



**ROADS SUB-COMMITTEE ELECTRONIC MEETING
THURSDAY, JANUARY 21ST, 2021 - 1:30 P.M.
AGENDA**

Join Zoom Meeting

<https://us02web.zoom.us/j/83994562799?pwd=bUNZeU9QVmxVa1crSzc2V1dvTnNIUT09>

Meeting ID: 839 9456 2799

Passcode: 228646

One tap mobile

+14388097799,,83994562799#,,,,*228646# Canada

+15873281099,,83994562799#,,,,*228646# Canada

Dial by your location

+1 438 809 7799 Canada

+1 587 328 1099 Canada

+1 647 374 4685 Canada

+1 647 558 0588 Canada

+1 778 907 2071 Canada

+1 204 272 7920 Canada

Meeting ID: 839 9456 2799

Passcode: 228646

1. Call to Order
2. Additions/Deletions/Approval of Agenda

Be it resolved that the agenda be approved as _____.

3. Declaration of Pecuniary Interest or Conflict of Interest
4. Approval of Draft Minutes - November 10, 2020

Be it resolved that the minutes of the Roads Sub-Committee meeting held on November 10, 2020 be approved as circulated.

5. Business Arising from Minutes
6. Correspondence Items
7. General Business
 1. Update from Public Works Superintendent
 2. Discussion on using Screenings vs Gravel on Township Roads
 3. Roads Equipment for 2021 Budget
 4. Development of Laneway between Main St. & Argyle St., Corbetton (Councillor Hannon)
 5. Southgate - Melancthon Boundary Road Agreement
 6. Other/Additions

8. Delegations

2:00 P.M. - Chris Knechtel, RJ Burnside and Associates - Bridge 11 Deck
Condition Survey and Recommendations

9. Recommendations to Council

10. Public Question Period

11. Confirmation Motion

Be it resolved that all actions of the Members and Officers of the Roads Sub-Committee with respect to every matter addressed and/or adopted by the Board on the above date be hereby adopted, ratified and confirmed; and each motion, resolution and other actions taken by the Board Members and Officers at the meeting held on the above date are hereby adopted, ratified and confirmed.

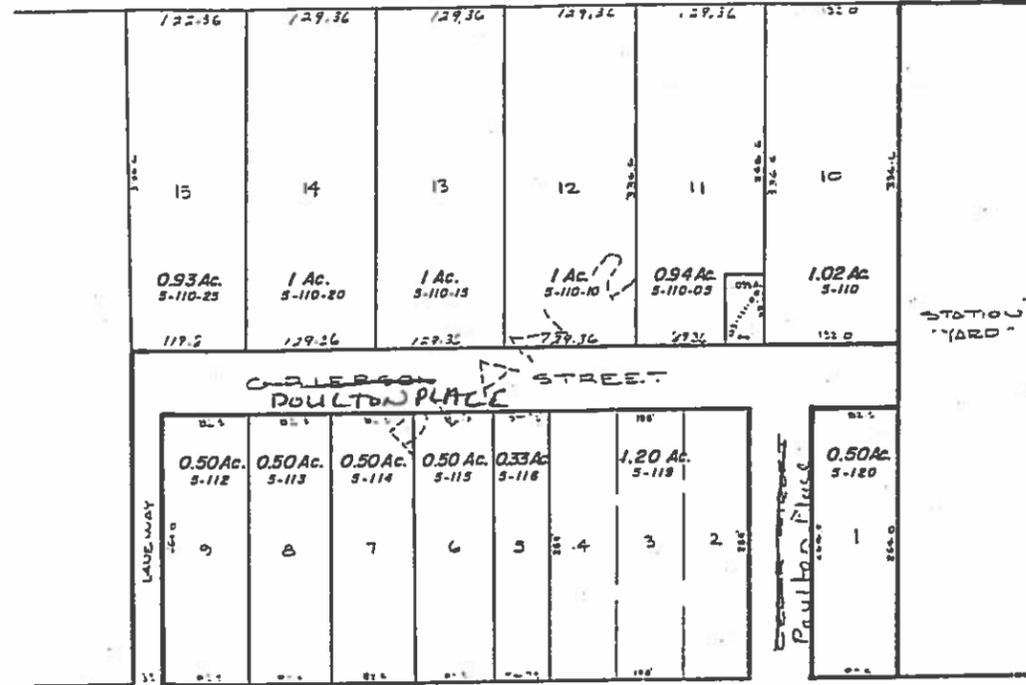
12. Adjournment and Date of Next Meeting

