



CITY OF OREGON CITY HISTORIC REVIEW BOARD (HRB) AGENDA

Virtual Meeting
Tuesday, February 28, 2023 at 7:00 PM

This meeting will be held online via Zoom; please contact ocplanning@orccity.org for the meeting link.

CALL TO ORDER

PUBLIC COMMENT

Citizens are allowed up to 3 minutes to present information relevant to the City but not listed as an item on the agenda. To assist in tracking your time, refer to the timer at the dais. Prior to speaking, citizens shall complete a comment form and deliver it to the Staff Member. When the Chair calls your name, proceed to the speaker table and state your name and city of residence into the microphone. The Historic Review Board Officers do not generally engage in dialog with those making comments but may refer the issue to the City Manager.

PRESERVATION GRANT

1. PG 23-0001 Window Repair Grant - 219 11th Street

PUBLIC HEARING

2. GLUA-23-00001 and HR 23-00001 -204 Jefferson Street. Alterations & additions on a Historic Structure (Frank and Annie Busch House) in the McLoughlin Conservation District.
3. GLUA-23-00003 and HR 23-00002 -100 Center Street Historic Review for solar panel installation on street-facing roof planes on a designated structure in the McLoughlin Conservation District

COMMUNICATIONS

ADJOURNMENT

PUBLIC COMMENT GUIDELINES

Complete a Comment Card prior to the meeting and submit it to the City Recorder. When the Mayor/Chair calls your name, proceed to the speaker table, and state your name and city of residence into the microphone. Each speaker is given three (3) minutes to speak. To assist in tracking your speaking time, refer to the timer on the table.

As a general practice, the City Commission does not engage in discussion with those making comments.

Electronic presentations are permitted but shall be delivered to the City Recorder 48 hours in advance of the meeting.

ADA NOTICE

The location is ADA accessible. Hearing devices may be requested from the City Recorder prior to the meeting. Individuals requiring other assistance must make their request known 48 hours preceding the meeting by contacting the City Recorder's Office at 503-657-0891.

Agenda Posted at City Hall, Pioneer Community Center, Library, City Website.

Video Streaming & Broadcasts: The meeting is streamed live on the Oregon City's website at www.orcity.org and available on demand following the meeting. The meeting can be viewed on Willamette Falls Television channel 28 for Oregon City area residents as a rebroadcast. Please contact WFMC at 503-650-0275 for a programming schedule.



**PRESERVATION GRANT REQUEST
HISTORIC REVIEW BOARD
June 21, 2022**

FILE NO.: PG 22-05

HEARING DATE : June 28, 2022

**APPLICANT/
PROPERTY OWNER:** Fahad Ullah

LOCATION: Christian Hartmann House
219 11th Street
Oregon City, Oregon 97045

REQUEST: The applicant is seeking approval for a preservation grant of \$1000 for wood window repair of four windows on the Christian Hartmann House. The work has already been completed and is well-documented.

REVIEWER: Kelly Reid, AICP, Planner

RECOMMENDATION: If the Board is willing to award a grant for work already completed under this circumstance, staff recommends one of two options:

- a. Award \$1000 for the 2022-2023 grant cycle (\$5000 is available)
- b. Award \$1000 for the 2021-2022 grant cycle (One of the previous awardees would receive \$1250 instead of \$2250 as a final grant award, \$5000 total has allocated between three previously award grants)

IF YOU HAVE ANY QUESTIONS ABOUT THIS APPLICATION, PLEASE CONTACT THE PLANNING DIVISION OFFICE AT (503) 722-3789.

Grant Proposal:

The applicant is seeking to repair and restore four wood windows. The work includes full restoration including reglazing, replacement of sash cords, and repainting or refinishing.

Property Description and Statement of Significance:

This modest house sits under a front gable roof, with a gabled wing extending to the north of the main body of the house. This wing was added about 1905, and matches the original portion of the house in both character and materials. On the south side, a hipped porch runs nearly the full width of the façade, with square posts supporting the hip eave. Scroll cut brackets make the transition from these posts to the porch frieze, which is a dentil course below a blank frieze board at the eave. All of the eaves are enclosed on the house, with blank frieze and rake boards on the main body of the house. The house is entirely clad with horizontal beveled lap siding, finished with wide cornerboards. A full water table makes the transition to the poured concrete foundation, which contains two windows on the east side. The windows in the main body of the house are 6/6 double-hung wood sash with small hood moldings, and the north wing windows have the same surrounds but are 1/1 sashes. A brick chimney is centrally located in the main body of the house, and features a corbelled top.

Statement of Significance: In 1897, Christian Hartmann purchased this property from Mrs. C.O.T. Williams and is credited with the construction of the house. Hartmann was born in Brisson, Switzerland and later emigrated to America in from Genoa, Italy. He arrived in Oregon City in 1891, where he joined his brother in managing the Oregon City Brewery. When the brewery closed, Hartmann was hired as the representative of the Weinhard Brewery. He also served on the firefighting force, was elected its chief three times, and served as treasurer of the department's Fountain Hose Company. In the 1950s and 1960s, this property changed hands numerous times and was apparently used as a rental house until 1979.



Project Description and Bids

The applicant provided the following description of the project:

All windows are double hung. Three windows are grid-panes and one window (bathroom) has one-pane of glass per sash. The three grid-pane windows had severe damage to the wood and few glass panes needed to be replaced. The bathroom window was the only one in good shape but needed to be upgraded and restored due letting cold air in. I also wanted to have a foggy glass because I wanted to have natural light during the day.

Jefferey took apart all the windows, then he took the windows to his shop, stripped away the paint (perhaps it had lead paint but was never confirmed), took apart the panes and cleaned the windows. The process took a long time to finish but in the end it was worth it.

The windows now look way better than before. I did not want to paint over the wood so I kept the windows authentic wood color. The wood color adds a lot of character to it now.



Window Repair:

Bid #1 Jeffrey Franz: \$800 each for double hung multi-pane windows, and \$700 for the single pane window.

Bid #2: Chosen Wood Windows: \$1676 each for a total of approximately \$6,700

The applicant selected Jeffrey Franz and completed the work already, including an invoice for \$2440.

The bids are provided in the application materials. The Board can award up to \$1000, as it is less than 50% of the total.

Grant Funding:

A total of \$5,000 is available each fiscal year. The grant tracking log for this fiscal year is attached as an Exhibit.

If the Board is willing to award a grant for work already completed under this circumstance, staff recommends one of two options:

- a. Award \$1000 for the 2022-2023 grant cycle (\$5000 is available)
- b. Award \$1000 for the 2021-2022 grant cycle (One of the previous awardees would receive \$1250 instead of \$2250 as a final grant award, \$5000 total has allocated between three previously award grants)

Staff Recommendation

Staff recommends approval of the window repair grant; the applicant provided two bids and the repair of the original wood windows greatly contributes to the restoration of the property. Some of the windows face public streets and are highly visible on this corner lot.

The timing of the project was an inadvertent misunderstanding. Staff has records of communications with the applicant about the program last year, and upon further review, it was never clarified that the grant should be requested first, before the work is completed. There is language in the grant application paperwork that explains the work cannot be underway or completed, but it is not prominent. Staff has already corrected the paperwork to make the information more easily accessible.

Staff Recommends the Following Conditions for Approval:

1. Any property receiving a grant must remain locally designated for at least five full years following completion of the project. If the property is removed from designation, the grant must be repaid in full. (note de-designation is evaluated on the merits of the building, not the desire of the property owner to be removed from regulation)
2. Grants are considered taxable income and must be reported on your income tax return as required by law.



HISTORIC REVIEW BOARD

HISTORIC PRESERVATION GRANT PROGRAM

The Oregon City Historic Review Board's renovation grant program makes funds available to property owners of [Locally Designated](#)¹ historic buildings desiring to make *exterior* rehabilitation or renovation improvements; *structural improvements*² to preserve the integrity of the structure may also qualify. The conditions of this program require that all improvements and projects be in keeping with the architectural integrity of the structure. Applicants should attend the meeting to respond to any questions. Contact Kelly Reid, Preservation Planner at kreid@orc.org to schedule a time to review your project.

The Board reviews applications on the fourth Tuesday of each month at their regularly scheduled board meeting. Complete applications received by the 2nd Monday of each month can be processed during that same month.

WHAT PROJECTS ARE ELIGIBLE FOR THE GRANT?

Projects considered maintenance work, such as reroofing or repainting a historic resource, are ineligible for the grant program. Projects that are restoring or renovating important historic features on the exterior of the historic resource are eligible for the program. Below are explanations of those features.

WINDOW REPAIR AND REPLACEMENT OF HISTORIC AND NON-HISTORIC WINDOWS

Grant money can be used to pay for a wide range of window repair issues: from reglazing, to re-hanging weights to rebuilding sashes. Staff has a list of [repair contractors](#) that specialize in historic windows, though you are not limited to the list. The grant can also pay to replace vinyl and aluminum sliders windows with more appropriate wood windows. Original wood windows are important architectural features in any historic building. They are the "eyes" of the structure and they convey a sense of handcraftsmanship and detail that cannot be achieved with substitute materials. The Historic Review Board maintains that original windows should be retained and repaired whenever possible and replacement of windows should be with in-kind materials and should match the design detail of the original windows. If you are new to window repair and want to get yourself up to speed on the issue- The city has an extensive [window repair page](#) on the planning website for your perusal- Please note that grant money cannot be paid for DIY repair. However, after you learn about the ease of window repair- you may be able to tackle some of the project yourself for overall project savings!

1 A list of locally designated buildings can be found on the Planning page of the city's website <https://www.orcity.org/planning>

2 Such as a failing foundation or repair of failing beams or walls

STORM WINDOWS

The Historic Review Board (HRB) will provide financial incentives to preserve original historic windows instead of window replacements. The HRB will therefore assist in the addition of wood-frame storm windows on houses *locally designated*. The goal of the HRB is to use a financial incentive to persuade the homeowner to keep the original windows instead of replacing them. Since storm windows are not part of a home's renovation but rather are energy and comfort upgrades, the grant will be less than the standard renovation grant of 50% of the project's cost. For glass wood-frame storm window grant requests, the HRB shall grant no more than 25% of the costs. Because of the limited energy savings, Plexiglas™ or similar materials instead of glass do not qualify under this program.

*****The Greenest Window Is Often the One That Is Already on Your House*****

EXTERIOR RESTORATION

These items can range from the restoration of porch details to replacing damaged wood siding with new wood siding that matches the original. The Historic Review Board will be reviewing your request based on how it affects the significance of your building. That is, projects that give "the most bang for your buck" will be rated higher than smaller more detailed projects. While not always possible, projects that affect public elevations will be viewed more favorably than those that affect a side of the house not seen by the public.

GRANT APPLICATION MATERIALS

1. The Preservation Grant Application
2. A copy of your building's [inventory form](#) (found online at www.orcity.org).
3. A copy of the Oregon City [property zoning report](#) for your property (found online at www.orcity.org).
4. Provide **TWO** detailed bid sheets for proposed repair work. **Include copies of at least two bids** with the application, or provide a written explanation of why only a single bid was warranted.
5. Fill out a Window Survey Form for each window being repaired or replaced (attached to packet), which provides a determination of the window's architectural significance and condition. (if applicable)
6. Provide detailed specifications of the proposed window replacement or storm window. (if applicable)



Grants are awarded each month on a first come first serve basis based on the funding available. (Provided you meet the requirements of the grant program.) The Grant Program has a grant cycle of July 1 – June 30 with \$5,000 to award annually.

REVIEW CRITERIA FOR ALL PROJECTS:

Item #1.

The Board will review and approve projects that are in keeping with the historic integrity of the structure, subject to the following conditions:

- i. Applicants are limited to \$3,000 of grant funds every two years. You may phase your project within the two year time period; **each grant award is limited to \$1,000 dollars.** The Historic Review Board may choose to grant additional funds at the end of the fiscal year if there is money remaining in the grant budget.
- ii. Historical restoration and renovation projects will be given priority over periodic historically appropriate maintenance-type projects. For example, a project to restore architectural details such as porch railings or removing contemporary siding will be given priority over maintenance/repair projects. Conditions of approval may be applied to a project.
- iii. Any property receiving a grant must remain locally designated for at least five full years following completion of the project. If the property is removed from designation, the grant must be repaid in full. NOTE: De-designation is evaluated on the merits of the building, not the desire of the property owner to be removed from regulation.
- iv. In the Canemah National Historic District, all *Historic Contributing* structures are eligible. Owners of *Historic Non-Contributing* properties are required to submit a complete renovation plan, including the scope of the work to be completed and the timeframe. The Board will consider awarding funds for the final phase of the renovation, so that, upon completion, the structure would then be eligible for *Historic Contributing* status (contact preservation staff to determine what category your house falls into).
- v. Grant recipients are required to display a sign (available from the Community Development Department upon grant approval) identifying the project as having received grant funding.
- vi. Projects must be completed within the budget cycle of when the grant is awarded (July 1 – June 30). Funds are distributed to the owner (not the contractor) upon completion of the project. If you believe that you need an extension, please contact staff as soon as possible to get on the next agenda to request the extension.
- vii. Grants are considered taxable income and must be reported on your income tax return as required by law.
- viii. *Grants are not awarded for materials already purchased, or for work already in progress or completed.*
- ix. The Historic Review Board reserves the right to grant approval of any application above the \$1,000 limit and on a first come first serve basis if it can be determined that waiting for approval through the competitive process may affect the integrity of the building and/or it can be found that proposed project and historic resource are of city-wide importance and should be reviewed outside of the prescribed process or if left-over grant funds are available.

Questions about the program or the application should be directed to Kelly Reid at (503) 496-1540 during regular business hours, or e-mail at kreid@orc.org.



CITY OF OREGON CITY

Item #1.

Historic Review Board

695 WARNER PARROTT ROAD
OREGON CITY, OREGON 97045
TEL (503) 722-3789
FAX (503) 722-3880

Historic Preservation Renovation Grant Application

Please Print Clearly

Grant Application File # _____ (staff to fill out)

Date: 1-17-23 Applicant Name: Fahad Ullah

Site Address: 219 11th St. Oregon City, OR 97045

Phone Number: 503-330-3834 E-mail address: ullah1980@gmail.com

Historic Name: Hartmann, Christian, House Architectural Style: _____

Previous Grant Approval File #'s _____ Total Amount \$2,200

How did you hear about the program?: orcity.org

Narrative: Attach a written narrative that addresses the following:

1. **Project Description:** Briefly explain the proposed work and the materials to be used. If you are planning to paint your historic building, please attach a paint sample for approval. NOTE: SOME ALTERATIONS MAY REQUIRE HISTORIC REVIEW AND/OR BUILDING PERMITS. Please Contact Staff to determine if your project requires a building permit.
2. **Historic Significance:** Describe how the project will enhance the historical nature of, or preserve, renovate or rebuild, the historical aspects of the structure.
3. **Historical Documentation:** If applicable, include any physical evidence such as old paint lines, original moldings, historic photographs, etc. that support your request to alter the exterior.

Photographs: Submit a "before" photo of the project site. An "after" photograph is required upon completion of the project. **Digital photos should be submitted via an e-mail attachment.**

Project Costs: Attach the contractor's bids, or a list of detailed estimates for materials. Eligible labor costs are limited to those performed by a licensed contractor in the state of Oregon. (Example of materials estimates: Paint: 10 gallons @ \$25/each = \$250; Siding (drop lap): 600 feet, 1" x 6" @ \$1/foot = \$600).

Item #1.

Cost Estimate/Bid #1: \$1,676 per double hung window

Cost Estimate/Bid #2: \$800 per double hung and \$700 per one-pane glass window

Total grant amount requested (up to 50% of project cost, maximum \$1000): \$1000

Project Scheduling:

Beginning Date: 3-3-23 Completion Date: 4-7-2023 (est.)

Projects must be completed within the grant cycle of July 1 – June 30. Contact staff if you need an extension. Contact staff when you actually begin the proposed work, and when you finish the project. Preservation staff will inspect the work when the project is completed.

I have read the Oregon City Design Guidelines for Exterior Alterations and agree to do the project as submitted and approved within the grant cycle. I will notify the Board when I begin the project and when the project is completed.

Signature: _____ Date: 1/17/23

This grant program has been funded with the assistance of a matching grant-in-aid from the Oregon State Historic Preservation Office and the National Park Service. Regulations of the U.S. Department of the Interior strictly prohibit unlawful discrimination on the basis of race, color, national origin, age or handicap. Any person who believes he or she has been discriminated against in any program, activity, or facility operated by a recipient of Federal assistance should write to: Office of Equal Opportunity, National Park Service, 1849 C Street, NW, Washington, D.C. 20240.

OREGON CITY HISTORIC RESOURCE SURVEY FORM

Street Address: 219 11TH ST					City: OREGON CITY	
USGS Quad Name: Oregon City			GPS Latitude: 45 21 35 N		Longitude: 122 36 11 W	
Township: 02S	Range: 02E	Section: 31	Block: 19	Lot: 4x	Map #: 22E31AA	Tax Lot #: 4300
Date of Construction: c. 1891		Historic Name: Hartmann, Christian, House			Historic Use or Function: Domestic - single dwelling	
Grouping or Cluster Name: NA		*Current Name or Use: Domestic - single dwelling			Associated Archaeological Site: Unknown	
Architectural Classification(s): Vernacular			Plan Type/Shape: Rectangle		Number of Stories: 1.0	
Foundation Material: Concrete			Structural Framing: Unknown		Moved? No	
Roof Type/Material: Gable / Composition shingle			Window Type/Material: 6/6 wood double-hung			
Exterior Surface Materials Primary: Lap			Secondary:		Decorative:	
Exterior Alterations or Additions/Approximate Date: North end added, c.1905.						
Number and Type of Associated Resources: None						
Integrity: Good		Condition: Good		Local Ranking: Designated Historic Site		National Register Listed? No
Potentially Eligible: ☐ Individually or ☒ As a contributing resource in a district Not Eligible: ☐ Intact but lacks distinction ☐ Altered (choose one): ☐ Reversible/Potentially eligible individually or in district ☐ Reversible/Ineligible as it lacks distinction ☐ Irretrievable loss of integrity ☐ Not 50 years old						
Description of Physical and Landscape Features:						
This modest house sits under a front gable roof, with a gabled wing extending to the north of the main body of the house. This wing was added about 1905, and matches the original portion of the house in both character and materials. On the south side, a hipped porch runs nearly the full width of the façade, with square posts supporting the hip eave. Scroll cut brackets make the transition from these posts to the porch frieze, which is a dentil course below a blank frieze board at the eave. All of the eaves are enclosed on the house, with blank frieze and rake boards on the main body of the house. The house is entirely clad with horizontal beveled lap siding, finished with wide cornerboards. A full water table makes the transition to the poured concrete foundation, which contains two windows on the east side. The windows in the main body of the house are 6/6 double-hung wood sash with small hood moldings, and the north wing windows have the same surrounds but are 1/1 sashes. A brick chimney is centrally located in the main body of the house, and features a corbelled top.						
Statement of Significance:						
In 1897, Christian Hartmann purchased this property from Mrs. C.O.T. Williams and is credited with the construction of the house. Hartmann was born in Brissau, Switzerland and later emigrated to America from Genoa, Italy. He arrived in Oregon City in 1891, where he joined his brother in managing the Oregon City Brewery. When the brewery closed, Hartmann was hired as the representative of the Weinhard Brewery. He also served on the firefighting force, was elected its chief three times, and served as treasurer of the department's Fountain Hose Company. In the 1950s and 1960s, this property changed hands numerous times and was apparently used as a rental house until 1979.						

Researcher/Organization: Alex McMurtry / HPNW			Date Recorded: 4/12/2002	
Survey Form Page 1	Address: 219 11TH ST	Local Designation #	SHPO #	

Taxlot Information

Parcel Number (APN) 2-2E-31AA-04300
Primary Situs Address 219 11TH ST
OREGON CITY, OR 97045
County CLACKAMAS
Section T2S R2E S31
Latitude 45.359821
Longitude -122.60309
R Number (Alt ID) 00570643
Approx. Size (acres) 0.05727272
USGS Quad Name Oregon City
Within Oregon City Limits? Y
Urban Growth Boundary (UGB) Inside

**Political Boundaries**

Jurisdiction OREGON CITY
Voting Precinct 600.00000000
US Congressional District 5
Oregon House District 40
Oregon Senate District 20
Metro Council District 2
Metro Councilor Christine Lewis
Metro Councilor Email christine.lewis@oregonmetro.gov

Assessment & Value Information

Taxmap 2S2E31AA
Land Value (Mkt) \$111,403
Building Value (Mkt) \$188,330
Exempt Amount \$0
Net Value (Mkt)
Assessed Value \$104,311
Year Built (if known) 1900
Sale Date 201811
Sale Price \$288,000
Document Date 2018-11-19 00:00
Document Number 2018-070850
State General Prop. Code 101
County Tax Code 062057



Land Use and Planning

<i>Zoning</i>	R-3.5	<i>In SDC Discount Area?</i>	N
<i>Comprehensive Plan</i>	MR	<i>In Thayer Rd Pond Fee Area?</i>	N
<i>Subdivision</i>	OREGON CITY	<i>In Beavercreek Rd Access Area?</i>	N
<i>Subdivision Plat Number</i>	2	<i>In Willamette River Greenway?</i>	N
<i>PUD (if known)</i>	0	<i>In Geologic Hazard?</i>	Y
<i>Partition Plat Number</i>	0	<i>In High Water Table Area?</i>	N
<i>Neighborhood Association</i>	McLoughlin	<i>In Nat. Res. Overlay District (NROD)?</i>	N
<i>Urban Renewal District</i>	DOWNTOWN	<i>In 1996/FEMA 2008 100-yr Floodplain?</i>	N
<i>Historic District</i>	MCD	<i>In FEMA Floodway?</i>	N
<i>Historic Designated Struct.?</i>	MCD	<i>In Barlow Trail Area?</i>	N
<i>Concept Plan Area</i>	NONE	<i>In Vertical Housing Dev. Zone?</i>	N
<i>Urban/Rural Reserve</i>		<i>In Enterprise Zone?</i>	N
<i>Reserve Name</i>		<i>In Opportunity Zone?</i>	Y
<i>Watershed</i>	Abernethy Creek-Willamette River		
<i>Sub-Watershed</i>	Tanner Creek-Willamette River		
<i>Basin</i>	Willamette		
<i>Sub-Basin</i>	Middle Willamette		

Service Districts

<i>Elementary School</i>	CANDY LANE/JENNINGS LODGE
<i>Middle School</i>	OGDEN MIDDLE
<i>High School</i>	OREGON CITY HIGH
<i>School District</i>	OREGON CITY
<i>Oregon Dept. of Ed. Dist. ID</i>	1928
<i>Nat Cntr for Ed Stats Dist ID</i>	4109330
<i>Water District</i>	
<i>Park District</i>	
<i>Sewer District</i>	Tri-City Service District
<i>Fire District</i>	Clackamas Fire District #1
<i>Fire Management Zone</i>	6597
<i>Transit District</i>	Tri-County Metropolitan
<i>Garbage Hauler</i>	Oregon City Garbage Co.
<i>Garbage Hauler Phone</i>	(503) 656-8403

Census Information

<i>Census Tract</i>	224.00000000
<i>Census Block Group</i>	5
<i>Census Block Grp. Pop. (2010)</i>	684





OREGON CITY

Community Development – Planning

695 Warner Parrott Rd. | Oregon City OR 97045

Ph (503) 722-3789 | Fax (503) 722-3880

Historic Review Staff Report and Recommendation February 21, 2023

FILE NO.: GLUA-23-00001 and HR 23-00001 Historic Review

HEARING DATE: February 28, 2023
7:00 P.M.
Virtual

APPLICANT: Iselin Architects
1307 7th Street
Oregon City, OR 97045

OWNER: Kevin and Wilemijn Ilcish
204 Jefferson Street
Oregon City, OR 9704

LOCATION: 204 Jefferson Street
Oregon City, OR 97045
Clackamas County Map 2-2E-31DB Taxlot 2400

REQUEST: GLUA-23-00001 and HR 23-00001 -204 Jefferson Street. Alterations & additions on a Historic Structure (Frank and Annie Busch House) in the McLoughlin Conservation District. The property is also located in the Geohazard Overlay District a separate Type II Administrative review will be process for this chapter.

RECOMMENDATION: Approval with Conditions.

CRITERIA: Administration and Procedures are set forth in Chapter 17.50, Chapter 17.40, Historic Overlay District in Chapter 17.40, of the Oregon City Municipal Code. The City Code Book is available on-line at www.orcity.org.

This application is subject to the Administration and Procedures section of the Oregon City Code set forth in Chapter 17.50. The application and all supporting documents submitted by or on behalf of the applicant are available for inspection at no cost at the Oregon City Planning Division, 698 Warner Parrott Road, during regular business days (9 am- 4pm). Copies of these materials may be obtained for a reasonable cost. The staff report, with all the applicable approval criteria, will also be available for inspection seven days prior to the hearing. Copies of these materials may be obtained for a reasonable cost in advance. Any interested party may testify at the public hearing and/or submit written testimony at or prior to the close of the record by the Historic Review Board. Notice of the Historic Review Board's decision shall be sent to the applicant and to

GLUA-23-00001 and HR 23-00001 Historic Review

those persons submitting comments and providing a return address. Any party who participated in the Historic Review Board proceedings may appeal the Historic Review Board's decision by filing a notice of appeal as required by OCMC 17.50.190. Any issue that is intended to provide a basis for appeal must be raised before the close of the Historic Review Board's proceeding, in person or by letter, with sufficient specificity to afford the City Commission and the parties an opportunity to respond to the issue. Failure to raise an issue with sufficient specificity will preclude any review of that issue. Parties with standing may appeal the decision of the City Commission to the Land Use Board of Appeals. The procedures that govern the hearing will be posted at the hearing and are found in OCMC Chapter 17.50 and ORS 197.763.

Recommended Conditions of Approval

1. New windows shall be wood, fiberglass, fiberglass-clad wood, or metal-clad wood material and shall include the same dimension exterior trim as the existing windows on the home. The applicant shall provide the window details to staff before placing orders or installing to demonstrate compliance with this condition. (P)
2. This approval is subject to receiving approval for GLUA-23-00001: GEO-23-00001 – Geohazard Review. If the approved review required requires a redesign of the project that either increases the square footage of the addition or requires new retaining walls that exceed 3 ½ feet of exposed wall- additional review by the Historic Review Board is required. Approval wall types include poured-in-place concrete, brick, basalt veneer, or natural rockery. (P)
3. To further differentiate the new addition from the historic volume, the applicant shall provide a slightly differentiated drop siding width. Please provide staff with the proposed siding spec prior to the release of Building Permits. (P)
4. The Historic Review Board encourages the applicant to ensure that all adjacent trees are adequately protected during the excavation process with the use of tree protection fences that extend to the dripline of the trees, along with any additional measures required as part of the separate geohazard review.

I. BACKGROUND:

Existing Conditions:

The subject property is developed with a single-family house in the Low-Density Residential - R6 zone. The property is located on a .34 acre lot. The house is a designated structure within the McLoughlin Conservation District.



Figure 1- Vicinity map



Figure 2- Street view of property.



Rear addition proposed to be demolished/ reconstructed



Addition proposed to be demolished/ reconstructed



Rear of home from parking area off Monroe St

Figure 3 – existing elevation photos

Historic Description and Statement of Significance:

204 Jefferson Street - Frank and Annie Busch House

This two-story Queen Anne of a complex plan sits high above the street. It features original spindle work in the gables and at the porch. Two chamfered corners allow for a pendant and decorative brackets. There is a bay with a hipped roof, and a shed-roof porch with spindle railings and columns, and lattice skirting. The main porch window features a 1/1 fixed pane with a leaded upper light. Other windows are 1/1 wood doublehung. The entry door is multi-paneled and has one light. The gables feature fishscale shingles, and there is a ridge chimney. A water table with cap protects the basalt foundation. The house sits on a double lot with mature trees on all sides.



Statement of Significance: This was the house of Frank Busch (1858-1939) and his wife Annie (1866-1960). Born in Germany, Frank Busch came to Oregon in 1883, joining his family who had settled in Oregon City. He founded the Busch Furniture Company and became one of Oregon City's most prominent businessmen. The Busch Furniture Company occupied a warehouse, factory and retail outlet in Oregon City. Busch also erected Busch Hall, the Busch Apartments and the Busch Dock in the commercial district, and fourteen houses in and around the McLoughlin District. He was one of the original incorporators of the Willamette Valley Southern Railroad, and served as its chairman and on the Board of Directors. In 1890, he married Annie Heitkemper, the daughter of a pioneer Portland businessman. They had three children. Busch owned the property from 1897-1919, selling the house to Royal Trullinger, a rural Post Office carrier. Trullinger owned the house until 1944, when Jess and Dorothy Gutzler bought the house. Jess worked for Publishers Paper, and the Gutzlers had two sons, Charles and Thomas. The family occupied the house through the remainder of the historic period, with Dorothy living alone in the house after Jess' death sometime between 1960 and 1962.

Project Description:

Remodel and addition to an historic residence that is a designated landmark in the McLoughlin Conservation District. The project includes a main-level kitchen expansion and remodel and the enlargement of the upper level to add a bathroom. The proposed building addition is approximately 15% of the existing building area. Owners are requesting HRB approval for an alteration/addition. New wood windows and wood drop siding to match the historic house are proposed. A new painted fiberglass side door is proposed.

Building Area:

	Existing	Demolished	New	Total	Net Difference
Main Level: Upper	1,181 sf	(267 sf)	343 sf	1,257 sf	76 sf
Level:	849 sf		227 sf	1,076 sf	227 sf
Total:	2,030 sf	(267 sf)	570 sf	2,333 sf	303 sf
Covered Porch:	131 sf		94 sf	225 sf	94 sf

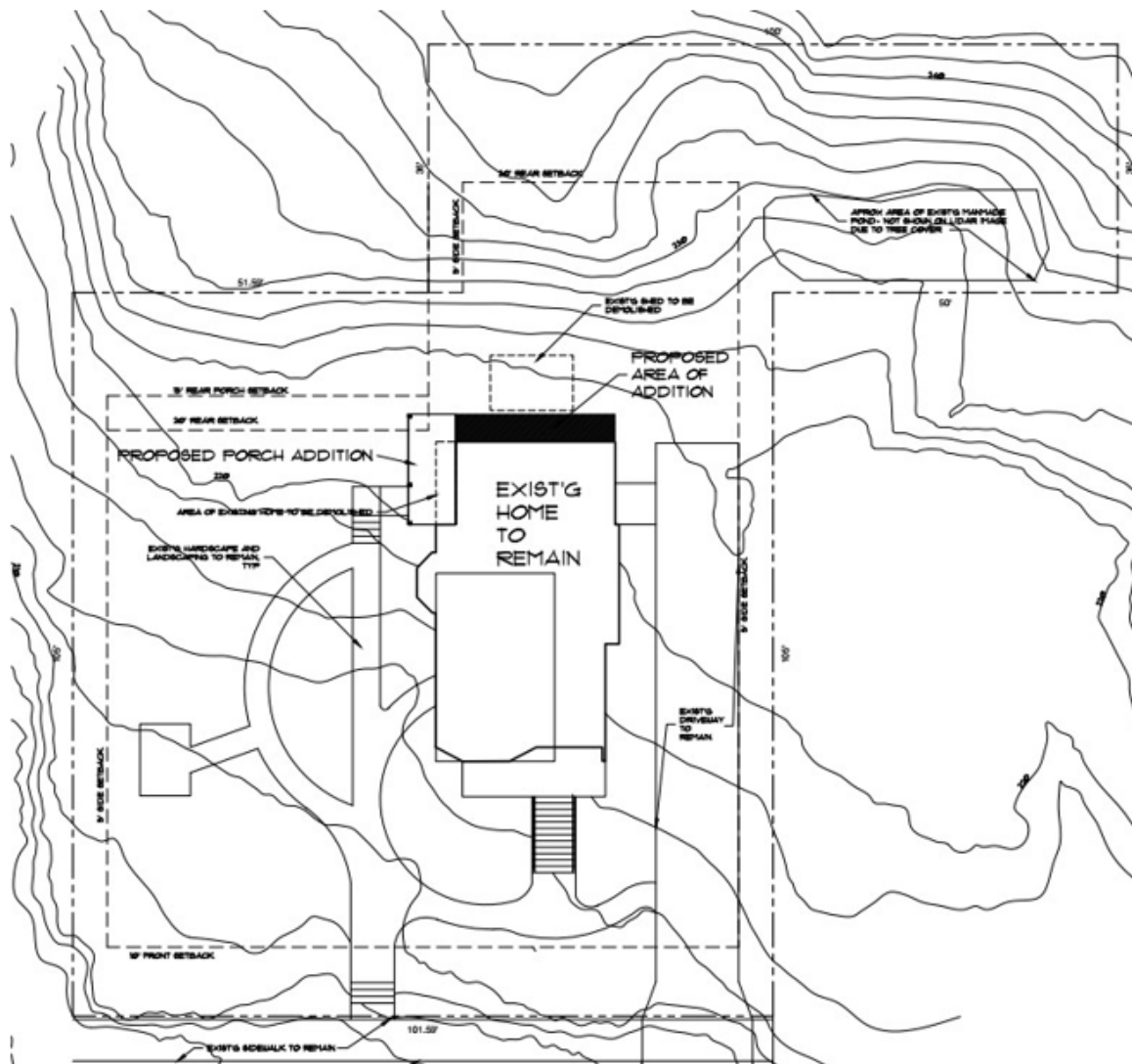
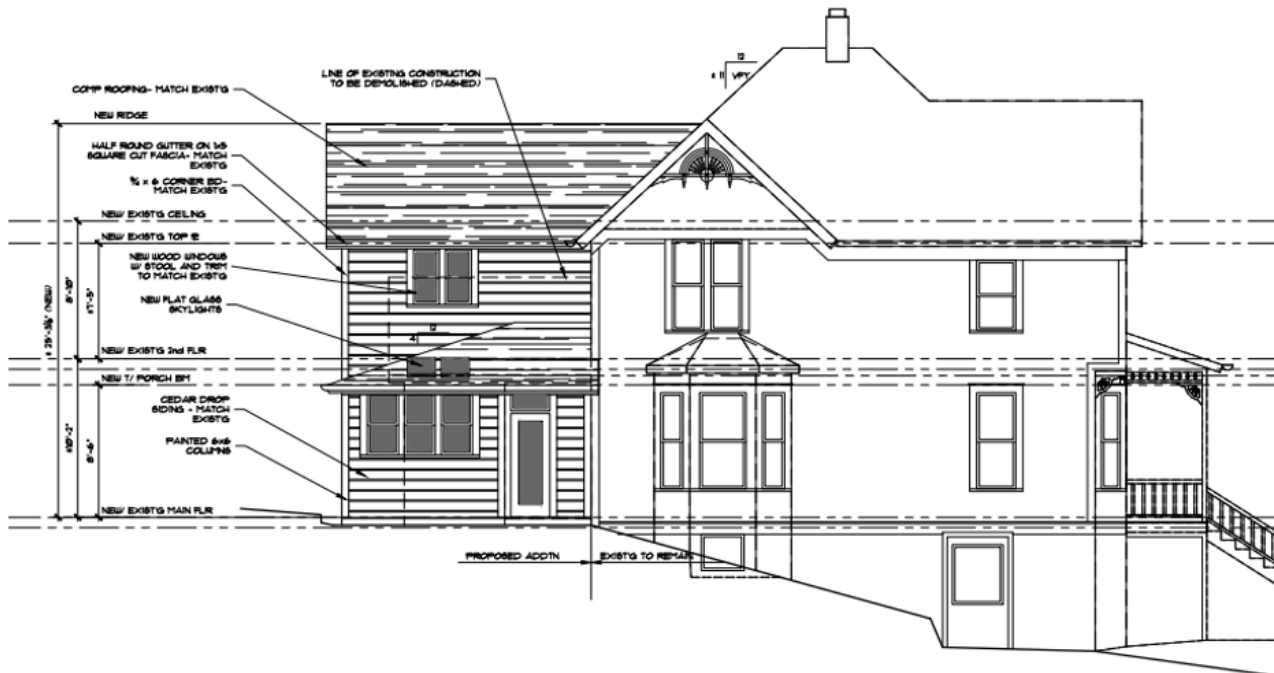


Figure 4- Site Plan



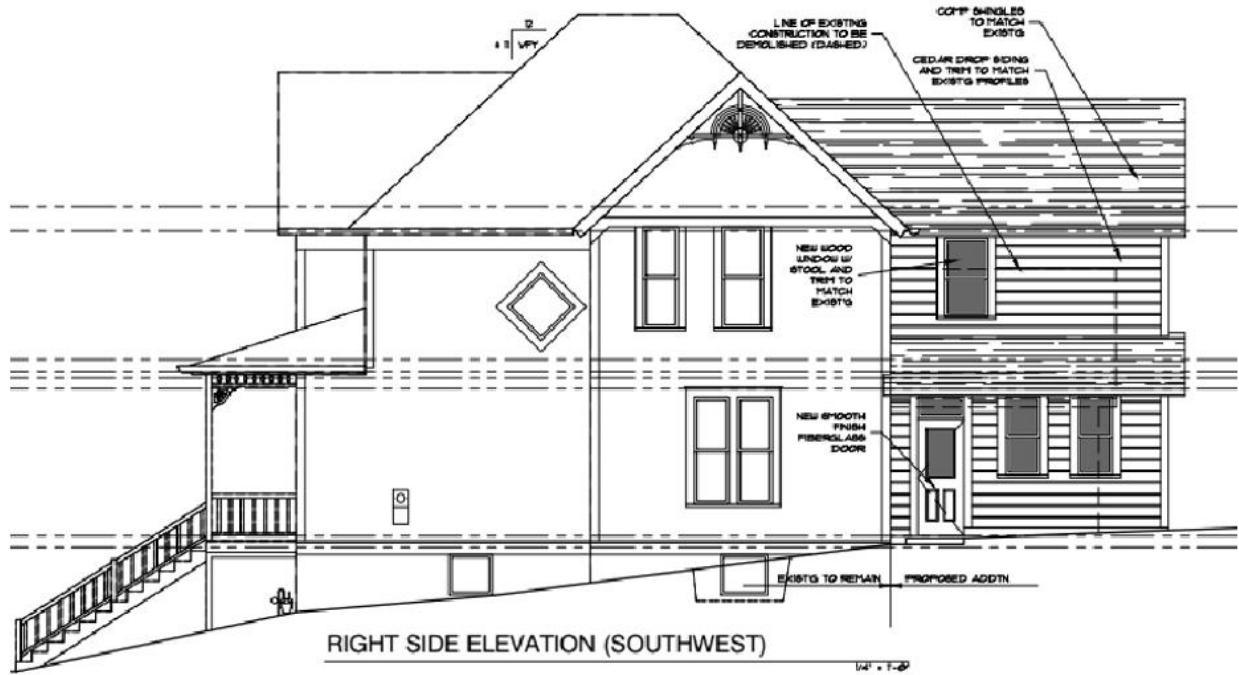
REAR ELEVATION (SOUTHEAST)

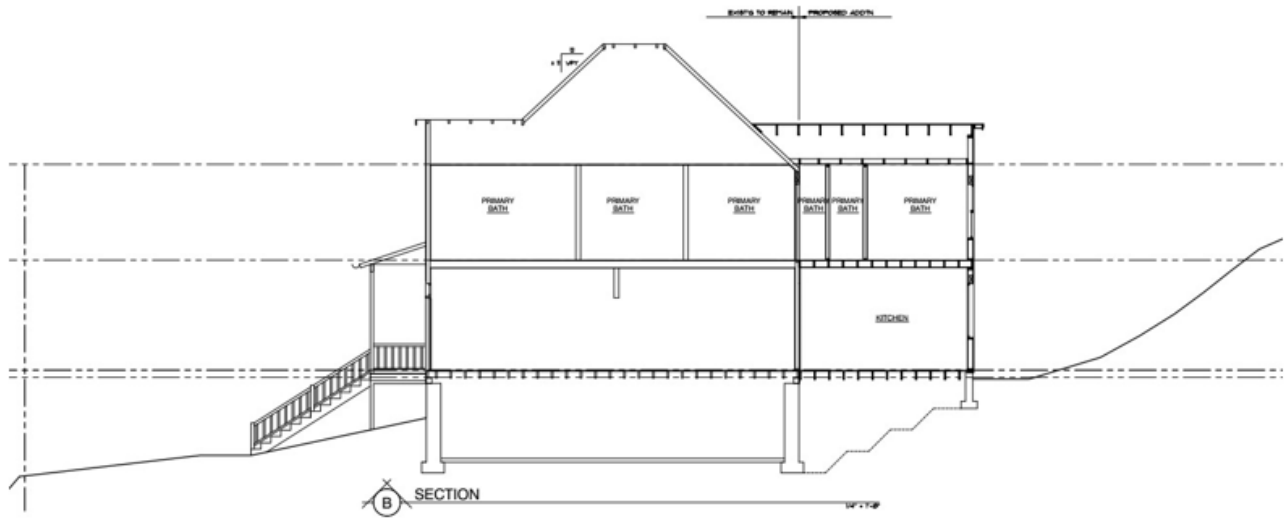
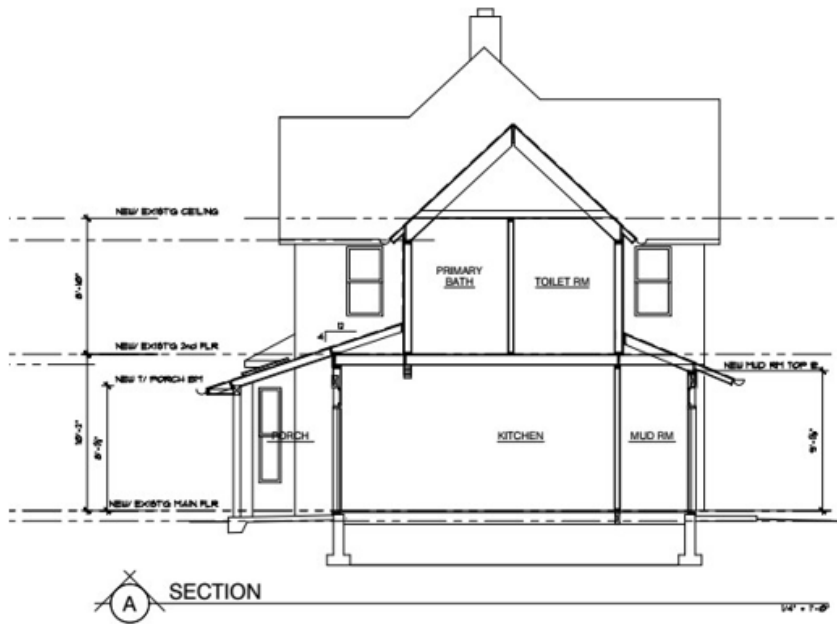
1/4" = 1'-0"



LEFT SIDE ELEVATION (NORTHEAST)

1/4" = 1'-0"







Ground floor layout



Rendering from left rear- note *grading is not properly illustrated and window placement at upper level has been revised*



Rendering from right rear- note *grading is not properly illustrated*

Notice and Public Comment:

A public notice was sent to neighbors within 300 feet of the subject property, posted online, emailed to various entities, and posted on site. The McLoughlin Neighborhood Association provided comment.

