges. He advised that the current structure has a design that is no longer permitted, due to the drop in span, and therefore the bridge needs to be replaced before it fails. The County will consider documenting historical bridges throughout the County if this is a concern.
- A: As to the replication of historical components of the existing bridge, Adam stated that they are following recommendations outlined in the Cultural Heritage Evaluation Report, completed by Timmins Martelle Heritage Consultants.

The audience member stated that they did not agree with the recommendation from Timmins Martelle.

- Q: The detour route passes by a historical building in Walkerton. Will there be vibration monitors installed on the historical building?
- A: Adam responded that they haven't investigated the details yet. There is currently a study being done on road improvements and recommendations required for the detour routes.
- Q: What improvements will be made to the roads on the preferred local detour route?
- A: Adam stated that they would work with the Municipality of Brockton to improve roads along the proposed detour route and will assist with the required upgrades needed to make the roads suitable for the proposed detour.
- Q. A resident asked what speed limit would be in place on the detour.
- A. Adam indicated that the County would work with Brockton to determine an appropriate speed limit for the detour.
- Q: Concession 2 is part of the detour route and occasionally flooding occurs over Yonge Street immediately north of Lobies Bridge. Has this been considered and what will be done to prevent this problem from occurring during the extent of construction?
- A: Adam stated that Brockton is planning to complete upgrades to Yonge Street in advance of the proposed detour. The County will work with Brockton to upgrade the road. Brockton has advised that seasonal flooding last only for a few days when it does occur.

Adam clarified that there would be a bus transportation system that is separate from other services that would transport pedestrians from one side of Walkerton to the other. This would include students.

- Q: Will the proposed detour routes conflict with provincial concerns about active transportation?
- A: Adam stated that this a temporary measure to mitigate transportation impacts during construction.
- Q: Would the temporary pedestrian bridge have the same fish timing window restrictions as the temporary vehicle bridge?
- A: Yes. Kelly stated that the pedestrian bridge would require a middle pier within the Saugeen River and therefore in-water work would be required. The fish timing window would apply and restrict in-water work to a period between July 15 and September 30<sup>th</sup>, to protect sensitive species in the channel.
- Q: What is the cost of the temporary pedestrian bridge?
- A: Ryan stated that the anticipated costs for a temporary pedestrian bridge are \$2.5 million. The pedestrian bridge is rented so it would cost more if it was constructed in 2025 and the new bridge was constructed in 2026
- Q: What is the cost of the transportation program?

- A: Adam stated that the cost is currently unknown but it would be less expensive than the cost to install a temporary bridge.
- Q: How is the replacement of the bridge being funded?
- A: Adam stated that work will be paid using County funds since there are no federal or provincial funding opportunities currently. They are planning to apply for provincial or federal grant opportunities if they become available.
- Q: What is the estimated cost of the bridge replacement?
- A: Ryan stated that, based on the cost to construct the Paisley Bridge, it is anticipated that the Durham Street Bridge will cost approximately \$8-9 million to replace.

A resident suggested that a second permanent bridge be installed in Walkerton.

- Q: Why would there be a 3 month lag if the temporary bridge was selected as the preferred option?
- A: Ryan said that this is a negative of the temporary bridge option. Since the temporary bridge would require an in-water pier to be installed, construction of the temporary bridge could not occur before the construction and closure of the existing bridge (due to fish timing window restrictions). The current preferred option is the local 8km detour and additional transportation service.
- Q: Would the temporary bridge have a restricted bridge load?
- A: Adam stated that there would not be a restricted load limit on the temporary bridge. The bridge in Paisley is designed for all traffic, including trucks, and the temporary bridge reviewed in Walkerton was a similar style. Travel over the bridge would not be ideal for trucks as there would be tight turns. An alternative truck route would be provided and trucks would be encouraged to use the route. Adam added that a negative associated with the temporary bridge option is that private landowner authorization would be required since the County does not own land on the south side of the river (east of Tim Hortons).
- Q. An attendee was concerned about trucks travelling on the detour route in the winter and about the steep hill on Yonge Street north of Lobies Bridge.
- A: Adam stated that additional winter maintenance may be required and the roads would be updated to ensure they are safe. The costs associated with anticipated road upgrades are significantly less expensive than the cost of a temporary bridge.
- Q: Can mailboxes be installed on the other side of town where they currently do not exist?
- A: Amanda advised that this can be investigated further.

# 7:30 p.m. – 8:00 p.m. – Open House

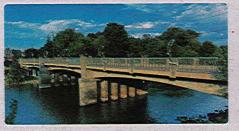
# **Individual Concerns**

County of Bruce - October 4, 2022 Public Meeting Notes

• Members of the public were given the opportunity to have one-on-one time with BMROSS Staff and to ask any additional question after the presentation and question period ended.

# Walkerton Bridge Replacement Information Session for Businesses Thursday, May 11, 2023

Walkerton and area businesses are invited to attend an Information Session for Businesses on Thursday, May 11, 2023 at the Walkerton Community Centre (290 Durham St., Walkerton, ON) to provide



input and discuss concerns about the Municipal Class Environmental Assessment for the Replacement of the Durham Street Bridge. This Information Session will begin at 6:30 PM. Staff from Bruce County Transportation & Environmental Services, BMROSS, the Municipality of Brockton, and the Bruce County Economic Development Department will be present to provide input.

Bruce County is planning to move forward with plans to replace the Durham Street Bridge, which spans the Saugeen River on Bruce Road 4 in Walkerton. Some structural components of the bridge have deteriorated, and the bridge must be replaced to ensure the safety of the traveling public. A Public Meeting was held on October 4, 2022 to present project details to members of the public. Following the meeting, input was received from residents and business owners with concerns related to the preferred detour alternative, which is to use local municipal roads to detour traffic during the bridge replacement. A second public meeting is tentatively planned for July 2023.

# Information Session for Businesses

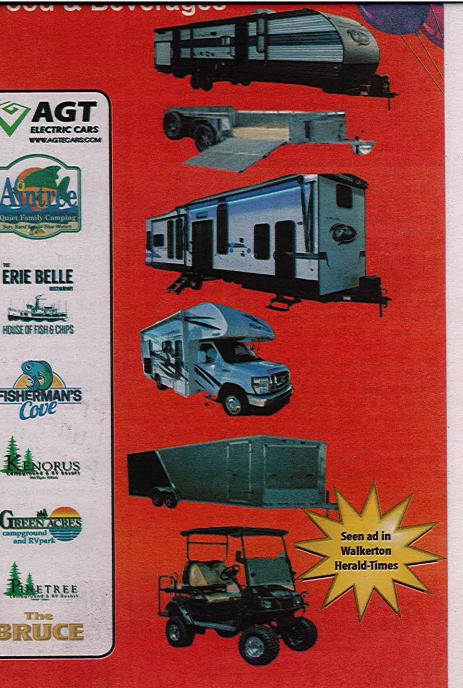
Date: Thursday, May 11, 2023 Location: Walkerton Community Centre (290 Durham St., Walkerton) Time: 6:30 PM

If you are unable to attend the meeting, comments can be submitted directly to the project team via email to Kelly Vader, Environmental Planner at kvader@bmross.net.

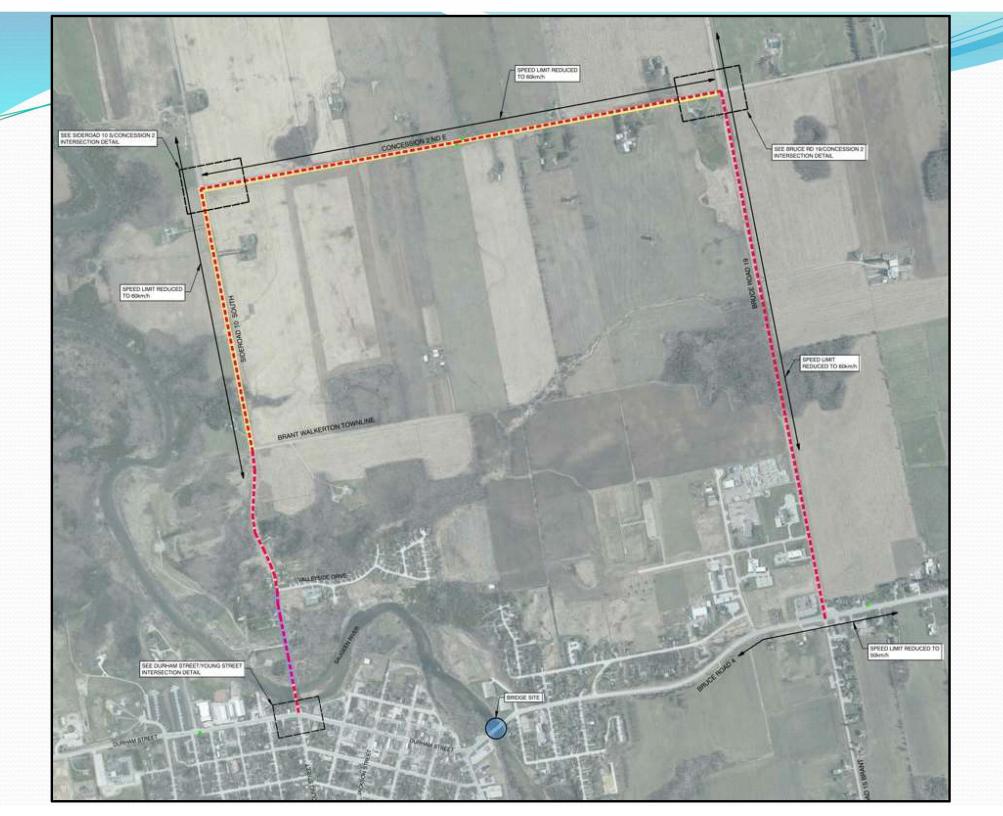


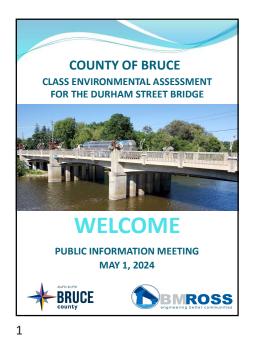
Additional Project Information can be found on the Bruce County Website at: www.brucecounty.on.ca/WalkertonBridge

county

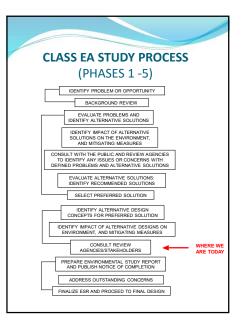


www.piersonmotors.ca 519-395-2424 for details











	PROJECT TIMELINES
Februar	ry 2021 – Initial Public/Agency Notifications
2021/2	022 – Specialized Studies Completed
	<ul> <li>Cultural Heritage Report</li> </ul>
	Aquatic Habitat Assessment
	Geotechnical Assessment
	Hydrological Assessment
Octobe	r 2022 – 1 <sup>st</sup> Public Information Meeting
May 20	23 – 2 <sup>nd</sup> Public Information Meeting
Fall 202	3 – Third Party Review Initiated
Winter	2023/2024 – Bridge Condition Survey and Third Party Review Completed
Februar	ry 2024 – Load Limit Restrictions Implemented
May 20	24 – Emergency Bridge Repairs to Begin
_	r 2024 – Class EA Process Finalized

File No. BR1395



B. M. ROSS AND ASSOCIATES LIMITED
Engineers and Planners
62 North Street, Goderich, ON N7A 2T4
p. (519) 524-2641
www.bmross.net

# **COUNTY OF BRUCE**

# CLASS ENVIRONMENTAL ASSESSMENT FOR DURHAM STREET BRIDGE – WALKERTON

# **MEETING WITH BUSINESS OWNERS - MEETING NOTES**

Details:May 11, 2023Walkerton Community Centre (290 Durham St. W, Walkerton)

Arrival/Sign-In:	6:30 – 6:45 p.m.
Presentation:	6:45 – 7:15 p.m.
Questions:	7:15 – 8:00 p.m.
Brainstorming:	8:00 – 9:00 p.m.

In Attendance:	Adam Stanley	County of Bruce
	Christine MacDonald	County of Bruce
	Derek McCaughan	County of Bruce
	Ryan Errington	County of Bruce
	Jeffrey Loney	County of Bruce
	Chris Peabody Sonya Watson John Strader Paulette Peirol	Municipality of Brockton (Mayor) Municipality of Brockton Municipality of Brockton Municipality of Brockton
	Kelly Vader Ryan Munn Tara Vader	B.M. Ross and Associates (BMROSS)

Members of the public: Approximately 135 persons

# 6:00 p.m. – 6:45 p.m. – Sign In

- Business Owners and Public Arrival
  - Business owners and members of the public signed in upon arrival.
  - Poster boards were on display for attendees to review.
  - BMROSS and County of Bruce Staff were available to talk to the public as they arrived.

# 6:45 p.m. – 7:15 p.m. – Presentation

- Power Point Presentation
  - Adam Stanley welcomed those in attendance on behalf of the County of Bruce and introduced the representatives from BMROSS.
  - Kelly Vader then began the presentation by reviewing the agenda and then discussing the phases of a Class EA process.
  - Following a review of previous Class EA phases conducted earlier in the EA process, Kelly then indicated the current stage; evaluation of design concepts.
  - Kelly then discussed in further detail the consultation program developed for the study and the consultation that has been completed to date. A review of input received from various agencies was also presented.
  - Ryan Munn then reviewed the components of the Durham Street Bridge, its design and the identified deficiencies. He explained the concerns associated with the current deficiencies and why the bridge needed to be replaced.
  - Ryan described the potential detour routes and associated costs identified for the project including; i) A truck detour using County Roads, ii) a temporary vehicle bridge route, iii) a temporary pedestrian bridge crossing, and iv) a local detour. He then described the recommended detour option, which is the local detour route. Since no temporary vehicle or pedestrian bridge is proposed, the County would provide a shuttle during the bridge construction which would transport residents around the detour.
  - Ryan discussed the design criteria of the new bridge and identified key aspects of the preliminary design. He explained that wider six (6) foot sidewalks would be included in the new bridge design as well as fewer spans.
  - Ryan then reviewed the hydraulic investigation that was completed and discussed key findings from the preliminary report that has been submitted to SVCA for review and approval.
  - Ryan presented the proposed replacement bridge design and indicated the key aspects and their relation to hydrology and impacts to aquatic habitat.
  - Kelly provided additional details related to the recommended detour alternative and described proposed upgrades that will be implemented in support of the detour.
  - Kelly described the proposed shuttle service that would be provided 12 hours a day, 7 days a week and indicated that there were two local firms interested in provided the service. Kelly mentioned that both firms will offer an app that will allow residents to track the shuttle's location. She said that the hours of service have not been confirmed and that the County is open to suggestions regarding the hours of service that will be offered.
  - Kelly reviewed each detour route upgrade in detail including; i) Yonge Street upgrades included storm drainage improvements, replacement of the road base (to be completed by Brockton) and an additional lift of asphalt, ii) Upgrades on Concession 2 that will include an additional life of asphalt and wider paved shoulders for cyclists and pedestrians, iii) Increased turning radius at the intersections adjacent to Concession 2 for truck traffic, iv) Provision of digital speed signs and a reduced speed limit of 60 km/h, and v)

Installation of temporary signals at the intersection of Yonge Street and Durham Street. Kelly also showed an example of detour signage that would be posted on the County road network advising of the road closure and associated detour.

- Kelly concluded her part of the presentation with a review of the proposed EA timeline for the project and the next steps in the process.
- Jeff Loney then reviewed the potential economic impacts associated with the project. He advised that the County is seeking input from business owners to assist with the identification of Brand Campaigns and other programs that could address potential impacts. Jeff described campaigns used in other communities that could be implemented in Walkerton. He encouraged business owners to participate in the brainstorming session being held later in the evening.

# 7:15 p.m. – 8:00 p.m. – Question & Answer

• After concluding the presentation, residents and business owners who registered to speak at the start of the meeting, were given an opportunity to speak.

A local business owner presented concerns associated with the proposed local detour and the impacts that would result to Walkerton business and the local community. They also indicated several concerns related to vulnerable populations (elderly, disabled persons, and children) and a lack of access to services.

- Q: Has a public health study been completed looking at the potential impacts to residents from the detour?
- A: Adam indicated that a public health study has not been completed for the project. He acknowledged the concern and mentioned the shuttle service that would be provided for the use of residents.

A local business owner presented concerns about a lack of traffic going through the downtown core as a result of the detour as well as inhibiting the attraction of new businesses to the area. The business owner/resident also had concerns with the length of the detour and the additional gasoline costs to residents that would be incurred from traveling the detour multiple times in a day over the course of the project.

- Q: Has there been consideration for EMS, Fire and OPP services?
- A: Adam stated that emergency services were consulted about the detour. He advised that EMS and OPP indicated that the proposed detour should not have a significant impact on their response times. However, fire services were more concerned about impacts to their response times. Adam mentioned that a potential emergency route was being investigated but was not fully evaluated to a point where it could be presented to the public.
- Q: Why is the Walkerton temporary bridge so costly, in comparison to the Paisley temporary bridge?
- A: Ryan explained that the primary difference between the Paisley and Walkerton bridge sites is the length of the span. He indicated that the longer bridge span in Walkerton requires a pier in the river whereas the Paisley temporary bridge did not. Due to the

presence of the in-water pier the construction timeline is also affected as in-water work cannot begin until the middle of July.

The resident also indicated concerns about economic development in Walkerton, and asked for an economic development study. They also asked that a dedicated project liaison be established that residents could discuss concerns with. Adam stated that he has provided his business cards at the sign-in desk and residents were welcome to take one for his contact information. Adam also noted that comment sheets were available at the sign-in desk for resident's to document their concerns and send them in to himself and Kelly.

- Q: An attendee expressed concern about the safety of the Young and Durham intersection. They indicated that frequent wide turns from trucks pose a safety concern.
- A: Adam stated that there would be a posted truck detour so that trucks could avoid this intersection.
- Q: Is there a possibility to connect the river trails?
- A: Adam stated that it has not been investigated as part of this project.

A local business owner indicated that he has several staff who regularly walk to his business over the bridge on a daily basis. They do not have vehicles and start work at 4 a.m. so will have difficulty getting to work during the detour. He also said that a lack of communication has occurred in the past between contractors and businesses. For example, a construction crew used his business's parking lot without prior arrangement during replacement of the watermain under the river. Adam indicated that he did reach out to the business that employs migrant workers who walk to work every day. He also indicated that the shuttle service was being established to support local residents and would try to accommodate the worker's schedule.

After the list of speakers was finished, Adam invited additional questions from the audience.

- Q: What is the cost of the shuttle? Can a cost comparison be presented with a temporary vehicle bridge and temporary pedestrian bridge?
- A: Adam stated that a cost has not been finalized for the shuttle service. He also stated that based on estimates, the cost would be lower than the temporary bridge options.
- Q: The detour uses Bruce Road 19 that is frequently closed in the winter, what will be done for residents when the road is closed?
- A: Adam stated that additional road maintenance will be required to ensure the safety of the detour. This cost would still remain less expensive than the cost of a temporary bridge.
- Q: Where exactly will the road closures be located, in relation to the current bridge?
- A: Adam indicated that the construction limits will be very close to the bridge but that equipment staging is up to the contractor.
- Q: Will the County work with adjacent businesses to ensure they are not cut off from the public?

# County of Bruce - May 11, 2023 Business Owners Meeting - Notes

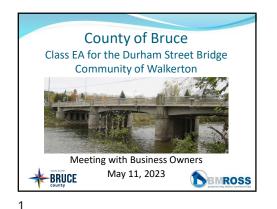
- A: Adam stated that the County is going to work with businesses. He encouraged concerned business owners to stay after the question and answer period to partake in the brainstorming activity with County Staff. Adam stated that the County is looking for input from business owners.
- Q: Who is paying for the bridge?
- A: Adam indicated that the County will be paying for the bridge. He said that staff will be investigating funding opportunities as they become available, however there are currently no grant programs being offered that would fund the project.
- Q: How much will be the bridge cost?
- A: Ryan stated that the permanent bridge replacement is estimated to cost \$9.0 million. The temporary vehicle bridge would cost approximately \$6.3 million and the temporary pedestrian bridge would cost approximately \$2.6 million.
- Q: If they do a temporary vehicle bridge, would there be an option to add a pedestrian crossing?
- A: Adam indicated that this would be possible and described the pedestrian walkway provided for the Paisley temporary bridge.
- Q: Why can't they just build another bridge beside the other one?
- A: Adam stated that the County only owns the one road allowance so they do not have enough County owned property to build beside the current bridge.

An attendee stated that they do not care about the price of the temporary vehicle bridge because they will be paying out of pocket for gas money for a detour.

- Q: How will traffic safety be addressed at the intersection of Bruce Road 19 and Highway 4?
- A: Adam indicated that with through traffic eliminated because of the bridge construction, the intersection will be less busy than the current arrangement.
- Q: A resident asked if a second permanent bridge could be built at Cemetery Road in the south end of Walkerton.
- A: Adam indicated that a second permanent bridge location had not been investigated, although it could be discussed with Walkerton. The location at Cemetery Road would not address concerns associated with the loss of traffic to the business community.
- Q: What will happen with the ongoing flooding issues at Lobies Park?
- A: Adam indicated that Brockton was looking to complete upgrades on Yonge Street, including raising the road. He advised that Brockton would work closely with the SVCA on the proposed upgrades.
- Q: How many cars go across the bridge every day?
- A: Ryan indicated that the average traffic volume crossing the bridge on a daily basis is 12,000.

# 8:00 p.m. – 9:00 p.m. – Brainstorming Activity

- Brainstorming Activity
  - Economic development staff from the County of Bruce facilitated a brainstorming session with local business owners and residents.

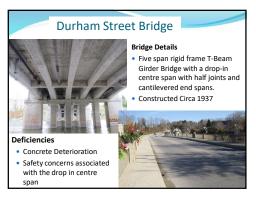


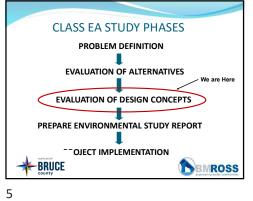


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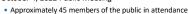


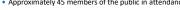










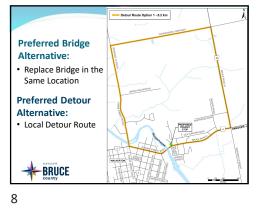


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# BMROSS

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# Preferred Detour Option Local Detour Local traffic to use local detour to the north via Bruce Road 19, Concession 2 and Yonge Street • Transit stop to be created on the north side of the river to convey pedestrians into Walkerton - 12 hour daily service

- Truck traffic encouraged to use truck detour routes
- Concession 2 and Yonge Street to be upgraded with additional lift of asphalt to improve road base
- Improvements planned for intersections of 19/Conc. 2, Yonge/Conc. 2 to improve turning radius
- Improvements at Yonge/Durham Street to provide temporary signals



# Hydraulic Investigation

### Hydraulic Investigation

· Walkerton is protected with a system of flood control dykes owned and maintained by SVCA, providing protection up to a 100 yr return event Floodplain mapping completed 2009

overtopping of the flood dykes for

Floodplain mapping indicates

Recent changes include partial

removal of Truax Dam in 2019

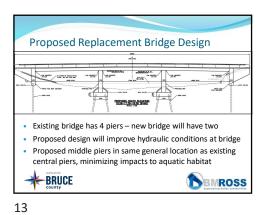


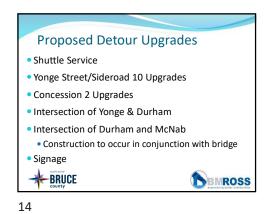
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# Hydraulic Investigation

- Assessment of the Proposed Durham Street Bridge included:
- Floodplain model updates with new survey data and the partial removal of the Truax Dam
- Ensuring no flooding impacts to properties or dyke system
- · Cut and fill assessment for impacts on flood storage
- · Ice jam and ice flow considerations
- Evaluation of different bridge design alternatives
- Report submitted to SVCA for review and approval
- · Proposed bridge design reviewed through the model













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### Yonge Street/Sideroad 10 Upgrades • Yonge Street reconstruction from north extent of bridge over the Saugeen River to Riverside Drive Replace storm drainage infrastructure Replace road base and add additional lift of asphalt Temporarily reduce speed to 60km/hr from Concession 2 to town limits

## Concession 2 Upgrades

- Add additional lift of asphalt to road surface
- Pave both shoulders additional 0.5m in width for cyclists and pedestrians
- Increase turning radius at intersections for truck traffic
- Provide temporary digital speed signs/posted at 60km/hr



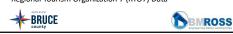




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## Potential Economic Impacts

- Aware that downtown business owners are concerned about impacts during construction
- Bruce County Economic Development and Brockton Economic Development will help to address impacts
- Brand Campaigns have been developed in other communities impacted by construction
- Kincardine 'After Dark' Campaign
- Paisley 'Where the River Meets' Campaign
- Shuttle Service will have two stops in the downtown
  Regional Tourism Organization 7 (RTO7) Data





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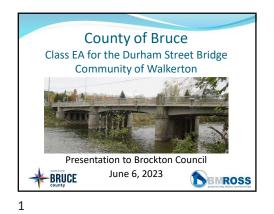






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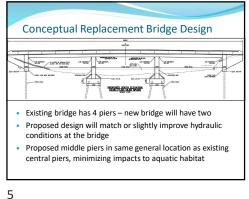








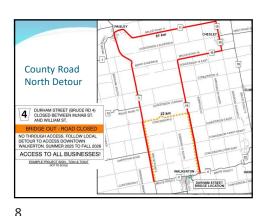






# Hydraulic Investigation Assessment of the Proposed Durham Street Bridge included: • Floodplain model updates with new survey data and the partial removal of the Truax Dam Ensuring no flooding impacts to properties or dyke system · Cut and fill assessment for impacts on flood storage · Ice jam and ice flow considerations • Evaluation of different bridge design alternatives Report submitted to SVCA for review and approval Proposed bridge design reviewed through the model



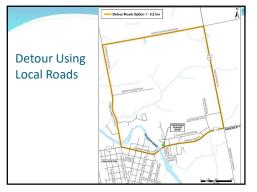




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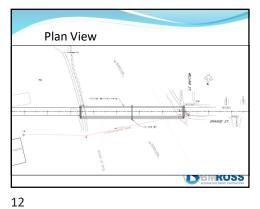
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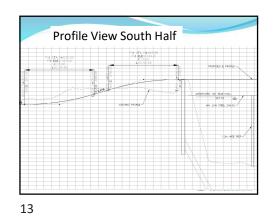
MROSS

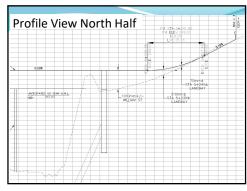


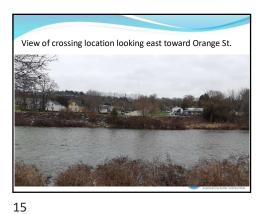




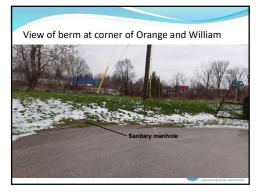






















**Recommended Detour Option** 

pedestrians into Walkerton - 12 hour daily service

• Improvements planned for intersections of 19/Conc. 2, Yonge/Conc. 2 to improve turning radius

Improvements at Yonge/Durham Street to provide temporary

Truck traffic encouraged to use truck detour routes
Concession 2 and Yonge Street to be upgraded with additional

• Local traffic to use local detour to the north via Bruce Road 19,

• Transit stops to be created on both sides of the river to convey

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# June 2023 – Presentation to Brockton Council Summer 2023 – Presentation to County Council Summer/Fall 2023 - Second Public Information Meeting Summer/Fall 2023 – Update letter to Agencies/ Indigenous Communities Fall/Winter 2023 – Finalize EA Process & Publish Report Winter 2023/24 – Complete Engineering Design & Apply for Approvals (DFO/SVCA/MECP) 2024 – Complete detour road upgrades Spring 2025 – Construction Initiated Fall 2026 – Construction Completed

Proposed Schedule





signals

23

Local Detour

Concession 2 and Yonge Street

lift of asphalt to improve road base





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April 11, 2024

Adam Stanley, County of Bruce Director of Transportation and Environmental Services <u>AStanley@brucecounty.on.ca</u>

# Sent by Email

Dear Adam,

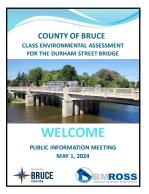
On behalf of the Council of the Municipality of Brockton, we would like to thank you for attending the April 9, 2024 Council Meeting, and providing an update on the rehabilitation of the Durham Street Bridge in Walkerton.

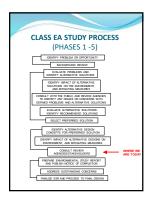
We are pleased that alternative solutions were investigated, and that construction plans will accommodate the concerns raised by residents and business owners.

We look forward to continuing to work with you on this project and maintaining the safety of the Durham Street Bridge.

Sincerely,

Fiona Hamilton, Director of Legislative and Legal Services (Clerk) Municipality of Brockton fhamilton@brockton.ca or 519-881-2223 Ext. 124













B. M. ROSS AND ASSOCIATES LIMITED Engineers and Planners
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p. (519) 524-2641
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File No. BR1395

# **COUNTY OF BRUCE**

# CLASS ENVIRONMENTAL ASSESSMENT FOR DURHAM STREET BRIDGE – WALKERTON

# **PUBLIC MEETING NOTES**

Details:	May 1, 2024 Walkerton District Knights Community Hall – Main Hall (1658 Highway 9, RR 5, Mildmay, Ontario)	
	Open House: Repair Presentation: Questions: Break: EA Presentation: Questions:	7:00 – 7:30 p.m. 7:30 – 7:50 p.m. 7:50 – 8:00 p.m. 8:00 – 8:15 p.m. 8:15 – 8:30 p.m. 8:30 – 8:45 p.m.
In Attendance:	Ryan Errington Adam Stanley Kelly Vader Ryan Munn Becky Adams Carlos Santos Matt Hickey Jonathan Romero	County of Bruce County of Bruce B.M. Ross and Associates (BMROSS) BMROSS BMROSS Pullman Pullman Pullman

Several staff and council members from the Municipality of Brockton were also present at the meeting.

Members of the public: ~83 persons

# 7:00 p.m. – 7:30 p.m. – Open House

- Public Arrival
  - Members of the public signed in upon arrival.
  - Poster boards were on display for the public to view.

- Pullman, BMROSS and County of Bruce Staff were available to talk to the public as they arrived.
- Coffee and water was provided for those attending the meeting.

# 7:30 p.m. – 7:50 p.m. – Repair Presentation by Matthew Hickey from Pullman

# **Power Point Presentation**

- Ryan Errington welcomed those in attendance on behalf of the County of Bruce and introduced the representatives from Bruce County, Pullman and BMROSS.
- Matthew Hickey began the presentation by reviewing the agenda for the meeting and then providing background on Pullman and introducing staff that would be involved with the emergency repairs.
- Matthew discussed the scope of the immediate repairs, site setup and the traffic control plan in Stage 1 and Stage 2 of construction.
- He presented the general arrangement plan and further explained the required repairs. He outlined that the repairs would be completed from a temporary work platform secured to the underside of the structure.
- Matthew reviewed the work in more detail including the repairs to the half-joints and bridge deck restoration.
- He concluded the presentation by outlining the project timeline and potential community impacts related to the work.
- After concluding the presentation, questions were invited from the public.

# 7:50 p.m. - 8:00 p.m. - Questions

Q: How will emergency services navigate through the anticipated traffic congestion created by the closure of a lane during construction?

A: Ryan E. stated that they are currently looking into measures to prevent delays to emergency services through Walkerton during construction.

Q: For pedestrians utilizing the Saugeen River trail, where will they cross the road and will there be signage?

A: Ryan E. stated that there will be a pedestrian crossing at the McNab and Durham Street intersection to allow pedestrians to cross the road. A three-way stop will be created at the intersection to allow pedestrians to safely cross the roadway.

Q: After the immediate repairs are completed, will additional repairs be required? A: Ryan E. stated that the EA will provide details related to the need for additional repairs.

Q: What are the risks associated with repairing the structure instead of replacing it? A: Matthew stated that there are pros and cons to both repairing and replacing the structure. The pros of repairing the structure include prolonging the lifespan of the existing bridge, reducing costs in the short term. The cons of repairing the structure include ongoing maintenance and repairs.

# 8:15 p.m. – 8:30 p.m. – EA Presentation by Kelly Vader from BMROSS

• Kelly began the presentation by reviewing the agenda.

- She outlined the project background including the identified deficiencies and structure history.
- Kelly then explained the Class EA process and described the studies completed as part of the EA process, previous meetings and consultation that has occurred. She described the Class EA alternatives and the current recommended bridge alternative.
- Kelly concluded the presentation by reviewing the project timelines and the next steps in the process.
- Kelly explained that once the emergency repairs are completed on the half-joints, additional repairs will be completed to the entire structure. This work will occur in 2025 after the rehabilitation work has been tendered in the fall of 2024.
- After concluding the presentation, questions were invited from the public.

#### 8:30 p.m. – 8:45p.m. – Questions

## **List of Questions**

C: A member of the public stated that local materials and labour were used to construct the structure. They stated that a similar structure that had half-joints had been repaired and had failed after the repairs. In the EA screening report, they would like to see information on the difficulties associated with repairing concrete. They stated that the structure is rare and there are only 2-3 left in the County. They hope that the EA can conserve the heritage value of the structure. They said that this will be the last Bridge EA due to changes to the Class EA process implemented by the Ford Government.

Q: Will there be any pier or abutment repairs?

A: Ryan E. stated that the piers and abutments have been inspected and are generally in good condition. Minor concrete repairs may be required.

Q: How did residents cross the river before the bridge was constructed in 1936? A: Kelly stated that there were previous structures in the same location that provided access across the river. Some of the earliest would have been wooden bridges.

Q: Will a temporary bridge be constructed near the cemetery when the structure eventually needs to be replaced?

A: Kelly advised that that decision has yet to be made and will be made when the structure needs to be replaced at some point in the future.

Q: After the immediate repairs are completed, additional rehabilitation will be completed in 2025. Will the additional rehabilitation work in 2025 cause road closure?

A: Ryan E. stated that traffic may need to be reduced to 1 lane but full road closure will not occur.

Q: What will be the cost for the repair work and how will it be financed? What would it have cost to replace the structure?

A: Chris stated that the immediate repairs will cost 3.7 million dollars and that additional rehabilitation work will cost 2 million dollars. To replace the structure, it would cost 15 to 17 million dollars. Adam stated that the project would be financed over two years with 2 million dollars in the budget for rehabilitation in 2025.

Q: Will there be access under the structure for fishing and canoeing during construction?

A: Matt stated that there will still be access under the structure during construction.

Q: When will the weight restriction on the structure be lifted so that trucks can travel over the structure again and will trucking companies be notified?A: Ryan E. stated that the weight restriction on the structure will remain in place until after the rehabilitation work is completed and signage will be updated when the weight restriction is no longer in place.

Q: What is the estimated life span of the structure after the rehabilitation work is completed?

A: Ryan E. stated that it will be between 20-40 years.

## 8:45p.m. – 9:00 p.m. – Open House

#### **Individual Concerns**

• Members of the public were given the opportunity to have one-on-one time with County, Pullman and BMROSS staff and to ask any additional question after the presentation and question period ended.



# MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT FOR THE DURHAM STREET BRIDGE TOWN OF WALKERTON - BRUCE COUNTY

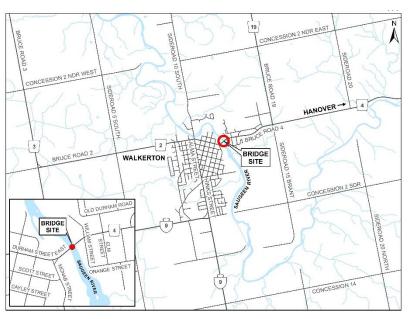
# NOTICE OF PUBLIC INFORMATION MEETING

## THE PROJECT

The County of Bruce initiated a Class Environmental Assessment process in 2021 to address deficiencies present in the Durham Street Bridge which spans the Saugeen River along Bruce Road 4 in the community of Walkerton, Ontario (as shown on the accompanying key plan). Recent evaluations of the structure have clarified the extent of deterioration present within the structure. Based upon this new information, the County is considering reinforcement/rehabilitation of the crossing to address the deficiencies, rather than replacement. The work would be undertaken in 2024/25 with signalized lane restrictions that would allow a single lane of traffic to cross the bridge during completion of the repairs.

## THE ENVIRONMENTAL ASSESSMENT PROCESS:

The planning for this project is following the environmental planning and design process set out for Schedule 'C' activities under the Municipal Class Environmental Assessment (Class EA) process, which is approved process under the an Environmental Assessment Act. The purpose of the Class EA process is to identify any potential environmental impacts associated with the proposed works and to plan for appropriate mitigation of any identified impacts. This process includes consultation with the general public, government review agencies, indigenous communities and affected property owners.



## **PUBLIC INVOLVEMENT:**

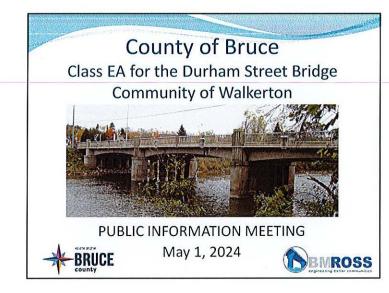
A Public Information Meeting is being organized by the County to update residents on the current status of the project. The meeting will provide details related to the proposed bridge reinforcement/rehabilitation work, including construction details, timing and traffic restrictions during construction. A Class EA update will also be provided, including a timeline for completion of the EA and finalization of the Class EA process. Details of the meeting are as follows:

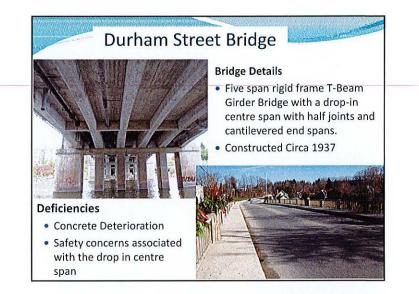
Date:	Wednesday May 1, 2024
Place:	Walkerton District Knights of Columbus Hall – Main Hall
	#1658 Highway 9, RR 5 Mildmay, ON
Time:	Open House from 7:00 to 7:30 p.m.
	Formal Presentation at 7:30 p.m.

Following the meeting, input into this project will be accepted until May 19, 2024. Any comments collected in conjunction with this Class EA process will be maintained on file for use during the project and may be included in project documentation. With the exception of personal information, all comments will become part of the public record. Contacts for the project are listed below.

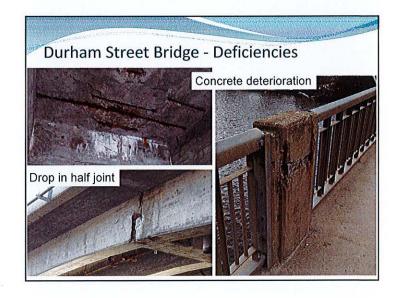
Ryan Errington, Engineering Manager Transportation & Environmental Services Corporation of the County of Bruce Phone: 519-881-2400 Email: <u>rerrington@brucecounty.on.ca</u> Kelly Vader, RPP Senior Environmental Planner B.M. Ross & Associates Ltd. Phone: 519-524-2641 x-229 Email: <u>kvader@bmross.net</u>

This Notice Issued April 15, 2024

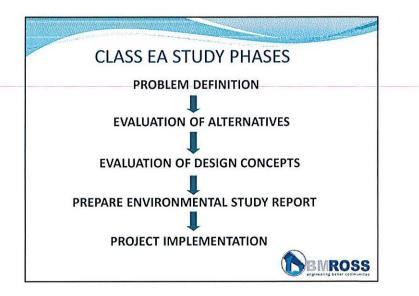






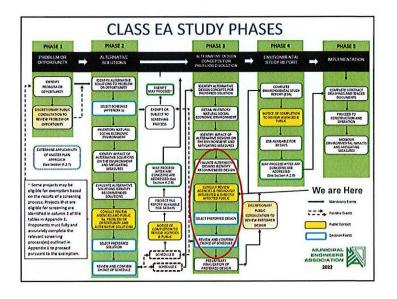


Bridge History	
Bridge Constructed:	1936-1937
<ul> <li>Bridge Repairs</li> </ul>	1966
<ul> <li>Replace Approach Slabs/Repave Deck</li> </ul>	
<ul> <li>Detailed Deck Condition Survey (Trow)</li> </ul>	1993
<ul> <li>Bridge Repairs</li> </ul>	1995
<ul> <li>Deck overlaid, new expansion joints &amp; structural response</li> </ul>	epairs
<ul> <li>Half Joint Span Review</li> </ul>	2019
<ul> <li>Visual Inspection from lift/GPR review</li> </ul>	
<ul> <li>Recommended replacement within 1-5 years</li> </ul>	
<ul> <li>Detailed Deck Condition Survey (HAL Group Inc.)</li> </ul>	2023
<ul> <li>Reinforcement/Rehabilitation determined to be via</li> </ul>	able



# Project Background February 2021 – Class EA process initiated 2021/2022 – Cultural Heritage/Geotechnical/Hydraulic/Aquatic Habitat Studies Completed Fall 2022 – Initial Public Information Meeting June 2023 – Business Owners Meeting Fall 2023 – Third Party Review Initiated by County Winter 2023/24 – Bridge Condition Survey and Third Party Review Completed February 2024 – Load Limit Restrictions Enforced at Crossing

• April 2024 - Bridge Reinforcement Plan approved by County Council



## Class EA Bridge Alternatives

#### Alternative 1 – Replacement in the Same Location

- Remove existing bridge and construct a new bridge in the same location
- Alternative 2 Rehabilitate the Existing Bridge
  - Complete repairs to the crossing to address existing concrete deterioration at the half-joints, deck and railing repairs, other identified deficiencies
- Alternative 3 Do Nothing No work would occur to address the existing deterioration





# **Evaluation of Alternatives**

- Alternative 2 Bridge Rehabilitation
  - This alternative was not initially recommended due to concerns with the bridge's age and half joint design
  - Third Party Review and Updated Bridge Condition Survey indicated that bridge could be rehabilitated removing the single load path (half-joints)
  - Condition of other bridge components determined to be better than expected
  - Construction could be completed with lane restrictions rather than complete closure minimizing resident's concerns



# **Evaluation of Alternatives**

#### Alternative 1 - Bridge Replacement

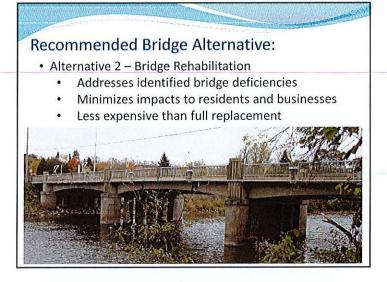
- Initially this alternative was preferred due to concerns with the bridge's age and the half-joints
- Concerns expressed by members of the public due to proposed detour and anticipated impacts to residents and local businesses
- Concerns also identified due to length of construction period and costs associated with bridge replacement



# **Evaluation of Alternatives**

- Alternative 3 Do Nothing
  - Not a viable option given the current condition of the halfjoints





# Next Steps

- Collect input from Public & Stakeholders
- County Council to select Preferred Alternative
- Finalize Environmental Study Report (ESR)
- Publish Report and Notice of Study Completion for 30 day mandatory review period
- Initiate Emergency Bridge Reinforcement Work
- Tender Bridge Rehabilitation Works
- Complete Bridge Rehabilitation following Completion of the Emergency Reinforcement Work



# **Proposed Schedule**

- May 19/24 End of comment period following PIC
- May 2024 Initiate Emergency Bridge Reinforcement/Repairs
- June 2024 Present Preferred Alternative to County Council
- June 2024 Finalize ESR/Publish Notice of Study Completion
- August 2024 Tender Bridge Rehabilitation Works
- Fall 2024 Emergency Reinforcement Completed
- Winter 2025 Initiate Rehabilitation Work
- Summer/Fall 2025 Rehabilitation Completed







B. M. ROSS AND ASSOCIATES LIMITED
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p. (519) 524-2641
www.bmross.net

File No. BR1395

# **COUNTY OF BRUCE**

# CLASS ENVIRONMENTAL ASSESSMENT FOR DURHAM STREET BRIDGE – WALKERTON

## **PUBLIC MEETING NOTES**

Details: May 1, 2024 Walkerton District Knights Community Hall – Main Hall (Highway 9, RR 5, Mildmay, Ontario)		
	Open House: Repair Presentation: Questions: Break: EA Presentation: Questions:	7:00 – 7:30 p.m. 7:30 – 7:50 p.m. 7:50 – 8:00 p.m. 8:00 – 8:15 p.m. 8:15 – 8:30 p.m. 8:30 – 8:45 p.m.
In Attendance:	Ryan Errington Adam Stanley	County of Bruce County of Bruce
	Kelly Vader Ryan Munn Becky Adams	B.M. Ross and Associates (BMROSS) BMROSS BMROSS
	Chris Clark	Triton Engineering Serviced Limited (Triton)
	Carlos Santos Matt Hickey Jonathan Romero	Pullman Pullman Pullman

Several staff and council members from the Municipality of Brockton were also present at the meeting.

Members of the public: ~83 persons

## 7:00 p.m. - 7:30 p.m. - Open House

- Public Arrival
  - Members of the public signed in upon arrival.
  - Poster boards were on display for the public to view.
  - Pullman, Triton, BMROSS and County of Bruce Staff were available to talk to the public as they arrived.
  - Coffee and water was provided for those attending the meeting.

## 7:30 p.m. – 7:50 p.m. – Repair Presentation by Matthew Hickey from Pullman

## **Power Point Presentation**

- Ryan Errington welcomed those in attendance on behalf of the County of Bruce and introduced the representatives from Bruce County, Pullman and BMROSS.
- Matthew Hickey began the presentation by reviewing the agenda for the meeting and then providing background on Pullman and introducing staff that would be involved with the emergency repairs.
- Matthew discussed the scope of the immediate repairs, site setup and the traffic control plan in Stage 1 and Stage 2 of construction.
- He presented the general arrangement plan and further explained the required repairs. He outlined that the repairs would be completed from a temporary work platform secured to the underside of the structure.
- Matthew reviewed the work in more detail including the repairs to the half-joints and bridge deck restoration.
- He concluded the presentation by outlining the project timeline and potential community impacts related to the work.
- After concluding the presentation, questions were invited from the public.

### 7:50 p.m. – 8:00 p.m. – Questions

#### **List of Questions**

Q: How will emergency services navigate through the anticipated traffic congestion created by the closure of a lane during construction?

A: Ryan E. stated that they are currently looking into measures to prevent delays to emergency services through Walkerton during construction.

Q: For pedestrians utilizing the Saugeen River trail, where will they cross the road and will there be signage?

A: Ryan E. stated that there will be a pedestrian crossing at the McNab and Durham Street intersection to allow pedestrians to cross the road. A three-way stop will be created at the intersection to allow pedestrians to safely cross the roadway.

Q: After the immediate repairs are completed, will additional repairs be required? A: Ryan E. stated that the EA will provide details related to the need for additional repairs. Q: What are the risks associated with repairing the structure instead of replacing it? A: Matthew stated that there are pros and cons to both repairing and replacing the structure. The pros of repairing the structure include prolonging the lifespan of the existing bridge, reducing costs in the short term. The cons of repairing the structure include ongoing maintenance and repairs.

#### 8:15 p.m. – 8:30 p.m. – EA Presentation by Kelly Vader from BMROSS

- Kelly began the presentation by reviewing the agenda.
- She outlined the project background including the identified deficiencies and structure history.
- Kelly then explained the Class EA process and described the studies completed as part of the EA process, previous meetings and consultation that has occurred. She described the Class EA alternatives and the current recommended bridge alternative.
- Kelly concluded the presentation by reviewing the project timelines and the next steps in the process.
- Kelly explained that once the emergency repairs are completed on the half-joints, additional repairs will be completed to the entire structure. This work will occur in 2025 after the rehabilitation work has been tendered in the fall of 2024.
  - After concluding the presentation, questions were invited from the public.

#### 8:30 p.m. – 8:45p.m. – Questions

#### **List of Questions**

C: A member of the public stated that local materials and labour were used to construct the structure. They stated that a similar structure that had half-joints had been repaired and had failed after the repairs. In the EA screening report, they would like to see information on the difficulties associated with repairing concrete. They stated that the structure is rare and there are only 2-3 left in the County. They hope that the EA can conserve the heritage value of the structure. They said that this will be the last Bridge EA due to changes to the Class EA process implemented by the Ford Government.

Q: Will there be any pier or abutment repairs?

A: Ryan E. stated that the piers and abutments have been inspected and are generally in good condition. Minor concrete repairs may be required.

Q: How did residents cross the river before the bridge was constructed in 1936? A: Kelly stated that there were previous structures in the same location that provided access across the river. Some of the earliest would have been wooden bridges.

Q: Will a temporary bridge be constructed near the cemetery when the structure eventually needs to be replaced?

A: Kelly advised that that decision has yet to be made and will be made when the structure needs to be replaced at some point in the future.

County of Bruce – May 1, 2024 Public Meeting Notes

Q: After the immediate repairs are completed, additional rehabilitation will be completed in 2025. Will the additional rehabilitation work in 2025 cause road closure?

A: Ryan E. stated that traffic may need to be reduced to 1 lane but full road closure will not occur.

Q: What will be the cost for the repair work and how will it be financed? What would it have cost to replace the structure?

A: Chris stated that the immediate repairs will cost 3.7 million dollars and that additional rehabilitation work will cost 2 million dollars. To replace the structure, it would cost 15 to 17 million dollars. Adam stated that the project would be financed over two years with 2 million dollars in the budget for rehabilitation in 2025.

Q: Will there be access under the structure for fishing and canoeing during construction?

A: Matt stated that there will still be access under the structure during construction.

Q: When will the weight restriction on the structure be lifted so that trucks can travel over the structure again and will trucking companies be notified?

A: Ryan E. stated that the weight restriction on the structure will remain in place until after the rehabilitation work is completed and signage will be updated when the weight restriction is no longer in place.

Q: What is the estimated life span of the structure after the rehabilitation work is completed?

A: Ryan E. stated that it will be between 20-40 years, provided regular preventative maintenance schedules and regular bi-annual inspections, are followed.

#### 8:45p.m. – 9:00 p.m. – Open House

#### **Individual Concerns**

• Members of the public were given the opportunity to have one-on-one time with County, Pullman and BMROSS staff and to ask any additional question after the presentation and question period ended.

From:	Kelly Vader <kvader@bmross.net></kvader@bmross.net>
Sent:	July 11, 2024 2:25 PM
То:	kvader@bmross.net
Subject:	FW: Durham Street Bridge - Student Transportation Services
Attachments:	Pullman - Durham Street Bridge - May 1st 2024.pdf

From: Ryan Errington
Sent: Friday, May 3, 2024 11:38 AM
To: Dylan Birley <<u>dylan birley@bwdsb.on.ca</u>>
Subject: RE: Durham Street Bridge - Student Transportation Services

## Good Afternoon Dylan,

Thank you for attending the open hall discussion to learn more about the upcoming construction on the Durham Street Bridge in Walkerton, on Bruce Road 4. We do recognize this bridge is a crucial asset to the County of Bruce and we are eager to restore the Bridge to back to it's full-load capacity. I have attached the presentation from Pullman which includes the Stage 1 and Stage 2 Traffic Control Plans, along with the timelines.

Thanks,

Ryan

From: Dylan Birley <<u>dylan\_birley@bwdsb.on.ca</u>> Sent: Friday, May 3, 2024 8:13 AM To: Ryan Errington <<u>RErrington@brucecounty.on.ca</u>> Subject: Durham Street Bridge - Student Transportation Services Importance: High

You don't often get email from dylan\_birley@bwdsb.on.ca. Learn why this is important

\*\* [CAUTION]: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Ryan,

My planner and I attended the open hall discussion at the Walkerton Knights of Columbus this week. We are working with our service providers and route plans to work around your plans for this project as best we can. Currently we have 18 large school buses utilizing this bridge twice a day which will be affected. This is hundreds of students that will have changes or delays to their transportation schedules in the Municipality of Brockton.

May I please ask for the stage 1 and stage 2 depictions provided at the meeting of the traffic flow plans as soon as you can, we are sitting down with our service privder early next week and some of your visuals will help with these conversations.

Dylan Birley Supervisor of Transportation Student Transportation Services Consortium of Grey-Bruce Representing Bluewater District School Board & Bruce-Grey Catholic District School Board Phone: 226-257-1000 Email: <u>dylan.birley@stscgb.ca</u>



From:Becky Adams <badams@bmross.net>Sent:May 28, 2024 4:57 PMTo:Kelly Vader (kvader@bmross.net)Subject:FW: BR1395 - Class EA for the Durham Street Bridge, County of Bruce



FYI

From: Stu Moffat <smoffat@southbruce.ca> Sent: Friday, May 24, 2024 4:00 PM To: Becky Adams <badams@bmross.net> Subject: RE: BR1395 - Class EA for the Durham Street Bridge, County of Bruce

Afternoon Becky,

The Municipality of South Bruce has no comments or concerns to the EA for the Durham Street Bridge in Walkerton.

Thanks, Stu

## Stu Moffat

Manager of Operations

Box 540, 21 Gordon St E. Teeswater, ON N0G 2S0 T: 519-392-6623 ext. 225 https://link.edgepilot.com/s/97dc5660/TAxejkG25keOHsdHw0OSEg?u=http://www.southbruce.ca/

From: Becky Adams <<u>badams@bmross.net</u>>
Sent: May 23, 2024 3:47 PM
To: Stu Moffat <<u>smoffat@southbruce.ca</u>>
Subject: BR1395 - Class EA for the Durham Street Bridge, County of Bruce

To Mr. Moffat,

The County of Bruce is undertaking a Class Environmental Assessment process to address deficiencies present at the Durham Street Bridge in Walkerton.

From:Kelly Vader <kvader@bmross.net>Sent:July 11, 2024 2:09 PMTo:kvader@bmross.netSubject:FW: BR1395 - Class EA for the Durham Street Bridge, County of BruceAttachments:Initial Notice.pdf

From: Macki, Monika (MECP) <<u>Monika.MacKi@ontario.ca</u>
Sent: Monday, May 27, 2024 10:37 AM
To: Becky Adams <<u>badams@bmross.net</u>>
Subject: RE: BR1395 - Class EA for the Durham Street Bridge, County of Bruce

Hi Becky,

Thank you for the email.

I see that this project was initiated in 2021 and an acknowledgement letter was sent from Barbara Slattery (MECP).

Was a notice of commencement sent for this project?

Monika Macki Environmental Resource Planner/Environmental Assessment Coordinator Environmental Assessment Branch Ministry of the Environment, Conservation and Parks <u>monika.macki@ontario.ca</u>

From: Becky Adams <<u>badams@bmross.net</u>>
Sent: Thursday, May 23, 2024 3:43 PM
To: Macki, Monika (MECP) <<u>Monika.MacKi@ontario.ca</u>>
Subject: BR1395 - Class EA for the Durham Street Bridge, County of Bruce

#### CAUTION -- EXTERNAL E-MAIL - Do not click links or open attachments unless you recognize the sender.

To Ms. Macki,

From:	Harvey, Joseph (MCM) <joseph.harvey@ontario.ca></joseph.harvey@ontario.ca>
Sent:	May 31, 2024 4:16 PM
То:	Kelly Vader
Cc:	Becky Adams
Subject:	FW: File 0013726: BR1395 - Class EA for the Durham Street Bridge, County of Bruce
Attachments:	BR1395-2024-05-23-MCM Let.pdf; 2021-03-11_DurhamStreetBridge_MHSTCI-Ltr.pdf

Kelly Vader,

Thanks for providing us with the attached notice. Our intial advice, sent on March 11, 2021, is attached above.

To assist us in tracking archaeological assessment reports, please provide us with the Project Information Form (PIF) number(s) of any archaeological assessments being prepared for this project.

Please let us know if the project has been screened for impacts to known (previously recognized) or potential built heritage resources and cultural heritage landscapes. We continue to recommend that the <u>Muncipal Heritage Bridges Cultural</u>, Heritage and Archaeological Resources Assessment Checklist be compelted. Any recommended technical cultural heritage studies (e.g., Cultural Heritage Evaluation Reports, Heritage Impact Assessments etc.) should be sent for our review as part of the environmental assessment process.

Thanks,

## **Joseph Harvey**

Heritage Planner | Heritage Branch | Citizenship Inclusion and Heritage Division Ministry of Citizenship and Multiculturalism | Ontario Public Service 613.242.3743 | Joseph.Harvey@ontario.ca

# Ontario 😵

Good afternoon,

From: Becky Adams <<u>badams@bmross.net</u>>
Sent: Thursday, May 23, 2024 3:45 PM
To: Barboza, Karla (She/Her) (MCM) <<u>Karla.Barboza@ontario.ca</u>>; Harvey, Joseph (MCM) <<u>Joseph.Harvey@ontario.ca</u>>
Subject: BR1395 - Class EA for the Durham Street Bridge, County of Bruce

CAUTION -- EXTERNAL E-MAIL - Do not click links or open attachments unless you recognize the sender.

From:	Nicholas Schnurr <nschnurr@brockton.ca></nschnurr@brockton.ca>
Sent:	June 5, 2024 10:48 AM
То:	kvader@bmross.net
Cc:	Ryan Errington; Adam Stanley; Sonya Watson; Chris Wells
Subject:	Class EA Comments - Durham Street Bridge

Good morning Kelly,

Please see comments from Brockton Operations and Emergency Services in relation to the Durham Street Bridge EA.

## 1. Sidewalks

Staff note that the rehabilitation option will not address the substandard width of sidewalks on the existing bridge. This presents dangers to walking residents as well as the sidewalk maintenance machine, being barely wide enough to pass safely across the structure. This has also been raised as an accessibility concern when two parties meet, or for individuals using motorized assistant devices. The proposed new bridge would have seen a wider sidewalk for safer maintenance and passage.

## 2. McNabb and Durham Street Intersection and Crosswalk

Staff note that Brockton Council has brought this concern forward many times. The County has indicated to staff through discussions that this is indeed part of their phased plans. However, we do wish to comment again that this cross walk and intersection safety is a priority for the community and construction of the crosswalk should be coordinated with that of the construction on the bridge to limit lane closures on Durham Street. Further, we would ask that they please keep Brockton informed of the final design.

## **3. Emergency Services Access**

Staff note that based on the current proposal there is no plan in place to prioritize emergency services for access to the bridge during the rehabilitation. Based on the congestion of the area on the West end of the bridge, vehicles will struggle to pull over far enough to allow emergency vehicles access to cross the bridge. Further the proposed temporary traffic lights cannot prioritize emergency vehicles forcing responders to wait for the oncoming traffic to clear which could significantly delay response times. There are multiple options that could be considered by project managers to minimize these impacts during emergency responses.

Thank you,

Nicholas Schnurr Director of Operations

## 519-881-2223 Ext. 134

## Municipality of Brockton

100 Scott Street, P.O. Box 68, Walkerton, ON N0G 2V0 Toll-Free: 1-877-885-8084 Fax: 519-881-2991 Brockton.ca





# CLASS EA FOR THE DURHAM STREET BRIDGE MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT COUNTY OF BRUCE

# NOTICE OF STUDY COMPLETION

**THE PROJECT:** The County of Bruce initiated a Class Environmental Assessment (Class EA) process in February 2021 to address safety concerns associated with the Durham Street Bridge which spans the Saugeen River along Bruce Road 4 in the community of Walkerton, Ontario. Recent inspections of the structure had identified deterioration with several bridge components. Following consideration of various alternatives and significant input from members of the public, repair/rehabilitation of the crossing was selected as the preferred alternative. The required works can be completed using staged construction, which will allow a single lane of traffic to be maintained over the crossing during completion of the work.

# THE ENVIRONMENTAL ASSESSMENT PROCESS:

The planning for this project initially followed the planning process established for Schedule 'C' activities under the Municipal Class Environmental Assessment (Class EA) document. Schedule 'C' projects must complete all five phases of the Class EA. The purpose of the MCEA was to identify any potential environmental impacts associated with the proposal and to plan for appropriate mitigation of any impacts. The process included consultation with the public, stakeholders, Aboriginal communities, and review agencies. Following selection of the preferred alternative, it was determined that the proposed works were a Schedule B activity. The Environmental Report documenting the environmental assessment process conducted is available for public review on the project website at <u>www.walkertonbridgestudy.ca.</u> Hard copies can be made available upon request.

**PUBLIC INVOLVEMENT:** For further information on this project, please contact the project engineers: B.M. Ross and Associates Ltd., 62 North Street, Goderich, Ontario, N7A 2T4. Telephone (519) 524-2641. Kelly Vader, Environmental Planner (e-mail: <u>kvader@bmross.net</u>). **Interested persons may provide written comments to the project team by September 13, 2024.** All comments and concerns should be sent directly to Kelly Vader at BMROSS or Ryan Errington, Engineering Manager, County of Bruce. Bruce County Transportation Department, 30 Park Street, P.O. Box 70, Walkerton, ON N0G 2V0. By phone: (519) 881-1291. By email: <u>rerrington@brucecounty.on.ca</u>

A request may be made to the Ministry of the Environment, Conservation and Parks for an order requiring a higher level of study or that conditions be imposed (e.g. require further studies), only because the requested order may prevent, mitigate, or remedy adverse impacts on constitutionally protected Aboriginal and treaty rights. Requests on other grounds will not be considered. Requests should include the requester's contact information, full name, and what kind of order is being requested (a request for conditions or a request for an individual/comprehensive environmental assessment), how an order may prevent, mitigate, or remedy potential adverse impacts on Aboriginal and treaty rights, and any information in support of the statements in the request. The request should be sent in writing or by email to:

Minister of the Environment, Conservation and Parks Ministry of Environment, Conservation, and Parks 777 Bay Street, 5<sup>th</sup> Floor Toronto ON M7A 2J3 <u>minister.mecp@ontario.ca</u> and Director, Environmental Assessment Branch Ministry of Environment, Conservation and Parks 135 St. Clair Ave. W, 1<sup>st</sup> Floor Toronto ON, M4V 1P5 EAB <u>Director@ontario.ca</u>.

Requests should also be copied to the County of Bruce by mail or by email. Please visit the ministry's website for more information on requests for orders under Section 16 of the Environmental Assessment Act at: <u>https://www.ontario.ca/page/class-environmental-assessments-part-ii-order</u>.

All personal information included in your request is collected under the authority of section 30 of the Environmental Assessment Act and is collected and maintained for the purpose of creating a record that is available to the general public. As this information is collected for the purpose of a public record, the protection of personal information provided in the Freedom of Information and Protection of Privacy Act (FIPPA) does not apply (s.37). Personal information you submit will become part of a public record that is available to the general public unless you request that your personal information remain confidential.

Ryan Errington, Engineering Manager, County of Bruce This Notice issued August 14, 2024

# **APPENDIX G**

# HYDROLOGY ASSESSMENT

# **COUNTY OF BRUCE**

# HYDRAULIC REPORT

# DURHAM STREET BRIDGE AND TEMPORARY DETOUR BRIDGE



# COUNTY OF BRUCE

# HYDRAULIC REPORT

# DURHAM STREET BRIDGE AND TEMPORARY DETOUR BRIDGE

October 4<sup>th</sup>, 2022

B. M. ROSS AND ASSOCIATES LIMITED Engineers and Planners 62 North Street Goderich, ON N7A 2T4 Phone: (519) 524-2641 www.bmross.net

File No. BR1395

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Appendix C - HEC-RAS Model files

Appendix D – 2009 Walkerton Floodline Mapping – Sheet



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File No. BR1395

# COUNTY OF BRUCE HYDRAULIC REPORT DURHAM STREET BRIDGE AND TEMPORARY DETOUR BRIDGE WALKERTON

## 1.0 INTRODUCTION

The County of Bruce retained B. M. Ross and Associates (BMROSS) to complete a Schedule C Environmental Assessment (EA) and engineering design for the replacement of the Durham Street Bridge located on County Road 4 (Durham Street) in the community of Walkerton. The existing bridge spans the Saugeen River (See Figure 2.1).

The EA has identified the replacement of the existing bridge in its current location and will require a detour during the projected year long construction period. A potential detour option involves the construction of a temporary bridge across the Saugeen River, to connect McNab Street with Orange Street.

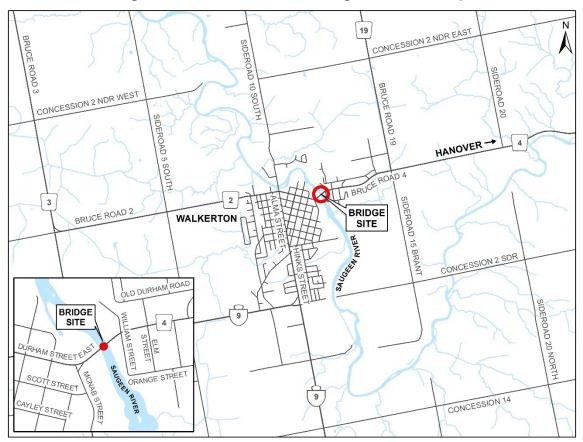
The design of the proposed replacement structure and potential temporary bridge require careful consideration of any impacts to flood water levels, floodplain fill, ice conveyance, and impacts to the existing flood protection dyke system.

## 2.0 OBJECTIVES

The purpose of this report is to outline the relevant background information and hydrotechnical design criteria for the preliminary design of the proposed Durham Street Bridge replacement structure and potential temporary detour bridge.

The preliminary design assesses the hydraulic adequacy of the existing crossing and identifies constraints and sizing for the design proposed structures. This is achieved by completing:

- a desktop review to collect information on the crossing and upstream watershed, including previous hydrologic analysis and flood studies;
- a hydraulic analysis to evaluate conditions at the existing bridge;
- a hydraulic analysis to evaluate proposed alternatives for the replacement bridge;
- a hydraulic analysis to evaluate proposed alternatives for the temporary detour bridge option;
- a scour assessment to determine appropriate rock protection;
- an assessment of potential ice jam conditions at the crossings; and
- an assessment on floodplain fill impacts.





# 3.0 BACKGROUND INFORMATION

As part of the EA process, the Saugeen Valley Conservation Authority (SVCA) and the Municipality of Brockton provided the following relevant flood studies and information for the community of Walkerton.

- Walkerton Floodline Mapping Final Report, Floodplain Mapping Sheets and HEC-RAS Hydraulic Modeling completed by Greenland Consulting Engineers (April 2009).
- Design Report for the Partial removal of the Truax Dam in Walkerton, prepared by GSS Engineering Consultants Ltd. (August 2018).
- Drawings for the Partial Removal of Truax Dam in Walkerton, prepared by GSS Engineering Consulting Limited (July 2018).
- Historical dyke drawings in the vicinity of Durham Street Bridge including:
  - 2003 BMROSS drawing for repairs to the east bank dyke, downstream of Durham Street, and
  - o 1982 Drawings of the west bank dyke upstream of Durham Street Bridge.

The Community of Walkerton is protected with a system of flood dykes to providing protection up to a 100 yr return event.

Greenland Consulting Engineers have completed relatively recent floodplain mapping of the community of Walkerton in 2009. The 2009 study involved a hydrologic and hydraulic assessment of the Saugeen River through Walkerton, Silver creek and the unnamed eastern tributary. Hydraulic modeling included the Truax Dam and potential removal options. The study did not evaluate additional flood protection options.

The Truax Dam, located 450 m upstream of the existing Durham Street Bridge, was partially removed in 2019, following additional study by GSS Engineering Consulting Ltd with hydraulic assessments completed by Greenland Engineering Ltd. Greenland Engineering Ltd indicated that the partial removal of the dam would not cause additional flood hazards or change in service level of the existing dyke system.

## 4.0 EXISTING WORKS

## 4.1 Existing Durham Street Bridge

The existing Durham Street Bridge is located along Bruce County Road 4 where it spans the Saugeen River in the northeast corner of Walkerton. Bruce County Road 4 is owned and maintained by the County of Bruce and is classified as an urban arterial road. The bridge was constructed in 1937 as a five-span bridge with a total deck length of 65.8 meters, overall structure width of 12.8 meters. The bridge includes four sets of piers, with two central piers and an east and west pier at the river bank edges. The low concrete elevation is at 247.18 m along the eastern pier. The bridge has several structural deficiencies warranting its replacement. Figure 4.1 below illustrates the existing structure.



## Figure 4.1 Channel Durham Street Bridge West Elevation (Oct 24, 2018)

The channel upstream and downstream of the structure is shown in Figure 4.2 below. Based on field investigations, the channel substrate at the bridge location consists of cobble, gravel and silt along the bank and transitions into mostly large cobble adjacent to the central piers. No aquatic vegetation was observed in this section of the watercourse.

# Figure 4.2 Channel Conditions (Aug 30, 2021)



Note:

1. Upstream channel (left) and downstream channel (right) of the structure.

# 4.2 Existing Flood Protection System

The Community of Walkerton is protected with a system of flood protection dykes. The main flood protection dyke generally follows the Saugeen River Trail from south of the Old Truax Dam location, adjacent to the Walkerton Fire Station, along the entire west bank through the community of Walkerton to downstream of Yonge Street North, terminating at the Walkerton Water Pollution Control Plant. It is our understanding that the existing dyke system was originally designed to the 100 yr event with 0.6 m freeboard. Additional flood protection dykes are located on the eastern bank immediately upstream and downstream of the Durham Street Bridge. The exact age of the dyke system is unknown, but upgrades and maintenance have occurred through the years by SVCA.

Previously 2009 floodplain mapping by Greenland Consulting Engineers has indicated overtopping of the existing dyke system for the regulatory Hurricane Hazel event. Flood Sheet 7, for the immediate area of Durham Street Bridge is provided in Appendix D.

The existing bridge approach grades are raised and tie into the existing protection systems upstream and downstream of the structure. Based on the BMROSS geodetic survey conducted as part of this study, it was identified that the top of bank/top of dyke elevations immediately upstream of the Durham Street Bridge ranges from 248.02-248.99 m. The 100-year existing condition elevation is estimated at 247.31 immediately upstream of Durham Street Bridge.

## 4.3 Old Truax Dam

The old Truax Dam site is located 400 m upstream of the Durham Street Bridge. The Truax Dam was partially removed in 2019, following additional study by GSS Engineering Consulting Ltd, with hydraulic assessments completed by Greenland

Engineering Ltd. The partial dam removal included retaining material onsite along a west bank. Figure 4.2 illustrates before and after removal efforts completed in 2019.



## Figure 4.3 Truax Dam Removal

#### 2015

2020

Source: Aerial Imagery obtained from the online Bruce County GIS (https://maps.brucecounty.on.ca/Geocortex/Html5Viewer/index.html?viewer=BruceMaps)

Hydraulic assessments of the existing and proposed bridge are to include the existing condition with the partial removal of the dam.

