

Relocation Feasibility Report  
Bergstein Shoddy Mill and Warehouse  
6041 Stagecoach Trail North  
Oak Park Heights, Minnesota

March, 2005



 Claybaugh Preservation Architecture Inc

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## SITE VISIT REPORT

**Bergstein Shoddy Mill and Warehouse**

**6041 Stagecoach Trail North**

**Oak Park Heights, Minnesota**

**Prepared by: Claybaugh Preservation Architecture Inc**

### 1. SITE VISIT

1.1. A site visit was made on January 25, 2005 to look into the feasibility of moving the mill and warehouse to a new location in the vicinity of the existing site.

1.2. Participating in the site visit were:

- Jackie Sluss, MnDOT
- Mary McComb, Oak Park Heights council member
- Eric Johnson, Oak Park Heights city administrator
- Dennis Gimmestad, State Historic Preservation Office
- Larry Stubbs, Stubbs Building Movers
- Robert Claybaugh, CPAi
- John Koller, building owner

### 2. SHODDY MILL

2.1. **General Description:** The mill is a one-story stone building constructed with various kinds of dressed and rubble stone, and brick. The roof is supported on a wood beam and steel angle purlins with a plywood deck and roll composition roofing. The floor appears to be dirt.

#### 2.2. Stone Wall Existing Conditions:

- A. The apparent settlement at the southeast corner of the building and other signs of movement would indicate that the building is on fairly shallow foundations. The 18" thick walls and small footprint of the building would account for its fairly sound condition. The corners of the building were laid with dressed stone quoins that lend stability to the structure. Three corners of the building are plumb and square. The southeast corner has settled and the east portion leans out at the top. This corner also has the most mortar joint deterioration.
- B. Other wall cracks are apparent over the openings on the east and west walls. These also coincide with the wood beam at the roof level. This beam is cracked and no longer offers any support to the roof purlins or deck.
- C. There are also cracks on the north wall associated with the overhead door opening. The owner indicated that there were two smaller door openings with segmented brick arches prior to cutting in the overhead door opening. The larger opening was cut and a wood lintel installed to span the new opening. A portion of one of the arch openings is still visible.



### **2.3. Roof Structure Existing Conditions:**

- A. The steel angle roof purlins are intact and do not appear to have settled. It is our assumption that the cracked wood beam was for roof support and that the original roof joists could have been wood.
- B. The roof deck is newer plywood in good condition.
- C. The roof covering appears to be composition roll roofing. The snow cover precluded confirmation of materials or condition.

### **2.4. Other Existing Conditions:**

- A. There are ends of three wood beams at mid-height of the north and south stone walls. The beams appear to have spanned the building for an unknown purpose.
- B. The original east wall opening has been closed with masonry and a smaller opening cut higher in this wall.
- C. None of the doors on the north wall are original. The west door could be original.

### **2.5. Recommendations:**

- A. The southeast corner of the masonry may have to be rebuilt due to the amount of settlement and shift that has occurred. The remainder of the wall cracks can be repaired without reconstruction. Rebuilding of a deteriorated portion of a building with original and in-kind materials must meet the requirements of a Restoration under the Secretary of the Interior's Standards for the Treatment of Historic Properties.
- B. Relocation of the building on a new foundation to frost depth of 42 inches would probably solve most of the wall cracking issues.
- C. If the building can be moved intact to an appropriate site and repairs are done after the building is on a new foundation, its historic integrity would be largely intact and would maintain its National Register eligibility.
- D. Our structural engineer, LS Engineers, agree that any repairs should be done after the move because there could be some cracking of the old mortar during the move and that the building can be moved if it can be held intact during the move.
- E. The mortar appears to be in good condition, but the walls do not appear to have been constructed in a way that ties the inner and outer portions of the walls together. The concern will be to hold the building together during the move.
- F. The masonry walls will have to be banded on the exterior and braced on the interior to hold the walls together.
- G. The walls should also be diagonally braced to hold the building shape since we cannot depend on the roof deck for much diagonal bracing.
- H. The recommended method of bracing and moving the stone mill is provided by Stubbs Building Movers in their attached report.
- I. If the building would have to be dismantled and rebuilt stone by stone, it is a reconstruction and in my opinion would not maintain enough of its historic integrity to maintain its National Register eligibility.
- J. The overhead door is not from the historic period and should be removed, and the original segmented arch opening rebuilt.



