



The Corporation of **THE TOWNSHIP OF MELANCTHON**
157101 Highway 10, Melancthon, Ontario, L9V 2E6

Telephone - (519) 925-5525

Website: www.melancthontownship.ca

Fax No. - (519) 925-1110

Email: info@melancthontownship.ca

MEMORANDUM

Date: January 22, 2025

To: James Hunter (jhunter@ipsconsultinginc.ca) c/o Innovative Planning Solutions

From: Planning and Development, Township of Melancthon

Subject: Official Plan and Zoning By-law Amendment Applications (3rd Submission) – 437202 4th Line

This memorandum serves to confirm that Township Planning staff have completed a preliminary circulation of the subject file. A summary of the status of the comments is provided below:

Comments Received:

Township Planning staff have received comments from the following parties:

- Nottawasaga Valley Conservation Authority (NVCA)
- Peer Review Comments – Hydrogeological Assessment Report
- Township of Melancthon Engineering Consultant (RJ Burnside)

Comments Pending:

Township Planning staff are still awaiting comments from the following parties:

- County of Dufferin
- Saugeen Ojibway Nation

All comments that the Township of Melancthon planning staff is currently in receipt are provided in this document for your review.



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Based on the comments received, the applicant shall proceed with revising the application materials and resubmitting the revised materials in order to address the comments provided.

Should you have any questions pertaining to this letter, please do not hesitate to contact either the undersigned or info@melancthontownship.ca.

Sincerely,

A handwritten signature in black ink, consisting of the letters "LM" in a stylized, cursive font.

Liam Morgan, BES, MEPP, RPP Candidate
Development Planner
Phone: 519-941-2816 Ext. 2511
lmorgan@melancthontownship.ca



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Township of Melancthon Planning and Development Division Comments

Township Planning staff have reviewed the Official Plan and Zoning By-law amendment application materials and have the following comments:

- The applicant shall enter into an agreement with the Township of Melancthon to address the components outlined under section 5.6.2.p(iv), 5.6.2.q(iii), and 5.6.2.r of the Township Official Plan.
- The Township will request the current verbiage respecting section 2, subsection i. of the Draft Zoning By-law Amendment be revised to outline that the 0.0 metre setback will only be for the property line between the existing extractive industrial parcel (437138 4th Line) and the lands identified for future extraction (437202 4th Line).

Should the applicant want to further discuss Township Planning's comments, feel free to contact the undersigned.

Kind regards,

Liam Morgan, BES, MEPP, RPP Candidate
Development Planner
Phone: 519-941-2816 Ext. 2511
lmorgan@melancthontownship.ca

From: [Tyler Mulhall](#)
To: [Diksha Marwaha](#)
Cc: [Liam Morgan](#)
Subject: RE: Request for Comments- Third Submission-Official Plan Amendment and Zoning By-law Amendment-Duivenvoorden Haulage Ltd.
Date: Thursday, December 19, 2024 11:46:37 AM
Attachments: [image001.png](#)

Good morning,

NVCA staff have reviewed the third submission for the proposed aggregate pit expansion. NVCA staff have no outstanding concerns related to the submission. It is understood that the annual monitoring report will be provided to the NVCA and a Spill Kit will be completed.

Kindly,

Tyler Mulhall, C. Tech (he/him/his)

Planner | Provincial Offences Officer

Supporting Adjala-Tosorontio, Amaranth, Caledon, Melancthon, Mono, Mulmur, Shelburne, Springwater

Nottawasaga Valley Conservation Authority

8195 8th Line, Utopia, ON L0M 1T0

T 705-424-1479 ext. 245

tmulhall@nvca.on.ca | nvca.on.ca

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From: Diksha Marwaha <dmarwaha@melancthontownship.ca>
Sent: Tuesday, December 10, 2024 1:03 PM
To: Planner <planner@dufferincounty.ca>; Roads Department <roads@melancthontownship.ca>; Gord Feniak <Gord.Feniak@rjburnside.com>; manager@saugeneojibwaynation.ca; Planning Dept <Planning@nvca.on.ca>
Cc: Denise Holmes <dholmes@melancthontownship.ca>; Liam Morgan <lmorgan@melancthontownship.ca>; Kaitlin Dinnick <kdinnick@melancthontownship.ca>
Subject: Request for Comments- Third Submission-Official Plan Amendment and Zoning By-law Amendment-Duivenvoorden Haulage Ltd.