## 5.0 PROPOSED WORKS

## 5.1 Proposed Durham Replacement Bridge

The replacement of the Durham Street Bridge is being recommended within the existing road allowance. Based on existing features, the bridge is likely to carry two lanes of traffic and sidewalks on both sides. The vertical alignment of Durham Street is such that it is not practical to significantly raise the road grade on the bridge and still provide practical entrances to the businesses west side of the bridge.

The Class EA has identified preferred design configuration for the proposed bridge as a three span structure. Two options are considered:

• Option 1 is a three span structure with span lengths of 18.58 m, 17.39 m, 18.58 m and low concrete elevation of 247.53 m. Abutments are proposed immediately outside the existing eastern and western most piers.

Option 2 is a three span structure with span lengths of 21.6, 24.2 m, and 21.6 m with a low concrete elevation of 247.46 m. Abutments are proposed behind the existing abutments.

Both proposed bridge options include the replacement of four existing piers with two new piers and raising the low soffit elevation. The location of existing storm outlets will be considered and integrated into proposed grading and erosion protection measures. Bridge railing options with closed panels may be considered to allow for integration into potential future dyke upgrades without additional work on the bridge.

Elevation details of the proposed structure options are presented in Figure 5.1 and 5.2.

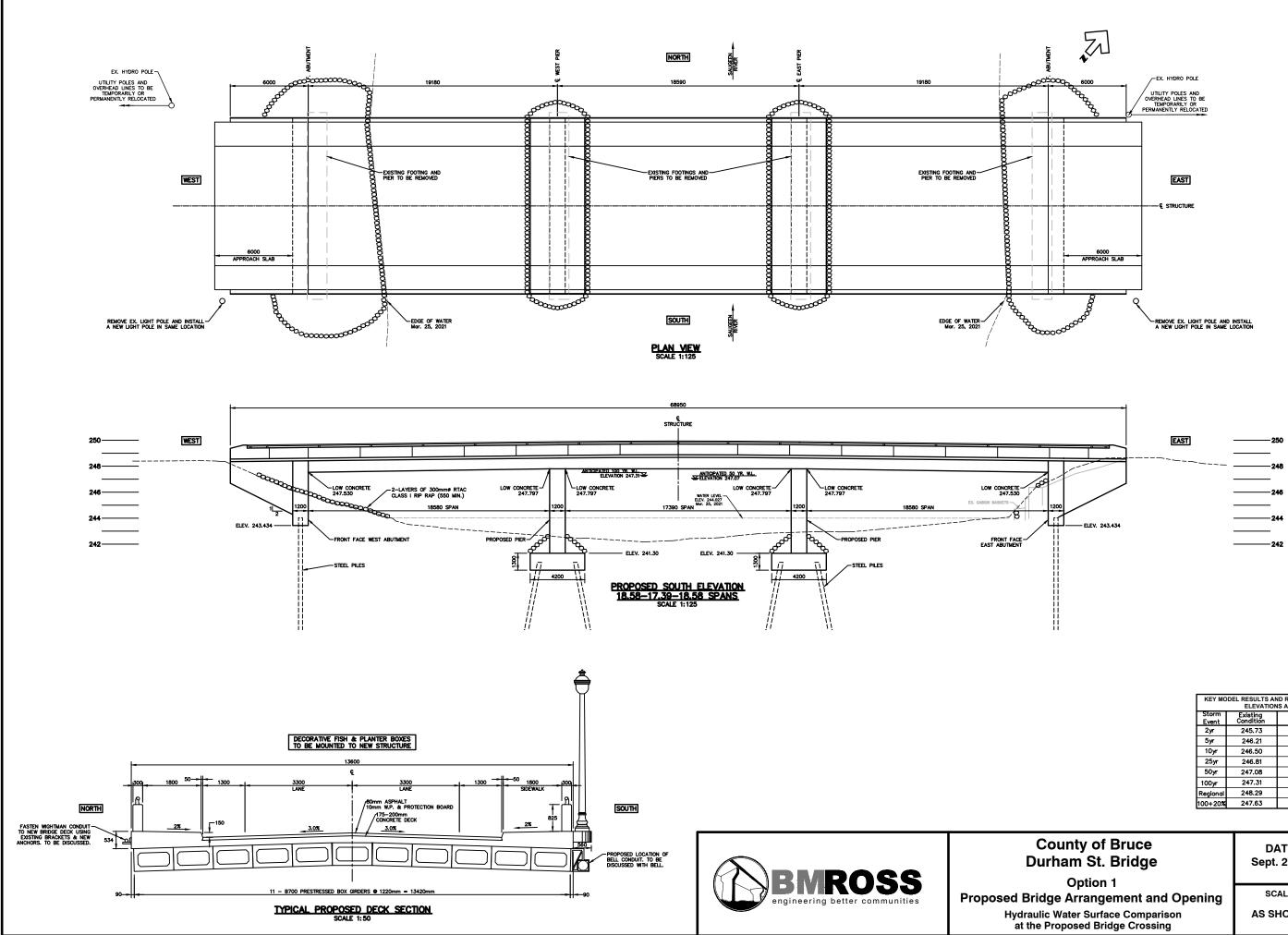
## 5.2 Temporary Detour Bridge Option

Construction of the proposed bridge replacement structure will eliminate the only eastwest crossing of the Saugeen River in Walkerton. The Class EA has investigated detour options for local and through traffic as well as pedestrians. Detour options include detouring using County roads, local roads and the potential installation of a temporary bridge crossing.

A temporary bridge option has been identified approximately 140 m south of the existing bridge, connecting McNab Street to Orange Street, across the Saugeen River. An alternative detour bridge location has been identified north of the existing bridge along the historical CPR bridge alignment connecting Colborne Street to William Street. The location of the south and north detour bridge locations is shown in Figure 5.3. A concept of the temporary bridge in the south location provided in Figure 5.4.

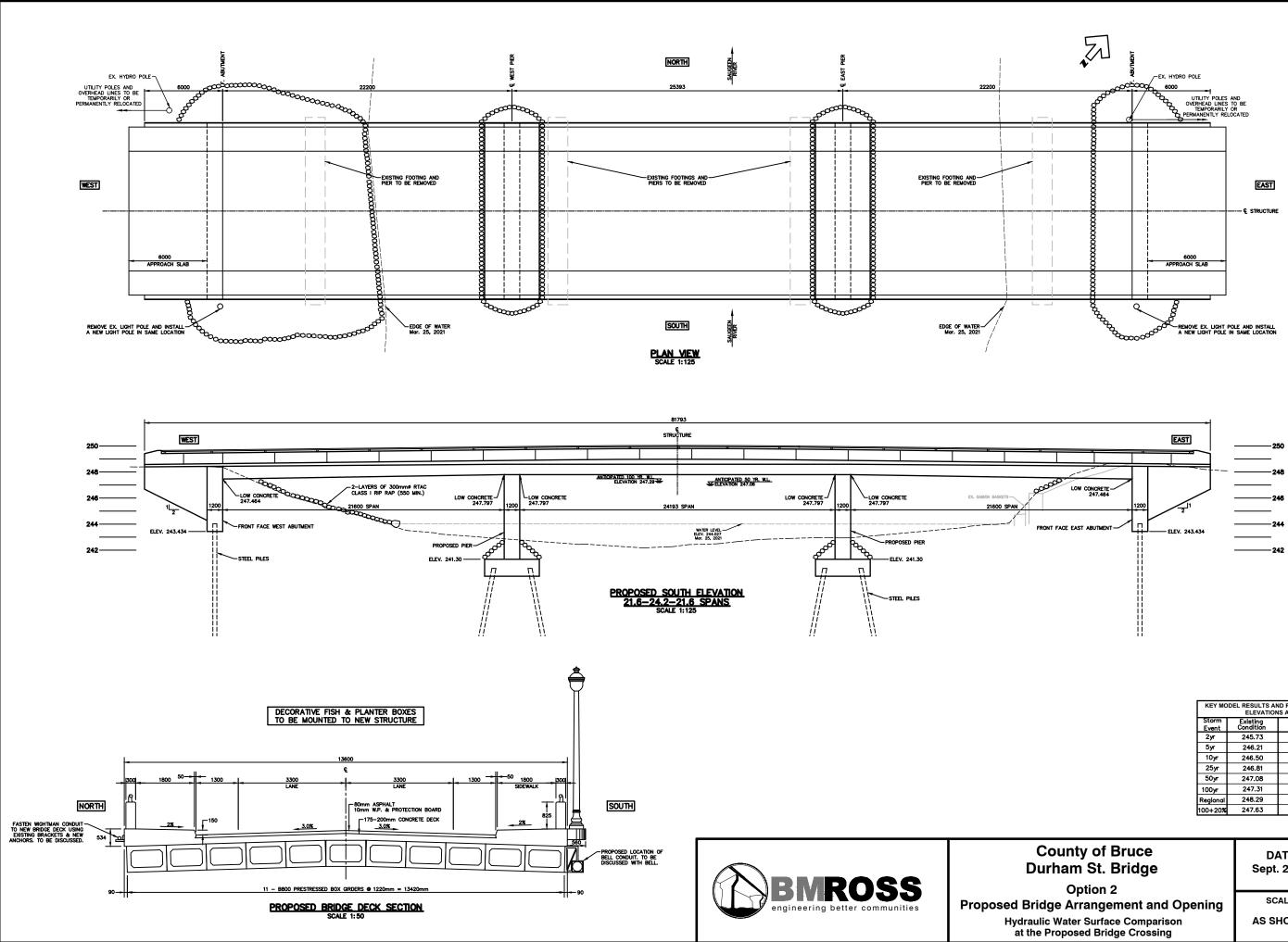
For the south temporary bridge option, a temporary structure is being proposed as a twin span modular steel panel bailey bridge with a total span length of 75.5 m and low steel elevation of 248.00 m. A temporary road and sidewalk approach is proposed from McNab Street (south of Tim Hortons) to the east bank of the Saugeen River, adjacent to Orange Street. The structure would require temporary fill and foundations. The raised approach required to connect to Orange Street would effectively cut off William Street from Orange Street, making Orange Street a dead-end street for the duration of the project. The design of the low steel has been iterated to minimize impacts to upstream water levels.

Detailed hydraulic analysis is conducted only on the south detour bridge option. Discussion on the alternative north location is provided in Section 8.5.



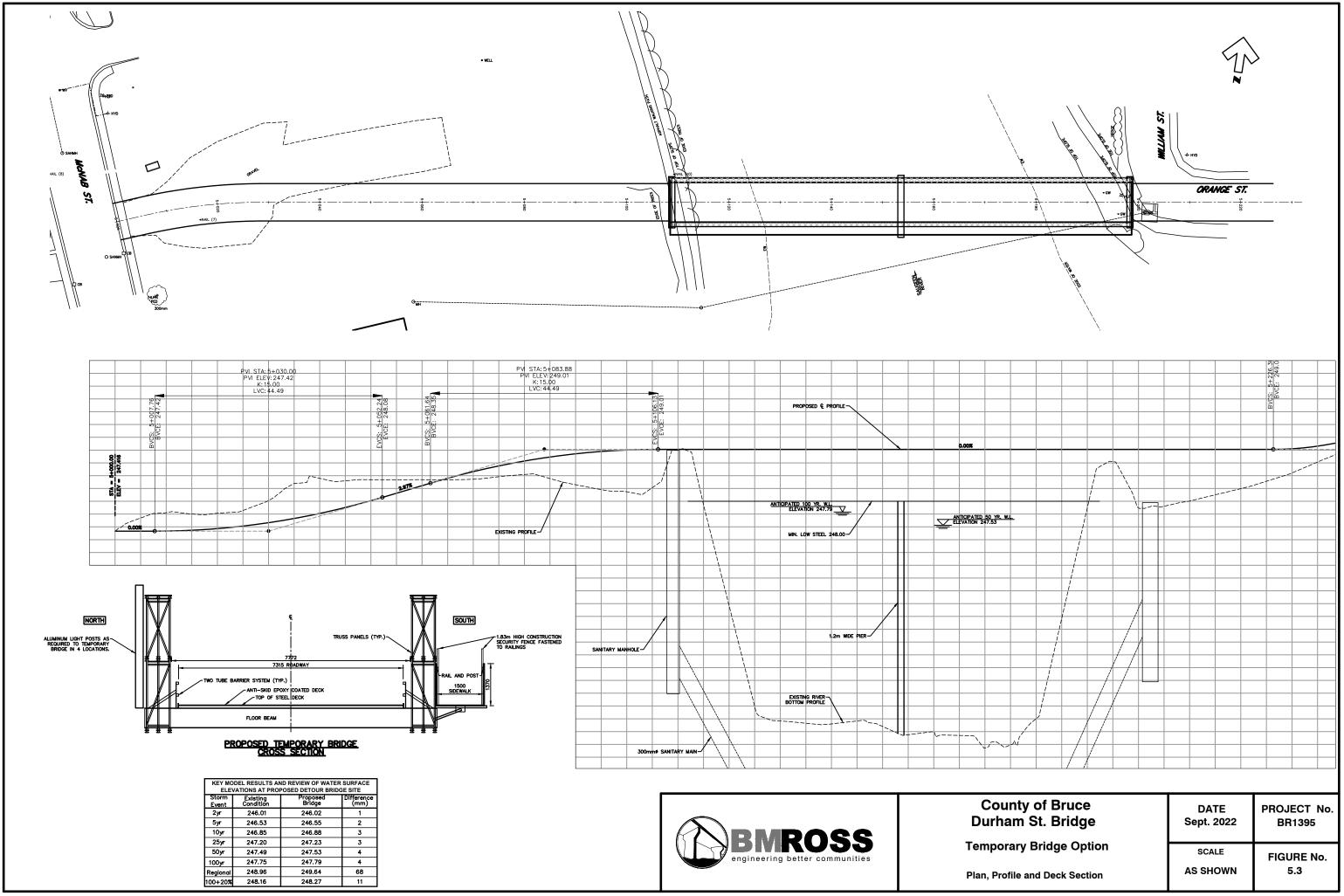
KEY MODEL RESULTS AND REVIEW OF WATER SURFACE ELEVATIONS AT BRIDGE SITE			
Storm Event	Existing Condition	Proposed Bridge	Difference (mm)
2yr	245.73	245.73	0
5yr	246.21	246.21	0
10yr	246.50	246.50	0
25yr	246.81	246.81	0
50yr	247.08	247.07	-1
100yr	247.31	247.31	0
Regional	248.29	248.29	0
100+20%	247.63	247.60	-3

County of Bruce Durham St. Bridge Option 1	DATE Sept. 2022	PROJECT No. BR1395
Bridge Arrangement and Opening raulic Water Surface Comparison the Proposed Bridge Crossing	SCALE AS SHOWN	FIGURE No. 5.1



KEY MODEL RESULTS AND REVIEW OF WATER SURFACE ELEVATIONS AT BRIDGE SITE				
Storm Event	Existing Condition	Proposed Bridge	Difference (mm)	
2yr	245.73	245.73	0	
5yr	246.21	246.21	0	
10yr	246.50	246.49	-1	
25yr	246.81	246.80	-1	
50yr	247.08	247.06	-2	
100yr	247.31	247.29	-2	
Regional	248.29	248.25	-4	
100+20%	247.63	247.57	-6	

County of Bruce Durham St. Bridge Option 2	DATE Sept. 2022	PROJECT No. BR1395	
Bridge Arrangement and Opening	SCALE	FIGURE No.	
raulic Water Surface Comparison the Proposed Bridge Crossing	AS SHOWN	5.2	





## Figure 5.4 Alternative Detour Bridge Locations

Source: Aerial Imagery obtained from the online Bruce County GIS (<u>https://maps.brucecounty.on.ca/Geocortex/Html5Viewer/index.html?viewer=BruceMaps</u>)

# 6.0 DESIGN CRITERIA

The design criteria for the proposed replacement and temporary structures includes the following:

- Bridge Design Code requirements for design flood flows, allowable vertical clearance, and freeboard;
- Integration with existing flood protection measures;
- Allowable increase in the flood elevation upstream of the structure;
- Ice jam assessment;
- Scour and rock protection design;
- Floodplain fill and storage analysis.

## 6.1 Bridge Design Code: Design Flow, Vertical Clearance, and Freeboard

County Road 4 through the community of Walkerton is considered an urban arterial road. Table 6.1 below summarizes the relevant Ministry of Transportation of Ontario (MTO) Highway Drainage Design Standards and Canadian Highway Bridge Design Code (CHBDC) requirements for design flow, vertical clearance, and freeboard requirements for this classification of roadway.

## Table 6.1 Bridge Design Code Requirements – Urban Arterial Road (>6m span)

Parameter	Unit	Highway Drainage Design Standard
Return Period of Design Flow	100 year	MTO Highway Drainage Design Standards WC-1 Section 1.1.1
Minimum Vertical Clearance <sup>1</sup>	1.0 m	CHBDC Section 1.9.7.1
Minimum Freeboard to Road <sup>2</sup>	1.0 m	CHBDC Section 1.9.8.2

Notes:

1. Clearance between the soffit of the structure and the design flow high water level, shall be sufficient to prevent damage to the structure by the action of flowing water, ice flows, or debris, and unless otherwise approved.

2. Freeboard from the edge of through traffic lanes to the design flow high water level.

The design of the proposed Durham Street Bridge will aim to enhance the overall hydraulic performance as feasible. At a minimum, vertical clearance and freeboard must be provided at the site similar to what currently is available with the existing opening.

It is acknowledged that the required 1.0 m vertical clearance cannot be achieved at this site while maintaining practical road approaches in the urban setting. The proposed bridge profile is considered a tolerable standard and the bridge soffit is raised to reduce the frequency of submergence.

It is proposed that the temporary detour bridge option be designed with a 100 yr return design flow as feasible to maintain the 100 yr flood protection of the existing dyke system.

## 6.2 Integration with Existing Flood Control Dykes

The existing Durham Street Bridge structure approaches are part of the existing dyke protection system. The proposed replacement structure is proposed to match existing grade and will include opportunities for solid panels along the bridge barrier and railing system for greater flood protection and potential integration into future dyke upgrades.

For the temporary bridge option, it is proposed that flood impacts of the structure be limited to above the 100 year design event to coincide with the dyke design flood.

In case there is a forecast high-water event, construction contingency plans will include the stockpiling of sandbags or steel sheet piling to fill any breach in the dyke at Durham Street generated as part of replacement bridge or the potential temporary detour bridge construction. Full restoration of all affected dyke segments will be included in the contract.

## 6.3 Backwater Elevation

In accordance with good design practice there shall be minimal (if any) increase in the flood elevations for the full range of design storms for the proposed replacement structure.

It is requested that small increases, less than 5 cm, in flood levels are to be accepted for the temporary detour structure option, such that floods are contained within the channel and no significant increase in flood hazard (flood depth or velocity) is predicted upstream.

## 6.4 Ice Jams

The Saugeen River is susceptible to ice jams and ice flows. Ice jams typically occur at locations with sudden changes in flow velocity, direction, or constrictions in the river channel or at bridges and their approaches. Ice jams and flows are known to influence channel and bridge capacity.

The design of the proposed replacement structure aims to reduce the opportunities for ice jams to occur at the crossing location by improving hydraulic efficiency (potentially removing a pier, raising design soffit, and increasing span). The potential formation and/or aggravation of ice jams as a result of the replacement and temporary structures is reviewed.

# 6.5 Scour and Rock protection

The CHBDC guidelines require the prediction and/or prevention of scour for bridge design purposes. Erosion protection at the bridge site should be provided to protect the stream banks at the abutments and to slow the rate of scour in the watercourse. It is recommended that erosion protection be provided to the 100 year flood level to increase the resiliency of the proposed replacement structure and temporary bridge option.

# 6.6 Floodplain Fill

An assessment of cut/fill will be conducted for the proposed replacement bridge. The temporary bridge will require fill within the floodway and flood fringe. A cut/fill analysis will be conducted and any impact to flood storage will be evaluated using reach storage analysis for the 100 year and regional hurricane Hazel flood levels.

# 7.0 HYDROLOGY

# 7.1 Drainage Overview

The community of Walkerton is situated along the Saugeen River. The total drainage area upstream of Walkerton is approximately 2224.6 km<sup>2</sup> (Greenland, 2009). Silver Creek bisects the urban area west of Yonge Street. An unnamed tributary to the east provides drainage for the northeastern portion of the community, and confluences with the Saugeen River approximately 500 m downstream of Yonge Street.

Previous hydrological modeling completed by Greenland Consulting Engineers for the Walkerton Floodplain Mapping update conducted in 2009 was reviewed and are considered valid for the current assessment.

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Hydrological flows for the 2 to 100 year return events were established for the Saugeen River based on a Flood Frequency analysis of the Water Survey of Canada (WSC) Saugeen River Station (02FC002) upstream of Walkerton, with gauge records from 1915 to 2005. Flows were transposed to the Walkerton drainage area. Regulatory Hurricane Hazel flows were generated by a calibrated Visual Otthymo 2.0 (V02) model of the Saugeen River watershed. Table 7.1 summaries the flows used in the 2009 hydraulic floodplain model for the 2 to 100 year event, and Hurricane Hazel.

To assess the structure resiliency as part of the current bridge evaluation, the 100 year flow has been increased by 20% for a climate change impact scenario. Extreme precipitation will likely increase in Canada in the future, although the magnitude of the increase at regional scales is much more uncertain. Environment Canada is currently recommending a "temperature scaling" method to account for climate change, such that precipitation intensity is projected to increase by a factor of around 7% for every 1'C increase in temperature. Climate change temperature scaling projections for the Walkerton Region based on the Climate Atlas (obtained June 7, 2022 from https://climateatlas.ca) indicate potentially 15% to 30% increase in extreme precipitation for the 2021-2050 and 2021-2080 period. Therefore 20% is considered a moderate level of increase for extreme flows and is considered appropriate for this study.

			Return De	sign Flow (m	<sup>3</sup> /s)		
2 yr	5 yr	10 yr	25 yr	50 yr	100 yr	Regulatory Hurricane Hazel	100 Year + 20% (Climate Change) <sup>1</sup>
274	375.9	447	530	604	670	1087.7	804

Table 7.1 Saugeen River Flows at Walkerton

Note:

1. For structure resiliency to climate change, 100 year flow has been increased by 20% based on temperature scaling for Walkerton.

#### 8.0 HYDRAULIC ANALYSIS

#### 8.1 Previous Hydraulic Models and Floodplain Mapping

The most recent hydraulic study for the community of Walkerton was completed as part of the 2009 Walkerton Floodline Mapping study by Greenland Consulting Engineers. The Saugeen River was modelled with HEC-RAS. Modelling was provided by SVCA with permission from the Municipality of Brockton for use in the current study.

The 2009 HEC-RAS model was based on a previous 1983 HEC-2 model. Updates to the model included information collected as part of Greenland's field investigations including bridge geometry and nine survey (9) transects of the Saugeen River. Model cross-sections considered the existing flood protection works using a levee control. Flow area behind the dyke was considered effective in the model. The model did not include buildings as obstructions, but included increased manning's n. The 2009 study indicated that the existing dyke system will contain the 100 yr event and the regulatory Hurricane Hazel event will overtop the dyke system.

Effects of the Truax Dam removal were studied in the 2009 Greenland study, and further assessed as part of the 2018 GSS/Greenland study for the partial removal of the dam. Both the original 2009 and subsequent 2018 study indicated that the flooding impact of the Truax Dam is limited to the area locally around the dam. The dam removal has not impacted flood levels at the Durham Street Bridge location based on 2009 and 2018 studies.

#### 8.2 Updated Hydraulic Model Development

To facilitate the hydraulic analysis of the existing bridge, proposed bridge replacement and potential temporary detour bridge structure, updates to the 2009 model were made with new topographic and bathymetric survey, and structure data. HEC-RAS version 6.1 was used. As part of the model update, the 2009 HEC-RAS model cross-sections, bridge geometry, manning's n and boundary conditions were reviewed. Figure 8.1 illustrates the model extents and cross-section locations of the updated Saugeen River HEC-RAS model.

The updated model of the Saugeen River allows for a basis of comparison to existing conditions for all flood events, 2, 5, 10, 25, 50, 100 yr return events, Hurricane Hazel regional event, and a 100 yr climate change scenario. It is not the intention of the current hydraulic modelling to formally calibrate or update the floodplain mapping of Walkerton. A formal update to the floodplain mapping is considered outside the current project scope. A comparison of the 2009 model and updated model results is further discussed in Section 8.3.1.

#### Cross-sections

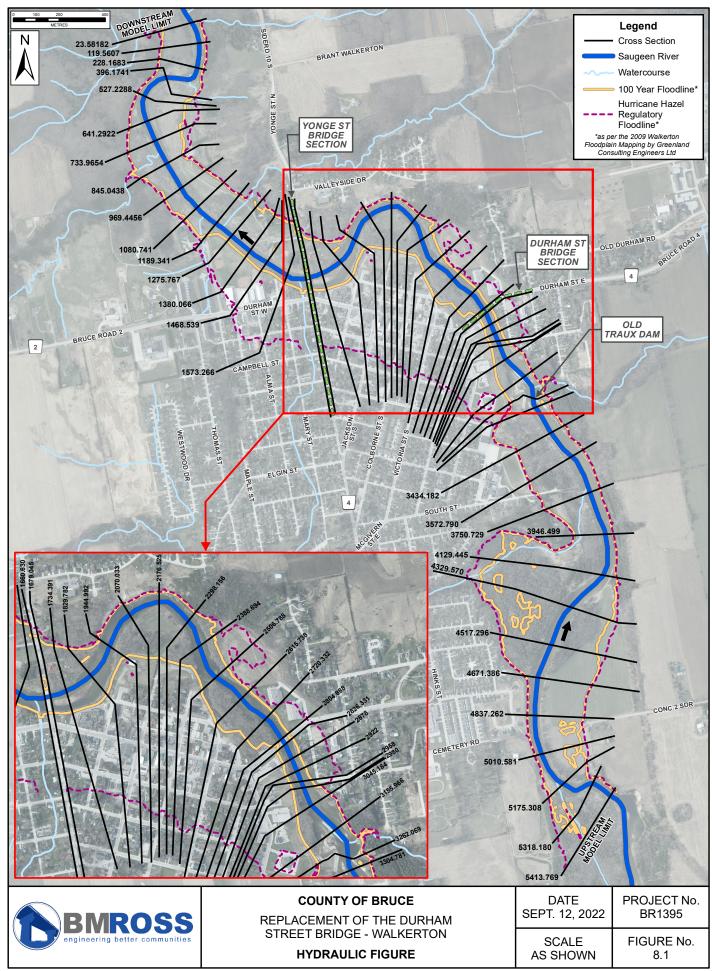
Cross-section locations from the previous modelling were maintained. Additional crosssections were added to the model as required for the current analysis at the south temporary detour bridge location and immediately upstream of the existing Durham Street Bridge. Cross-sections for the temporary bridge location were required at a skew angle of 17 degrees. The skew angle was used in the model software to correct crosssection geometry such that flowlines are perpendicular to the channel through the bridge. Cross-section points for new cross-sections were extracted from BMROSS 2021/2022 ground and bathymetry survey in the vicinity of the proposed works and supplemented with provincial 2020 SWOOP DSM information. Channel bathometry data collected by boat was used to update downstream cross-sections from the temporary bridge location XS 2980 to XS 1944.992.

#### <u>Manning's n</u>

Manning's n values were maintained from the 2009 model and extrapolated to new cross-sections for consistency.

#### Bridge Geometry and Calculations

Bridge geometry and modeling approaches used in 2009 modeling were reviewed. The Yonge Street Bridge and Durham Street Bridge are the only bridges crossing the Saugeen River for the model extent. The Durham Street Bridge geometry was updated based on BMROSS survey and is illustrated in Figure 8.2 below. No updates were made to structure geometry of Yonge Street Bridge.



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Bridge calculation routines were adjusted from energy equation only, to also allow pressure and weir flow at the bridge structures. This change was conducted as the low cord of Yonge Street Bridge is submerged for the 25 yr event and above, indicated pressure and weir flow will occur for high flow events. The Durham Street Bridge is partially submerged for Hurricane Hazel event.

Ineffective flow areas were adjusted at the bridge locations to allow spill along low points. Previous 2009 modeling conservatively placed ineffective flow at bridges inside abutments and extended above all modelled flood levels, such that no spills at the low points along to Durham Street and north of Yonge Street bridges under the Hurricane Hazel event were accounted for, thus forcing all flows through the bridge opening resulting in higher flood levels upstream. The updated model has lowered the ineffective area to the top of bank location. Bank levees were established to ensure spill along low points at bridges only occurs for flow events that exceed channel capacity. Figure 8.2 and 8.3 illustrate model changes to Durham Street and Yonge Street Bridges.

#### Dyke System

The existing dyke system was modelled as a levee in the 2009 model. No ineffective area was applied in the overbank for cross-sections, such that spilled flows to urban areas were accounted. It is noted that no buildings were included in the model as block obstructions. Buildings were accounted for with increased manning's n in the 2009 modeling. This approach was maintained in the updated model for consistency.

#### <u> Truax Dam Removal</u>

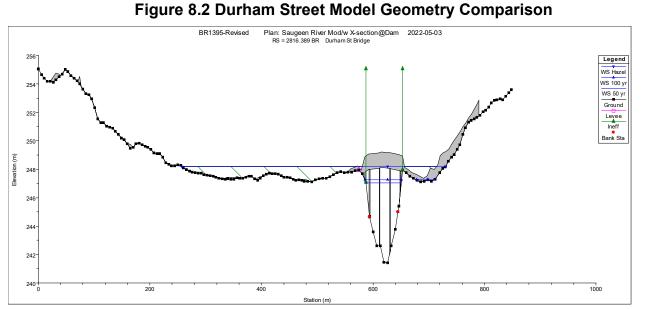
The 2019 Truax Dam removal was incorporated in current model updates. The Municipality of Brockton provided construction drawings of the 2019 works and were used to update the model cross-section through the old dam location. Based on construction drawings, the west side of the dam is assumed to remain at top elevation of 247.30 m, and the east side was removed down to 243 m. The channel bed in the vicinity of the dam removal is assumed to be 244.4 m.

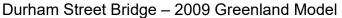
#### Flow values

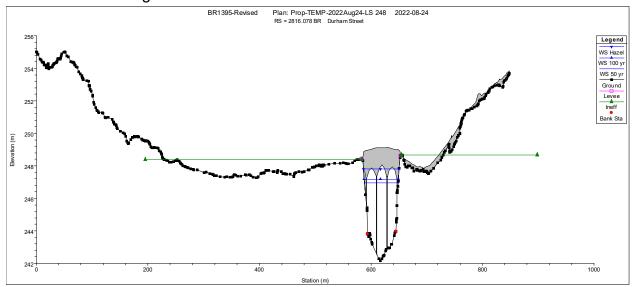
Flow values for the updated model remain unchanged from 2009 modeling, as summarized in Table 7.1. A 100 yr climate change scenario has been added.

#### Downstream Boundary Conditions

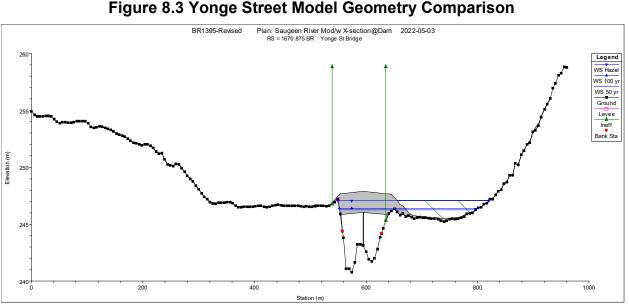
Downstream boundary conditions in the 2009 model were set at a unique water level elevation for each flood event. The 2009 study did not specify the source of the downstream boundary level. A sensitivity test was conducted on the downstream boundary condition by setting to normal depth with varying slopes. No significant change in water levels were observed at the Durham Street Bridge location based on changes to the boundary condition. Therefore, to maintain consistency with previous modeling, the previous water level boundary conditions were applied.



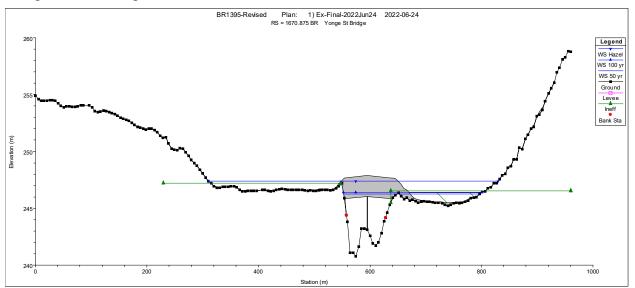




Durham Street Bridge - 2022 BMROSS Model



Yonge Street Bridge – 2009 Greenland Model



Yonge Street Bridge - 2022 BMROSS Model

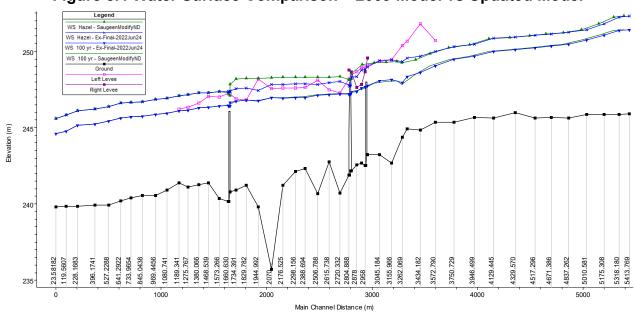
#### 8.3 Existing Condition Model Results

Existing condition water surface elevations at all the modelled cross-section locations are summarized in Appendix A, Table A.1. Figure 8.1 provides model cross section locations. The existing hydraulic performance of the existing Durham Street Bridge is discussed in further in Section 8.4.

#### 8.3.1 Comparison to 2009 Model Results

The updated 2022 BMROSS model results were checked for consistency against the previous 2009 model with partial dam removal (2009 HEC-RAS Model Plan: SaugeenModifyND). Differences in water surface elevations between the 2009 model

and the updated model are provided in Appendix A, Table A2. Differences in water surface elevations for the 100 yr and Regulatory Hurricane Hazel event are mostly attributed to changes in bridge modeling routine to allow pressure and weir flow, as well as spill at low points at Yonge Street Bridge, as summarized in Section 8.2. Upstream of Yonge Street Bridge water levels are reduced by 0.48 m on average with a maximum 0.79 m reduction for the Regulatory Hurricane Hazel event. Minor differences of 0.05 m is observed for the 100 year event. The impact is observed for the entire reach from Yonge Street to Durham Street, as illustrated in Figure 8.4 below. Minor differences in water surface elevation are observed upstream of Durham Street Bridge due to updates in bridge geometry and design details of the Truax Dam removal. The updated model is considered appropriate for a basis of comparison between existing and proposed structures.





#### 8.3.2 Existing Dyke Performance

Updated modeling indicates the dyke system will protect for the 100 year flood event, which is aligned with previous 2009 modeling. Upstream of Durham Street Bridge and in the vicinity of the south temporary detour bridge option freeboard is provided at 1.08 and to 1.34 m respectively along the dyke to the 100 yr flood level. The dyke is overtopped for the Regulatory Hurricane Hazel event upstream of the temporary bridge location and downstream of Durham Street.

A detailed assessment of dyke performance was outside the scope of the current study. Validation of dyke elevations outside the project area was not conducted by BMROSS.

