

Engineers Report

Project Name:	Servicing Capacity Review	Report No.:	2
Job Site Address:	311 Second St., Midland	Date:	2022.07.05
Contractor:	Morgan Planning & Development Inc.	Weather:	Rain, 22 degrees
Site Representative:	Siobhan Ducette (homeowner)	File No.:	22-6610
Reported By:	David Lalonde	Permit No.:	Unknown

Purpose of Report:

On 2022-05-31, we were on site to inspect the multi residential unit located at the address noted above and commented on the adequacy of the water service. This report should be read in conjunction with the plan supplied by Ouellet & Associates 19-285 and dated Dec 12/21 and our earlier field review report dated June 14, 2022. Subsequent to these visits we had suggested a number of options to reduce the final hydraulic load of this residence.

Comments:

Of the strategies outlined to reduce the total hydraulic load of the building the preferred option was:

1. The shower or tub in apartment 3 could be decommissioned to reduce the load. The bathroom would then become a bathroom group rather than a 4 piece bathroom.

In the event that the fourth apartment is added this measure will ensure that the building will remain in compliance with the hydraulic loading requirements of the OBC. It would also be important to note that in this case, no additional fixtures could be added in the future.

I trust the above mentioned information will be helpful. Please feel free to contact our office if you have any questions or concerns.



David Lalonde P.Eng.



Distribution: Siobhan Ducette (via email)

Media Recorded: Photographes

*(*Re-inspection is required if there are any deficiencies listed)*

"This review is limited to a visual inspection. It does not consider any component of the structure that was not visible at this time or has been modified or altered since that date. Consideration has also been given to information provided by the client or the staff who constructed the building. If it is discovered that any of this information is incorrect or inaccurate, it will affect the validity of any conclusions drawn and could result in the opinions found above being withdrawn."

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Field Review Report

Project Name:	Servicing Capacity Review	Report No.:	1
Job Site Address:	311 Second St., Midland	Date:	2022.06.14
Contractor:	Morgan Planning & Development Inc.	Weather:	Sunny 22 degrees
Site Representative:	Siobhan Ducette (homeowner)	File No.:	22-6610
Reported By:	David Lalonde	Permit No.:	Unknown

Purpose of Visit:

On 2022-05-31, we were on site to inspect the multi residential unit located at the address noted above and commented on the adequacy of the water service. This report should be read in conjunction with the plan supplied by Ouellet & Associates 19-285 and dated Dec 12/21. No other documentation relevant to this review was supplied. The evaluation performed was limited to the size of the water supply system and does not extend to any other part of the building.

Observations:

The subject property is a single building containing a number of residential apartments. There are currently three units in the building that are occupied. It is the client's intention to develop a fourth apartment. The purpose of this review is to determine if the water supply is adequate to accommodate the additional hydraulic load that would result from the fourth unit.

It appears that the supply to the building is a single ¾ inch copper line. The origin of the supply was not visible but the inlet to the water meter was visible and was ¾ inch copper. A survey of the building indicated was performed and the results are listed below:

Description	Fixture	Hydraulic Load (HL)	Final HL 7.6.3.2 (3)
Apartment 1	Bathroom group and Kitchen sink	5	3.75
Apartment 2	Bathroom group and Kitchen sink	5	3.75
Apartment 3	Bathroom group and Kitchen sink	5	3.75
Apartment 3	Shower head 9.5 l/min per head	1.4	1.05
Apartment 4	Bathroom group and Kitchen sink	5	3.75
All Units	Clothes Washer 3.5 Kg	1.4	1.05

Deficiencies:

In its current condition the addition of a fourth apartment would exceed the capacity of the supply to this building. As a $\frac{3}{4}$ inch supply, the maximum number of fixture units cannot exceed 16. The expected load with apartment 4 is 17.1.

Comments:

There are a number of strategies which might be employed to reduce the total hydraulic load of the building if the fourth apartment were to be constructed:

1. The shower or tub in apartment 3 could be decommissioned to reduce the load. The bathroom would then become a bathroom group rather than a 4 piece bathroom.
2. The common laundry facility could be removed. This would have the same impact as number 1.
3. The water service could be increased to a 1" supply.
4. There are more elaborate ways of increasing the supply which would require the approval of the Midland Public Utilities. Booster pumps are often employed when supply is not sufficient. Additionally, the use of a large pressure tank and booster pump would increase the instantaneous water pressure.

In any event, if the fourth apartment were to be added, one of the above solutions would need to be employed. With the exception of number 3, which would allow some significant expansion, the plumbing in this unit would be limited to a bathroom group (3 piece bathroom). It would also be important to note that in this case, no additional fixtures could be added in the future.

I trust the above mentioned information will be helpful in determining a path forward. Please feel free to contact our office if you have any questions or concerns.



David Lalonde P.Eng.



Distribution: Siobhan Ducette (via email)

Media Recorded: Photographes

(*Re-inspection is required if there are any deficiencies listed)

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