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Staff Report

Operations Department

Report To: Committee of the Whole
Meeting Date: September 8, 2020
Report Number: CSOPS.20.044
Subject: Request for Winter Maintenance Services at Lowe Properties
(Concession 5 Part Lot 18 Reference Plan 16R4184 Parts 2 and 3)
Prepared by: Shawn Carey, Director of Operations

A. Recommendations

THAT Council receive Staff Report CSOPS.20.044, entitled "Request for Winter Maintenance Services at Lowe Properties along the 5th Line";

AND THAT Council selection option ___ for winter maintenances services at the Lowe properties along the 5th Line.

B. Overview

This report is being brought forward as a result of Council direction following a deputation by Mr. Lowe. The purpose of this report is to provide Council with the costs, technical issues, permitting requirements together with comparator roads in The Blue Mountains associated with providing winter maintenance services at the Lowe properties on the 5th Line.

C. Background

At the June 15, 2020 Council meeting and in response to Mr. Lowe's deputation (Attachment #1), Council directed Staff to provide the costs, technical issues, permitting requirements, together with comparator roads in The Blue Mountains associated with providing services at the Lowe properties on the 5th Line.

Mr. Lowe's two vacant lots (Part 2 & Part 3) front onto the 5th Line between Sideroad 15 and 18. This section of road is Classified as a Seasonal 6 meaning that no winter maintenance is performed (Attachment #2).

The *Highway Traffic Act* regulates the minimum maintenance standards for municipal highways. These minimum maintenance standards are set pursuant to regulation under the *Municipal Act* and establish the minimum standards expected of municipalities in Ontario for certain aspects of the maintenance of the roads, bridges and sidewalks under their jurisdiction. All minimum maintenance standards including the level of service to be provided are based on the classification of a particular highway.

The Town's Winter Maintenance Standards and Level of Service (Policy POL.COR.19.01) is intended to ensure that appropriate winter maintenance standards are developed and implemented to meet the Common Law test of reasonableness. The Policy provides direction to Council, Staff and Shareholders on Town needs and expectations while allowing the Roads and Drainage Department to determine resources and funding required to be budgeted and operate within the means of its approved budget.

In order to consider all season municipal operation and maintenance, the Town will need to be able to provide the level of service expected of a municipality in accordance with the province's Minimum Maintenance Standard. That expectation is a reasonably safe roadway to travel by all road users at all times of the year in all weather conditions. To meet that expectation, and the associated liability that comes with such, the road should be at an acceptable road standard that enables winter maintenance to be successfully undertaken at a municipal level of standard for that specific classification of road.

It should be recognized that the municipal expected level of service for winter maintenance is higher than that typically provided privately. Users would expect that there is sufficient traction to avoid sliding or slipping and being able to pass in both directions.

The Town has a number of Class 6 Seasonal roads and are classified in areas where there is a lack of property access needs, alternative routes exist, low average daily traffic and/or this is an unsuitable road base, lack of proper shoulders and ditching, and/or geometry.

There are a number of roads that were opened in the Town during its initial settlement in the 19th and 20th centuries to provide access to farms, homes and other land uses which have long since been abandoned. Many of these roads were generally created for use by pedestrians, horses, other animals and animal drawn vehicles and are generally unsuitable for year-round use and maintenance.

The section of the 5th Line as identified in Attachment #2 is a Seasonal Class 6 road. The Policy states that Seasonal Class 6 roads are closed and signed for the winter control period (November 1 – April 15) and the Town does not provide maintenance or snow removal during this period. Attachment #2 indicates where winter maintenance service is currently provided.

Planning Background:

The subject lands are legally described as Part of Lot 18, Concession 5, being Part 2 and Part 3 on Reference Plan 16R-4184.

The subject lands are designated Rural in the Town's Official Plan. The Rural designation applies to those rural lands in the Town which are not considered to be prime agricultural area and the predominant land use within will be agriculture and forestry.

The subject lands are located within the Niagara Escarpment Commission's Area of Development Control. As such, the Town has no zoning jurisdiction.