#### 8.4 Proposed Condition Model Results

#### 8.4.1 Proposed Durham Street Bridge

Table 8.1 summarizes the model results at the Durham Street Bridge site for existing and proposed option 1 and 2 conditions, and includes details related to anticipated

clearances and water surface levels for the various flow events. The values generated at cross section 2826.331, immediately upstream of the structure, are used for comparison purposes. A water surface comparison between existing and proposed replacement bridge conditions for all cross-sections and design events is provided in Appendix A, Table A3 (option 1) and Table A4 (option 2).

# Table 8.1 Hydraulic Comparison of Existing and Proposed Durham Street Bridge Structures

		Durham S	treet Brid	dge	
Description	Existing	Proposed Option 1: 3 Span Lengths of 18.6m, 17.4m, 18.6m	Diff.	Proposed Option 2: 3 Span Lengths of 21.6, 24.2m, 21.6m	Diff.
Dyke Elv/Low top of Road Elevation <sup>1</sup>	248.39	248.39		248.39	
Flow Event at which road floods/ Dyke overtopped	Hazel	Hazel		Hazel	
Low Concrete/Soffit	247.182	247.530		247.464	
High Concrete/Soffit	248.065	247.797		247.797	
		ater Elevation (m)			
2 Year 5 Year 10 Year 25 Year 50 Year 100 Year Regional	245.73 246.21 246.50 246.81 247.08 247.31 248.29	245.73 246.21 246.50 246.81 247.07 247.31 248.29	0.00 0.00 0.00 -0.01 0.00 0.00	245.73 246.21 246.49 246.80 247.06 247.29 248.25	0.00 0.00 -0.01 -0.01 -0.02 -0.02 -0.04
100 Year + 20% (Climate Change) <sup>2</sup>	247.63	247.60	-0.03	247.57	-0.06
Regional - Potential Dyke Upgrade <sup>3</sup>	248.67	248.68	0.01	248.60	-0.07
		ow Road Surface			
2 Year 5 Year 10 Year 25 Year 50 Year 100 Year Regional 100 Year + 20% (Climate Change) <sup>2</sup> Regional - Potential Dyke Upgrade <sup>3</sup>	2.66 2.18 1.89 1.58 1.31 1.08 0.10 0.76 	2.66 2.18 1.89 1.58 1.32 1.08 0.10 0.79 	0.00 0.00 0.00 0.01 0.00 0.00 0.00 0.03 	2.66 2.18 1.90 1.59 1.33 1.10 0.14 0.82 	0.00 0.00 0.01 0.02 0.02 0.02 0.04 0.06 
		Concrete/Steel (r			
2 Year 5 Year 10 Year 25 Year 50 Year 100 Year Regional 100 Year + 20% (Climate Change) <sup>2</sup> Regional - Potential Dyke Upgrade <sup>3</sup>	1.45 0.972 0.682 0.372 0.102 -0.128 -1.108 -0.448 -1.488	1.73 1.25 0.96 0.65 0.39 0.15 -0.83 -0.14 -1.22	0.28 0.28 0.28 0.28 0.29 0.28 0.28 0.28 0.28 0.31 0.27	1.73 1.25 0.97 0.66 0.40 0.17 -0.79 -0.11 -1.14	0.28 0.29 0.29 0.30 0.30 0.32 0.34 0.35
		tructure (m/s)			
2 Year 100 Year	2.05 3.13	2.05 3.13	0.00 0.00	2.05 3.08	0.00 -0.05

Notes:

1. Elevation of Flood protection Dyke upstream of at Durham Street Bridge, based on BMROSS survey.

2. Results from climate change scenario with 100 year flow increased by 20%..

3. Results from potential dyke upgrade scenario with no overtopping of west dyke system.

The existing bridge has a curved T-beam design. For the 100 year design event the existing bridge soffit becomes partially submerged. Adequate freeboard is provided to the dyke immediately upstream.

The proposed bridge options were iteratively designed to perform hydraulically similar or better than the existing structure. As shown in Table 8.1, water levels are very similar to existing conditions across the suite of design events for Option 1. Option 2 provides an improved condition with a decrease in water levels for events greater than a 10 year return period. Both proposed bridge options will improve hydraulic conditions, including under a 100 year climate change scenario.

#### 8.4.2 Temporary Bridge Option

Model results for the temporary detour bridge structure option, south of Durham Street Bridge, are summarized in Table 8.2. The updated existing condition model includes two additional cross-sections (Section 2958 and 2980) to evaluate the potential detour structure. The values generated at cross section 2980, immediately upstream of the structure, are used for comparison purposes.

# Table 8.2 Hydraulic Comparison of Existing Conditions and Temporary DetourBridge Option

Description	Tempora	ary Detour Bridge – Sou	th Option
	Existing	Potential Detour Bridge	Difference
Dyke Elevation	249.09	249.09	
Low top of Road Elevation	-	249.01	
Flow Event at which road floods/	Hazel	100 yr	
Dyke overtopped			
Low Concrete/Soffit	-	248.00	
	Headwater Elevation		
2 Year	246.01	246.02	0.01
5 Year	246.53	246.55	0.02
10 Year	246.85	246.88	0.03
25 Year	247.20	247.23	0.03
50 Year	247.49	247.53	0.04
100 Year	247.75	247.79	0.04
Regional	248.96	249.64	0.68
100 Year + 20% (Climate Change) <sup>3</sup>	248.16	248.27	0.11
Fre	eboard to Dyke (m)		
2 Year	3.08	3.07	-0.01
5 Year	2.56	2.54	-0.02
10 Year	2.24	2.21	-0.03
25 Year	1.89	1.86	-0.03
50 Year	1.60	1.56	-0.04
100 Year	1.34	1.30	-0.04
Regional	0.13	-0.55	-0.68
100 Year + 20% (Climate Change) <sup>3</sup>	0.93	0.82	-0.11
	to Low Concrete/Ste	el (m)	
2 Year		1.98	
5 Year		1.45	
10 Year		1.12	
25 Year		0.77	
50 Year		0.47	
100 Year		0.21	
Regional		-1.64	
100 Year + 20% (Climate Change) <sup>3</sup>		-0.27	
	ity at Structure (m/s		
2 Year	1.91	1.99	0.08
100 Year	2.51	2.76	0.25

1. Elevation of Flood protection dyke downstream based on BMROSS survey.

2. Water surface elevations obtained from cross-section 2980, immediately upstream of proposed detour bridge

3. Results from climate change scenario with 100 year flow increased by 20%..

4. Results from potential dyke upgrade scenario with no overtopping of west dyke system.

The temporary structure option has been designed for the 100 year event. The design of the low steel elevation has been optimized to reduce flood impacts of the structure. The proposed structure will cause minimal upstream water level increases of 0.04 m for the 50 year and 100 year event, while providing 1.3 m of freeboard to the dyke for the 100 year. Clearance of 0.21 m is provided for the 100 year event. Due to the temporary condition of the structure, this impact is considered acceptable. A water surface comparison between existing and proposed temporary bridge conditions is provided in Appendix A, Table A5.

#### 8.5 Discussion

#### 8.5.1 Design Code Performance

The design event for the proposed replacement and temporary structures is the 100 year flow event. MTO and CHBDC recommends a minimum freeboard and soffit clearance of 1.0 m for an urban arterial road, as summarized in Section 6.

The option 1 and 2 proposed replacement structures exceed the freeboard requirement with 1.08 m and 1.10 m for the 100 year event respectively. The clearance provided for the design event is 0.15 m for option 1 and 0.17 m for option 2. Providing the recommended clearance of 1.0 m from the 100 year high water level is not possible due to the vertical alignment of Durham Street and maintaining access to existing businesses west of the bridge. However, the proposed bridge options do provide additional clearance, in comparison with the existing structure. Considering the satisfactory hydraulic performance of the existing bridge over the past 85 years, it is recommended that the proposed clearances be accepted.

The temporary bridge option will exceed the freeboard requirement with 1.3 m of freeboard to the 100 year event. Clearance of 0.21 m is provided for the 100 year event. Due to the temporary nature of the structure detour option, the minimal design clearance is considered acceptable.

#### 8.5.2 Flood Protection

The approaches of the existing Durham Street Bridge tie into the existing flood protection dyke systems on the east and west bank. To assist in potential future dyke upgrades, the proposed bridge design options include concrete panels along the railing system that may be used as part of future dyke protection works without additional work on the Durham Street Bridge. At a preliminary level, a flood protection height of 249.39 m and 249.32 m is proposed, providing 0.64 m and 0.79 m of freeboard for option 1 and 2 respectively to a Hurricane Hazel flood level if dyke upgrades upstream were completed to the Hurricane Hazel event. Smaller concrete panels providing a lower amount of freeboard may be considered during detailed design in consultation with the SVCA. It is noted that additional flood protection opportunities (i.e. further raising the bridge soffit) are limited based on maintaining existing road grades and feasible height of the parapet railing system.

#### 8.5.3 Floodplain Fill

For the proposed structure options, changes in flood storage are due to differences in the low concrete profile of the existing arch design verses the proposed smooth steel beam design, and abutment and pier locations.

• For Option 1, abutments are proposed immediately behind the eastern most and western most piers of the existing structure. Fill is required to support the proposed abutments outside the main channel. Two piers are proposed in approximately the same location as the existing middle piers.

• For Option 2, the abutments are located behind existing abutments, limiting flood storage losses to changes in pier location and soffit elevation changes.

Table 8.3 summarizes the cut and fill balance for the proposed structure options below existing condition 100 yr and Hurricane Hazel event flood levels. Overall, the required floodplain fill is compensated in the proposed bridge design by the removal of two piers and lower portion of the existing arches. Total reach storage volumes are calculated in HEC-RAS from the Old Truax Dam location (cross-section 3262.069) to immediately downstream of Durham Street Bridge (cross-section 2804.89). For the Hurricane Hazel event the percent of floodplain storage loss is considered negligible at 0.003% on a reach basis for Option 1 and 0.015% for Option 2. No net change in floodplain volume is estimated for the 100 year event level for Option 1, and Option 2 indicates a small cut balance.

Proposed Design	Return Event	Total Reach Storage (m <sup>3</sup> ) <sup>1</sup>	Total Floodplain Fill (m³)	Total Floodplain Cut (m³)	Proposed Floodplain Cut/Fill Balance (m <sup>3</sup> )	Percentage of Floodplain Storage Loss (Reach Basis)
Option 1	100 year	174,650	195	195	0	
Option	Hazel	298,180	288	279	9	0.003%
Option 2	100 year	174,650	238	243	-5	
	Hazel	298,180	288	243	45	0.015%

Note:

1. Total Reach Storage Volumes calculated in HEC-RAS from the Old Truax Dam location (XS 3262.069) to immediately downstream of Durham Street Bridge (XS 2804.89).

A temporary bridge would require fill within the floodplain. Table 8.4 summarizes the proposed fill volumes estimated below the existing 100 year and regional Hurricane Hazel event levels. Volumes include fill required for the east and west detour approaches as well as the temporary bridge deck and pier. Total reach storage volumes are calculated from the Old Truax Dam to immediately downstream of Durham Street Bridge, as summarized above. Negligible impacts on a reach basis are anticipated for the proposed floodplain fill, at 0.03% and 0.42% for the existing 100 year and regulatory Hurricane Hazel event respectively. The fill associated with the temporary structure would be removed post decommissioning.

 Table 8.4 Proposed Temporary Bridge Floodplain Fill Analysis

Return Event	Total Reach Storage (m <sup>3</sup> ) <sup>1</sup>	Proposed Floodplain Fill	Percentage of Floodplain Storage Loss (Reach Basis)
100 year	174,650	49	0.03%
Hazel	298,180	1,247	0.42%

Based on the floodplain fill assessment, both the proposed replacement and detour structure options will cause negligible impacts to floodplain storage on a reach basis.

#### 8.5.4 Rock Protection

Erosion protection at the replacement bridge and potential detour bridge site is to be provided to protect the stream banks at the abutments and to slow the rate of scour in the watercourse. It is recommended to size rock protection at the bridge sites for the 100 yr event.

At the Durham Street Bridge site, the velocity for Option 1 and 2 for the 100 year event is in the range of 3.13 m/s to 3.08 m/s as per Table 8.1. It is recommended that a nominal 400 mm stone rip rap be applied. For the temporary detour bridge, the 100 year event velocity is in the range of 2.76 m/s as per Table 8.2. It is therefore recommended that a nominal 300 mm stone rip rap be applied. Refer to Appendix B for rip rap sizing calculations.

The rip rap should be placed on the channel slopes at each end of the structure and under the deck over the abutment fill. It is recommended that erosion protection be provided to 100 year flood level to increase the resiliency of the bridge structure. Erosion protection on the bed of the stream should be maintained by replacing existing cobbles and boulders where they may exist.

#### 8.5.5 Ice Jams and Ice Flows

The design of the Durham Street replacement bridge will improve the conveyance of ice due to a smooth soffit, increased span lengths, and reduction of 4 piers to 2 piers.

The temporary detour bridge option is proposed to span the Saugeen River with a single pier and will not significantly reduce the river width available for moving ice. The proposed detour structure is not expected to initiate ice jam formation during spring ice breakup events for its anticipated 1 year of service.

#### 8.5.6 Temporary Detour Bridge – Alternative Location Assessment

As noted in Section 5.2, an alternative location for the detour temporary bridge has been identified north of Durham Street along the historical CPR bridge alignment connecting Colborne Street to William Street. The proposed alternative location is less favourable as the floodplain widens north of Durham Street. The alternative location would require a span of approximately 125 m and an approximate low steel elevation of 247.4 m to provide clearance for 100 year event. The required span would be significantly longer than the 75.5 m span required at the preferred location south of Durham Street. Due to the increase in span, 2 piers would likely be required for the temporary bridge, further increasing construction impacts and costs. Therefore, the alternative detour bridge location is considered less favourable from a hydraulic perspective.

#### 9.0 CONCLUSIONS AND RECOMMENDATIONS

The County of Bruce has initiated a Class EA to address the replacement of the Durham Street Bridge located on County Road 4 (Durham Street) in the community of Walkerton. The EA has identified the replacement of the existing bridge in its current location. A potential detour option includes the construction a temporary bridge across the Saugeen River, approximately 140 m south of the Durham Street Bridge.

The replacement bridge and temporary bridge sites required consideration of potential impacts to flood water levels, floodplain fill, ice conveyance, and impacts to the existing flood protection dyke system. A review of background information and relevant flood studies was completed. As part of the current study, the 2009 Walkerton Floodplain HEC-RAS model was updated based on new topographic and bathymetric survey, and structure data. All model parameters were reviewed. Flows applied in 2009 Floodplain assessment have been maintained for consistency with previous studies. A 100 year climate change scenario, with a 20% increase in 100 year flow, has been applied to evaluate structure resiliency.

Two options have been presented for the proposed replacement structure. Option 1 is a three span structure with span lengths of 18.58 m, 17.39 m, 18.58 m and low concrete elevation of 247.53 m. Abutments are proposed immediately outside the existing eastern and western most piers. Option 2 is a three span structure with span lengths of 21.6, 24.2 m, and 21.6 m with a low concrete elevation of 247.46 m. Abutments are proposed behind the existing abutments. The design of both options was conducted iteratively to maintain existing or lower upstream flood levels for the 2 to 100 year event, 100 yr climate change scenario, as well as regulatory Hurricane Hazel. The potential to raise the bridge was limited due to providing practical entrances to businesses west of the bridge. The proposed structure options meet the CHBDC for 1.0 m freeboard, with Option 1 providing 1.08 m and Option 2 providing 1.10 m for the 100 year event. Clearance for the 100 year is provided at 0.15 m and 0.17 for Option 1 and 2 respectively, which is an improvement from existing conditions where the low arches are submerged by 0.13 m for the 100 year event. Therefore, the structure performs better than the existing bridge. The proposed structure also includes a smooth soffit to reduce the potential accumulation of ice. Negligible impacts on floodplain storage are predicted with the proposed options.

For the replacement of the Durham Street Bridge, it is therefore recommended that:

- Option 1: A three span structure with span lengths of 18.58 m, 17.39 m, 18.58 m and low concrete elevation of 247.53 m or Option 2: A three span structure with span lengths of 21.6, 24.2 m, and 21.6 m with a low concrete elevation of 247.46 m, may be used for the final design of the Durham Street Bridge across the Saugeen River in the community of Walkerton.
- For future resiliency and climate change considerations, it is recommended that the bridge railing/parapet be designed with solid concrete panels such that the bridge may be integrated into potential future dyke upgrades. The level of flood protection with proposed railing/parapet will be confirmed with the Saugeen Valley Conservation Authority (SVCA) at the detailed design stage.
- Rip rap protection, nominal 400 mm stone, should be placed at the bridge site.
- In case there is a forecast high-water event, construction contingency plans should include the stockpiling of sandbags or steel sheet piling to fill any breach in the dyke at Durham Street generated as part of replacement bridge

construction. Full restoration of all affected dyke segments will be included in the contract.

The Class EA is investigating detour options for local and through traffic as well as pedestrians. Detour options include detouring using County roads, local roads and the potential installation of a temporary bridge crossing. A temporary detour structure option is proposed as a twin span modular steel panel bailey bridge with a total span length of 75.5 m. The temporary bridge option has been designed to the 100 year event and will pass the design event with 0.21 m clearance. The design of the structure and low steel elevation has been iterated to reduce flood impacts of the structure. For the 100 year design event, flood impacts of the potential structure are estimated at 0.04 m immediately upstream and 1.3 m of freeboard to the dyke is provided. Due to the temporary condition of the structure, this impact is considered acceptable. It is therefore recommended that:

- The proposed twin span temporary detour bridge structure connecting McNab Street and Orange Street, be considered for final design if selected as the preferred detour alternative through the Class EA.
- Rip rap protection, nominal 300 mm stone, should be placed on the stream banks for erosion protection at the temporary bridge site.
- In case there is a forecast high-water event, construction contingency plans should include the stockpiling of sandbags or steel sheet piling to fill any breach in the dyke at the temporary detour bridge location. Full restoration of all affected dyke segments would be included in the contract.

It is requested that the SVCA review and approve of the proposed structures under their "Development Interference with Wetlands and Alterations to Shorelines and Watercourses Regulation."



Yours very truly

B. M. ROSS AND ASSOCIATES LIMITED

Per

Bryanne Verhoeven, P. Eng.

Per

Steve Jackson, P. Eng.

Appendix A

**Supplemental Tables** 

	Summary	of Existing		urtace Elev				
Station	2 yr	5 yr	10 yr	25 yr	50 yr	100 yr	100yr+20%	Hazel
23.58182	243.17	243.68	243.99	244.27	244.44	244.6	244.91	245.58
119.5607	243.37	243.85	244.13	244.42	244.61	244.78	245.12	245.82
228.1683	243.75	244.27	244.55	244.81	245.01	245.17	245.48	246.12
396.1741	243.78	244.32	244.61	244.88	245.08	245.24	245.57	246.22
527.2288	244.1	244.57	244.82	245.08	245.28	245.44	245.75	246.38
641.2922	244.23	244.72	245	245.26	245.47	245.64	245.97	246.6
733.9654	244.27	244.77	245.05	245.31	245.52	245.7	246.03	246.66
845.0438	244.35	244.82	245.09	245.36	245.57	245.74	246.08	246.7
969.4456	244.5	244.97	245.24	245.5	245.7	245.88	246.21	246.84
1080.741	244.52	245	245.28	245.55	245.77	245.95	246.29	246.92
1189.341	244.79	245.23	245.48	245.73	245.93	246.11	246.44	247.07
1275.767	244.88	245.3	245.53	245.78	245.98	246.15	246.54	247.18
1380.066	244.96	245.39	245.65	245.91	246.12	246.29	246.63	247.27
1468.539	245.02	245.45	245.71	245.97	246.18	246.36	246.63	247.29
1573.266	245.08	245.51	245.77	246.03	246.24	246.42	246.71	247.35
1660.63	245.13	245.57	245.82	246.07	246.27	246.45	246.74	247.36
1670.875					eet Bridge			
1679.045	245.12	245.55	245.8	246.08	246.32	246.63	246.84	247.4
1734.391	245.18	245.64	245.92	246.23	246.5	246.75	247	247.54
1829.782	245.25	245.72	245.99	246.3	246.56	246.81	247.08	247.61
1944.992	245.26	245.71	245.98	246.28	246.54	246.77	246.99	247.45
2070.033	245.34	245.83	246.12	246.44	246.71	246.96	247.23	247.85
2176.525	245.28	245.77	246.07	246.4	246.68	246.93	247.2	247.85
2298.156	245.36	245.84	246.12	246.44	246.72	246.97	247.24	247.87
2388.694	245.44	245.9	246.17	246.48	246.75	246.99	247.25	247.88
2506.788	245.58	246.05	246.33	246.64	246.9	240.55	247.43	247.82
2615.738	245.59	246.06	246.35	246.66	246.93	247.17	247.49	247.96
2720.332	245.66	246.13	246.41	246.71	246.98	247.21	247.54	248.02
2804.888	245.69	246.15	246.42	246.72	246.97	247.19	247.45	247.81
2816.078	245.05	240.15	240.42		reet Bridge	247.13	247.45	247.01
2826.331	245.73	246.21	246.5	246.81	247.08	247.31	247.63	248.29
2878*	245.77	246.25	246.54	246.85	247.12	247.35	247.68	248.34
2922*	245.91	246.42	246.73	240.85	247.36	247.61	247.99	248.76
2958*	245.91	246.42	246.73	247.07	247.30	247.66	247.99	248.70
2980*	245.96	246.47	246.78	247.12	247.41	247.00	248.05	248.96
3045.184	246.23	246.55	240.85	247.2	247.49	247.75	248.10	248.90
3155.966	246.23	246.78	247.11	247.47	247.78	248.05	248.49	249.42
	246.16				247.58			
3262.069 3304.781	246.9	246.53 247.36	246.77 247.68	247.01 248.01	247.38	247.93 248.33	248.43 248.74	249.33 249.55
3434.182	240.9	247.81	247.08	248.31	248.45	248.61	248.96	249.7
3434.182	247.38	247.81	248.07	248.31	248.45	248.61	248.96	249.7
3572.79	247.86	248.27	248.52	248.75	248.92	249.06	249.35	249.98
3946.499	248.52	248.92	249.14	249.36	249.53	249.67	249.94	250.47
4129.445 4329.57	248.82 248.98	249.21 249.35	249.43 249.57	249.66 249.79	249.85 249.96	250	250.29	250.87 250.95
						250.11	250.39	250.95
4517.296	249.11	249.48	249.7	249.93	250.1	250.25	250.52	
4671.386	249.22	249.6	249.82	250.04	250.22	250.37	250.64	251.15
4837.262	249.31	249.7	249.92	250.15	250.32	250.45	250.72	251.24
5010.581	249.54	249.96	250.19	250.42	250.6	250.75	250.98	251.43
5175.308	249.8	250.21	250.45	250.7	250.9	251.06	251.36	251.82
5318.18	249.96	250.43	250.7	250.97	251.2	251.39	251.72	252.25
5413.769 Note:	250	250.46	250.72	251	251.22	251.42	251.76	252.31

Table A.1: Summary of Existing Water Surface Elevations – BMROSS 2022 Model (m)

Note:

\*New Cross-sections

-	Table A.2: Summary of Differences           Existing - 2009 Model Partial Dam Removal (HEC-RAS Model Plan: SaugeenModifyND)         E								g Water S	urface El	evations	between	2009 Mod	lel and U	odated M	odel (m)					
	Existing - 2009 Model	Partial Dam	Removal (HE					Existing – U	pdated BMR	OSS 2022 Mc					Difference	(Updated M	odel - 2009 N	-			
Station	2 yr	5 yr	10 yr	25 yr	50 yr		Hazel	2 yr	5 yr	10 yr	25 yr	50 yr	100 yr	Hazel	2 yr	5 yr	10 yr	25 yr	50 yr	100 yr	Hazel
23.58182	243.17	243.68	243.99	244.27	244.44	244.6	245.58	243.17	243.68	243.99	244.27	244.44	244.6	245.58	0.00	0.00	0.00	0.00	0.00	0.00	
119.5607	243.37	243.85	244.13	244.42	244.61	244.78	245.82	243.37	243.85	244.13	244.42	244.61	244.78	245.82	0.00	0.00	0.00	0.00	0.00	0.00	
228.1683	243.75	244.27	244.55	244.81	245.01	245.17	246.12	243.75	244.27	244.55	244.81	245.01	245.17	246.12	0.00	0.00	0.00	0.00	0.00	0.00	
396.1741	243.78	244.32	244.61	244.88	245.08	245.24	246.22	243.78	244.32	244.61	244.88	245.08	245.24	246.22	0.00	0.00	0.00	0.00	0.00	0.00	
527.2288 641.2922	244.1 244.23	244.57 244.72	244.82 245	245.08 245.26	245.28 245.47	245.44 245.64	246.38 246.61	244.1 244.23	244.57 244.72	244.82 245	245.08 245.26	245.28 245.47	245.44 245.64	246.38 246.6	0.00 0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	
733.9654	244.23 244.27	244.72	245 245.05	245.26 245.31	245.47 245.52	245.64 245.7	246.61	244.23	244.72	245 245.05	245.26	245.47 245.52	245.64 245.7	246.66	0.00	0.00	0.00	0.00 0.00	0.00	0.00	
845.0438	244.27 244.35	244.77	245.03	245.31	245.52	245.74	240.00	244.27	244.77	245.05	245.31	245.52	245.74	240.00	0.00	0.00	0.00	0.00	0.00	0.00	
969.4456	244.5	244.97	245.24	245.5	245.7	245.88	246.84	244.5	244.97	245.24	245.5	245.7	245.88	246.84	0.00	0.00	0.00	0.00	0.00	0.00	
1080.741	244.52	245	245.28	245.55	245.77	245.95	246.92	244.52	245	245.28	245.55	245.77	245.95	246.92	0.00	0.00	0.00	0.00	0.00	0.00	
1189.341	244.79	245.23	245.48	245.73	245.93	246.11	247.07	244.79	245.23	245.48	245.73	245.93	246.11	247.07	0.00	0.00	0.00	0.00	0.00	0.00	
1275.767	244.88	245.3	245.53	245.78	245.98	246.15	247.18	244.88	245.3	245.53	245.78	245.98	246.15	247.18	0.00	0.00	0.00	0.00	0.00	0.00	
1380.066	244.96	245.39	245.65	245.91	246.12	246.29	247.27	244.96	245.39	245.65	245.91	246.12	246.29	247.27	0.00	0.00	0.00	0.00	0.00	0.00	
1468.539	245.02	245.45	245.71	245.97	246.18	246.36	247.3	245.02	245.45	245.71	245.97	246.18	246.36	247.29	0.00	0.00	0.00	0.00	0.00	0.00	
1573.266	245.08	245.51	245.77	246.03	246.24	246.42	247.35	245.08	245.51	245.77	246.03	246.24	246.42	247.35	0.00	0.00	0.00	0.00	0.00	0.00	
1660.63	245.13	245.57	245.82	246.07	246.27	246.45	247.28	245.13	245.57	245.82	246.07	246.27	246.45	247.36	0.00	0.00	0.00	0.00	0.00	0.00	
1670.875										Yonge Str	reet Bridge										
1679.045	245.12	245.55	245.8	246.08	246.32	246.54	247.83	245.12	245.55	245.8	246.08	246.32	246.63	247.4	0.00	0.00	0.00	0.00	0.00	0.09	
1734.391	245.18	245.65	245.92	246.23	246.5	246.74	248.19	245.18	245.64	245.92	246.23	246.5	246.75	247.54	0.00	-0.01	0.00	0.00	0.00	0.01	
1829.782	245.25	245.72	245.99	246.3	246.56	246.8	248.22	245.25	245.72	245.99	246.3	246.56	246.81	247.61	0.00	0.00	0.00	0.00	0.00	0.01	-0.61
1944.992	245.25	245.7	245.97	246.26	246.52	246.75	248.24	245.26	245.71	245.98	246.28	246.54	246.77	247.45	0.01	0.01	0.01	0.02	0.02	0.02	-0.79
2070.033	245.35	245.84	246.13	246.44	246.72	246.96	248.28	245.34	245.83	246.12	246.44	246.71	246.96	247.85	-0.01	-0.01	-0.01	0.00	-0.01	0.00	
2176.525	245.35	245.84	246.14	246.46	246.74	246.98	248.29	245.28	245.77	246.07	246.4	246.68	246.93	247.85	-0.07	-0.07	-0.07	-0.06	-0.06	-0.05	
2298.156	245.43	245.9	246.19	246.5	246.78	247.02	248.3	245.36	245.84	246.12	246.44	246.72	246.97	247.87	-0.07	-0.06	-0.07	-0.06	-0.06	-0.05	
2388.694	245.49	245.95	246.23	246.53	246.8	247.03	248.31	245.44	245.9	246.17	246.48	246.75	246.99	247.88	-0.05	-0.05	-0.06	-0.05	-0.05	-0.04	-0.43
2506.788	245.62	246.09	246.37	246.68	246.94	247.17	248.31	245.58	246.05	246.33	246.64	246.9	247.14	247.82 247.96	-0.04	-0.04	-0.04	-0.04	-0.04	-0.03	-0.49
2615.738 2720.332	245.65 245.71	246.12	246.41	246.72 246.77	246.99 247.03	247.22 247.26	248.32 248.36	245.59 245.66	246.06 246.13	246.35 246.41	246.66 246.71	246.93 246.98	247.17 247.21	247.96	-0.06 -0.05	-0.06 -0.05	-0.06 -0.05	-0.06 -0.06	-0.06 -0.05	-0.05 -0.05	-0.36 -0.34
2804.888	245.74	246.18 246.21	246.46 246.48	246.77	247.03	247.20	248.30	245.69	246.15	246.41	246.71	246.98	247.21	248.02 247.81	-0.05	-0.05	-0.05	-0.06	-0.05	-0.05	
2816.078	243.74	240.21	240.40	240.70	247.03	247.24	240.13	245.05	240.15		treet Bridge	240.57	247.15	247.01	0.05	0.00	0.00	0.00	0.00	0.05	0.34
2826.331	245.79	246.27	246.56	246.87	247.13	247.36	248.55	245.73	246.21	246.5	246.81	247.08	247.31	248.29	-0.06	-0.06	-0.06	-0.06	-0.05	-0.05	-0.26
2878*	210110	210127	210100	210107	217120	217100	210100	245.77	246.25	246.54	246.85	247.12	247.35	248.34	0.00	0.00	0.00	0.00	0.00	0.00	0.20
2922*								245.91	246.42	246.73	247.07	247.36	247.61	248.76							
2958*								245.96	246.47	246.78	247.12	247.41	247.66	248.81							
2980*								246.01	246.53	246.85	247.2	247.49	247.75	248.96							
3045.184	246.18	246.7	247.03	247.38	247.67	247.92	249.24	246.23	246.78	247.11	247.47	247.78	248.05	249.42	0.05	0.08	0.08	0.09	0.11	0.13	0.18
3155.966	246.3	246.82	247.15	247.5	247.79	248.04	249.3	246.34	246.88	247.22	247.58	247.89	248.16	249.46	0.04	0.06	0.07	0.08	0.10	0.12	0.16
3262.069	246.33	246.85	247.17	247.52	247.82	248.06	249.31	246.16	246.53	246.77	247.01	247.58	247.93	249.33	-0.17	-0.32	-0.40	-0.51	-0.24	-0.13	0.02
3304.781	246.4	246.69	246.88	247.13	247.49	247.83	249.25	246.9	247.36	247.68	248.01	248.15	248.33	249.55	0.50	0.67	0.80	0.88	0.66	0.50	
3434.182	247.46	247.84	248.07	248.29	248.44	248.51	249.46	247.38	247.81	248.07	248.31	248.45	248.61	249.7	-0.08	-0.03	0.00	0.02	0.01	0.10	0.24
3572.79	247.88	248.28	248.52	248.74	248.91	249.04	249.84	247.86	248.27	248.52	248.75	248.92	249.06	249.98	-0.02	-0.01	0.00	0.01	0.01	0.02	0.14
3750.729	248.28	248.69	248.93	249.15	249.33	249.46	250.24	248.26	248.68	248.93	249.16	249.33	249.47	250.32	-0.02	-0.01	0.00	0.01	0.00	0.01	
3946.499	248.53	248.92	249.14	249.36	249.53	249.66	250.41	248.52	248.92	249.14	249.36	249.53	249.67	250.47	-0.01	0.00	0.00	0.00	0.00	0.01	
4129.445	248.83	249.21	249.43	249.66	249.85	250	250.83	248.82	249.21	249.43	249.66	249.85	250	250.87	-0.01	0.00	0.00	0.00	0.00	0.00	
4329.57	248.99	249.35	249.57	249.78	249.96	250.1	250.91	248.98	249.35	249.57	249.79	249.96	250.11	250.95	-0.01	0.00	0.00	0.01	0.00	0.01	
4517.296	249.11	249.48	249.7	249.92	250.1	250.25	251.03	249.11	249.48	249.7	249.93	250.1	250.25	251.06	0.00	0.00	0.00	0.01	0.00	0.00	
4671.386	249.22	249.6	249.82	250.04	250.22	250.36	251.12	249.22	249.6	249.82	250.04	250.22	250.37	251.15	0.00	0.00	0.00	0.00	0.00	0.01	
4837.262	249.32	249.7	249.92	250.15	250.32	250.45	251.21	249.31	249.7	249.92	250.15	250.32	250.45	251.24	-0.01	0.00	0.00	0.00	0.00	0.00	
5010.581	249.54	249.96	250.19	250.42	250.6	250.75	251.41	249.54	249.96	250.19	250.42	250.6	250.75	251.43	0.00	0.00	0.00	0.00	0.00	0.00	
5175.308	249.8	250.21	250.45	250.7	250.89	251.06	251.81	249.8	250.21	250.45	250.7	250.9	251.06	251.82	0.00	0.00	0.00	0.00	0.01	0.00	
5318.18	249.96	250.43	250.69	250.97	251.2	251.38	252.25	249.96	250.43	250.7	250.97	251.2	251.39	252.25	0.00	0.00	0.01	0.00	0.00	0.01	0.00
5413.769	250	250.45	250.72	250.99	251.22	251.42	252.31	250	250.46	250.72	251	251.22	251.42	252.31	0.00	0.01	0.00	0.01	0.00	0.00	0.00

Table A 0. Commune of Differ ationa hatu a a a 2000 Madal and Lindatad Madal (m) 