Good Afternoon,

The Township of Melancthon has received the Third Submission for the Official Plan Amendment and Zoning By-law Amendment application to permit an aggregate expansion to the Duivenvoorden Haulage Ltd. (DHL) Melancthon Pit. The lands subject to the applications are located at 437202 and 437138 4th Line in Part of the East Half of Lots 13 and 14, Concession 4.

The submission package can be viewed through the following link: [Third Submission](#). If you have trouble accessing the submission materials, please do not hesitate to contact me.

Please provide your comments by January 7th, 2025. Please copy both myself and lmorgan@melancthontownship.ca on your email.

Should you not have the capacity to review and provide comments on this circulation within the timeframe please advise ASAP.

Sincerely,



Diksha Marwaha | Planning Coordinator | Township of Melancthon |
dmawaha@melancthontownship.ca | FX: 519-925-1110 | www.melancthontownship.ca |

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www.dufferincounty.ca

BLUEWATER GEOSCIENCE CONSULTANTS INC.

42 Shadyridge Place
Kitchener, Ontario
N2N 3J1

Tel: (519) 502-8947

E-mail: blemieux@rogers.com

January 14, 2025

The Township of Melancthon
157101 Highway 10,
Melancthon, Ontario
L9V 2E6

Attn.: Ms. Denise Holmes, A.M.C.T., Clerk-Treasurer

**Re: Duivenvoorden Pit Expansion, Review of Combined Level 1 and Level 2
Hydrogeological Assessment Report (Updated), September 29, 2023, Melancthon
Township, ON.**

Denise:

Bluewater Geoscience Consultants Inc. (Bluewater) is pleased to provide this review of the above-captioned report. It is our understanding that the proponent is seeking to expand the existing pit and have applied to the Ontario Ministry of Natural Resources and Forestry (MNR) and the Township of Melancthon for approval. Bluewater has previously reviewed the initial report entitled “Combined Level 1 and Level 2 Hydrogeological Assessment, Duivenvoorden Pit Expansion, Melancthon, Ontario” prepared by Azimuth Environmental Consulting Inc. and dated September 2020. Bluewater issued a review letter dated March 22, 2022 outlining the findings of our review and providing requests for additional investigations and monitoring to be completed. This newly-submitted report provides details of the work completed to address Bluewater’s 2022 comments.

The proponent currently operates a licensed gravel pit on the 40.2 hectare (ha) Part Lot 13, Concession 4, Township of Melancthon parcel and wish to expand the operations to include the ~42.4 ha. Part Lot 14 portion of their overall property. The permit sought will be for a Category 3, Class ‘A’ Pit Above Water license. The proposed expansion lands are currently in agricultural land use.

The Updated report details that the proposed expansion lands contain no permanent watercourses, however water ponding may occur seasonally in low-lying areas of the site. A wetland feature is present within the southwest portion of the property. This wetland feature is stated to contain surface water between roughly April and August and “receives some degree of seasonal ground water contribution”.

The Quaternary Geology consists of ice-contact stratified sand and gravel overlying the Tavistock clay till unit in some portions of the site, and directly over the Amabel bedrock in other portions of the site. The bedrock is reported to be more than 2.5 m below the proposed extraction depth. The top of bedrock elevation ranges between 500.2 and 489.6 masl beneath the expansion lands.

BLUEWATER GEOSCIENCE

Background research into the existing Town of Shelburne municipal supply wells and private wells in the area of the site determined that two principal aquifers are present. These being the overburden aquifer and the contact/bedrock aquifer systems. The six municipal wells present utilize the bedrock aquifer. The capture zones for these wells are reportedly “in excess of 6 km from the proposed Duivenvoorden expansion lands”.

Research indicates that there are 9 private wells within a 750 m radius from the proposed Duivenvoorden expansion lands, most of which also utilize the bedrock aquifer. Some of these wells may have been decommissioned in the past.