**2.6. Existing Condition Photographs:**



*Shoddy Mill-West Elevation*



*Shoddy Mill-South Elevation*



*Shoddy Mill-Northeast Elevation*



*Shoddy Mill-Northwest Interior*



### **3. WAREHOUSE**

**3.1. General Description:** The warehouse is a two-story wood framed building constructed with 2x6 and 2x8 wood stud bearing walls sheathed in wood with wood clapboard siding. The second floor framed with 2x8 wood joists bearing on the exterior stud walls and a center wood beam. The roof is framed with 2x6 wood rafters and covered with metal roofing.

#### **3.2. Structural Existing Conditions:**

- A. The building is set on a dressed stone foundation that appears to be in good condition with no signs of settlement or movement.
- B. The original wood ground floor construction has been removed and a concrete slab installed. It is our understanding that the wood structure still rests on its original wood perimeter sill beam.
- C. The wood stud bearing walls appear to be in good condition. The diagonal wood braces installed on the interior of the first floor walls contribute to the stability of the building. The braces appear to be 3" thick and are nailed to each exterior wall stud. One of the braces was cut to install the overhead door.
- D. The second floor wood joists are supported on a center wood beam and the exterior stud walls. One end of the beam acts as a truss with the addition of an inverted kingpost and iron tension rod. We do not know if this is original. There is evidence of sagging in the second floor over this end of the building that indicates that the truss is inadequate for storage loads.
- E. The roof structure is open to view and appears to be in good condition.

#### **3.3. Exterior Building Shell Existing Conditions:**

- A. The roof is a newer metal roof in good condition. The 1950 photograph in the owner's office shows a standing seam metal roof that could have been original to the building.
- B. Three sides of the building have had new wide board siding installed over the original wood clapboard siding on the north, south and west facades. The new siding appears to be in good condition.
- C. All of the original door and window openings appear to be still in place. The windows on the ground level have been replaced.
- D. The overhead door, entry door and window in the office all appear to be additions for the auto repair shop.
- E. Gypsum board was installed on the exterior walls and ceiling of the first floor auto shop space for fire code compliance.

#### **3.4. Interior Existing Conditions:**

- A. The ground floor office and toilet were added for the auto repair business. We would also assume that the stair was added and that the original second floor access stair is gone.
- B. The rope lift to the second floor is still intact and operable.
- C. The second floor is unfinished and appears to be original.



**3.5. Recommendations:**

- A. The building is in good stable condition and should be able to be successfully moved to a new location and placed on a new frost depth foundation.
- B. The recommended method of moving and bracing the warehouse is provided by Stubbs Building Movers in their attached report.
- C. The visible portions of the stone foundation should be reconstructed to match the existing appearance.
- D. The existing overhead door should be removed as part of the restoration along with the interior partitions.

**3.6. Existing Condition Photographs:**



*Warehouse-Southwest Elevation*



*Warehouse-Southwest 1950s*



*Warehouse-East Foundation*



*Warehouse-Northwest Interior*



*Warehouse-East Interior*

*Warehouse-Attic Lift*

#### **4. RELOCATION SITES**

##### **4.1. Observations:**

- A. If it is possible to retain the existing building relationship to each other, and the road and St. Croix River, the historic character of the site would be similar to the existing site. Every effort should be made to keep the original site characteristics at the new site.
- B. The attached 1924 Sanborn map and the plat map show buildings to be on portions of 4 fifty foot wide lots. Three lot widths or 150 feet would be adequate and is the minimum width for a new building site.
- C. The lots are shown deeper in the Sanborn map before the highway 36/95 right-of-way took much of the rear of the lots. The warehouse is currently very close to the highway right-of-way. The recommended minimum depth for a new building site is 150 feet.

##### **4.2. Recommendations:**

- A. MnDOT is currently working with governmental units to find a suitable site for the property. MnDOT will move the buildings and place each on a concrete foundation to the frost line (42").
- B. The buildings must be re-located together and must retain a similar configuration and orientation to the road/street at the new site. The buildings will require a 150' by 150' site. The new site must meet the Secretary of Interior's Guidelines for the Treatment of Historic Properties, that is, it should provide a setting compatible to the understanding of the historic property.

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