Note: \*New Cross-sections in Updated Model

Table A.3: Option 1 – Comparison of Existing and Proposed Water Surface Elevations (m)         Existing – Updated BMROSS 2022 Model       Proposed : Option 1       Difference (Proposed: Option 1) – (Existing: Updated I)																								
	Existing –	· Updated B	MROSS 20	22 Model					Proposed	: Option 1							Difference	e (Proposed	: Option 1)	<u>,                                     </u>	Updated M			<u> </u>
Station	2 yr	5 yr	10 yr	25 yr	50 yr	100 yr	100yr+20% CC	Hazel	2 yr	5 yr	10 yr	25 yr	50 yr	100 yr	100yr+20% CC	Hazel	2 yr	5 yr	10 yr	25 yr	50 yr	100 yr	100yr+20% CC	Hazel
23.58182	243.17	243.68	243.99	244.27	244.44	244.6	244.91	245.58	243.17	243.68	243.99	244.27	244.44	244.6	244.91	245.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
119.5607	243.37	243.85	244.13	244.42	244.61	244.78	245.12	245.82	243.37	243.85	244.13	244.42	244.61	244.78	245.12	245.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
228.1683	243.75	244.27	244.55	244.81	245.01	245.17	245.48	246.12	243.75	244.27	244.55	244.81	245.01	245.17	245.48	246.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
396.1741	243.78	244.32	244.61	244.88	245.08	245.24	245.57	246.22	243.78	244.32	244.61	244.88	245.08	245.24	245.57	246.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
527.2288	244.1	244.57	244.82	245.08	245.28	245.44	245.75	246.38	244.1	244.57	244.82	245.08	245.28	245.44	245.75	246.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
641.2922	244.23	244.72	245	245.26	245.47	245.64	245.97	246.6	244.23	244.72	245	245.26	245.47	245.64	245.97	246.6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
733.9654	244.27	244.77	245.05	245.31	245.52	245.7	246.03	246.66	244.27	244.77	245.05	245.31	245.52	245.7	246.03	246.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
845.0438	244.35	244.82	245.09	245.36	245.57	245.74	246.08	246.7	244.35	244.82	245.09	245.36	245.57	245.74	246.08	246.7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
969.4456	244.5	244.97	245.24	245.5	245.7	245.88	246.21	246.84	244.5	244.97	245.24	245.5	245.7	245.88	246.21	246.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1080.741	244.52	245	245.28	245.55	245.77	245.95	246.29	246.92	244.52	245	245.28	245.55	245.77	245.95	246.29	246.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1189.341	244.79	245.23	245.48	245.73	245.93	246.11	246.44	247.07	244.79	245.23	245.48	245.73	245.93	246.11	246.44	247.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1275.767	244.88	245.3	245.53	245.78	245.98	246.15	246.54	247.18	244.88	245.3	245.53	245.78	245.98	246.15	246.54	247.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1380.066	244.96	245.39	245.65	245.91	246.12	246.29	246.63	247.27	244.96	245.39	245.65	245.91	246.12	246.29	246.63	247.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1468.539	245.02	245.45	245.71	245.97	246.18	246.36	246.63	247.29	245.02	245.45	245.71	245.97	246.18	246.36	246.63	247.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1573.266	245.08	245.51	245.77	246.03	246.24	246.42	246.71	247.35	245.08	245.51	245.77	246.03	246.24	246.42	246.71	247.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1660.63	245.13	245.57	245.82	246.07	246.27	246.45	246.74	247.36	245.13	245.57	245.82	246.07	246.27	246.45	246.74	247.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1670.875	245 42	245.55	245.0	246.00	246.22	246.62	246.04	247.4	245.42		245.0		Street Brid		246.04	247.4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1679.045	245.12	245.55	245.8	246.08	246.32	246.63	246.84	247.4	245.12	245.55	245.8	246.08	246.32	246.63	246.84	247.4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1734.391	245.18	245.64	245.92	246.23	246.5	246.75	247	247.54	245.18	245.64	245.92	246.23	246.5	246.75	247	247.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1829.782	245.25	245.72	245.99	246.3	246.56	246.81	247.08	247.61	245.25	245.72	245.99	246.3	246.56	246.81	247.08	247.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1944.992 2070.033	245.26 245.34	245.71 245.83	245.98 246.12	246.28 246.44	246.54 246.71	246.77 246.96	246.99	247.45 247.85	245.26	245.71 245.83	245.98 246.12	246.28 246.44	246.54	246.77 246.96	246.99	247.45 247.85	0.00	0.00 0.00	0.00	0.00	0.00	0.00 0.00	0.00	0.00 0.00
2070.033					246.71	246.96	247.23		245.34	245.83 245.77	246.12		246.71	246.96	247.23	247.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2298.156	245.28 245.36	245.77 245.84	246.07 246.12	246.4 246.44	246.68	246.95 246.97	247.2 247.24	247.85 247.87	245.28	245.77	246.07	246.4 246.44	246.68	246.95 246.97	247.2 247.24	247.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2388.694	245.30	245.84	246.12	246.44 246.48	246.72	246.97	247.24	247.87	245.36 245.44	245.84	246.12	246.44 246.48	246.72 246.75	246.97	247.24	247.87	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00
2506.788	245.58	245.9	246.17	246.64	240.73	240.99	247.23	247.88	245.58	245.9	246.17	246.64	240.73	240.99	247.23	247.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2615.738	245.58	246.05	240.35	246.66	240.9	247.14	247.43	247.82	245.58	246.05	240.33	246.66	246.93	247.14	247.43	247.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2720.332	245.66	246.13	246.41	246.71	246.98	247.17	247.54	247.90	245.66	246.13	246.35	246.71	246.93	247.21	247.54	247.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2804.888	245.69	246.15	246.41	246.71	246.97	247.21	247.34	248.02 247.81	245.69	240.15 246.15	246.41	246.71	246.98	247.19	247.34	248.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2816.078	245.05	240.15	240.42	240.72	240.57	247.15	247.45	247.01	243.03	240.15	240.42		Street Brid		247.45	247.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2826.331	245.73	246.21	246.5	246.81	247.08	247.31	247.63	248.29	245.73	246.21	246.5	246.81	247.07	247.31	247.6	248.29	0.00	0.00	0.00	0.00	-0.01	0.00	-0.03	0.00
2878	245.77	246.25	246.54	246.85	247.12	247.35	247.68	248.34	245.77	246.25	246.54	246.85	247.11	247.35	247.65	248.34	0.00	0.00	0.00	0.00	-0.01	0.00	-0.03	0.00
2922	245.91	246.42	246.73	247.07	247.36	247.61	247.99	248.76	245.91	246.42	246.73	247.07	247.35	247.6	247.97	248.76	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.02	0.00
2958	245.96	246.47	246.78	247.12	247.41	247.66	248.05	248.81	245.96	246.47	246.78	247.12	247.4	247.65	248.02	248.81	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.03	0.00
2980	246.01	246.53	246.85	247.2	247.49	247.75	248.16	248.96	246.01	246.53	246.85	247.19	247.49	247.74	248.14	248.96	0.00	0.00	0.00	-0.01	0.00	-0.01	-0.02	0.00
3045.184	246.23	246.78	247.11	247.47	247.78	248.05	248.49	249.42	246.23	246.77	247.11	247.47	247.78	248.05	248.48	249.42	0.00	-0.01	0.00	0.00	0.00	0.00	-0.01	0.00
3155.966	246.34	246.88	247.22	247.58	247.89	248.16	248.6	249.46	246.34	246.88	247.22	247.58	247.89	248.15	248.59	249.46	0.00	0.00	0.00	0.00	0.00	-0.01	-0.01	0.00
3262.069	246.16	246.53	246.77	247.01	247.58	247.93	248.43	249.33	246.16	246.53	246.77	247.02	247.57	247.93	248.41	249.33	0.00	0.00	0.00	0.01	-0.01	0.00	-0.02	0.00
3304.781	246.9	247.36	247.68	248.01	248.15	248.33	248.74	249.55	246.9	247.36	247.68	248.01	248.15	248.33	248.73	249.55	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	0.00
3434.182	247.38	247.81	248.07	248.31	248.45	248.61	248.96	249.7	247.38	247.81	248.07	248.31	248.45	248.61	248.95	249.7	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	0.00
3572.79	247.86	248.27	248.52	248.75	248.92	249.06	249.35	249.98	247.86	248.27	248.52	248.75	248.92	249.06	249.35	249.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3750.729	248.26	248.68	248.93	249.16	249.33	249.47	249.75	250.32	248.26	248.68	248.93	249.16	249.33	249.47	249.75	250.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3946.499	248.52	248.92	249.14	249.36	249.53	249.67	249.94	250.47	248.52	248.92	249.14	249.36	249.53	249.67	249.93	250.48	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	0.01
4129.445	248.82	249.21	249.43	249.66	249.85	250	250.29	250.87	248.82	249.21	249.43	249.66	249.85	250	250.29	250.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4329.57	248.98	249.35	249.57	249.79	249.96	250.11	250.39	250.95	248.98	249.35	249.57	249.79	249.96	250.11	250.39	250.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4517.296	249.11	249.48	249.7	249.93	250.1	250.25	250.52	251.06	249.11	249.48	249.7	249.93	250.1	250.25	250.52	251.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4671.386	249.22	249.6	249.82	250.04	250.22	250.37	250.64	251.15	249.22	249.6	249.82	250.04	250.22	250.37	250.64	251.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4837.262	249.31	249.7	249.92	250.15	250.32	250.45	250.72	251.24	249.31	249.7	249.92	250.15	250.32	250.45	250.72	251.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5010.581	249.54	249.96	250.19	250.42	250.6	250.75	250.98	251.43	249.54	249.96	250.19	250.42	250.6	250.75	250.98	251.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5175.308	249.8	250.21	250.45	250.7	250.9	251.06	251.36	251.82	249.8	250.21	250.45	250.7	250.9	251.06	251.36	251.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5318.18	249.96	250.43	250.7	250.97	251.2	251.39	251.72	252.25	249.96	250.43	250.7	250.97	251.2	251.39	251.72	252.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5413.769	250	250.46	250.72	251	251.22	251.42	251.76	252.31	250	250.46	250.72	251	251.22	251.42	251.76	252.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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Table A.3: Option 1 – Comparison of Existing and Proposed Water Surface Elevations (m)

	Table A.4: Option 2 – Comparison of Existing and Proposed Water Surface Elevations (m)         Existing – Updated BMROSS 2022 Model       Proposed : Option 2         Difference (Proposed: Option 2) – (Existing: Updated Model)																							
	Existing –	Updated B	MROSS 20	22 Model					Proposed	: Option 2		•					Difference	e (Proposed	Option 2)	<u>,                                     </u>	Updated M	,		
Station	2 yr	5 yr	10 yr	25 yr	50 yr	100 yr	100yr+20% CC	Hazel	2 yr	5 yr	10 yr	25 yr	50 yr	100 yr	100yr+20% CC	Hazel	2 yr	5 yr	10 yr	25 yr	50 yr	100 yr	100yr+20% CC	Hazel
23.58182	243.17	243.68	243.99	244.27	244.44	244.6	244.91	245.58	243.17	243.68	243.99	244.27	244.44	244.6	244.91	245.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
119.5607	243.37	243.85	244.13	244.42	244.61	244.78	245.12	245.82	243.37	243.85	244.13	244.42	244.61	244.78	245.12	245.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
228.1683	243.75	244.27	244.55	244.81	245.01	245.17	245.48	246.12	243.75	244.27	244.55	244.81	245.01	245.17	245.48	246.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
396.1741	243.78	244.32	244.61	244.88	245.08	245.24	245.57	246.22	243.78	244.32	244.61	244.88	245.08	245.24	245.57	246.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
527.2288	244.1	244.57	244.82	245.08	245.28	245.44	245.75	246.38	244.1	244.57	244.82	245.08	245.28	245.44	245.75	246.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
641.2922	244.23	244.72	245	245.26	245.47	245.64	245.97	246.6	244.23	244.72	245	245.26	245.47	245.64	245.97	246.6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
733.9654	244.27	244.77	245.05	245.31	245.52	245.7	246.03	246.66	244.27	244.77	245.05	245.31	245.52	245.7	246.03	246.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
845.0438	244.35	244.82	245.09	245.36	245.57	245.74	246.08	246.7	244.35	244.82	245.09	245.36	245.57	245.74	246.08	246.7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
969.4456	244.5	244.97	245.24	245.5	245.7	245.88	246.21	246.84	244.5	244.97	245.24	245.5	245.7	245.88	246.21	246.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1080.741	244.52	245	245.28	245.55	245.77	245.95	246.29	246.92	244.52	245	245.28	245.55	245.77	245.95	246.29	246.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1189.341	244.79	245.23	245.48	245.73	245.93	246.11	246.44	247.07	244.79	245.23	245.48	245.73	245.93	246.11	246.44	247.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1275.767	244.88 244.96	245.3 245.39	245.53 245.65	245.78 245.91	245.98 246.12	246.15 246.29	246.54 246.63	247.18 247.27	244.88	245.3 245.39	245.53 245.65	245.78 245.91	245.98 246.12	246.15 246.29	246.54	247.18	0.00	0.00 0.00	0.00	0.00	0.00	0.00 0.00	0.00	0.00
1380.066 1468.539	244.96	245.39		245.91 245.97	246.12	246.29	246.63	247.27	244.96	245.39	245.65 245.71	245.91	246.12	246.29	246.63	247.27 247.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 0.00
1468.539	245.02 245.08	245.45 245.51	245.71 245.77	245.97	246.18	246.36	246.63 246.71	247.29 247.35	245.02 245.08	245.45 245.51	245.71 245.77	245.97 246.03	246.18	246.36	246.63 246.71	247.29	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00
1660.63	245.08	245.51	245.82	240.03 246.07	246.24	246.42	246.71	247.35	245.13	243.51 245.57	245.82	246.03	246.24	246.42	246.74	247.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1670.875	273.13	273.37	273.02	240.07	240.27	2-10.45	240.74	2-77.50	273.13	2-73.37	240.02		Street Brid		240.74	247.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1679.045	245.12	245.55	245.8	246.08	246.32	246.63	246.84	247.4	245.12	245.55	245.8	246.08	246.32	246.63	246.84	247.4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1734.391	245.18	245.64	245.92	246.23	246.5	246.75	247	247.54	245.18	245.64	245.92	246.23	246.5	246.75	247	247.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1829.782	245.25	245.72	245.99	246.3	246.56	246.81	247.08	247.61	245.25	245.72	245.99	246.3	246.56	246.81	247.08	247.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1944.992	245.26	245.71	245.98	246.28	246.54	246.77	246.99	247.45	245.26	245.71	245.98	246.28	246.54	246.77	246.99	247.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2070.033	245.34	245.83	246.12	246.44	246.71	246.96	247.23	247.85	245.34	245.83	246.12	246.44	246.71	246.96	247.23	247.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2176.525	245.28	245.77	246.07	246.4	246.68	246.93	247.2	247.85	245.28	245.77	246.07	246.4	246.68	246.93	247.2	247.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2298.156	245.36	245.84	246.12	246.44	246.72	246.97	247.24	247.87	245.36	245.84	246.12	246.44	246.72	246.97	247.24	247.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2388.694	245.44	245.9	246.17	246.48	246.75	246.99	247.25	247.88	245.44	245.9	246.17	246.48	246.75	246.99	247.25	247.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2506.788	245.58	246.05	246.33	246.64	246.9	247.14	247.43	247.82	245.58	246.05	246.33	246.64	246.9	247.14	247.43	247.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2615.738	245.59	246.06	246.35	246.66	246.93	247.17	247.49	247.96	245.59	246.06	246.35	246.66	246.93	247.17	247.49	247.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2720.332	245.66	246.13	246.41	246.71	246.98	247.21	247.54	248.02	245.66	246.13	246.41	246.71	246.98	247.21	247.54	248.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2804.888	245.69	246.15	246.42	246.72	246.97	247.19	247.45	247.81	245.69	246.15	246.42	246.72	246.97	247.19	247.45	247.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2816.078									•				n Street Brid	-										
2826.331	245.73	246.21	246.5	246.81	247.08	247.31	247.63	248.29	245.73	246.21	246.49	246.8	247.06	247.29	247.57	248.25	0.00	0.00	-0.01	-0.01	-0.02	-0.02	-0.06	-0.04
2878	245.77	246.25	246.54	246.85	247.12	247.35	247.68	248.34	245.77	246.25	246.53	246.84	247.1	247.33	247.62	248.3	0.00	0.00	-0.01	-0.01	-0.02	-0.02	-0.06	-0.04
2922	245.91	246.42	246.73	247.07	247.36	247.61	247.99	248.76	245.91	246.42	246.73	247.06	247.34	247.59	247.95	248.73	0.00	0.00	0.00	-0.01	-0.02	-0.02	-0.04	-0.03
2958	245.96	246.47	246.78	247.12	247.41	247.66	248.05	248.81	245.96	246.47	246.78	247.11	247.39	247.64	248	248.78	0.00	0.00	0.00	-0.01	-0.02	-0.02	-0.05	-0.03
2980	246.01	246.53	246.85	247.2	247.49	247.75	248.16	248.96	246	246.53	246.84	247.19	247.48	247.73	248.12	248.94	-0.01	0.00	-0.01	-0.01	-0.01	-0.02	-0.04	-0.02
3045.184	246.23	246.78	247.11	247.47	247.78	248.05	248.49	249.42	246.23	246.77	247.11	247.47	247.77	248.04	248.46	249.4	0.00	-0.01	0.00	0.00	-0.01	-0.01	-0.03	-0.02
3155.966 3262.069	246.34 246.16	246.88	247.22 246.77	247.58 247.01	247.89 247.58	248.16 247.93	248.6	249.46 249.33	246.34	246.88 246.53	247.21 246.77	247.57 247.01	247.88 247.56	248.14 247.92	248.58 248.4	249.43 249.31	0.00	0.00 0.00	- <mark>0.01</mark> 0.00	- <mark>0.01</mark> 0.00	-0.01 -0.02	-0.02 -0.01	-0.02 -0.03	-0.03 -0.02
3262.069	246.16	246.53 247.36	246.77 247.68	247.01 248.01	247.58 248.15	247.93	248.43 248.74	249.33 249.55	246.16 246.9	246.53 247.36	246.77 247.68	247.01 248.01	247.56	247.92	248.4 248.72	249.31 249.54	0.00 0.00	0.00		0.00	-0.02	-0.01 -0.01	-0.03	-0.02
3434.182	246.9	247.30	247.68	248.01 248.31	248.15 248.45	248.55 248.61	248.74 248.96	249.55 249.7	246.9	247.30 247.81	247.68	248.01 248.31	248.15	248.52	248.72	249.54 249.69	0.00	0.00	0.00 0.00	0.00	0.00	-0.01	-0.02	-0.01
3572.79	247.86	247.81	248.07	248.31	248.43	248.01 249.06	248.90	249.7	247.86	247.81	248.07	248.31 248.75	248.43	248.0	248.94 249.35	249.09	0.00	0.00	0.00	0.00	0.00	0.01	0.02	-0.01
3750.729	247.80	248.68	248.92	248.75	249.33	249.00	249.35	249.98	247.80	248.68	248.92	248.75	248.92	249.00	249.35	250.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3946.499	248.52	248.92	248.93 249.14	249.10	249.53	249.47	249.94	250.32	248.20	248.92	248.93 249.14	249.10	249.53	249.47	249.93	250.32	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	0.00
4129.445	248.82	249.21	249.43	249.66	249.85	245.07	250.29	250.47	248.82	249.22	249.43	249.66	249.85	240.07	250.29	250.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4329.57	248.98	249.35	249.57	249.79	249.96	250.11	250.25	250.95	248.98	249.35	249.57	249.79	249.96	250.11	250.25	250.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4517.296	249.11	249.48	249.7	249.93	250.1	250.25	250.52	251.06	249.11	249.48	249.7	249.93	250.1	250.25	250.52	251.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4671.386	249.22	249.6	249.82	250.04	250.22	250.37	250.64	251.15	249.22	249.6	249.82	250.04	250.22	250.37	250.64	251.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4837.262	249.31	249.7	249.92	250.15	250.32	250.45	250.72	251.24	249.31	249.7	249.92	250.15	250.32	250.45	250.72	251.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
5010.581	249.54	249.96	250.19	250.42	250.6	250.75	250.98	251.43	249.54	249.96	250.19	250.42	250.6	250.75	250.98	251.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
5175.308	249.8	250.21	250.45	250.7	250.9	251.06	251.36	251.82	249.8	250.21	250.45	250.7	250.9	251.06	251.36	251.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5318.18	249.96	250.43	250.7	250.97	251.2	251.39	251.72	252.25	249.96	250.43	250.7	250.97	251.2	251.39	251.72	252.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5413.769	250	250.46	250.72	251	251.22	251.42	251.76	252.31	250	250.46	250.72	251	251.22	251.42	251.76	252.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table A.4: Option 2 – Comparison of Existing and Proposed Water Surface Elevations (m)

	Table A.5: Temporary Detour Bridge Option – Comparison of Existing and Proposed Water Surface Elevations (m)         Existing – Updated BMROSS 2022 Model       Temporary Bridge – South Option       Difference (Updated Model - 2009 Model)																							
	Existing –	· Updated B	MROSS 202	22 Model					Temporary	/ Bridge – S	outh Optior						Difference	e (Updated N	Nodel - 200	,				
Station	2 yr	5 yr	10 yr	25 yr	50 yr	100 yr	100yr+20% CC	Hazel	2 yr	5 yr	10 yr	25 yr	50 yr	100 yr	100yr+20% CC	Hazel	2 yr	5 yr	10 yr	25 yr	50 yr	100 yr	100yr+20% CC	
23.58182	243.17	243.68	243.99	244.27	244.44	244.6	244.91	245.58	243.17	243.68	243.99	244.27	244.44	244.6	244.91	245.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
119.5607	243.37	243.85	244.13	244.42	244.61	244.78	245.12	245.82	243.37	243.85	244.13	244.42	244.61	244.78	245.12	245.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
228.1683	243.75	244.27	244.55	244.81	245.01	245.17	245.48	246.12	243.75	244.27	244.55	244.81	245.01	245.17	245.48	246.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
396.1741	243.78	244.32	244.61	244.88	245.08	245.24	245.57	246.22	243.78	244.32	244.61	244.88	245.08	245.24	245.57	246.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
527.2288	244.1	244.57	244.82	245.08	245.28	245.44	245.75	246.38	244.1	244.57	244.82	245.08	245.28	245.44	245.75	246.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
641.2922	244.23	244.72	245	245.26	245.47	245.64	245.97	246.6	244.23	244.72	245	245.26	245.47	245.64	245.97	246.6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
733.9654	244.27	244.77	245.05	245.31	245.52	245.7	246.03	246.66	244.27	244.77	245.05	245.31	245.52	245.7	246.03	246.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
845.0438	244.35	244.82	245.09	245.36	245.57	245.74	246.08	246.7	244.35	244.82	245.09	245.36	245.57	245.74	246.08	246.7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
969.4456	244.5 244.52	244.97 245	245.24 245.28	245.5 245.55	245.7 245.77	245.88 245.95	246.21 246.29	246.84 246.92	244.5 244.52	244.97 245	245.24 245.28	245.5 245.55	245.7 245.77	245.88 245.95	246.21 246.29	246.84 246.92	0.00	0.00	0.00	0.00	0.00	0.00 0.00	0.00	0.00 0.00
1080.741 1189.341	244.52	245 245.23	245.28	245.55 245.73	245.77	245.95 246.11	246.29	246.92 247.07	244.52	245 245.23	245.28	245.55	245.77	245.95 246.11	246.29	246.92 247.07	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00
1275.767	244.79	245.23	245.53	245.73	245.98	246.11	246.54	247.07	244.79	245.23	245.53	243.73 245.78	245.93	246.11	246.54	247.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1380.066	244.96	245.39	245.65	245.91	245.58	246.29	246.63	247.27	244.96	245.39	245.65	245.91	245.58	246.29	246.63	247.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1468.539	245.02	245.45	245.71	245.91	246.18	246.36	246.63	247.29	245.02	245.45	245.71	245.91	246.12	246.36	246.63	247.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1573.266	245.08	245.51	245.77	246.03	246.24	246.42	246.71	247.35	245.08	245.51	245.77	246.03	246.24	246.42	246.71	247.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1660.63	245.13	245.57	245.82	246.07	246.27	246.45	246.74	247.36	245.13	245.57	245.82	246.07	246.27	246.45	246.74	247.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1670.875													Street Brid											
1679.045	245.12	245.55	245.8	246.08	246.32	246.63	246.84	247.4	245.12	245.55	245.8	246.08	246.32	246.63	246.84	247.4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1734.391	245.18	245.64	245.92	246.23	246.5	246.75	247	247.54	245.18	245.64	245.92	246.23	246.5	246.75	247	247.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1829.782	245.25	245.72	245.99	246.3	246.56	246.81	247.08	247.61	245.25	245.72	245.99	246.3	246.56	246.81	247.08	247.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1944.992	245.26	245.71	245.98	246.28	246.54	246.77	246.99	247.45	245.26	245.71	245.98	246.28	246.54	246.77	246.99	247.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2070.033	245.34	245.83	246.12	246.44	246.71	246.96	247.23	247.85	245.34	245.83	246.12	246.44	246.71	246.96	247.23	247.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2176.525	245.28	245.77	246.07	246.4	246.68	246.93	247.2	247.85	245.28	245.77	246.07	246.4	246.68	246.93	247.2	247.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2298.156	245.36	245.84	246.12	246.44	246.72	246.97	247.24	247.87	245.36	245.84	246.12	246.44	246.72	246.97	247.24	247.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2388.694	245.44	245.9	246.17	246.48	246.75	246.99	247.25	247.88	245.44	245.9	246.17	246.48	246.75	246.99	247.25	247.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2506.788	245.58	246.05	246.33	246.64	246.9	247.14	247.43	247.82	245.58	246.05	246.33	246.64	246.9	247.14	247.43	247.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2615.738	245.59	246.06	246.35	246.66	246.93	247.17	247.49	247.96	245.59	246.06	246.35	246.66	246.93	247.17	247.49	247.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2720.332	245.66	246.13	246.41	246.71	246.98	247.21	247.54	248.02	245.66	246.13	246.41	246.71	246.98	247.21	247.54	248.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2804.888	245.69	246.15	246.42	246.72	246.97	247.19	247.45	247.81	245.69	246.15	246.42	246.72	246.97	247.19	247.45	247.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2816.078	245 72	246.24	246.5	246.81	247.08	247.31	247.63	240.20	245 72	246.21	246.5	246.81	Street Brid	ge 247.31	247.02	248.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2826.331	245.73	246.21	246.54	246.81	247.08	247.31	247.63	248.29 248.34	245.73	246.21	246.54	246.81	247.08 247.12	247.31	247.63 247.68	248.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 0.00
2878 2922	245.77 245.91	246.25 246.42	246.54	246.85	247.12	247.55	247.88	248.54	245.77 245.91	246.25	246.54	240.85	247.12	247.55	247.88	248.54 248.76	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00
2922	245.91	240.42	240.73 246.78	247.07	247.30	247.61	247.55	248.70 248.81	245.91	240.42 246.47	246.79	247.07	247.30	247.66	247.99	248.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2969	243.50	240.47	240.70	247.12	247.41	247.00	240.05	240.01	245.50	2+0.+7	240.75	Temporar			240.03	240.01	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
2980	246.01	246.53	246.85	247.2	247.49	247.75	248.16	248.96	246.02	246.55	246.88	247.23	247.53	247.79	248.27	249.64	0.01	0.02	0.03	0.03	0.04	0.04	0.11	0.68
3045.184	246.23	246.78	247.11	247.47	247.78	248.05	248.49	249.42	246.25	246.79	247.13	247.5	247.81	248.08	248.59	249.81	0.02	0.01	0.02	0.03	0.03	0.03	0.10	0.39
3155.966	246.34	246.88	247.22	247.58	247.89	248.16	248.6	249.46	246.35	246.9	247.24	247.6	247.91	248.18	248.69	249.83	0.01	0.02	0.02	0.02	0.02	0.02	0.09	
3262.069	246.16	246.53	246.77	247.01	247.58	247.93	248.43	249.33	246.16	246.53	246.77	247.07	247.63	247.97	248.54	249.74	0.00	0.00	0.00	0.06	0.05	0.04	0.11	0.41
3304.781	246.9	247.36	247.68	248.01	248.15	248.33	248.74	249.55	246.9	247.36	247.68	248	248.15	248.34	248.8	249.89	0.00	0.00	0.00	-0.01	0.00	0.01	0.06	0.34
3434.182	247.38	247.81	248.07	248.31	248.45	248.61	248.96	249.7	247.38	247.81	248.07	248.31	248.45	248.61	249	249.99	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.29
3572.79	247.86	248.27	248.52	248.75	248.92	249.06	249.35	249.98	247.86	248.27	248.52	248.75	248.92	249.06	249.37	250.19	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.21
3750.729	248.26	248.68	248.93	249.16	249.33	249.47	249.75	250.32	248.26	248.68	248.93	249.16	249.33	249.48	249.76	250.46	0.00	0.00	0.00	0.00	0.00	0.01	0.01	
3946.499	248.52	248.92	249.14	249.36	249.53	249.67	249.94	250.47	248.52	248.92	249.14	249.36	249.53	249.67	249.94	250.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12
4129.445	248.82	249.21	249.43	249.66	249.85	250	250.29	250.87	248.82	249.21	249.43	249.66	249.85	250	250.3	250.95	0.00	0.00	0.00	0.00	0.00	0.00	0.01	
4329.57	248.98	249.35	249.57	249.79	249.96	250.11	250.39	250.95	248.98	249.35	249.57	249.79	249.96	250.11	250.39	251.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4517.296	249.11	249.48	249.7	249.93	250.1	250.25	250.52	251.06	249.11	249.48	249.7	249.93	250.1	250.25	250.53	251.12	0.00	0.00	0.00	0.00	0.00	0.00	0.01	
4671.386	249.22	249.6	249.82	250.04	250.22	250.37	250.64	251.15	249.22	249.6	249.82	250.04	250.22	250.37	250.64	251.2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4837.262	249.31	249.7	249.92	250.15	250.32	250.45	250.72	251.24	249.31	249.7	249.92	250.15	250.32	250.45	250.73	251.28	0.00	0.00	0.00	0.00	0.00	0.00	0.01	
5010.581	249.54	249.96	250.19	250.42	250.6	250.75	250.98	251.43	249.54	249.96	250.19	250.42	250.6	250.75	250.98	251.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
5175.308	249.8	250.21	250.45	250.7	250.9	251.06	251.36	251.82	249.8	250.21	250.45	250.7	250.9	251.06	251.36	251.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
5318.18	249.96	250.43	250.7	250.97	251.2	251.39	251.72	252.25	249.96	250.43	250.7	250.97	251.2	251.39	251.72	252.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
5413.769	250	250.46	250.72	251	251.22	251.42	251.76	252.31	250	250.46	250.72	251	251.22	251.42	251.76	252.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

 Table A.5: Temporary Detour Bridge Option – Comparison of Existing and Proposed Water Surface Elevations (m)

# Appendix B

**Rock Sizing Calculations** 

#### Rock Protection sizing - Proposed Durham Street Bridge <u>Design Flow</u> 100 Yr Event: 670 m<sup>3</sup>/s

100 Yr Event:	670 m /S
Structure Exit Velocity:	3.13 m/s
(To be provided by other calculations)	

#### Method No. 1 : Based on USEPA Tables:

Formula:	y=ax <sup>b</sup>	Where:	a =	50.8719
			b =	1.79527

Calculated Rock Size (USEPA): 395 mm

#### Method No. 2 : Based on MTO Chart I4-6

Formula:	y=a+bx+cx^2+dx^3	Where:	a =	2.0786
			b =	-20.2571
			c =	33.3073
			d =	1.51143

Calculated Rock Size (MTO): 311 mm

#### Method No. 3: Ontario Ministry of Transportation (MTO) Highway Drainage Design Manual

Required Rock Size, D<sub>50</sub>

Thickness of Rip-Rap Layer

Ē

400 mm

Velocity (m/s)	< 2.0	< 2.6	< 3.0	< 3.5	< 4.0	< 4.7	< 5.2
Nominal Stone Size <sup>(1)</sup> (mm)	100	200	300	400	500	800	1000
<ol> <li>Maximum stone must have a diame</li> </ol>						of stones (	(by mas
	eter of at le	east 60% o	f nominal			of stones ( 370	

2.25 times  $D_{50}$ 

900 mm

# Rock Protection sizing - Proposed Temporary Detour BridgeDesign Flow100 Yr Event:670 m³/s

Structure Exit Velocity:	2.76	m/s
(To be provided by other calculations)		

Method No. 1 : Based on USEPA Tables:

Formula:	y=ax <sup>b</sup>	Where:	a =	50.8719
			b =	1.79527

Calculated Rock Size (USEPA): 315 mm

#### Method No. 2 : Based on MTO Chart I4-6

Formula:	y=a+bx+cx^2+dx^3	Where:	a =	2.0786
			b =	-20.2571
			c =	33.3073
			d =	1.51143

Calculated Rock Size (MTO):

#### Method No. 3: Ontario Ministry of Transportation (MTO) Highway Drainage Design Manual

Required Rock Size, D<sub>50</sub>

-

300 mm

232 mm

Velocity (m/s)	< 2.0	< 2.6	< 3.0	< 3.5	< 4.0	< 4.7	< 5.2
Nominal Stone Size <sup>(1)</sup> (mm)	100	200	300	400	500	800	1000
ected Rock Size (A	verage US	EPA / MTC	) charts)			280	mm
ected Rock Size (A	verage US	EPA / MTC	) charts)		Use		
ected Rock Size (A ximum Stone Size	werage US	EPA / MTC	,	nes D <sub>50</sub>	Use		mm

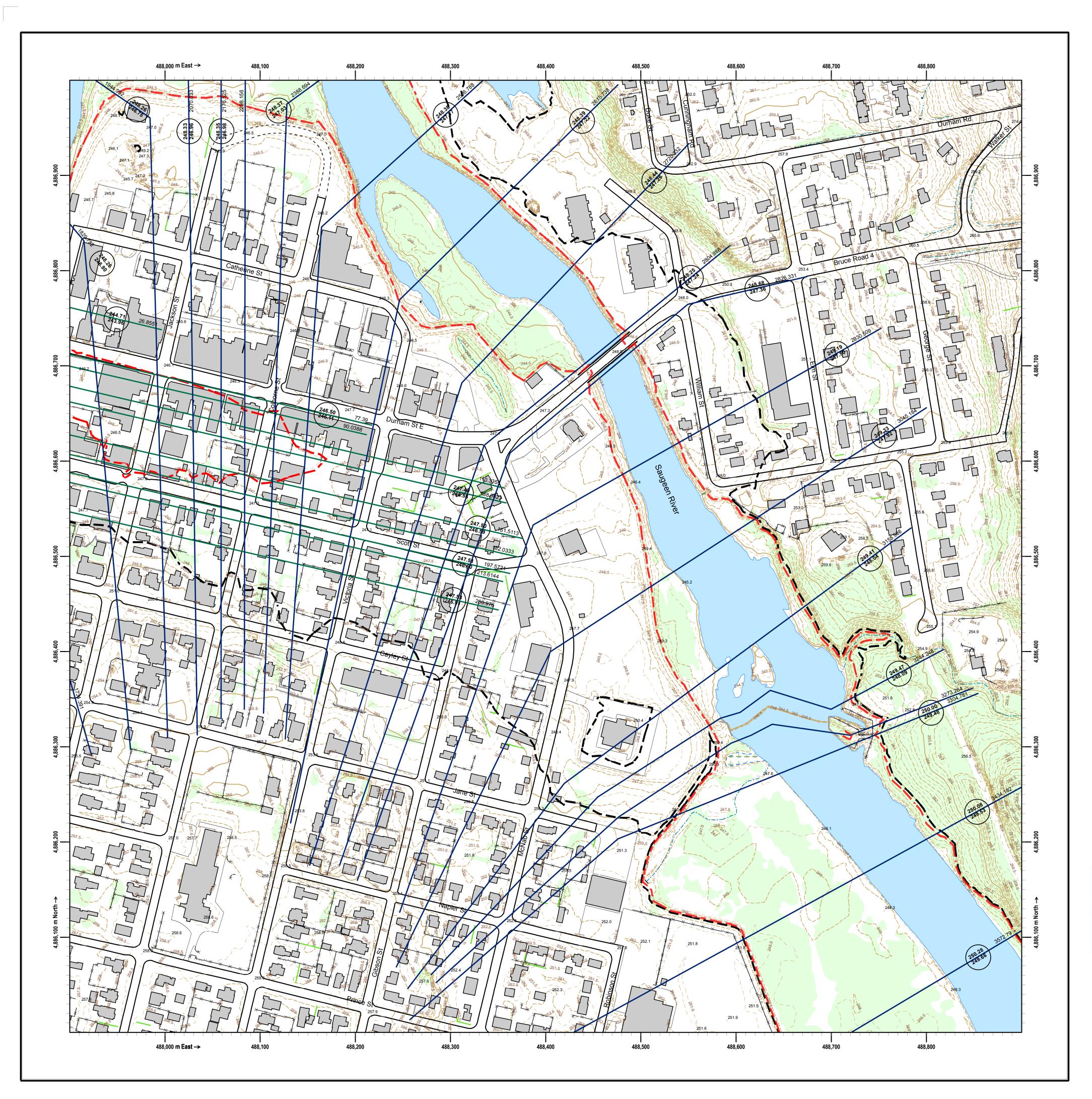
Appendix C

**HEC-RAS Model Files** 

(Model files to be provided electronically)

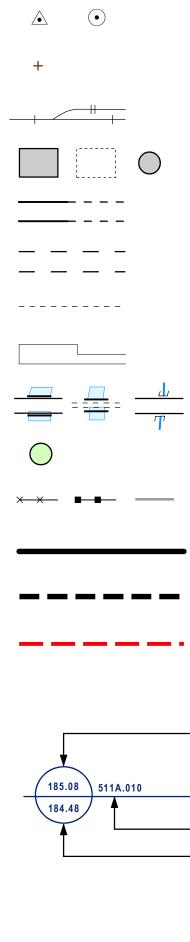
# Appendix D

# 2009 Walkerton Floodline Mapping – Sheet 7

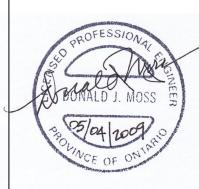








GENERAL INFORMATION ON THIS MAP.