HYDROGEOLOGICAL/HYDROLOGICAL INVESTIGATION

To further assess on-site conditions, and address Bluewater’s 2022 comments, Azimuth installed three (3) additional groundwater monitoring wells at locations on the property in March 2023. This included new wells at the locations of MW-2 (MW-2-III) and MW-5 (MW-5-I) that were installed with screened sections straddling the top of the shallow groundwater table to properly monitor for potential Petroleum Hydrocarbon (PHC) impacts. Additionally a new monitoring locations was established (MW-6) along the eastern (downgradient) property boundary roughly half way between existing monitors MW-1 and MW-5. MW-6 was installed to the top of the bedrock depth with screened section above. The actual location of MW-6 is not shown on any of the drawings included in the report.

Further groundwater level monitoring was completed on all available wells during 2023 and is reported on in the 2023 report. Groundwater levels were lower during 2023 than those reported in 2018. The newly-installed MW-6 was found to be dry for a period of time after installation and during the monitoring completed. Azimuth has stated that “the upper aquifer fluctuates seasonally between the fractured bedrock and overburden within the eastern/southeastern portion of the property”. As such, when the water level dips into the bedrock, the monitor MW-6 is no longer able to provide water level data or be used to obtain water quality samples. Should a spill occur on the pit floor, and given determined groundwater flow velocities of up to 2 m/day, the spill could migrate to the eastern property boundary within 24 - 48 hours. As such, it is essential that the locations of MW-1, MW-5 and MW-6 must have wells that can monitor the top of the water table and be sampled at all times. Given this, if on-going monitoring shows that any of these three wells experience water levels that go below the wells and into the bedrock, additional wells drilled into the bedrock to depths able to maintain water levels must be provided. Bluewater contacted Mr. Chris Jones of Azimuth to see if additional groundwater monitoring levels have been recorded since those reported for 2023, and if that monitoring suggested further times when the water table entered the bedrock. We also discussed that if this does occur at MW-6 or any other monitoring locations additional bedrock monitors would be required. At the time of the writing of this letter we have not received additional information from azimuth.

The results of the on-going shallow groundwater monitoring determined that the groundwater flow direction is towards the east to southeast on the expansion lands. This direction was determined to be similar to the regional top-of-bedrock elevation indicating that “bedrock topography locally influencing ground water flow patterns”. It was further determined that the seasonally high water table is found within the overburden aquifer across the site. This water table elevation is used to

determine the pit floor elevation, being a minimum of 1.5 m above the seasonally high groundwater level.

Based on the ground water level monitoring completed between 2018 and 2023, the groundwater data from 2018 represents the highest water levels during the period. These groundwater elevations were utilized to determine contours for the proposed pit floor at 1.5 m above the groundwater elevations as shown on Figure 19 of the report. It has been brought to Bluewater's attention that the pit floor elevations provided in the 2023 Operational Plan (OP) submitted to the Township do not match the values provided in Figure 19 of the report reviewed here. Based on our review of the raw data presented in this report, the elevations and contours provided in Figure 19 of the 2023 Hydrogeological report are accurate and those in the OP are not. The data/figures regarding proposed pit floor elevations in the OP should be corrected to accurately reflect the 2018 groundwater data and should also incorporate the new data determined for MW-6.

A water balance was completed for the expansion lands to assess any potential impact the aggregate extraction may have on the ground water and surface water systems. The water balance concluded that the proposed operations "will likely have no measurable change in water table elevations across the site and therefore will have no impact on off-site domestic water wells". Further, the water balance concluded that "no negative impacts to the existing pre-extraction recharge conditions are anticipated, so impacts to the wetland are not expected".

The proponent has provided revised sections on 'Mitigation Measures' and a 'Recommended Monitoring Program' in the 2023 report. Mitigation measures proposed include no storage of fuel on the expansion lands, no refuelling of machinery on the pit floor as well as operator training and implementation of a Spill Contingency Plan.