The McLoughlin Neighborhood Association has reviewed the application and offers the following feedback:

- *The submitted renderings are very helpful for envisioning the finished product. Recommend the existing and proposed views be presented side-by-side for ease in comparing (this could be presented at the meeting and does not necessarily require a resubmittal).*
- *The view from the parking area on Madison Street (erroneously captioned as Monroe) should be accompanied by a rendering of the proposed addition.*
- *Extreme care should be taken to ensure minimal disturbance impacts to trees and surrounding slopes.*
- *MNA will defer to HRB review and determination of specific design elements.*

II. APPLICABLE STANDARDS AND FINDINGS

17.40.060 - Exterior alteration and new construction.

- A. *Except as provided pursuant to subsection I of this section, no person shall alter any historic site in such a manner as to affect its exterior appearance, nor shall there be any new construction in an historic district, conservation district, historic corridor, or on a landmark site, unless a certificate of appropriateness has previously been issued by the historic review board. Any building addition that is thirty percent or more in area of the historic building (be it individual or cumulative) shall be considered new construction in a district. Further, no major public improvements shall be made in the district unless approved by the board and given a certificate of appropriateness.*

Applicable: The proposal for exterior alteration/addition in a historic district is being reviewed by the Historic Review Board.

- B. *Application for such a certificate shall be made to the planning staff and shall be referred to the historic review board. The application shall be in such form and detail as the board prescribes.*

Complies as Proposed: The applicant submitted the required materials.

- D. [1.] *The historic review board, after notice and public hearing held pursuant to Chapter 17.50, shall approve the issuance, approve the issuance with conditions or disapprove issuance of the certificate of appropriateness.*

Applicable: The proposal is being reviewed by the Historic Review Board.

2. *The following exterior alterations to historic sites may be subject to administrative approval:*
 a. *Work that conforms to the adopted Historic Review Board Policies.*

Not Applicable: The proposal is not subject to administrative approval.

- F. *For exterior alterations of historic sites in an historic district or conservation district or individual landmark, the criteria to be used by the board in reaching its decision on the certificate of appropriateness shall be:*

17.40.060.F (1) - The purpose of the historic overlay district as set forth in Section 17.40.010;

Staff Finding: Complies as Proposed. The subject property will remain as a locally designated structure.

*17.40.060.F (2) -The provisions of the city comprehensive plan;
 Section 5*

Open Spaces, Scenic and Historic Areas, and Natural Resources

Policy 5.3.8

Preserve and accentuate historic resources as part of an urban environment that is being reshaped by new development projects.

Staff Finding: Complies as Proposed. The historic structure is being preserved.

17.40.060.F (3) - The economic use of the historic site and the reasonableness of the proposed alteration and their relationship to the public interest in the structure's or landmark's preservation or renovation;

Staff Finding: Complies as Proposed. The historic use of the site is a single-family residence. The applicant proposes to continue the residential use and add additional kitchen space, bathroom, porch space. The proposal adds value to the structure and preserves it for continued economic use.

17.40.060.F (4) The value and significance of the historic site;

Staff Finding: Complies as Proposed. The house is a designated structure of vernacular design in good condition with almost all of the original elements intact. The proposal adds value to the structure and preserves it for continued economic use.

17.40.060.F (5) - The physical condition of the historic site;

Staff Finding: Complies as proposed. The house is a designated structure in good condition, with almost all of the original elements intact.

17.40.060.F (6) - The general compatibility of exterior design, arrangement, proportion, detail, scale, color, texture and materials proposed to be used with the historic site;

Staff Finding: Complies with Conditions. The applicant proposes to add a net 303-square-foot addition and 94 foot covered porch on the rear of the house. The addition is a single story with a gabled roof. The design is compatible through its scale and proportion and its use of compatible but slightly different materials as conditioned. The massing and materials proposed on the exterior of the addition are compatible with the original Victorian structure. Replicating the spindlework and gingerbread elements of the original home are not proposed since the addition will be at the rear of the home and to differentiate this as an addition to the historic structure.

17.40.060.F (7) Pertinent aesthetic factors as designated by the board;

Staff Finding: Not Applicable. The Board has not identified any additional factors beyond the adopted guidelines.

17.40.060.F (8) Economic, social, environmental and energy consequences; and

Staff Finding: Complies as Proposed. The proposal will have a positive effect on economic, social, environmental, and energy factors. The larger kitchen and primary bath addition will increase the property value of the subject site and neighboring properties. The existing home will be a more viable housing option in the future with the proposed improvements. The compact footprint will extend minimally beyond the existing to preserve open space and will have no impact to the mapped slope hazard area based on the Geo-technical report. The proposed improvement will conform to current Energy Code requirements, increasing the energy efficiency of the structure.

17.40.060.F (9) Design guidelines adopted by the historic review board

Staff Finding: Complies with Conditions:

Design Guidelines for Alterations and Additions

Secretary of Interiors Standards for Rehabilitation

1. A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces, and spatial relationships.

Staff Finding: Complies as Proposed. The use is not proposed to change.

2. The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.

Staff Finding: Complies with the condition. The applicant has provided a rear addition design that is subordinate to the historic building's size and simplified design.

3. Each property will be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.

Staff Finding: Complies as Proposed. No conjectural features are proposed.

4. Changes to a property that have acquired historic significance in their own right will be retained and preserved.

Staff Finding: Complies as Proposed. The existing small addition will be incorporated into the new kitchen/bathroom addition with a redesign and the addition of a side porch. The existing addition was completed sometime after the construction of the historic house, therefore, has gained some significance in its own right. However, its lack of design and location, reduces its overall significance to the house and incorporating it into the proposed 1 ½ story addition is a reasonable approach to meet both the needs of the owners and the adopted design guidelines that call for additions to be compatible, subordinate and differentiated from the historic resources.

5. Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.

Staff Finding: Complies No distinctive materials, features, finishes, and construction techniques or examples of craftsmanship not already found on the historic house will be removed.

6. Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.

Staff Finding: Complies as Proposed. No historic features are deteriorated.

9. New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.

Staff Finding: Complies with Condition. The applicant proposed to construct an addition on the rear side of the house, which will have no impact on the vernacular front façade and the character of the structure. The existing windows and siding will be removed where the addition is to be located. The applicant has not indicated if any of the materials will be reused. The applicant is encouraged to reuse the materials to the extent practicable.

The new addition is not proposed to be differentiated in any specific way. However, because it is located on the rear façade, this distinction is not as critical.

New windows are proposed to be wood, but no details are proposed. New windows shall be wood, fiberglass-clad wood, or metal-clad wood material and shall include the same dimension exterior trim as the existing windows on the home. The applicant shall provide the window details to staff before placing orders or installing to demonstrate compliance with this condition.

Staff has determined that it is possible, likely and reasonable that the applicant can meet this standard through the Conditions of Approval.

Design Guidelines: Alterations – Additions

A. Site

1. In addition to the zoning requirements, the relationship of new additions to the street and to the open space between buildings shall be compatible with adjacent historic buildings and with the historic character of the District.
Complies as Proposed. The site has a rear yard that provides space for the addition without causing any detrimental impact to the open spaces between buildings. The nearest building is a detached garage on the same property.

2. New additions shall be sited so that the impact to the primary facade(s) is kept to a minimum. Additions shall generally be located at the rear portions of the property or in such locations where they have the least visual impact from public ways.

Complies as Proposed. The addition is proposed on the rear façade. The visual impact is limited; and almost non-existent from the street.

B. Landscape

1. Traditional landscape elements evident in the District (grass, trees, shrubs, picket fences, etc.) should be preserved, and are encouraged in site redevelopment.

Complies as Proposed. The addition will require minimal removal of landscape elements. The McLoughlin Neighborhood Association indicated a desire to ensure that all trees to the rear of the site are protected during construction.

2. Inappropriate landscape treatments such as berms and extensive ground cover are discouraged.

Not applicable. No new landscaping is proposed.

C. Building Height

1. In addition to the zoning requirements, the height of new additions shall not exceed the height of the historic building, or of historic buildings in the surrounding area.

Complies as Proposed. The addition is 1.5 story addition on the 1.5 story home.

D. Building Bulk

1. New additions smaller than the historic building or the historic buildings in the surrounding area are encouraged.

a. Where new additions must be larger, the new addition shall be articulated in such a manner that no single element is visually larger than the historic building or surrounding historic buildings.

Complies as Proposed. The volume and massing of the addition are diminutive to the house.

E. Proportion and Scale

1. The relationship of height to width of new additions and their sub-elements such as windows and doors and of alterations shall be compatible with related elements of the historic building, and with the

historic character of the District.

Complies as Proposed. Generally, the placement of the windows and doors is appropriate.

2. The relationship of solids to voids (wall to window) shall be compatible with related elements on the historic building, and with the historic character of the District.

Finding: Complies as Proposed. The applicant proposes windows and doors on the addition with a window rhythm that matches the historic volume.

F. Exterior Features

1. General

a. To the extent practicable, original historic architectural elements and materials shall be preserved.

b. Architectural elements and materials for new additions shall be compatible with related elements of the historic building and with the historic character of the District.

c. The preservation, cleaning, repair and other treatment of original materials shall be in accord with the Secretary of Interior's Standards of Rehabilitation and Guidelines for Rehabilitating Historic Buildings.

Finding: See findings in Secretary of Interior Standards #5, #6, and #9.

IV. CONCLUSIONS AND RECOMMENDATIONS

Based on the following findings, staff recommends that the Historic Review Board approve the proposed development of GLUA-23-00001 and HR 23-00001 -204 Jefferson Street. Alterations & additions on a Historic Structure (Frank and Annie Busch House) in the McLoughlin Conservation District with conditions.

Exhibits

1. Applicant's Submission
2. Public Comment: McLoughlin Neighborhood Association.
3. Inventory Form
4. Secretary of Interiors Standards for Additions

HRB and Geo Hazard Review
Application for
Ilcisin Residence
Remodel & Addition

TABLE OF CONTENTS

A. Site Plan and Design Review Narrative

1. Project Information and Description
2. Code Chapter Criteria
 - Chapter 17.40 Historic Overlay District
 - Chapter 17.44 Geologic Hazards

B. Supplemental Information

1. Geotechnical Report

C. Site Photos and Renderings

D. Drawings

Site Plan
Floor Plans
Building Elevations
Building Sections

Project Information:

Site Address: 204 Jefferson Street
Oregon City, OR 97045
2-2E-31DB-02400

Site Area: .34 Acres

Zone: R-6, Historic Overlay

Project Description:

Remodel and addition to an historic residence that is a designated landmark in the McLoughlin Conservation District. The project includes a main level kitchen expansion and remodel and the enlargement of the upper level to add a bathroom.

Building Area:

	<u>Existing</u>	<u>Demolished</u>	<u>New</u>	<u>Total</u>	<u>Net Difference</u>
Main Level:	1,181 sf	(267 sf)	343 sf	1,257 sf	76 sf
Upper Level:	849 sf		227 sf	1,076 sf	227 sf
Total:	2,030 sf	(267 sf)	570 sf	2,333 sf	303 sf
Covered Porch:	131 sf		94 sf	225 sf	94 sf

Chapter 17.40 HISTORIC OVERLAY DISTRICT

17.40.010 Purpose.

It is declared as a matter of public policy that the protection, enhancement, perpetuation and use of improvements of special character or special historical or aesthetic interest or value is a public necessity and is required in the interest of the health, prosperity, safety and welfare of the people. The purpose of this chapter is to:

- A. Effect and accomplish the protection, enhancement and perpetuation of such improvements and of districts which represent or reflect elements of the city's cultural, social, economic, political and architectural history;*

The proposed remodel and addition will improve and enhance the livability and continued viability of the residence. The design of the remodel is compatible with the original building design, including the existing scale and proportions, and is consistent with the character and style of other residences in the immediate neighborhood and district.

- B. Safeguard the city's historic, aesthetic and cultural heritage as embodied and reflected in such improvements and districts;*

The proposed remodel will preserve and protect the city's cultural heritage by improving and preserving this designated structure within the district. The current rear addition that will be removed and replaced with a new kitchen does not have a secure and adequate foundation. The new addition will incorporate structural systems, including a new foundation, that will meet current gravity and lateral load requirements.

- E. Complement any National Register Historic districts designated in the city;*

The Mcloughlin Neighborhood is not currently a National Register Historic District, but the proposed addition is designed compatible and complimentary to the Victorian style home and will not adversely impact this structure for inclusion in a future NR Historic District.

- F. Stabilize and improve property values in such districts;*

The addition will improve the property value of the subject property and surrounding properties by providing modern amenities and programmatic elements desirable to a wider variety of potential occupants. By adding these elements it is more likely that the home will be preserved in the future.

- G. Foster civic pride in the beauty and noble accomplishments of the past;*

The original home was well constructed as one of the finest homes in the City at the time. The early addition at the rear of the home was not as well constructed with no foundation and will be replaced with a better quality addition that will preserve the original structure in its entirety and eliminate the existing risk of original structure damage.

- H. Protect and enhance the city's attractions to tourists and visitors and the support and stimulus to business and industry thereby provided;*

The existing home with its Victorian character and well maintained grounds has been included in past walking tours of the McLoughlin Neighborhood. The proposed addition at the rear of the structure will not detract in its ability to be included in such future tours and publications. The original structure will be preserved and the addition has been designed to be compatible and discernable as an addition by Preservation professionals.

G. Strengthen the economy of the city;

The larger kitchen and primary bath addition will increase the property value of the subject site and neighboring properties, benefiting the City's tax base and economy.

H. Promote the use of historic districts and landmarks for the education, pleasure, energy conservation, housing and public welfare of the city; and

The proposed addition will not adversely affect the historic district. The new construction and remodeling proposed will increase the energy efficiency of the structure and help to ensure this home remains a viable housing unit for years to come.

I. Carry out the provisions of LCDC Goal 5.

The provisions of LCC Goal 5 will be met with the proposed addition and remodel. The original historic structure will be preserved and the improvements will assist in ensuring its future preservation by adding contemporary amenities and comforts expected by most future occupants.

17.40.030 Designated.

A. The historic overlay district shall apply to the following:

- 1. Historic districts, upon designation in accordance with this section;*
- 2. Conservation districts designated in accordance with this section;*
- 3. Landmarks as designated by this section; and*
- 4. Historic corridors designated in accordance with this section.*

The existing home is a designated landmark within the McLoughlin Historic District. Provisions of this section are applicable.

B. The boundaries of the historic districts, the boundaries of conservation districts, historic corridors, the location of buildings and structures in conservation districts and the location of landmarks shall be designated on a special city zoning map or maps.

No modification to district boundaries or location of a landmark are proposed with this application. Section is not applicable.

C. The following are designated within the historic overlay district:

- 1. The Canemah Historic District; the minimum boundaries of which are those designated by the United States Department of the Interior on the National Register of Historic Places as indicated in the city comprehensive plan.*

The property is not located in The Canemah Historic District. Section is not applicable.

2. *The McLoughlin Conservation District; the surveyed buildings indicated by map in the comprehensive plan shall constitute the designated structures in the McLoughlin Conservation District, along with any structures designated through the Historic Review Board designation process since initial adoption of the comprehensive plan on March 13, 1980.*

The property is designated structure located in The McLoughlin Conservation District and subject to the provisions of OCMC 17.40.

3. *The Oregon Trail-Barlow Road Historic Corridor: properties identified in the 1993 Barlow Road Historic Corridor inventory of the Barlow Road by Clackamas County.*

The property is not located in The Oregon Trail-Barlow Road Historic Corridor. Section is not applicable.

4. *Designations undertaken pursuant to Section 17.40.050. The established historic overlay district shall allow for the designation of two types of districts so that areas with a high concentration of historic structures are designated historic districts and areas with a lower concentration are designated conservation districts. Also allowed is the designation of structures of historic or architectural significance not located in an historic or conservation district as landmarks.*

The residence is a designated landmark within the McLoughlin Conservation District.

17.40.040 Citizen involvement.

- A. *The planning department shall be authorized to incur expenses in holding public workshops in the historic districts and conservation districts, distribute written information, show slides and answer questions on remodeling and rehabilitation of older buildings, and to educate the public in the need to comply with state and federal laws protecting or encouraging protection of antiquities and other related matters concerning historic preservation.*
- B. *Citizens making applications for district or landmark designations or for exterior alterations or new construction in an historic or conservation district, and historic corridor or on a landmark site may consult with and receive advice from the planning department staff concerning their applications.*

No response required.

17.40.050 Designation procedure—Application—Review.

- A. *Institution of Proceedings. The city commission, the planning commission, the historic review board, a recognized neighborhood group or any interested person may initiate the proceedings for designation of an historic or conservation district, landmark, or historic corridor as follows:*
 1. *The city commission or the historic review board may initiate designation proceedings by sending a written proposal or application to the planning staff. Such proposal is not subject to any minimal information requirements other than a description of the boundaries of the area to be designated.*
 2. *Any interested person or recognized neighborhood group may start designation proceedings by sending a written application to the planning staff.*
- B. *Application Information. The planning staff may specify the information required in an application and may from time to time change the content of that information, but at all times the planning staff shall require the following information:*
 1. *The applicant's name and address;*
 2. *The owner's name and address, if different from the applicant;*
 3. *A description of the boundaries of the proposed district or a description of the proposed landmark;*
 4. *A map illustrating the boundaries of the proposed district or the location of the proposed landmark;*
 5. *A statement explaining the following:*

- a. *The reasons why the proposed district or landmark should be designated,*
 - b. *The reason why the boundaries of the proposed district are adequate and suitable for designation,*
 - c. *The positive and negative effects, if any, which designation of the proposed district or landmark would have on the residents or other property owners of the area.*
- C. *The planning staff shall deliver a proposal or an application for the designation to the historic review board within thirty days after the day on which a proposal or application is received. The historic review board shall review the proposal on the application and prepare a written recommendation or decision approving or rejecting the proposed designation.*
- D. *In preparing the recommendation or decision, the historic review board shall limit its review to:*
 - 1. *Whether the proposed district or landmark would serve the purpose of the historic overlay district as stated in Section 17.40.010; and*
 - 2. *Conformity with the purposes of the city comprehensive plan.*
- E. *City Commission Review of District.*
 - 1. *The historic review board shall deliver a copy of its recommendation to the city commission within thirty days.*
 - 2. *The city commission shall hold a public hearing pursuant to procedures contained in Chapter 17.68.*
 - 3. *After the hearing, the city commission may engage in one of the following actions:*
 - a. *Refuse to designate the proposed district; or*
 - b. *Designate the proposed district by a duly enacted ordinance; or*
 - c. *Remand the matter to the historic review board for additional consideration of a specific matter or matters.*
 - 4. *The city commission may limit itself to the proposed district, and as so modified, approve it. Enlargement of the proposed district shall require additional notice and public hearing. The commission may hold such hearing or hearings.*
 - 5. *The approval or disapproval of the designation by the city commission shall be in writing and shall state the reasons for approval or disapproval.*
 - 6. *Amendment or Rescission. The district designation may be amended or rescinded after the board and city commission have utilized the same procedures required by this title for establishment of the designation. The board shall give priority to designation of potential districts and landmarks indicated in the city comprehensive plan.*

The residence is already designated as a landmark within the McLoughlin Conservation District.

17.40.060 Exterior alteration and new construction.

- A. *Except as provided pursuant to subsection I of this section, no person shall alter any historic site in such a manner as to affect its exterior appearance, nor shall there be any new construction in an historic district, conservation district, historic corridor, or on a landmark site, unless a certificate of appropriateness has previously been issued by the historic review board. Any building addition that is thirty percent or more in area of the historic building (be it individual or cumulative) shall be considered new construction in a district. Further, no major public improvements shall be made in the district unless approved by the board and given a certificate of appropriateness.*

The proposed building addition is approximately 15% of the existing building area. Owners are requesting HRB approval.

- B. *Application for such a certificate shall be made to the planning staff and shall be referred to the historic review board. The application shall be in such form and detail as the board prescribes.*

Owners are submitting application for land use which includes HRB approval and Geo-Hazard Review/ approval.

- C. *Archeological Monitoring Recommendation. For all projects that will involve ground disturbance, the applicant shall provide,*
1. *A letter or email from the Oregon State Historic Preservation Office Archaeological Division indicating the level of recommended archeological monitoring on-site, or demonstrate that the applicant had notified the Oregon State Historic Preservation Office and that the Oregon State Historic Preservation Office had not commented within forty-five days of notification by the applicant; and*
 2. *A letter or email from the applicable tribal cultural resource representative of the Confederated Tribes of the Grand Ronde, Confederated Tribes of the Siletz, Confederated Tribes of the Umatilla, Confederated Tribes of the Warm Springs and the Confederated Tribes of the Yakama Nation indicating the level of recommended archeological monitoring on-site, or demonstrate that the applicant had notified the applicable tribal cultural resource representative and that the applicable tribal cultural resource representative had not commented within forty-five days of notification by the applicant.*
- If, after forty-five days' notice from the applicant, the Oregon State Historic Preservation Office or the applicable tribal cultural resource representative fails to provide comment, the city will not require the letter or email as part of the completeness review. For the purpose of this section, ground disturbance is defined as the movement of native soils.*

It is understood that the city will submit notification to SHPO and the applicable tribal representatives. Owners will address any issues or requirements that may arise.

- D. *The historic review board, after notice and public hearing held pursuant to Chapter 17.50, shall approve the issuance, approve the issuance with conditions or disapprove issuance of the certificate of appropriateness.*

Owners will await the decision of the HRB.

- E. *The following exterior alterations to historic sites shall be subject to administrative approval:*
1. *Work that Conforms to the Adopted Historic Review Board Policies. The historic review board policies may be adopted or amended through adoption of a resolution by the city commission, following a public hearing and recommendation by the historic review board. Such policies shall be clear and objective and shall carry out the city's comprehensive plan, especially those elements relating to historic preservation.*

The proposed modifications to the residence conform to the HRB policies as addressed in this application.

- F. *For exterior alterations of historic sites in an historic district or conservation district or individual landmark, the criteria to be used by the board in reaching its decision on the certificate of appropriateness shall be:*
1. *The purpose of the historic overlay district as set forth in Section 17.40.010;*

See specific responses to 17.40.010.

2. *The provisions of the city comprehensive plan;*

The proposed addition will meet LCDC Goal 5 requirements and meets the City's Comprehensive Plan provisions regarding providing for diverse housing, preserving historic structure and complies with current zoning requirements.

3. *The economic use of the historic site and the reasonableness of the proposed alteration and their relationship to the public interest in the structure's or landmark's preservation or renovation;*

The larger kitchen and primary bath addition will increase the property value of the subject site and neighboring properties, benefiting the City's tax base and economy. The original structure will be preserved with this proposed addition.

4. *The value and significance of the historic site;*

The significance of the historic site will be preserved with the proposed addition located at the rear of the existing home replacing the existing structure that is currently there.

5. *The physical condition of the historic site;*

The physical condition of the historic site is exceptional and will be retained with the proposed alterations.

6. *The general compatibility of exterior design, arrangement, proportion, detail, scale, color, texture and materials proposed to be used with the historic site;*

The massing and materials proposed on the exterior of the addition are compatible with the original Victorian structure. Replicating the spindlework and gingerbread elements of the original home are not proposed since the addition will be at the rear of the home and to differentiate this as an addition to the historic structure.

7. *Pertinent aesthetic factors as designated by the board;*

The applicant will work with the Board to modify or incorporate aesthetic features the Board may determine to be essential to the project.

8. *Economic, social, environmental and energy consequences; and*

The larger kitchen and primary bath addition will increase the property value of the subject site and neighboring properties. The existing home will be a more viable housing option in the future with the proposed improvements. The compact footprint will extend minimally beyond the existing to preserve open space and will have no impact to the mapped slope hazard area based on the Geo-technical report. The proposed improvement will conform to current Energy Code requirements, increasing the energy efficiency of the structure.

9. *Design guidelines adopted by the historic review board.*

The proposed addition conforms to the adopted Design Guidelines for historic structures within the neighborhood.

- G. *For construction of new structures in an historic or conservation district, or on an historic site, the criteria to be used by the board in reaching its decision on the certificate of appropriateness shall include the following:*

1. *The purpose of the historic conservation district as set forth in Section 17.40.010;*
2. *The provisions of the city comprehensive plan;*
3. *The economic effect of the new proposed structure on the historic value of the district or historic site;*
4. *The effect of the proposed new structure on the historic value of the district or historic site;*

5. *The general compatibility of the exterior design, arrangement, proportion, detail, scale, color, texture and materials proposed to be used in the construction of the new building or structure;*
6. *Economic, social, environmental and energy consequences;*
7. *Design guidelines adopted by the historic review board.*

Not applicable. The size of the addition is not sufficient to qualify as new construction.

- H. *For construction of new structures in an historic corridor, the criteria to be used by the board in reaching its decision on the certificate of appropriateness shall include the following:*
1. *The purpose of the historic overlay district as set forth in Section 17.40.010;*
 2. *The policies of the city comprehensive plan;*
 3. *The impact on visible evidence of the trail;*
 4. *The impact on archaeological evidence when there exists documented knowledge of archeological resources on the property;*
 5. *The visual impact of new construction within the historic corridor; and*
 6. *The general compatibility of the site design and location of the new construction with the historic corridor considering the standards of subsection G of this section.*

Not applicable. The size of the addition is not sufficient to qualify as new construction and it is not located in a historic corridor.

- I. *The following standards apply to development within historic corridors:*
1. *Within the Oregon Trail-Barlow Road historic corridor, a minimum of a thirty-foot wide-open visual corridor shall be maintained and shall follow the actual route of the Oregon Trail, if known. If the actual route is unknown, the open visual corridor shall connect within the open visual corridor on adjacent property.*
 2. *No new building or sign construction shall be permitted within required open visual corridors. Landscaping, parking, streets, driveways are permitted within required open visual corridors.*
- J. *In rendering its decision, the board's decision shall be in writing and shall specify in detail the basis therefore.*
- K. *Nothing in this section shall be construed to prevent the ordinary maintenance or repair of any exterior architectural features which does not involve a change in design, material or the outward appearance of such feature which the building official shall certify is required for the public safety because of its unsafe or dangerous condition.*

Not applicable. The residence is not located in a historic corridor.

17.40.065 Historic preservation incentives.

- A. *Purpose. Historic preservation incentives increase the potential for historically designated properties to be used, protected, renovated, and preserved. Incentives make preservation more attractive to owners of locally designated structures because they provide flexibility and economic opportunities.*
- B. *Eligibility for Historic Preservation Incentives. All exterior alterations of designated structures and new construction in historic and conservation districts are eligible for historic preservation incentives if the exterior alteration or new construction has received a certificate of appropriateness from the Historic Review Board per OCMC 17.50.110(c).*
- C. *Incentives Allowed. The dimensional standards of the underlying zone as well as for accessory buildings (OCMC 17.54.100) may be adjusted to allow for compatible development if the expansion or new construction is approved through historic design review.*
- D. *Process. The applicant must request the incentive at the time of application to the Historic Review Board.*

No historic preservation incentives are being requested.

17.40.070 Demolition and moving.

- A. *If an application is made for a building or moving permit to demolish or move all or part of a structure which is a landmark or which is located in a conservation district or an historic district, the building inspector shall, within seven days, transmit to the historic review board a copy of the transaction.*
- B. *The historic review board shall hold a public hearing within forty-five days of application pursuant to the procedures in Chapter 17.50.*
- C. *In determining the appropriateness of the demolition or moving as proposed in an application for a building or moving permit, the board shall consider the following:*
 - 1. *All plans, drawings and photographs as may be submitted by the applicant;*
 - 2. *Information presented to a public hearing held concerning the proposed work;*
 - 3. *The city comprehensive plan;*
 - 4. *The purpose of this section as set forth in Section 17.40.010;*
 - 5. *The criteria used in the original designation of the landmark or district in which the property under consideration is situated;*
 - 6. *The historical and architectural style, the general design, arrangement, materials of the structure in question or its fixtures; the relationship of such features to similar features of the other buildings within the district and the position of the building or structure in relation to public rights-of-way and to other buildings and structures in the area;*
 - 7. *The effects of the proposed work upon the protection, enhancement, perpetuation and use of the district, which cause it to possess a special character or special historic or aesthetic interest or value;*
 - 8. *Whether denial of the permit will involve substantial hardship to the applicant, and whether issuance of the permit would act to the substantial detriment of the public welfare and would be contrary to the intent and purposes of this section;*
 - 9. *The economic, social, environmental and energy consequences.*
- D. *The failure of the applicant to provide the information required by Subsection C.1.—9. shall be grounds for deeming the application incomplete.*
- E. *The board may approve or deny the demolition or moving request after considering the criteria contained in Section 17.40.070C. Action by the board approving or denying the issuance of a permit for demolition or moving may be appealed to the city commission by any aggrieved party, by filing a notice of appeal, in the same manner as provided in Section 17.50 for appeals. If no appeal of a demolition permit is filed, the building official shall issue the permit in compliance with all other codes and ordinances of the city.*
- F. *In any case where the city commission has ordered the removal or demolition of any structure determined to be dangerous to life, health or property, nothing contained in this title shall be construed as making it unlawful for any person, without prior approval of the historic review board, pursuant to this title, to comply with such order.*

No building moving is proposed and only minor, select demolition is proposed in conjunction with the remodel and addition.

Chapter 17.44 GEOLOGIC HAZARDS

17.44.010 Intent and purpose.

The intent and purpose of the provisions of this chapter are:

- A. *To ensure that activities in geologic hazard areas are designed based on detailed knowledge of site conditions in order to reduce the risk of private and public losses;*
- B. *To establish standards and requirements for the use of lands within geologic hazard areas;*
- C. *To provide safeguards to prevent undue hazards to property, the environment, and public health, welfare, and safety in connection with use of lands within geologic hazard areas;*
- D. *To mitigate risk associated with geologic hazard areas, not to act as a guarantee that the hazard risk will be eliminated, nor as a guarantee that there is a higher hazard risk at any location. Unless otherwise provided, the geologic hazards regulations are in addition to generally applicable standards provided elsewhere in the Oregon City Municipal Code.*

The project site is part of a mapped geologic hazard/ slope area requiring the requirements of this Chapter be met to ensure public safety.

17.44.025 When required; regulated activities; permit and approval requirements.

No person shall develop land, construct, reconstruct, structurally alter, relocate or enlarge any building or structure for which a land development, sign, or building permit is required on a property that contains an area mapped within the adopted Oregon City Geologic Hazards Overlay Zone without first obtaining permits or approvals as required by this chapter.

The requirements of this chapter are in addition to other provisions of the Oregon City Municipal Code. Where the provisions of this chapter conflict with other provisions of the Oregon City Municipal Code, the provisions that are the more restrictive of regulated development activity shall govern.

The proposed addition and alterations associated with this project will be permitted and approved in accordance with State and Local regulations prior to the start of any demolition or construction work.

17.44.030 Procedures.

No building or site development permit or other authorization for development shall be issued until the plans and other documents required by this chapter have been reviewed and found by the review authority to comply with the requirements of this chapter.

- A. *Where the development is part of an application that otherwise requires a Type III procedure, review shall occur in the manner established in Chapter 17.50 for a consolidated Type III review.*
- B. *Where the development is part of an application that otherwise requires a Type II procedure, review shall occur in the manner established in Chapter 17.50 for a consolidated Type II review.*
- C. *For any other proposed development not otherwise subject to review as part of a development proposal that requires land use review, review shall occur in the manner established in Chapter 17.50 for a Type II procedure.*

A consolidated Type II application for Geologic Hazard Review and Historic Review is being sought with this application.

17.44.035 Exemptions.

The following activities, and persons engaging in same, are EXEMPT from the provisions of this chapter.

- A. *An excavation which is less than two feet in depth, or which involves less than twenty-five cubic yards of volume;*
- B. *A fill which does not exceed two feet in depth or which includes less than twenty-five cubic yards of volume;*
- C. *A combined cut and fill that does not involve more than twenty-five cubic yards of volume.*

- D. *Installation, new construction, addition or structural alteration of any existing structure of less than five hundred square feet in building footprint that does not involve grading as defined in this chapter;*
- E. *Installation, construction, reconstruction, or replacement of public and private utility lines in the hardscape portion of the city right-of-way, existing utility crossings, existing basalt lined drainage channels, or public easement, not including electric substations;*
- F. *Tree removal on slopes twenty-five percent or greater where canopy area removal is less than twenty-five percent of the portion of the lot which contains twenty-five percent or greater slopes. For the purpose of this chapter, "tree" shall be as defined in OCMC 17.04.1315.*
- G. *The removal or control of noxious vegetation;*
- H. *Emergency actions which must be undertaken immediately to prevent an imminent threat to public health or safety, or prevent imminent danger to public or private property. The person undertaking emergency action shall notify the building official on all regulated activities associated with any building permit or city engineer/public works director on all others within one working day following the commencement of the emergency activity. If the city engineer/public works director or building official determine that the action or part of the action taken is beyond the scope of allowed emergency action, enforcement action may be taken.*

The proposed work will likely exceed the exempt activities allowed under the provisions of this chapter, so approval of a geo-hazard application is being sought. The area of the footprint expansion is only 168 sq. ft.; less than the 500 sq. ft. exemption permitted. The excavation for the addition should be approximately 13 cu. yds. The portion of the structure proposed to be demolished and reconstructed has inadequate crawl space access and will likely require 9-13 cu. yds of excavation in order to properly step the foundation and allow for a code minimum crawl space. The total amount of excavated material will likely be between 21 and 26 cu. yds. The maximum exempt amount of excavation is 25 cu. yds. Geo-hazard review and approval is being sought with this application in order to allow for unforeseen conditions which could require excavation in excess of 25 cu. yds.

17.44.050 Development—Application requirements and review procedures and approvals.

Except as provided by subsection C of this section, an application for a geologic hazards overlay review shall include the following:

- A. *A geological assessment and geotechnical report that specifically includes, but is not limited to:*
 - 1. *Comprehensive information and data regarding the nature and distribution of underlying geology, the physical and chemical properties of existing soils and groundwater; an opinion of site geologic stability, and conclusions regarding the effect of geologic conditions on the proposed development. In addition to any field reconnaissance or subsurface investigation performed for the site, the following resources, as a minimum, shall be reviewed to obtain this information and data:*
 - a. *The State of Oregon Department of Geology and Mineral Industries (DOGAMI) in Bulletin 99, Geology and Geological Hazards of North Clackamas County, Oregon (1979), or in any subsequent DOGAMI mapping for the Oregon City area;*
 - b. *Portland State University study entitled "Environmental Assessment of Newell Creek Canyon, Oregon City, Oregon" (1992);*
 - c. *Portland State University study, "Landslides in the Portland, Oregon, Metropolitan Area Resulting from the Storm of February 1996: Inventory Map, Database and Evaluation" (Burns and others, 1998);*
 - d. *DOGAMI Open File Report O-06-27, "Map of Landslide Geomorphology of Oregon City, Oregon, and Vicinity Interpreted from LIDAR Imagery and Aerial Photographs" (Madin and Burns, 2006);*
 - e. *"Preliminary Geologic Map of the Oregon City Quadrangle, Clackamas County, Oregon" (Madin, in press);*

- f. *Landslide Hazards Land Use Guide for Oregon Communities (October 2019), prepared by the State of Oregon Department of Geology and Mineral Industries (DOGAMI) and the Oregon Department of Land Conservation and Development (DLCD);*
- g. *Landslide hazard and risk study of northwestern Clackamas County, Oregon: Oregon Department of Geology and Mineral Industries, Open-File Report O-13-08, 74 map plates; Burns, W.J., Mickelson, K.A., Jones, C.B., Pickner, S.G., Hughes, K.L., Sleeter, R., 2013.*
- h. *Mapped landslide data shall be from the city's maps as a minimum but may be supplemented with maps from items a through f above.*
- 2. *Information and recommendations regarding existing local drainage, proposed permit activity impacts on local drainage, and mitigation to address adverse impacts;*
- 3. *Comprehensive information about site topography;*
- 4. *Opinion as to the adequacy of the proposed development from an engineering standpoint;*
- 5. *Opinion as to the extent that instability on adjacent properties may adversely affect the project;*
- 6. *Description of the field investigation and findings, including logs of subsurface conditions and laboratory testing results;*
- 7. *Conclusions regarding the effect of geologic conditions on the proposed development, tree removal, or grading activity;*
- 8. *Specific requirements and recommendations for plan modification, corrective grading, and special techniques and systems to facilitate a safe and stable site;*
- 9. *Recommendations and types of considerations as appropriate for the type of proposed development:*
 - a. *General earthwork considerations, including recommendations for temporary and permanent cut and fill slopes and placement of structural fill;*
 - b. *Location of residence on lot;*
 - c. *Building setbacks from slopes;*
 - d. *Erosion control techniques applicable to the site;*
 - e. *Surface drainage control to mitigate existing and potential geologic hazards;*
 - f. *Subsurface and/or management of groundwater seepage;*
 - g. *Foundations;*
 - h. *Embedded/retaining walls;*
 - i. *Management of surface water and irrigation water; and*
 - j. *Impact of the development on the slope stability of the lot and the adjacent properties.*
 - k. *Construction phasing and implementation schedule as it relates to foundation excavation, allowance for stockpiles, imported backfill, site subsurface drainage or dewatering, provision for off season site protections;*
 - l. *Stormwater management; and*
 - m. *Construction methods.*

Refer to attached Geo Technical Investigation and Geological Assessment prepared by Redmond GeoTechnical Services for information in Section 9 above.

- 10. *Scaled drawings that describe topography and proposed site work, including:*
 - a. *Natural physical features, topography at two or ten-foot contour intervals locations of all test excavations or borings, watercourses both perennial and intermittent, ravines and all existing and man-made structures or features all fully dimensioned, trees six-inch caliper or greater measured four feet from ground level, rock outcroppings and drainage facilities;*
 - b. *All of the features and detail required for the site plan above, but reflecting preliminary finished grades and indicating in cubic yards whether and to what extent there will be a net increase or loss of soil.*
 - c. *A cross-section diagram, indicating depth, extent and approximate volume of all excavation and fills.*

Refer to attached Geo Technical Investigation and Geological Assessment prepared by Redmond GeoTechnical Services and Architectural drawings for information in Section 10 above.

11. *For properties greater than one acre and any property that has any portion of its property existing within a mapped landslide, where the activity is not exempted by Section 17.44.035, a preliminary hydrology report, prepared by a suitably qualified and experienced hydrology expert, addressing the effect upon the watershed in which the proposed development is located; the effect upon the immediate area's stormwater drainage pattern of flow, the impact of the proposed development upon downstream areas and upon wetlands and water resources; and the effect upon the groundwater supply.*

Section is not applicable. Site is less than one acre in size.

- A. *Review procedures and approvals require the following:*
 1. *Examination to ensure that:*
 - a. *Required application requirements are completed;*
 - b. *Geologic assessment and geotechnical report procedures and assumptions are generally accepted; and*
 - c. *All conclusions and recommendations are supported and reasonable.*
 2. *Conclusions and recommendations stated in an approved assessment or report shall then be directly incorporated as permit conditions or provide the basis for conditions of approval for the regulated activity.*
 3. *All geologic assessments and geotechnical reports shall be reviewed by an engineer certified for expertise in geology or geologic engineering and geotechnical engineering, respectively, as determined by the city. The city will prepare a list of prequalified consultants for this purpose. The cost of review by independent review shall be paid by the applicant.*
- B. *The city engineer may waive one or more requirements of subsections A and B of this section if the city engineer determines that site conditions, size or type or development of grading requirements do not warrant such detailed information. If one or more requirements are waived, the city engineer shall, in the staff report or decision, identify the waived provision(s), explain the reasons for the waiver, and state that the waiver may be challenged on appeal and may be denied by a subsequent review authority.*

The City Engineer is requested to review the submitted information and confirm the assessment and recommendations in the provided report.

17.44.060 Development standards.

Notwithstanding any contrary dimensional or density requirements of the underlying zone, the following standards shall apply to the review of any development proposal subject to this chapter. Requirements of this chapter are in addition to other provision of the Oregon City Municipal Code. Where provision of this chapter conflict with other provision of the Oregon City Municipal Code, the provisions that are more restrictive of regulated development activity shall govern.

- A. *All developments shall be designed to avoid unnecessary disturbance of natural topography, vegetation and soils. To the maximum extent practicable as determined by the review authority, tree and ground cover removal and fill and grading for residential development on individual lots shall be confined to building footprints and driveways, to areas required for utility easements and for slope easements for road construction, and to areas of geotechnical remediation.*

The development proposed is limited to that required for the building footprint which has been designed to be the minimum disturbance of the natural topography, working

with a previously graded level portion of the site. No additional disturbance is proposed.

