

## ANN ARBOR HISTORIC DISTRICT COMMISSION

### Staff Report

**ADDRESS:** 217 South Seventh Street, Application Number HDC14-146

**DISTRICT:** Old West Side Historic District

**REPORT DATE:** August 14, 2014

**REPORT PREPARED BY:** Jill Thacher, Historic Preservation Coordinator

**REVIEW COMMITTEE DATE:** Monday, August 11, 2014

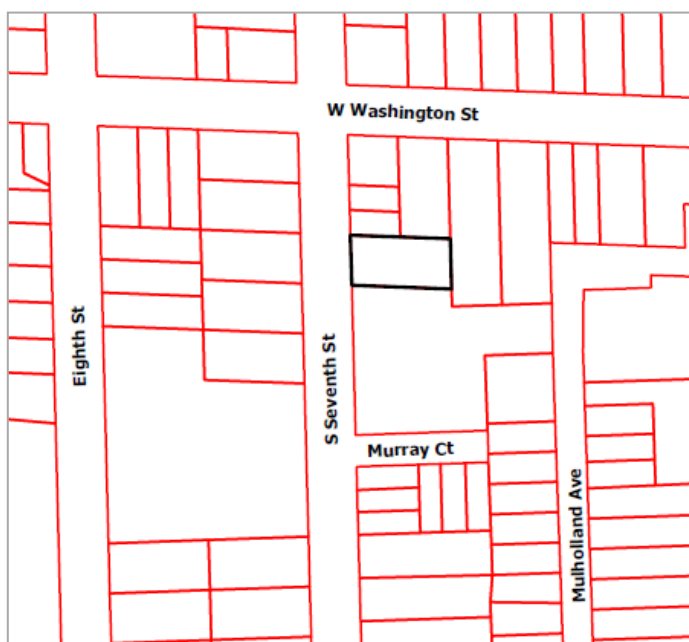
	<b>OWNER</b>	<b>APPLICANT</b>
<b>Name:</b>	Matthew & Kelly Grocoff	Same
<b>Address:</b>	217 South Seventh Street Ann Arbor, MI 48104	
<b>Phone:</b>	(734) 224-8877	

**BACKGROUND:** This 1 ¾ story gable-fronter features a full-width front porch and cut stone foundation. This address first appears in City Directories in 1903 as the home of renter George Rustine, an engineer, and his wife Alice C. The Rustines probably also lived there in 1902, when they are listed as living in a house with no address on the same block. In 1910, Herman C. Steinke, a painter, and his wife lived there. In 1914 the owner was Philip Gauss, Jr., and the Gauss family continued to live at the address until 1947.

The house was purchased by the current owners in 2006, and they have removed asphalt siding and repaired the original wood clapboards, repaired the original wood windows throughout the house and installed new storms, installed a geothermal heating /cooling/hot water system, insulated the attic and walls, installed solar panels, and performed numerous other energy efficiency activities.

**LOCATION:** The house is located on the east side of South Seventh Street, south of West Washington Street and north of West Liberty Street.

**APPLICATION:** The owners are proposing to use replace existing asphalt shingles with metal shingles.



**APPLICABLE REGULATIONS:****From the Secretary of the Interior's Standards for Rehabilitation:**

- (9) New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.
- (10) New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

**From the Secretary of the Interior's Guidelines for Rehabilitating Historic Buildings (other SOI Guidelines may also apply):****Roofs**

*Recommended:* Identifying, retaining and preserving roofs – and their functional and decorative features – that are important in defining the overall character of the building. This includes the roof's shape, such as hipped, gambrel, and mansard; decorative features, such as cupolas, cresting chimneys, and weather vanes; and roofing material such as slate, wood, clay tile, and metal, as well as its size, color, and patterning.

If using the same kind of material is not technically or economically feasible, then a compatible substitute material may be considered.

**Building Site**

*Recommended:* Identifying, retaining, and preserving buildings and their features as well as features of the site that are important in defining its overall historic character.

*Not Recommended:* Removing or radically changing buildings and their features or site features which are important in defining the overall historic character of the property so that, as a result, the character is diminished.