The proponent has proposed a revised on-going groundwater monitoring and sampling program to continue "the characterization of the local overburden ground water regime, both from water level and water quality perspectives". They propose on-going continuous ground water level monitoring at seven locations (MW-1, MW-2-I, MW-3, MW-4s, MW-4d, MW-5I and MW-6). Further, they recommend that semi-annual water quality sampling be completed at six locations (MW-1, MW-2-I, MW-3, MW-4s, MW-5I and MW-6). A proposed list of sampling parameters is provided in the 2023 report. It is recommended that an annual monitoring report be prepared and submitted to MNRF and the Township of Melancthon prior to March 31 of the following year. The proponent has also agreed that "if any detectable concentrations of VOC or PHC parameters are reported at any monitoring well location, it is recommended that the Township be notified immediately and the detection(s) triggers an immediate re-sampling of the monitoring well. Further, should any release or spill occur within the site, particularly the pit floor, it is recommended that the Township and MECP Spills Action centre (SAC) be notified immediately. The proponent should have contingencies in place for the immediate extraction and secure storage of impacted groundwater before any significant migration away from that source area can occur."

CONCLUSIONS AND RECOMMENDATIONS

Based on the review completed, it appears the proponent has adequately characterized the geological, hydrological and hydrogeological regimes of the proposed expansion lands. The

proposed operations are unlikely to significantly affect groundwater or surface water quality or quantity or cause interference to existing private or municipal wells in the area. The shallow groundwater level has been determined adequately enough to establish proposed pit floor elevations being at least 1.5 m above the seasonal high water table level. The data relied upon for this determination was based on the highest determined groundwater levels which were from 2018. The determined proposed pit floor elevations are provided on Figure 19 of the 2023 report. The proposed pit floor elevations provided in the submitted OP should be revised to reflect those shown on Figure 19.

We trust you will find this review satisfactory for your present requirements. Should you have any questions, or require further information, please feel free to contact the undersigned.

Sincerely,
BLUEWATER GEOSCIENCE CONSULTANTS INC.

A handwritten signature in dark ink, appearing to read "B. Lemieux". The signature is fluid and cursive, with a large initial "B" and a stylized "Lemieux".

Breton J. Lemieux, M.Sc., P.Geo., QP
President, Senior Geoscientist

Date: January 14, 2025



January 7, 2025

Via: Email

Diksha Marwaha
Planning Coordinator
Township of Melancthon
157101 Highway 10
Melancthon ON L9V 2E6

Dear Diksha:

**Re: DHL Melancthon Pit
Project No.: 300055091.0000**

We have reviewed the material that you circulated on December 10, 2024, and are hereby providing our comments:

2nd Submission Comment Tracking Matrix

Our previous comments noted that the submission showed areas of the 4th Line ditch draining into the pit property and potentially being blocked by the proposed berming. We asked for the ditch profile to be checked. The Response Matrix provides Google Street View images which we had already seen when conducting our initial review. In our opinion, the street view images were indeterminate. Further, the accompanying written response does not provide the Township with the level of assurance that is required with this concern. We have discussed this matter with the Public Works Superintendent and continue to require that the ditch profile be checked. This would most appropriately be done by site survey.

Noise Memo, Valcoustics

Unfortunately, our review comments are not yet available, due to the Christmas break and seasonal illness. They will follow in separate correspondence when available.