Be it resolved that we adjourn this Roads Sub-Committee meeting to meet again
on _____ at _____ or at the call of the Chair.

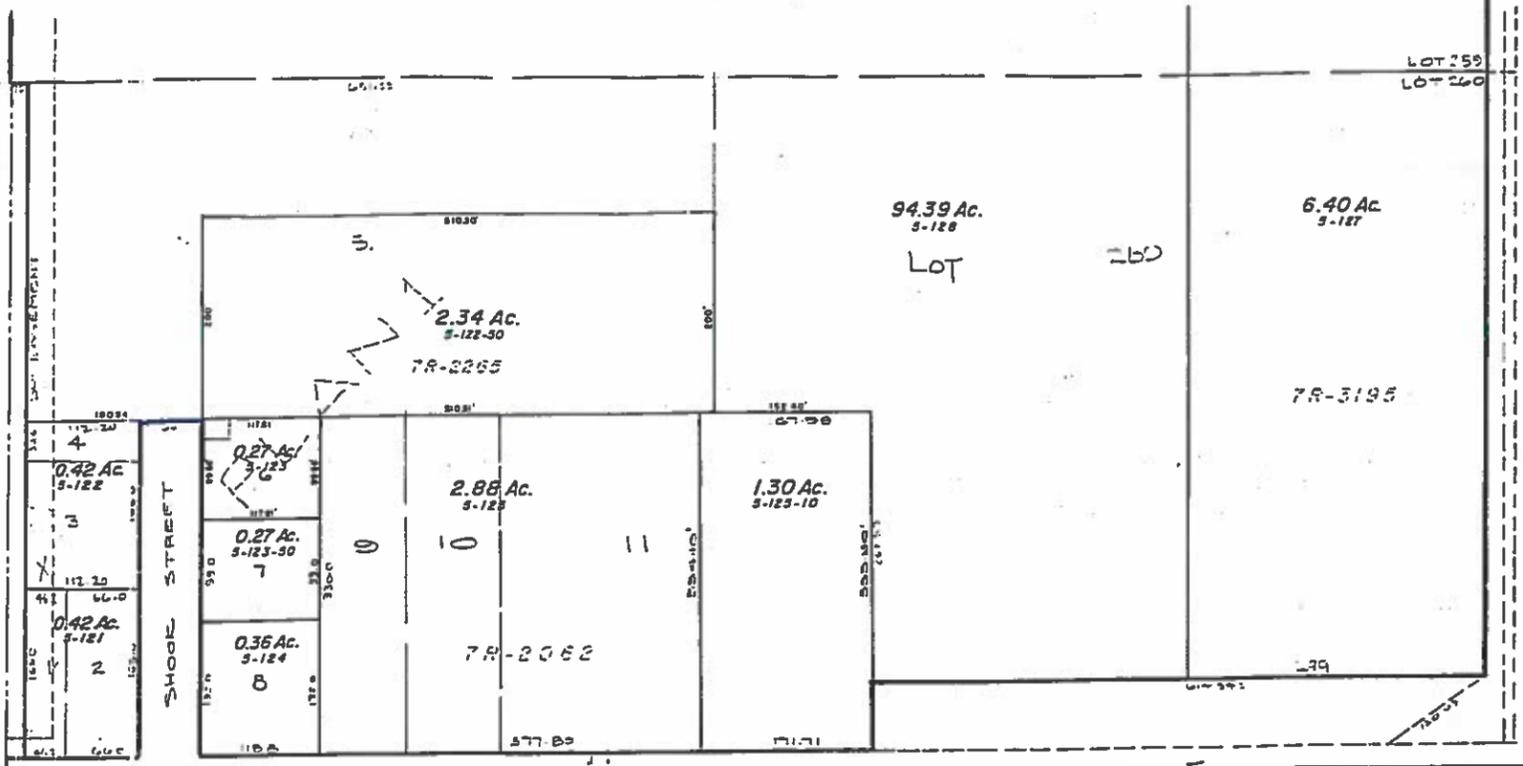
VILLAGE OF COMBES TOWN (PT)