Both lots were created by Consent applications filed under the *Planning Act* in 1989. These applications were submitted by a Mr. Ken Kennedy as Consent Nos. B765/89, B766/89 and B767/89 when the property was located in the then Township of Collingwood. At that time, Grey County was the approval authority for Consent applications.

On September 7th, 1989, the Grey County Planning Approval Committee rendered its decision to approve only two of the three Consent applications. Consent No. B767/89 was refused as the Committee opined that the Niagara Escarpment Commission policies (at that time) only allowed for two new lots to be created. Conditions of provisional approval for these Consent applications included:

1. Applicant entering into a Development Agreement with the Township;
2. Applicant obtaining an entrance permit from the Township Road Superintendent; and,
3. Applicant obtaining a Development Control Permit from the NEC.

On February 15th, 1990, a Development Agreement was registered onto title of both severed lots as Instrument No. 287480. There is no Clause in the Agreement related to the maintenance status or any required improvements to the 5th Line road. With respect to property “access” matters, Clause 6 of the Agreement provides:

“That prior to any entrance to the property being constructed, the landowner shall submit such entrance proposal to the Road Superintendent and shall forthwith install at his own expense such culvert or culverts in such location as the Road Superintendent deems necessary.”

There is a record of an Entrance Permit application submitted for the vacant lot being Part 2, 16R-4184. There is no record of a similar application for the vacant lot being Part 3, 16R-4184.

There is no record of a Development Control Permit for either lot.

Development Charge:

On May 26, 2020, the Town sent confirmation to Mr. Lowe indicating payment in the amount of \$1,050 for Development Charges received on February 8, 1990.

The main principle behind Development Charges is “growth pays for growth”. As development happens throughout the municipality Development Charges are collected and then help fund infrastructure to maintain the current level of service offered by the Town. These services range from roads to parks and library.

The majority of the Developments Charges collected by the Town are municipal wide (excluding water and wastewater). This means that charges collected in Thornbury can be used to fund infrastructure in Craighleith and vice versa. Paying Development Charges does not necessarily mean that those charges will be spent on infrastructure in front of the owner’s property or even in their neighbourhood but rather will be spent on projects as outlined in the Development Charges Background Study.

D. Analysis

Comparator Roads:

On July 9, 2020, staff met on-site with Mr. Lowe to discuss the options of providing winter maintenance to his 2 vacant lots including visits to the comparator roads in the area that were discussed during his deputation (6th Line north of Grey Road 119 and the 18th Sideroad west of the 5th Line).

In 2018, the Town completed a Road Needs Study as required by Ontario Regulation 239/02 enacted under the *Municipal Act* respecting Minimum Maintenance Standards for Municipal Highways. Updates to these studies are required every 5 years. The Road Needs Study provides:

- an inventory of the Towns road network including a condition evaluation, estimated traffic volume and surface type of each road section;
- a comprehensive list of road system deficiencies and an estimated cost to improve each section; and,
- a prioritized list of recommended capital improvements.

The Roads Needs Study provides the following information regarding these comparator roads:

Road Section	Classification	Platform Width	Surface Width	Annual Average Daily Traffic
5 th Line (Seasonal)	6 Seasonal	4.5-5m	3.7-4m	>10
18 th Sideroad (830m east of 6 th Line to 5 th Line)	6	8m	6m	21
6 th Line (North of Grey Rd 119)	6	6m	5m	11

Unlike the 18th Sideroad and the 6th Line, the 5th Line currently has no defined or managed ditches to properly convey surface water run-off. Attachment #3 shows a visual of all 3 roads. Both the 18th Sideroad and 6th Line have defined ditches, larger road platform and decades of gravel and grading to properly shape the road geometry to improve drainage and resulting maintenance needs.