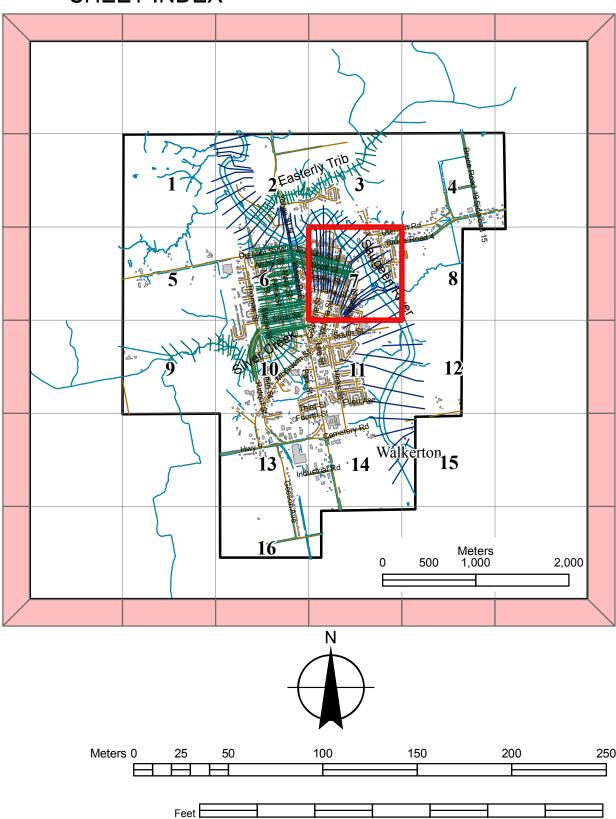


DATE	

# Saugeen Valley Conservation Authority WALKERTON FLOODPLAIN MAPPING

WATERCOURSE: DEFINITE	
WATERCOURSE: INDEFINITE / DITCH	
DAM / FALLS / RAPIDS	
WATERBODY	
SWAMP	على على على على على على على على على على على على على على على متر على على على على على على متر على على على على على على على على على على على على على
WOODED AREA / INDIVIDUAL TREE / HEDGE	· · · · · · · · · · · · · · · · · · ·
CONTOUR: INDEX / INTERPOLATED / INTERMEDIATE	200 -200.5

# SHEET INDEX



0 50 100

200

300

400

Scale: 1 : 2,000 1 cm on the map represents 20 m on the ground Contour Interval: 1.0 Meter Auxiliary Contour Interval: 0.5 Meter

500

All measurements are in Metric.

600

700

Vertical Datum: Mean Sea Level (G.S.C.) Horizontal Datum: North American Datum 1983 (NAD 83) Projection: Universal Transverse Mercator Zone: 17 Central Meridian: 81° West

Grid Spacing: 100 Meters

Date of Aerial Photography: April 13th, 2007

SPOT ELEVATION
RAILWAY
BUILDING / RUIN / SILO OR TANK
ROAD: PAVED / UNPAVED
ROAD: UNDER CONSTRUCTION
TRAIL
DRIVEWAY OR PARKING LOT
BRIDGE / FOOT BRIDGE / CULVERT
BRIDGE / FOOT BRIDGE / CULVERT

HURRICANE HAZEL FLOOD EVENT STANDARD FLOODLINE

ICANE HAZEL STANDARD FLOODLINE (ENCROACHED)

.100 YEAR FLOODLINE

REGULATORY FLOOD ELEVATION (HURRICANE HAZEL FLOOD EVENT STANDARD)

SECTION NUMBER — 100 YEAR FLOOD ELEVATION

HYDRAULIC ANALYSIS CONDUCTED BY GREENLAND CONSULTING ENGINEERS LTD. BASE DATA CREATED BY FIRST BASE SOLUTIONS INC. OVERVIEW DATA PROVIDED BY THE MINISTRY OF NATURAL RESOURCES, © HER MAJESTY THE QUEEN IN RIGHT OF ONTARIO AND THE DEPARTMENT OF NATURAL RESOURCES, © HER MAJESTY THE QUEEN IN RIGHT OF CANADA.

DIGITAL PHOTOGRAMMETRIC MAPPING COMPLETED TO INDUSTRY ACCEPTABLE STANDARDS UTILIZING THE CANADA-ONTARIO FLOOD DAMAGE REDUCTION PROGRAM SPECIFICATIONS.

THE MAP IS AN AID TO THE DECISION MAKING PROCESSES AND IT IS RECOMMENDED THAT USERS CONFIRM THE ACCURACY OF THE INFORMATION PRESENTED. GREENLAND CONSULTING ENGINEERS LTD. AND ABOVE MENTIONED SOURCES AND AGENCIES ARE NOT RESPONSIBLE FOR THE ACCURACY OF THE SPATIAL, TEMPORAL OR OTHER ASPECTS OF THE DATA PRESENTED



GREENLAND® Consulting Engineers 120 Hume Street Collingwood, Ontario, L9Y 1V5 Tel: (705) 444-8805 Fax: (705) 444-5482 E-mail: greenland@grnland.com Website: www.grnland.com

#### **FIRSTBASESOLUTIONS** MAGING EARTH

REVISION	

Sheet:

## **APPENDIX H**

### **GEOTECHNICAL ASSESSMENT**



GEOTECHNICAL INVESTIGATION DURHAM STREET BRIDGE WALKERTON, ONTARIO

for

**B.M. ROSS AND ASSOCIATES LIMITED** 

PETO MacCALLUM LTD. 16 FRANKLIN STREET SOUTH KITCHENER, ONTARIO N2C 1R4 Phone: (519) 893-7500 Fax: (519) 898-0654 Email: kitchener@petomaccallum.com

Distribution: 1 cc: B.M. Ross and Associates Limited (email only) 1 cc: PML Kitchener PML Ref.: 22KF007 Report: 1 March 24, 2023



March 24, 2023

PML Ref.: 22KF007 Report: 1

Mr. Ryan Munn, P.Eng. B.M. Ross and Associates Limited 62 North Street Goderich, Ontario N7A 2T4

Dear Mr. Munn

Geotechnical Investigation Durham Street Bridge Walkerton, Ontario

Peto MacCallum Ltd (PML) is pleased to present the results of the Geotechnical investigation recently completed at the above noted project site. Authorization for the work was provided by Mr. Ryan Munn of B.M. Ross and Associates Limited on behalf of the County of Bruce in an email, dated February 22, 2022.

The County of Bruce is proposing to reconstruct the bridge on Durham Street East in Walkerton, Ontario crossing the Saugeen River. The general concept is to remove the existing five-span bridge and replace it with a three-span bridge. A temporary bypass bridge, between McNab Street and Orange Street is under consideration.

A geotechnical investigation has been requested to assess the subsurface conditions at the bridge abutments for both the proposed bridge and the potential temporary bridge, and based on this information, provide geotechnical engineering recommendations for design of bridge abutment foundations for both bridges.

A total of seven (7) boreholes were advanced including four (4) deep boreholes, with a borehole located in the area of each planned abutment. The remaining three (3) boreholes were advanced to relatively shallow depths to gather subsurface information for the approach road sections. The general subsurface conditions comprised surficial pavement structure, fill deposits, over alternating layers of sand and gravel and till, mantling probable bedrock.

Competent soil was revealed at each abutment location for support of lower capacity strip or pad footings; however, for relatively heavy bridge pier and abutment loadings a pile foundation should considered for both the new bridge, and temporary bridge locations. Recommendations for steel H-piles advanced to refusal on bedrock have been provided for the Durham Street bridge. Optimization of piling in the overburn soils may be of limited utility, and advancing the piles to the anticipated relatively shallow additional depth to contact bedrock is recommended for both the replacement bridge and temporary structure. In this regard, it is recommended that bedrock depth and condition be cataloged in further detail by bedrock coring. A supplementary field investigation should be undertaken to verify bedrock depth (elevation) and quality at the planned abutments and piers at both bridge locations prior to construction.

Geotechnical Investigation, Durham Street Bridge, Walkerton, Ontario PML Ref.: 22KF007, Report: 1 March 24, 2023, Page ii



Similarly, no investigation was carried out at the bridge piers in the Saugeen River as part of the current assignment. It is recommended that sampled boreholes be drilled at the locations of the new piers to determine the soil stratigraphic profile including the extent of the river bed sediments, to assess the scour potential, and to provide further details for foundation design.

We trust the information in this report is sufficient for your present purpose. If you have any questions, please do not hesitate to call our office.

Sincerely

Peto MacCallum Ltd.

William Loghrin, P.Eng. Manager Engineering Services

WL:tm

16 Franklin Street South, Kitchener, Ontario N2C 1R4 Tel: (519) 893-7500 Fax: (519) 893-0654 E-mail: kitchener@petomaccallum.com BARRIE, COLLINGWOOD, HAMILTON, KITCHENER, LONDON, TORONTO



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#### 1. INTRODUCTION

PML is pleased to present the results of the geotechnical investigation recently completed at the above noted project site. Authorization for the work was provided by Mr. Ryan Munn of B.M. Ross and Associates Limited on behalf of the County of Bruce in an email, dated February 22, 2022.

The County of Bruce is proposing to reconstruct the bridge crossing the Saugeen River on Durham Street East in Walkerton, Ontario. The general concept is to remove the existing five-span bridge and replace it with a three-span bridge. A temporary road bypass bridge, between McNab Street and Orange Street is also under consideration, in order to maintain cross river traffic during removal of the existing bridge and during construction of the replacement bridge.

PML has been retained to conduct a geotechnical investigation to assess the subsurface conditions at the bridge abutments for both the proposed bridge and the potential temporary bridge. Based on the investigation findings, we have prepared this report to provide geotechnical recommendations for design and construction of bridge abutment foundations for both bridges.

A geoenvironmental investigation was also completed by PML as part of the project, and the results will be addressed under a separate cover.

A previous geotechnical report was conducted by Atkinson Davies Inc. at the existing bridge site, and reference is given to their report, Ref.: No. 1-1948, dated 1994. The applicable Log of Borehole sheets are included in Appendix A.

The comments and recommendations provided in this report are based on the site conditions at the time of the investigation and are applicable only to the proposed works as addressed in the report. Any changes in the proposed plans will require review by PML to re-assess the validity of the report, and may require modified recommendations, additional investigation and/or analysis.

This report is subject to the Statement of Limitations, which is included in Appendix B and must be read in conjunction with the report.



#### 2. INVESTIGATION PROCEDURES

#### 2.1 Field Investigation

The field work for the recent foundation investigation was carried out between March 28 and April 6, 2022. The field work consisted of seven (7) boreholes (Boreholes 1 to 6, and Borehole 8). Boreholes 1 to 4 were drilled for the replacement bridge and Boreholes 5, 6, and 8 were drilled for the temporary construction bypass bridge. Borehole 7 was originally programmed at the west approach of the temporary bypass bridge but could not be completed due to permissions to enter the private property. Reference is given to the attached Borehole Location Plan, Drawing 1 for particulars of the borehole locations.

On Durham Street for the abutments, Boreholes 1 and 2 were advanced to 19.4 and 18.7 m depth, respectively and for the approaches Boreholes 3 and 4 were advanced to 4.4 and 3.7 m, respectively. For the temporary bridge, Boreholes 5 and 6 were advanced to 17.4 and 15.4 m, respectively at the abutments and Borehole 8 was drilled to 2.1 m depth at the east approach.

No investigation was carried out at the bridge pier locations in the Saugeen River as part of the current assignment.

The borehole locations were programmed through consultation with the client, established in the field by PML and surveyed by PML using a Sokkia GCX3 GNSS Receiver. The vertical and horizontal accuracy of this unit are 0.1 and 0.5 m, respectively. All elevations in this report are geodetic and expressed in metres.

Co-ordination for clearances of underground utilities was provided by PML. The boreholes were drilled cognizant of the underground and overhead utilities.

Traffic control was provided in accordance with Ontario Traffic Manual, Book 7, where required.



The boreholes were advanced using continuous flight hollow stem augers, powered by track mounted Diedrich D50T drill rig, equipped with an automatic hammer, supplied, and operated by a specialist drilling contractors, working under the full-time supervision of a member of PML's engineering staff.

The existing pavement component thicknesses were measured and samples of the granular material were collected.

Representative samples of the subgrade were recovered at frequent depth intervals for identification purposes using a conventional 51 mm OD split spoon sampler. The sampler excluded particles larger than 38 mm. Standard Penetration Tests (SPT), the blow count per 0.3 m penetration of the split spoon sampler, were carried out simultaneously with the sampling operations to assess the strength characteristics of the subsoil. Pocket penetrometer tests were conducted on cohesive soils to determine in-situ shear strength. The ground water conditions in the boreholes were assessed during drilling by visual examination of the soil samples, the sampler, and drill rods as the samples were retrieved, and measurement of the water level in the open boreholes, if any.

The boreholes were backfilled in accordance with O.Reg. 903 and capped with cold mix asphalt, where required.

All recovered samples were returned to our laboratory for detailed examination and moisture content determinations. Particle size analyses were carried out on two samples of the major soil units encountered. One composite sample was also submitted for Miller Box resistivity testing, and for corrosivity testing to check for soil corrosivity to ductile iron pipe and buried concrete.



## 2.2 Desktop Review

A desktop study was also conducted to analyse the general physiography, soil, ground water, and bedrock elevations at and near the site. Physiography and bedrock topography maps were reviewed. Borehole logs from the 1994 Atkinson Davies Inc. (Ref. No. 1-1948) investigation were reviewed. Ontario well records were also studied to check bedrock elevations in the vicinity of the site.

## 3. SUBSURFACE CONDITIONS

## 3.1 Site Features, Physiography and Mapping

Durham Street East at the Saugeen River comprises two lanes of asphalt paved roadway (one lane in each direction) flanked by curb and sidewalk. Reference is given to the attached Photographs 1 and 2 showing the existing roadway bridge and river channel, respectively. Based on preliminary plan and profile drawings it is understood that the existing bridge deck and approaches are about 5 m above the Saugeen River, and the river is about 1.0 to 1.5 m deep at the existing bridge. The roadway grades along Durham Street East at the river crossing are relatively flat, with the bridge deck slightly elevated above the approaches. Boreholes 1 and 2 drilled near the existing west and east abutments were at Elevation 248.3 and 248.5, respectively. The west and east approach grades beyond the existing bridge in Boreholes 3 and 4 were at an Elevation 247.8 and 247.7, respectively. The potential bypass bridge is to be constructed about 120 to 160 m south of the existing bridge, connecting from a vacant property fronting onto McNab Street on the west bank of the river to the William Street and Orange Street intersection on the east bank. A profile of the proposed alignment was not provided; however, it is envisaged that the bypass bridge approach grades will match the elevations at the connection to McNab Street, William Street and Orange Street, respectively. The ground surface at Borehole 5 on the west bank of the river was at Elevation 248.6, while Borehole 6 at the east bank was at Elevation 247.7. As shown in the appended Photograph 2 the river banks in the general locations of the potential bypass are vegetated with mature trees.



According to Chapman and Putnam (Physiography of Southern Ontario, Ministry of Natural Resources, 1984), the project area is in the physiographic region known as Horseshoe Moraines. The physiographic landforms in the area are silty till moraines, with adjacent sand and gravel deposits in defined former glacial spillways and drumlins.

The bedrock underlying the Site is the Salina Formation, which typically consists of limestone, dolostone, shale, sandstone, gypsum, salt (Paleozoic Geology of Southern Ontario, OGS, OGSEarth, 2007). The approximate elevations of bedrock at the site according to Bedrock Topography Series map from Ontario Department of Mines ranges between Elevations 236 and 244.

Ontario well records were also studied to check the bedrock elevations near the site. At a well located 200 m west of the site, bedrock is identified at Elevation 230. At wells located about 400 to 500 m east of the site, the bedrock elevations ranged between 248 and 265. Brown to grey limestone and red to blue shale were noted in the well records.

The Log of Borehole sheets from the previous boreholes by Atkinson Davies Inc. are in Appendix A. The previous logs show similar soil stratigraphy and ground water conditions as were encountered as the recent boreholes (which are summarised in the sections hereafter).

## 3.2 Durham Street Bridge

Reference is made to the appended Log of Borehole sheets for details of the subsurface conditions, including pavement component thicknesses, soil classifications and inferred stratigraphy and thicknesses, SPT "N" values, pocket penetrometer shear strengths, ground water levels, and the results of laboratory water content determinations and Atterberg Limits testing.

Due to the soil sampling procedures and the limited size of samples, the depth / elevation demarcations on the borehole logs must be viewed as "transitional" zones, and cannot be construed as exact geologic boundaries between layers. PML should be retained to assist in defining the geological boundaries in the field during construction, if required.



The subsurface soil stratigraphy encountered in Boreholes 1 to 4 advanced on Durham Street comprised a surficial pavement structure over fill, underlain by sand and gravel deposits layered between various till deposits, mantling probable bedrock.

## 3.2.1 Pavement Structure

A surficial pavement structure was encountered along Durham Street East in Boreholes 1 to 4. The pavement component thicknesses encountered are summarized in the following table.

BOREHOLE	ASPHALT (mm)	GRANULAR BASE (mm)	GRANULAR SUBBASE (mm)	TOTAL THICKNESS (mm)
1	130	300	1060	
2	90	670	460	1220
3	3 100		450	900
4	4 180		*	610

\* No distinguishable granular subbase was observed in Borehole 4

#### 3.2.2 <u>Fill</u>

Fill was contacted below the pavement in all four boreholes, extending to 2.7 to 4.1 m, Elevation 243.8 to 245.6. The fill was variable and comprised sand, clayey sandy silt, clayey silt, and silty clay. The fill also contained organics including roots, decayed wood, wood chips and peat. The SPT "N" values in the fill were 2 to 15, indicating none to variable compactive effort was applied when the fill was placed. The non-cohesive fill was damp to wet and the cohesive fill was about plastic limit (APL) to wetter than plastic limit (WTPL), with moisture contents typically ranging from 10 to 25% with 244% measured on an organic sample.



## 3.2.3 Sand and Gravel

A 1.5 to 4.2 m thick near the surface sand and gravel deposit was observed below the fill in Boreholes 1 to 4. The near surface sand and gravel extended to 5.6 and 7.1 m, Elevations 242.7 and 241.4 in Borehole 1 and 2 and to 4.4 and 3.7 m termination depths (Elevations 243.4 and 244.0) in Boreholes 3 and 4, respectively. The sand and gravel deposit was compact to dense with SPT "N" value between 18 to 40. The sand and gravel was damp to saturated with moisture contents of 9 and 16%. A sample of the near surface sand and gravel was submitted for particle size analysis and the results are provided in Figure 1, attached.

## 3.2.4 Clayey Silt

A 2.4 and 5.8 m thick clayey silt layer was encountered below the near surface sand and gravel in Borehole 1 and 2 and extended to 11.4 and 9.5 m, Elevations 236.9 and 239.0, respectively. The clayey silt was stiff with SPT "N" values between 8 and 11. The clayey silt was WTPL with moisture content results between 17 and 22%. A sample of the clayey silt was submitted for grain size analysis and the results are provided in Figure 2, attached.

#### 3.2.5 Sand and Gravel

A second 3.3 m thick deeper sand and gravel deposit was encountered in Borehole 1 at Elevation 236.9, and extended to 14.7 m, Elevation 233.6. The sand and gravel also contained occasional cobbles and occasional boulders. The sand and gravel was compact to dense with SPT "N" values ranging between 26 and 40. The sand and gravel was saturated with moisture contents between 9 and 12%.



#### 3.2.6 Clayey Silt Till

A 3.1 and 7.4 m thick clayey silt till stratum was encountered below sand and gravel in Borehole 1 and below clayey silt in Borehole 2 at 14.7 and 9.5 m, Elevation 233.6 and 239.0, and extended to 17.8 and 16.9 m, Elevations 230.5 and 231.6, respectively. The clayey silt till in Borehole 2 contained occasional cobbles below 14.7 m. The clayey silt till was very stiff to hard with SPT "N" values between 20 and 44. The clayey silt till was APL to WTPL with moisture content results between 9 to 20%.

## 3.2.7 Sand and Gravel

A third deeper 1.6 m thick sand and gravel deposit was encountered below clayey silt till in Borehole 1 at 17.8 m, Elevation 230.5, and extended to the termination depth of 19.4 m, Elevation 228.9. The sand and gravel contained occasional cobbles and occasional boulders. The sand and gravel was dense with SPT "N" value of 40. The sand and gravel was saturated with moisture content of 12%.

#### 3.2.8 Sandy Silt Till

A 2.8 m thick sandy silt till stratum was contacted in Borehole 2 below the clayey silt till at 16.9 m, Elevation 231.6 and extended to borehole termination depth of 18.7 m, Elevation 229.8. The sandy silt contained occasional cobbles and occasional boulders. The sandy silt till was very dense with SPT "N" values greater than 50. The sandy silt till was saturated with laboratory moisture content of 9%.

#### 3.2.9 Bedrock

Boreholes 1 and 2 were terminated at 19.4 and 18.7 m, Elevations 228.9 and 229.8, respectively due to an auger refusal on possible bedrock (split spoon bouncing).

The approximate elevations of bedrock at the site according to Bedrock Topography Series map from Ontario Department of Mines ranges between Elevations 236 and 244.



Ontario well records were also studied to check the bedrock elevations near the site. At a well located 200 m west of the site, bedrock is identified at Elevation 230. At wells located about 400 to 500 m east of the site, the bedrock elevations ranged between 248 and 265. Layers of brown to grey limestone and red to blue shale were noted in the well records.

## 3.2.10 Ground Water

Reference is given to the appended Log of Borehole sheets for details of the ground water conditions encountered during the field work.

A summary of the first water strike of ground water encountered during drilling, and the ground water / wet cave levels measured in the boreholes on completion of drilling is presented in the table below.

BOREHOLE	WATER STRIKE DEPTH / ELEVATION (m)	WATER LEVELON COMPLETION OF DRILLING DEPTH / ELEVATION (m)
1	41 / 244.2	3.4 / 244.9
2	2 4.1 / 244.4 3.4 / 245.1	
3	4.0 / 243.8	4.0 / 243.8
4	2.7 / 245.0	**

\*\* No free water was observed on completion

The Saugeen River water level at the site was at approximate elevation of 244.0 in April 2022 during the field work schedule. Ground water levels will fluctuate seasonally, in response to variations in precipitation, and respective to changes in the Saugeen River water level.

# 3.3 Potential Temporary Bridge

Reference is made to the appended Log of Borehole sheets for details of the subsurface conditions, including pavement component thicknesses, soil classifications and inferred stratigraphy and thicknesses, SPT "N" values, pocket penetrometer shear strengths, ground water levels, and the results of laboratory water content determinations and Atterberg Limits testing.



Due to the soil sampling procedures and the limited size of samples, the depth / elevation demarcations on the borehole logs must be viewed as "transitional" zones, and cannot be construed as exact geologic boundaries between layers. PML should be retained to assist in defining the geological boundaries in the field during construction, if required.

The subsurface soil stratigraphy encountered in Borehole 5, 6, and 8 advanced for the potential temporary bridge comprised a surficial pavement structure and/or fill, underlain by sand and gravel, clayey silt, clayey silt till, sandy silt till.

## 3.3.1 Pavement Structure

Borehole 6 and 8 were drilled on William Street and Orange Street, east of the river, and encountered a surficial pavement structure. The pavement component thicknesses encountered in Boreholes 6 and 8 are summarized in the following table.

BOREHOLE	ASPHALT (mm)	GRANULAR BASE (mm)	GRANULAR SUBBASE (mm)	TOTAL THICKNESS (mm)
6	80	80 360		740
8	8 80			210

#### 3.3.2 <u>Fill</u>

On the east side of the river, fill was contacted below the pavement in Boreholes 6 and 8, extending to 1.8 and 2.1 m depth, respectively Elevations 245.9 and 246.3. The fill was variable and comprised sandy gravel, silt and sand, sandy silt, and clayey silt. SPT "N" values of the fill contacted below pavement structure were 2 to 17, indicating variable compactive effort was applied when the fill was placed. The fill was moist to wet and/or WTPL, with moisture contents ranging between 18 to 20%.



On the west side of the river, surficial fill was encountered in Borehole 5 and extended to 4.3 m. The fill in Borehole 5 contained chunks of asphalt, brick, and wood splinters to 2.3 m; rubble, concrete, porcelain, and steel pieces from 2.3 to 3.0 m; and black peaty organics and decayed wood from 3.0 to 4.3 m. Auger refusal had occurred at Borehole 5 due to buried concrete, presumably a buried structure, and necessitated shifting and redrilling to continue the borehole. The SPT "N" values in the fill contacted in Borehole 5 were 3 to 21, indicating variable compactive effort was applied when the fill was placed. The fill was damp to moist and/or APL to WTPL, with moisture contents typically ranging between 7 and 15%, and as high as 124% on a peaty organic sample.

# 3.3.3 Sand and Gravel

A 0.2 to 3.1 m thick layer of sand and gravel was encountered below the fill on both sides of the river, in Boreholes 5 and 6, at 1.8 and 4.3 m, Elevation 245.0 and 244.3, and extended to 4.5 and 4.9 m depth, Elevations 244.1 and 242.8, respectively. The sand and gravel contained occasional cobbles and occasional boulders. The sand and gravel was compact to dense with SPT "N" values between 14 and 32. The sand and gravel was saturated in Borehole 5, and below 2.9 m in Borehole 6.

## 3.3.4 Clayey Silt

A 4.0 and 4.5 m thick clayey silt layer was encountered below the sand and gravel at 4.5 and 4.9 m, Elevation 244.1 and 242.8 in Boreholes 5 and 6 and extended to 8.5 and 9.4 m, Elevations 240.1 and 238.3, respectively. The clayey silt was firm to stiff with SPT "N" values between 7 and 10. The clayey silt was WTPL with moisture content test results between 16 and 20%.



#### 3.3.5 Clayey Silt Till

A 5.3 and 2.8 m thick clayey silt till layer was encountered below clayey silt in Boreholes 5 and 6 at 8.5 and 9.4 m, Elevations 240.1 and 238.3, and extended to 13.8 and 12.2 m, Elevations 234.8 and 235.5, respectively. The clayey silt till was very stiff to hard with SPT "N" values between 16 and 34. The clayey silt till was APL to WTPL with moisture content test results between 13 to 18%.

## 3.3.6 Sandy Silt Till

A 3.8 and 3.2 m thick sandy silt till was contacted in Boreholes 5 and 6 at 13.8 and 12.2 m, Elevation 234.8 and 235.5, and extended to the termination depths of 17.4 and 15.4 m, Elevations 231.2 and 232.3, respectively. The sandy silt till contained occasional cobbles and occasional boulders. The sandy silt till was compact to very dense with SPT "N" values between 18 and more than 50. The sandy silt till was saturated with moisture contents around 16%.

## 3.3.7 Ground Water

Reference is given to the appended log of borehole sheets for details of the ground water conditions encountered during the field work. A summary of the first water strike of ground water encountered during drilling, and the ground water / wet cave levels measured in the boreholes on completion of drilling is presented in the table below.

BOREHOLE	WATER STRIKE DEPTH / ELEVATION (m)	WATER LEVEL ON COMPLETION DEPTH / ELEVATION (m)
5	4.3 / 244.8	3.7 / 244.9
6	2.9 / 244.8	0.0 / 247.7
8	Not Applicable	Not Applicable

The Saugeen River water level at the site was at approximate elevation of 244.0 in April 2022 during the field work schedule. Ground water levels will fluctuate seasonally, and in response to variations in precipitation and the changes in river water level.



## 4. <u>GEOTECHNICAL ENGINEERING CONSIDERATIONS</u>

#### 4.1 Foundations

The County of Bruce is proposing to replace the bridge on Durham Street East in Walkerton, Ontario, crossing the Saugeen River. The general concept is to remove the existing five-span bridge and replace it with a three-span bridge. A potential temporary road bypass bridge, between McNab Street and Orange Street is under consideration in order to accommodate removal of the existing bridge and construction of the replacement bridge.

It is understood that the options being considered for the new Durham Street bridge foundations are steel H-piles and spread footings. The options for the temporary detour bridge foundations are H-piles, spread footings, or shallow footings on a sheet-pile crib enclosure.

The general subsurface conditions in the abutment boreholes were fairly consistent, and similar subsurface conditions are generally anticipated at the pier locations below the river bed sediments. The recent investigation by PML did not include drilling or sampling of the subsurface soil and ground water in the Saugeen River water course. To our knowledge, no investigation has been carried out at the bridge pier locations in the Saugeen River. It is recommended that sampled boreholes be drilled at the location of the new piers (possibly from the bridge deck) to determine the soil stratigraphic profile including the extent of the river bed sediments to assess the scour potential and for foundation and cofferdam design.

#### 4.1.1 Footings

The preliminary Elevation and Plan design drawings provided by B.M. Ross and Associates Limited indicate the proposed footings / pile caps for the replacement bridge are to be located at Elevation 240.0 for the river pier locations and at Elevation 243.5 for the abutment locations. The footing / pile cap levels for the temporary bridge have not been established, but for discussion purposes are assumed to match the pile cap levels of the Durham Street bridge. In general, the native sand and gravel and stiff clayey silt deposits found at the Durham Street bridge and temporary bridge sites are suitable for support of relatively low-capacity strip footings and cribbing.



The following tables summarizes the recommended design bearing resistances for footings / cribbing founded on the native soils (at the preliminary design abutment subgrade levels):

BOREHOLE	DEPTH / ELEVATION (m)	SUBGRADE SOIL	GEOTECHNICAL BEARING RESISTANCE AT SLS (kPa)	FACTORED BEARING RESISTANCE AT ULS (kPa)		
Durham Street Bridge						
1	4.8 / 243.5	Sand and Gravel	100	150		
2	5.0 / 243.5	Sand and Gravel	100	150		
Temporary Bridge						
5	5.1 / 243.5	Clayey Silt	100	150		
6	4.2 / 243.5	Sand and Gravel	100	150		

SLS = Serviceability Limit State

ULS = Ultimate Limit State

The bearing resistance at Serviceability Limit State (SLS) is based on 25 mm of total settlement in the bearing stratum, with differential settlement of 75% of this value.

Footings subject to frost action must be provided with a minimum 1.4 m of earth cover or equivalent insulation. Scour protection must also be provided for the footings.

Prior to placement of structural concrete, all founding surfaces must be inspected by qualified geotechnical personnel to verify the design bearing capacity is available, or to reassess the design parameters based on the actual conditions.

## 4.1.2 <u>Piles</u>

It is understood that a deep foundation comprised of H-piles is being considered for the abutments and mid river channel piers for the new Durham Street Bridge. H-piles may also be considered for the temporary bypass bridge. Based on the preliminary drawings, the pile caps are assumed to be set at about Elevations 240.0 and 243.5 at the piers and abutment locations, respectively.



# 4.1.2.1 Piling to Bedrock

In general, the competent sand and gravel and sandy silt till overburden soils mantling the bedrock at the site are relatively thin and variable in composition and density. Consequently, optimization of piling in the overburden soils may be of limited utility given the relatively shallow additional depth to bedrock. Therefore, at the Durham Street bridge, the piles should be driven to refusal on bedrock, which is anticipated at depths of about 19.4 and 18.7 m below the existing road surface (Elevations 228.9 and 229.8) at Borehole 1 and 2, respectively. It is recommended that a supplementary field investigation be undertaken to verify bedrock depth, elevation and quality at the planned abutments and piers locations. The following factored geotechnical axial resistance at ultimate limit states (ULS) for the following sections of steel piles advanced to bedrock is considered to be appropriate.

PILE SECTION	FACTORED GEOTECHNICAL AXIAL RESISTANCE PER PILE AT ULS (kN)
HP 310x110	1800
HP 360x152	2000

The geotechnical reaction at SLS normally allows for 25 mm compression of the founding medium. Considering the bedrock to be non-yielding, the design is not expected to be governed by settlement criteria since the loading required to produce 25 mm deformation of the bedrock would be larger than the factored geotechnical resistance at ULS.

The pile capacities should be verified in field by the Hiley Dynamic Pile Driving Formula in accordance with MTO Standard SS103-11 to achieve an ultimate Geotechnical Resistance of three times the design allowable SLS values. The pile termination or set criteria will be dependent on the pile driving hammer type, helmet, selected pile and length of pile. The criteria must therefore be determined by qualified geotechnical personnel at the time of construction once the pile equipment is known. In general, the piles should be driven to the required set using a hammer which transfers at least 50 kJ of energy to the pile.



The piles will be driven through variable compact to dense and/or stiff to very stiff native soils containing cobbles and boulders. Ontario Provincial Standard Specifications (OPSS) 903 calls for the use of Ontario Provincial Standard Drawings (OPSD) 3000.100 (Steel H-Pile Driving Shoe) or Titus H Bearing Pile Points Standard Model on piles driven to the desired founding level under these conditions.

It is anticipated that the working platforms to drive the piles will be required for support of the pile driving equipment. This may require excavation of any deleterious fill or organic deposits followed by placement of engineering fill to support the pile driving equipment. Any additional fill that may be required at these locations should comprise an approved granular such as OPSS Granular B material placed in lifts of 300 mm and compacted to 98% Standard Proctor Maximum Dry Density (SPMDD). Granular material such as Granular B can be employed provided the maximum particle size does not exceed 75 mm.

The piles should be installed and monitored in accordance with the requirements of OPSS 903. This should involve confirmation of the founding elevation, alignment, plumbness, uniformity of set and quality of splices and should be done on a full-time basis by experienced geotechnical personnel.

Due to the proximity of existing buildings, utilities and settlement sensitive structures, vibration monitoring is recommended during piling to monitor / manage vibrations to ensure they remain within acceptable limits. Further, a pre-condition survey should be carried out for the existing nearby buildings, utilities, roads / sidewalks, and structures to establish a baseline for review and assessment of any potential damage claims after bridge construction is complete.