MAP 5-080

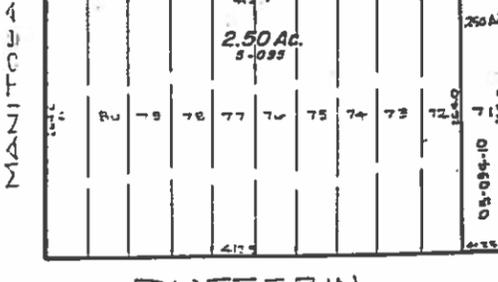
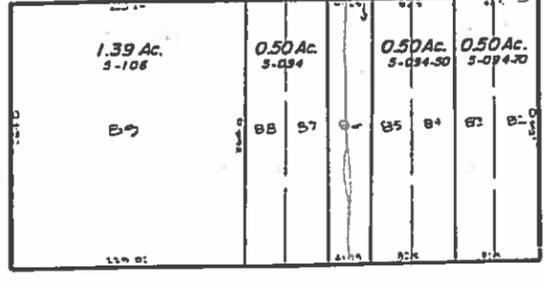
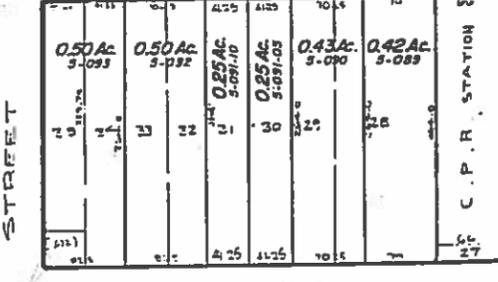
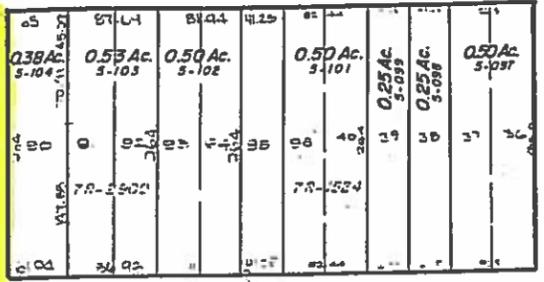
PLANS 1 & 2
SCALE 1" = 100'