Revised Site Plans

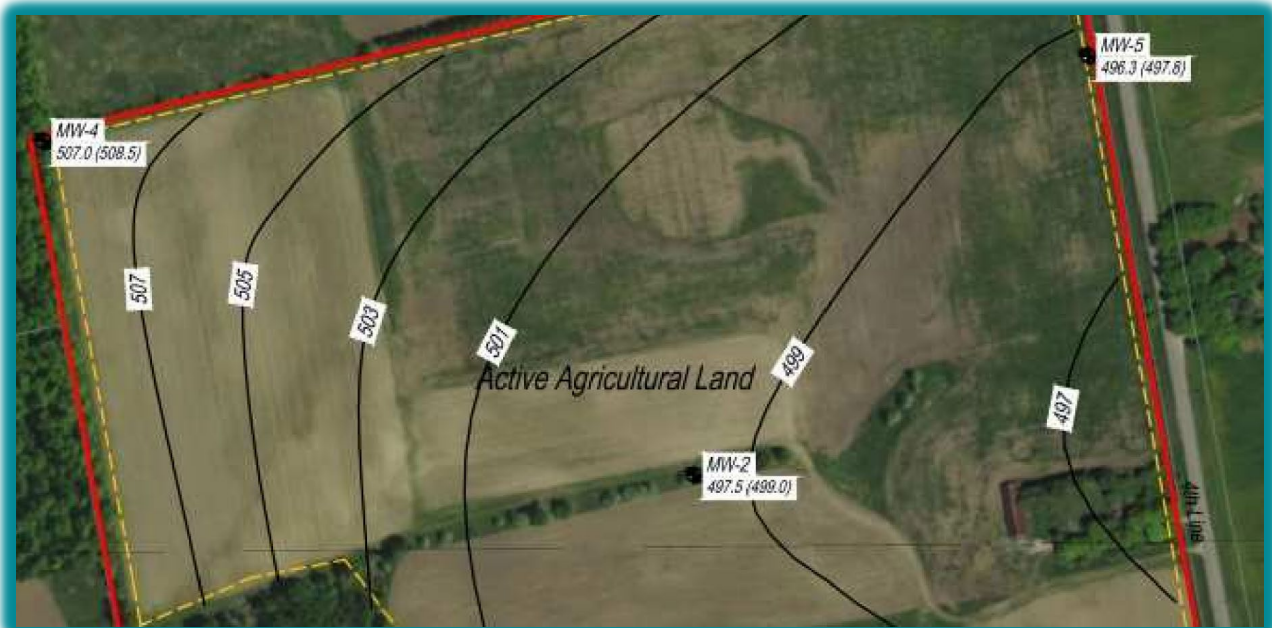
Our previous letter (August 22, 2024) outlined a number of significant discrepancies between the Hydrogeologic Report (Azimuth, September 2023) and the proposed Site Plans (IBI). Notwithstanding the Comment Matrix saying that elevations had been revised and the comment addressed, this major issue remains unchanged. The difference is so large that meaningful review of the drawings is not possible.

In the event that my previous comments were not clear, they are explained below.

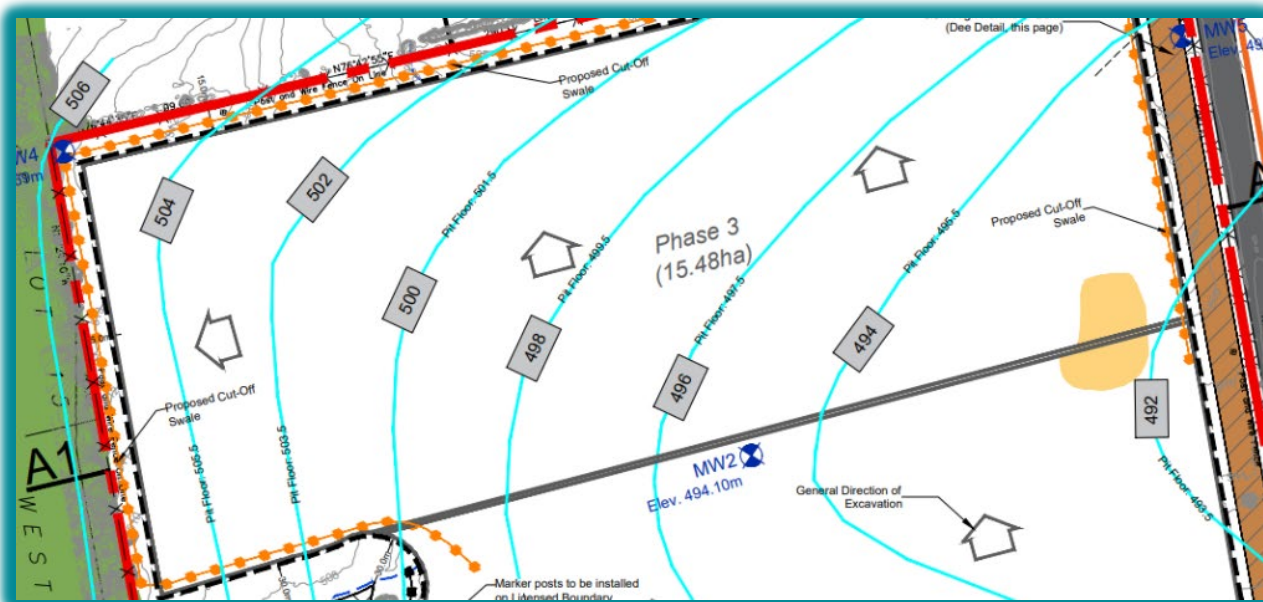
Azimuth completed its hydrogeological review, determined high groundwater levels, and recommended a pit floor to ensure that the required 1.5 m clearance would be achieved. This is all shown in Figure 19 of their report, which is labelled “*Proposed Pit Floor Elevations*” and whose legend shows that the Pit Floor contours are shown in black lines:



The proposed pit floor contours on Figure 19 are as high as 507 m in the northwest corner and as low as 497 m adjacent to 4th Line:



The current Site Plan submission by IPS includes an Operational Plan, that also show Proposed Pit Floor contours (light blue, individually labelled). The clip below is an identical area of the plan as I have copied above from Azimuth.



