

Marcia Moermond - 23 Isabel St W

From: Stephen Ubl
To: Moermond, Marcia
Date: 2/17/2012 12:32 PM
Subject: 23 Isabel St W
CC: Magner, Steve; Seeger, Jim
Attachments: 23 Isabel St W.Beedle Ltr 2-15-12_1.doc

Ms. Moermond,

I reviewed the property of 23 Isabel W. with the owner today. We reviewed all levels of the interior to determine what the expectations would be to "build-out" the interior in a way that would satisfy the code and your orders (see attached).

All interior wall coverings, floor coverings and ceiling coverings have been removed. All framing is exposed which means all framing corrections will be completed prior to insulating or installing any mechanical systems. The exterior envelope consists of a masonry (brick) wall from the limestone foundation to the rafters on the roof. The masonry wall is approximately 12" thick with no weather barrier on the interior. The joists are bearing on the masonry (recessed into the wall) and there is minimal evidence of moisture infiltration through the masonry walls. The owner agreed to address all of the areas that show evidence of moisture infiltration prior to insulating. There are also areas on top of the foundation wall that will require concrete/cement and or block in-filling to support the full depth of the masonry wall that rests on top of the foundation (voids need to be filled in).

There exists vertical wood strips (approximately 1" x 2", not nominal) on the interior of the masonry walls that were used to install plaster over the exterior masonry wall. These strips of wood were basically used as studs and were nailed to horizontal slats (3/8" - 1/2" thick) that were embedded into the masonry wall as nailing supports for the wood strips. (VERY INTERESTING HOW THIS DESIGN LASTED AS LONG AS IT DID) At this time, it appears that these wood strips would not be an acceptable framing member to support new sheetrock. A second challenge to the existing exterior wall is the energy wall design that would need to be designed, reviewed and approved by DSI in order to install an exterior energy wall against the masonry wall. A design submitted should reflect moisture issues from the exterior as well as the interior, the overall R-value of the entire exterior envelope and the vapor retarder design for the warm side of the exterior envelope. A third issue regarding the exterior wall is the electrical code. The stud wall design created for the energy wall will need to be deep enough to accept the electrical boxes and wiring per the current electrical code. As an example, if the stud wall is not deep enough for the requirements of the electrical code to receive wiring, the wiring will then need to be installed in conduit throughout the dwelling on all of the exterior walls.

There is a considerable amount of framing corrections needed throughout the house. Draft stop issues, illegal notching and inadequate bearing is common at basically every wall, floor or ceiling. There will need to be some calculations performed to ensure that the wood members are adequate to support the loads placed on them. The footings in the basement will also need to be evaluated to determine if they are adequate to carry the loads placed on them.

The space in the upper level of the dwelling is basically a large storage space . . . I would not define it as an attic. The floor boards are in need of repair and you can easily see the floor elevation is not level or flat. Again, bearing loads and load transfers will need to be evaluated to repair the interior framing members of this dwelling to help create a safer floor. The owner has stated that they will be scheduling to replace the flight of stairs to the storage space in order to make the access to the space safe and code compliant. The storage space has 3-1/2" batt insulation in the rafter cavities (R-11) but will need additional insulation (probably sheet insulation) in order to comply with the minimum code requirement of R-18 insulation on sloped ceilings. If the ceiling is properly insulated, if the stairs are replaced, if the windows are brought up to code and when the floor is repaired - then I think there should be a discussion as to whether the storage space is identified as a habitable space or remains a storage space. If it is to remain a storage space - there is good argument to be made that the insulated ceiling will trap and hold the warm, moist air from the floors below, potentially causing the moisture in the air to condense and create an atmosphere for developing mold. Heating the space would eliminate this potential problem.

Finally, as you have suggested, it is important to develop a long-term plan for this property. There needs to be an established scope of work created to determine how the walls and ceilings are going to be insulated. The energy package submitted to D.S.I. for approval will help the owner create an energy audit of the building which will help in determining what size of heating appliance will be needed to heat this dwelling. The storage space would be a significant component of the energy audit if the space were to become habitable space.

The long-term plan should also help identify three things:

- 1.) The time it will take to complete the rehabilitation of the dwelling
- 2.) The deadline for each phase/stage of construction
- 3.) The stage/phase of the project at which time you could allow **ANY** occupancy of the building

This project requires a commitment from the owner, D.S.I. and the City in order to ensure that this project does not extend beyond an accepted, scheduled completion. A commitment to a scope of work, schedule and plan must be adhered to satisfy the City's Vacant Building requirements. I am open to discuss any plan that is submitted to you to help you make the best decision for the owners, the neighborhood and the City of St. Paul. Please contact me if you have any questions regarding this property.

Sincerely,

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