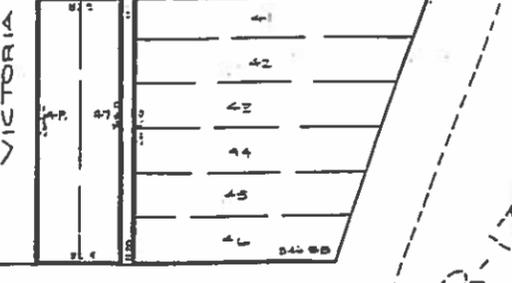
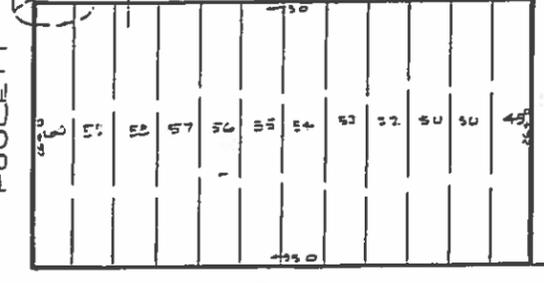
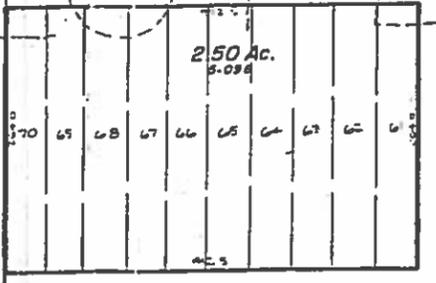
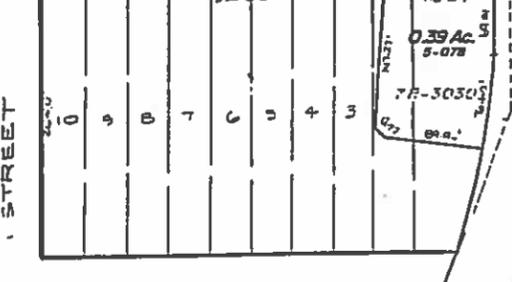
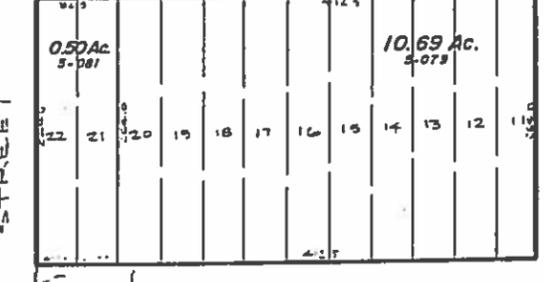
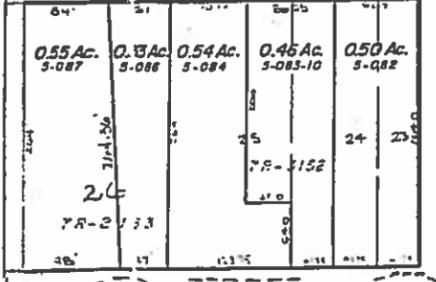
CANADIAN PACIFIC RAILWAY



5-105
7500



CANADIAN PACIFIC RAILWAY



7R-17

Denise Holmes

From: Chris Knechtel <Chris.Knechtel@rjburnside.com>
Sent: Wednesday, January 6, 2021 10:29 AM
To: Denise Holmes; Roads
Cc: Mark August; Matt Brooks; Mack Chiasson; Wendy Atkinson
Subject: Melancthon - Bridge 11 (8th Line SW) Recommendations