The numbers on the contours should be the same and they are not. The Azimuth contour of 507 m along the west boundary is proposed to be 504 m on the IPS drawing. The Azimuth contour of 497 m adjacent to 4th Line is labelled at an elevation of 492 m on the IPS plan.

The potential implication of an Operational Plan showing lower pit floor elevations than the Hydrogeological plan would be that extraction would not only breach the required 1.5 m separation to the high water table, but with such extreme differences the extraction would actually be within the water table.

I have discussed this matter with the Township Hydrogeologist, Bret Lemieux of Bluewater Geoscience, but he has not been circulated with the recent information on this file and has not yet been asked to review the most recent hydrogeological report. I understand that his involvement in the review is now being addressed.

Please let me know if further explanation is required with respect to these comments.

Yours truly,

R.J. Burnside & Associates Limited


Gord Feniak
GF:af

cc: Bret Lemieux, Bluewater Geoscience (enc.) (Via: Email)
Liam Morgan, Development Planner (enc.) (Via: Email)

From: [Gord Feniak](#)
To: [Diksha Marwaha](#)
Cc: [Liam Morgan](#); [Denise Holmes](#); [Kristina Zeromskiene](#)
Subject: RE: Request for Comments- Third Submission-Official Plan Amendment and Zoning By-law Amendment-Duivenvoorden Haulage Ltd.
Date: Friday, January 17, 2025 1:56:39 PM
Attachments: [image001.png](#)

Hi Diksha- We are now able to confirm that all of our previous noise comments have been addressed to our satisfaction. The only outstanding requirement related to noise will be to resolve the issues related to the pit floor elevations and then confirm that the noise reports remain valid....gf

Gord Feniak
Executive Vice President, Public
Sector

R.J. Burnside & Associates
Limited www.rjburnside.com
Office: +1 800-265-9662 Direct: +1 519-938-3076

From: Gord Feniak
Sent: Tuesday, January 07, 2025 12:00 PM
To: Diksha Marwaha <dmarwaha@melancthontownship.ca>
Cc: Liam Morgan <lmorgan@melancthontownship.ca>; Denise Holmes <dholmes@melancthontownship.ca>; Bluewater Geoscience <blemieux@rogers.com>
Subject: RE: Request for Comments- Third Submission-Official Plan Amendment and Zoning By-law Amendment-Duivenvoorden Haulage Ltd.

Hi Diksha- I have attached our review comments, which unfortunately are not complete with respect to Noise. Those comments will follow in due course but we wanted to get our main comments in prior to today's deadline... gf

From: Diksha Marwaha <dmarwaha@melancthontownship.ca>
Sent: Tuesday, December 10, 2024 1:03 PM
To: Planner <planner@dufferincounty.ca>; Roads Department <roads@melancthontownship.ca>; Gord Feniak <Gord.Feniak@rjburnside.com>; manager@saugeenonjibwaynation.ca; Planning Dept <Planning@nvca.on.ca>
Cc: Denise Holmes <dholmes@melancthontownship.ca>; Liam Morgan <lmorgan@melancthontownship.ca>; Kaitlin Dinnick <kdinnick@melancthontownship.ca>
Subject: Request for Comments- Third Submission-Official Plan Amendment and Zoning By-law Amendment-Duivenvoorden Haulage Ltd.

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Please provide your comments by January 7th, 2025. Please copy both myself and lmorgan@melancthontownship.ca on your email.

Should you not have the capacity to review and provide comments on this circulation within the timeframe please advise ASAP.

Sincerely,



Diksha Marwaha | Planning Coordinator | Township of Melancthon

| dmarwaha@melancthontownship.ca | FX: 519-925-1110 | www.melancthontownship.ca |



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