Technical Considerations:

The Class 6 Seasonal section of the 5th Line is currently a narrow and gravel-surfaced road that follows the topography (i.e. no embankments) with generally no ditching. In order to upgrade this section of the 5th Line to a Class 6 road with winter maintenance, the road platform would need to be widened including the placement of additional granular, shoulder and ditch construction. Any new road reconstruction is to be conducted in accordance with the Town's Engineering Standards unless otherwise directed by Council. Attachment #4 shows the Rural Standard Cross-Section. The Engineering Standard for a rural road requires, at a minimum:

- 20m right-of-way
- Platform width of 6m
- 1.5m shoulders
- 150mm of Granular A
- 450mm of Granular B
- Minimum & maximum grade of 0.5% & 8% respectively

Staff engaged a geotechnical professional engineer to undertake test pits along the Class 6 seasonal section of the 5th Line. The purpose of this investigation was to assess the subsurface conditions on the road and based on this information, provide geotechnical engineering recommendations for road improvements to upgrade the road from seasonal to year-round use.

Attachment #5 indicates the locations of the test pits that were undertaken on July 29, 2020. In general, the road granular is nominally comprised of 20 mm of crushed rock at the surface. It should be noted that in the spring of 2020 fresh gravel was laid down and graded along the 5th line including the seasonal section. No distinguishable granular base or granular subbase layers were observed in test pits 1 to 3. The granular base was underlain by crushed rock granular subbase in test pits 4 and 5. Test pits 1 to 3 are generally in the area fronting Mr. Lowe's properties and have a less suitable road base compared to test pits 4 and 5.

In order to upgrade the road to the Town's Engineering Standards for Rural Roads, the geotechnical report recommends that 200mm of B gravel (granular base) and 450mm of A gravel (granular subbase) be applied. Furthermore, the road subgrade should be excavated to the design grade (650mm below final road grade) for the new road width. To achieve the Town's rural road standard cross-section it was further recommended that excavation of the ditches prior to road construction is recommended in order to allow any water to drain effectively.

With this section of the 5th Line in its current condition it would be difficult to plow in the early season when the subgrade is weak and soft. Gravel roads with a weak subgrade strength and marginal gravel depth (i.e. not enough compacted A & B gravel) will often fail particularly due to wet weather and when exposed to heavy loads like that of a road grader. Staff use road graders in the majority of the Town's gravel roads for snow removal.

The road grader would push most of the gravel off the road. This is during early snow events before the ground freezes. Furthermore, the lack of proper drainage will cause the water to be trapped in the road materials. As it freezes the silty material will heave. The silty top soils will push through the top layer of gravel. Large potholes will form as the weak sub soils are pushed out of the road. The road could get to the point where it is not passable for two-wheel drive cars. The surface is relatively flat, and this will help or allow four wheel drive vehicles to transit the road. In the spring the potholes will hold water which will keep the sub grade soils wet and allow the ruts to increase in size. This would lead to more repairs works each spring. New gravel material would need to be added to fill the potholes. This will lead to an operations hot spot that requires more staff and equipment time to repair. A road with large potholes and standing water would not meet the expected level of service.

Options to Consider:

Staff have considered several options to address Mr. Lowe's request to have winter maintenance access to his 2 properties along the 5th Sideroad.

Option 1 – Status Quo

This option would see no improvements made to the seasonal portion of the 5th Line and winter maintenance would not continue past the current section.

Considerations:

- Mr. Lowe would not have consistent winter access to his 2 vacant properties via the 5th Line during winter control period.
- There was no clause in the Development Agreement when the lots were severed related to the maintenance status or any required improvements to the 5th Line road.

Option 2 – Town Conducts Winter Maintenance to Mr. Lowes' properties

This option would see the limits of the seasonal portion of the 5th Line reduced (i.e. change in road classification from Class 6 Seasonal to full year road) so that the Town could provide winter maintenance to the northern extent of Part Lot 2.