- B. All grading, drainage improvements, or other land disturbances shall only occur from May 1 to October 31. "Land disturbance" is defined as any movement of earth, placement of earth, or movement of heavy trucks on earth, not including the right-of-way. Erosion control measures shall be installed and functional prior to any disturbances. Erosion control measures shall also be functioning and in a winterized stable condition once all land disturbance work has ceased for the year. The city engineer may allow grading, drainage improvements or other land disturbances to begin before May 1 (but no earlier than March 16) and end after October 31 (but no later than November 30), based upon weather conditions and the recommendation and direction of the project's geotechnical engineer. The city engineer may use the expertise of a city contracted geotechnical consultant to make the decision to allow any work before May 1 or after October 31. The city engineer has full authority to not allow any extension of work before May 1 or after October 31. In no case shall the applicant be allowed to begin work before May 1 or complete work after October 31 if the average monthly rainfall in any individual month between September and April is exceeded.*

When allowed by the city engineer, the modification of dates shall be the minimum necessary, based upon the evidence provided by the applicant, to accomplish the necessary project goals. Temporary protective fencing shall be established around all trees and vegetation designed for protection prior to the commencement of grading or other soil disturbance.

All grading work shall be done between May 1 or October 31 and in accordance with the Recommendations in the report prepared by Redmond GeoTechnical Services or as modified by the City Engineer.

- B. Designs shall minimize the number and size of cuts and fills.*

The project has been designed to minimize number and size of cuts. No fill is proposed..

- D. Cut and fill slopes greater than seven feet in height (as measured vertically) shall be terraced. Faces on a terraced section shall not exceed five feet. Terrace widths shall be a minimum of three feet and shall be vegetated. Total cut and fill slopes shall not exceed a vertical height of fifteen feet. Except in connection with geotechnical remediation plans approved in accordance with the chapter, cuts shall not remove the toe of any slope that contains a known landslide or is greater than twenty-five percent slope. The top of cut or fill slopes not utilizing structural retaining walls shall be located a minimum of one-half the height of the cut slope from the nearest property line.*

No cut and fill slopes greater than seven feet in height are proposed. No terracing is proposed.

- E. Any structural fill shall be designed by a suitably qualified and experienced civil or geotechnical engineer licensed in Oregon in accordance with standard engineering practice. The applicant's engineer shall certify that the fill has been constructed as designed in accordance with the provisions of this chapter. The structural fill design must be provided prior to any fill being placed onsite. The structural fill design must contain the stamp and signature of a professional engineer licensed in the state of Oregon.*

No structural fill is proposed. Section is not applicable.

- F. Retaining walls shall be constructed in accordance with the Oregon Structural Specialty Code adopted by the state of Oregon.*

No retaining walls are proposed. Section is not applicable.

1. *Retaining walls that are four feet or greater in height, tiered walls with a total height four feet or greater, and walls on slopes steeper than 2:1 must be designed by a professional engineer licensed in the State of Oregon which includes a stamped and signed set of plans.*
 2. *The construction of the wall must be inspected by the professional engineer responsible for the design and must be certified prior to the structure receiving temporary occupancy. The certification must contain the stamp and signature of a professional engineer licensed in the state of Oregon.*
 3. *All retaining walls required to be designed by a professional engineer shall be reviewed by the city, when expertise exists on staff, or by the city's consultant. When reviewed by the city's consultant, the applicant shall reimburse the city for time spent by the city's consultant to review the design.*
- G. *Roads shall be the minimum width necessary to provide safe vehicle and emergency access, minimize cut and fill and provide positive drainage control. The review authority may grant a variance from the city's required road standards upon findings that the variance would provide safe vehicle and emergency access and is necessary to comply with the purpose and policy of this chapter.*

No roads are proposed. Section is not applicable.

H. *Density shall be determined as follows:*

1. *Slope.*
 - a. *For those areas with slopes less than twenty-five percent between grade breaks, the allowed density shall be that permitted by the underlying zoning district, unless further limited by the following code section;*
 - b. *For those areas with slopes of twenty-five to thirty-five percent between grade breaks, the density shall not exceed two dwelling units per acre except as otherwise provided in subsection I of this section;*
 - c. *For those areas with slopes over thirty-five percent between grade breaks, development shall be prohibited except as otherwise provided in subsection I.4 of this section.*
2. *Existing landslide (as shown in the geologic hazard overlay zone)*
 - a. *For those areas with historic landslides where the structure or ground disturbance will be located within any portion of the mapped landslide or buffer zone, the density shall not exceed two dwelling units per acre except as otherwise provided in subsection I of this section;*

Proposed development is addition to existing single family residence. Density criterion is not applicable.

- I. *For properties with slopes of twenty-five to thirty-five percent between grade breaks or are located within any portion of a mapped landslide and buffer zone:*
1. *For those portions of the property with slopes of twenty-five to thirty-five percent or located within any portion of a mapped landslide and buffer zone, the maximum residential density shall be limited to two dwelling units per acre; provided, however, that where the entire site is less than one-half acre in size, a single dwelling shall be allowed on a lot or parcel existing as of January 1, 1994 and meeting the minimum lot size requirements of the underlying zone;*
 2. *An individual lot or parcel with slopes between twenty-five and thirty-five percent or located within any portion of a mapped landslide and buffer zone, shall have no more than fifty percent or four thousand square feet of the surface area, whichever is smaller, graded or stripped of vegetation or covered with structures or impermeable surfaces.*
 3. *No cut into a slope of twenty-five to thirty-five percent or located within any portion of a mapped landslide and buffer zone, for the placement of a housing unit shall exceed a maximum vertical height of fifteen feet for the individual lot or parcel.*

Proposed development is addition to existing single family residence on previously graded portion of the site. No cut into slope area is proposed with this project.

4. *For those portions of the property with slopes over thirty-five percent between grade breaks:*
 - a. *Notwithstanding any other city land use regulation, development other than roads, utilities, public facilities and geotechnical remediation shall be prohibited; provided, however, that the review authority may allow development upon such portions of land upon demonstration by an applicant that failure to permit development would deprive the property owner of all economically beneficial use of the property. This determination shall be made considering the entire parcel in question and contiguous parcels in common ownership on or after January 1, 1994, not just the portion where development is otherwise prohibited by this chapter. Where this showing can be made on residentially zoned land, development shall be allowed and limited to one single-family residence. Any development approved under this chapter shall be subject to compliance with all other applicable city requirements as well as any applicable state, federal or other requirements;*
 - b. *To the maximum extent practicable as determined by the review authority, the applicant shall avoid locating roads, utilities, and public facilities on or across slopes exceeding thirty-five percent.*

No portion of the site exceeds 35% between grade breaks. Criterion is not applicable.

- J. *The geotechnical engineer of record shall review final grading, drainage, and foundation plans and specifications and confirm in writing that they are in conformance with the recommendations provided in their report.*

The geotechnical engineer of record will review final construction plans and oversee grading activities.

- K. *At the city's discretion, peer review shall be required for the geotechnical evaluation/investigation report submitted for the development and/or lot plans. The peer reviewer shall be selected by the city. The applicant's geotechnical engineer shall respond to written comments provided by the city's peer reviewer prior to issuance of building permit.*

The applicant will defer peer review requirements for this project to the City Engineer.

- L. *The review authority shall determine whether the proposed methods of rendering a known or potential hazard site safe for construction, including proposed geotechnical remediation methods, are feasible and adequate to prevent landslides or damage to property and safety. The review authority shall consult with the city's geotechnical engineer in making this determination. Costs for such consultation shall be paid by the applicant. The review authority may allow development in a known or potential hazard area as provided in this chapter if specific findings are made that the specific provisions in the design of the proposed development will prevent landslides or damage. The review authority may impose any conditions, including limits on type or intensity of land use, which it determines are necessary to assure that landslides or property damage will not occur.*

The applicant will comply with all reasonable conditions of approval imposed by the City with regard to geotechnical remediation.

17.44.070 Access to property.

- A. *Shared private driveways may be required if the city engineer or principal planner determines that their use will result in safer location of the driveway and lesser amounts of land coverage than would result if separate private driveways are used.*
- B. *Innovations in driveway design and road construction shall be permitted in order to keep grading and cuts or fills to a minimum and to achieve the purpose and policy of this chapter.*
- C. *Points of access to arterials and collectors shall be minimized.*
- D. *The city engineer or principal planner shall verify that adequate emergency services can be provided to the site.*

Criteria are not applicable. Development is small addition to existing single family residence.

17.44.080 Utilities.

All new utilities (storm sewer, sanitary sewer, potable water, and gas), both on-site and off-site, shall be placed underground and under roadbeds where practicable. All other service utilities (including, but not limited to, electric, telephone, telecom, cable, fiberoptic) shall be placed above ground on existing poles if poles exist. If no poles exist, the service lines shall be placed underground. Every effort shall be made to minimize the impact of utility construction. Underground utilities require the geologic hazards permitting and review prescribed herein when applicable.

Criterion is not applicable. No new utilities are proposed.

17.44.090 Stormwater drainage.

The applicant shall submit a permanent and complete stormwater control plan. The program shall include, but not be limited to the following items as appropriate: Curbs, gutters, inlets, catch basins, detention facilities and stabilized outfalls. Detention facilities shall be designed to city standards as set out in the city's drainage master plan and design standards. The review authority may impose conditions to ensure that waters are drained from the development so as to limit degradation of water quality consistent with Oregon City's Title III section of the Oregon City Municipal Code Chapter 17.49 and the Oregon City Stormwater and Grading Design Standards or other adopted standards subsequently adopted by the city commission. The review authority may also impose conditions to limit the volume, velocity, or flow rate of water such that it does not negatively impact the underlying drainageway cross section. Drainage design shall be approved by the city engineer before construction, including grading or other soil disturbance, has begun.

A geotechnical report must include analysis and solutions for infiltration facilities located in areas where these facilities could impact nearby slopes of greater than ten percent. Infiltration shall be minimized as practicable for any site located within a geologic hazard overlay. Infiltration is not allowed for any site located in areas greater than twenty-five percent.

The project's civil or geotechnical engineer shall inspect any stormwater management feature and must certify that the stormwater management feature was constructed per plan and with the recommendations of the geotechnical engineer prior to receiving temporary occupancy. The certification must contain the stamp and signature of a professional engineer licensed in the state of Oregon.

The small increase in impervious area proposed does not require any additional stormwater control features. New roof and foundation drainage will tie to existing systems and be reviewed and approved by the Geotechnical engineer of record if deemed acceptable.

17.44.100 Construction standards.

During construction on land subject to this chapter, the following standards shall be implemented by the developer:

- A. All development activity shall minimize vegetation removal and soil disturbance and shall provide positive erosion prevention measures in conformance with OCMC Chapter 17.47—Erosion and Sediment Control.*

Erosion control measures shall be implemented prior to and maintained for the duration of construction activities. Refer to Site Plan Drawing.

- B. No grading, clearing or excavation of any land shall be initiated prior to approval of the grading plan, except that the city engineer shall authorize the site access, brush to be cleared and the location of the test pit digging prior to approval of such plan to the extent needed to complete preliminary and final engineering and surveying. The grading plan shall be approved by the city engineer as part of the city's review under this chapter. The developer shall be responsible for the proper execution of the approved grading plan.*

Measures shall be taken to protect against landslides, mudflows, soil slump and erosion. Such measures shall include sediment fences, straw bales, erosion blankets, temporary sedimentation ponds, interceptor dikes and swales, undisturbed buffers, grooving and stair stepping, check dams, etc. The applicant shall comply with the measures described in the Oregon City Public Works Standards for Erosion and Sedimentation Control (Ordinance No. 99-1013). Erosion control measures shall be in place at all times during construction to the maximum extent practicable.

No grading or clearing will be done prior to approvals being obtained. Excavation will be limited to that required for new foundations and not involve any sloping areas.

- B. All disturbed vegetation shall be replanted with suitable vegetation upon completion of the grading of the steep slope area.*

No excavation of steep slope area or removal of vegetation is proposed.

- D. Existing vegetative cover shall be maintained to the maximum extent practicable. No grading, compaction or change in ground elevation, soil hydrology and/or site drainage shall be permitted within the drip line of trees designated for protection, unless approved by the city.*

No existing vegetative cover is proposed to be cleared as part of this project. Tree removal on steep slope will only be as approved by the City.

- E. Existing perennial and intermittent watercourses shall not be disturbed unless specifically authorized by the review authority. This includes physical impacts to the stream course as well as siltation and erosion impacts. The city, at its discretion, is not required to but may request the examination and assessment by other state agencies to determine if impacts are acceptable.*

Criterion is not applicable. No disruption or relocation of any water course is proposed.

- F. All soil erosion and sediment control measures shall be maintained during construction and for one year after development is completed, or until soils are stabilized by revegetation or other measures to the satisfaction of the city engineer. Such maintenance shall be the responsibility of the developer. If erosion or sediment control measures are not being properly maintained or are not functioning properly due to faulty installation or neglect, the city may order work to be stopped.*

Erosion control measures shall be implemented prior to and maintained for the duration of construction activities. Erosion and sediment control measures are proposed to be removed upon completion of construction; if acceptable to The City, rather than retained for one year.

- I. All newly created lots, either by subdivision or partition, shall contain building envelopes with a slope of thirty-five percent or less.*

Criteria is not applicable. No new lots are proposed with this development.

- J. The applicant's geotechnical engineer shall provide special inspection during construction to confirm that the subsurface conditions and assumptions made as part of their geotechnical evaluation/investigation are appropriate. This will allow for timely design changes if site conditions are encountered that are different from those anticipated. Inspection is required on a daily basis for any day that earth disturbance is occurring or after any rainfall event of one-half inch or greater.*

The geotechnical engineer of record will provide special inspection services during excavation and to confirm foundations are in accordance with recommendations.

- I. Prior to issuing an occupancy permit, the geotechnical engineer shall prepare a summary letter stating that the soils- and foundation-related project elements were accomplished in substantial conformance with their recommendations. The summary letter must contain the stamp and signature of a professional engineer licensed in the State of Oregon.*

The geotechnical engineer of record will provide a summary letter prior to building final inspection.

17.44.110 Approval of development.

The city engineer shall review the application and verify, based on the applicant's materials and the land use record, whether the proposed development constitutes a hazard to life, property, natural resources or public facilities. If, in the city engineer's opinion, a particular development poses such a hazard, the city engineer shall recommend to the review authority permit conditions designed to reduce or eliminate the hazard. These conditions may include, but are not limited to, prohibitions on construction activities between November 1st and April 30th.

Approval of this development by the City Engineer is requested with this application.

17.44.120 Liability.

Approval of an application for development on land subject to this chapter shall not imply any liability on the part of the city for any subsequent damage due to earth slides. Prior to the issuance of a building permit, a waiver of damages and an indemnity and hold harmless agreement shall be required which releases the city from all liability for any damages resulting from the development approved by the city's decision. The indemnity and hold harmless agreement shall be recorded on the property and run with the property.

17.44.130 Compliance.

Nothing contained in this chapter shall relieve the developer of the duty to comply with any other provision of law. In the case of a conflict, the more restrictive regulation shall apply.

17.44.140 Appeal.

The review authority's decision may be appealed in the manner set forth in Chapter 17.50.

B. SUPPLEMENTAL INFORMATION



Geotechnical Investigation

and

Geologic Hazard Assessment Services

Proposed Ilcisin Single-Family Residential Home Addition

Tax Lot No. 2400, 204 Jefferson Street

Oregon City (Clackamas County), Oregon

for

Ms. Willemijn Ilcisin

**Project No. 1954.001.G
May 2, 2022**



Project No. 1954.001.G

Page No. 1

May 2, 2022

Ms. Willemijn Ilcisin
204 Jefferson Street
Oregon City, Oregon 97045

Dear Mr. Ilcisin:

**RE: Geotechnical Investigation and Geologic Hazard Assessment Services,
Proposed Ilcisin Single-Family Residential Home Addition, Tax Lot No. 2400,
204 Jefferson Street, Oregon City (Clackamas County), Oregon**

INTRODUCTION

In accordance with the request and authorization of Ms. Willemijn Ilcisin, we have completed our Geotechnical Investigation and Consultation Services with regard to the proposed Ilcisin residential home addition at the above subject existing Ilcisin single-family residential home site. The subject existing residential property (Tax Lot No. 2400) is generally sited to the east of Jefferson Street and to the south of 3rd Street in the city of Oregon City (Clackamas County), Oregon (see Site Vicinity and Geologic Map, Figure No. 1).

PROJECT DESCRIPTION

We understand that present plans for the project is to construct a new addition to the existing single-family residential structure. Specifically, we understand that the project will consist of the removal of an existing older single-story wood-frame addition located at the southwesterly corner of the existing residential home and the construction of a new single- and/or two-story wood-frame addition along the easterly side of the existing residential structure. Reportedly, the new addition will have a base and/or ground floor footprint of approximately 250 to 300 square feet.

Support for the new addition is anticipated to consist primarily of conventional shallow continuous (strip) footings although some individual (spread) column footings may also be required. Structural loading information is presently not available for the project.

However, based on our past experience with similar single-family residential home addition projects, we anticipate that the structural loads for the new building addition will be fairly typical and light for this type of single- and/or two-story, wood-frame construction and should produce maximum dead plus live continuous (strip) footing and individual (spread) column footing loads on the order of about 1.5 to 3.0 kips per lineal foot (kpf) and 10 to 35 kips, respectively.

SCOPE OF WORK

The purpose of our geotechnical and/or geologic studies was to evaluate the overall subsurface soil and/or groundwater conditions underlying the subject site with regard to the proposed new residential home addition construction at the site and any associated impacts or concerns with respect to potential geologic hazards at the site as well as provide appropriate geotechnical design and construction recommendations for the project. Specifically, our geotechnical investigation and geologic hazard study performed as a collaboration with Northwest Geological Services, Inc. (NWGS, Inc.) included the following scope of work items:

1. A site reconnaissance of the subject property and/or surrounding area as well as a review of available and relevant geotechnical reports and/or geologic maps of the area.
2. Site exploration by means of one (1) exploratory test hole excavation. The exploratory test hole was advanced in the area of the proposed residential home addition to a depth of approximately eight (8) feet beneath existing site grades. Additionally, representative (disturbed and undisturbed) samples of the subsurface soils encountered at the site were collected and returned to our laboratory for further examination.
3. Recommendations and our final written report presenting the results of our investigation. Our report includes recommendations for site preparation and grading including any over excavation of unsuitable materials revealed by the explorations, placement and compaction of any required structural fill(s), suitability of the on-site soils for use as structural fill as well as criteria for import fill materials, and preparation of foundation areas.
4. Recommendations for foundation support and design including allowable contact bearing pressures for proportioning footings, minimum footing width and embedment depths, estimates of foundation settlement as well as lateral earth pressures for any below grade and/or retaining walls.

SUBSURFACE CONDITIONS

Our understanding of the subsurface soil and/or groundwater conditions which underlie the site was developed by means of one (1) exploratory test hole excavated on February 11, 2022 with portable hand auger excavation equipment at the approximate location shown on the Site Exploration Plan, Figure No. 2. The exploratory test hole revealed that the site is generally underlain by native soil deposits.

Specifically, the subject site was found to be underlain by about six (6) inches of topsoil which was in turn found to be underlain by native soil materials comprised of medium brown, very moist, medium stiff, sandy, clayey silt to the maximum depth explored of about eight (8) feet beneath existing site grades (see Log of Test Hole, Figure No. 5). These underlying sandy, clayey silt soil deposits become medium stiff to stiff at depth and are best characterized by relatively moderate strength and low to moderate compressibility. Additionally, although not encountered with the exploratory test hole performed at the site, the site area is underlain at depth by the Sand Hollow (Twfs) basalt bedrock deposits of Miocene age. All soils encountered at the site were classified in accordance with the Unified Soil Classification System (USCS) which is outlined on Figure No. 4.

Groundwater was generally not encountered at the site during our field exploration work although seasonal fluctuations of the ground water table in the area and/or across the subject site should be expected. In this regard, we anticipate that seasonal groundwater elevations should be expected to fluctuate in the area and/or across the site and will vary depending on seasonal conditions, local subsurface conditions as well as changes in site utilization.

SITE GEOLOGY

The subject site and/or site area is underlain by surficial deposits of residual soils and at depth by the Sand Hollow Basalt bedrock deposits. A more detailed description of the site geology across and/or beneath the site is presented in the Geologic Hazard Study in Appendix A.

CONCLUSIONS AND RECOMMENDATIONS

From a Geotechnical Engineering and constructability standpoint, we are of the opinion that the site is suitable for the proposed new Ilcism single-family residential addition provided that the recommendations contained within this report are properly incorporated into the design and construction of the project. Additionally, the following recommendations assume that the proposed new residential structure planned for the project will be constructed with a conventional shallow foundation system. However, if other structures and/or site improvements are planned which are significantly different than those which are described herein, **Redmond Geotechnical Services, LLC** should be contacted for additional recommendations.

The primary features of concern at the site are 1) the moisture sensitivity of the underlying sandy, clayey silt subgrade soil materials located beneath the site and 2) the possible presence of old and/or abandoned foundation remnants across the site area.

In regard to the moisture sensitivity of the native sandy, clayey silt subgrade soils beneath the site, we are of the opinion that all site grading and/or foundation construction activities across the subject site be performed and/or completed during the drier summer months which is typically June through September. Additionally, we are of the opinion that construction activity and/or heavy construction equipment traffic should be limited across the new building pad and/or foundation areas following the grading work and/or during wet or inclement weather conditions.

With regard to the possible presence of old and/or abandoned foundation remnants across the site area, we recommend that all old and/or abandoned foundation remnants as well as other abandoned utility services, be properly removed in the area of the proposed new residential home addition.

The following sections of this report present specific recommendations for site preparation and grading as well as foundation design and construction for the proposed new Ilcism single-family residential home addition project.

SITE PREPARATION

In general, we recommend that all planned structural improvement areas for the new Ilcism single-family residential home addition foundations be stripped and cleared of any existing surface vegetation, topsoil materials, and any deleterious materials present at the time of construction. In general, outside of any existing fill areas, we envision that about 6 to 12 inches of stripping may be required to remove existing pavement materials. Areas resulting in deeper stripping and/or removals, such as the existing unsuitable fill materials and/or tree stumps as well as old and/or abandoned foundation remnants, should be evaluated at the time of construction by a representative of Redmond Geotechnical Services, LLC. The stripped and cleared materials should be properly disposed of as they are generally not considered suitable for use/reuse as structural fill. Following the stripping and clearing operations, and prior to the placement of any required structural fills and/or structural improvements, the exposed subgrade soils be inspected and approved by a representative of Redmond Geotechnical Services, LLC. Areas found to be soft or otherwise unsuitable for support of structural loads or improvements should be over-excavated and/or replaced with suitable structural fill.

The on-site existing native sandy, clayey silt subgrade soils are considered suitable for use/reuse as structural fill provided that they are free of organic materials, debris, and rock fragments in excess of 6 inches in dimension. If grading is conducted during wet and/or inclement weather conditions, the use of the on-site native clayey, silt subgrade soils will be difficult at best and the use of an import granular fill material will likely be required. In general, we recommend that a free-draining (clean) granular fill (sand & gravel) containing no more than about 5 percent fines be used during wet weather grading. Representative samples of the material(s) to be used as structural fill should be submitted to our laboratory for approval and to determine the maximum dry density and optimum moisture content for compaction. In general, we do not recommend that site grading and earthwork construction be performed during wet or inclement weather conditions due to the moisture sensitivity of the near surface clayey, sandy silt subgrade soils at the site.

All required structural fill materials placed within the building addition (structural) area should be moistened or dried as necessary to near (within 3 percent) optimum moisture conditions and compacted by mechanical means to a minimum of 92 percent of the maximum dry density as determined by the ASTM D-1557 (AASHTO T-180) test procedure. Additionally, due to the moisture sensitivity of the existing clayey silt subgrade soils across the site as well as the need to properly monitor and document the grading contractor's operations, we recommend that a representative of **Redmond Geotechnical Services, LLC** be present at the site during all site grading activities and/or foundation preparation work.

FOUNDATION SUPPORT

Based on the results of our investigation as well as our understanding that the proposed site development will result in the construction of a new single- and/or two-story wood-frame single-family residential home addition, it is our opinion that the lightly loaded and/or conventional shallow continuous (strip) and individual (spread) footings proposed for the new single-family residential home addition may be supported directly on the existing medium brown, medium stiff, sandy, clayey silt subgrade soil materials based on an allowable contact bearing pressure of 2,000 pounds per square foot (psf). This allowable contact bearing pressure is intended for dead loads and sustained live loads and may be increased by one-third for the total of all loads including short-term wind or seismic loads.

In general, continuous (strip) footings should have a minimum width of at least 16 inches and be embedded at least 18 inches below the lowest adjacent finish grade (includes frost protection). Individual spread (column) footings (if required) should be embedded at least 16 inches below grade and have a minimum width of about 24 inches.

Total and differential settlements of residential and/or retaining wall foundations constructed as recommended above and supported directly by approved native subgrade soils and/or on properly placed and/or compacted structural fill materials are expected to be within tolerable limits for this type of lightly loaded structure and should generally be less than about 1-inch and 1/2-inch, respectively.

Allowable lateral frictional resistance between the base of the footings and the sandy, clayey silt and/or a granular subgrade soil can be expressed as the applied vertical load multiplied by a coefficient of friction of 0.30 and 0.45, respectively. In addition, lateral loads may be resisted by passive pressures on footings poured "neat" against in-situ native soils or properly compacted structural fill materials. For passive earth pressure resistance, we recommend that an equivalent fluid density of 250 pounds per cubic foot (pcf) be used for design.

FLOOR SLAB SUPPORT

In order to provide uniform subgrade reaction beneath concrete slab-on-grade floors, we recommend that the floor slab area be underlain by a minimum of 6 inches of free-draining (less than 5 percent passing the No. 200 sieve), well-graded, crushed rock. The crushed rock should help provide a capillary break to prevent migration of moisture through the slab. However, additional moisture protection can be provided by using a 10-mil polyolefin geo-membrane sheet such as StegoWrap.

The base course materials should be compacted to at least 95 percent of the maximum dry density as determined by the ASTM D-1557 (AASHTO T-180) test procedures. Where floor slab subgrade materials are undisturbed, firm and stable and where the underslab aggregate base rock section has been prepared and compacted as recommended above, we recommend that a modulus of subgrade reaction of 200 pci be used for design.

BELOW GRADE/RETAINING WALLS

Below grade and/or retaining walls should be designed to resist lateral earth pressures imposed by native soils and/or granular backfill materials as well as any adjacent surcharge loads. For walls which are restrained from rotation at the top and supporting level backfill, we recommend that at-rest earth pressures be computed on the basis of an equivalent fluid density of 45 pounds per cubic foot (pcf) and 35 pcf for clayey silt or granular backfill materials, respectively. For walls which are free to rotate at the top and retaining level backfill, we recommend that active earth pressures be computed on the basis of an equivalent fluid density of 35 pcf and 30 pcf for clayey silt or granular backfill materials, respectively. The above recommended lateral earth pressure values assume that the walls will be adequately drained to prevent the buildup of hydrostatic pressures. Where wall drainage will not be present and/or if adjacent surcharge loading is present, the above recommended values will be significantly higher. For seismic loading, we recommend an additional uniform pressure of $6H$ where H is the height of the wall in feet.

Backfill materials behind below grade and/or retaining walls should be compacted to 90 percent of the maximum dry density as determined by the ASTM D-1557 (AASHTO T-180) test procedures. Special care should be taken to avoid over-compaction near the walls which could result in higher lateral earth pressures than those indicated herein. In areas within about three (3) to five (5) feet behind walls, we recommend the use of hand-operated compaction equipment.

SEISMIC DESIGN CONSIDERATIONS

Structures at the site should be designed to resist earthquake loading in accordance with the methodology described in the 2019 and/or latest edition of the State of Oregon Structural Specialty Code (OSSC), ASCE 7-16 and/or Amendments to the 2018 International Building Code (IBC). The maximum considered earthquake ground motion for short period and 1.0 second period spectral response may be determined from the State of Oregon Structural Specialty Code (OSSC), ASCE 7-16 or the 2015 National Earthquake Hazard Reduction Program (NEHRP) "Recommended Provisions for Seismic Regulations for New Buildings and Other Structures" published by the Building Seismic Safety Council. We recommend Site Class "C" be used for design. Using this information, the structural engineer can select the appropriate site coefficient values (F_a and F_v) from ASCE 7-16 or the 2018 IBC to determine the maximum considered earthquake spectral response acceleration for design of the project. However, we have assumed the following response spectrum for the project:

Table 1. ASCE 7-16 Seismic Design Parameters

Site Class	S_s	S_1	F_a	F_v	S_{ms}	S_{m1}	S_{Ds}	S_{D1}
C	0.831	0.373	1.200	1.500	0.998	0.559	0.665	0.373

Notes: 1. S_s and S_1 were established based on the USGS 2015 mapped maximum considered earthquake spectral acceleration maps for 2% probability of exceedence in 50 years.

2. F_a and F_v were established based on ASCE 7-16 using the selected S_s and S_1 values. ,

Liquefaction is a phenomenon in which loose, granular soils and some silty soils located below the water table develop high pore water pressures and loose strength. Soils located above the ground water table will not liquefy.

Our review of exploratory test pit data for the site indicates that the site is underlain by medium stiff, sandy, clayey silt. Additionally, groundwater was generally not encountered at the site to depths of at least 5 feet. As such, we are of the opinion that the potential for seismic-induced liquefaction to occur at the site is very low.

USE OF REPORT

This report is intended for the exclusive use of the addressee and/or their representative(s) to use to design and construct the proposed new Ilcisin single-family residential home addition and the associated site improvements described herein as well as to prepare any related construction documents. The conclusions and recommendations contained in this report are based on the site conditions as they presently exist and assume that the explorations performed as part of this investigation are representative of the subsurface conditions at other areas across the site and/or study area. The data, analyses, and recommendations herein may not be appropriate for other structures or purposes. We recommend that parties contemplating other structures and/or purposes contact our office. In the absence of our written approval, we make no representation and assume no responsibility to other parties regarding this report. Additionally, the above recommendations are contingent on Redmond Geotechnical Services, LLC being retained to provide all site inspection and construction monitoring services for the project. Redmond Geotechnical Services, LLC will not assume any responsibility and/or liability for any engineering judgment, inspection, or testing services performed by others.

It is the owners/developer's responsibility for ensuring that the project designers and/or contractors involved with this project implement our recommendations into the final design plans, specifications and/or construction activities for the project. Further, in order to avoid delays during construction, we recommend that the final design plans and specifications for the project be reviewed by our office to evaluate as to whether our recommendations have been properly interpreted and incorporated into the project.

If during any future site grading and construction, subsurface conditions different from those encountered in the exploration are observed or appear to be present beneath excavations, we should be advised immediately so that we may review these conditions and evaluate whether modifications of the design criteria are required. We should also be advised if significant modifications of the proposed site development are planned so that we may review our conclusions and recommendations.

Project No. 1954.001.G
Page No. 8

LEVEL OF CARE

Services performed by the Geotechnical Engineer for this project have been conducted with that level of care and skill ordinarily exercised by members of the profession currently practicing in the area under similar budget and time restraints. No warranty, either expressed or implied, is made.

CONSTRUCTION MONITORING AND TESTING

We recommend that **REDMOND GEOTECHNICAL SERVICES, LLC** be retained to provide construction monitoring and testing services during all earthwork operations. The purpose of our monitoring services would be to confirm that the site conditions which are encountered are as anticipated, provide field recommendations as necessary based on the actual conditions encountered, and document the activities of the contractor and assess his/her compliance with the project specifications and recommendations. It is important that we meet with the grading contractor prior to any site grading work to establish a plan that will minimize costly over-excavation and site preparation work. Of primary importance will be observations made during the site preparation, structural fill placement, footing preparation and construction and retaining wall backfilling.

We will be pleased to provide such additional assistance or information as you may require in the balance of the design phase of this project and to aid in construction control or solution of unforeseen conditions which may arise during the construction period.

Sincerely,

Daniel M. Redmond P.E., G.E.
President/Principal Engineer

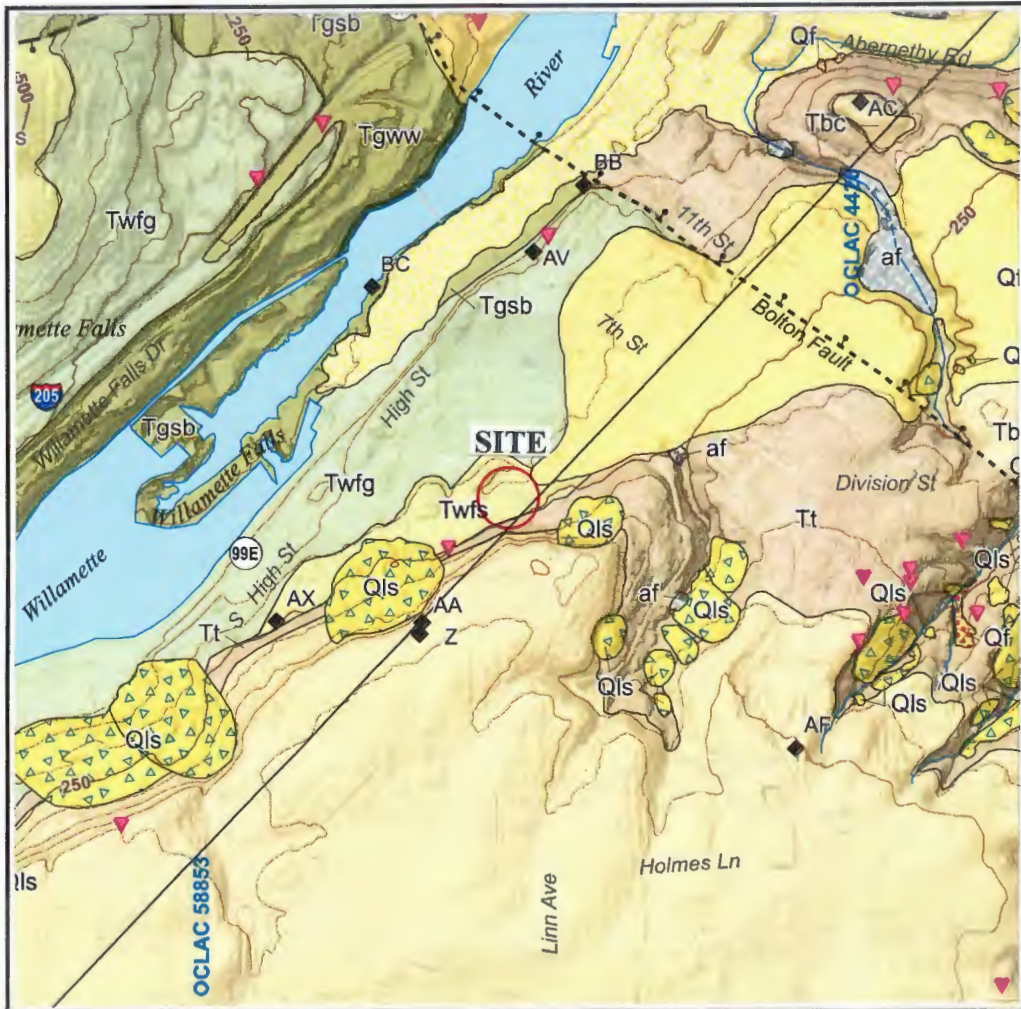


Attachments:

- Figure No. 1 – Site Vicinity Map
- Figure No. 2 – Site Exploration Plan
- Figure No. 3 – Typical Perimeter Footing/Retaining Wall Drain Detail
- Figure No. 4 – Key to Exploratory Test Pit Logs
- Figure No. 5 – Log of Test Hole

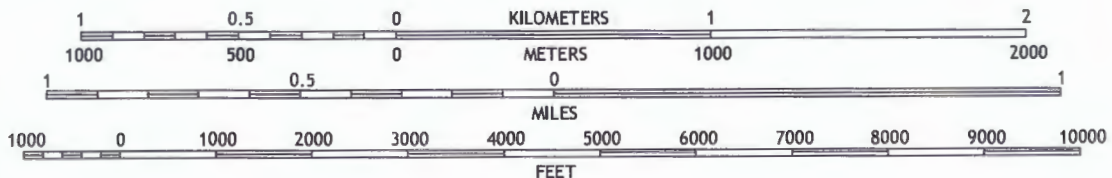
Appendix "A"

Geologic Hazards Assessment



OREGON CITY QUADRANGLE
OREGON-CLACKAMAS CO.
7.5-MINUTE SERIES

SCALE 1:24 000



CONTOUR INTERVAL 10 FEET
 NORTH AMERICAN VERTICAL DATUM OF 1988

SITE VICINITY AND GEOLOGIC MAP

Project No. 1954.001.G

ILCISIN HOME ADDITION
TL 2400, 204 JEFFERSON STREET

Figure No. 1



LEGEND
TH-#1 Indicates approximate location of exploratory test hole

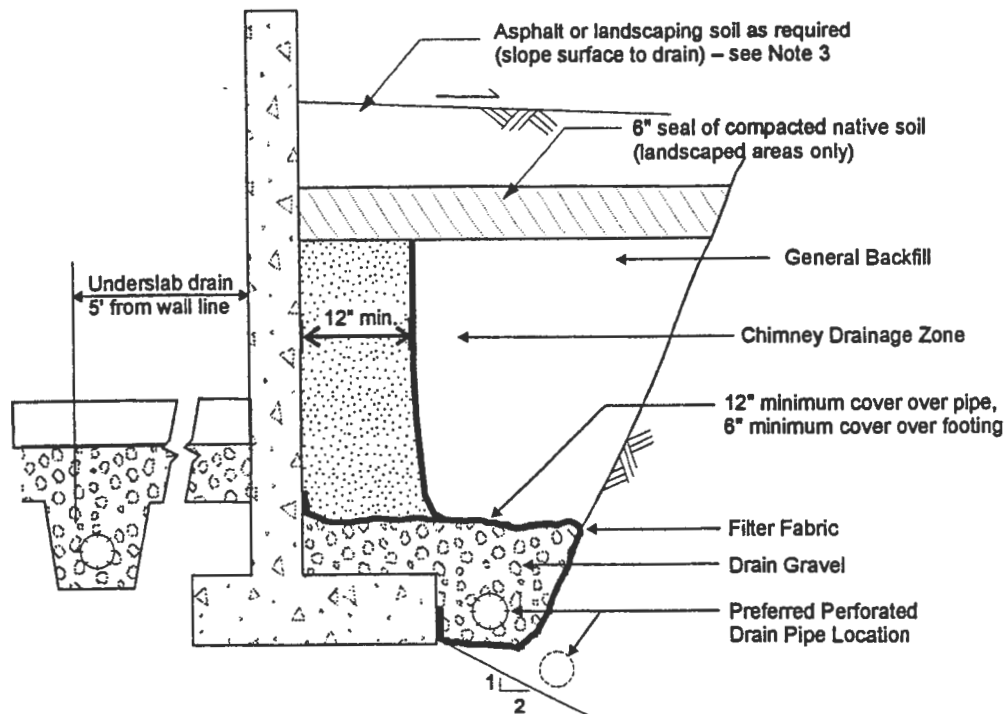


SITE EXPLORATION PLAN

ILCISIN HOME ADDITION
TL 2400, 204 JEFFERSON STREET

Project No. 1954.001.G

Figure No. 2



SCHEMATIC - NOT TO SCALE

NOTES:

1. Filter Fabric to be non-woven geotextile (Amoco 4545, Mirafi 140N, or equivalent)
2. Lay perforated drain pipe on minimum 0.5% gradient, widening excavation as required. Maintain pipe above 2:1 slope, as shown.
3. All-granular backfill is recommended for support of slabs, pavements, etc. (see text for structural fill).
4. Drain gravel to be clean, washed $\frac{3}{4}$ " to $1\frac{1}{2}$ " gravel.
5. General backfill to be on-site gravels, or $\frac{3}{4}$ "-0 or $1\frac{1}{2}$ "-0 crushed rock compacted to 92% Modified Proctor (AASHTO T-180).
6. Chimney drainage zone to be 12" wide (minimum) zone of clean washed, medium to coarse sand or drain gravel if protected with filter fabric. Alternatively, prefabricated drainage structures (Miradrain 6000 or similar) may be used.

TYPICAL PERIMETER FOOTING/RETAINING WALL DRAIN DETAIL

Project No. 1954.001.G

**ILCISIN HOME ADDITION
TL 2400, 204 JEFFERSON STREET**

Figure No. 3

PRIMARY DIVISIONS			GROUP SYMBOL	SECONDARY DIVISIONS	Item #2.
COARSE GRAINED SOILS MORE THAN HALF OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	GRAVELS MORE THAN HALF OF COARSE FRACTION IS LARGER THAN NO. 4 SIEVE	CLEAN GRAVELS (LESS THAN 5% FINES)	GW	Well graded gravels, gravel-sand mixtures, little or no fines.	
			GP	Poorly graded gravels or gravel-sand mixtures, little or no fines.	
		GRAVEL WITH FINES	GM	Silty gravels, gravel-sand-silt mixtures, non-plastic fines.	
			GC	Clayey gravels, gravel-sand-clay mixtures, plastic fines.	
	SANDS MORE THAN HALF OF COARSE FRACTION IS SMALLER THAN NO. 4 SIEVE	CLEAN SANDS (LESS THAN 5% FINES)	SW	Well graded sands, gravelly sands, little or no fines.	
			SP	Poorly graded sands or gravelly sands, little or no fines.	
		SANDS WITH FINES	SM	Silty sands, sand-silt mixtures, non-plastic fines.	
			SC	Clayey sands, sand-clay mixtures, plastic fines.	
FINE GRAINED SOILS MORE THAN HALF OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	SILTS AND CLAYS LIQUID LIMIT IS LESS THAN 50%		ML	Inorganic silts and very fine sands, rock flour, silty, or clayey fine sands or clayey silts with slight plasticity.	
			CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays.	
			OL	Organic silts and organic silty clays of low plasticity.	
	SILTS AND CLAYS LIQUID LIMIT IS GREATER THAN 50%		MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts.	
			CH	Inorganic clays of high plasticity, fat clays.	
			OH	Organic clays of medium to high plasticity, organic silts.	
HIGHLY ORGANIC SOILS			Pt	Peat and other highly organic soils.	