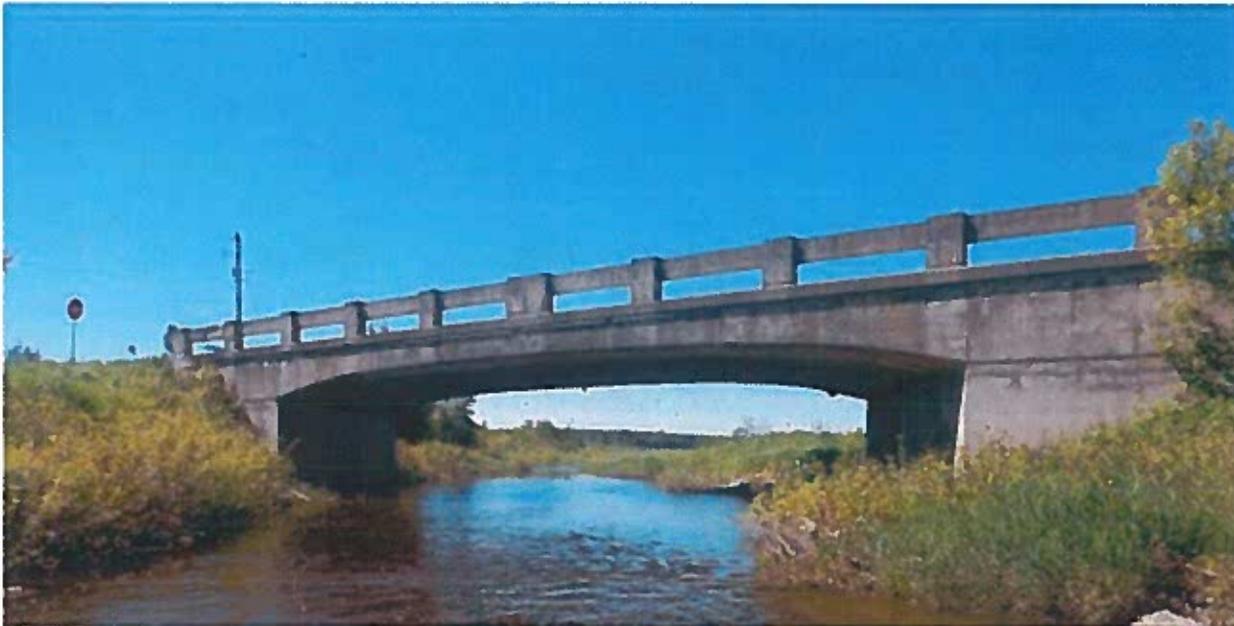
Happy New Year Denise and Craig,

Hope you both enjoyed the holiday break. We have completed our review of the Bridge 11 Deck Condition Survey (core samples). I wanted to send you this email to summarize our findings and recommendations on how to proceed, and let you know our thoughts on whether it makes sense to lump the Bridge 11 rehabilitation in one contract with the Bridge 13 rehab in Riverview.

1.10 Structure No. 11

2019 BCI: **69.6**

<u>Structure Name:</u>	Structure 011	
<u>Road Name:</u>	8th Line SW	
<u>Location:</u>	3.4 km North of HWY 89 (Lot 16, Con. 8 & 9 SW)	
<u>Structure Type:</u>	Cast-In-Place Conc. Rigid Frame	
<u>Number of Spans:</u>	1	<u>Span Lengths:</u> 16.2 (skew = 19.8) m
<u>Overall Structure Width:</u>	8.5 m	<u>Roadway Width:</u> 7.3 m
<u>Year of Construction:</u>	1960	<u>Current Load Limit:</u> N/A



Bridge 11

Asphalt Thickness (mm)	Waterproofing Present (Yes/No)	Defects in Concrete Cores (Yes/No)	Compressive Strength (MPa)	Corrosion Potential (% of deck)			Correct Con
				0.00V to -0.199V (likely no corrosion)	-0.200V to -0.349V (uncertain low corrosion)	-0.350V or Greater (probable active corrosion)	
N/A	No	Yes (Core #4 delamination)	40.0	21.1%	64.5%	14.4%	Core 1
							0.000

- Exposed concrete deck (No asphalt or waterproofing present)
- Localized spalls, delaminations and cracking noted in deck top (concrete patch repairs required in these areas)
- Compressive strength is satisfactory
- Corrosion and chloride contamination is relatively high in a few localized areas, however the rest of the structure is relatively low. Core 2 has a chloride content greater than 0.05% and additional concrete removals are anticipated to these specific areas (mainly over the south abutment wall and centreline of the structure). **The good news is full deck replacement is not required**
- Recommend rehabilitating structure with only localized concrete patch repairs.
- The remainder of the structure (i.e. barrier, abutments, soffit, wingwalls, etc.) were found to be in generally good condition and the minor defects noted matching what was previously observed during the bridge inspection report

Proposed Scope of Work

- The scope of work recommended to rehabilitate Bridge 11 can be limited to the following which will help save the Township money on construction costs for this project, as the results of the DCS indicated the existing concrete is suitable to be reused.
 - Concrete patch repairs to the deck and throughout structure in localized areas (include corrosion inhibitors in deck top patches)
 - Replace deck drains
 - Waterproof and pave structure
 - Consider replacing barrier system (current system is non-code conforming)
 - Consider installing steel beam guide rail on approaches

Construction Cost Estimate

Bridge 11

- Option 1 – Maintenance (all of the above, but no barrier or guide rail work) - \$230k +/-
- Option 2 – Full Rehabilitation (include replacing barrier and install guide rail) - \$350k +/-