Considerations:

- As noted in the geotechnical report and the Technical Considerations above, the Class 6 Seasonal portion of the road is considered substandard and would not maintain its structure or viability as a result of winter maintenance (i.e. snow removal). The road would require ongoing maintenance and further draw on operational resources as it deteriorated; adding additional annual expenses.
- The current road surface width (travelable portion) is not sufficient to accommodate the Town's grader. Furthermore, there is currently not a sufficient turn-around area for the grader however, if the road was widened there is the possibility of entering into agreement with Mr. Lowe to use his property entrance.

- This portion of the 5th Line does not currently meet the standard for a Class 6 full-year road due to geometry, lack of shoulders, ditches and subbase and therefore the Town's ability to meet the Minimum Service Standards would be questionable and could potentially increase liability risk.
- Given the current condition of the road, access by fire trucks and emergency vehicles could be impaired during the winter control period.

Option 3 – Reconstruct 5th Line (Seasonal Class 6 Section)

There are 2 sub-options that can be considered for the reconstruction of the Class 6 Seasonal portion of the 5th Line in order to bring it to a full-year Class 6 road. To achieve this, the reconstruction would be conducted in accordance with the Rural Standard Cross-Section as identified in the Town's Engineering Standards. Attachment #4 roughly shows how the current road configuration aligns with the Rural Standard Cross-Section.

The Niagara Escarpment Commission has confirmed that a Development Permit under the *Niagara Escarpment Planning and Development Act* would be required if the road was to be reconstructed. The extent of studies required to support the Development Permit application would depend on the overall scope of the proposed work to upgrade the road to the Town's Rural Standard Cross-Section to allow for winter maintenance (e.g. extent of widening, contour changes, tree removal, drainage).

Option 3(A) – Reconstruct Entire 5th Line to Class 6 (from Seasonal)

This option would require upgrades to the entire 750m stretch of the seasonal portion of the 5th Line (Attachment #6). Based on rough estimates using the Town's 2020 benchmark costs for capital projects/improvements including the recommendations from the geotechnical report, this upgrade would cost approximately \$1,368,000 (\$1,824/m). This estimate includes construction, engineering, geotechnical testing, construction contingency and administrative costs. Based on the geotechnical report there may be a suitable granular subbase on the southern extent of the seasonal section as evident through Test Pits 4 & 5 (Attachment #5) and as a result, there may be savings realized.

Considerations:

- Eliminates the need for a turn-around for the Town road grader during winter control and would create efficiencies with the snow-plow routing and associated operations.
- Conforms to the Town's Engineering Standards and would therefore reduce future operational maintenance and associated expenses.
- Creates an additional full-year through way for north-south traffic flow
- Significant expense for the current amount of approved building lots (2). However, full-year access may see new planning applications along this section.
- Further assessment is required to refine the estimated project cost.
- Funding source for upgrade through either Local Improvement Area or taxation.

- Requires Niagara Escarpment Commission Development Permit.

Option 3(B) – Reconstruct 5th Line to Extent of Lowe’s Property (from Seasonal)

This option would see the southern extent of the Seasonal section to the northern extent of Mr. Lowe’s property at Part Lot 2 reconstructed to a full year Class 6 road. Attachment #6 illustrates this option. This section of road upgrades would be approximately 346m in length. Using the same estimates as outlined in Option 3(A), this upgrade would cost approximately \$631,000 (\$1,824/m). Again, based on the geotechnical report there may be a suitable granular subbase on the southern extent of the seasonal section as evident through Test Pits 4 & 5 (Attachment #5) and as a result, there may be savings realized.

Considerations:

- Reduces overall estimated project cost by 54%
- Requires a dedicated turn-around for the Town grader. Options to build turn around or have agreement with property owner.
- Requires Niagara Escarpment Commission Development Permit.
- Does not allow for contiguous through traffic as this option would only extend a portion of the Class 6 full year road.
- Funding source for upgrade through either Local Improvement Area or taxation.

Option 4 – Winter Maintenance Agreement

This option would see the Town enter into an agreement with Mr. Lowe and any future property owners such that winter maintenance would be conducted by a 3rd party on behalf of the private owners.