DEFINITION OF TERMS

		U.S. STANDARD SERIES SIEVE			CLEAR SQUARE SIEVE OPENINGS			
		200	40	10	4	3/4"	3"	12"
SILTS AND CLAYS	SAND			GRAVEL		COBBLES	BOULDERS	
	FINE	MEDIUM	COARSE	FINE	COARSE			

GRAIN SIZES

SANDS, GRAVELS AND NON-PLASTIC SILTS	BLOWS/FOOT [†]
VERY LOOSE	0 - 4
LOOSE	4 - 10
MEDIUM DENSE	10 - 30
DENSE	30 - 50
VERY DENSE	OVER 50

CLAYS AND PLASTIC SILTS	STRENGTH [‡]	BLOWS/FOOT [†]
VERY SOFT	0 - 1/4	0 - 2
SOFT	1/4 - 1/2	2 - 4
FIRM	1/2 - 1	4 - 8
STIFF	1 - 2	8 - 16
VERY STIFF	2 - 4	16 - 32
HARD	OVER 4	OVER 32

RELATIVE DENSITY

[†]Number of blows of 140 pound hammer falling 30 inches to drive a 2 inch O.D. (1-3/8 inch I.D.) split spoon (ASTM D-1586).

[‡]Unconfined compressive strength in tons/sq. ft. as determined by laboratory testing or approximated by the standard penetration test (ASTM D-1586), pocket penetrometer, torvane, or visual observation.

CONSISTENCY

KEY TO EXPLORATORY TEST PIT LOGS Unified Soil Classification System (ASTM D-2487)

ILCISIM HOME ADDITION
TL 2400, 204 JEFFERSON STREET



PO Box 20547 • PORTLAND, OREGON 97294

PROJECT NO.	DATE	Figure 4	Page 66
1954.001.G	5/02/22		

BACKHOE COMPANY: Redmond Geotechnical

BUCKET SIZE: 3 inches

DATE: 2/1

DEPTH (FEET)	BAG SAMPLE	DENSITY TEST	DRY DENSITY (pcf)	MOISTURE CONTENT (%)	SOIL CLASS. (U.S.C.S.)	SOIL DESCRIPTION
						TEST PIT NO. TH-#1 ELEVATION
0					ML	Dark brown, very moist to wet, soft to medium stiff, sandy, clayey SILT with trace organics (Topsoil)
X				24.7	ML	Medium brown, very moist, medium stiff, sandy, clayey SILT with occasional rock fragments
5	X			23.3		Becomes medium stiff to stiff and clayey, sandy SILT
10						Total Depth = 8.0 feet No groundwater encountered at time of exploration
15						

TEST PIT NO.						ELEVATION
0						
5						
10						
15						

LOG OF TEST PITS

PROJECT NO. 1954.001.G

ILCISIM HOME ADDITION

FIGURE NO. 5

Appendix “A”

Geologic Hazard Assessment

NORTHWEST GEOLOGICAL SERVICES, INC.

Consulting Geologists and Hydrogeologists
2505 N.E. 42nd Avenue, Portland, Oregon 97213-1201
503-249-1093 ngs@spiritone.com

Redmond Geotechnical Services
P. O. Box 20547
Portland, OR 97294
Attention: Dan Redmond

22 March 2022

Geologic Hazard Assessment
204 Jefferson St.
TL 2S/2E-31DB-02400
Oregon City, Oregon

Dan:

The purpose of this letter is to present Northwest Geological Services, Inc. (NGS) Land-slide Hazard Study for the above referenced property as per your email request of 7 January 2022. Figures 1, 2 and 3 show the location of the site on the east side of Jefferson St., a half block south of 3rd St.

We understand that our services are in support of your client's efforts to permit and construct a 2-storey addition to replace an existing 1-storey addition. Our study is intended to meet Oregon City Chapter 17.44 US Geologic Hazards Development Permit requirements for the Engineering Geology portions of a Type II land use application.

SUMMARY OF CONCLUSIONS

The detailed topography of the site, published geologic maps, the geologic reconnaissance, and studies of nearby sites reveal that the site is underlain by competent basalt flows and Troutdale Formation overlain by a few feet of colluvium. No evidence of slope failure is apparent at the site. In our opinion, the site can be used for the current residential purposes without an adverse effect on the slope stability.

Water from the slope uphill passes through the site soils. Surface or ground water that is collected or intercepted by footings, structures, pavements, fills, etc., should be disposed into the adjacent street or storm sewer.

1. SCOPE OF STUDY

State and City hazard maps indicate the site is not located on an active or inactive slope failure. We mapped the area in the late 1960s (Kienle, 1971) and several nearby sites in Oregon City.¹

Prehistoric slope failures occurred on the slope east and southeast of the site (Figure 4). Moderately steep slopes underlay the east part of the site (Figures 2 and 3). Thus, the scope of our studies included the following engineering geologic tasks to assess the risk of slope failures at the site:

- Obtain and review historic aerial photographs, imagery and LIDAR of the site;

¹ We have conducted 25+ hazard studies in Oregon City as a consulting engineering geologist (CEG 134)

- Review previous geologic investigations of the site area;
- Discuss with you your geologic reconnaissance of the site and adjacent area;
- Review the preliminary plans for the proposed improvements; and
- Prepare this letter describing our work, findings and recommendations.

2. SITE SETTING

2.1 Location

The site is 0.34 acres located on the east side of Jefferson St in Oregon City, Oregon (Figures 1, 2, 3 and 5). Assessor's maps show it in Tax Lot TL 2S/2E-31DB-02400, Willamette Meridian. The site is accessed from Jefferson St via 3rd Ave.

2.2 Physiography

As shown on Figure 3, the site lies between elevation 206 to 244. It is at the base of the slope from the Oregon City plateau down to the bedrock slopes along the Willamette River. City GIS (Figure 3) shows natural slopes range from moderate (~15%) in the west $\frac{3}{4}$ of the site up to 50% in southeast part. Additionally, man-made walls (Figure 5) retain fills up to ~6 ft thick (Figure 5). The upper parts of the southeast and east slopes are retained by two such walls that are founded on neighbors' properties (Figure 5).

We looked for evidence of landslides by examination of historic aerial photographs² and maps³. The maps include USGS quadrangles, Sanborn maps and City GIS data. The historic aerial photographs show the site developed as it is today. No slope failures are apparent on the aerial photos. The historic maps also show no indication of slope failure. The 1915 Sanborn map shows the existing house was built by then.

3. GEOLOGY

3.1 Site Area Geology

The geology of the site area has been mapped by several geologists (Treasher, 1942; Trimble, 1963; Schlicker & Finlayson, 1979; Madin, 2009).⁴ The site area is underlain by the regionally extensive Columbia River Basalt (Tcr, Tgsb, Twfg and Twfs, Figure 4) which extends to depths of several hundred feet. The Basalt is overlain by the sedimentary strata of the Troutdale Formation. These strata are in turn overlain by the Boring Lava south and east of the site (Figure 4, Tbc, upper, QTb, lower). The Willamette River has eroded through the Boring flows and Troutdale strata along its course forming a broad bench on the Tcr in Oregon City. The bench is bounded on the east by moderate to steep slope of Troutdale Formation, capped by a rimrock

² Aerial photographs examined from our files include photos taken in 1936, 1944, 1952, 1960, 1970, 1986 and 2008. Digital imagery examined from the City GIS and Google Earth were obtained from 1994 and 2000 - 2021.

³ The USGS topographic maps were published in 1914, 1939, 1951, 1961 and 1990. Lowest return LIDAR was used by the City GIS to derive the elevation contours on Figure 3.

⁴ The most comprehensive geologic maps are by Trimble (1963) and, Schlicker and Finlayson (1979, Bulletin 99). Although, Madin's (2009) Geology Map covers the area, features are not referenced to culture or coordinates. Burns and Mikelson (2010) and Madin & Burns (2006) are drawn from interpretation of LIDAR and aerial photographs rather than on the ground geologic studies such as those by Treasher, Trimble or Schlicker & Finlayson. (Burns & others, 1998 was simply a compilation and reinterpretation of previous work by others.)

of Boring Lava. Lower part of the slope is mantled by a wedge of colluvium weathered from the upper slope.

The nearest major fault is the Bolton fault, about 1¼ miles NE. That fault extends NW-SE from Portland to Oregon City (Beeson and others, 1989; Liberty and others, 2002).

4. GOVERNMENT HAZARD ESTIMATES

Schlicker and Finlayson (1979) mapped the site as an area of low to moderate slope below the steep slopes rising a block to the east and SE. Their field and photogeologic mapping studies did not identify any slope failures at or near the site (Figure 4, lower).

Three fairly recent DOGAMI studies show prehistoric landslides from slopes underlain by Troutdale Formation 500 ft east and 800 ft SW of the site (Figure 4, upper) but none at or near the site (Madin & Burns, 2006; Burns & Mickelson, 2010; Madin, 2009). The first two of these studies relied on interpretation of LIDAR and aerial photographs. The most detailed study - Madin (2009) - relied on the two other studies and detailed topography, previous geologic mapping and limited field checking.

SLIDO compiles available landslide information in one place (Figure 6). SLIDO maps potential and known hazards onto LIDAR, aerial photo or roadmap bases, providing good location information for landslide features. Figure 6 shows an inferred-from-LIDAR prehistoric slide ~800 ft SW of the site as well as one historic debris flow ~750 SW of the site.⁵

The SLIDO app also compiles landslide susceptibility information. SLIDO shows the site in an area of potentially “Moderate” to “High” landslide susceptibility. Typically, the “High” rating is applied to areas shown by SLIDO as mapped landslide areas, which the site is not. All of the SLIDO maps carry the following disclaimer:

*“For general information only; not to be used for planning purposes.
<http://www.oregongeology.org/slido>”*

5. SITE CONDITIONS

Site elevation ranges from ~206 up to ~244 ft. Slopes range from <10% in the west 2/3 up to 60% in the east part (Figure 3). The west part of the site lies on the basalt bench (Figure 4). The east part lies on a wedge of colluvium weathered from the Troutdale and Boring rocks in slopes east of the site and remnants of Missoula Flood deposits. The colluvium consists of bouldery sandy silt on the slope (Figure 5, upper right) grading to gravelly sandy silt on the bench. The natural bench was extended east by cutting into the slope when the house was built in 1910. The cuts are supported by mortared stone walls. The flat area extends from the walls about 20 ft to the house (Figure 5).

The site, and slopes up to elevation 400 ft, were intensely scoured by the Missoula floods 13,000 to ~70,000 years ago (Waite, 1985; Minervini & others, 2003). Bedrock and soil were also subjected to landslide-inducing excess pore pressures from those floods that extended up to elevation ~400 ft. Consequently, slopes that were unstable, or marginally stable at that time,

⁵ Slide 2152 occurred during the February 1996 storm (Hofmeister, 2000). The GIS coordinates correspond to the “Rock Slide Area” on Waterboard Park Rd, just south of 204 S John Adams St.

failed during immersion by or drawdown of the flood waters, leaving largely bare and stable bed-rock slopes below 400 ft.

The base of the slope behind the house was wet and appears to have several small seeps. This is normal in the areas. The seepage runs through the colluvium is collected in a ditch at the slope base. The ditch runs north and then west to the street.

6. INTERPRETATION OF SITE CONDITIONS

Review of aerial photos, LIDAR and topographic maps indicates that, historically, the site has been a normal hillside location with no obvious problems. The residence and landscaping have been present for 122 years. Aerial photos indicate that local streets and cuts/fills for them have been established and stable since at least 1936.

Numerous landslides occurred east of the site, along drainages inundated by the Missoula floods. But none occurred at the site or other nearby elevations. We found no evidence of slope failure at or adjacent to the site. The closest documented landslide occurred in the intense storm of February 1996 in a road cut above Waterboard Park Rd ~750 ft SW of the site.

As noted previously, surface soils were moist, as would be expected in winter. Based on the site vegetation and slope, it does not have standing water at any time. Small seeps from the Troutdale Formation are captured and routed to Jefferson St.

The closest potentially active fault is the Bolton Fault located about 1¼ mile NE of the site (Beeson and others, 1989; Liberty and others, 2002). NGS (1994; 2004) estimated the fault could produce an Mw = 6.8 earthquake at relatively shallow depths.

7. CONCLUSIONS AND RECOMMENDATIONS

The bedrock slopes at the site appear stable. The colluvium also appears stable under present conditions. Based on the typical rock and soil properties and the plan for proposed addition (Figure 5) it is our opinion that the new addition can be developed without affecting slope stability. However, the footing design for the wall and excavation plan for the cuts and fills should be reviewed by a qualified professional. We also recommend that any excavations for the work be inspected by a qualified professional prior to placing fills or drainage blanket material.

Considerable water will move across the site slopes during storms as noted previously. In our opinion this will not be a problem as long as the water that is intercepted by improvements (e.g., street, footing drains, roofs and pavements) is dispersed across the lower slopes. It should not be discharged to a concentrated or a few small areas such as dry wells. Alternatively, runoff can be tightlined to the existing drainage. Regardless of the choice (all are viable in our opinion), the plan should be reviewed by a qualified professional.

We recognize that development plans may change as development proceeds. In our opinion, there are many ways that the subject site could be developed without creating slope hazards. Regardless of what actual changes are made from the present plan, we recommend that the final plans for footings, foundations, cuts, fills or other earthworks, and drainage be reviewed by the appropriate qualified professional engineers.

8. LIMITATIONS AND LIABILITY

We call your attention to the paragraphs on Warranty and Liability in the General Conditions (dated 1/2021) approved by you previously. Interpretations and recommendations presented herein are based on limited data and observations. Actual subsurface conditions may vary from those inferred from the limited information available to us. If site excavations for development find conditions that differ from those inferred herein, you should contact us and provide an opportunity for us to review our recommendations for the site. The conclusions and recommendations herein apply only to this specific project or to one of substantially the same scope and extent. Conclusions and recommendations should be updated if the proposed scope is not completed within three years of the date of this report.

We thank you for the opportunity to assist you with your property development. Please contact me if you have questions about the report.

Yours very truly,
Northwest Geological Services, Inc.

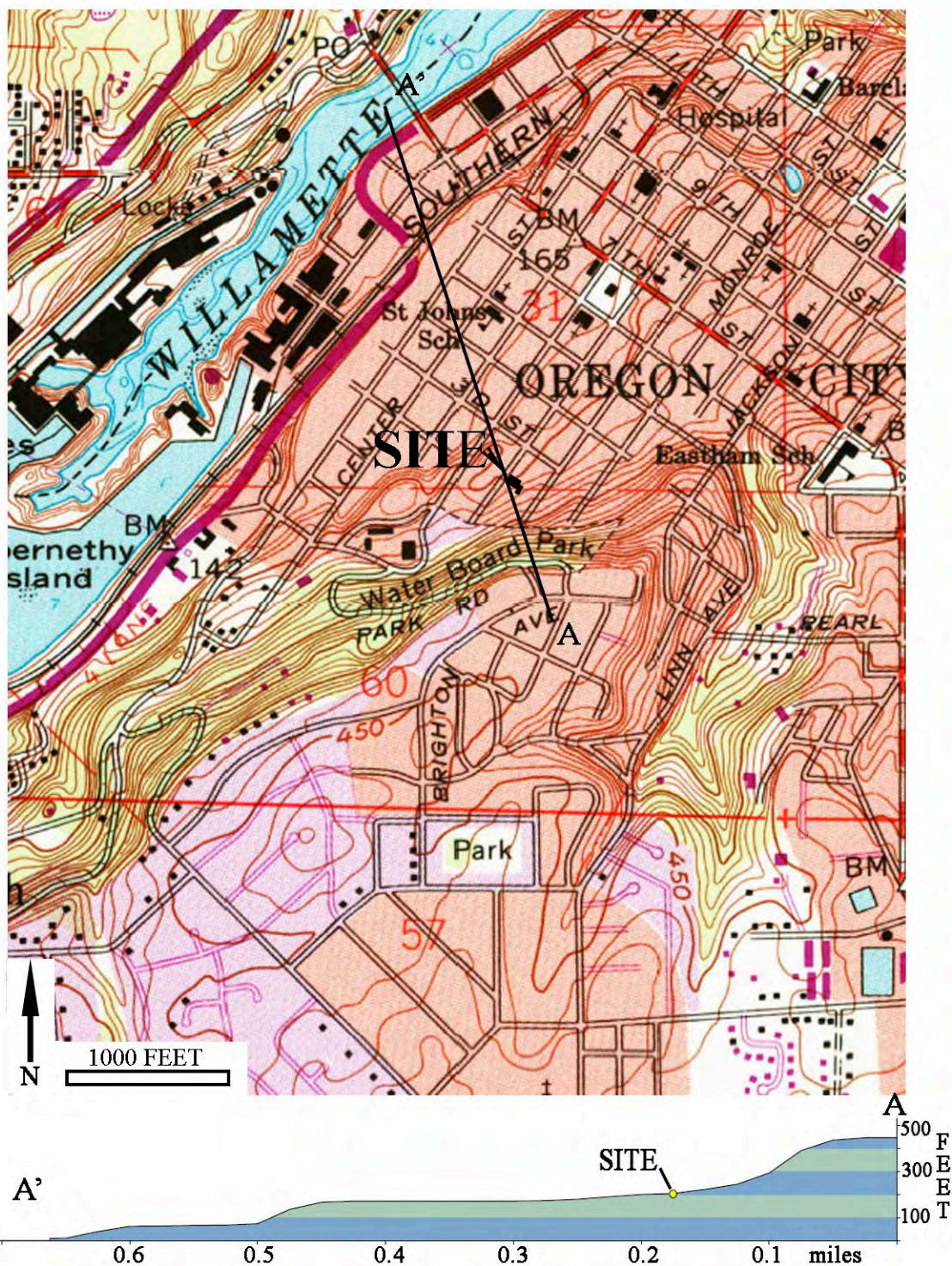


Clive F. (Rick) Kienle, Jr.
Vice President

Reference NGS 235.130-1

9. REFERENCES

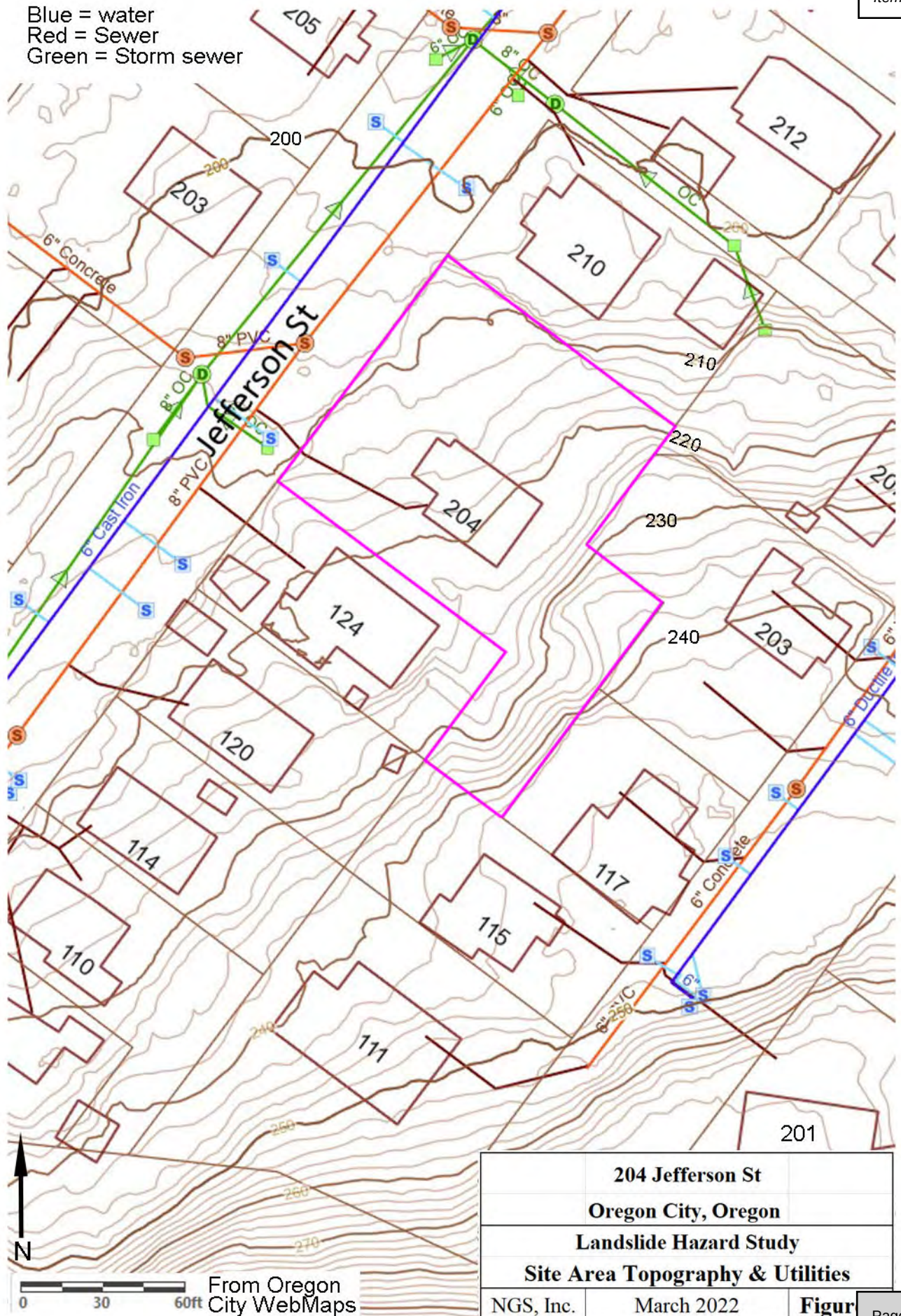
- Beeson, M.H., T. L. Tolan and I. P. Madin, 1989, Geology of the Lake Oswego, Oregon Quadrangle, Oregon Dept. of Geology and Mineral Industries Geologic Map GMS-59.
- Burns, Scott F., Burns, W. J., James, D. H. and Jason C. Hinkle, 1998, Landslides in the Portland, Oregon Metropolitan Area Resulting from the Storm of February 1996: Inventory Map, Database and Evaluation, Report Prepared for Metro Contract 905828.
- Burns, W.J. and Mickelson, K.A., 2010, Interpretive Map 30, Landslide Inventory Maps of the Oregon City quadrangle, Clackamas County, Oregon: Oregon Department of Geology and Mineral Industries., map scale 1:8,000.
- Hofmeister, R.J., 2000, Slope failures in Oregon: GIS inventory for three 1996/97 storm events: Oregon Department of Geology and Mineral Industries, Special paper 34, 20 p., 1 compact disc.
- Liberty, L. M., M. A. Hemphill-Haley and I. P. Madin, 2002, The Portland Hills Fault: uncovering a hidden fault in Portland, Oregon using high-resolution geophysical methods, Tectonophysics.
- Madin, I.P., and W.J. Burns, 2006, Map of Landslide Geomorphology of Oregon City Interpreted from LIDAR Imagery And Aerial Photographs, Ore. Dept. of Geology and Mineral Industries OFR O-06-27.
- Madin, I.P., 2009, Geologic Map of the Oregon City 7.5' Quadrangle, Clackamas County, Oregon, Oregon Dept. of Geology and Mineral Industries Geologic Map GMS-119.
- Minervini, J. M., O'Connor, J. E. and R.E. Wells, 2003, Maps Showing Inundation Depths, Ice-Rafted Erratics, and Sedimentary Facies of Late Pleistocene Missoula Floods In The Willamette Valley, Oregon, U.S. Geological Survey Open File Report 03-408.
- NGS, Inc., 1994, Reassessment of Seismic Risk, Lake Oswego Dam, Lake Oswego, Oregon, Northwest Geological Services, Inc. report dated 2 Feb 1994 prepared for Applied Geotechnology, Inc.
- NGS, 2004, Seismic Hazards, Willamette Falls Hospital, Appendix A – Engineering Geology Report in P. B. Kelly, 2004, Seismic Site Hazards Evaluation; Willamette Falls Hospital Expansion For Emergency, Imaging, and Pharmacy Services; Oregon City, Oregon, 6 February 2004 report to Clark/Kjos Architects.
- Schlicker, H. G., and C. T. Finlayson, 1979, Geology and Geologic Hazards of Northwestern Clackamas County, Oregon, Oregon Dept. Geology And Mineral Industries Bulletin 99.
- SLIDO, 2016 and ongoing, Statewide Landslide Information Database of Oregon; web map application at <http://www.oregongeology.org/sub/slido/>.
- Treasher, R. C., 1942, Geologic map of the Portland area, Oregon Dept of Geology and Mineral Industries Geologic Map Series No 7.
- Trimble, D. E., 1963, Geology of Portland, Oregon and Adjacent Areas, U.S. Geol. Survey Bulletin 1119.
- Waitt, R. B., Jr., 1985, Case for periodic, colossal jökulhlaups from Pleistocene Lake Missoula, Geol. Soc. Amer. Bull. V 96, no. 10, pp. 1271-1286.



204 Jefferson St		
Oregon City, Oregon		
Landslide Hazard Study		
Site Location Map		
NGS, Inc.	March 2022	Figure 1



Blue = water
 Red = Sewer
 Green = Storm sewer



204 Jefferson St

Oregon City, Oregon

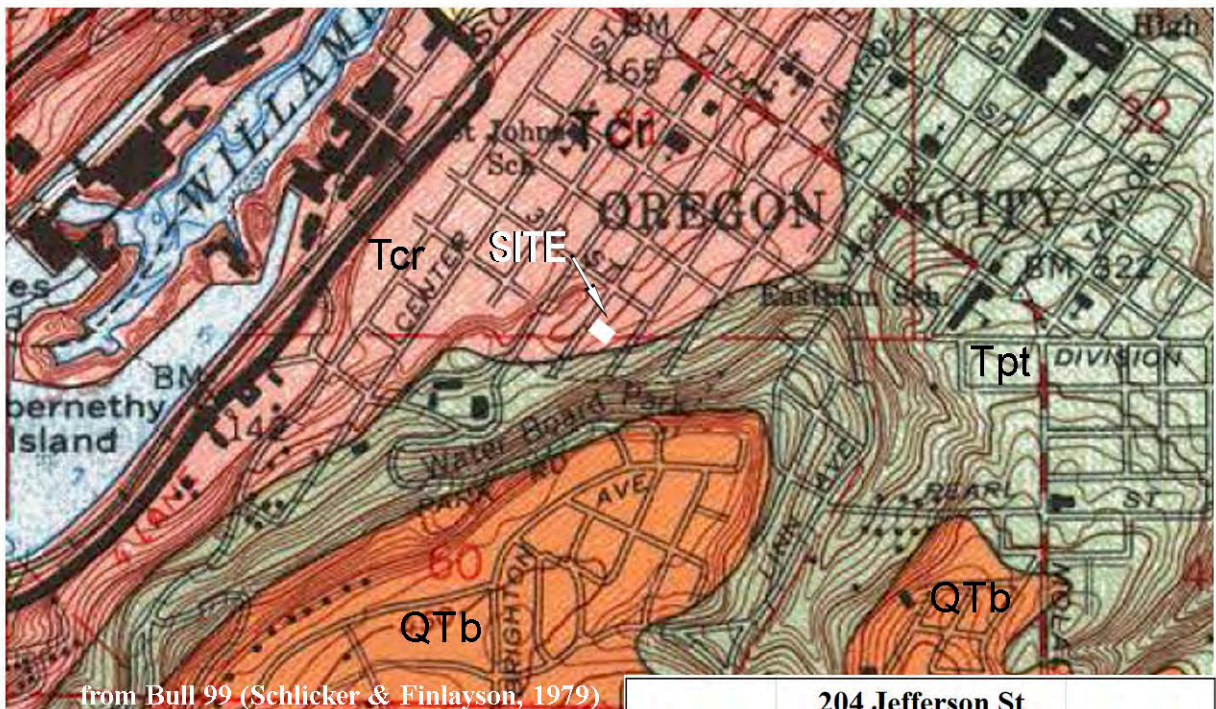
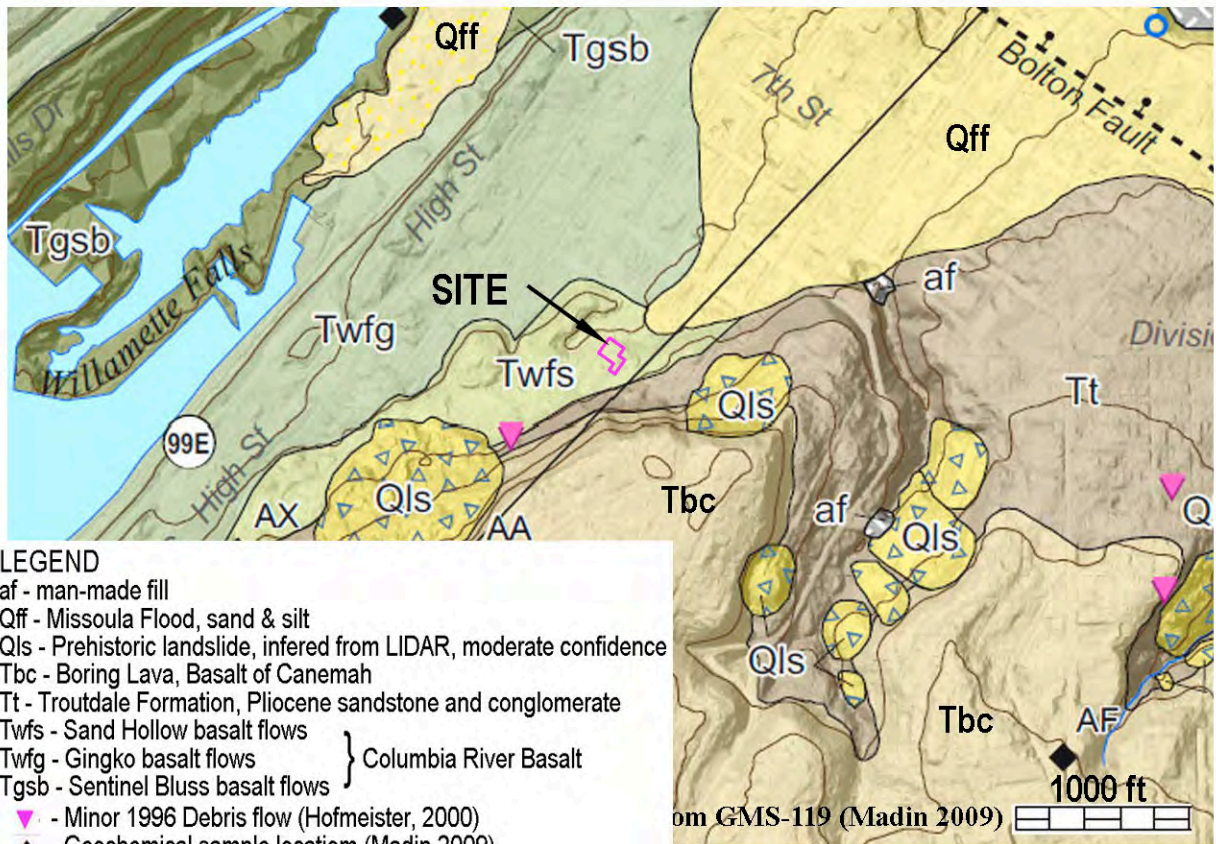
Landslide Hazard Study

Site Area Topography & Utilities

NGS, Inc.

March 2022

Figur



QTb - Boring Lava flow
 Tpt - Troutdale Formation silt, sand & gravel
 Tcr - Columbia River Basalt flows

204 Jefferson St		
Oregon City, Oregon		
Landslide Hazard Study		
DOGAMI Geologic Maps		
NGS, Inc.	March 2022	Figure 4



Above: Slope and wall at east end of site. Wall leans west and has locally deformed. There appears to be no footing. It is located on neighbor's property.

Top left: Looking NNW from the path to upper terrace at the addition to be replaced. The new addition will be ~4 ft wider and will be two full storeys high.

Left: View SSW towards existing addition. Hot tub and outdoor kitchen (far left) will also need to be moved to make room for the new addition.

204 Jefferson St		
Oregon City, Oregon		
Landslide Hazard Study		
SITE PHOTOGRAPHS		
NGS, Inc.	March 2022	Figure 5

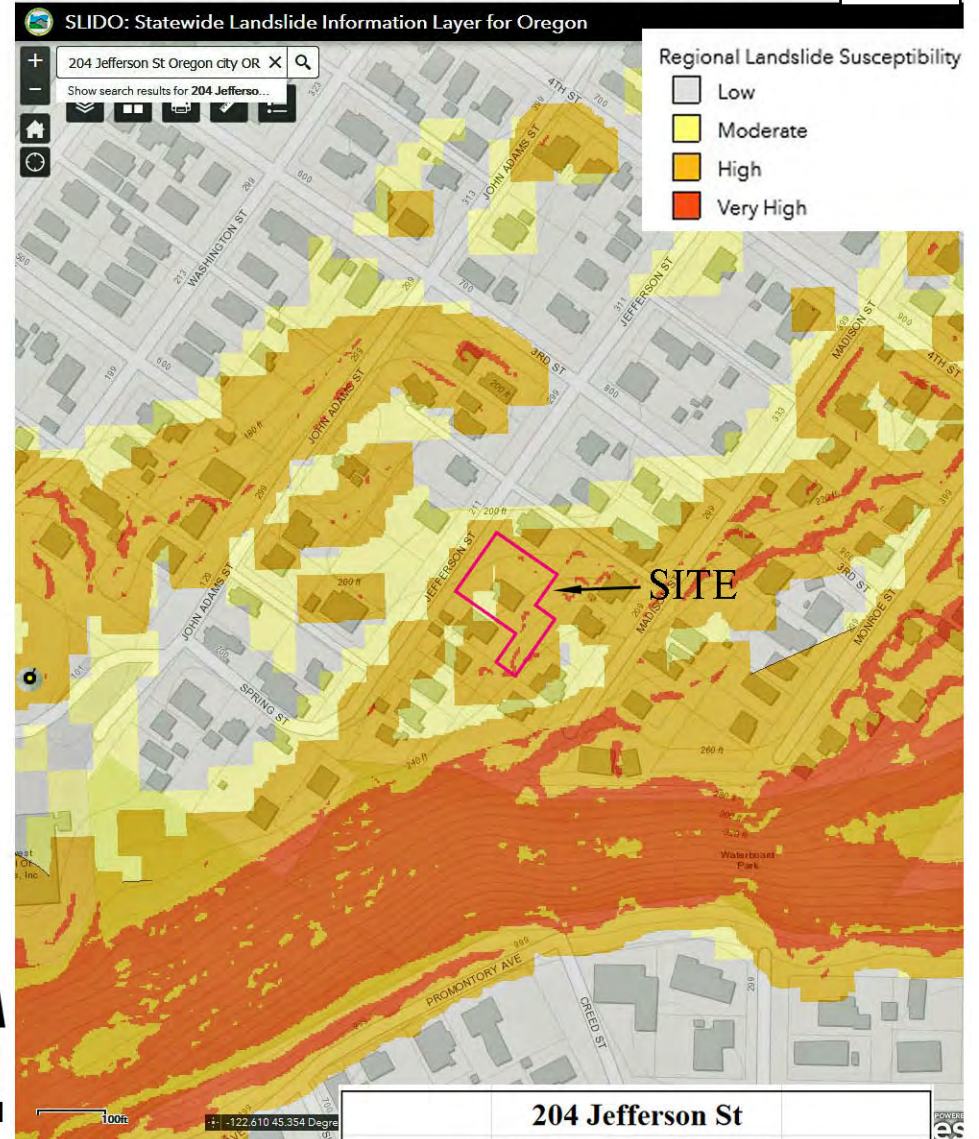
BARE EARTH LIDAR HILLSHADE



Documented historic slope failure from SLIDO

ESTIMATED LANDSLIDE SUSCEPTIBILITY

Item #2.



204 Jefferson St		
Oregon City, Oregon		
Landslide Hazard Study		
LIDAR & SLOPE HAZARDS MAPS		
NGS, Inc.	March 2022	Fig

C. SITE PHOTOS AND RENDERINGS



Jefferson St Façade



Right side facade



Rear addition proposed to be demolished/ reconstructed



Left façade



Addition proposed to be demolished/ reconstructed



Looking north on Jefferson St



Looking south on Jefferson St.



