

**Larson Engineering, Inc.**  
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November 11, 2019

Mr. Ray Moore  
PO Box 270422  
Saint Paul, MN 55127

Re: Building Facade Assessment  
1258 Albemarle Street  
Saint Paul, MN 55117  
LEI Project No: 11191342.000

Dear Mr. Moore:

Larson Engineering, Inc. (LEI) was contacted by you on October 29, 2019 in regard to the potential structural issues with the façade at the single-family residence located at 1258 Albemarle Street in Saint Paul, MN. LEI performed a site observation on October 31, 2019 to view the potential structural issues with the façade on the north wall of this residence. Our assessment was limited to the north wall of this residence and does not include any other areas.

Based on my conversations with you, the north wall was tuckpointed within the last year and it is your recollection that the bow in the wall has been there for over 30 years.

LEI observed the following conditions:

1. We observed some stair step cracking along the north wall at the main floor level of this residence (See Photos 1 and 2).
2. We also notice some wood infill framing around the perimeter of the exiting two windows on the north side of this residence. Some of the framing only extended two-thirds up the window jamb (See Photo 3). We also observed some deteriorated sealant along the jamb and at the head of the windows (See Photo 4).
3. Six inches east of the easternmost window, the wall was observed to be out of plumb by 1-3/4" over 4ft (See Photo 5).
4. Six inches west of the easternmost window, the wall was observed to be out of plumb by approximately 4-3/4" over 4ft (See Photo 6).
5. Six inches east of the westernmost window, the wall was observed to be out of plumb by approximately 4-3/16" over 4ft (See Photo 7).
6. Six inches west of the westernmost window, the wall was observed to be out of plumb by approximately 2.5" over 4ft (See Photo 8).
7. The north foundation wall below the two windows above appears to be only 1/2" to 3/4" out of plumb in 4ft (See Photos 9 and 10).

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8. The inside face of the interior wall behind the brick façade along the north wall was out of plumb at an approximate rate of ¼" in 4ft (See Photo 11).
9. The wood framing around the perimeter of the basement appears to be a little soft.

Based on the conditions observed around the perimeter of the two main level windows on the north side of the home, we would suggest replacing the wood that only goes up to a portion of the jamb and replace it with wood that extends up to the window head. We would also suggest removing and replacing the deteriorated sealant around the perimeter of the window.

The masonry around the two main level windows on the north side of the home appears to be intact and therefore, we would suggest monitoring this masonry wall and reviewing a year from now to evaluate the condition of the existing wall at this location. At the time of the follow-up evaluation, if the mortar has been displaced or severely cracked, we would suggest removing the bowed-out portion of the wall and rebuilding this portion of the wall.

Due to the condition of the north foundation wall, we would suggest that the bowing out of the existing wall on the main level is a result of the condition limited to the façade on the main level of the residence.

Deteriorated wood member around the perimeter of the basement window should be removed and replaced, if found to be rotten.

If you have any questions regarding this report, please feel free to contact us.


Sincerely,  
**Larson Engineering, Inc.**



Kerry Rauschendorfer  
Professional Engineer

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

PRINT NAME Kerry Rauschendorfer

SIGNATURE 

DATE 11/11/2019 REG. NO. 45840

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Photo 1: Photo of the two main level windows on the north side of the residence.



Photo 2: Another photo of the north wall in question, with stair step cracking starting at the sill of from the westernmost window.

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Photo 3: Deteriorated sealant on wood molding around perimeter of window stops show of window head.



Photo 4: Deteriorated sealant observed around jamb and window head or easternmost window.



Photo 5: The north wall east of the window opening was approximately 1-3/4" out of plumb in 4ft.



Photo 6: The north wall west of the window opening was approximately 4-3/4" out of plumb in 4ft.



Photo 7: The north wall east of the window opening was approximately 4-3/16" out of plumb in 4ft.



Photo 8: The north wall west of the window opening was approximately 2.5" out of plumb in 4ft.



Photo 9: Measurement of the plumbness of the foundation wall east of the basement window on the north side of the residence.



Photo 10: Measurement of the plumbness of the foundation wall west of the basement window on the north side of the residence.



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Photo 11: Inside face of interior wall behind the brick façade along the north wall was out of plumb a little less than  $\frac{1}{4}$ " in 4ft.