**From the Ann Arbor Historic District Design Guidelines (other Guidelines may apply):****Roofs**

*Appropriate:* Retaining and maintaining original historic roofing materials, roof shape, dormers, chimneys, and build-in or decorative gutters & downspouts.

Replacing historic roofing material that is deteriorated beyond repair with matching materials. If using the original is not technically feasible, then compatible substitute materials may be considered.

**STAFF FINDINGS**

- 1) The homeowners are attempting to convert their house (which is already net zero energy) to net zero water with help from the U-M College of Engineering BLUElab Living Building Challenge Team. This will require capture of rainwater off the house. The homeowners

had the current asphalt shingles tested and they found high levels of lead leaking into the captured rainwater. They propose to replace the asphalt shingles on the north roof face and the rear addition with Matterhorn steel shakes. The south roof face would remain as is, completely covered by solar panels. Removal of the panels, replacement of the roof, and reinstallation of the panels is cost prohibitive.

- 2) The steel shake system comes in four natural-looking tan/brown/gray colors. In staff's opinion, these steel shakes have come a long way in the last decade when molded steel roofs had a much less wood-like appearance. No one will mistake this steel roof for wood shakes, but they wouldn't mistake an asphalt roof for wood, either.
- 3) Staff's opinion is that steel shakes are a compatible substitute material on this house. No character-defining features or original materials will be compromised by the work, and the work is reversible. Staff believes the application meets the *SOI Standards and Guidelines*, and the *Ann Arbor Historic District Design Guidelines*.

## MOTIONS

*Note that all motions are worded in the affirmative, and are only suggested.*

I move that the Commission issue a certificate of appropriateness for the application at 217 South Seventh Street, a contributing property in the Old West Side Historic District, to replace asphalt shingles with metal shingles, as proposed. The work is compatible in exterior design, arrangement, texture, material and relationship to the rest of the building and the surrounding area and meets *The Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings*, in particular Standards 9 and 10 and the guidelines for roofs and building site, as well as the *Ann Arbor Historic District Design Guidelines*, particularly as they pertain to roofs.

## MOTION WORKSHEET:

I move that the Commission issue a Certificate of Appropriateness for the work at 217 South Seventh Street in the Old West Side Historic District

\_\_\_\_\_ Provided the following condition(S) is (ARE) met: 1) STATE CONDITION(s)

The work is generally compatible with the size, scale, massing, and materials and meets the Secretary of the Interior's Standards for Rehabilitation, standard(S) number(S) (*circle all that apply*): 1, 2, 3, 4, 5, 6, 7, 8, 9, 10

**ATTACHMENTS:** application, drawings, photos.


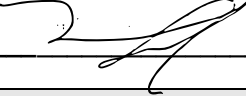





**City of Ann Arbor**  
**PLANNING & DEVELOPMENT SERVICES — PLANNING SERVICES**

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**ANN ARBOR HISTORIC DISTRICT COMMISSION APPLICATION**

<b>Section 1: Property Being Reviewed and Ownership Information</b>
Address of Property: <u>217 S. Seventh St.</u> Historic District: <u>Old West Side</u>
Name of Property Owner (If different than the applicant): <u>Matthew &amp; Kelly Grocoff</u>
Address of Property Owner: <u>217 S. Seventh St.</u>
Daytime Phone and E-mail of Property Owner: <u>734-224-8877</u>
Signature of Property Owner: <u></u> Date: <u>7-9-2014</u>
<b>Section 2: Applicant Information</b>
Name of Applicant: <u>Matthew and Kelly Grocoff</u>
Address of Applicant: <u>217 S. Seventh St.</u>
Daytime Phone: ( <u>734</u> ) <u>224-8877</u> Fax: ( <u>    </u> ) <u>    </u>
E-mail: <u>mgrocoff@gmail.com</u>
Applicant's Relationship to Property: <input checked="" type="checkbox"/> owner <input type="checkbox"/> architect <input type="checkbox"/> contractor <input type="checkbox"/> other
Signature of applicant: <u></u> Date: <u>7-9-2014</u>
<b>Section 3: Building Use (check all that apply)</b>
<input checked="" type="checkbox"/> Residential <input checked="" type="checkbox"/> Single Family <input type="checkbox"/> Multiple Family <input type="checkbox"/> Rental <input type="checkbox"/> Commercial <input type="checkbox"/> Institutional
<b>Section 4: Stille-DeRossett-Hale Single State Construction Code Act</b> (This item <b>MUST BE INITIALED</b> for your application to be <b>PROCESSED</b> )
Public Act 169, Michigan's Local Historic Districts Act, was amended April 2004 to include the following language: "...the applicant has certified in the application that the property where the work will be undertaken has, or will have before the proposed completion date, a a fire alarm or smoke alarm complying with the requirements of the Stille-DeRossett-Hale Single State Construction Code Act, 1972 PA 230, MCL 125.1501 to 125.1531."
Please initial here: <u>MG </u>