Rear of home from parking area off Monroe St



Rendering with proposed addition from North



Rendering with proposed addition from South

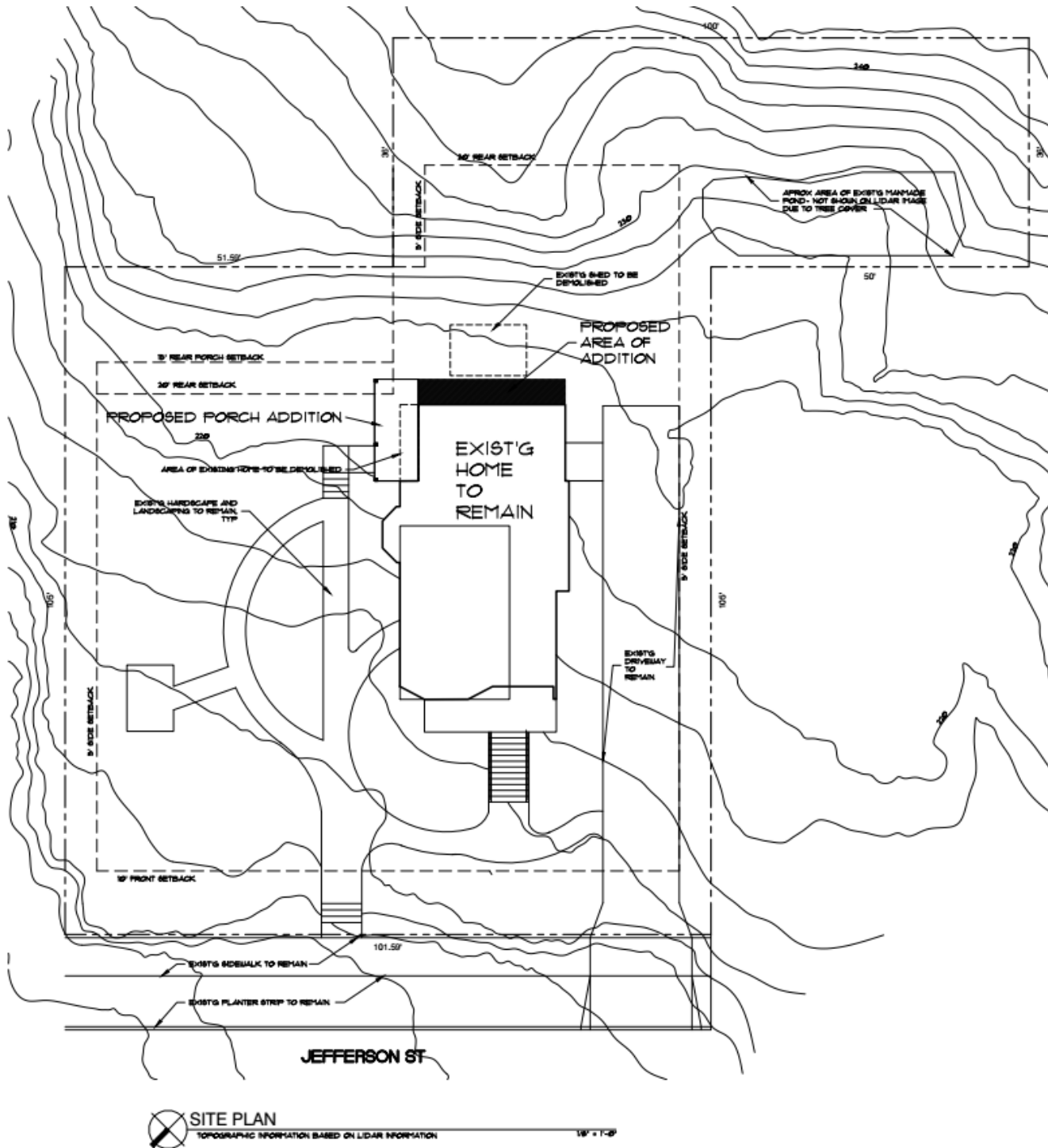


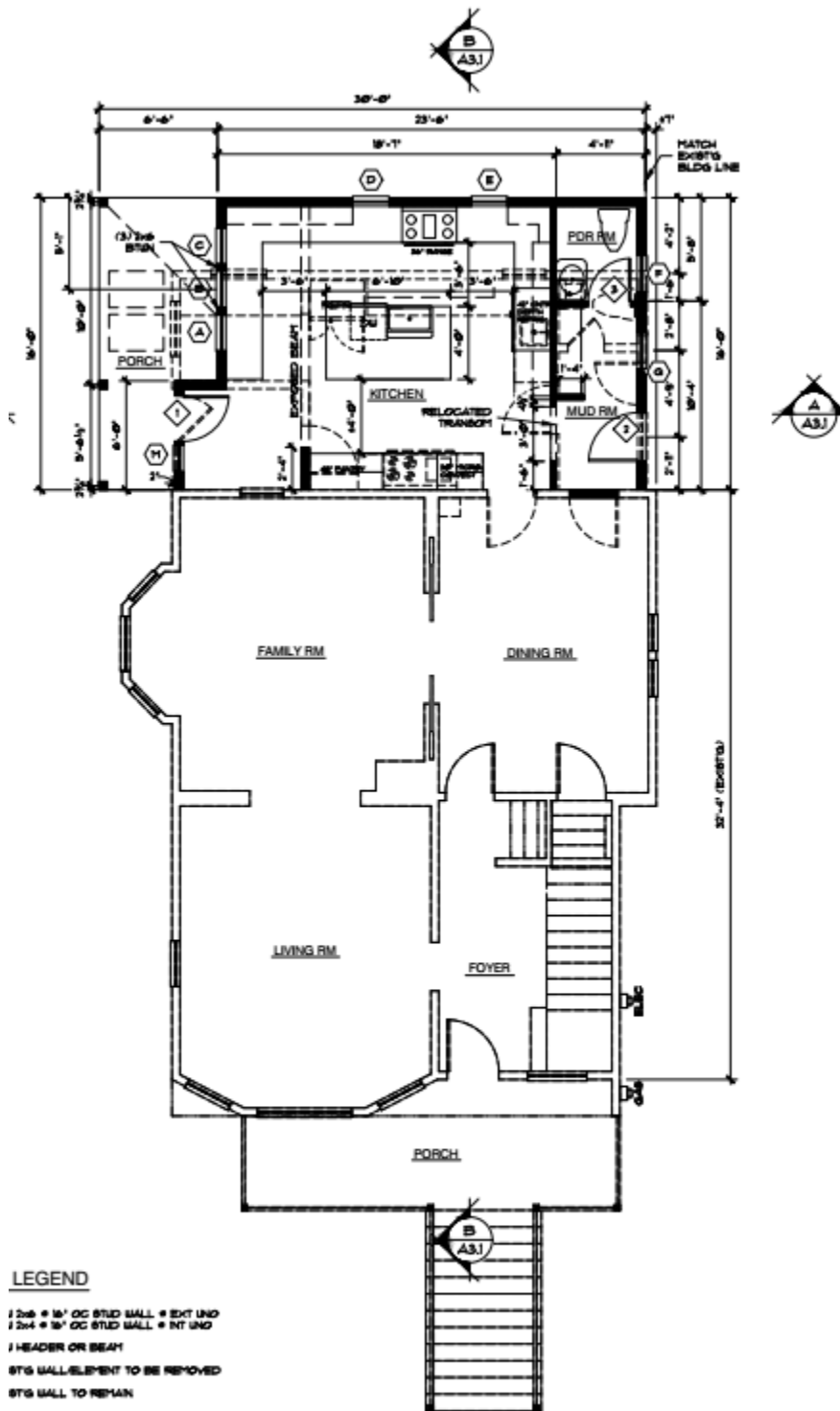
Rendering from left rear- note *grading is not properly illustrated and window placement at upper level has been revised*

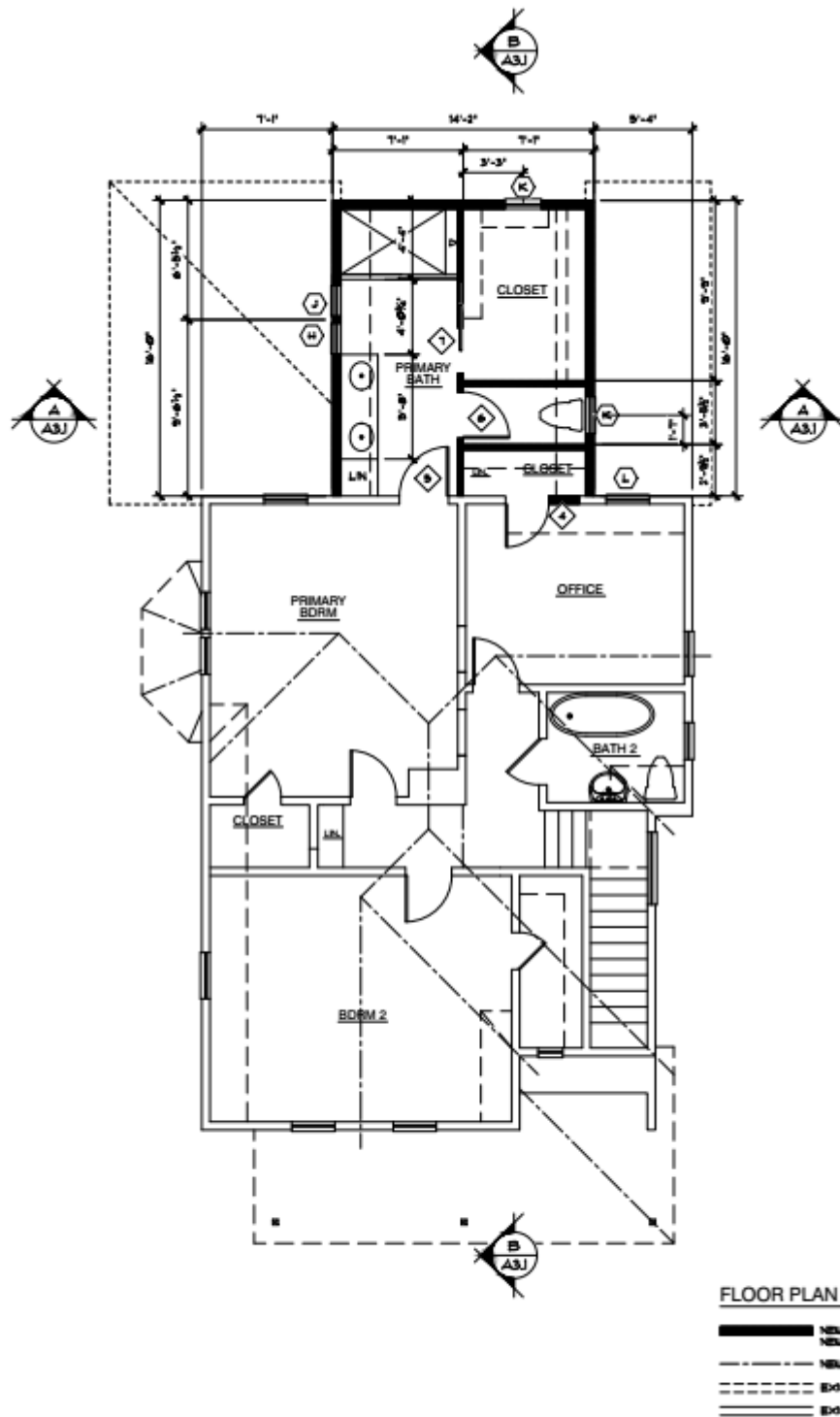


Rendering from right rear- note *grading is not properly illustrated*

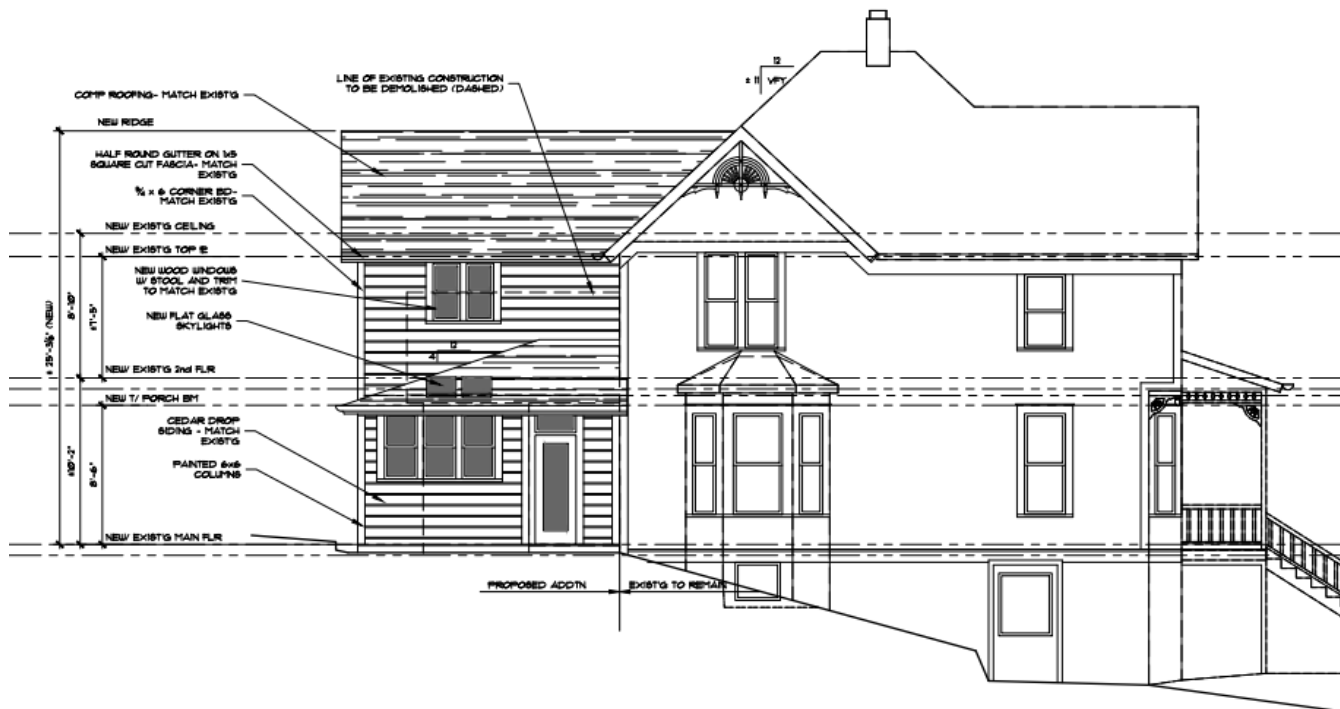
D. DRAWINGS





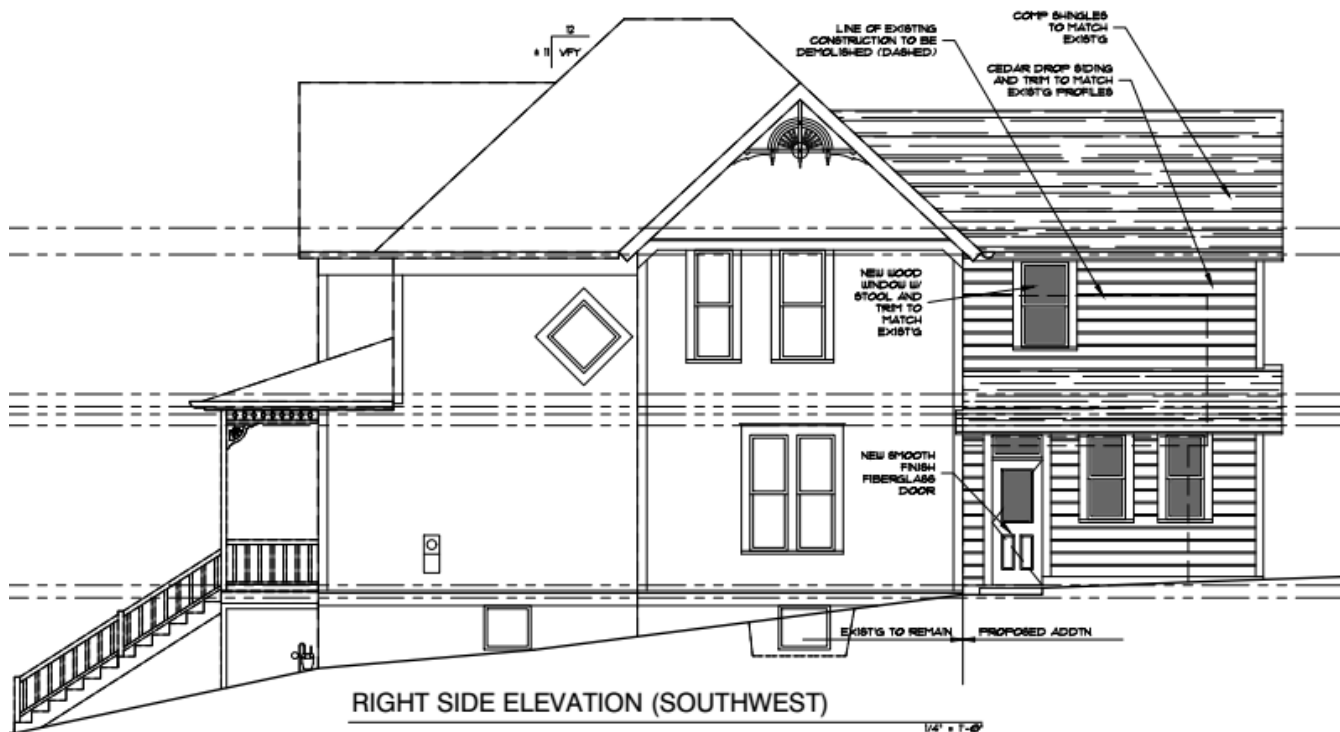


UPPER LEVEL FLOOR PLAN



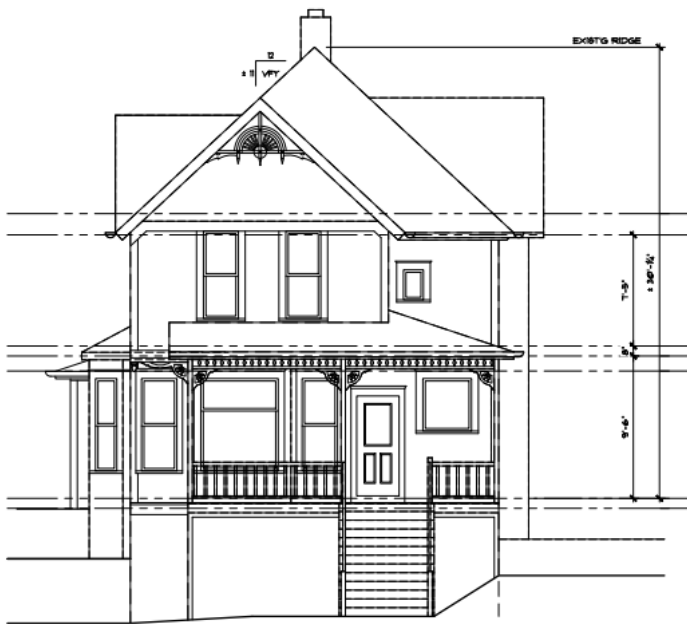
LEFT SIDE ELEVATION (NORTHEAST)

1/4" x 1-6"



RIGHT SIDE ELEVATION (SOUTHWEST)

14 • F-0



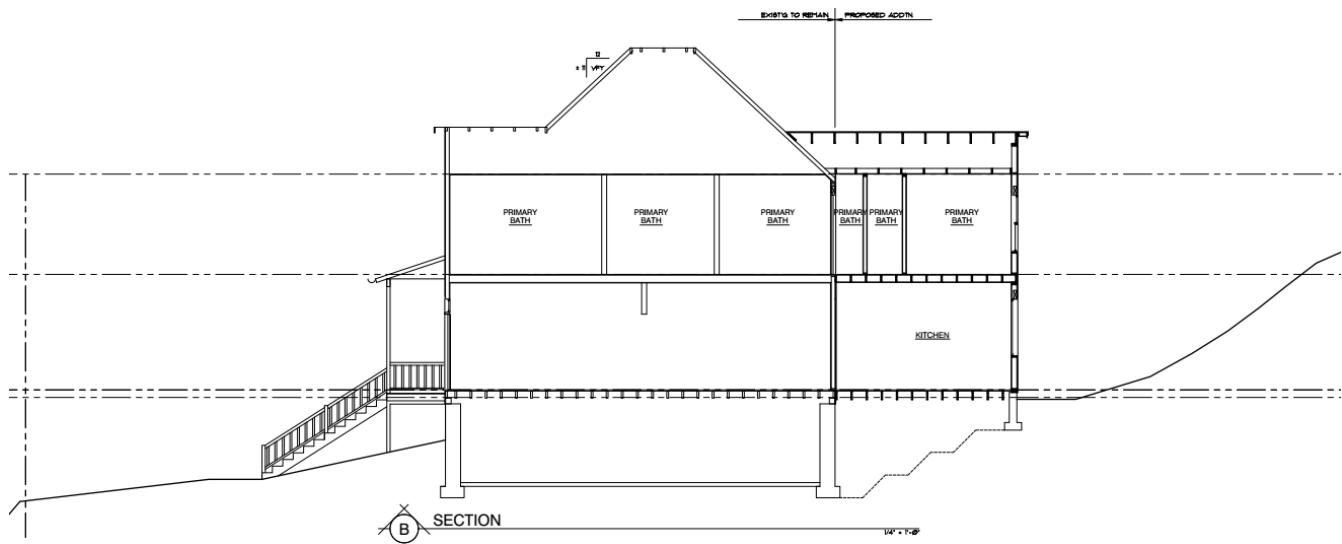
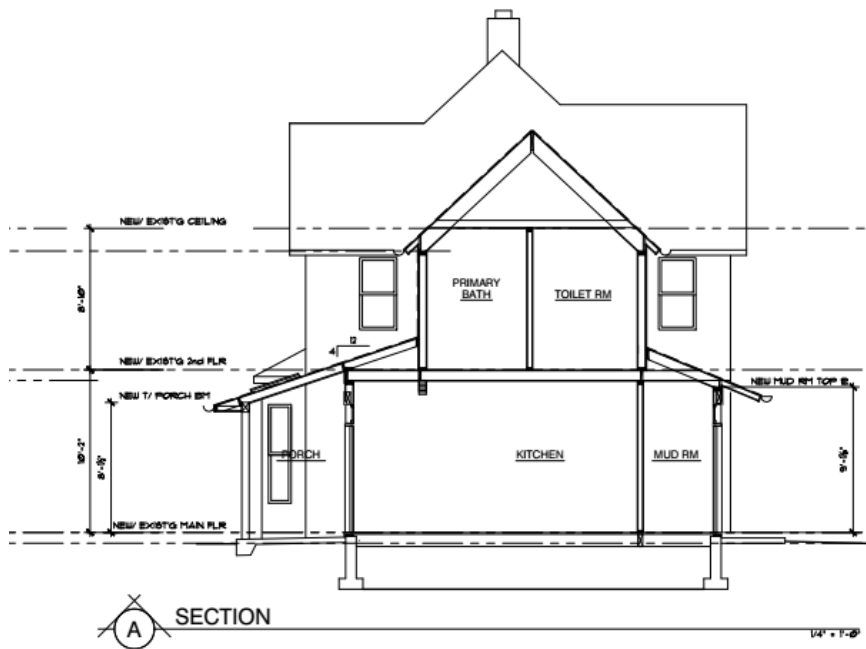
FRONT ELEVATION (NORTHWEST)

1/4" = 1'-0"



REAR ELEVATION (SOUTHEAST)

1/4" = 1'-0"



M C L O U G H L I N

N E I G H B O R H O O D
A S S O C I A T I O N

DATE: February 20, 2023
TO: Historic Review Board
Christina Robertson-Gardiner, Senior Planner

FROM: McLoughlin Neighborhood Association

JHM

RE: Comments on HR-23-00001
Addition to 204 Jefferson Street

The McLoughlin Neighborhood Association has reviewed the application and offers the following feedback:

- The submitted renderings are very helpful for envisioning the finished product. Recommend the existing and proposed views be presented side-by-side for ease in comparing (this could be presented at the meeting and does not necessarily require a resubmittal).
- The view from the parking area on Madison Street (erroneously captioned as Monroe) should be accompanied by a rendering of the proposed addition.
- Extreme care should be taken to ensure minimal disturbance impacts to trees and surrounding slopes.
- MNA will defer to HRB review and determination of specific design elements.

Thank you for your consideration.

OREGON CITY HISTORIC RESOURCE SURVEY FORM

Street Address: 204 JEFFERSON ST				City: OREGON CITY			
USGS Quad Name: Oregon City			GPS Latitude: 45 21 07 N		Longitude: 122 36 25 W		
Township: 02S	Range: 02E	Section: 31	Block: 107	Lot: 5 & B13 5, 8x	Map #: 22E31DB	Tax Lot #: 2400	
Date of Construction: c. 1898		Historic Name: Busch, Frank and Annie, House			Historic Use or Function: Domestic - single dwelling		
Grouping or Cluster Name: NA		*Current Name or Use: Domestic - single dwelling			Associated Archaeological Site: Unknown		
Architectural Classification(s): Queen Anne				Plan Type/Shape: Complex		Number of Stories: 2.0	
Foundation Material: Stone				Structural Framing: Unknown		Moved? No	
Roof Type/Material: Gable / Composition shingle				Window Type/Material: 1/1 wood double-hung			
Exterior Surface Materials Primary: Channel drop				Secondary: Wood shingle		Decorative:	
Exterior Alterations or Additions/Approximate Date: None apparent.							
Number and Type of Associated Resources: None							
Integrity: Excellent			Condition: Good		Local Ranking: Designated Historic Site		
National Register Listed? No							
Potentially Eligible: ☒ Individually or ☐ As a contributing resource in a district Not Eligible: ☐ Intact but lacks distinction ☐ Altered (choose one): ☐ Reversible/Potentially eligible individually or in district ☐ Reversible/Ineligible as it lacks distinction ☐ Irretrievable loss of integrity ☐ Not 50 years old							
Description of Physical and Landscape Features:							
This two-story Queen Anne of a complex plan sits high above the street. It features original spindle work in the gables and at the porch. Two chamfered corners allow for a pendant and decorative brackets. There is a bay with a hipped roof, and a shed-roof porch with spindle railings, columns, and lattice skirting. The main porch window features a 1/1 fixed pane with a leaded upper light. Other windows are 1/1 wood double-hung. The entry door is multi-paneled and has one light. The gables feature fishscale shingles, and there is a ridge chimney. A water table with cap protects the basalt foundation. The house sits on a double lot with mature trees on all sides.							
Statement of Significance:							
This was the house of Frank Busch (1858-1939) and his wife Annie (1866-1960). Born in Germany, Frank Busch came to Oregon in 1883, joining his family who had settled in Oregon City. He founded the Busch Furniture Company and became one of Oregon City's most prominent businessmen. The Busch Furniture Company occupied a warehouse, factory and retail outlet in Oregon City. Busch also erected Busch Hall, the Busch Apartments and the Busch Dock in the commercial district, and fourteen houses in and around the McLoughlin District. He was one of the original incorporators of the Willamette Valley Southern Railroad, and served as its chairman and on the Board of Directors. In 1890, he married Annie Heitkemper, the daughter of a pioneer Portland businessman. They had three children. Busch owned the property from 1897-1919, selling the house to Royal Trullinger, a rural Post Office carrier. Trullinger owned the house until 1944, when Jess and Dorothy Gutzler bought the house. Jess worked for Publishers Paper, and the Gutzlers had two sons, Charles and Thomas. The family occupied the house through the remainder of the historic period, with Dorothy living alone in the house after Jess' death sometime between 1960 and 1962.							

Researcher/Organization: Marti Gerdes / HPNW				Date Recorded: 5/11/2002	
Survey Form Page 1		Address: 204 JEFFERSON ST		Local Designation #	
				SHPO #	

14 PRESERVATION BRIEFS

New Exterior Additions to Historic Buildings: Preservation Concerns

Anne E. Grimmer and Kay D. Weeks



National Park Service
U.S. Department of the Interior
Technical Preservation Services



A new exterior addition to a historic building should be considered in a rehabilitation project only after determining that requirements for the new or adaptive use cannot be successfully met by altering non-significant interior spaces. If the new use cannot be accommodated in this way, then an exterior addition may be an acceptable alternative. Rehabilitation as a treatment "is defined as the act or process of making possible a compatible use for a property through repair, alterations, and *additions* while preserving those portions or features which convey its historical, cultural, or architectural values."

The topic of new additions, including rooftop additions, to historic buildings comes up frequently, especially as it

relates to rehabilitation projects. It is often discussed and it is the subject of concern, consternation, considerable disagreement and confusion. Can, in certain instances, a historic building be enlarged for a new use without destroying its historic character? And, just what is significant about each particular historic building that should be preserved? Finally, what kind of new construction is appropriate to the historic building?

The vast amount of literature on the subject of additions to historic buildings reflects widespread interest as well as divergence of opinion. New additions have been discussed by historians within a social and political framework; by architects and architectural historians in terms of construction technology and style; and

by urban planners as successful or unsuccessful contextual design. However, within the historic preservation and rehabilitation programs of the National Park Service, the focus on new additions is to ensure that they preserve the character of historic buildings.

Most historic districts or neighborhoods are listed in the National Register of Historic Places for their significance within a particular time frame. This period of significance of historic districts as well as individually-listed properties may sometimes lead to a misunderstanding that inclusion in the National Register may prohibit any physical change outside of a certain historical period—particularly in the form of exterior additions. National Register listing does not mean that a building or district is frozen in time and that no change can be made without compromising the historical significance. It does mean, however, that a new addition to a historic building should preserve its historic character.



Figure 1. The addition to the right with its connecting hyphen is compatible with the Collegiate Gothic-style library. The addition is set back from the front of the library and uses the same materials and a simplified design that references, but does not copy, the historic building. Photo: David Wakely Photography.



Figure 2. The new section on the right is appropriately scaled and reflects the design of the historic Art Deco-style hotel. The apparent separation created by the recessed connector also enables the addition to be viewed as an individual building.

Guidance on New Additions

To meet Standard 1 of the *Secretary of the Interior's Standards for Rehabilitation*, which states that "a property shall be used for its historic purpose or be placed in a new use that requires minimal change to the defining characteristics of the building and its site and environment," it must be determined whether a historic building can accommodate a new addition. Before expanding the building's footprint, consideration should first be given to incorporating changes—such as code upgrades or spatial needs for a new use—within secondary areas of the historic building. However, this is not always possible and, after such an evaluation, the conclusion may be that an addition is required, particularly if it is needed to avoid modifications to character-defining interior spaces. An addition should be designed to be compatible with the historic character of the building and, thus, meet the *Standards for Rehabilitation*. Standards 9 and 10 apply specifically to new additions:

(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."

The subject of new additions is important because a new addition to a historic building has the potential to change its historic character as well as to damage and destroy significant historic materials and features. A new addition also has the potential to confuse the public and to make it difficult or impossible to differentiate the old from the new or to recognize what part of the historic building is genuinely historic.

The intent of this Preservation Brief is to provide guidance to owners, architects and developers on how to design a compatible new addition, including a rooftop addition, to a historic building. A new addition to a historic building should preserve the building's *historic character*. To accomplish this and meet the *Secretary of the Interior's Standards for Rehabilitation*, a new addition should:

- Preserve significant historic materials, features and form;
- Be compatible; and
- Be differentiated from the historic building.

Every historic building is different and each rehabilitation project is unique. Therefore, the guidance offered here is not specific, but general, so that it can be applied to a wide variety of building types and situations. To assist in interpreting this guidance, illustrations of a variety of new additions are provided. Good examples, as well as some that do not meet the Standards, are included to further help explain and clarify what is a compatible new addition that preserves the character of the historic building.



Figure 3. The red and buff-colored parking addition with a rooftop playground is compatible with the early-20th century school as well as with the neighborhood in which it also serves as a school.

Preserve Significant Historic Materials, Features and Form

Attaching a new exterior addition usually involves some degree of material loss to an external wall of a historic building, but it should be minimized. Damaging or destroying significant materials and craftsmanship should be avoided, as much as possible.

Generally speaking, preservation of historic buildings inherently implies minimal change to primary or “public” elevations and, of course, interior features as well. Exterior features that distinguish one historic building or a row of buildings and which can be seen from a public right of way, such as a street or sidewalk, are most likely to be the most significant. These can include many different elements, such as: window patterns, window hoods or shutters; porticoes, entrances and doorways; roof shapes, cornices and decorative moldings; or commercial storefronts with their special detailing, signs and glazing patterns. Beyond a single building, entire blocks of urban or residential structures are often closely related architecturally by their materials, detailing, form and alignment. Because significant materials and features should be preserved, not damaged or hidden, the first place to consider placing a new addition is in a location where the least amount of historic material and character-defining features will be lost. In most cases, this will be on a secondary side or rear elevation.

One way to reduce overall material loss when constructing a new addition is simply to keep the addition smaller in proportion to the size of the historic building. Limiting the size and number of openings between old and new by utilizing existing doors or enlarging windows also helps to minimize loss. An often successful way to accomplish this is to link the addition to the historic building by means of a hyphen or connector. A connector provides a physical link while visually separating the old and new, and the connecting passageway penetrates and removes only a small portion of the historic wall. A new addition that will abut the historic building along an entire elevation or wrap around a side and rear elevation, will likely integrate the historic and the new interiors, and thus result in a high degree of loss of form and exterior walls, as well as significant alteration of interior spaces and features, and will not meet the Standards.



Figure 4. This glass and brick structure is a harmonious addition set back and connected to the rear of the Colonial Revival-style brick house. Cunningham/Quill Architects. Photos: © Maxwell MacKenzie.

Compatible but Differentiated Design

In accordance with the Standards, a new addition must preserve the building's historic character and, in order to do that, it must be differentiated, but compatible, with the historic building. A new addition must retain the essential form and integrity of the historic property. Keeping the addition smaller, limiting the removal of historic materials by linking the addition with a hyphen, and locating the new addition at the rear or on an inconspicuous side elevation of a historic building are techniques discussed previously that can help to accomplish this.

Rather than differentiating between old and new, it might seem more in keeping with the historic cha

simply to repeat the historic form, material, features and detailing in a new addition. However, when the new work is highly replicative and indistinguishable from the old in appearance, it may no longer be possible to identify the “real” historic building. Conversely, the treatment of the addition should not be so different that it becomes the primary focus. The difference may be subtle, but it must be clear. A new addition to a historic building should protect those visual qualities that make the building eligible for listing in the National Register of Historic Places.

The National Park Service policy concerning new additions to historic buildings, which was adopted in 1967, is not unique. It is an outgrowth and continuation of a general philosophical approach to change first expressed by John Ruskin in England in the 1850s, formalized by William Morris in the founding of the Society for the Protection of Ancient Buildings in 1877, expanded by the Society in 1924 and, finally, reiterated in the 1964 Venice Charter—a document that continues to be followed by the national committees of the International Council on Monuments and Sites (ICOMOS). The 1967 *Administrative Policies for Historical Areas of the National Park System* direct that “...a modern addition should be readily distinguishable from the older work; however, the new work should be harmonious with the old in scale, proportion, materials, and color. Such additions should be as inconspicuous as

possible from the public view.” As a logical extension from these Policies specifically for National Park Service-owned historic structures, the 1977 *Secretary of the Interior’s Standards for Rehabilitation*, which may be applied to **all** historic buildings listed in, or eligible for listing in the National Register, also state that “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.”

Preserve Historic Character

The goal, of course, is a new addition that preserves the building’s historic character. The historic character of each building may be different, but the methodology of establishing it remains the same. Knowing the uses and functions a building has served over time will assist in making what is essentially a physical evaluation. But, while written and pictorial documentation can provide a framework for establishing the building’s history, to a large extent the historic character is embodied in the physical aspects of the historic building itself—shape, materials, features, craftsmanship, window arrangements, colors, setting and interiors. Thus, it is important to identify the historic character before making decisions about the extent—or limitations—of change that can be made.



Figure 5. This addition (a) is constructed of matching brick and attached by a recessed connector (b) to the 1914 apartment building (c). The design is compatible and the addition is smaller and subordinate to the historic building (d).



Figure 6. A new addition (left) is connected to the garage which separates it from the main block of the c. 1910 former florist shop (right). The addition is traditional in style, yet sufficiently restrained in design to distinguish it from the historic building.

A new addition should always be subordinate to the historic building; it should not compete in size, scale or design with the historic building. An addition that bears no relationship to the proportions and massing of the historic building—in other words, one that overpowers the historic form and changes the scale—will usually compromise the historic character as well. The appropriate size for a new addition varies from building to building; it could never be stated in a square or cubic footage ratio, but the historic building's existing proportions, site and setting can help set some general parameters for enlargement. Although even a small addition that is poorly designed can have an adverse impact, to some extent, there is a predictable relationship between the size of the historic resource and what is an appropriate size for a compatible new addition.

Generally, constructing the new addition on a secondary side or rear elevation—in addition to material preservation—will also preserve the historic character. Not only will the addition be less visible, but because a secondary elevation is usually simpler and less distinctive, the addition will have less of a physical and visual impact on the historic building. Such placement will help to preserve the building's historic form and relationship to its site and setting.

Historic landscape features, including distinctive grade variations, also need to be respected. Any new landscape features, including plants and trees, should be kept at a scale and density that will not interfere with understanding of the historic resource itself. A traditionally landscaped

property should not be covered with large paved areas for parking which would drastically change the character of the site.

Despite the fact that in most cases it is recommended that the new addition be attached to a secondary elevation, sometimes this is not possible. There simply may not be a secondary elevation—some important freestanding buildings have significant materials and features on all sides. A structure or group of structures together with its setting (for example, a college campus) may be of such significance that any new addition would not only damage materials, but alter the buildings' relationship to each other and the setting. An addition attached to a highly-visible elevation of a historic building can radically alter the historic form or obscure features such as a decorative cornice or window ornamentation. Similarly, an addition that fills



Figure 7. A vacant side lot was the only place a new stair tower could be built when this 1903 theater was rehabilitated as a performing arts center. Constructed with matching materials, the stair tower is set back with a recessed connector and, despite its prominent location, it is clearly subordinate and differentiated from the historic theater.



Figure 8. The rehabilitation of this large, early-20th century warehouse (left) into affordable artists' lofts included the addition of a compatible glass and brick elevator/stair tower at the back (right).



Figure 9. A simple, brick stair tower replaced two non-historic additions at the rear of this 1879 school building when it was rehabilitated as a women's and children's shelter. The addition is set back and it is not visible from the front of the school.



Figure 10. The small size and the use of matching materials ensures that the new addition on the left is compatible with the historic Romanesque Revival-style building.

in a planned void on a highly-visible elevation (such as a U-shaped plan or a feature such as a porch) will also alter the historic form and, as a result, change the historic character. Under these circumstances, an addition would have too much of a negative impact on the historic building and it would not meet the Standards. Such situations may best be handled by constructing a separate building in a location where it will not adversely affect the historic structure and its setting.

In other instances, particularly in urban areas, there may be no other place but adjacent to the primary façade to locate an addition needed for the new use. It may be possible to design a lateral addition attached on the side that is compatible with the historic building, even though it is a highly-visible new element. Certain types of historic structures, such as government buildings, metropolitan museums, churches or libraries, may be so massive in size that a relatively large-scale addition may not compromise the historic character, provided, of course, the addition is smaller than the historic building. Occasionally, the visible size of an addition can be reduced by placing some of the spaces or support systems in a part of the structure that is underground. Large new additions may sometimes be successful if they read as a separate volume, rather than as an extension of the historic structure, although the scale, massing and proportions of the addition still need to be compatible with the historic building. However, similar expansion of smaller buildings would be dramatically out of scale. In summary, where any new addition is proposed, correctly assessing the relationship between actual size and relative scale will be a key to preserving the character of the historic



Figure 11. The addition to this early-20th century Gothic Revival-style church provides space for offices, a great hall for gatherings and an accessible entrance (left). The stucco finish, metal roof, narrow gables and the Gothic-arched entrance complement the architecture of the historic church. Placing the addition in back where the ground slopes away ensures that it is subordinate and minimizes its impact on the church (below).

Design Guidance for Compatible New Additions to Historic Buildings

There is no formula or prescription for designing a new addition that meets the Standards. A new addition to a historic building that meets the Standards can be any architectural style—traditional, contemporary or a simplified version of the historic building. However, there must be a balance between differentiation and compatibility in order to maintain the historic character and the identity of the building being enlarged. New additions that too closely resemble the historic building or are in extreme contrast to it fall short of this balance. *Inherent in all of the guidance is the concept that an addition needs to be subordinate to the historic building.*

A new addition **must preserve significant historic materials, features and form, and it must be compatible but differentiated from the historic building.** To achieve this, it is necessary to carefully consider the **placement or location** of the new addition, and its **size, scale and massing** when planning a new addition. To preserve a property's historic character, a new addition must be visually distinguishable from the historic building. This does not mean that the addition and the historic building should be glaringly different in terms of design, materials and other visual qualities. Instead, the new addition should take its design cues from, but not copy, the historic building.



A variety of design techniques can be effective ways to differentiate the new construction from the old, while respecting the architectural qualities and vocabulary of the historic building, including the following:

- Incorporate a simple, recessed, small-scale hyphen to physically separate the old and the new volumes or set the addition back from the wall plane(s) of the historic building.
- Avoid designs that unify the two volumes into a single architectural whole. The new addition may include simplified architectural features that reflect, but do not duplicate, similar features on the historic building. This approach will not impair the existing building's historic character as long as the new structure is subordinate in size and clearly differentiated and distinguishable so that the identity of the historic structure is not lost in a new and larger composition. The historic building must be clearly identifiable and its physical integrity must not be compromised by the new addition.



Figure 12. This 1954 synagogue (left) is accessed through a monumental entrance to the right. The new education wing (far right) added to it features the same vertical elements and color and, even though it is quite large, its smaller scale and height ensure that it is secondary to the historic resource.



Figure 13. A glass and metal structure was constructed in the courtyard as a restaurant when this 1839 building was converted to a hotel. Although such an addition might not be appropriate in a more public location, it is compatible here in the courtyard of this historic building.



Figure 14. This glass addition was erected at the back of an 1895 former brewery during rehabilitation to provide another entrance. The addition is compatible with the plain character of this secondary elevation.

- Use building materials in the same color range or value as those of the historic building. The materials need not be the same as those on the historic building, but they should be harmonious; they should not be so different that they stand out or distract from the historic building. (Even clear glass can be as prominent as a less transparent material. Generally, glass may be most appropriate for small-scale additions, such as an entrance on a secondary elevation or a connector between an addition and the historic building.)
- Base the size, rhythm and alignment of the new addition's window and door openings on those of the historic building.
- Respect the architectural expression of the historic building type. For example, an addition to an institutional building should maintain the architectural character associated with this building type rather than using details and elements typical of residential or other building types.

These techniques are merely examples of ways to differentiate a new addition from the historic building while ensuring that the addition is compatible with it. Other ways of differentiating a new addition from the historic building may be used as long as they maintain the primacy of the historic building. Working within these basic principles still allows for a broad range of architectural expression that can range from stylistic similarity to contemporary distinction. The recommended design approach for an addition is one that neither copies the historic building exactly nor stands in stark contrast to it.

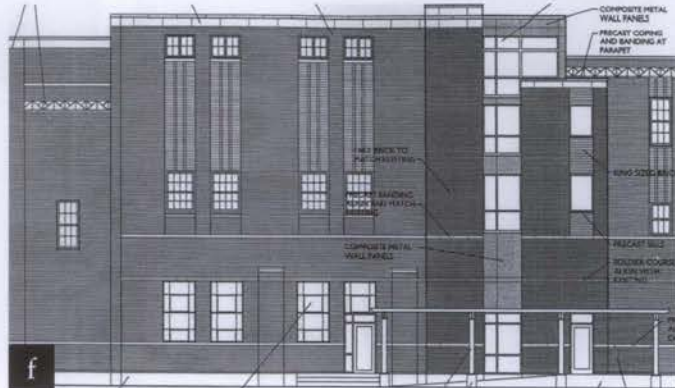
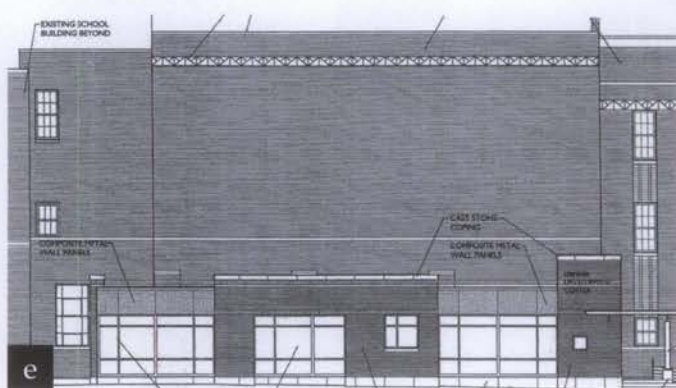
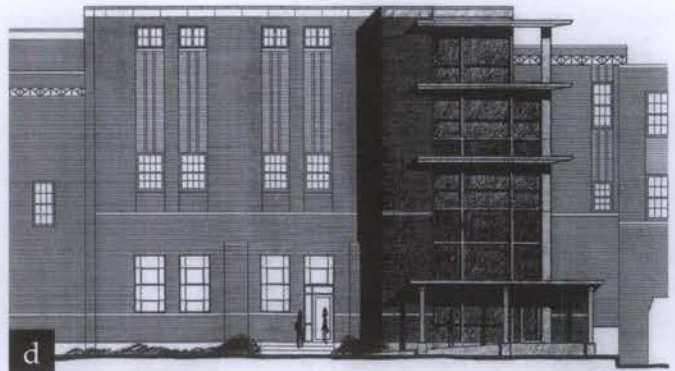
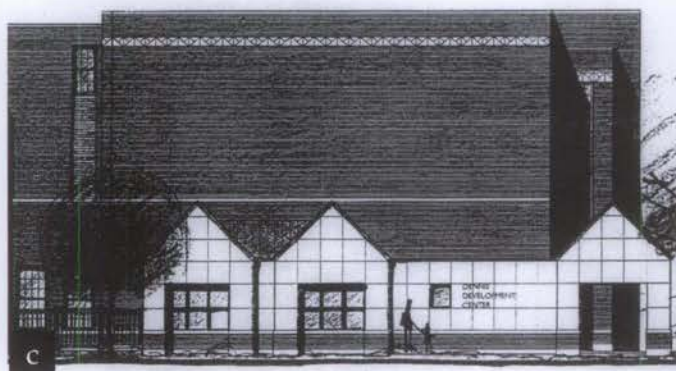


Figure 15. The rehabilitation of a c. 1930 high school auditorium for a clinic and offices proposed two additions: a one-story entrance and reception area on this elevation (a); and a four-story elevator and stair tower on another side (b). The gabled entrance (c) first proposed was not compatible with the flat-roofed auditorium and the design of the proposed stair tower (d) was also incompatible and overwhelmed the historic building. The designs were revised (e-f) resulting in new additions that meet the Standards (g-h).



Figure 16. The proposal to add three row houses to the rear ell of this early-19th century residential property doubles its size and does not meet the Standards..



Figure 17. The small addition on the left is starkly different and it is not compatible with the eclectic, late-19th century house.



Figure 18. The expansion of a one- and one-half story historic bungalow (left) with a large two-story rear addition (right) has greatly altered and obscured its distinctive shape and form.



Figure 19. The upper two floors of this early-20th century office building were part of the original design, but were not built. During rehabilitation, the two stories were finally constructed. This treatment does not meet the Standards because the addition has given the building an appearance it never had historically.



Figure 20. The height, as well as the design, of these two-story rooftop additions overwhelms the two-story and the one-story, low-rise historic buildings.



New Additions in Densely-Built Environments

Item #2.

In built-up urban areas, locating a new addition on a less visible side or rear elevation may not be possible simply because there is no available space. In this instance, there may be alternative ways to help preserve the historic character. One approach when connecting a new addition to a historic building on a primary elevation is to use a hyphen to separate them. A subtle variation in material, detailing and color may also provide the degree of differentiation necessary to avoid changing the essential proportions and character of the historic building.