Considerations:

- Terms of the agreement would require the property owner(s) to provide perpetual winter maintenance on a seasonal road without limitation and without an expectation the Town would someday be asked to so or until such time as the road is reconstructed.
- Does not address the current condition of the road and the durability and associated operation and maintenance costs.
- Access by fire trucks and emergency vehicles could be impaired during the winter control period based on the current condition of the road and/or frequency and effectiveness of the 3rd party snow removal.
- Would need to find alternative location for snow storage resulting from Town snow removal along the southern portion of the 5th Line.
- There are significant liability risks to the Town associated with a private entity maintaining Town property under a separate agreement. Even with indemnity clauses, the Town still faces potential risk and liability.

- To reduce the Town's risk of liability, Council may need to enact a by-law to restrict passage over the road (i.e. stop up and close the road).
- Potentially interferes with the Town's current agreement with local snowmobile club for use of the seasonal section of the road during winter control. This agreement is pursuant to the provincial snowmobile trail network.

E. The Blue Mountains Strategic Plan

Goal #5: Ensure Our Infrastructure is Sustainable
Objective #1 Develop a Long-Term Asset Management Plan for the Maintenance, Renewal and Replacement of Existing Infrastructure
Objective #2 Avoid Unexpected Infrastructure Failure and Associated Costs and Liability
Objective #3 Implement Best Practices in Sustainable Infrastructure
Objective #4 Ensure that Infrastructure is Available to Support Development

F. Environmental Impacts

Reconstruction of this section of the 5th Line will require tree removal and installation of drainage upgrades in order to create a full-year Class 6 roadway. The extent of the impacts is unknown at this time and would be further explored through the Niagara Escarpment Commission Development Permit application process.

G. Financial Impact

To date the approximate cost associated with staff time meeting on site, town back hoe and operator to facilitate geotechnical investigation, coordinating locates for test pits, and evaluating the various options amounts to \$1,755.

Staff have yet to receive the final invoice for the geotechnical investigation and report, but it is expected to be approximately \$2500. These costs were not anticipated in the 2020 budget. The costs associated with these works, including staff time are being funded through the 2020 operating budget.

H. In Consultation With

Trevor Houghton, Manager of Community Planning

Sam Dinsmore, Deputy Treasurer / Manager of Accounting & Budgets

Will Thomson, Director of Legal Services

I. Public Engagement

The topic of this Staff Report has not been subject to a Public Meeting and/or a Public Information Centre as neither a Public Meeting nor a Public Information Centre are required.

Comments regarding this report should be submitted to Shawn Carey,
directorops@thebluemountains.ca

J. Attached

1. Deputation from Doug Lowe
2. Reference Map
3. Comparator Roads
4. Rural Standard Cross-Section
5. Geotechnical Test Pit Locations
6. 5th Line Reconstruction Distances

Respectfully submitted,

Shawn Carey
Director of Operations

For more information, please contact:
Shawn Carey
directorops@thebluemountains.ca
519-599-3131 extension 260

RECEIVED VIA EMAIL

From: Doug Lowe [REDACTED]

Sent: Monday, June 8, 2020 11:32 AM

To: Corrina Giles [REDACTED]

Subject: June 15 Council Meeting - Doug and Heather Lowe - Email to the Town Councillors

Dear Town Councillors,

My wife and I own two 8 acre lots on 5th Line near the Town of Banks, which is located in the Niagara Escarpment and is part of the Town of Blue Mountain. Specifically, the lots I am referring to are as follows;

CONC 5, PART LOT 18, RP16R4184, PART 2

CONC 5, PART LOT 18, RP16R4184, PART 3

We will be providing a google map of these two properties and the surrounding area during the presentation on the 15th of June.

We plan on selling the Part 2 lot and building on the Part 3 lot. Before we build on our lot we need to sell the Part 2 lot in order to help fund our build. However we have an issue in the selling of the Part 2 property. That is, a potential buyer (as well as my wife and I for the build of our house) wants assurance that they will have all services provided once they build on the property. They want assurance that they'll have garbage pickup, school bus pickup and most importantly snow removal. Currently snow removal is done on 5th line right up to the driveway of our neighbour on 5th line, which is approximately 400 meters from our property. This will be shown in the presentation.