Pile caps should be provided with at least 1.4 m of earth cover or equivalent thermal insulation as protection against frost action. A 25 mm thick layer of polystyrene insulation is thermally equivalent to 600 mm of soil cover.



It is noted that the boreholes for the temporary bridge were drilled to between 15.4 and 17.4 m depth and it is assumed that the similar soil and bed rock conditions are present below this depth; however, conditions may vary. There should be allowance in the contract to allow for this variation or further investigation would be required.

## 4.1.3 Seismic Considerations

Based on the "N" values in the stratigraphic profile revealed in the boreholes, and in accordance with the Canadian Highway Bridge Design Code (CHBDC), November 2019, CSA-S6-19, Clause 4.4.3.2 - Table 4.1, Site Class D is applicable for the stratigraphic profile.

# 4.2 Abutment Wall Design

Abutment walls must be designed to resist the unbalanced lateral earth pressure imposed by the backfill adjacent to the abutment. The lateral earth and water pressure, P (kPa), may be computed using the equivalent fluid pressure method presented in Section 6.12 of the CHBDC, or employing the following equation:

$$P = K (\gamma h + q) + C_p + C_s$$

Where	P =	total lateral pressure at depth h (m) below ground surface (kPa)
Whore		
	K =	lateral earth pressure coefficient of compacted backfill
	h =	depth below grade (m) at which lateral pressure is calculated
	γ =	bulk unit weight of backfill
	q =	vertical stress at depth h due to surcharge loads (kPa)
	$C_p$ =	compaction pressure (refer to clause 6.12 of CHBDC)
	$C_s$ =	earth pressure induced by seismic events (refer to clause 4.6 of CHBDC)

In addition, there should be allowance for appropriate safety factors.

Free draining granular material should be used as backfill behind the abutments comprising OPSS Granular A or Granular B, placed in thin lifts compacted to a minimum 95% SPMDD. Site soils are not suitable for use as free draining backfill. Over compaction close to the abutment wall should be avoided as this could generate excessive pressure on the abutment wall.



OPSS GRANULAR **OPSS GRANULAR B TYPE II** PARAMETERS OR TYPE II Α Angle of Internal Friction (degrees) 35° 30° Unit Weight,  $\gamma$  (kN/m<sup>3</sup>)  $22.5 \pm 0.3$  $21.5 \pm 0.3$ Rankin Active Earth Pressure 0.27 0.33 Coefficient (K<sub>a</sub>) At Rest Earth Pressure Coefficient (K<sub>o</sub>) 0.43 0.50 **Rankin Passive Earth Pressure** 3.69 3.00 Coefficient (K<sub>p</sub>)

The following parameters are recommended for design:

A weeping tile system and/or weeping holes should be installed to minimize the build-up of hydrostatic pressure behind the abutments. The weeping tiles should be surrounded by a properly designed granular filter or geotextile to prevent migration of fines into the system. The drainage pipe should be placed on a positive grade and lead to a frost-free outlet.

## 4.3 Excavation and Ground Water Control

Excavation for bridge foundations is expected to extend to Elevation 240.0 at pier locations and to Elevation 243.5 at abutment locations, and will encounter the pavement and heterogeneous fill, sand and gravel, clayey silt, and clayey silt till deposit. The Contractor should be aware that the existing approach fill contains rubble, debris, wood, and cobbles and boulders which will affect the equipment selection and excavation operations. Cobbles and boulders should also be expected in the sand and gravel and till deposits.

Foundations of heavily loaded / settlement sensitive structures and/or utilities located within close proximity to the excavation may require underpinning to preserve the integrity of these structures. Further comments and general recommendations in this regard are presented on Figure 3.



Provided adequate ground water control has been achieved, and adequate space is available, the excavation side slopes may be assumed to be within a Type 3 soil, for which side slopes can be no steeper than 1 horizontal to 1 vertical (1H:1V). Workers should not enter an unprotected excavation if there is evidence of ongoing ground water seepage in the excavation slopes. All construction work should be carried out in accordance with the Occupational Health and Safety Act (OHSA).

It envisioned that shoring (a combination of soldier piles and lagging and steel sheet piling where the abutment excavations must be protected from the Saugeen River) will be required to support the excavations as space may not permit open-cut excavation. The design elevation for the Durham Street bridge abutments and piers is 243.5 and 240.0, respectively. The sheeting should be driven at an appropriate depth into the relatively impervious clayey silt layer contacted at Elevations 242.7 and 241.4 for the west and east abutments to ensure hydraulic stability of the excavation.

PARAMETER	FILL	SAND AND GRAVEL	CLAYEY SILT	CLAYEY SILT TILL	
Angle of Internal Friction, φ, (degrees)	26	30	28	30	
Shear Strength, c, (kPa)			50	100	
Bulk Unit Weight (kN/m <sup>3</sup> ) 17		19	18	19	
Rankin Active Earth Pressure Coefficient (Ka)	0.39	0.33	0.36	0.33	
At Rest Earth Pressure Coefficient (K <sub>o</sub> )		0.50	0.53	0.50	
Rankin Passive Earth Pressure Coefficient (K <sub>p</sub> )	2.56	3.00	2.77	3.00	

For design of temporary shoring for excavations, the following parameters may be assumed:

Difficult driving conditions will be encountered in the sand and gravel and till deposits with the presence of cobbles and boulders. Shoring should be designed and installed by specialist in this field.



For construction staging, cofferdam and minor river diversion will likely be required for the bridge piers. Upon request, geotechnical recommendations can be provided when construction plans are finalized and after a supplementary investigation is carried out.

It is recommended the work be scheduled following periods of prolonged dry weather, and when the ground water table and river flow are usually at their lowest, in order to minimize the quantity of water to be handled.

As the excavations for the abutments and piers are anticipated to extend 0.5 to 4.0 m below the observed ground water level, which is at about Elevation 244.0. Open cut excavations to the planned abutment and pier levels will require rigorous dewatering to maintain a safe and sufficiently dry excavation and the use of keg wells or well point dewatering are envisaged. Significantly less dewatering would be required if water tight sheet pile cofferdam / ground water cut-off structures are employed, but some dewatering will still be required given the heterogeneous nature of the on-site soils, which are interlayered with saturated sand and gravel deposits. Regardless of the dewatering method chosen, the hydraulic head and ground water inflow must be properly controlled to ensure stable and safe excavation and to facilitate construction. The design of the dewatering system should be left to the contractor's discretion, and the system should meet a performance specification to maintain and control ground water at least 0.30 m below the excavation base level, in order to provide a stable excavation base throughout construction.

It is recommended that test pits be carried out during the tendering stage of the project in order that prospective contractors may familiarize themselves with soil and ground water conditions. Also, the dewatering requirements should also be established by the contractor in the context of a performance specification.

It should be noted that, under the Ontario Water Resources Act, the Water Taking and Transfer Regulation 387/04, a Permit to Take Water (PTTW) from the Ministry of Environment Conservation and Parks (MECP) is required if the dewatering discharge is greater than 50,000 L/day. In accordance with the above noted regulatory requirements and in compliance with the MECP's PTTW Manual (April 2005) an application should be filed to the MECP for the



subject property construction dewatering PTTW, if the dewatering discharge is greater than 400,000 L/day, or about 4.6 L/S. If the dewatering discharge is between 50,000 L/day (or about 0.6 L/S) and 400,000 L/day (or about 4.6 L/S) dewatering activities need to be registered on the Environmental Activity and Sector Registry (EASR). For open cut excavations, dewatering volumes are expected to exceed 50,000 L/day and possibly exceed 400,000 L/day cognizant of the ground water level. Dewatering from water tight sheeted abutment and pier excavations will be significantly less than the open cut excavations. Regardless, construction of engineered fill pads for piling equipment, reconstruction of approach embankments, and ancillary work associated with the bridge reconstruction might still require excavation outside of the cut off / cofferdams, and therefore construction dewatering rates in excess of 50,000 L/day should still be anticipated. Therefore, an ESAR or a PTTW and supporting hydrogeological assessment will likely be required. A detailed review of the final foundation and excavation levels will be required to determine the extent of the dewatering and the requirements for a hydrogeological investigation.

# 4.4 Pavement Design

In general, it is understood that the road grades along Durham Street East will remain at their current elevations. Grades for the temporary bypass alignment have not been provided; however, it is envisaged that the approach grades will tie-in to match the current levels of McNab Street, Orange Street and William Street, respectively. Based on the proposed pavement usage, frost susceptibility, and strength of the expected subgrade soils, the following pavement component thicknesses are considered suitable for roadway reinstatement of Durham Street East and the temporary bypass road.

PAVEMENT COMPONENT	THICKNESS
HL 1 Surface Asphalt	50 mm
MDB Binder Asphalt	75 mm
Granular A Base	150 mm
Granular B Subbase	600 mm



The pavement subgrade conditions along the bypass on the west bank of the river are unknown, and a supplemental investigation is recommended to check the suitability of the near surface soils to support the bypass pavement structure. It may be necessary to increase the thickness of the granular subbase.

The pavement design considers that construction will be carried out during the drier time of the year. Preparation of the subgrade should involve removal of deleterious and organic fill materials and providing that the subgrade is stable and compacted to at least 95% SPMDD, as determined by proofrolling and inspection by qualified geotechnical personnel. If the subgrade is wet and unstable, subexcavation and placement of additional granular subbase material will be required.

The pavement materials should conform to current OPS and municipal specifications. The Granular A base and Granular B subbase courses should be placed in thin lifts and compacted to a minimum of 100% SPMDD, and asphalt should be placed to a minimum of 92% of the material's Maximum Relative Density (MRD) and reference is made to OPS Specification 310.

It should be noted that the subgrade will lose its strength if allowed to become wet due to surface water or during freezing and thawing periods. Therefore, drainage of the granular courses and subgrade becomes very essential. Drainage should be provided by extending the granular courses out to the face of the embankment slopes.

It is recommended that at the transition zones, the subgrade level of the new pavement sections and existing pavement section should match, if possible, to avoid any problems associated with differential frost heaving of the subgrade. Alternatively, frost tapering of the subgrade at 10H:1V would be recommended.

During construction, testing should be conducted to confirm the gradation and compactibility characteristics of the granular base and subbase materials.

Proofrolling procedures and the placement and compaction of all the fill and granular materials for the pavement construction and backfilling at the site should be inspected on a continuous basis by PML technicians.



## 4.5 Corrosion Potential

The corrosivity of soil on ductile iron pipe was evaluated in accordance with The American Water Works Association (AWWA) system that uses resistivity, sulphides, pH, redox potential, and drainage characteristics as the main indicators of soil aggressiveness. The AWWA procedure uses a point system to evaluate the corrosivity of the soil. In the evaluation, points were assigned for resistivity, pH, sulphide, redox potential, and moisture condition indicators as determined by laboratory testing. The need for corrosion protection is based on the cumulative total of the assigned points for each sample. If the point total is ten or more, then the soil is considered to be corrosive to ductile iron pipe.

SAMPLE	pH POINTS	SULPHIDE (%) POINTS	RESISTIVITY (ohm-cm) POINTS	REDOX POTENTIAL (mV) POINTS	MOISTURE CONDITION POINTS	TOTAL POINTS
BH1 SS8 and BH2 SS6 Composite	<u>7.8</u> 0	<u>0.1</u> 2	<u>1550</u> 8	<u>203</u> 0	Poor 2	12

Reference is given to the SGS certificates of analysis in Appendix C for the chemical laboratory test results. The resistivity of the soil was tested using the Miller Box method, the results of which are presented on Figure 4. The results indicate that the soil is considered to be corrosive to ductile iron pipe.

The results have also indicated sulphate contents of 370  $\mu$ g/g, which reveals that the potential for sulphate attack on buried concrete is negligible. For further comments regarding cement requirements, refer to the current CSA A23.1

## 4.6 <u>Geotechnical Review and Construction Inspection and Testing</u>

It is recommended that the final design drawings be submitted to PML for Geotechnical review for compatibility with site conditions and recommendations of this report.



Earthworks operations should be carried out under the supervision of PML to approve subgrade preparation, backfill materials, placement and compaction procedures and check the specified degree of compaction is achieved throughout.

Any piling installation operations should be reviewed on a full-time basis by qualified Geotechnical personnel to check that the required set and capacity are achieved, and to document founding elevation, alignment and plumbness.

The comments and recommendations provided in the report are based on information revealed in the boreholes. Conditions away from and between boreholes may vary. Geotechnical review during construction should be ongoing to confirm the subsurface conditions are substantially similar to those encountered in the boreholes, which may otherwise require modification to the original recommendations.



# 5. CLOSURE

We trust this report is complete within our terms of reference, and the information presented is sufficient for your present purposes. If you have any questions, or when we may be of further assistance, please do not hesitate to call our office.

Sincerely

Peto MacCallum Ltd.



William Loghrin, P.Eng. Manager Engineering Services



Gerry Mitchell, MEng, P.Eng. Senior Consultant

WL/GM:tm





Photo 1: Durham Street East bridge facing east.

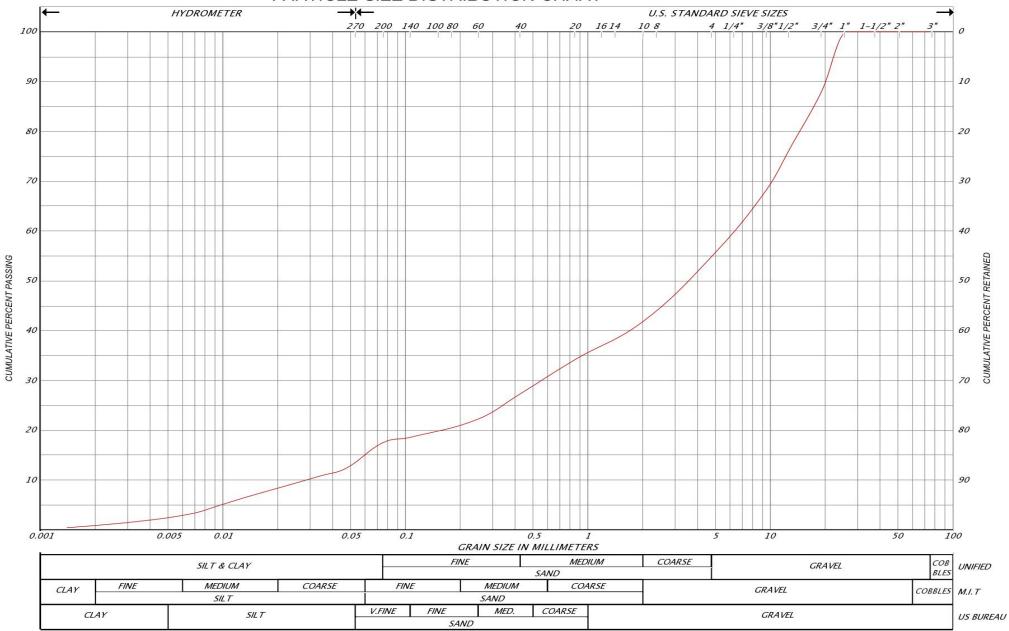


Photo 2: Facing south from the bridge



PROJECT NO.22KF007 FIGURE NO. 1



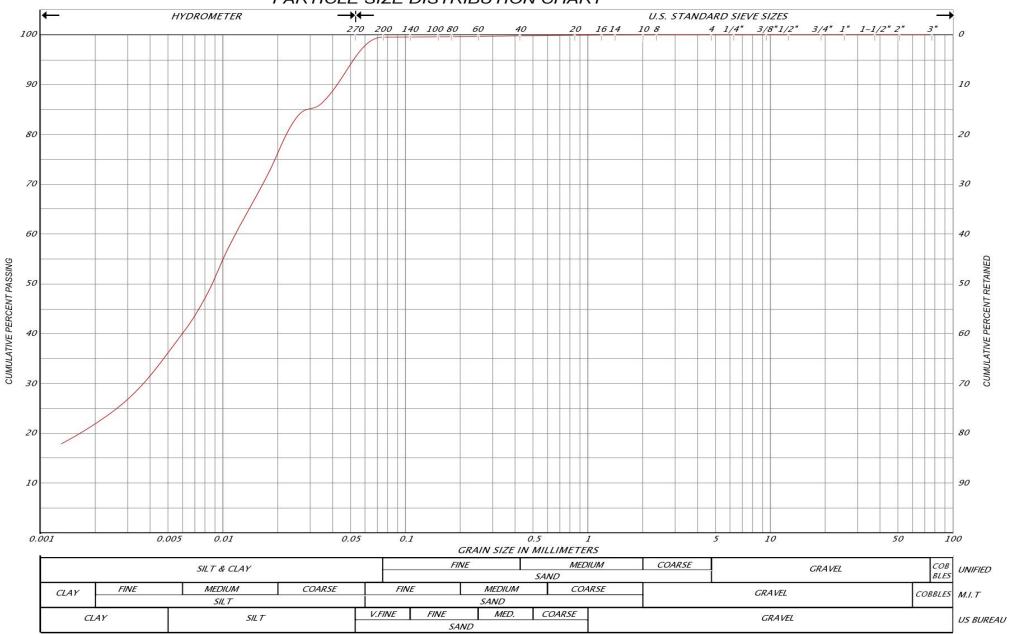


REMARKS: Borehole 2, Sample SS5 and SS6, Depth 3.1 to 3.7 m and 4.6 to 5.2 m



PROJECT NO.22KF007 FIGURE NO.

#### PARTICLE SIZE DISTRIBUTION CHART



REMARKS: Borehole 2, Sample SS8, Depth 7.6 to 8.1 m

CLAYEY SILT

## NOTES

 The need to underpin existing footings/utilities is dependent upon soil type, proximity of the existing facility to the face of the excavation, loads imposed on the foundation and permissible movements.

#### ZONE A:

Foundations of relatively heavy and/or settlement sensitive structures/ utilities located in Zone A generally require underpinning.

## ZONE B:

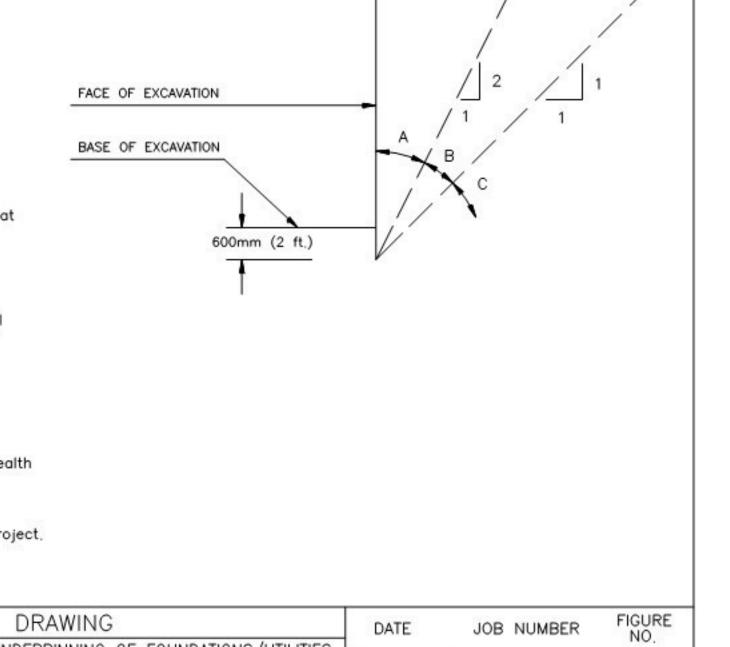
Foundations of structures located within Zone B generally do not require underpinning. Consideration should be given to underpinning of settlement sensitive utilities or heavy foundation units located in this zone.

#### ZONE C:

Utilities and foundations located within Zone C do not normally require underpinning.

Underpinning of foundations located in Zones A and B should extend at least into Zone C.

- As an alternative to underpinning, it may be possible to control movement of existing utilities and foundations by supporting the face of the excavation with bracing/tiebacks or a rigid (caisson) wall. Horizontal and vertical earth pressures imposed on the excavation wall by non-underpinned foundations must be considered in the design of the support system.
- A condition survey should be conducted prior to construction and appropriate monitoring (surface and insitu) carried out during construction to monitor any movement which may occur.
- All work should be carried out in accordance with the Occupational Health and Safety Act and local regulations. Good quality workmanship and construction practices are to be employed.
- This sheet is to be read in conjunction with text of report for this project. Additional comments and recommendations concerning these general guidelines will be provided if required.



Brin MacColling Lind	STANDARD DRAWING	DATE	JOB NUMBER	FIGURE
	GENERAL RECOMMENDATIONS REGARDING UNDERPINNING OF FOUNDATIONS/UTILITIES LOCATED CLOSE TO EXCAVATION	MARCH 2023	22KF007	3



# RESISTIVITY OF SOIL

CLIENT : B.M. Ross and Associates Limited

- *PROJECT* : Durham Street Bridge Geotechnical Investigation
- LOCATION : Walkerton, Ontario

 PML Ref :
 22KF007

 REPORT :
 1

FIGURE No. : 4

TESTED BY : L. Gowry

DATE TESTED : 22 Apr 2022

		RESISTIVITY(Ohm-cm)		MOISTURE CONTENT						
LAB NO.	LOCATION	NATIVE CONDITION	SATURATED CONDITION	TARE No.	WET SOIL + TARE (g)	DRY SOIL + TARE (g)	TARE (g)	WATER (g)	DRY SOIL (g)	MOISTURE %
2270158-A BH-1 SN-7,8,9 (15-27.5)	1600		MF	146.98	130.84	34.12	16.14	96.72	16.7	
		1550	G1	194.2	164.01	36.19	30.19	127.82	23.6	

REMARKS :

REVIEWED BY: J. Noor

REVIEWED DATE: April 28, 2022



#### PENETRATION RESISTANCE

Standard Penetration Resistance N: - The number of blows required to advance a standard split spoon sampler 0.3 m into the subsoil. - Driven by means of a 63.5 kg hammer falling freely a distance of 0.76 m.

Dynamic Penetration Resistance: The number of blows required to advance a 51 mm, 60 degree cone, fitted to the end of drill rods, 0.3 m into the subsoil. The driving energy being 475 J per blow.

#### **DESCRIPTION OF SOIL**

The consistency of cohesive soils and the relative density or denseness of cohesionless soils are described in the following terms:

<u>CONSISTE</u>	<u>NCY N (blows/0.3 m)</u>	<u>c (kPa)</u>	DENSENESS	<u>N (blows/0.3 m)</u>
Very Soft	0 - 2	0 - 12	Very Loose	0 - 4
Soft	2 - 4	12 - 25	Loose	4 - 10
Firm	4 - 8	25 - 50	Compact	10 - 30
Stiff	8 - 15	50 - 100	Dense	30 - 50
Very Stiff	15 - 30	100 - 200	Very Dense	> 50
Hard	> 30	> 200		
WTPL	Wetter Than Plastic Limit			
APL	About Plastic Limit			
DTPL	Drier Than Plastic Limit			

#### **TYPE OF SAMPLE**

SS	Split Spoon	TW	Thinwall Open
WS	Washed Sample	TP	Thinwall Piston
SB	Scraper Bucket Sample	OS	Oesterberg Sample
AS	Auger Sample	FS	Foil Sample
CS	Chunk Sample	RC	Rock Core
ST	Slotted Tube Sample	USS	Undisturbed Shear Strength
PH	Sample Advanced Hydraulically	RSS	Remoulded Shear Strength

PM Sample Advanced Manually

#### SOIL TESTS

Qu	Unconfined Compression	LV	Laboratory Vane
Q	Undrained Triaxial	FV	Field Vane
Qcu	Consolidated Undrained Triaxial	С	Consolidation
Qd	Drained Triaxial		

D	POI	IECT Durham Street Bridge Geotechnica	al Inve	astia		OG OI				<b>OLE</b> 86676N	<i>NO.</i> 1			DM	L REF	-	1 of 2 22KF007
		<b>TION</b> Walkerton, Ontario		esuga	auon				BOR	ING DATE	E 04/04/202	22		ENG	GINEE	R	W. Loghrin
B	ORI	NG METHOD Continuous Flight Hollow S	tem A	Auge			-							TEC	CHNIC	CIAN	M. Rapsey
DEF	отц	SOIL PROFILE	LOT	L L L		IPLES ន្ម	N SCALE	+FIE ▲PO	LD VAN CKET P	ENGTH (I E ATORV ENETROME 00 150	kPa) ANE OQu ETER <b>O</b> Q 200	PLAS LIMIT WP	TIC NATU MOIST CONT W	ENT	.IQUID LIMIT WL	UNIT WEIGHT	GROUND WATER OBSERVATIONS
ELI (met	EV tres)		STRAT PLOT	NUMBER	ТҮРЕ	"N" VALUES	ELEVATION	DYNA STANI	MIC CO DARD P		RATION × ON TEST ● 80		ATER COI			N LINN kN/m <sup>3</sup>	AND REMARKS GRAIN SIZE DISTRIBUTION GR SA SI
		SURFACE ELEVATION 248.3 PAVEMENT STRUCTURE: 130 mm asphalt; over 630 mm granular base: brown fine to medium sand, some silt,	• Δ • Δ • Δ	1	AS		24					0				KIN/M	GR SA SI
	.1	trace of gravel, damp; over 300 mm granular subbase: brown sand and gravel, some silt, damp	, ^ , ^ , ^	2	SS	24	24		·								
		FILL: Zones of grey clayey silt, some sand, loose dark clayey sand and silt, occasional fine black organics, APL/moist to wet	$\bigotimes$	× 3	SS	4		•					0				
_ 2	.7_	mixed zones of decayed wood, wood	$\bigotimes$	2 4	SS	5	24	•									
24,	5.0	chips, and peat, spongy	$\bigotimes$	> 5	SS	4	24	•							244	D	
4	4.2	SAND AND GRAVEL: Dense grey fine to			SS	7	244										Free water encountered af SS6
		coarse sand and gravel, occasional cobbles, occasional boulders, saturated	0	7	SS	40				•							
5 24	.6	CLAYEY SILT: Stiff grey clayey silt, with					24:										
2-1		with occasional thin lenses of silt, dilantent,		8	SS	11	242						0				
							24										
				9	SS	10	_						o				
							240										
				10	) SS	11	23		•				0				
			1				23										
1				11	SS	11	23		•				¢				
		SAND AND GRAVEL: Compact to dense grey sand gravel, trace of sand, occasional cobbles, occasional boulders, obturated	0	•			20										
		saturated	0. 0	12	2 SS	26	236					o					
			0				23		$\left  \right $								
			Q.	13	3 SS	36	234						0				
23		CONTRUED TILL: Very stiff grey clayey															

					LC			<b>SOREH</b> 88416.3E 488							2 of 2
		IECT Durham Street Bridge Geotechnica ATION Walkerton, Ontario	al Inve	estigat	lion		,,,,		. <b>TE</b> 04/04/20:	22			IL REI IGINEI		22KF007 W. Loghrin
ŀ	BORI	NG METHOD Continuous Flight Hollow S	tem A	Augers			-		 	-		TE	CHNIC	CIAN	M. Rapsey
	DEPTH ELEV	SOIL PROFILE DESCRIPTION	STRAT PLOT	NUMBER	SAM	PLES	TION SCALE	▲ POCKET PE	RVANE O Qu	PLASTI LIMIT W <sub>P</sub>	CON	URAL STURE ITENT W	LIQUID LIMIT W <sub>L</sub>	UNIT WEIGHT	GROUND WATER OBSERVATIONS AND REMARKS
	(metres) 15.0	CONTINUED FROM PREVIOUS PAGE	STRA	NUN	Ļ	/> "N"	ELEVATION		ETRATION × ATION TEST •			ONTENT 30	(%) 40	kN/m <sup>3</sup>	GRAIN SIZ DISTRIBUTION GR SA SI
		silt, some sand, some gravel, WTPL		14	SS	29	233				>				
							232								
			 	, 15	SS	22		4			0				
	17.8						231								
		SAND AND GRAVEL: Dense grey sand and gravel, some silt, trace clay, occasional cobbles, occasional boulders, saturated	0	16	SS	40	-230				>				
	19.4		0 0				229								
	228.9	BOREHOLE TERMINATED AT 19.4 M. NO FURTHER PROGRESS DUE TO AUGER REFUSAL ON POSSIBLE BEDROCK.		17	SS	50/0mm, bouncing									Upon completion of augeri cave at 11.6 m, free water 3.4 m in uncased borehole
l															

L	OCA	<b>IECT</b> Durham Street Bridge Geotechnica I <b>TION</b> Walkerton, Ontario <b>NG METHOD</b> Continuous Flight Hollow S		-	ation	OG OI		88497.	4E 488	867391	N A <b>TE</b> 03/		22 and	ł	I	PML RE ENGINE FECHN	ER	22KF007 W. Loghrin M. Rapsey	1 of 2
		SOIL PROFILE		Ī		IPLES	ш	SHEA	RSTR	ENGT	H (kPa)								
El	<u>PTH</u> _EV etres)		STRAT PLOT	NUMBER	ТҮРЕ	"N" VALUES	ELEVATION SCAL	UYNAI STANI	50 1 MIC CO DARD P	00 1 NE PEN ENETR	RVANE DMETER 150 20 IETRATIC ATION TE 60 8	DN ×	W <sub>P</sub>			WL		OBSER AND RI	D WATER VATIONS EMARKS GRAIN SIZE STRIBUTION GR SA SI &
		SURFACE ELEVATION 248.5 PAVEMENT STRUCTURE: 90 mm asphalt; over 670 mm granular base: brown fine sand, some silt, trace gravel,	, Δ , Δ	2 1	AS		248						0						GR SA SIC
	1.2	damp; over 460 mm granular subbase: brown fine to course sand and gravel, some silt, damp	· Δ	;	SS	18	_	,											
		FILL: Dark brown silty clay, trace sand, some roots, WTPL	$\bigotimes$	3	SS	9	_247							0					
			$\bigotimes$		SS	5	246								0				
	<u>2.9</u> 15.6	SAND AND GRAVEL: Compact brown fine to coarse sand and gravel, trace silt,	$\bigotimes_{o}$	×		5	_												
		damp	Ō.	5	SS	25	24										_		45 38 16
	<u>4.1</u> 14.4	becoming saturated	0				_244												
			0.	6	SS	18	_						c					Free water end SS6	countered a
			0				243										_		
			0	7	SS	16	242	-						0					
24		CLAYEY SILT: Stiff grey clayey silt, WTPL		•															
				8	SS	9	24^	•							0				0 1 77
							240										_		
	9.5			9	SS	8	239		•					0					
23		CLAYEY SILT TILL: Very stiff to hard grey clayey silt, some sand, trace to some gravel, APL																	
				. 10	SS	32	238		<b>\</b>					0			_		
							237										_		
_1	<u>2.2</u> 36.3	becoming WTPL	 		SS	20	236							(	>				
				•															
			. o	12	SS	22	23							0					
_1	<u>4.7</u>						234										_		
		S Borehole terminated at 13.7 m at first atte	0																

LOCA	IECT Durham Street Bridge Geotechnica ATION Walkerton, Ontario NG METHOD Continuous Flight Hollow S		0	6		1		NG DA	<b>TE</b> 03/2 04/0	29/202 05/202			PML ENGI TECH	INEE	R	22KF007 W. Loghrin M. Rapsey	
DEPTH	SOIL PROFILE	PLOT	BER		PLES	ELEVATION SCALE	SHEAR STR +FIELD VAN POCKET PI 50 1	ENGTH E ATOF ENETRC 00 1	RVANE METER		PLASTIC LIMIT W <sub>P</sub>	NATUR/ MOISTU CONTEI W	AL LIC RE LIC NT L	QUID .IMIT WL	UNIT WEIGHT	GROUNE OBSER\ AND RE	ATIONS
ELEV netres) 15.0	CONTINUED FROM PREVIOUS PAGE	STRAT PLOT	NUMBER	ТҮРЕ	"N" VALUES	ELEVATION	DYNAMIC CO STANDARD P	NE PENI ENETRA		N × ST ●	WAT 10	ER CONT 20 3	ENT (% 0 40		kN/m <sup>3</sup>		GRAIN SIZ STRIBUTIO GR SA S
15.0			2 13	SS	44	233		4			•						
						232											
<u>16.9</u> 231.6	SANDY SILT TILL: Very dense grey sandy silt, some gravel, trace clay, occasional cobbles, occasional boulders,		14	SS	61												
	saturated		•			231											
	BOREHOLE TERMINATED AT 18.7 M. NO FURTHER PROGRESS DUE TO AUGER REFUSAL ON POSSIBLE BEDROCK.		15	SS	76/250 mm	_230				~~	0					Upon completic cave at 4.0 m, 1 3.4 m	n of auger ree water

L	ОСА	IECT Durham Street Bridge Geotechnic ATION Walkerton, Ontario NG METHOD Continuous Flight Hollow S		_		BORI	NG DA	<b>TE</b> 03	/29/202	22			PML ENG TEC	INEE	R	22KF007 W. Loghrin M. Rapsey			
EL	<u>PTH</u> .EV	SOIL PROFILE DESCRIPTION	STRAT PLOT	NUMBER	SAM IVPE	PLES	ELEVATION SCALE	+FIEI ▲POO		E ATOR NETRO	RVANE METER	O Qu O Q 0	PLAST LIMIT W <sub>P</sub>		ATURA DISTUF DNTEN W	L LIC E I T	QUID LIMIT WL	UNIT WEIGHT	GROUND WATER OBSERVATIONS AND REMARKS
(me		SURFACE ELEVATION 247.8 PAVEMENT STRUCTURE: 100 mm		ž		Ž	ELEV		MIC CON DARD PE 20 4	NE PENE ENETRA 0 6					CONTI 0 30			5 kN/m <sup>3</sup>	GRAIN SIZI DISTRIBUTION GR SA SI
0		asphalt; over 350 mm granular base, damp; over 450 mm granular subbase, damp		1	AS		247												
24	6.90	FILL: Dark brown clayey sandy silt, with pockets of black silty topsoil, occasional peaty topsoil and decayed wood, APL		2	SS	5		•						o					
				3	SS	5	246								,				
				4	SS	3	245												
	3.5			5	SS	2									0				
24	14.3 1.0	solid wood	X				244												
4	4.4 13.4	sand and gravel, some silt, occasional cobbles, occasional boulders, saturated BOREHOLE TERMINATED AT 4.4 M.		6	SS	26			•										Upon completion of auger no cave, free water at 4.0

				LC					<b>OLI</b> 86765N		<i>U.</i> 4						
	JECT Durham Street Bridge Geotechnic ATION Walkerton, Ontario	al Inve	stigat	ion				BORI	NG DA	<b>TE</b> 03	8/29/202	22		EN	IL REI	ER	22KF007 W. Loghrin
BOR	RING METHOD Continuous Flight Hollow S	Stem A	ugers			1		D OTD	ENOT					TE	CHNI	CIAN	M. Rapsey
	SOIL PROFILE	от	٤		PLES	I SCALE	+FIEL ▲POC	LD VANI	ENGTH E ATOR ENETRO	RVANE METER	O Qu 2 <b>O</b> Q	PLAST LIMIT	C NATU MOIS CON	JRAL TURE TENT	LIQUIE LIMIT	EIGHT	GROUND WATER OBSERVATIONS
DEPTH ELEV metres	- DESCRIPTION	STRAT PLOT	NUMBER	түре	"N" VALUES	ELEVATION SCALE	DYNAI STANE	MIC CON	00 1 NE PENI ENETRA	ETRATION T			TER CO 20		w <sub>L</sub> (%) 40		AND REMARKS GRAIN SIZ DISTRIBUTION
	SURFACE ELEVATION 247.7 PAVEMENT STRUCTURE: 180 mm asphalt, over 430 mm granular base,	· △ ·	1	AS								0				kN/m <sup>3</sup>	GR SA SI
<u>0.61</u> 0 <u>.9</u> 1 246.79	damp FILL: Brown fine sand, some silt, damp becoming brown clayey silt, trace sand, with occasional pockets of black silty					247										_	
	with occasional pockets of black silty topsoil	$\bigotimes$	2	SS	15	246											
		$\bigotimes$	3	SS	5							0					
<u>2.7</u> 245.0	SAND AND GRAVEL: Compact, brown sand and gravel, some silt, occasioanl		4	ss	8	245											
3.7	cobbles, occasional boulders, saturated	0	5	ss	24			•									
244.0	BOREHOLE TERMINATED AT 3.7 M.																Upon completion of auger no cave, no free water
NOT								ļ									<u> </u>