A densely-built neighborhood such as a downtown commercial core offers a particular opportunity to design an addition that will have a minimal impact on the historic building. Often the site for such an addition is a vacant lot where another building formerly stood. Treating the addition as a separate or infill building may be the best approach when designing an addition that will have the least impact on the historic building and the district. In these instances there may be no need for a direct visual link to the historic building. Height and setback from the street should generally be consistent with those of the historic building and other surrounding buildings in the district. Thus, in most urban commercial areas the addition should not be set back from the façade of the historic building. A tight urban setting may sometimes even accommodate a larger addition if the primary elevation is designed to give the appearance of being several buildings by breaking up the facade into elements that are consistent with the scale of the historic building and adjacent buildings.



Figure 21. Both wings of this historic L-shaped building (top), which fronts on two city streets, adjoined vacant lots. A two-story addition was constructed on one lot (above, left) and a six-story addition was built on the other (above, right). Like the historic building, which has two different facades, the compatible new additions are also different and appear to be separate structures rather than part of the historic building.



Figure 22. The proposed new addition is compatible with the historic buildings that remain on the block. Its design with multiple storefronts helps break up the mass.

Page 104



Figure 23. Colored flags marking the location of a proposed penthouse addition (a) were placed on the roof to help evaluate the impact and visibility of an addition planned for this historic furniture store (b). Based on this evaluation, the addition was constructed as proposed. It is minimally visible and compatible with the 1912 structure (c). The tall parapet wall conceals the addition from the street below (d).

Rooftop Additions

The guidance provided on designing a compatible new addition to a historic building applies equally to new rooftop additions. A rooftop addition should preserve the character of a historic building by preserving historic materials, features and form; and it should be compatible but differentiated from the historic building.

However, there are several other design principles that apply specifically to rooftop additions. Generally, a rooftop addition should not be more than one story in height to minimize its visibility and its impact on the proportion and profile of the historic building. A rooftop addition should almost always be set back at least one full bay from the primary elevation of the building, as well as from the other elevations if the building is free-standing or highly visible.

It is difficult, if not impossible, to minimize the impact of adding an entire new floor to relatively low buildings, such as small-scale residential or commercial structures, even if the new addition is set back from the plane of the façade. Constructing another floor on top of a small, one, two or three-story building is seldom appropriate for buildings of this size as it would measurably alter the building's proportions and profile, and negatively impact its historic character. On the other hand, a rooftop addition on an eight-story building, for example, in a historic district consisting primarily of tall buildings might not affect the historic character because the new construction may blend in with the surrounding buildings and be only minimally visible within the district. A rooftop addition in a densely-built urban area is more likely to be compatible on a building that is adjacent to similarly-sized or taller buildings.

A number of methods may be used to help evaluate the effect of a proposed rooftop addition on a historic building and district, including pedestrian sight lines, three-dimensional schematics and computer-generated design. However, drawings generally do not provide a true "picture" of the appearance and visibility of a proposed rooftop addition. For this reason, it is often necessary to construct a rough, temporary, full-size or skeletal mock up of a portion of the proposed addition, which can then be photographed and evaluated from critical vantage points on surrounding streets.

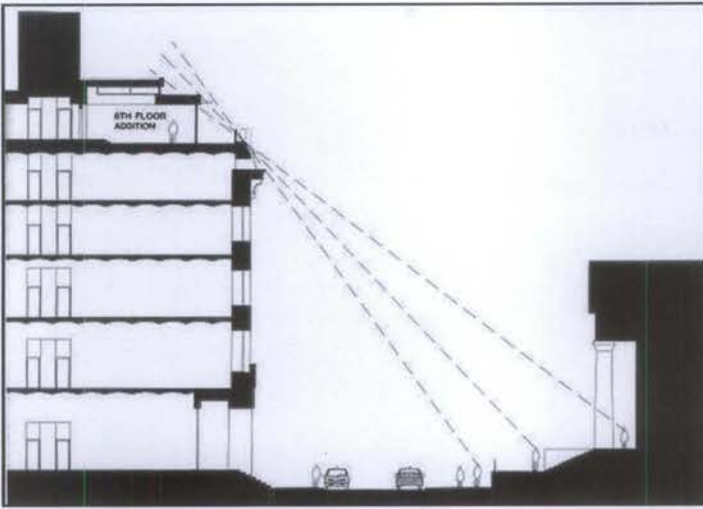


Figure 24. How to Evaluate a Proposed Rooftop Addition.
A sight-line study (above) only factors in views from directly across the street, which can be very restrictive and does not illustrate the full effect of an addition from other public rights of way. A mock up (above, right) or a mock up enhanced by a computer-generated rendering (below, right) is essential to evaluate the impact of a proposed rooftop addition on the historic building.

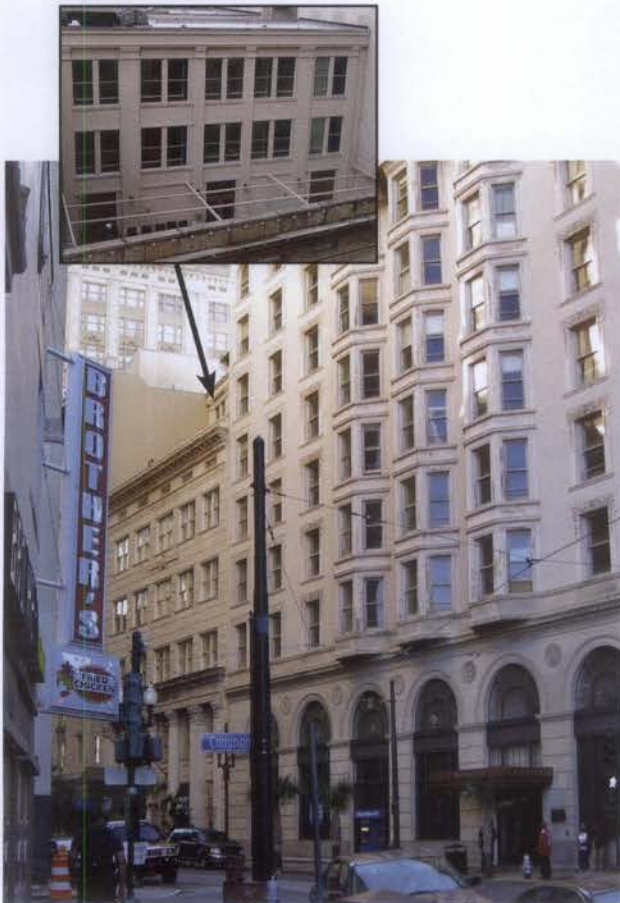


Figure 25. It was possible to add a compatible, three-story, penthouse addition to the roof of this five-story, historic bank building because the addition is set far back, it is surrounded by taller buildings and a deep parapet conceals almost all of the addition from below.

Figure 26. A rooftop addition would have negatively impacted the character of the primary facade (right) of this mid-19th century, four-story structure and the low-rise historic district. However, a third floor was successfully added on the two-story rear portion (below) of the same building with little impact to the building or the district because it blends in with the height of the adjacent building.





Figure 27. Although the new brick stair/elevator tower (left) is not visible from the front (right), it is on a prominent side elevation of this 1890 stone bank. The compatible addition is set back and does not compete with the historic building. Photos: Chadd Gossman, Aurora Photography, LLC.

Designing a New Exterior Addition to a Historic Building

This guidance should be applied to help in designing a compatible new addition that that will meet the *Secretary of the Interior's Standards for Rehabilitation*:

- A new addition should be simple and unobtrusive in design, and should be distinguished from the historic building—a recessed connector can help to differentiate the new from the old.
- A new addition should not be highly visible from the public right of way; a rear or other secondary elevation is usually the best location for a new addition.
- The construction materials and the color of the new addition should be harmonious with the historic building materials.
- The new addition should be smaller than the historic building—it should be subordinate in both size and design to the historic building.

The same guidance should be applied when designing a compatible **rooftop** addition, plus the following:

- A rooftop addition is generally not appropriate for a one, two or three-story building—and often is not appropriate for taller buildings.
- A rooftop addition should be minimally visible.
- Generally, a rooftop addition must be set back at least one full bay from the primary elevation of the building, as well as from the other elevations if the building is freestanding or highly visible.
- Generally, a rooftop addition should not be more than one story in height.
- Generally, a rooftop addition is more likely to be compatible on a building that is adjacent to similarly-sized or taller buildings.



Figure 28. A small addition (left) was constructed when this 1880s train station was converted for office use. The paired doors with transoms and arched windows on the compatible addition reflect, but do not replicate, the historic building (right).



Figure 29. This simple glass and brick entrance (left) added to a secondary elevation of a 1920s school building (right) is compatible with the original structure.

Summary

Because a new exterior addition to a historic building can damage or destroy significant materials and can change the building's character, an addition should be considered only after it has been determined that the new use cannot be met by altering non-significant, or secondary, interior spaces. If the new use cannot be met in this way, then an attached addition may be an acceptable alternative if carefully planned and designed. A new addition to a historic building should be constructed in a manner that preserves significant materials, features and form, and preserves the building's historic character. Finally, an addition should be differentiated from the historic building so that the new work is compatible with—and does not detract from—the historic building, and cannot itself be confused as historic.

Additional Reading

Byard, Paul Spencer. *The Architecture of New Additions: Design and Regulation*. New York, NY: W.W. Norton & Company, 1998.

Day, Steven, AIA. "Modernism Meets History: New Additions to Historic Structures." *Preservation Seattle* [Historic Seattle's online monthly preservation magazine.] May 2003. www.historicseattle.org/preservationseattle/publicpolicy/defaultmay2.htm.

Incentives! A Guide to the Federal Historic Preservation Tax Incentives Program for Income-Producing Properties. "Avoiding Incompatible Treatments: New Additions & Rooftop Additions." Technical Preservation Services Branch, National Park Service. Online at www.nps.gov/history/hps/tps/.

Interpreting the Standards Bulletins (ITS). Technical Preservation Services Branch, National Park Service. Online at www.nps.gov/history/hps/tps/.

New Additions to Historic Buildings. Technical Preservation Services Branch, National Park Service. Online at www.nps.gov/history/hps/tps/.

O'Connell, Kim A. "Making Connections." *Traditional Building*. March/April 2004. (Vol. 17, No. 2), pp. 12-15.

The Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings. Washington, D.C.: U.S. Department of the Interior, National Park Service, Preservation Assistance Division, rev. 1990.

The Secretary of the Interior's Standards for Rehabilitation & Illustrated Guidelines for Rehabilitating Historic Buildings. (Authors: W. Brown Morton, III, Gary L. Hume, Kay D. Weeks, and H. Ward Jandl. Project Directors: Anne E. Grimmer and Kay D. Weeks.) Washington, D.C.: U.S. Department of

the Interior, National Park Service, Preservation Assistance Division, 1992. Online at www.nps.gov/history/hps/tps/.

Semes, Steven W. "Differentiated and Compatible: The Secretary's Standards revisited." *Traditional Building*. February 2009. (Vol. 22, No. 1), pp. 20-23.

Semes, Steven W. *The Future of the Past: A Conservation Ethic for Architecture, Urbanism, and Historic Preservation*. (In association with The Institute of Classical Architecture and Classical America.) New York, NY: W.W. Norton & Company, 2009.



Figure 30. The small addition on the right of this late-19th century commercial structure is clearly secondary and compatible in materials and design with the historic building.



Figure 31. An elevator/stair tower was added at the back of this Richardsonian Romanesque-style theater when it was rehabilitated. Rough-cut stone and simple cut-out openings ensure that the addition is compatible and subordinate to the historic building. Photo: Chuck Liddy, AIA.

Acknowledgements

Anne E. Grimmer, Senior Architectural Historian, Technical Preservation Services Branch, National Park Service, revised *Preservation Brief 14*, written by Kay D. Weeks and first published in 1986. The revised Brief features all new illustrations and contains expanded and updated design guidance on the subject of new additions that has been developed by the Technical Preservation Services Branch since the original publication of the Brief. Several individuals generously contributed their time and expertise to review the revision of this *Preservation Brief*, including: Sharon C. Park, FAIA, Chief, Architectural History and Historic Preservation, Smithsonian Institution; Elizabeth Tune and Karen Brandt, Department of Historic Resources, Commonwealth of Virginia; and Phillip Wisley and David Ferro, Division of Historical Resources, Florida Department of State. The Technical Preservation Services professional staff, in particular Michael J. Auer, Jo Ellen Hensley, Gary Sachau and Rebecca Shiffer, also provided important guidance in the development of this publication. All illustrations are from National Park Service files unless otherwise credited. Front cover image: Detail of new addition shown in Figure 4. Photo: © Maxwell MacKenzie.

This publication has been prepared pursuant to the National Historic Preservation Act of 1966, as amended, which directs the Secretary of the Interior to develop and make available information concerning historic properties. The Technical Preservation Services Branch, National Park Service, prepares standards, guidelines and other educational materials on responsible historic preservation treatments for a broad public audience. Additional information about the programs of Technical Preservation Services is available on the website at www.nps.gov/history/hps/tps. Comments about this publication should be addressed to: Charles E. Fisher, Technical Preservation Publications Program Manager, Technical Preservation Services-2255, National Park Service, 1849 C Street, NW, Washington, DC 20240. This publication is not copyrighted and can be reproduced without penalty. Normal procedures for credit to the author and the National Park Service are appreciated.



**Historic Review
Staff Report for a Solar Installation on a Designated Historic Site
in the McLoughlin Conservation District
February 21, 2023**

FILE NO.: GLUA-23-00003 and HR 23-00002 Historic Review

HEARING DATE: February 28, 2023
7:00 p.m. – Virtual Meeting over Zoom

APPLICANT: Solgen Power LLC
5715 Bedford St
Pasco WA 99301

OWNER: Michael Totten
100 Center St
Oregon City Or 97045
2-2e-31db-02400

LOCATION: 100 Center St
Oregon City, OR 97045

REQUEST: Historic Review for solar panel installation on street-facing roof planes on a designated structure in the McLoughlin Conservation district, the Samuel and Mary Meyers House

REVIEWER: Christina Robertson-Gardiner, Senior Planner, AICP

RECOMMENDATION: Approval with Conditions

CRITERIA: Administration and Procedures are set forth in Chapter 17.50, Historic Overlay District in Chapter 17.40, of the Oregon City Municipal Code. The City Code Book is available on-line at www.orcity.org.

Please be advised that any issue that is intended to provide a basis for appeal must be raised before the close of the hearing, in person or by letter, with sufficient specificity to afford the Historic Review Board and the parties an opportunity to respond to the issue. Failure to raise an issue with sufficient specificity will preclude any appeal on that issue. The decision of the Historic Review Board may be appealed to the City Commission by parties with standing within fourteen (14) calendar days of the notice of decision. Any appeal will be based on the record. The procedures that govern the hearing will be posted at the hearing and are found in OCMC Chapter 17.50 and ORS 197.763. A city-recognized neighborhood association requesting an appeal fee waiver pursuant to OCMC 17.50.290(C) must officially approve the request through a vote of its general membership or board at a duly announced meeting prior to the filing of an appeal.

Summary and Recommended Conditions of Approval

This 1-1/2 story c 1885 vernacular house is rectangular in plan and sits on a concrete block foundation. The gable roof is covered in composition shingles. The house is covered with channel rustic drop siding ground by a water table and cap. Windows are primarily 1/1 wood double-hung. A hip roofed wing has been added to the south façade

The Board has approved panels facing the street and visible from the right of way in the past, as long as they were not distracting from or too prominently visible when viewing the primary façade or entryway of the structure. The panels proposed on The Samuel and Mary Meyers House will be visible from the right-of-way.

A total of 27 panels are proposed on a combination of 3 roof planes.

(18) front - HRB Approval needed

(4) secondary side- staff level approval

(5) secondary rear - staff level approval

Unlike previous solar applications, The applicant has yet to submit an analysis showing that locating the panels on the rear roof plane where they would meet the HRB policies would not provide sufficient power generation. Staff will contact the applicant and request that they provide this information at the hearing. Though It is reasonable to infer this situation as 18 of the 27 panels are on the main southern-facing gable.

As energy prices rise and renewable technology becomes more affordable, more common, and more critical to society's response to climate change, the Board will have to balance these factors with the concerns of historic integrity. Because the panels are only placed on the roof and will not cover or destroy historical materials or features and are designed to be removed in the future without causing irreparable damage to the structure, the Board may find that the panels will not affect the integrity of the structure. In fact, the investment may prolong the overall preservation of the home.

If the Board finds that these panels will impact the historic integrity of the home, the proposal's impacts may be mitigated by limiting the number of panels on the upper roof plane.

Prior to issuance of Building Permits:

1. The applicant shall submit documentation showing that the panels will be no more than 5" above the roof surface.
2. Ground- or wall-mounted equipment shall not obscure any architectural features and shall not be installed in a manner that destroys historic millwork or other historic materials. The applicant shall submit a sketch or mock-up of the equipment placement to staff to demonstrate compliance with this condition.
3. The panel frames shall be black, no unfinished/shiny metal frames or visible parts are permitted.
4. The applicant shall ensure that the ground-mounted equipment is blocked from pedestrian view by the use of fencing or landscaping.

I. BACKGROUND:

Site and Context

The subject property is the Samuel and Mary Meyers House, a c 1885 Vernacular-style home on a corner lot in the McLoughlin Conservation District. The home is in good condition.



Vicinity Map and photograph

The Historic Inventory form for the home reads:

Samuel and Mary Meyers House

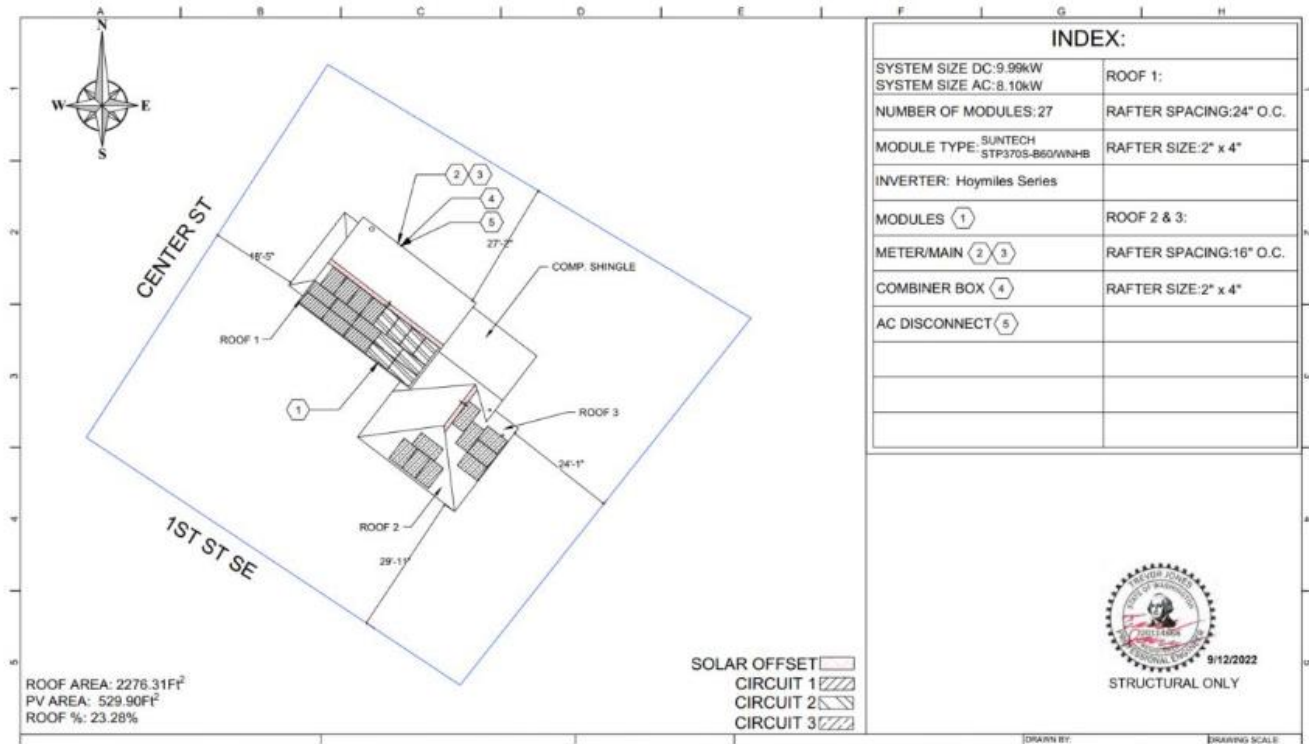
This 1-1/2 story vernacular house is rectangular in plan and sits on a concrete block foundation. The gable roof is covered in composition shingles. The house is covered with channel rustic drop siding ground by a water table and cap. Windows are primarily 1/1 wood double-hung. A hip-roofed wing has been added to the south façade. A picket fence encircles the yard.

Statement of Significance: The house at 100 Center Street was moved to its present site c.1947. The house is purported to have been built by Samuel Meyers c.1885. Samuel Meyers was born in 1838 in Germany, and arrived in the United States in 1870. His wife Mary was born in Germany in 1850. They had several daughters: Elfrida, Martha and Augusta. In 1880, Meyers was a laborer living with his two young daughters and wife, and a brother-in-law, Adolf Fredrick. This house was the first of three almost identical buildings erected along Center Street by Meyers. In 1919, the house was sold to D. Reddaway, who sold it in 1937 to the Satterlie family. They sold it c.1947 to the Catholic archdiocese, and the house was moved to its present site.

Existing Conditions

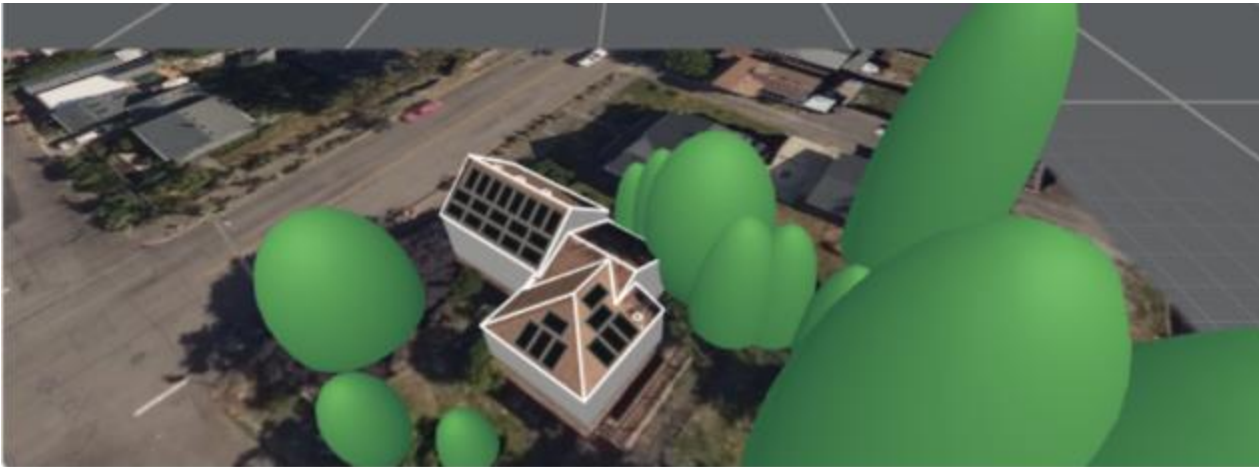
Project Description:

The applicant is proposing an 27-module solar photovoltaic array on the roof of the house. Panels are proposed on three different roof planes, and ground equipment is proposed on the north of the house, which is the side.





Street View



Panel configuration

The applicant has proposed to place solar panels on the roof of the historic structure. In 2019, the City adopted an HRB Policy for solar technology on historic homes, which allowed solar panels without HRB review if the panels met the following standards:

- Sloped roof location: Solar panels are permitted on secondary facades of historic buildings and on accessory structures.
- Design: Panels on sloped roofs shall project five inches or less from the roof surface and be installed flat; they shall not alter the slope of the roof.
- Color: Panels and mounting systems shall be the same color as established roof materials.
- Mechanical equipment associated with the photovoltaic system shall be as unobtrusive as possible.

The panels proposed on this home are proposed on the rear side and front-facing roof slopes and placed such that they will be visible when viewing the primary façade of the house from the right of way. Thus, staff was unable to make a finding that the panels were on a secondary façade. Therefore, HRB review is required for this proposal.

The location of the panels is a key factor in determining whether they will impact the historic character of the home. The Secretary of Interior Standards has generally been applied to allow solar equipment that is minimally visible and/or on secondary portions of structures or sites (see Exhibit 5). The federal guidance provides some examples, including the “Vermont residence”, where panels are placed atop a low-pitch gable roof on a 3-story building. “Though visible, these few panels have relatively little impact on the historic character of the property. However, if the roof had been a more prominent feature of the property, this installation may not have been appropriate.”



"Vermont residence" example

Zoning:

The property is zoned R-6 Dwelling District and Low-Density Residential in the Comprehensive Plan.

Notice and Public Comment:

Public notices were mailed to property owners within 300 feet of the subject site, posted on the subject site, and published in a newspaper of general circulation. No Public comments were received prior to publishing the staff report.

CODE RESPONSES:

17.40.060 - Exterior alteration and new construction.

- A. Except as provided pursuant to subsection I of this section, no person shall alter any historic site in such a manner as to affect its exterior appearance, nor shall there be any new construction in an historic district, conservation district, historic corridor, or on a landmark site, unless a certificate of appropriateness has previously been issued by the historic review board. Any building addition that is thirty percent or more in area of the historic building (be it individual or cumulative) shall be considered new construction in a district. Further, no major public improvements shall be made in the district unless approved by the board and given a certificate of appropriateness.*

Finding: Applicable: The proposal for exterior alteration in a historic district is being reviewed by the Historic Review Board.

- B. Application for such a certificate shall be made to the planning staff and shall be referred to the historic review board. The application shall be in such form and detail as the board prescribes.*

Finding: Complies as Proposed: The applicant submitted the required materials.

- C. Archeological Monitoring Recommendation. For all projects that will involve ground disturbance, the applicant shall provide,*

1. A letter or email from the Oregon State Historic Preservation Office Archaeological Division indicating the GLUA-23-00003 and HR 23-00002 Historic Review

level of recommended archeological monitoring on-site, or demonstrate that the applicant had notified the Oregon State Historic Preservation Office and that the Oregon State Historic Preservation Office had not commented within forty-five days of notification by the applicant; and

2. *A letter or email from the applicable tribal cultural resource representative of the Confederated Tribes of the Grand Ronde, Confederated Tribes of the Siletz, Confederated Tribes of the Umatilla, Confederated Tribes of the Warm Springs and the Confederated Tribes of the Yakama Nation indicating the level of recommended archeological monitoring on-site, or demonstrate that the applicant had notified the applicable tribal cultural resource representative and that the applicable tribal cultural resource representative had not commented within forty-five days of notification by the applicant.*

If, after forty-five days notice from the applicant, the Oregon State Historic Preservation Office or the applicable tribal cultural resource representative fails to provide comment, the city will not require the letter or email as part of the completeness review. For the purpose of this section, ground disturbance is defined as the movement of native soils.

Finding: Not Applicable. The project does not include disturbance of native soils.

- D. *[1.] The historic review board, after notice and public hearing held pursuant to Chapter 17.50, shall approve the issuance, approve the issuance with conditions or disapprove issuance of the certificate of appropriateness.*

Applicable: The proposal is being reviewed by the Historic Review Board.

2. *The following exterior alterations to historic sites may be subject to administrative approval:*
 - a. *Work that conforms to the adopted Historic Review Board Policies.*

Not Applicable: The proposal is not subject to administrative approval.

- E. *For exterior alterations of historic sites in an historic district or conservation district or individual landmark, the criteria to be used by the board in reaching its decision on the certificate of appropriateness shall be:*

1. *The purpose of the historic conservation district as set forth in Section 17.40.010;*

Finding: Complies with Conditions.

The purpose of the district is to:

- A. Effect and accomplish the protection, enhancement and perpetuation of such improvements and of districts which represent or reflect elements of the city's cultural, social, economic, political and architectural history;
- B. Safeguard the city's historic, aesthetic and cultural heritage as embodied and reflected in such improvements and districts;
- C. Complement any National Register Historic districts designated in the city;
- D. Stabilize and improve property values in such districts;
- E. Foster civic pride in the beauty and noble accomplishments of the past;
- F. Protect and enhance the city's attractions to tourists and visitors and the support and stimulus to business and industry thereby provided;
- G. Strengthen the economy of the city;
- H. Promote the use of historic districts and landmarks for the education, pleasure, energy conservation, housing and public welfare of the city; and
- I. Carry out the provisions of LCDC Goal 5.

The applicant has provided the following responses:

- A. *The addition of solar modules to the historic home will not alter the historic feature of the home. They will continue to enhance the home.*
- B. *The plan supports the preservation of the historic site. Circa 1900, most homes west of the Mississippi had independent renewable energy sources, primarily wind turbines and water wheels, which were mainly used to pump water. Electricity from the grid was very rare at that*

point. Thus, renewable energy sources and independently producing your own power are very period values and ideas.

- C. We plan to follow all rules, regulations and guidelines provided by the city*
- D. Solar panels have been proven to improve property values. We can provide links to articles, as desired. We have also met with metro area real estate appraisers that have indicated to us that they add the invoice value of the system in the first 5 years and \$4/watt after that, which should always result in strong gains for the homeowner.*
- E. Home owners with solar are usually very proud of their installation. Additionally, more and more neighborhoods, landlords and homeowners are telling us they want renewable energy coming straight in to their home.*
- F. Our installations look very nice, as we have a strong focus on aesthetics, and will do a great job enhancing the neighborhood for residents and tourists alike.*
- G. The local economy will be strengthened by continuing to increase the value of the home.*
- H. Solar will help accomplish all of these, especially energy conservation*
- I. Solar will comply with all the provisions of the LCDC's Goal 5. It will not alter, nor remove, the historic nature of the home in any way.*

Staff finds that the addition of solar panels on the property will improve property value and support the goals for energy conservation and economy. The location of the panels is the key factor determining whether they will impact the historic character of the home.

See findings in criterion #6 and #9 of this section.

Staff has determined that it is possible, likely and reasonable that the applicant can meet this standard through the Conditions of Approval.

2. The provisions of the city comprehensive plan;

Finding: Complies with Condition.

There are a few goals and policies in the Comprehensive Plan that pertain to this proposal:

POLICY 2.3 Facilitate historic preservation programs for retention of federal, state, and locally designated historic districts and sites.

STRATEGY 2.3.C Encourage property owners to preserve historic structures in a state as close to their original construction as possible while allowing the structure to be used in an economically viable manner.

POLICY 2.4 Increase resiliency to climate change, natural hazard events, and cyber intrusions in public utility infrastructure.

POLICY 3.3 Support and promote emergency preparedness and climate change resiliency efforts and programs

The Comprehensive Plan Goals and Policies are somewhat conflicting in this case; calling for the preservation of historic structures while also calling for alternative energy sources. The placement of solar panels on the prominent roof sections of the historic home may impact the historic character of the structure. See detailed findings in criterion #6 and #9 of this section.

Staff has determined that it is possible, likely and reasonable that the applicant can meet this standard through the Conditions of Approval.

3. *The economic use of the historic site and the reasonableness of the proposed alteration and their relationship to the public interest in the structure's or landmark's preservation or renovation;*

Finding: Complies with Condition: The site is used as a residence and the use is not proposed to change. The public interest in the structure's preservation is preserving the Vernacular architecture and historic character of the house, which is made up of its historic materials and design. See findings in criteria #6 and #9 of this section. **Staff has determined that it is possible, likely and reasonable that the applicant can meet this standard through the Conditions of Approval.**

4. *The value and significance of the historic site;*

Finding: Complies with Condition: The value and significance of the historic site is the architecture and age of the structure, an 1885 Vernacular in the McLoughlin District. See findings in criteria #6 and #9 of this section. **Staff has determined that it is possible, likely and reasonable that the applicant can meet this standard through the Conditions of Approval.**

5. *The physical condition of the historic site*

Finding: Complies as Proposed. The structure is in fair to good condition. The proposal for solar energy may prolong and support the continued use of the property.

6. *The general compatibility of exterior design, arrangement, proportion, detail, scale, color, texture and materials proposed to be used with the historic site;*

Finding: Complies with Condition:

The Samuel and Mary Meyers House is a Vernacular-style structure with a medium-pitch gabled roof. The roof on the Samuel and Mary Meyers House is a dark composition shingle. A total of 27 panels are proposed on a combination of 3 roof planes.

(18) front - HRB Approval needed

(4) secondary side- staff level approval

(5) secondary rear-staff level approval

The Board has approved panels facing the street and visible from the right of way in the past, as long as they were not distracting from or too prominently visible when viewing the primary façade or entryway of the structure. The panels proposed on the Samuel and Mary Meyers House will be visible from the right-of-way.

The panels proposed on the main southern-facing gable roof will be visible from the street.

As energy prices rise and renewable technology becomes more affordable, more common, and more critical to society's response to climate change, the Board will have to balance these factors with the concerns of historic integrity. Because the panels are only placed on the roof and will not cover or destroy historical materials or features, and are designed to be removed in the future without causing irreparable damage to the structure, the Board may find that the panels will not affect the integrity of the structure. In fact, the investment may prolong the overall preservation of the home.

If the Board finds that these panels will impact this historic integrity of the home, these panels may be mitigated by limiting the number of panels on the upper roof plane.

- The applicant shall submit documentation showing that the panels will be no more than 5" above the roof surface.
- Ground- or wall-mounted equipment shall not obscure any architectural features and shall not be installed in a manner that destroys historic millwork or other historic materials. The applicant shall submit a sketch or mock-up of the equipment placement to staff to demonstrate compliance with this condition.
- The panel frames shall be black, no unfinished/shiny metal frames or visible parts are permitted.

Staff has determined that it is possible, likely and reasonable that the applicant can meet this standard through the Conditions of Approval.

7. Pertinent aesthetic factors as designated by the board;

Finding: Complies as Proposed. Staff does not suggest consideration of any aesthetic factors other than those already reflected in the code.

8. *Economic, social, environmental and energy consequences;*

Finding: Complies as Proposed. The home value may be increased, and CO2 emission will decrease. The consequences of the proposal are positive to the economy, environment, and energy conservation. Social impacts are inconsequential.

9. *Design guidelines adopted by the historic review board.*

Finding: Complies with Condition: The following design guidelines from the City's Design Guidelines for Alterations, which include the Secretary of Interior Standards, are applicable to this proposal:

Secretary of Interior Standard #2: The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.

No distinctive materials will be removed. A moderate portion of the total roof area will be covered, but not altered.

Secretary of Interior Standard #9: New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.

Staff finds that the alterations would not destroy historic materials, features, or spatial relationships.

Compatibility with massing is not applicable; the proposal will not alter the massing of the structure. Compatibility of the proposal with historic materials, features, size, scale and proportion is as follows:

Compatibility with Historic Materials: The smooth, black, shiny panel would be placed over the GLUA-23-00003 and HR 23-00002 Historic Review

gray composition roof. The material is modern but is not necessarily incompatible. Composition shingles are not a historic feature but are typical of both historic and new roofs. Staff recommends conditions of approval to ensure the panels are low profile and no unfinished, shiny metal is used on the panel frames.

Compatibility with Historical Features: The panels would be placed on the medium-pitch roof. The panels would not alter the pitch of the roof but would change the appearance of the roof and would be visible from the street. Generally, the Secretary of Interior Standards have been applied to find that roof-mounted solar panels may be compatible if they are on a rear-facing area, are minimally visible, or on a new addition to a historic building (see Exhibit 5).

Compatibility with Size/Scale/Proportion: The size and proportion of the panels appear to be uniformly rectangular. Staff recommends conditions of approval to ensure the panels are low profile and no unfinished, shiny metal is used on the panel frames.

Secretary of Interior Standard #10: New additions and adjacent or related new construction will 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.

The applicant did not provide a detailed response to this criterion. If approved, a condition of approval is recommended requiring that ground- or wall-mounted equipment not obscure any architectural features and shall not be installed in a manner that destroys historic millwork or other historic materials. The applicant should be required to submit a sketch or mock-up of the equipment placement to staff to demonstrate compliance with this condition, if approved.

Oregon City Guideline: Traditional landscape elements evident in the District (grass, trees, shrubs, picket fences, etc.) should be preserved, and are encouraged in site redevelopment. Inappropriate landscape treatments such as berms and extensive non-vegetative ground cover (e.g. mulch and bark dust) are discouraged.

The applicant has not proposed to remove any significant landscaping or trees on the site or in the district.

Staff has determined that it is possible, likely and reasonable that the applicant can meet this standard through the Conditions of Approval.

17.40.065 - Historic Preservation Incentives.

A. Purpose. Historic preservation incentives increase the potential for historically designated properties to be used, protected, renovated, and preserved. Incentives make preservation more attractive to owners of locally designated structures because they provide flexibility and economic opportunities.

B. Eligibility for Historic Preservation Incentives. All exterior alterations of designated structures and new construction in historic and conservation districts are eligible for historic preservation incentives if the exterior alteration or new construction has received a certificate of appropriateness from the Historic Review Board per OCMC 17.50.110(c).

C. Incentives Allowed. The dimensional standards of the underlying zone as well as for accessory buildings (OCMC 17.54.100) may be adjusted to allow for compatible development if the expansion or new construction is approved through historic design review.

D. Process. The applicant must request the incentive at the time of application to the Historic Review Board.

Finding: Not Applicable: No incentives are proposed.

II. PUBLIC NOTICE

A public notice was sent to neighbors with 300 feet of the subject property, posted online, emailed to various entities, and posted onsite.

III. CONCLUSIONS AND RECOMMENDATIONS

Based on the aforementioned findings, staff recommends that the Historic Review Board approve GLUA-23-00003 and HR 23-00002 Historic with conditions in this staff report for the property located at 100 Center Street, Oregon City, Oregon 97045.

Exhibits

1. Applicant Submittal
2. Historic Inventory Form
3. [Secretary of Interior Guidance on Solar Panels](#) (link)



OREGON CITY

Community Development – Planning

698 Warner Parrott Road | Oregon City OR 97045
Ph (503) 722-3789 | Fax (503) 722-3880

Item #3.

LAND USE APPLICATION FORM

Type I (OCMC 17.50.030.A) ☐ Compatibility Review ☐ WRG ☐ Comm. Fac ☐ Lot Line Adjustment ☐ Non-Conforming Use Review ☐ Natural Resource (NROD) ☐ Verification ☐ Minor Site Plan & Design Review ☐ Extension of Approval ☐ Historic Review – Remodel ☐ Detailed Dev. Plan (DDP)	Type II (OCMC 17.50.030.B) ☐ Master Plan / PUD / GDP or Amendment ☐ Detailed Development Plan (DDP) ☐ Floodplain Review ☐ Geologic Hazard Overlay ☐ Minor Partition (<4 lots) ☐ Minor Site Plan & Design Review ☐ Non-Conforming Use Review ☐ Site Plan and Design Review / DDP ☐ Subdivision (4+ lots) ☐ Minor Variance ☐ Natural Resource (NROD) Review ☐ Public Improvement Modification ☐ Willamette Greenway ELD Process (OCMC 17.50.030.E) ☐ Expedited Land Division	Type III / IV (OCMC 17.50.030.C & D.) ☐ Annexation ☐ Code Interpretation / Similar Use ☐ Master Plan / PUD / GDP Amendment ☐ Conditional Use ☐ Comprehensive Plan / Legislative Amendment (Code /Map) ☐ Detailed Development Plan DDP ☒ Historic Review ☐ Municipal Code Amendment ☐ Parking Adjustment ☐ Variance ☐ Sign Variance ☐ Natural Resource (NROD) Review ☐ Zone Change (Text/Map) ☐ Willamette Greenway Legislative Action (OCMC 17.50.170) ☐ Legislative
---	---	---

File Number(s):	Application Date: 12/02/2022
Project Name: Totten Solar	
Proposed Land Use or Activity: Solar Installation	# of Lots Proposed (If Applicable): 1
Physical Address(es) of Site: 100 Center St. Oregon City, OR 97045	
Clackamas County Map and Tax Lot Number(s): 22E31DB05700	

Applicant(s)

Applicant(s) Signature: <i>Nichole Salazar</i>		
Applicant(s) Name Printed: Nichole Salazar		Date: 12/02/2022
Mailing Address: 5715 Bedford St. Pasco Wa 99301		
Phone: 855 -709 -1181	Fax:	Email: permitting@solgenpower.com

Property Owner(s) – See reverse for more than two Owners

Property Owner #1 Michael Totten		
Property Owner#1 Signature <i>Michael Totten</i>		
Property Owner#1 Name Printed: Michael Totten		Date: 1/6/2023
Mailing Address: 100 Center St. Oregon City, OR 97045		
Ownership Address: 100 Center St. Oregon City, OR 97045		
Phone: 503-703-0843	Fax:	Email: michaeltotten001@gmail.com

Property Owner #2

Property Owner#2 Signature		
Property Owner#2 Name Printed:		Date:
Mailing Address:		
Ownership Address:		
Phone:	Fax:	Email:

Representative(s)

Representative(s) Signature		
Representative(s) Name Printed:		Date:
Mailing Address:		
Phone:	Fax:	Email:

All signatures represented must have the full legal capacity and hereby authorize the filing of this application and certify that the information and exhibits herewith are correct and indicate the parties willingness to comply with all code requirements.