**Section 5: Description of Proposed Changes (attach additional sheets as necessary)**

1. Provide a brief summary of proposed changes. \_\_\_\_\_  
Replace existing asphalt shingles (which contain lead and other hazardous heavy metals) with metal shingles appropriate for water capture

2. Provide a description of existing conditions. \_\_\_\_\_  
Currently roof has asphalt shingles which have been tested and proven to contain hazardous toxic metals and chemicals

3. What are the reasons for the proposed changes? \_\_\_\_\_  
Replace with safe, non-toxic metal shakes to allow for capture of clean, safe rain water. This is part of a net zero water project with UM College of Engineering, BLUElab Living Building Challenge Team

4. Attach any additional information that will further explain or clarify the proposal, and indicate these attachments here.  
Home originally had cedar shakes. When Grocoffs removed old asphalt shingles in 2007, the original cedar shakes. The shakes are also visible in photos from 1913.

5. Attach photographs of the existing property, including at least one general photo and detailed photos of proposed work area.

**STAFF USE ONLY**

Date Submitted: \_\_\_\_\_ Application to \_\_\_\_\_ Staff or \_\_\_\_\_ HDC

Project No.: \_\_\_\_\_ **HDC** \_\_\_\_\_ Fee Paid: \_\_\_\_\_

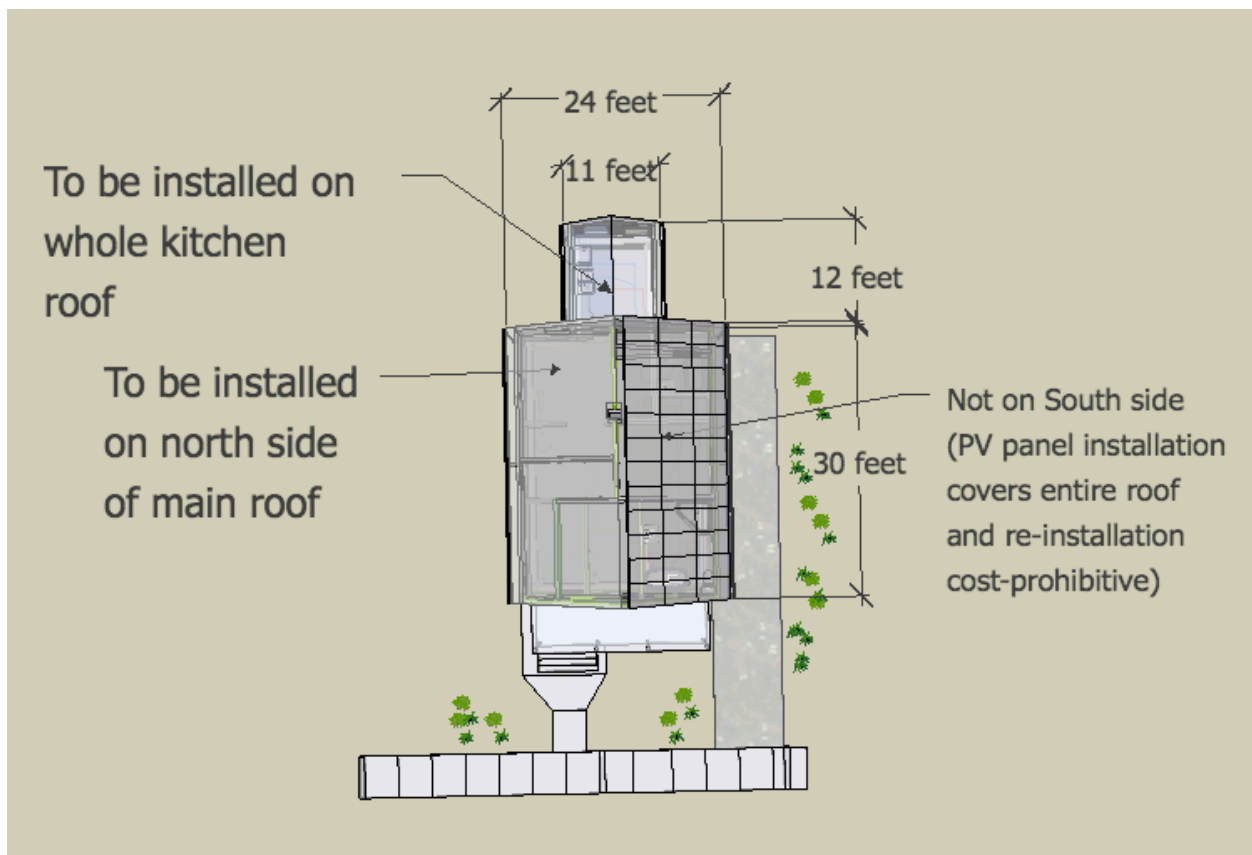
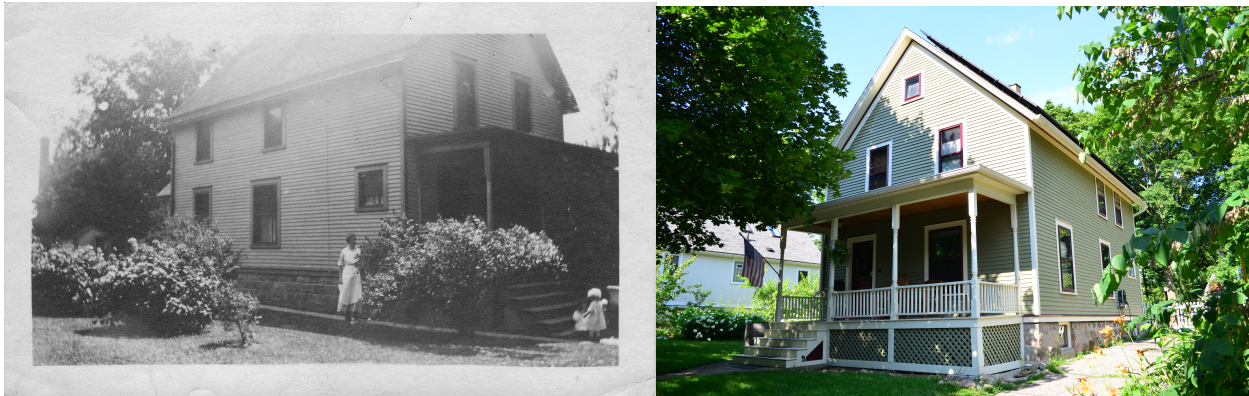
Pre-filing Staff Reviewer & Date: \_\_\_\_\_ Date of Public Hearing: \_\_\_\_\_

Application Filing Date: \_\_\_\_\_ Action: \_\_\_\_\_ HDC COA \_\_\_\_\_ HDC Denial

Staff signature: \_\_\_\_\_ \_\_\_\_\_ HDC NTP \_\_\_\_\_ Staff COA

Comments:

Location of installation at 217 S. Seventh:



Manufacturers of metal shake:

**Option 1:**

Type: Aluminum or Steel with Kynar/Hylar finish in Black (available in many colors including Brown and Grey)

Available from manufacturers:

- ~~-American Metal Roofs ([http://www.americanmetalroofs.com/rustic\\_shingle.aspx](http://www.americanmetalroofs.com/rustic_shingle.aspx))~~
- ~~-Berridge Co. (<http://www.berridge.com/products/berridge-metal-shingles/berridge-rustic-shake-metal-shingles/>)~~
- ~~-Matterhorn roofing (<http://matterhornmetalroofing.com/>)~~

~~**Option 2:**~~

~~Type: Steel with stone (usually crushed granite) finish attached via thin acrylic layer.  
Available from manufacturer: Steel Rock roof products  
(<http://steelrockroofproducts.com/products/pacific-shake>)~~

Photos:

Option 1 from American Metal Roofs:





# Original Roof Material

*Cedar shake*



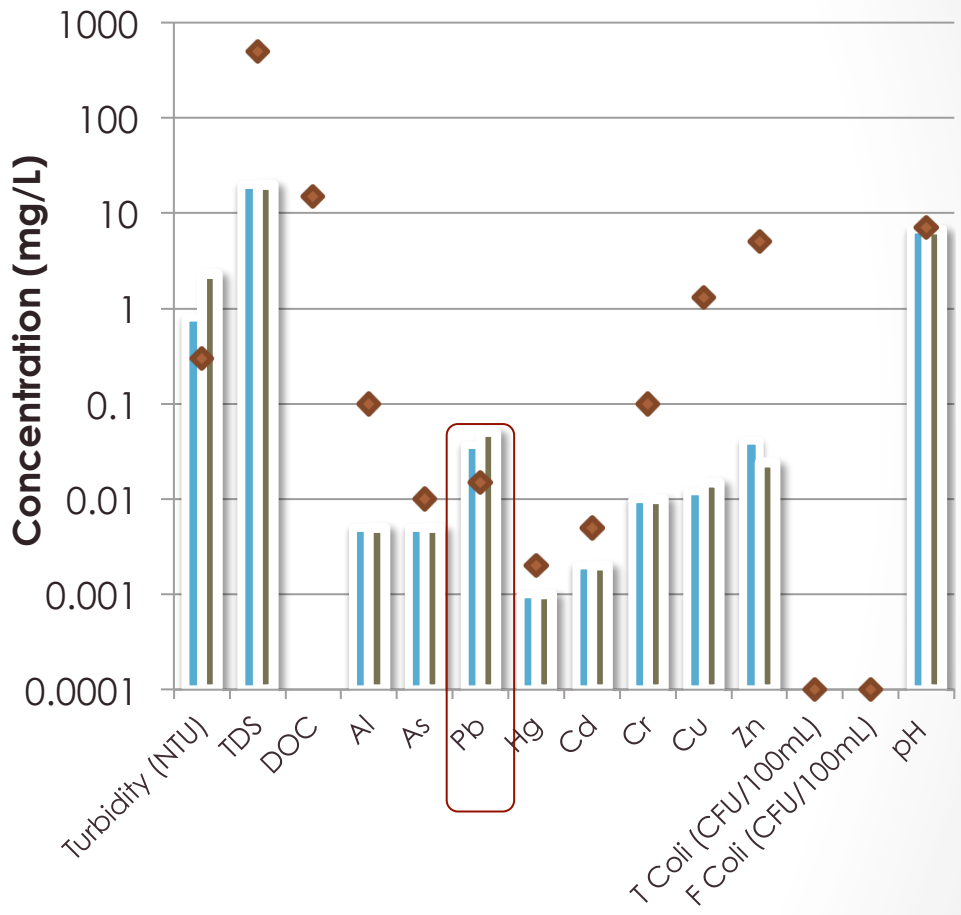
*217 S. Seventh St.*

# Current Material and Water Quality Contamination: a problem for rainwater harvesting



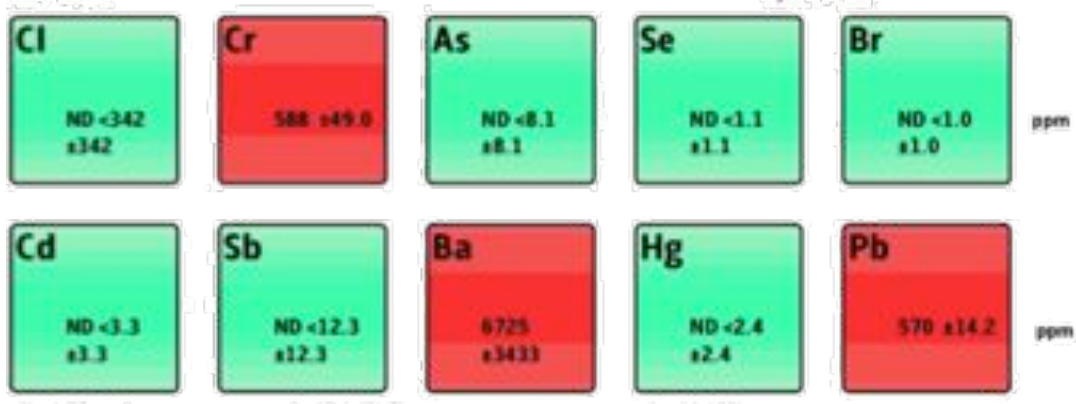
*Asphalt*

Rainwater collected from asphalt shingles is noted by regional rainwater collection guidelines as harmful for irrigation use, let alone indoor use. At left is shown excessive lead contamination in rainwater collected from the asphalt roof at 217 S. Seventh St.



- Grocoff Asphalt Roof Test Result 1
- Grocoff Asphalt Roof Test Result 2
- ◆ EPA Standard

# Source of lead contamination confirmed by XRF test



Lead concentration in roof shingles determined by X-ray fluorescence analysis at Ann Arbor's Ecology Center

**EPA drinking water standard:**  
0.01 ppm

**Average concentration in runoff from asphalt shingles:**  
0.04 ppm

**Estimated contribution from atmospheric deposition:**  
<0.004ppm