Bridge 13

- Rehabilitation scheduled to tender in Jan/Feb 2021 - \$200k +/-

Recommendation

- Given the relatively high corrosion and chloride contamination found in Bridge 11 and the exposed concrete deck, we recommend that at a minimum Option 1 noted above be completed within the next year or two before the contamination spreads.
- **If the Township has funds in their budget for 2021**, we recommend combining Bridge 11 and Bridge 13 into one contract (given their close proximity and similar scope of work). If the Township is comfortable with leaving the existing barrier system at Bridge 11, the total construction budget at both bridges would be \$430k +/-.

- If the Township does not have funds in their 2021 budget to complete both bridges, we recommend proceeding with Bridge 13 in 2021 (\$200k) and completing the Option 2 design for Bridge 11 in 2021, construction would then follow in 2022 or 2023 (\$350k), depending on the Township's Capital Works budget.

We expect to have a tender ready package for Bridge 13 this month, which would allow the Township to secure a very competitive price. If the Township decides to include Bridge 11 in the contract, we could have the design and tender package ready for early spring 2021 (Option 1), still in time to receive competitive pricing.

I would be happy to present this to the Roads Committee or Council and discuss further to ensure everyone is on the same page.

Just let me know if a conference call would be beneficial in the meantime once you have had a chance to review.

Chris

Chris Knechtel, P.Eng.
Project Engineer

R.J. Burnside & Associates Limited | www.rjburnside.com
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From: mabdollahi@bridgecheckcanada.com <mabdollahi@bridgecheckcanada.com>
Sent: Wednesday, November 18, 2020 4:42 PM
To: Mark August <Mark.August@rjburnside.com>
Cc: roads@melancthontownship.ca; holmes@melancthontownship.ca; Chris Knechtel <Chris.Knechtel@rjburnside.com>; akeramati@bridgecheckcanada.com; 'Savio DeSouza' <sdesouza@bridgecheckcanada.com>; Mack Chiasson <Mack.Chiasson@rjburnside.com>
Subject: RE: Township of Melancthon - Deck Condition Survey (Awarded)

Hi Mark,

Please find the attached report for Site No. 011.

Regards,
Moe

From: mabdollahi@bridgecheckcanada.com <mabdollahi@bridgecheckcanada.com>
Sent: November 3, 2020 3:11 PM
To: 'Mark August' <Mark.August@rjburnside.com>
Cc: 'roads@melancthontownship.ca' <roads@melancthontownship.ca>; 'holmes@melancthontownship.ca' <holmes@melancthontownship.ca>; 'Chris Knechtel' <Chris.Knechtel@rjburnside.com>; 'akeramati@bridgecheckcanada.com' <akeramati@bridgecheckcanada.com>; 'Savio DeSouza' <sdesouza@bridgecheckcanada.com>; 'Mack Chiasson' <Mack.Chiasson@rjburnside.com>
Subject: RE: Township of Melancthon - Deck Condition Survey (Awarded)

Hi Mark,

We are working on the report and you will have it by the end of next week.

Regards,
Moe

Mohammad (Moe) Abdollahi, P.Eng.



200 Viceroy Road, Unit 4
Vaughan, Ontario, L4K 3N8
T 905-660-6608 • F 905-660-6609 • C 416-940-0951
mabdollahi@bridgecheckcanada.com
www.bridgecheckcanada.com



From: Mark August <Mark.August@rjburnside.com>
Sent: November 3, 2020 9:09 AM
To: mabdollahi@bridgecheckcanada.com
Cc: roads@melancthontownship.ca; holmes@melancthontownship.ca; Chris Knechtel <Chris.Knechtel@rjburnside.com>; akeramati@bridgecheckcanada.com; 'Savio DeSouza' <sdesouza@bridgecheckcanada.com>; Mack Chiasson <Mack.Chiasson@rjburnside.com>
Subject: RE: Township of Melancthon - Deck Condition Survey (Awarded)

Morning Moe,

Just following up on the status of the report for Deck Condition Survey completed at Bridge 11 in Melancthon.