Multiple Property Owner(s) - Additional Signatures Required

Property Owner #3		
Property Owner#3 Signature		
Property Owner#3 Name Printed:		Date:
Mailing Address:		
Ownership Address:		
Phone:	Fax:	Email:

Property Owner #4		
Property Owner#4 Signature		
Property Owner#4 Name Printed:		Date:
Mailing Address:		
Ownership Address:		
Phone:	Fax:	Email:

Property Owner #5		
Property Owner#5 Signature		
Property Owner#5 Name Printed:		Date:
Mailing Address:		
Ownership Address:		
Phone:	Fax:	Email:

Property Owner #6		
Property Owner#6 Signature		
Property Owner#6 Name Printed:		Date:
Mailing Address:		
Ownership Address:		
Phone:	Fax:	Email:

Property Owner #7		
Property Owner#7 Signature		
Property Owner#7 Name Printed:		Date:
Mailing Address:		
Ownership Address:		
Phone:	Fax:	Email:

Property Owner #8		
Property Owner#8 Signature		
Property Owner#8 Name Printed:		Date:
Mailing Address:		
Ownership Address:		
Phone:	Fax:	Email:

Property Owner #9		
Property Owner#9 Signature		
Property Owner#9 Name Printed:		Date:
Mailing Address:		
Ownership Address:		
Phone:	Fax:	Email:

Property Owner #10		
Property Owner#10 Signature		
Property Owner#10 Name Printed:		Date:
Mailing Address:		
Ownership Address:		
Phone:	Fax:	Email:

OREGON CITY HISTORIC RESOURCE SURVEY FORM

Street Address: 100 CENTER ST				City: OREGON CITY	
USGS Quad Name: Oregon City		GPS Latitude: 45 21 08 N		Longitude: 122 36 37 W	
Township: 02S	Range: 02E	Section: 31	Block: 83	Lot: 5	Map #: 22E31DB Tax Lot #: 5700
Date of Construction: c. 1885		Historic Name: Meyers, Samuel and Mary, House		Historic Use or Function: Domestic - single dwelling	
Grouping or Cluster Name: NA		*Current Name or Use: Domestic - single dwelling		Associated Archaeological Site: Unknown	
Architectural Classification(s): Vernacular			Plan Type/Shape: Rectangle		Number of Stories: 1.5
Foundation Material: Concrete block			Structural Framing: Unknown		Moved? Yes
Roof Type/Material: Gable / Composition shingle			Window Type/Material: 1/1 wood double-hung		
Exterior Surface Materials Primary: Channel drop			Secondary: Wood shingle		Decorative:
Exterior Alterations or Additions/Approximate Date: Open side porch enclosed; Original porch removed; Hip-roofed wing on south side added, c.1945.					
Number and Type of Associated Resources: Shed at rear (1)					
Integrity: Fair		Condition: Fair		Local Ranking: Designated Historic Site National Register Listed? No	
Potentially Eligible: ☐ Individually or ☐ As a contributing resource in a district Not Eligible: ☐ Intact but lacks distinction ☒ Altered (choose one): ☒ Reversible/Potentially eligible individually or in district ☐ Reversible/Ineligible as it lacks distinction ☐ Irretrievable loss of integrity ☐ Not 50 years old					
Description of Physical and Landscape Features: This 1-1/2 story vernacular house is rectangular in plan and sits on a concrete block foundation. The gable roof is covered in composition shingles. The house is covered with channel rustic drop siding ground by a water table and cap. Windows are primarily 1/1 wood double-hung. A hip roofed wing has been added to the south façade. A picket fence encircles the yard.					
Statement of Significance: The house at 100 Center Street was moved to its present site c.1947. The house is purported to have been built by Samuel Meyers c.1885. Samuel Meyers was born in 1838 in Germany, and arrived in the United States in 1870. His wife Mary was born in Germany in 1850. They had several daughters: Elfrida, Martha and Augusta. In 1880, Meyers was a laborer living with his two young daughters and wife, and a brother-in-law, Adolf Fredrick. This house was the first of three almost identical buildings erected along Center Street by Meyers. In 1919, the house was sold to D. Reddaway, who sold it in 1937 to the Satterlie family. They sold it c.1947 to the Catholic archdiocese, and the house was moved to its present site.					

Researcher/Organization: Heather Goodson / HPNW			Date Recorded: 4/12/2002		
Survey Form Page 1	Address: 100 CENTER ST	Local Designation #		SHPO #	



Historic Board Review

Customer: Michael Totten
Address: 100 Center St, Oregon City, Oregon 97045

To whom it concerns,

Please see the attached documents to support the current proposed solar installation design. Below you will see the customers annual production and consumption report. If we move the array/panels that are visible to the street, this will be about 50-60% of the customer optimal roof space for it.

Production/Consumption Report

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Consumption (kWh)	2903	1871	1613	1613	968	1226	1290	1161	1032	1194	1419	2129
Production (kWh)	305	503	577	997	1204	1347	1616	1375	1099	590	328	217

Aurora Shade Report

Customer
Address

100 S Center St
Oregon City, OR 97045,
USA

Designer

Austin Roettger

Coordinates

(45.352301, -122.610442)

Organization

Solgen Power

Date

5 January 2023

Annual irradiance

kWh/m²/year

2,450 or more

2,100

1,750

1,400

1,050

700

350

0


Summary

Array	Panel Count	Azimuth (deg.)	Pitch (deg.)	Annual TOF (%)	Annual Solar Access (%)	Annual TSRF (%)
1	18	215	40	97	89	87
2	4	216	26	97	84	82
3	5	126	27	92	73	67
Weighted average by panel count	-	-	-	-	85.6	82.4

Monthly solar access (%) across arrays

Array	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	69	78	89	93	94	95	96	95	93	86	75	62
2	57	65	82	89	92	93	94	93	86	75	60	41
3	37	46	64	76	86	88	90	82	65	58	49	29



Multiple Property Owner(s) - Additional Signatures Required

Property Owner #3		
Property Owner#3 Signature		
Property Owner#3 Name Printed:		Date:
Mailing Address:		
Ownership Address:		
Phone:	Fax:	Email:

Property Owner #4		
Property Owner#4 Signature		
Property Owner#4 Name Printed:		Date:
Mailing Address:		
Ownership Address:		
Phone:	Fax:	Email:

Property Owner #5		
Property Owner#5 Signature		
Property Owner#5 Name Printed:		Date:
Mailing Address:		
Ownership Address:		
Phone:	Fax:	Email:

Property Owner #6		
Property Owner#6 Signature		
Property Owner#6 Name Printed:		Date:
Mailing Address:		
Ownership Address:		
Phone:	Fax:	Email:

Property Owner #7		
Property Owner#7 Signature		
Property Owner#7 Name Printed:		Date:
Mailing Address:		
Ownership Address:		
Phone:	Fax:	Email:

Property Owner #8		
Property Owner#8 Signature		
Property Owner#8 Name Printed:		Date:
Mailing Address:		
Ownership Address:		
Phone:	Fax:	Email:

Property Owner #9		
Property Owner#9 Signature		
Property Owner#9 Name Printed:		Date:
Mailing Address:		
Ownership Address:		
Phone:	Fax:	Email:

Property Owner #10		
Property Owner#10 Signature		
Property Owner#10 Name Printed:		Date:
Mailing Address:		
Ownership Address:		
Phone:	Fax:	Email:

Customer

Address

100 S Center St
Oregon City, OR 97045,
USA

Designer

Austin Roettger

Coordinates

(45.352301, -122.610442)

Organization

Solgen Power

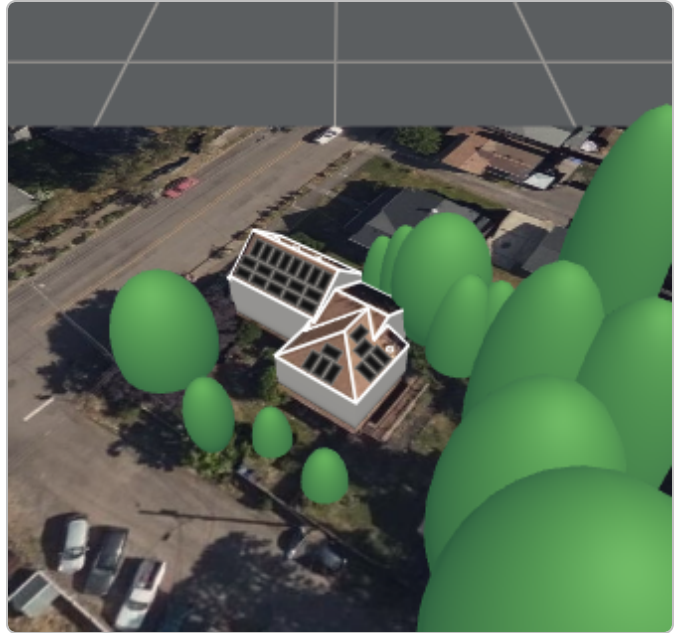
Date

5 January 2023

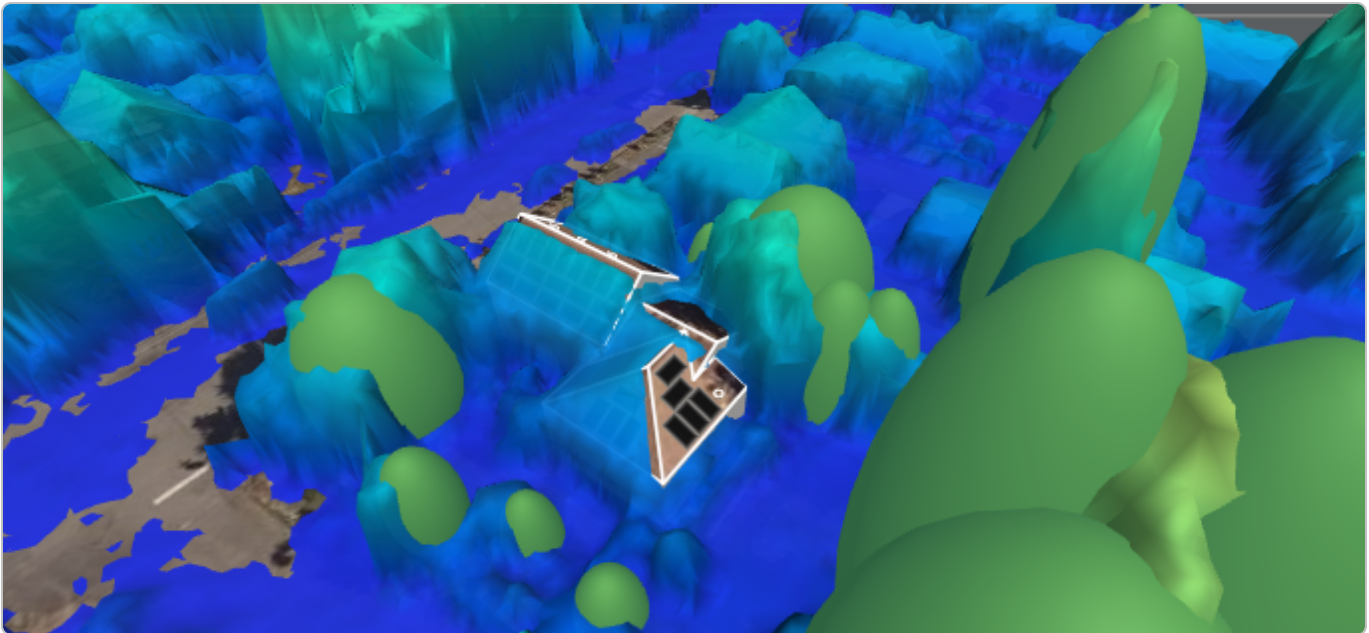
Zoomed out satellite view



3D model



3D model with LIDAR overlay  21 ft



Customer**Address**

100 S Center St
Oregon City, OR 97045,
USA

Designer

Austin Roettger

Coordinates

(45.352301, -122.610442)

Organization

Solgen Power

Date

5 January 2023

Street view and corresponding 3D model

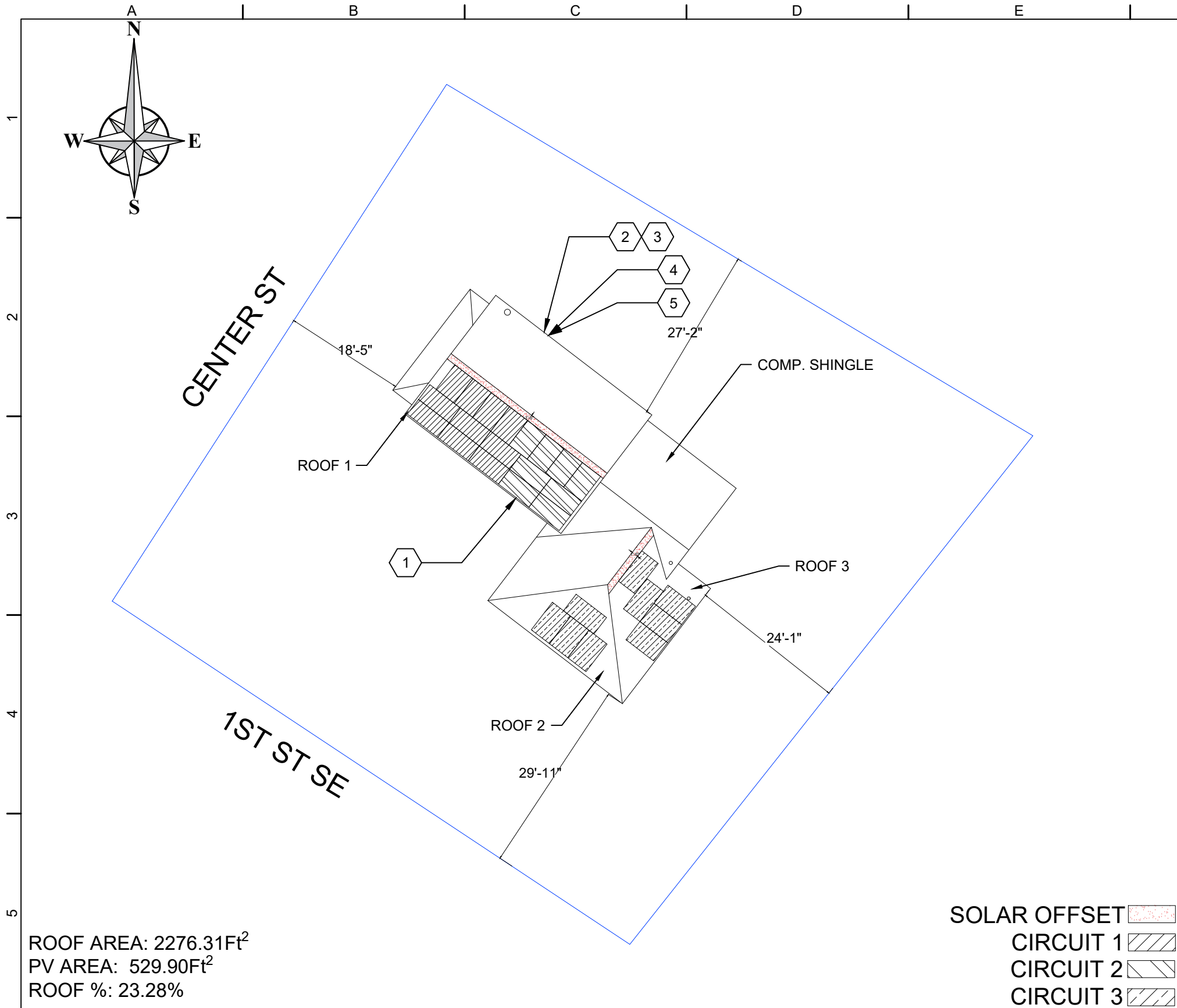
I, **Austin Roettger**, certify that I have generated this shading report to the best of my abilities, and I believe its contents to be accurate.

OREGON CITY HISTORIC RESOURCE SURVEY FORM

Street Address: 100 CENTER ST				City: OREGON CITY	
USGS Quad Name: Oregon City		GPS Latitude: 45 21 08 N		Longitude: 122 36 37 W	
Township: 02S	Range: 02E	Section: 31	Block: 83	Lot: 5	Map #: 22E31DB Tax Lot #: 5700
Date of Construction: c. 1885		Historic Name: Meyers, Samuel and Mary, House		Historic Use or Function: Domestic - single dwelling	
Grouping or Cluster Name: NA		*Current Name or Use: Domestic - single dwelling		Associated Archaeological Site: Unknown	
Architectural Classification(s): Vernacular			Plan Type/Shape: Rectangle		Number of Stories: 1.5
Foundation Material: Concrete block			Structural Framing: Unknown		Moved? Yes
Roof Type/Material: Gable / Composition shingle			Window Type/Material: 1/1 wood double-hung		
Exterior Surface Materials Primary: Channel drop			Secondary: Wood shingle		Decorative:
Exterior Alterations or Additions/Approximate Date: Open side porch enclosed; Original porch removed; Hip-roofed wing on south side added, c.1945.					
Number and Type of Associated Resources: Shed at rear (1)					
Integrity: Fair		Condition: Fair		Local Ranking: Designated Historic Site National Register Listed? No	
Potentially Eligible: ☐ Individually or ☐ As a contributing resource in a district Not Eligible: ☐ Intact but lacks distinction ☒ Altered (choose one): ☒ Reversible/Potentially eligible individually or in district ☐ Reversible/Ineligible as it lacks distinction ☐ Irretrievable loss of integrity ☐ Not 50 years old					
Description of Physical and Landscape Features: This 1-1/2 story vernacular house is rectangular in plan and sits on a concrete block foundation. The gable roof is covered in composition shingles. The house is covered with channel rustic drop siding ground by a water table and cap. Windows are primarily 1/1 wood double-hung. A hip roofed wing has been added to the south façade. A picket fence encircles the yard.					
Statement of Significance: The house at 100 Center Street was moved to its present site c.1947. The house is purported to have been built by Samuel Meyers c.1885. Samuel Meyers was born in 1838 in Germany, and arrived in the United States in 1870. His wife Mary was born in Germany in 1850. They had several daughters: Elfrida, Martha and Augusta. In 1880, Meyers was a laborer living with his two young daughters and wife, and a brother-in-law, Adolf Fredrick. This house was the first of three almost identical buildings erected along Center Street by Meyers. In 1919, the house was sold to D. Reddaway, who sold it in 1937 to the Satterlie family. They sold it c.1947 to the Catholic archdiocese, and the house was moved to its present site.					

Researcher/Organization: Heather Goodson / HPNW			Date Recorded: 4/12/2002		
Survey Form Page 1	Address: 100 CENTER ST	Local Designation #		SHPO #	

AERIAL VIEW			ELECTRICAL NOTES		GENERAL NOTES		Item #3.	
			1. WHERE ALL TERMINALS OF THE DISCONNECTING MEANS MAY BE ENERGIZED IN THE OPEN POSITION, A SIGN WILL BE PROVIDED WARNING OF THE HAZARDS. (PER ART. 690.17) 2. EACH UNGROUNDED CONDUCTOR OF THE MULTIWIRED BRANCH CIRCUIT WILL BE IDENTIFIED BY PHASE AND SYSTEM. (PER ART. 210.5) 3. A NATIONALLY RECOGNIZED TESTING LABORATORY SHALL LIST ALL EQUIPMENT IN COMPLIANCE WITH ARTICLE 110.3. 4. ALL WIRES SHALL BE PROVIDED WITH STRAIN RELIEF AT ALL ENTRY POINTS INTO BOXES AS REQUIRED BY UL LISTING 5. MODULE FRAMES SHALL BE GROUNDED AT THE UL-LISTED LOCATION PROVIDED BY THE MANUFACTURER USING UL-LISTED GROUNDING HARDWARE. 6. MODULE FRAMES, RAIL, AND POSTS SHALL BE BONDED WITH EQUIPMENT GROUND CONDUCTORS AND GROUNDED AT THE MAIN ELECTRICAL PANEL. 7. THE DC GROUNDING ELECTRODE CONDUCTOR SHALL BE SIZED ACCORDING TO ARTICLE 250.166B & 690.47.  9/12/2022 STRUCTURAL ONLY <td colspan="2"> 1. PRIOR TO THE COMMENCEMENT OF ANY WORK, THE CONTRACTOR SHALL NOTIFY THE DESIGNER OF ANY DISCREPANCIES WITH THE DESIGN IN ANY CAPACITY. ESPECIALLY RECOMMENDATIONS, CODES, OR REGULATIONS & RULES OF THE AUTHORITY HAVING JURISDICTION, WHICH SUPERSEDED THE NEC. 2. ALL DIMENSIONS TO BE VERIFIED BY CONTRACTOR PRIOR TO COMMENCEMENT OF WORK. 3. CONTRACTOR IS RESPONSIBLE FOR ALL SAFETY PRECAUTIONS, OSHA REQUIREMENTS ETC. FOR THE SITE, INCLUDING EXISTING SITE HAZARDS. 4. SYSTEM IS GRID INTERACTIVE/INTERTIED VIA A UL LISTED POWER-CONDITIONING INVERTER. 5. SYSTEM HAS NO ENERGY STORAGE OF ANY KIND, OR UPS. 6. ALL SOLAR MOUNTING FRAMEWORK TO BE GROUNDED. 7. FOLLOW MANUFACTURERS SUGGESTED INSTALLATION PRACTICES AND WIRING SPECIFICATIONS. 8. ALL WORK TO BE IN COMPLIANCE WITH THE INTERNATIONAL BUILDING CODES. (IBC) 9. ALL ELECTRICAL WORK TO BE IN COMPLIANCE WITH THE NATIONAL ELECTRIC CODE (NEC). </td> <td></td>		1. PRIOR TO THE COMMENCEMENT OF ANY WORK, THE CONTRACTOR SHALL NOTIFY THE DESIGNER OF ANY DISCREPANCIES WITH THE DESIGN IN ANY CAPACITY. ESPECIALLY RECOMMENDATIONS, CODES, OR REGULATIONS & RULES OF THE AUTHORITY HAVING JURISDICTION, WHICH SUPERSEDED THE NEC. 2. ALL DIMENSIONS TO BE VERIFIED BY CONTRACTOR PRIOR TO COMMENCEMENT OF WORK. 3. CONTRACTOR IS RESPONSIBLE FOR ALL SAFETY PRECAUTIONS, OSHA REQUIREMENTS ETC. FOR THE SITE, INCLUDING EXISTING SITE HAZARDS. 4. SYSTEM IS GRID INTERACTIVE/INTERTIED VIA A UL LISTED POWER-CONDITIONING INVERTER. 5. SYSTEM HAS NO ENERGY STORAGE OF ANY KIND, OR UPS. 6. ALL SOLAR MOUNTING FRAMEWORK TO BE GROUNDED. 7. FOLLOW MANUFACTURERS SUGGESTED INSTALLATION PRACTICES AND WIRING SPECIFICATIONS. 8. ALL WORK TO BE IN COMPLIANCE WITH THE INTERNATIONAL BUILDING CODES. (IBC) 9. ALL ELECTRICAL WORK TO BE IN COMPLIANCE WITH THE NATIONAL ELECTRIC CODE (NEC).			
RESIDENCE PHOTO								
								
			SHEET INDEX					
			PV 1 COVER PAGE		PV 5 MOUNTING DIAGRAM			
			PV 2 SITE PLAN		PV 6 PLACARD			
			PV 3 ELECTRICAL DIAGRAM		CUT SHEETS ATTACHED			
			PV 4 CHIKO MOUNTING					
 CONFIDENTIAL - THE INFORMATION CONTAINED IN THIS PACKET AND SUBSEQUENT CUTSHEETS SHALL NOT BE USED FOR THE BENEFIT OF ANYONE OUTSIDE SOLGEN POWER. NEITHER SHALL IT BE DISCLOSED TO OTHERS OUTSIDE THE RECIPIENT'S ORGANIZATION, EXCEPT IN CONNECTION WITH THE SALE AND USE OF THE RESPECTIVE EQUIPMENT, WITHOUT WRITTEN CONSENT FROM SOLGEN POWER. SOLGEN POWER 5100 ELM RD, PASCO, WA 99301 P: 509-931-1663			Michael Totten		DRAWN BY: EMS		DRAWING SCALE: CUSTOM	
			100 S Center St. Oregon City, OR 97045		DATE: 12/2/2022		DESIGN	
					1		PAGE #	
					PV		Page 132	



ROOF AREA: 2276.31Ft²
PV AREA: 529.90Ft²
ROOF %: 23.28%

- SOLAR OFFSET
- CIRCUIT 1
- CIRCUIT 2
- CIRCUIT 3

INDEX:	
SYSTEM SIZE DC:9.99kW SYSTEM SIZE AC:8.10kW	ROOF 1:
NUMBER OF MODULES:27	RAFTER SPACING:24" O.C.
MODULE TYPE: SUNTECH STP370S-B60/WNHB	RAFTER SIZE:2" x 4"
INVERTER: Hoymiles Series	
MODULES 1	ROOF 2 & 3:
METER/MAIN 2 3	RAFTER SPACING:16" O.C.
COMBINER BOX 4	RAFTER SIZE:2" x 4"
AC DISCONNECT 5	



STRUCTURAL ONLY

LOAD CALCS - TOTAL AMPS AVAILABLE									
BUS RATING		120%		TOTAL		MAIN BREAKER		MAX BREAKER SIZE	
200A	X	1.2	=	240	-	200A	=	40A	

COMBINER BOX PANEL SIZE CALCS											
CIRCUIT #	NUMBER OF MODULES	NUMBER OF MICROINVERTERS		NOMINAL OUTPUT CURRENT		TOTAL		125%	TOTAL	COMBINED TOTAL	BREAKER SIZE
CIRCUIT 1 (1 of 2)	2	1	X	2.46A	=	2.46A	x	1.25	=	3.08A	20A
CIRCUIT 1 (2 of 2)	8	2	X	5.0A	=	10.00A	x	1.25	=	12.50A	
CIRCUIT 2	8	2	X	5.0A	=	10.00A	x	1.25	=	12.50A	15A
CIRCUIT 3 (1 of 2)	1	1	X	1.23A	=	1.23A	x	1.25	=	1.54A	15A
CIRCUIT 3 (2 of 2)	8	2	X	5.0A	=	10.00A	x	1.25	=	12.50A	

MAX AC OPERATING CURRENT CALCS FOR HM-1200				MAX AC OPERATING CURRENT FOR HM-1200, 600, 300			TOTAL
# OF MICROINVERTERS	MAX OUTPUT CURRENT	MAX AC OPERATING CURRENT		HM-1200	HM-600	HM-300	
6	X	5.0A	=	30.00A			

MAX AC OPERATING CURRENT CALCS FOR HM-600				
# OF MICROINVERTERS	MAX OUTPUT CURRENT	MAX AC OPERATING CURRENT		
1	X	2.46A	=	2.46A

MAX AC OPERATING CURRENT CALCS FOR HM-300				
# OF MICROINVERTERS	MAX OUTPUT CURRENT	MAX AC OPERATING CURRENT		
1	X	1.23A	=	1.23A

BREAKER SIZE CALCS				
MAX AC OPERATING CURRENT	125%	TOTAL	BREAKER SIZE	
33.69A	x	42.11A	=	45A

NOTES:

- 200A UTILITY METER & 200A MAIN SERVICE PANEL. (EXISTING)
- 60A RATED NON-FUSED AC DISCONNECT INSTALLED WITHIN 10' OF UTILITY METER. (NEW)
- 125A RATED COMBINER PANEL. (NEW)

ALL CONDUIT SIZES ARE MINIMUM SIZES
ALL WIRE SIZES ARE FOR COPPER WIRE
HOYMILES MICRO INVERTER INTEGRATED WITH RAPID SHUTDOWN.

SOLGEN
POWER

CONFIDENTIAL - THE INFORMATION CONTAINED IN THIS PACKET AND SUBSEQUENT CUTSHEETS SHALL NOT BE USED FOR THE BENEFIT OF ANYONE OUTSIDE SOLGEN POWER. NEITHER SHALL IT BE DISCLOSED TO OTHERS OUTSIDE THE RECIPIENT'S ORGANIZATION, EXCEPT IN CONNECTION WITH THE SALE AND USE OF THE RESPECTIVE EQUIPMENT, WITHOUT WRITTEN CONSENT FROM SOLGEN POWER.

SOLGEN POWER
5100 ELM RD,
PASCO, WA 99301

P: 509-931-1663

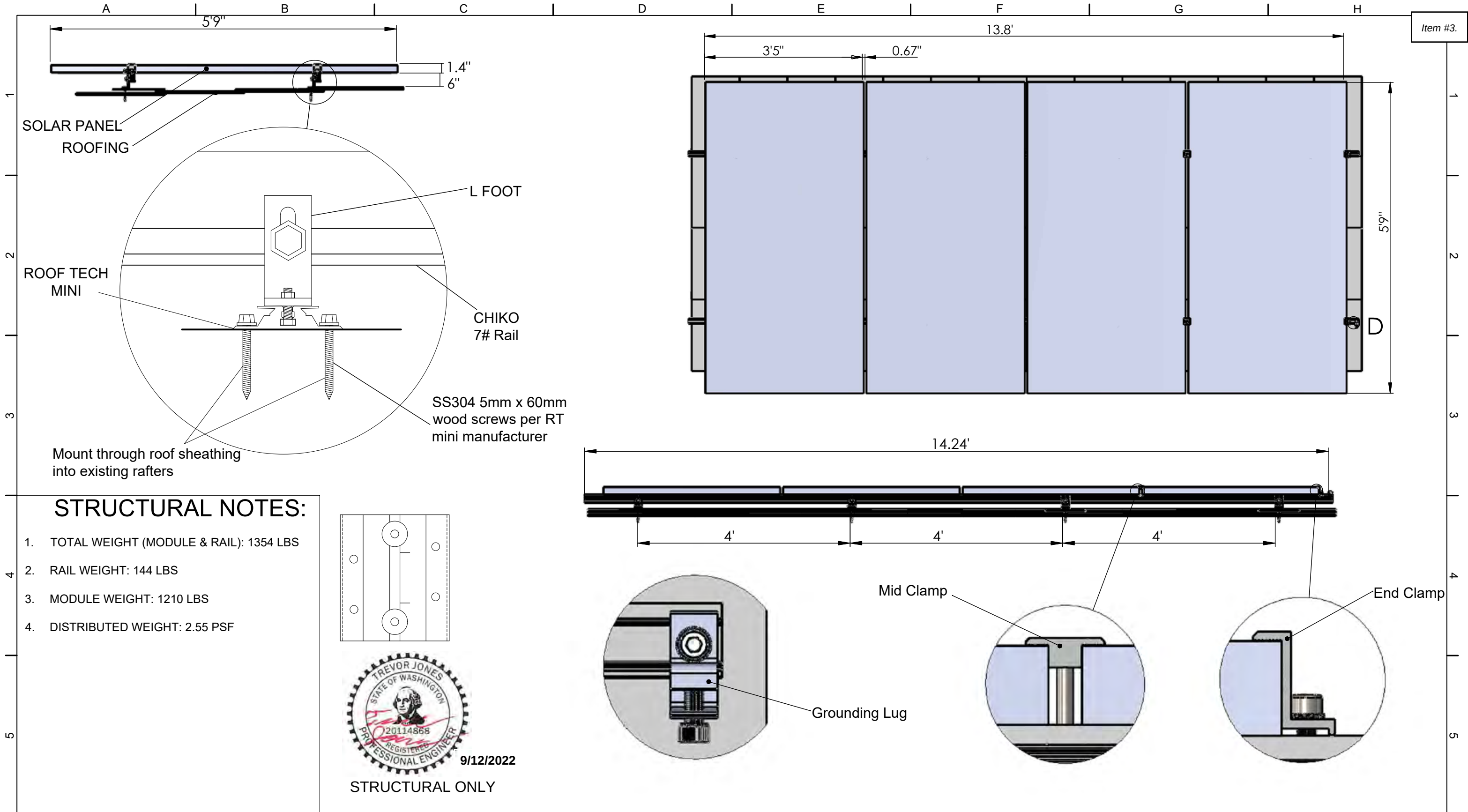
Michael Totten

100 S Center St. Oregon City, OR 97045

DRAWN BY: EMS
DATE: 12/2/2022

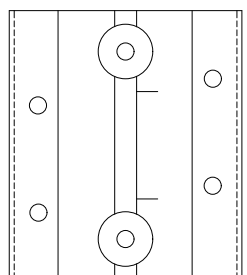
DRAWING SCALE: NOT TO SCALE
DESIGN
1
PAGE #
PV

Page 134



STRUCTURAL NOTES:

- 1. TOTAL WEIGHT (MODULE & RAIL): 1354 LBS
- 2. RAIL WEIGHT: 144 LBS
- 3. MODULE WEIGHT: 1210 LBS
- 4. DISTRIBUTED WEIGHT: 2.55 PSF



9/12/2022

STRUCTURAL ONLY



CONFIDENTIAL - THE INFORMATION CONTAINED IN THIS PACKET AND SUBSEQUENT CUTSHEETS SHALL NOT BE USED FOR THE BENEFIT OF ANYONE OUTSIDE SOLGEN POWER. NEITHER SHALL IT BE DISCLOSED TO OTHERS OUTSIDE THE RECIPIENT'S ORGANIZATION, EXCEPT IN CONNECTION WITH THE SALE AND USE OF THE RESPECTIVE EQUIPMENT, WITHOUT WRITTEN CONSENT FROM SOLGEN POWER.

SOLGEN POWER
5100 ELM RD,
PASCO, WA 99301

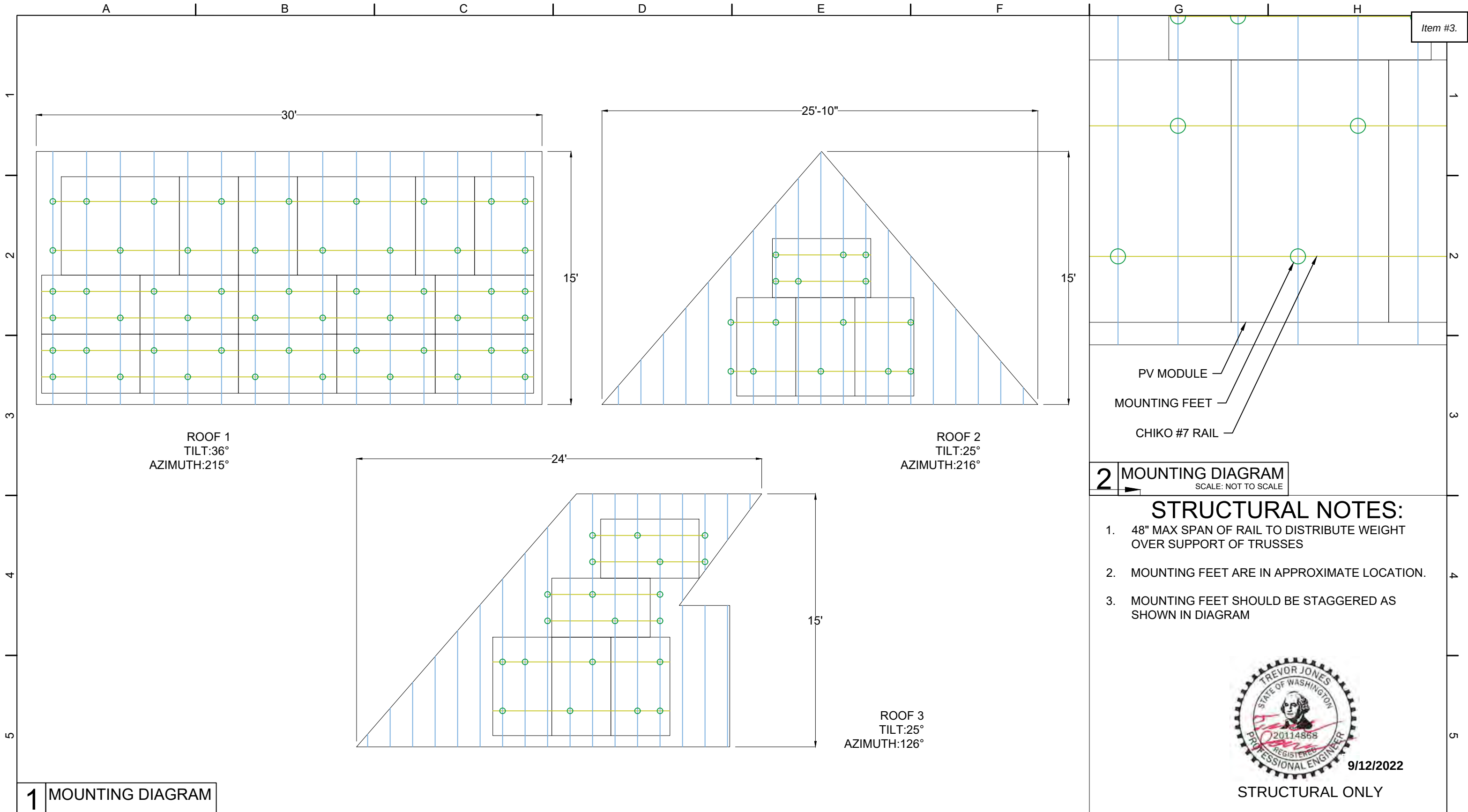
P: 509-931-1663

Michael Totten

100 S Center St. Oregon City, OR 97045

DRAWN BY:	EMS
DATE:	12/2/2022

DESIGN	1
PAGE #	PV



CONFIDENTIAL - THE INFORMATION CONTAINED IN THIS PACKET AND SUBSEQUENT CUTSHEETS SHALL NOT BE USED FOR THE BENEFIT OF ANYONE OUTSIDE SOLGEN POWER. NEITHER SHALL IT BE DISCLOSED TO OTHERS OUTSIDE THE RECIPIENT'S ORGANIZATION, EXCEPT IN CONNECTION WITH THE SALE AND USE OF THE RESPECTIVE EQUIPMENT, WITHOUT WRITTEN CONSENT FROM SOLGEN POWER.

SOLGEN POWER
5100 ELM RD,
PASCO, WA 99301

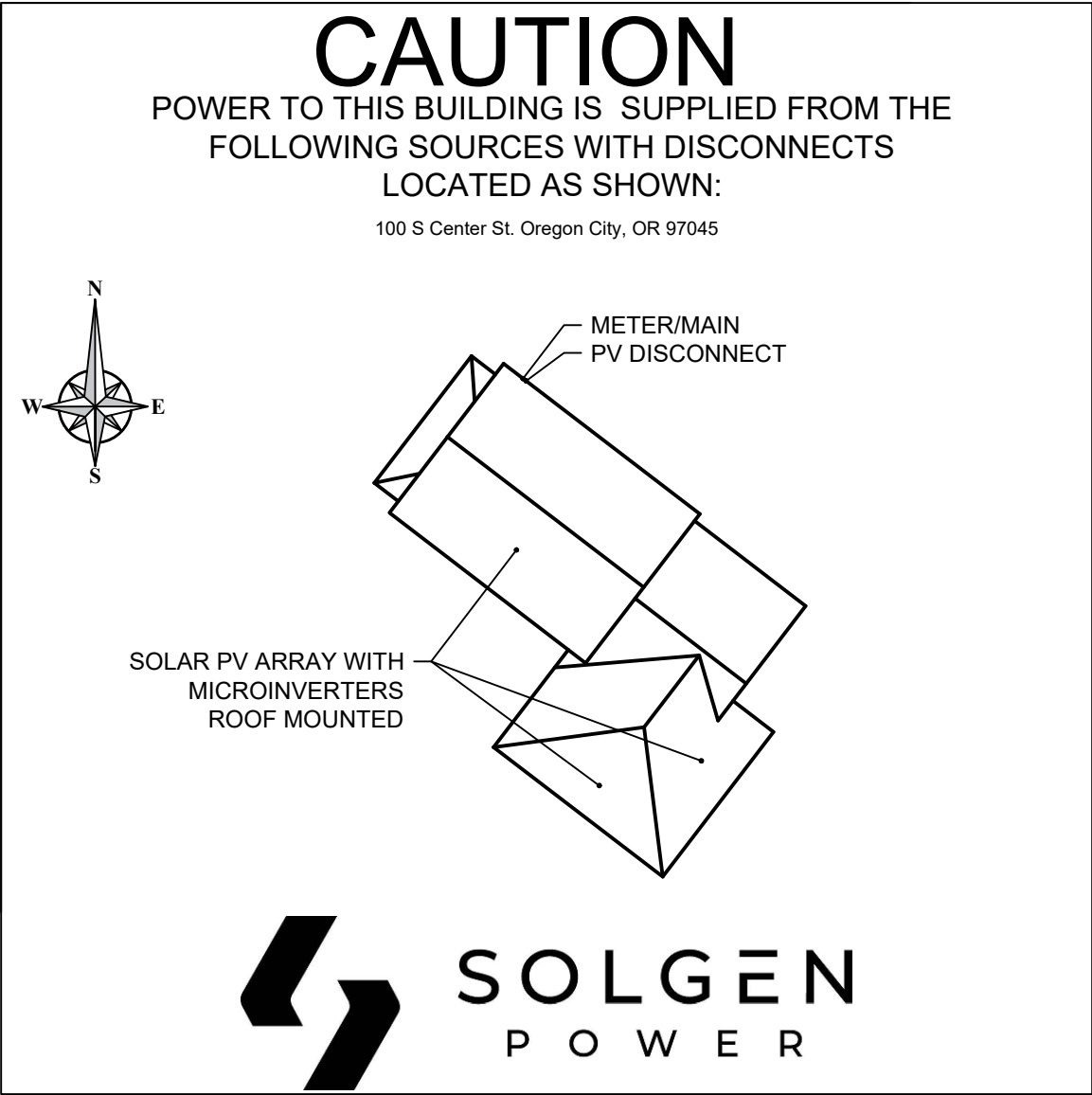
P: 509-931-1663

Michael Totten

100 S Center St. Oregon City, OR 97045

DRAWN BY: EMS
DATE: 12/2/2022

DRAWING SCALE:
3/16" = 1'-0"
DESIGN



6"x6"

Main Panel

CAUTION
SOLAR ELECTRIC SYSTEM CONNECTED

WARNING
ELECTRIC SHOCK HAZARD
TERMINALS ON THE LINE AND LOAD SIDES MAY BE ENERGIZED IN THE OPEN POSITION

WARNING
THIS EQUIPMENT FED BY MULTIPLE SOURCES. TOTAL RATING OF ALL OVERCURRENT DEVICES, EXCLUDING MAIN SUPPLY OVERCURRENT DEVICE, SHALL NOT EXCEED AMPLACITY OF BUSBAR.