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	JECT Durham Street Bridge Geotechnica ATION Walkerton, Ontario	al Inve	estiga	tion	ī	4	00461			<b>TE</b> 04/					L REF GINEE		22KF007 W. Loghrin
BORI	ING METHOD Continuous Flight Hollow S	tem A	Auger			_	<u></u>	D 0			06/202	~~ 		TEC	CHNIC	IAN	M. Rapsey
	SOIL PROFILE	-OT	۳	SAM		N SCALE	+FIE ▲PO	LD VAN	E ATO	H (kPa) RVANE METER	<b>0</b> Q	PLAST LIMIT WP	IC NATU MOIS CON	TENT	.IQUID LIMIT WL		GROUND WATER OBSERVATIONS
EPTH ELEV netres)	DESCRIPTION	STRAT PLOT	NUMBER	ТҮРЕ	"N" VALUES	ELEVATION	DYNA STANI	MIC COI DARD P	NE PEN ENETR/	50 20 ETRATIO ATION TE	N × ST ●	WA	TER CO	NTENT (	(%)	UNIT W	AND REMARKS GRAIN SIZI DISTRIBUTION GR SA SI
48.50	SURFACE ELEVATION 248.6 FILL: Dark brown sandy silt topsoil, low organic, moist	Ŕ				Ш		20 4	40 <del>(</del>	50 80 	)			30 4	10	kN/m <sup>3</sup>	GR SA SI
	becoming dark brown silt and sand, some gravel, with occasional chuncks of asphalt, brick and wood splinters, damp to moist	$\bigotimes$	2	AS SS	10	248						0					
		$\bigotimes$	3	SS	27	247							0				
<u>2.3</u> 246.3	becoming dark brown sandy gravel with rubble, concrete, porcelain, and steel	$\bigotimes$	4	SS	10	246	4										
<u>3.0</u>	numerous inclusions of black peaty organics and decayed wood, APL to		5	SS	3	245									124	)	
4.3	WTPL	$\bigotimes$	6	SS	21	40		•									Free water encountered af SS6
4.5	SAND AND GRAVEL: Compact, brown sand and gravel, some silt, occasional cobbles, occasional boulders, saturated CLAYEY SILT: Firm to stiff grey clayey cit. WTD		7	SS	7	244	-						0				
	silt, WTPL					243											
			8	SS	10	242	-						0				
						_241											
8.5			9	SS	6								0				
240.1	CLAYEY SILT TILL: Stiff to very stiff grey clayey silt, trace sand, trace gravel, APL to WTPL					240											
			. 10	SS	26	-239		•					0				
			11	SS	27	_238							0				
						237											
			12	SS	16		4						0				
		· · · · · · · · · · · · · · · · · · ·				_236											
<u>13.8</u> 234.8	SANDY SILT TILL: Compact to very dense sandy silt, some gravel,		· 13	SS	18	235							0				
	occasional cobbles, occasional boulders, saturated		P •			234											
NOT	CONTINUED S Grinded on possible concrete floor at 3.1 r	n, bor	• ehole	re-drille	d 1 m awa	 v		ļ	1								I

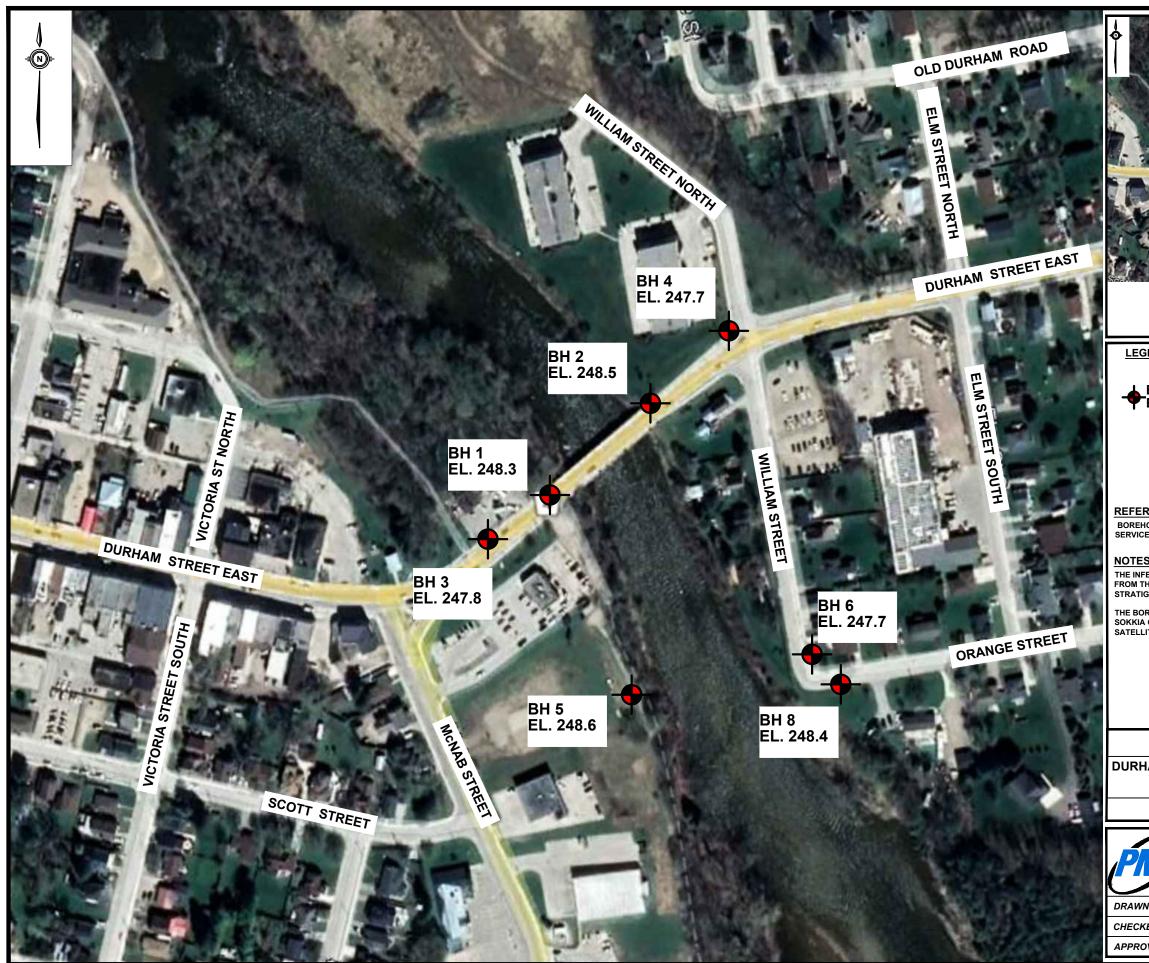
LC	CA	IECT Durham Street Bridge Geotechnica ITION Walkerton, Ontario NG METHOD Continuous Flight Hollow S				13	7T 4	88481.6E 48 BOR		1 ATE 04/05/20 04/06/20	I	EN	IL REI GINEI CHNI(	ER	22KF007 W. Loghrin M. Rapsey
		SOIL PROFILE				PLES	щ	SHEAR ST	RENGT	H (kPa)					
DEP ELE meti	V	DESCRIPTION	STRAT PLOT	NUMBER	ТҮРЕ	"N" VALUES	ELEVATION SCALE	50 DYNAMIC CC STANDARD F	NE PEN PENETR	RVANE O Q DMETER O Q 50 200 ETRATION 2 ATION TEST	w c ATER CO			UNIT WEI	GROUND WATER OBSERVATIONS AND REMARKS GRAIN SIZ DISTRIBUTIO
15.	0	CONTINUED FROM PREVIOUS PAGE		> 14	SS	77/230 mm	-	20	40 6	50 80	0 20	30	40	kN/m <sup>3</sup>	GR SA S
					33		233							-	
<u>17</u> 231	.2	BOREHOLE TERMINATED AT 17.4 M. NO FURTHER PROGRESS DUE TO AUGER REFUSAL ON PROBABLE BOULDER.													Upon completion of auge free water at 3.7 m, cave 4.3 m

					L	OG Ol				7E 488			0.6							1 0
		ECT Durham Street Bridge Geotechnica	ıl Inv	estig	ation													REF		22KF007
		NTION Walkerton, Ontario NG METHOD Continuous Flight Hollow S	tem /	Aure	rs					BORI	NG DA	<b>TE</b> 03	8/28/202	22				INEE		W. Loghrin M. Rapsey
_	- Crui	SOIL PROFILE				MPLES	щ	s	HEA	R STR	ENGTI	l (kPa)	1							
E	PTH EV	DESCRIPTION	STRAT PLOT	NUMBER	ТҮРЕ	"N" VALUES	ELEVATION SCALE	+	SPOC	KET PE	NETRO	METEF 50 2	OQu QQ 00 ON × EST ●	W <sub>P</sub>	CC	NTEN W CONTE	Г 		UNIT WEIGHT	GROUND WATE OBSERVATION AND REMARKS
		SURFACE ELEVATION 247.7	ST			Z.	ELE	S					EST •			) 30	,		kN/m <sup>3</sup>	GRAIN S DISTRIBUT GR SA
	.74	PAVEMENT STRUCTURE: 80 mm asphalt; over 360 mm granular base, damp; over 300 mm granular subbase, damp		. 1	AS	;	247	7—						o						
24	67916	FILL: Dark brown organic clayey silt, some sand, moist	$\bigotimes$	2	ss	2		•	$\setminus$						c	)				
		SAND AND GRAVEL: Compact to dense brown sand and gravel, some silt, occasional cobbles, occasional boulders,	$\propto$	3	ss	14	246	6	ł											
24	2.9	damp	0	4	ss	24	245	5		•										
			0 :0	5	ss	32	-244	4												Free water encountered SS5
			0				243	3												
24	4.9 12.8	CLAYEY SILT: Firm to stiff brown to grey clayey silt, WTPL		6	SS	22	_	-	/	*					c	>				
			$\parallel$				242	2	$\square$											
				7	SS	8	-241	1	•	<b></b>					0					
				8	ss	9	240									,				
							239	9—								,				
	9.4 38.3	CLAYEY SILT TILL: Very stiff to hard	. ••	9	SS	23			١	4					0					
		grey clayey silt, trace of sand, DTPL		•			238	8												
			. o	10	) SS	34	237	7							0					
1	2.2		/.	•			236	6												
	85.5	SANDY SILT TILL: Dense to very dense grey sandy silt, some gravel, occasional cobbles, occasional boulders, saturated	0	- 11	SS	100/230 mr	n 235	5					~							
							_234	4												
_1	<u>4.5</u>	possible layer of fine to coarse sand		• 12	2 SS	36				•					0					Ground water contacts
2,		CONTINUED		à			233	3												Ground water contacted 14.5 m

PML - BH/TP LOG GEO/ENV WITH MWS-R1 22KF007.GPJ ON\_MOT.GDT 2022-06-13 12:11:17 PM

					LC	DG OF		<b>BOR</b>				<i>).</i> 6							2	2 of 2
L	оса	<b>ECT</b> Durham Street Bridge Geotechnica TION Walkerton, Ontario NG METHOD Continuous Flight Hollow S		-							<b>TE</b> 03/2	28/202	22		E	PML I ENGI	NEE	R	22KF007 W. Loghrin M. Rapsey	
_		SOIL PROFILE				PLES	щ	SHEAF	R STRI	ENGTH	l (kPa)			NA						
EL	PTH EV tres)	DESCRIPTION	STRAT PLOT	NUMBER	ТҮРЕ	"N" VALUES	ELEVATION SCALE	50	) 10	00 15	••	0	W <sub>P</sub>		w 		QUID IMIT ₩L	UNIT WEIGHT	GROUND WA OBSERVATIO AND REMAR	ONS RKS
	1	CONTINUED FROM PREVIOUS PAGE		z		Ż	ELEY	STAND			ETRATIO			0 20	ONTEN 30			⊃ kN/m³	GRA DISTRIB GR :	UTION SA SI
		BOREHOLE TERMINATED AT 15.4 M. NO FURTHER PROGRESS DUE TO AUGER REFUSAL ON PROBABLE BOULDER.		13	SS	<u>100/150 mm</u>	<u> </u>					>>	•						Upon completion of a water was at ground elevation	augeri surfa

ſ					<u> </u>	<u>c o</u>	N S	ULT	ING	ENG		15						
		IECT Durham Street Bridge Geotechnica	al Inve	stigat		DG OI			6E 488	86576N						ML RE		22KF007
		ATION Walkerton, Ontario NG METHOD Continuous Flight Hollow S	Stem A	ugers	5				BORI	NG DA	<b>TE</b> 03/29/	2022	2			NGINE ECHNI		W. Loghrin M. Rapsey
ľ		SOIL PROFILE				PLES	Щ	SHEA	RSTR		I (kPa)	<u></u>						
	<u>DEPTH</u> ELEV metres)	DESCRIPTION	STRAT PLOT	NUMBER	ТҮРЕ	"N" VALUES	ELEVATION SCALE	<u></u>	50 1	00 15	AVANE O METER O 200 ETRATION TION TEST	_	W <sub>P</sub>		STURE NTENT W -0	WL	UNIT WEIGHT	GROUND WATER OBSERVATIONS AND REMARKS GRAIN SIZE DISTRIBUTION (%
0-	0.21	SURFACE ELEVATION 248.4 PAVEMENT STRUCTURE: 80 mm of	· • ·				Ē			0 6			10	) 20	30	40	kN/m <sup>3</sup>	GR SA SI&CL
-	248.19	asphalt, over 130 mm granular base, damp	$\mathbb{X}$	1	AS		248						0					
0		FILL: Dark brown clayey silt, some sand, low plastic, WTPL	$\bigotimes$	2	SS	6		•						0				
			$\bigotimes$	_			247	$\left  \right\rangle$									_	
0	<u>1.7</u> 246.7 2.1	becoming sand and gravel, wet	$\bigotimes$	3	SS	17												
	246.3	BOREHOLE TERMINATED AT 2.1 M. NO FURTHER PROGRESS DUE TO																Borehole terminated upon hitting a concrete storm
		BURIED PIPE.																sewer. Borehole backfilled immediately.
-0.																		
1																		
-0																		
0-																		
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	VVAL	.NERTON, C			
GEND:					
BH 1 EL. 248.3	APPROXIM SURFACE E	ATE LOCATION ELEVATION	I OF BOREHOL	E1	
RENCE: HOLE LOCATION E. ERRED STRATION HESE BOREHOL GRAPHY BETWE DREHOLE LOCAT A GCX3 REAL TIL ITE SYSTEM	GRAPHY REF ES SUPPLEN EN THE BOR IONS AND GE	ERRED TO IN T IENTED BY GE EHOLES MAY \ EODETIC ELEV/	HE REPORT IS OLOGICAL EVI /ARY. ATIONS WERE	BASED ON TH DENCE. THE A SURVEYED WI	E DATA CTUAL TH A
ITE SYSTEM.					
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IAM STREI				L INVEST	IGATION
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<b>N</b> SI	२	DATE	SCALE	PML REF.	DWG. NO.
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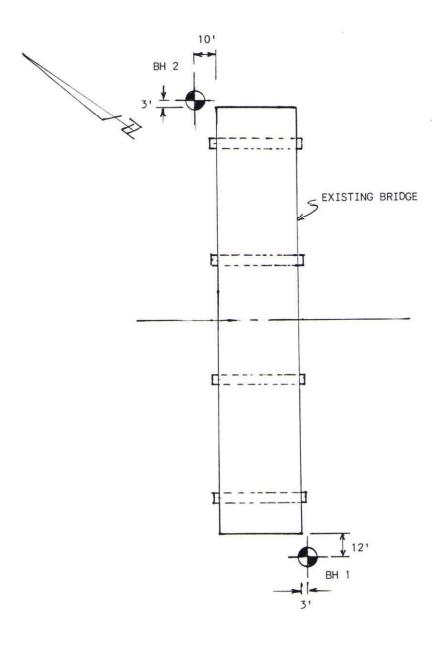
# APPENDIX A

1994 LOG OF BOREHOLE AND BOREHOLE LOCATION PLAN BY ATKINSON DAVIES INC.

Ref: 1-1948

Enclosure No. 2

# ATKINSON, DAVIES INC.



-

SITE PLAN

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Scale 1 inch = 50 feet

## REF. NO.: 1-1948

LOG OF BOREHOLE NO. 1

Encl. No. 3

DOMENCE NO.

DRILLING DATA: METHOD: Auger

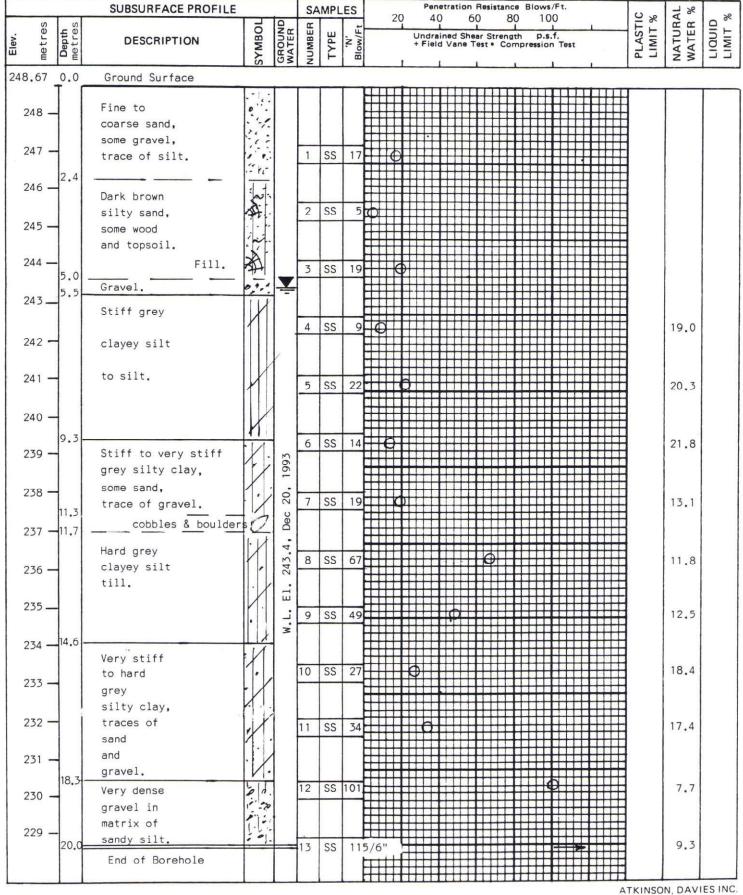
DIAMETER: hollow stem

TE: December 16 & 17, 1993

CLIENT: B.M. Ross & Assoc. Ltd PROJECT: Saugeen River Bridge LOCATION: Hwy 4, Walkerton

DATUM ELEVATION: cut cross on sidewalk at NW corner of bridge, DATE:

El. 248.872 metres



### REF. NO.: 1-1948

CLIENT: B.M. Ross & Assoc. Ltd

PROJECT: Saugeen River Bridge

LOCATION: Hwy 4, Walkerton

#### Encl. No. 4

DRILLING DATA:

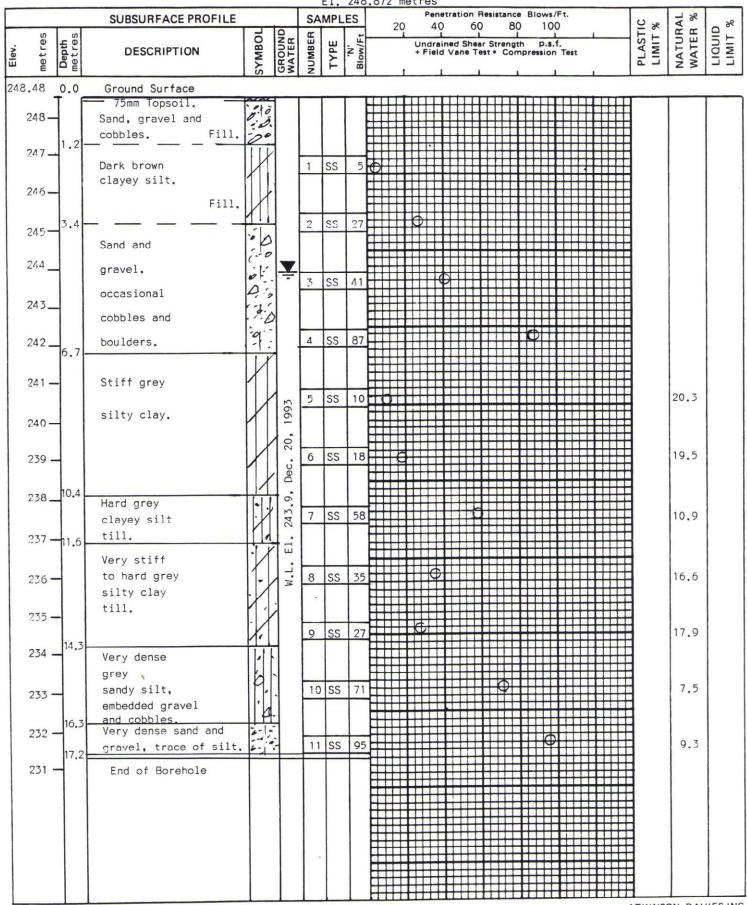
METHOD: Auger

DIAMETER: hollow stem

DATUM ELEVATION: cut cross on sidewalk at NW corner of bridge, DATE: December 16 & 17, 1993

El. 248.872 metres

LOG OF BOREHOLE NO. 2



ATKINSON, DAVIES INC.



# APPENDIX B

STATEMENT OF LIMITATIONS



This report is prepared for and made available for the sole use of the client named. Peto MacCallum Ltd. (PML) hereby disclaims any liability or responsibility to any person or entity, other than those for whom this report is specifically issued, for any loss, damage, expenses, or penalties that may arise or result from the use of any information or recommendations contained in this report. The contents of this report may not be used or relied upon by any other person without the express written consent and authorization of PML.

This report shall not be relied upon for any purpose other than as agreed with the client named without the written consent of PML. It shall not be used to express or imply warranty as to the fitness of the property for a particular purpose. A portion of this report may not be used as a separate entity: that is to say the report is to be read in its entirety at all times.

The report is based solely on the scope of services which are specifically referred to in this report. No physical or intrusive testing has been performed, except as specifically referenced in this report. This report is not a certification of compliance with past or present regulations, codes, guidelines and policies.

The scope of services carried out by PML is based on details of the proposed development and land use to address certain issues, purposes and objectives with respect to the specific site as identified by the client. Services not expressly set forth in writing are expressly excluded from the services provided by PML. In other words, PML has not performed any observations, investigations, study analysis, engineering evaluation or testing that is not specifically listed in the scope of services in this report. PML assumes no responsibility or duty to the client for any such services and shall not be liable for failing to discover any condition, whose discovery would require the performance of services not specifically referred to in this report.

The findings and comments made by PML in this report are based on the conditions observed at the time of PML's site reconnaissance. No assurances can be made and no assurances are given with respect to any potential changes in site conditions following the time of completion of PML's field work. Furthermore, regulations, codes and guidelines may change at any time subsequent to the date of this report and these changes may affect the validity of the findings and recommendations given in this report.



The results and conclusions with respect to site conditions are therefore in no way intended to be taken as a guarantee or representation, expressed or implied, that the site is free from any contaminants from past or current land use activities or that the conditions in all areas of the site and beneath or within structures are the same as those areas specifically sampled.

Any investigation, examination, measurements or sampling explorations at a particular location may not be representative of conditions between sampled locations. Soil, ground water, surface water, or building material conditions between and beyond the sampled locations may differ from those encountered at the sampling locations and conditions may become apparent during construction which could not be detected or anticipated at the time of the intrusive sampling investigation.

Budget estimates contained in this report are to be viewed as an engineering estimate of probable costs and provided solely for the purposes of assisting the client in its budgeting process. It is understood and agreed that PML will not in any way be held liable as a result of any budget figures provided by it.

The Client expressly waives its right to withhold PML's fees, either in whole or in part, or to make any claim or commence any action or bring any other proceedings, whether in contract, tort, or otherwise against PML in anyway connected with advice or information given by PML relating to the cost estimate or Environmental Remediation/Cleanup and Restoration or Soil and Ground Water Management Plan Cost Estimate.



# APPENDIX C

SGS CERTIFICATE OF ANALYSIS







# **FINAL REPORT**

# CA40124-APR22 R1

22KF007

Prepared for

Peto MacCallum Ltd



# **FINAL REPORT**

#### First Page

CLIENT DETAILS		LABORATORY DETAILS	
Client	Peto MacCallum Ltd	Project Specialist	Maarit Wolfe, Hon.B.Sc
		Laboratory	SGS Canada Inc.
Address	16 Franklin St S	Address	185 Concession St., Lakefield ON, K0L 2H0
	Kitchener, ON		
	N2C 1R4. Canada		
Contact	Rahil Bhavsar	Telephone	705-652-2000
Telephone	519-893-7500	Facsimile	705-652-6365
Facsimile	519-893-0654	Email	Maarit.Wolfe@sgs.com
Email	rbhavsar@petomaccallum.com;sjeffrey@petomaccallum.com	SGS Reference	CA40124-APR22
Project	22KF007	Received	04/08/2022
Order Number		Approved	04/13/2022
Samples	Soil (1)	Report Number	CA40124-APR22 R1
		Date Reported	04/13/2022

COMMENTS

Temperature of Sample upon Receipt: 7 degrees C Cooling Agent Present: Yes Custody Seal Present: Yes

Chain of Custody Number: 024029

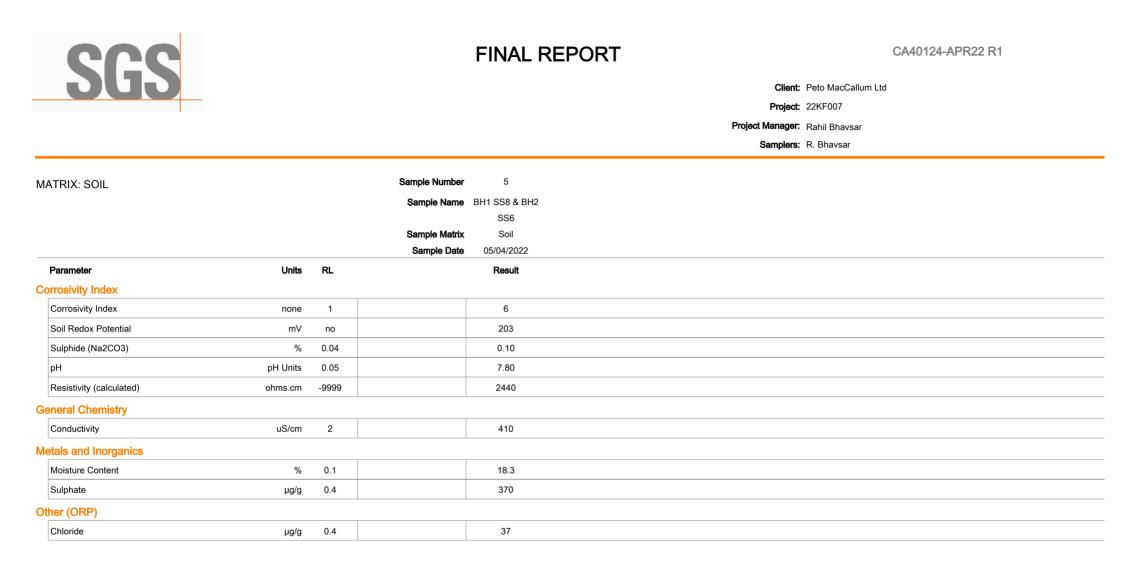
Corrosivity Index is based on the American Water Works Corrosivity Scale according to AWWA C-105. An index greater than 10 indicates the soil matrix may be corrosive to cast iron alloys.

SIGNATORIES

Maarit Wolfe, Hon.B.Sc HMWOYe

## TABLE OF CONTENTS

First Page	1
Index	2
Results	3
QC Summary	4-5
Legend	6
Annexes	





#### QC SUMMARY

#### Anions by IC

## Method: EPA300/MA300-Ions1.3 | Internal ref.: ME-CA-[ENVIIC-LAK-AN-001

Parameter	QC batch	Units	RL	Method	Dup	licate	LC	S/Spike Blank		м	atrix Spike / Re	ıf.
	Reference			Blank	RPD	AC	Spike	Recover (%	•	Spike Recovery		ery Limits (%)
						(%)	Recovery (%)	Low	High	(%)	Low	High
Chloride	DIO0192-APR22	hð\ð	0.4	<0.4	nv	35	96	80	120	102	75	125
Sulphate	DIO0192-APR22	hð\ð	0.4	<0.4	6	35	98	80	120	76	75	125

### Carbon/Sulphur

#### Method: ASTM E1915-07A | Internal ref.: ME-CA-[ENV]ARD-LAK-AN-020

Parameter	QC batch	Units	RL	Method	Dup	licate	LC	S/Spike Blank		M	latrix Spike / Ref	•
	Reference			Blank	RPD	AC	Spike		ery Limits %)	Spike Recovery	Recover	-
						(%)	Recovery (%)	Low	High	(%)	Low	High
Sulphide (Na2CO3)	ECS0034-APR22	%	0.04	< 0.04								

## Conductivity

## Method: SM 2510 | Internal ref.: ME-CA-[ENV]EWL-LAK-AN-006

Parameter	QC batch	Units	RL	Method	Duj	olicate	LC	S/Spike Blank		M	latrix Spike / Ref	
	Reference			Blank	RPD	AC	Spike		ery Limits (%)	Spike Recovery	Recover	-
						(%)	Recovery (%)	Low	High	(%)	Low	High
Conductivity	EWL0213-APR22	uS/cm	2	< 2	1	20	99	90	110	NA		



#### QC SUMMARY

#### pН

Method: SM 4500 | Internal ref.: ME-CA-[ENV]EWL-LAK-AN-001

Parameter	QC batch	Units	RL	Method	Dup	olicate	LC	S/Spike Blank		M	atrix Spike / Re	əf.
	Reference			Blank	RPD	AC	Spike		ery Limits (%)	Spike Recovery		ery Limits (%)
						(%)	Recovery (%)	Low	High	(%)	Low	High
рН	EWL0213-APR22	pH Units	0.05	NA	0		100			NA		

Method Blank: a blank matrix that is carried through the entire analytical procedure. Used to assess laboratory contamination.

Duplicate: Paired analysis of a separate portion of the same sample that is carried through the entire analytical procedure. Used to evaluate measurement precision.

LCS/Spike Blank: Laboratory control sample or spike blank refer to a blank matrix to which a known amount of analyte has been added. Used to evaluate analyte recovery and laboratory accuracy without sample matrix effects.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate laboratory accuracy with sample matrix effects.

Reference Material: a material or substance matrix matched to the samples that contains a known amount of the analyte of interest. A reference material may be used in place of a matrix spike.

RL: Reporting limit

RPD: Relative percent difference

AC: Acceptance criteria

Multielement Scan Qualifier: as the number of analytes in a scan increases, so does the chance of a limit exceedance by random chance as opposed to a real method problem. Thus, in multielement scans, for the LCS and matrix spike, up to 10% of the analytes may exceed the quoted limits by up to 10% absolute and the spike is considered acceptable.

Duplicate Qualifier: for duplicates as the measured result approaches the RL, the uncertainty associated with the value increases dramatically, thus duplicate acceptance limits apply only where the average of the two duplicates is greater than five times the RL. Matrix Spike Qualifier: for matrix spikes, as the concentration of the native analyte increases, the uncertainty of the matrix spike recovery increases. Thus, the matrix spike acceptance limits apply only when the concentration of the matrix spike is greater than or equal to the concentration of the native analyte.

#### LEGEND

#### **FOOTNOTES**

NSS Insufficient sample for analysis.

- RL Reporting Limit.
  - ↑ Reporting limit raised.
  - ↓ Reporting limit lowered.
  - NA The sample was not analysed for this analyte
- ND Non Detect

Data reported represent the sample as submitted to SGS. Solid samples expressed on a dry weight basis.

"Temperature Upon Receipt" is representative of the whole shipment and may not reflect the temperature of individual samples.

Analysis conducted on samples submitted pursuant to or as part of Reg. 153/04, are in accordance to the "Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act and Excess Soil Quality" published by the Ministry and dated March 9, 2004 as amended.

SGS provides criteria information (such as regulatory or guideline limits and summary of limit exceedances) as a service. Every attempt is made to ensure the criteria information in this report is accurate and current, however, it is not guaranteed. Comparison to the most current criteria is the responsibility of the client and SGS assumes no responsibility for the accuracy of the criteria levels indicated.

SGS Canada Inc. statement of conformity decision rule does not consider uncertainty when analytical results are compared to a specified standard or regulation. This document is issued, on the Client's behalf, by the Company under its General Conditions of Service available on request and accessible at http://www.sgs.com/terms\_and\_conditions.htm.

The Client's attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any other holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Reproduction of this analytical report in full or in part is prohibited.

This report supersedes all previous versions.

-- End of Analytical Report --

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able 1 Res/Park Soil Texture:	Reg 347/55			Sanitary				1											Τ		Specify	Specify	
Table 2     Ind/Com     Coarse       Table 3     Agri/Other     Medium/Fine		MMER Other:	-	Storm	1						Ű										tests	tests	
Table Appx	MISA			nicipanty.	21 M	-soil)	ž				vrocio									Pkg			1. J.
Soil Volume	ODWS Not	Reportable *Se	e note		-	C,SAR	() Hg, C	Mo.NI.			1	100								on F		1.1.1.1.1.	COMMENT
RECORD OF SITE CONDITION (RSC)		] NO			(N/N)	rgar <sup>WS),E</sup>	uite soil only	LIV Cu.Pb.				-				ify othe	G			tended	□voc		COMMENT
			A. C. C.		red	Metals & Inorganics inclorvi, CN,Hg pH,(B(HWS),EC,SAR (Cl. Ne-water)	Full Metals Suite	S only .cr.co.cu		s, CPs	Total	втех				r speci	$  \in$			Characterization Extended	Dioxane	B(a)P	
SAMPLE IDENTIFICATION	DATE	TIME	# OF	MATRIX	Filtered	S H H N	etal plus B	ICP Metals of Sb,As,Ba,Ba,Ba,Ba,Cd,Cr,C	PAHs only	SVOCS all Incl PAHs, ABNs, CPs	1	+	F1-F4 only no BTEX	×	only	Pesticides Organochlorine or s	705		Sewer Use: Specify pkg:	Chan			
	SAMPLED	SAMPLED	BUTTLES		Field F	Crvi, C	II N metals	P M	AHs	C PAH	PCBs	F1-F4	-F4	VOCS all incl BTEX	BTEX	stic	5		ver l	eral	ABN	DIgnit.	
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