Essentially, we would like a letter from the Town of Blue Mountain that all services will be provided, including snow removal, once homes are built on these properties. This will put potential buyers at ease as well as my wife and I for our build on Part 3. Perhaps you're wondering why we need to know now. The reason is that my wife and I have to pay for the installation of hydro lines to these properties, which will cost approximately \$40K. So we need to know in advance of doing this that there will be no other issues as described above.

Thanks for your attention to this matter and I look forward to our council meeting.

Best Regards,

Doug Lowe



Town of The Blue Mountains

32 Mill Street, Box 310
Thornbury, ON N0H 2P0
Phone: 519-599-3131 Fax: 519-599-7723
<https://www.thebluemountains.ca>

OFFICE OF: Sam Dinsmore
Deputy Treasurer/Manager of Accounting and Budgets
Email: finance@thebluemountains.ca
Phone: 519-599-3131 Ext 274

May 26, 2020

RE: Development Charges – CON 5 PT LOT 18, RP, 16R4184, Part 2 & Part 3

To Whom It May Concern,

This letter will confirm the receipt of Town Development Charges for the above mentioned lots. The Town received payment on February 8, 1990 in the amount of \$1,050.

At the time of building permit, the Grey County Development Charges will be due for both lots.

Should you have any questions, please do not hesitate to contact Sam Dinsmore, Deputy Treasurer/Manager of Accounting and Budgets at 519-599-3131 ext 274.

Sincerely,

The Town of The Blue Mountains

_____

Sam Dinsmore
Deputy Treasurer/Manager of Accounting & Budgets

EXHIBIT 1: Google Map Wide View



Google Maps Closer View



Exhibit 3: Current Road Classification and Road Maintenance (Ref. Town of Blue Mountains Website)



Solid Green Line - Class 4

Solid Purple Line - Class 6

Dotted Purple Line - Class Seasonal 6

Winter Maintenance Objective:

Class of Highway	Average Daily Traffic	Objective
3	Over 1000	To make best efforts to achieve center bare or track bare pavement.
4	Under 1000	To make best efforts achieve center bare or track bare pavement.
5	Under 1000	To make best efforts to provide a smooth snow covered surface.
6	Under 50	To make best efforts to provide a smooth snow covered surface. Gravel roads in this category may be spot sanded only on hills, curves and intersections.
Seasonal 6	NA	To close these roads and not perform any winter maintenance as signed.

Snow Plowing:


Class of Highway	Snow Accumulation	Plowing Time	Objective
3	8cm	12 hours	Both sides of the road plowed one time within 12 hours after it has been determined that there is 8 cm of snow accumulated on the road surface.
4	8cm	16 hours	Both sides of the road plowed one time within 16 hours after it has been determined that there is 8 cm of snow accumulated on the road surface.
5	10 cm	24 hours	One lane 5m in width plowed one time within 24 hours after it has been determined that there is 10 cm of snow accumulated on the road surface.
6	10cm	24 hours	One lane 5m in width plowed one time within 24 hours after it has been determined that there is 10 cm of snow accumulated on the road surface.
Seasonal 6	NA	NA	No winter maintenance.