If you could please provide an update when you have a moment that would be appreciated.

Thank you,
Mark

Mark August
Engineering Assistant

R.J. Burnside & Associates Limited | www.rjburnside.com
Office: +1 800-265-9662 Direct: +1 519-938-3042

Mark August

Sent: Wednesday, September 23, 2020 1:33 PM
To: mabdollahi@bridgecheckcanada.com
Cc: roads@melancthontownship.ca; holmes@melancthontownship.ca; Chris Knechtel <Chris.Knechtel@rjburnside.com>; akeramati@bridgecheckcanada.com; 'Savio DeSouza' <sdesouza@bridgecheckcanada.com>; Mack Chiasson <Mack.Chiasson@rjburnside.com>
Subject: RE: Township of Melancthon - Deck Condition Survey (Awarded)

Hey Moe,

Thank you for providing the startup documents.

We will schedule to have a Burnside representative on site tomorrow afternoon during the fieldwork.

Please let us know if anything changes regarding the scheduling.

Thank you,
Mark

From: mabdollahi@bridgecheckcanada.com <mabdollahi@bridgecheckcanada.com>
Sent: Tuesday, September 22, 2020 2:28 PM
To: Mark August <Mark.August@rjburnside.com>
Cc: roads@melancthontownship.ca; holmes@melancthontownship.ca; Chris Knechtel <Chris.Knechtel@rjburnside.com>; akeramati@bridgecheckcanada.com; 'Savio DeSouza' <sdesouza@bridgecheckcanada.com>
Subject: RE: Township of Melancthon - Deck Condition Survey (Awarded)

Hi Mark,

Please find the attached requested documents, and also we are going on the site to complete our fieldwork for the structure as schedule below:

- Thursday, September 24 (1:00pm to 5:00 pm): Bridge 11 is a 16.2 m (19.8 m skew) single span cast-in-place rigid frame structure located on 8th Line SW approximately 3.4 km northwest of Highway 89 (44.071011, -80.370319).

Our site contact is Amer (647-278-7299).

Regards,
Moe

Mohammad (Moe) Abdollahi, P.Eng.



200 Viceroy Road, Unit 4
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mabdollahi@bridgecheckcanada.com
www.bridgecheckcanada.com



From: Mark August <Mark.August@rjburnside.com>
Sent: September 14, 2020 4:56 PM
To: Alireza Keramati <akeramati@bridgecheckcanada.com>; sdesouza@bridgecheckcanada.com
Cc: Craig Micks (roads@melancthontownship.ca) <roads@melancthontownship.ca>; Denise Holmes <dholmes@melancthontownship.ca>; Chris Knechtel <Chris.Knechtel@rjburnside.com>
Subject: Township of Melancthon - Deck Condition Survey (Awarded)

Good afternoon Reza,

We are pleased to inform you that the Township of Melancthon has awarded this project to Bridge Check Canada for the quoted price of \$2,765.00 (+HST) to complete the work as outlined in Option 2. Please invoice the Township directly for this work (attn: Denise Holmes, AMCT, CAO/Clerk)

When you have a moment, can you please forward us a copy of your project start up paperwork (i.e. insurance, WSIB, traffic control, etc.) and provide us with a mobilization date so we can schedule a representative to meet you on site during the field work. If the final report could be completed by **October 20, 2020** that would be great.

Looking forward to working with your team.

Let us know if you have any questions or concerns.

Thank you,
Mark

 **BURNSIDE**
Mark August
Engineering Assistant

R.J. Burnside & Associates Limited
15 Townline, Orangeville, Ontario L9W 3R4
Office: +1 800-265-9662 Direct: +1 519-938-3042
www.rjburnside.com

COVID 19: We remain open for business

The health and safety of our employees and clients is of paramount importance. Most of our staff are working remotely and continue to serve clients using our well established collaborative technology platforms. For our full COVID 19 response please [click here](#).

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Thank you.

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