**Concentration found in shingle:**  
**Avg: 513 ppm**  
S.D.: 180 ppm



# Proposed alternative



*Steel shake  
with colored kynar/hylar finish*

*Manufacturer chosen: Matterhorn*



**1** **Shake Panel**  
Tile panel is 3 course, panel is 48" wide by 23" tall. 8 PCS/Cartron.  
16 pc's equals 1 square, 100 sq. ft.  
22x48SHK / \_\_\_\_\_ ctns

**2** **Slate Panel**  
Tile panel is 3 course, panel is 48" wide by 23" tall. 8 PCS/Cartron.  
16 pc's equals 1 square, 100 sq. ft.  
22x48SLT / \_\_\_\_\_ ctns

**3** **T-Style Drip Edge**  
Used at eaves to match tile roofing, 10ft long, 1.5" tall.  
10PCS/Cartron  
1.5TDSE10 / \_\_\_\_\_ ctns

**4** **Ridge Cap**  
Used for Ridge-Hip installed over OE ridge vent. 6.5" long of actual installed cap. Use 2" or 3" screws to install.  
40PCS/Box  
RCSE / \_\_\_\_\_ ctns

**5** **Ridge Vent TruAir® Series 4\***  
Used at ridge to vent, need to have to install ridge cap.  
4 ft long, 15-3/8" wide on each side. Use 2" or 3" screws to install. 12PCS/Cartron TAVS4 / \_\_\_\_\_ ctns  
\*Also available: TruAir® Series 3 (TAVS3) & Series 8 (TAVS8)

**6** **Matterhorn® Roofing Coil**  
Used to make custom parts and flashing on site. 24" by 25 ft  
T25\_G / \_\_\_\_\_ ctns

**7** **Inner Gable**  
Installed on roof plan under outer gable, on gable/rake edges. Also for end/side walls. 3/4" tall 7-3/4" wide, 10 ft long.  
6PCS/Cartron  
11GSE10BLK / \_\_\_\_\_ ctns

**8** **Outer Gable**  
Installed over inner gable, on gable/rake edges. 2-1/2" tall 10 ft long. 10PCS/Cartron  
20GSE10 / \_\_\_\_\_ ctns