Road Maintenance Class

- Class 4 (Under 1000 AADT)
- Class 6 (Under 50 AADT)
- - - Class Seasonal 6

 County Road

 Subject Lands

AADT = Annual Average Daily Traffic

0 0.25 0.5 1 km

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5th Line – Class 6 Seasonal

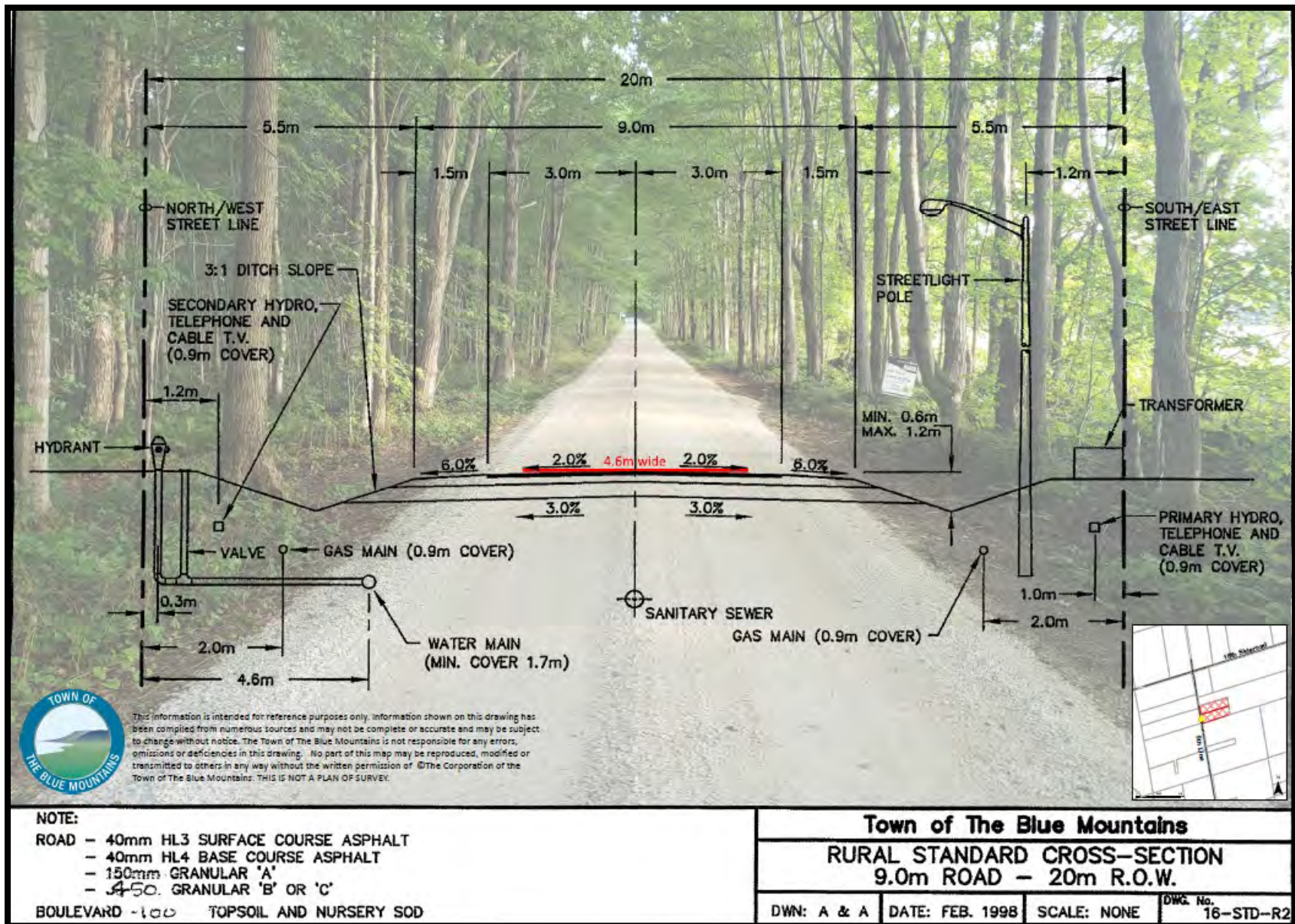


6th Line – Class 6 (Looking North)



18th Sideroad – Class 6 (Looking West)







Improvements to the 5th Line

Assessment Parcel

Local Road

Seasonal Road

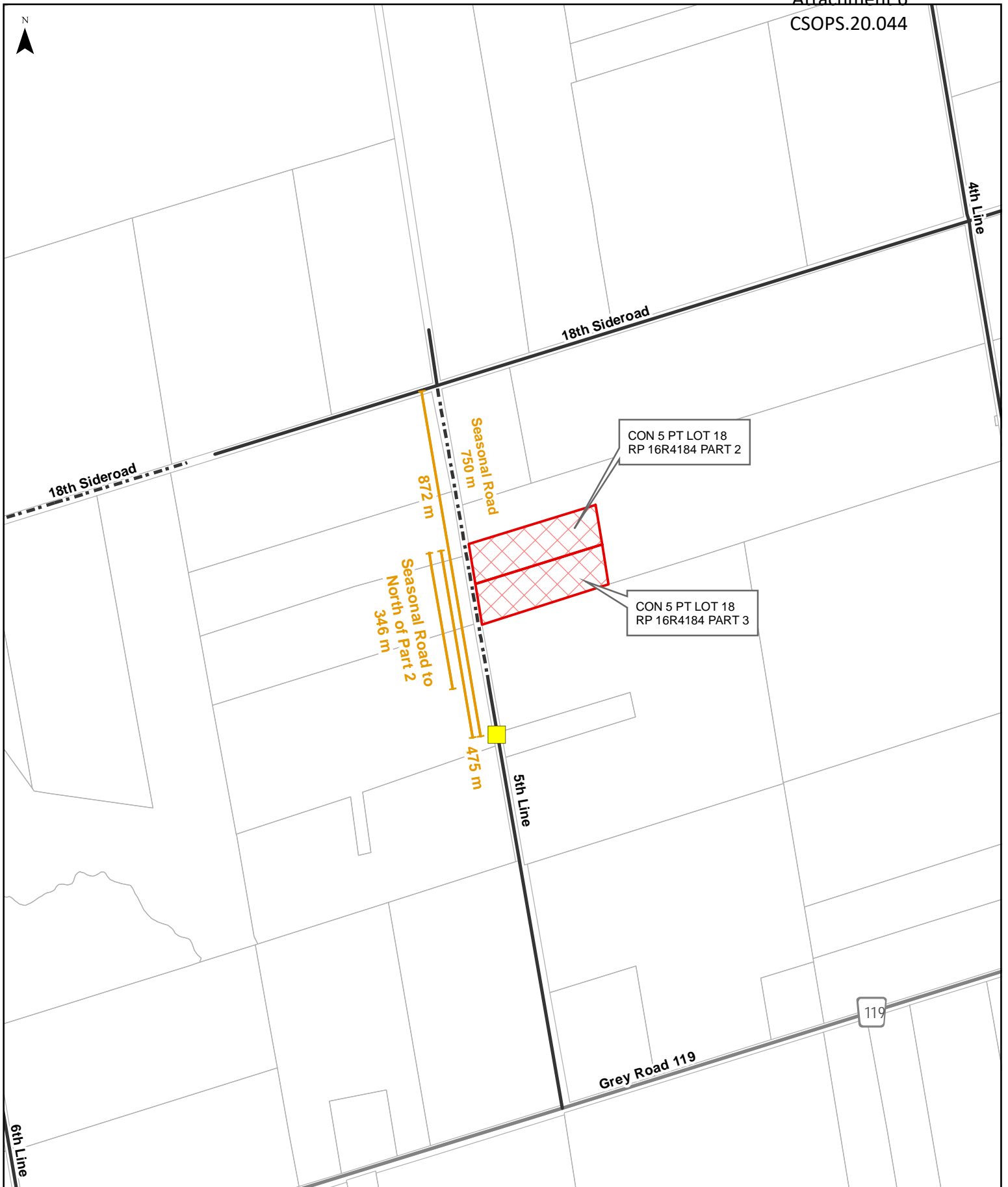
Test Pit (TP)*

* Project completed by Peto MacCallum Ltd.
for the Town of The Blue Mountains




0 50 100 200 m

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-  County Road
-  Local Road
-  Seasonal Road

-  Subject Lands
-  Assessment Parcel
-  No Winter Maintenance Sign

0 125 250 500 m

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