PHOTOVOLTAIC POWER SOURCE
OPERATING AC VOLTAGE _____ V
MAX OPERATING AC OUTPUT CURRENT _____ A

WARNING
DUAL POWER SUPPLY
SOURCES: UTILITY GRID AND PV SOLAR ELECTRIC SYSTEM

RAPID SHUTDOWN SWITCH FOR SOLAR PV SYSTEM

SOLAR PV SYSTEM EQUIPPED WITH RAPID SHUTDOWN

TURN RAPID SHUTDOWN SWITCH TO THE "OFF" POSITION TO SHUT DOWN PV SYSTEM AND REDUCE SHOCK HAZARD IN THE ARRAY

Inside Panel

SOLAR PV BREAKER
BREAKER IS BACKFED
DO NOT RELOCATE

Enphase Combiner

PHOTOVOLTAIC POWER SOURCE
OPERATING AC VOLTAGE _____ V
MAX OPERATING AC OUTPUT CURRENT _____ A

WARNING
PHOTOVOLTAIC SYSTEM COMBINER PANEL
DO NOT ADD LOADS

PHOTOVOLTAIC SYSTEM EQUIPPED WITH RAPID SHUTDOWN

WARNING
AC MICRO INVERTERS LOCATED ON ROOF UNDER MODULES

WARNING
ELECTRIC SHOCK HAZARD
TERMINALS ON THE LINE AND LOAD SIDES MAY BE ENERGIZED IN THE OPEN POSITION

Soladeck & Junction Boxes

CAUTION
SOLAR CIRCUIT

Conduit: Every 10'

CAUTION
SOLAR CIRCUIT

PV SYSTEM kWh Meter

PHOTOVOLTAIC SYSTEM kWh METER

AC Disconnect

PHOTOVOLTAIC SYSTEM AC DISCONNECT
RATED AC OUTPUT CURRENT _____ A
NOMINAL OPERATING AC VOLTAGE _____ V

WARNING
ELECTRIC SHOCK HAZARD
TERMINALS ON THE LINE AND LOAD SIDES MAY BE ENERGIZED IN THE OPEN POSITION

SOLAR PV SYSTEM EQUIPPED WITH RAPID SHUTDOWN

TURN RAPID SHUTDOWN SWITCH TO THE "OFF" POSITION TO SHUT DOWN PV SYSTEM AND REDUCE SHOCK HAZARD IN THE ARRAY

RAPID SHUTDOWN SWITCH FOR SOLAR PV SYSTEM



CONFIDENTIAL - THE INFORMATION CONTAINED IN THIS PACKET AND SUBSEQUENT CUTSHEETS SHALL NOT BE USED FOR THE BENEFIT OF ANYONE OUTSIDE SOLGEN POWER. NEITHER SHALL IT BE DISCLOSED TO OTHERS OUTSIDE THE RECIPIENT'S ORGANIZATION, EXCEPT IN CONNECTION WITH THE SALE AND USE OF THE RESPECTIVE EQUIPMENT, WITHOUT WRITTEN CONSENT FROM SOLGEN POWER.

SOLGEN POWER
5100 ELM RD,
PASCO, WA 99301

P: 509-931-1663

Michael Totten	DRAWN BY:	EMS	DESIGN 1
	DATE:	12/2/2022	
100 S Center St. Oregon City, OR 97045			PAGE # PV

Full Black Series

120 HALF-CELL ALL BLACK MONOFACIAL
MODULE

350-370 Watt

STPXXXS - B60/Wnhb



Features



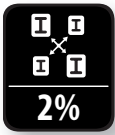
High power output
Compared to 158.75 mm half-cell module, the power output can increase 25 - 30 Wp



High PID resistant
Advanced cell technology and qualified materials lead to high resistance to PID



Excellent weak light performance
More power output in weak light condition, such as haze, cloudy, and morning



Suntech current sorting process
System output maximized by reducing mismatch losses up to 2% with modules sorted & packaged by amperage



Extended wind and snow load tests
Module certified to withstand extreme wind (3800 Pascal) and snow loads (5400 Pascal) *



Withstanding harsh environment
Reliable quality leads to a better sustainability even in harsh environment like desert, farm and coastline

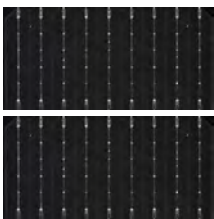
Certifications and standards:
UL 61730



Trust Suntech to Deliver Reliable Performance Over Time

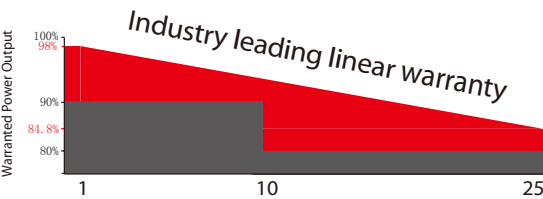
- World-class manufacturer of crystalline silicon photovoltaic modules
- Unrivaled manufacturing capacity and world-class technology
- Rigorous quality control meeting the highest international standards: ISO 9001, ISO 14001 and ISO17025
- Regular independently checked production process from international accredited institute/company
- Tested for harsh environments (salt mist, ammonia corrosion and sand blowing testing: IEC 61701, IEC 62716, DIN EN 60068-2-68)**
- Long-term reliability tests
- 2 x 100% EL inspection ensuring defect-free modules

Special Cell Design



The unique cell design leads to reduced electrodes resistance and smaller current, thus enables higher fill factor. Meanwhile, it can reduce losses of mismatch and cell wear, and increase total reflection.

Industry-leading Warranty based on nominal power



- 98% in the first year, thereafter, for years two (2) through twenty-five (25), 0.55% maximum decrease from MODULE's nominal power output per year, ending with the 84.8% in the 25th year after the defined WARRANTY STARTING DATE.***
- 12-year product warranty
- 25-year linear performance warranty

IP68 Rated Junction Box



The Suntech IP68 rated junction box ensures an outstanding waterproof level, supports installations in all orientations and reduces stress on the cables. High reliable performance, low resistance connectors ensure maximum output for the highest energy production.

* Please refer to Suntech Standard Module Installation Manual for details.
*** Please refer to Suntech Product Warranty for details.

** Please refer to Suntech Product Near-coast Installation Manual for details.

Electrical Characteristics

STC	STPXXXS-B60/Wnhb				
Maximum Power at STC (Pmax)	370 W	365 W	360 W	355 W	350 W
Optimum Operating Voltage (Vmp)	34.3 V	34.1 V	33.9 V	33.7 V	33.5 V
Optimum Operating Current (Imp)	10.79 A	10.71 A	10.62 A	10.54 A	10.46 A
Open Circuit Voltage (Voc)	40.9 V	40.7 V	40.5 V	40.3 V	40.1 V
Short Circuit Current (Isc)	11.49 A	11.42 A	11.35 A	11.28 A	11.21 A
Module Efficiency	20.3%	20.0%	19.7%	19.5%	19.2%
Operating Module Temperature	-40 °C to +85 °C				
Maximum System Voltage	1000 V DC (IEC)				
Maximum Series Fuse Rating	20 A				
Power Tolerance	0/+5 W				

STC: Irradiance 1000 W/m², module temperature 25 °C, AM=1.5;
Tolerance of Pmax is within +/- 3%.

NMOT	STPXXXS-B60/Wnhb				
Maximum Power at NMOT (Pmax)	278.2 W	274.3 W	270.7 W	266.8 W	263.3 W
Optimum Operating Voltage (Vmp)	32.0 V	31.8 V	31.6 V	31.5 V	31.3 V
Optimum Operating Current (Imp)	8.69 A	8.62 A	8.56 A	8.48 A	8.42 A
Open Circuit Voltage (Voc)	38.7 V	38.5 V	38.4 V	38.2 V	38.0 V
Short Circuit Current (Isc)	9.17 A	9.10 A	9.04 A	8.96 A	8.89 A

NMOT: Irradiance 800 W/m², ambient temperature 20 °C, AM=1.5, wind speed 1 m/s.

Temperature Characteristics

Nominal Module Operating Temperature (NMOT)	42 ± 2 °C
Temperature Coefficient of Pmax	-0.36%/°C
Temperature Coefficient of Voc	-0.304%/°C
Temperature Coefficient of Isc	0.050%/°C

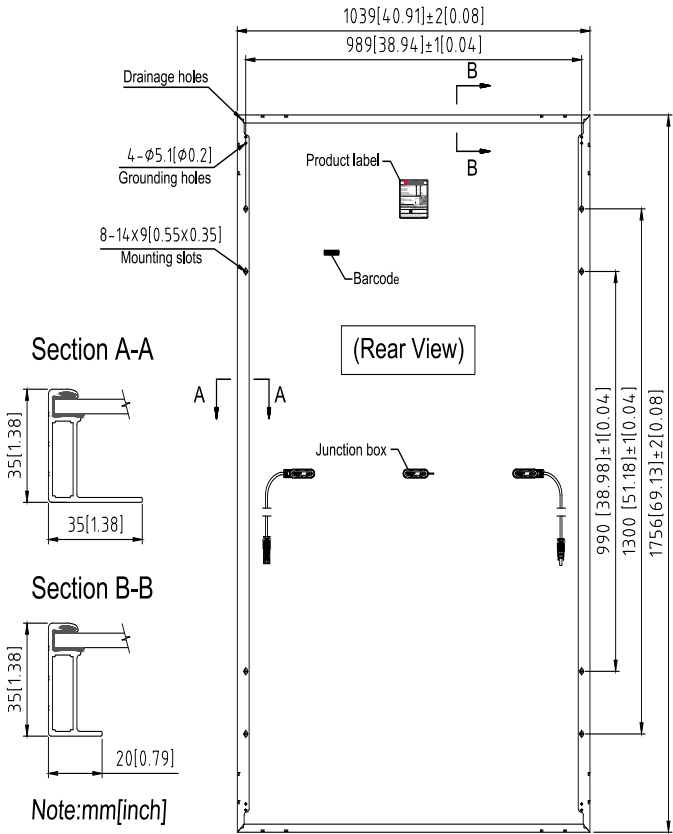
Mechanical Characteristics

Solar Cell	Monocrystalline silicon 166 mm
No. of Cells	120 (6 × 20)
Dimensions	1756 × 1039 × 35 mm (69.1 × 40.9 × 1.4 inches)
Weight	20.3 kgs (44.8 lbs.)
Front Glass	3.2 mm (0.13 inches) tempered glass
Frame	Anodized aluminium alloy
Junction Box	IP68 rated (3 bypass diodes)
Output Cables	4.0 mm², Portrait: (-)350 mm and (+)160 mm in length Landscape: (-)1300 mm and (+)1300 mm in length or customized length
Connectors	MC4 compatible

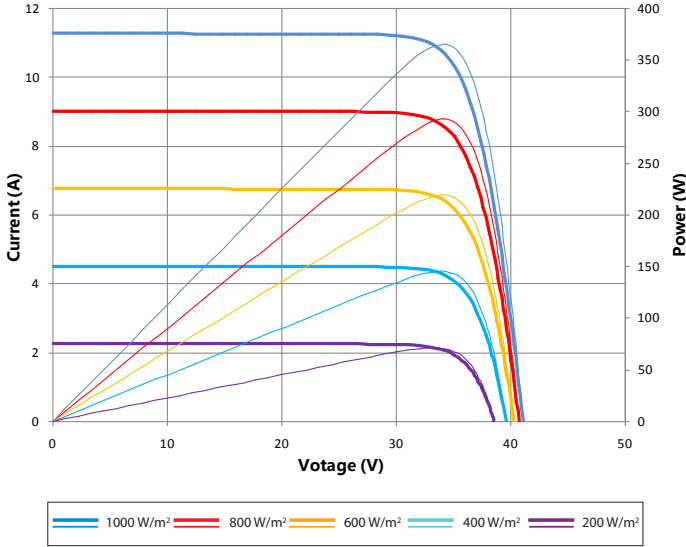
Packing Configuration

Container	20' GP	40' HC
Pieces per pallet	31	31
Pallets per container	6	26
Pieces per container	186	806
Packaging box dimensions	1786 × 1130 × 1203 mm	
Packaging box weight	679 kg	

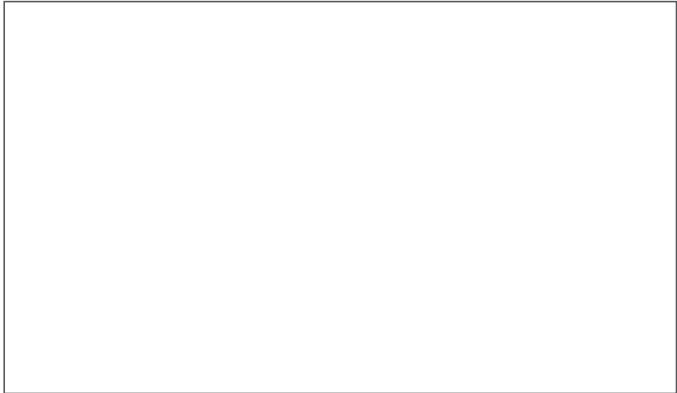
Information on how to install and operate this product is available in the installation instruction. All values indicated in this data sheet are subject to change without prior announcement. The specifications may vary slightly. All specifications are in accordance with standard EN 50380. Color differences of the modules relative to the figures as well as discolorations of/in the modules which do not impair their proper functioning are possible and do not constitute a deviation from the specification.



Current-Voltage & Power-Voltage Curve (370S)



Dealer information





Microinverter Datasheet

HM-1200N
HM-1500N

Description

Hoymiles 4-in-1 microinverter is one of the most cost-effective module-level solar solutions, as it can support up to 4 panels at once and maximize the PV production of your installation. With the maximum DC voltage of 60 V, Hoymiles microinverter is a PV Rapid Shutdown Equipment and conforms with NEC-2017 and NEC-2020 Article 690.12 and CEC-2021 Sec 64-218. All of the three models listed are equipped with reactive power control and are compliant with IEEE 1547, UL 1741 and CA Rule21.

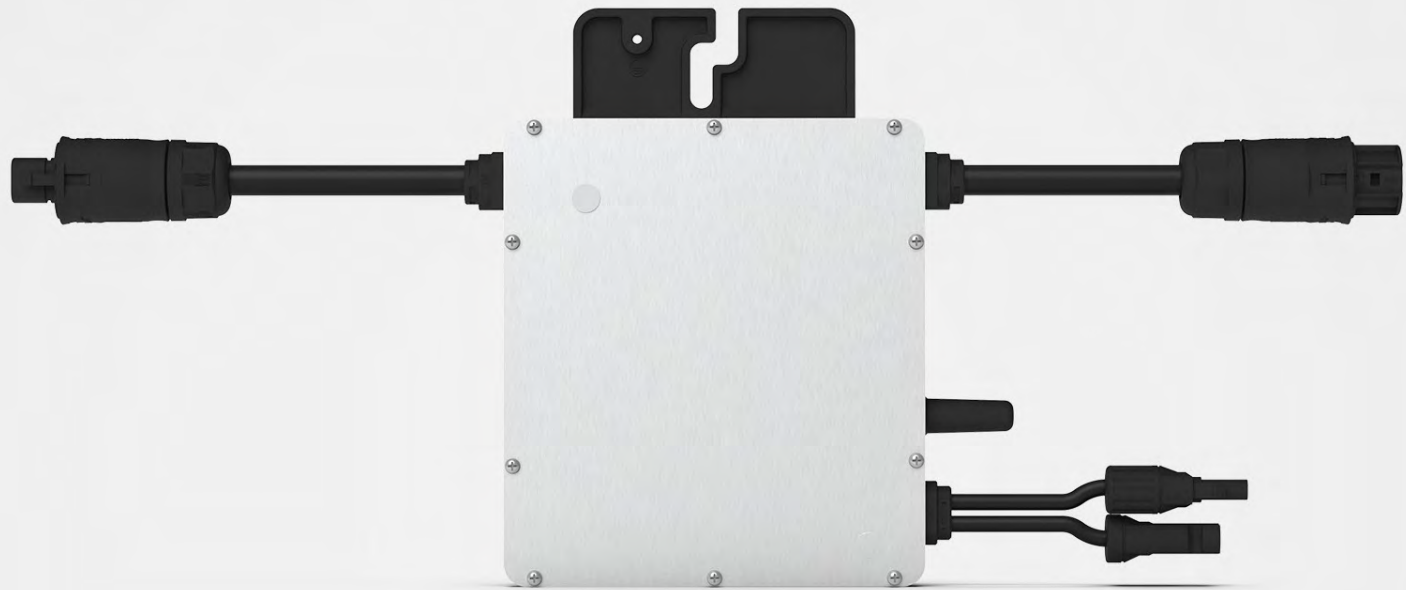
Features

- | | | | |
|----|---|----|--|
| 01 | Easy installation, just plug and play | 04 | External antenna for stronger communication with DTU |
| 02 | With Reactive Power Control, compliant with CA Rule 21 | 05 | High reliability, NEMA 6 (IP67) enclosure, 6000 V surge protection |
| 03 | Compliant with U.S. NEC-2017&NEC-2020 690.12 rapid shutdown | | |

Technical Specifications

Model	HM-1200N		HM-1500N	
Input Data (DC)				
Commonly used module power (W)	240 to 405+		300 to 505+	
Maximum input voltage (V)			60	
MPPT voltage range (V)			16-60	
Start-up voltage (V)			22	
Maximum input current (A)	4 × 11.5		4 × 11.5	
Output Data (AC)				
Peak output power (VA)	1260	1200	1500	1350
Maximum continuous output power (VA)	1200	1109	1438	1246
Maximum continuous output current (A)	5	5.33	5.99	5.99
Nominal output voltage/range (V) ¹	240/211-264	208/183-228	240/211-264	208/183-228
Nominal frequency/range (Hz) ¹	60/55-65			
Power factor (adjustable)	>0.99 default 0.8 leading...0.8 lagging			
Total harmonic distortion	<3%			
Maximum units per branch ²	3	3	2	2
Efficiency				
CEC peak efficiency	96.7%			
CEC weighted efficiency	96.5%			
Nominal MPPT efficiency	99.8%			
Nighttime power consumption (mW)	<50			
Mechanical Data				
Ambient temperature range (°C)	-40 to +65			
Dimensions (W × H × D mm)	280 × 176 × 33			
Weight (kg)	3.75			
Enclosure rating	Outdoor-NEMA 6 (IP67)			
Cooling	Natural convection – No fans			
Features				
Communication	2.4GHz Proprietary RF (Nordic)			
Monitoring	S-Miles Cloud ³			
Warranty	Up to 25 years			
Compliance	UL 1741, IEEE 1547, UL 1741 SA (240 Vac), CA Rule 21 (240 Vac), CSA C22.2 No. 107.1-16, FCC Part 15B, FCC Part 15C			
PV Rapid Shutdown	Conforms with NEC-2017 and NEC-2020 Article 690.12 and CEC-2021 Sec 64-218 Rapid Shutdown of PV Systems			

*1 Nominal voltage/frequency range can vary depending on local requirements.
*2 Refer to local requirements for exact number of microinverters per branch.
*3 Hoymiles Monitoring System.



Microinverter Datasheet

HM-300N
HM-350N
HM-400N

Description

Hoymiles 1-in-1 microinverter, which can be connected to one panel and used in various applications, is one of the most flexible solar solutions. With the maximum DC voltage of 60 V, Hoymiles microinverter is a PV Rapid Shutdown Equipment and conforms with NEC-2017 and NEC-2020 Article 690.12 and CEC-2021 Sec 64-218.

All of the three models listed are equipped with reactive power control and are compliant with IEEE 1547, UL 1741 and CA Rule21.

Features

01

Easy installation, just plug and play

02

With Reactive Power Control, compliant with CA Rule 21

03

Compliant with U.S. NEC-2017&NEC-2020 690.12 rapid shutdown

04

External antenna for stronger communication with DTU

05

High reliability, NEMA 6 (IP67) enclosure, 6000 V surge protection

Technical Specifications

Model	HM-300N			HM-350N		HM-400N	
Input Data (DC)							
Commonly used module power (W)	240 to 405+		280 to 470+		320 to 540+		
Maximum input voltage (V)	60						
MPPT voltage range (V)	16-60						
Start-up voltage (V)	22						
Maximum input current (A)	11.5		11.5		12.5		
Output Data (AC)							
Peak output power (VA)	300		350		400		
Maximum continuous output power (VA)	295		349		382		
Maximum continuous output current (A)	1.23	1.42	1.45	1.68	1.59	1.84	
Nominal output voltage/range (V) ¹	240/211-264	208/183-228	240/211-264	208/183-228	240/211-264	208/183-228	
Nominal frequency/range (Hz) ¹	60/55-65						
Power factor (adjustable)	>0.99 default 0.8 leading...0.8 lagging						
Total harmonic distortion	<3%						
Maximum units per branch ²	13	11	11	9	10	8	
Efficiency							
CEC peak efficiency	96.7%						
CEC weighted efficiency	96.5%						
Nominal MPPT efficiency	99.8%						
Nighttime power consumption(mW)	<50						
Mechanical Data							
Ambient temperature range (°C)	-40 to +65						
Dimensions (W × H × D mm)	182 × 164 × 29.5						
Weight (kg)	1.98						
Enclosure rating	Outdoor-NEMA 6 (IP67)						
Cooling	Natural convection – No fans						
Features							
Communication	2.4GHz Proprietary RF (Nordic)						
Monitoring	S-Miles Cloud ³						
Warranty	Up to 25 years						
Compliance	UL 1741, IEEE 1547, UL 1741 SA (240 Vac), CA Rule 21 (240 Vac), CSA C22.2 No. 107.1-16, FCC Part 15B, FCC Part 15C						
PV Rapid Shutdown	Conforms with NEC-2017 and NEC-2020 Article 690.12 and CEC-2021 Sec 64-218 Rapid Shutdown of PV Systems						

*1 Nominal voltage/frequency range can vary depending on local requirements.

*2 Refer to local requirements for exact number of microinverters per branch.

*3 Hoymiles Monitoring System.

RT-MINI

Item #3.

Self-flashing base for asphalt & metal roof-top PV mounting systems

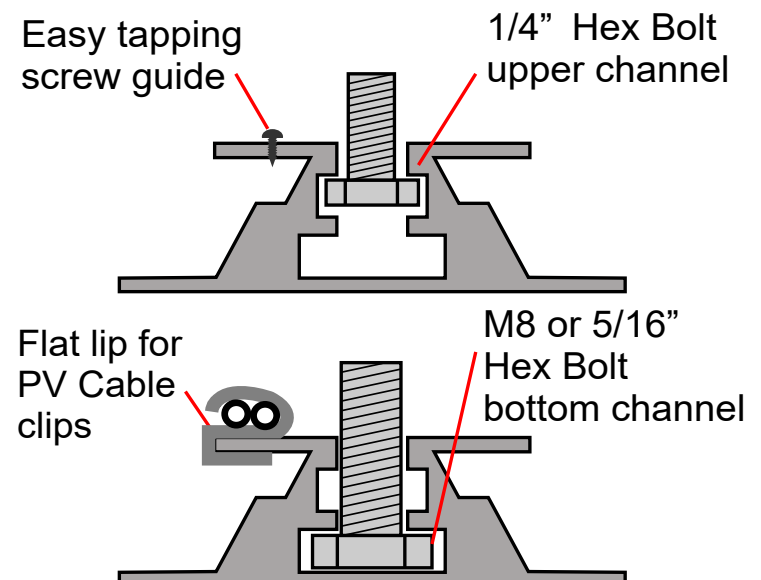
RT-MINI is suitable for mounting any rail system with a conventional L-Foot.



Dual bolt design: M8 or 5/16" for L-Foot & 1/4" for EMC



Installation Manual



 **Roof Tech**

Smarter PV mounting solutions from top of roof to bottom line®
www.roof-tech.us info@roof-tech.us

RT-MINI

Item #3.

Flexible Flashing certified by the International Code Council (ICC)

Engineered to ASTM D 1761 (Standard Test Methods for Mechanical Fasteners in Wood)
Components

RT2-00-MINIBK



MINI base : 20 ea.
Screw : 40 ea.
Extra RT-Butyl : 10 ea.

Optional item

5 x 60mm Mounting screw (RT2-04-SD5-60) : 100 ea./Bag
5/16" Hex bolt, washer & nut set (RT-04-BN30SL-US) : 100 ea./Bag
RT-Butyl (RT2-04-BUTYLT) : 10 ea./Box

RT-Butyl is Roof Tech's flexible flashing used in one million residential PV systems for the last 26 years. It is the first PV mounting system with Flexible Flashing certified by the ICC. Engineered to withstand wind speeds up to 180 mph and ground snow up to 90 psf.

Metal Flashing Retrofit

Flexible Flashing



Shedding water?

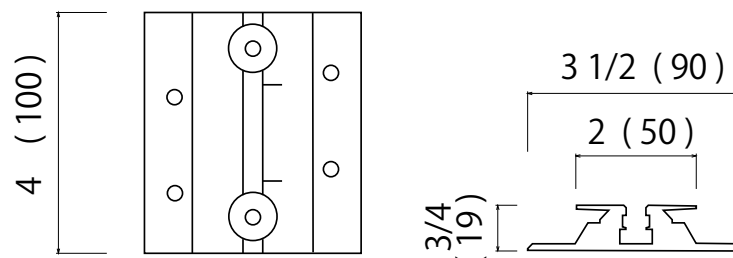


100% Waterproof

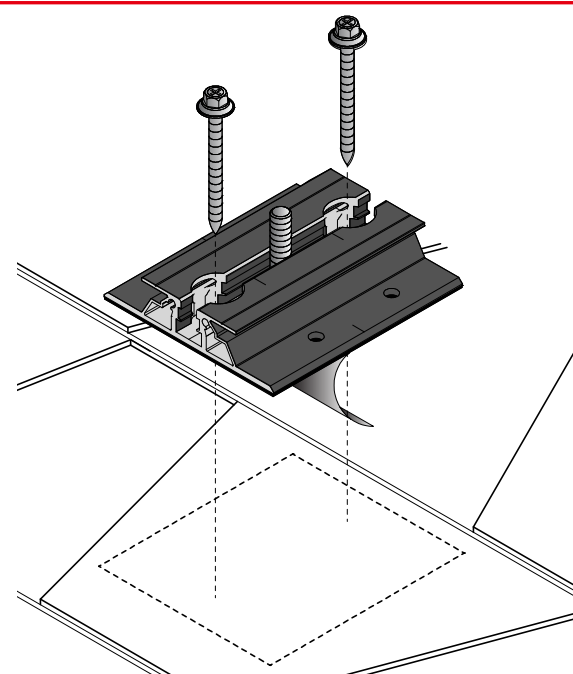
ICC ESR-3575 ASTM2140 testing UV testing (7500 hrs.)



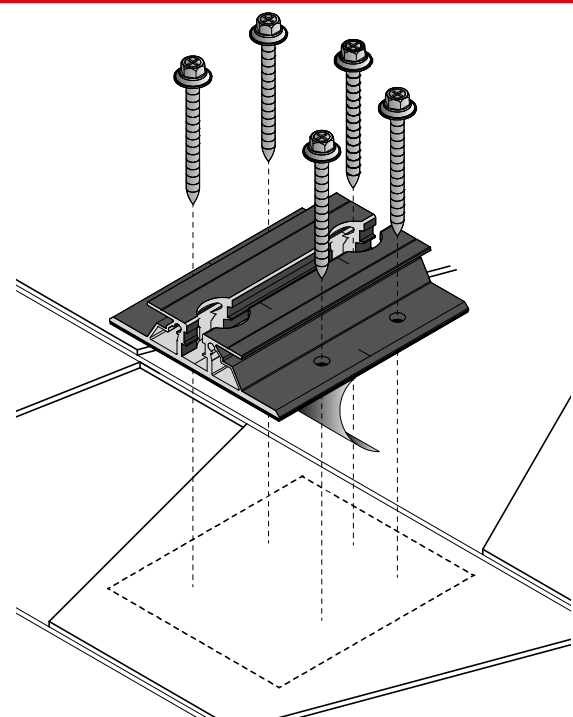
Dimensions in (mm)



Rafter installation



Deck installation



P.E. Stamped Letters available at www.roof-tech.us/support
TAS 100 A on metal and asphalt roof.

Roof Tech Inc.

www.roof-tech.us

info@roof-tech.us

10620 Treenna Street, Suite 230, San Diego, CA 92131
858.935.6064



Page 145

REV 05-2020

Sense Energy Monitor

Technical Specifications

Sense is a home energy monitoring device. It is used to measure current and voltage in the service mains and solar supply of your home. If installed outside, it must be kept dry and within specified temperature ranges. The Sense monitor should only be installed by a licensed electrician.

Monitor

(Monitor Model Nos. SM3, SM3S)

Compatibility: 120VAC (90V-130V), 60 Hz

Processor: 1 GHz ARM

Wi-Fi: 2.4 GHz 802.11b/g/n

Power Consumption: <5 watts, 0.1 amps

Dimensions: 5 3/8" H x 2 5/8" W x 1 1/4" D

Weight: 220 g

RH < 90%; Elevation < 3000 meters;

Temperature: 0 - 50°C

Current Transformers

CAT III, 300V, 200A max

May be used on uninsulated conductors

Dimensions: 3 6/16" H x 2" W x 12/16" D

Inside Diameter: 1"

Cable length: 46"

Power Cable

16 AWG (UL), THHN or THWN, 600V.

Cable length: 14"

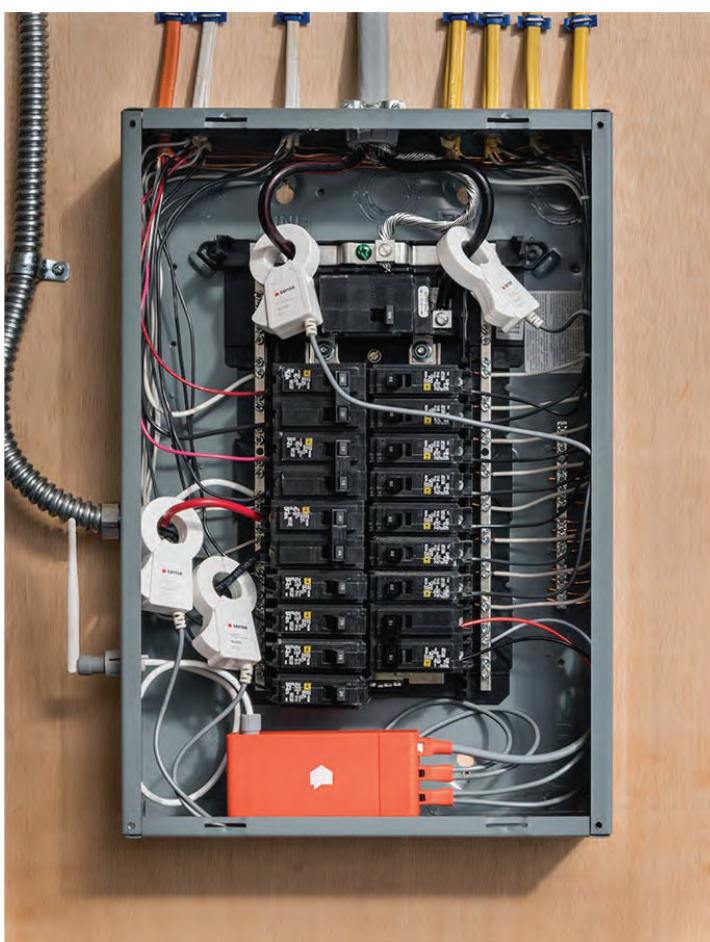
Per UL requirements, the Sense energy monitor power cable itself is marked with all the required safety information, and compliance was verified as part of obtaining our safety certifications. It is jacketed with PVC to form a flexible power cord of UL type SVT, and marked as such.

Certifications

Certified to CSA STD C22.2 No. 61010-1

Conforms to UL STD 61010-1

Conforms to CAN ICES-3(B)/NMB-3(B)



Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Consumption (kWh)	2903	1871	1613	1613	968	1226	1290	1161	1032	1194	1419	2129
Production (kWh)	305	503	577	997	1204	1347	1616	1375	1099	590	328	217

Aurora Shade Report

Customer
Address

100 S Center St
Oregon City, OR 97045,
USA

Designer

Austin Roettger

Coordinates

(45.352301, -122.610442)

Organization

Solgen Power

Date

5 January 2023

Annual irradiance

kWh/m²/year

2,450 or more

2,100

1,750

1,400

1,050

700

350

0


Summary

Array	Panel Count	Azimuth (deg.)	Pitch (deg.)	Annual TOF (%)	Annual Solar Access (%)	Annual TSRF (%)
1	18	215	40	97	89	87
2	4	216	26	97	84	82
3	5	126	27	92	73	67
Weighted average by panel count	-	-	-	-	85.6	82.4

Monthly solar access (%) across arrays

Array	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	69	78	89	93	94	95	96	95	93	86	75	62
2	57	65	82	89	92	93	94	93	86	75	60	41
3	37	46	64	76	86	88	90	82	65	58	49	29

Customer

Address

100 S Center St
Oregon City, OR 97045,
USA

Designer

Austin Roettger

Coordinates

(45.352301, -122.610442)

Organization

Solgen Power

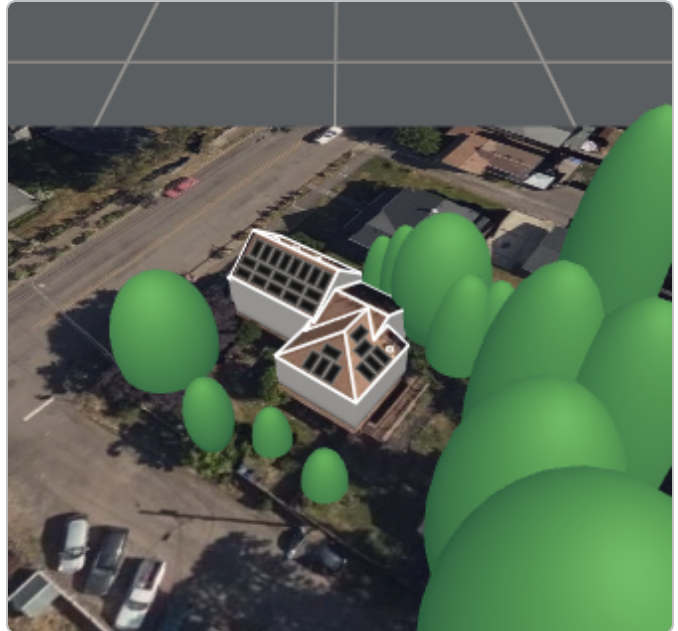
Date

5 January 2023

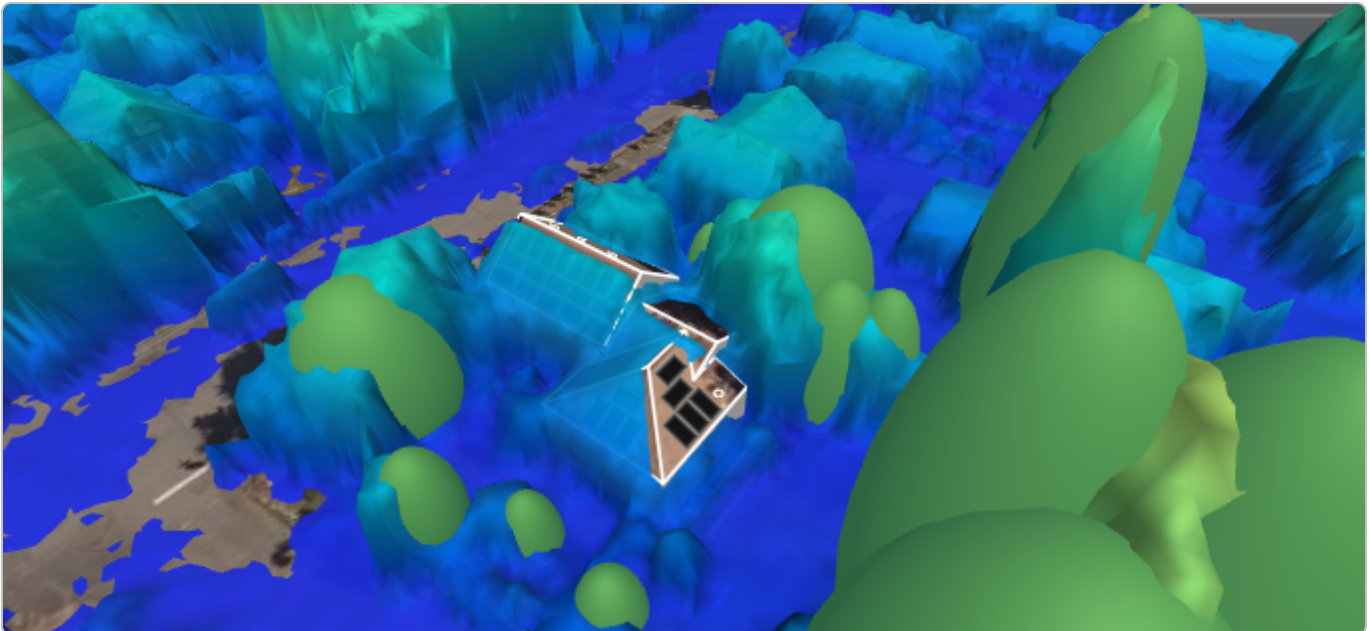
Zoomed out satellite view



3D model



3D model with LIDAR overlay  21 ft



Customer

Address

100 S Center St
Oregon City, OR 97045,
USA

Designer

Austin Roettger

Coordinates

(45.352301, -122.610442)

Organization

Solgen Power

Date

5 January 2023

Street view and corresponding 3D model



I, **Austin Roettger**, certify that I have generated this shading report to the best of my abilities, and I believe its contents to be accurate.

From: [Solgen Power LLC](#)
Sent: Tuesday, January 10, 2023 9:31 AM
To: [Oregon City Planning](#)
Subject: Form submission from: Online Submittal of Land Use Applications

Categories: Jude

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Submitted on Tuesday, January 10, 2023 - 9:31am

Submitted by anonymous user: [66.119.203.9](#)

Submitted values are:

Applicant Name(s) Solgen Power LLC
 Applicant's Representative Donnave Flaherty
 Company Solgen Power LLC
 Mailing Address 5715 Bedford St Pasco, Wa 9301
 Phone Number 855-709-1181
 Email Address permitting@solgenpower.com
 Application Type

- Type I Site Plan and Design Review
- Historic Review
- Land Use Compatibility (LUC)
- Other - Please specify

Project Description PV solar roof mount installation, 3 circuits, 9.99kW

Project Address 100 S Center DT Oregon City, OR 97045

Map and Taxlot Number

Additional information

I have attached the Land Use application, a consumption and production form, a shade report, a historic survey form and stamped site plans with cutsheets

Application Form [m.totten_city_of_oregon_city_land_use.pdf](#)

Site Plan/ Layout [michael_totten_property_line- with cutsheets.pdf](#)

Other Application Materials [100_center_st_hbr_doc.pdf](#)

Other Application Materials (2) [m.totten_consumption_and_production.pdf](#)

Other Application Materials (3) [m.totten_shade_report.pdf](#)

Other Application Materials (4)

Other Application Materials

Disclaimer Select to acknowledge you read and understand the paragraph below.

The results of this submission may be viewed at:

<https://www.orcity.org/node/13944/submission/32270>

Applicable Code and Guidelines for Alteration to historic structure

For exterior alterations of historic sites in an historic district or conservation district or individual landmark, the criteria to be used by the board in reaching its decision on the certificate of appropriateness shall be:

1. The purpose of the historic overlay district as set forth in Section 17.40.010;

17.40.010: It is declared as a matter of public policy that the protection, enhancement, perpetuation and use of improvements of special character or special historical or aesthetic interest or value is a public necessity and is required in the interest of the health, prosperity, safety and welfare of the people. The purpose of this chapter is to:

- A. *Effect and accomplish the protection, enhancement and perpetuation of such improvements and of districts which represent or reflect elements of the city's cultural, social, economic, political and architectural history;*
- B. *Safeguard the city's historic, aesthetic and cultural heritage as embodied and reflected in such improvements and districts;*
- C. *Complement any National Register Historic districts designated in the city;*
- D. *Stabilize and improve property values in such districts;*
- E. *Foster civic pride in the beauty and noble accomplishments of the past;*
- F. *Protect and enhance the city's attractions to tourists and visitors and the support and stimulus to business and industry thereby provided;*
- G. *Strengthen the economy of the city;*
- H. *Promote the use of historic districts and landmarks for the education, pleasure, energy conservation, housing and public welfare of the city; and*
- I. *Carry out the provisions of LCDC Goal 5.*

2. The provisions of the city comprehensive plan;

Section 5: Open Spaces, Scenic and Historic Areas, and Natural Resources

Policy 5.3.8: Preserve and accentuate historic resources as part of an urban environment that is being reshaped by new development projects.

3. The economic use of the historic site and the reasonableness of the proposed alteration and their relationship to the public interest in the structure's or landmark's preservation or renovation;
4. The value and significance of the historic site;
5. The physical condition of the historic site;
6. The general compatibility of exterior design, arrangement, proportion, detail, scale, color, texture and materials proposed to be used with the historic site;
7. Pertinent aesthetic factors as designated by the board;

8. Economic, social, environmental and energy consequences; and
9. Design guidelines adopted by the historic review board.

Design Guidelines for Alterations and Additions

Secretary of Interiors Standards for Rehabilitation

2. The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.

RESPONSE: Sent for Historic Review to determine if acceptable change

3. Each property will be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.

RESPONSE: No new additions outside of solar panel array will be made not applicable

4. Changes to a property that have acquired historic significance in their own right will be retained and preserved.

RESPONSE: historical features will be conserved

5. Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.

RESPONSE: True, only roof feature will change, asphalt tile color is within acceptable recommendations grey to dark brown

6. Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence

RESPONSE: N/A strictly will adhere to roof installation

9. New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.

RESPONSE: Under Historic Review this, solar panel array will have minor change to profile change

10. New additions and adjacent or related new construction will 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.

RESPONSE: True, will adhere to to regulation

Design Guidelines: Alterations – Additions

A. Site

1. In addition to the zoning requirements, the relationship of new additions to the street and to the open space between buildings shall be compatible with adjacent historic buildings and with the historic character of the District.

RESPONSE:

Change will not affect space between buildings

2. New additions shall be sited so that the impact to the primary facade(s) is kept to a minimum. Additions shall generally be located at the rear portions of the property or in such locations where they have the least visual impact from public ways.

RESPONSE:

Under Historic review, property in on corner lot, all sides are visible to public eye sent electrical efficiency letter to show placement necessity

B. Landscape

1. Traditional landscape elements evident in the District (grass, trees, shrubs, picket fences, etc.) should be preserved, and are encouraged in site redevelopment.

RESPONSE:

N/A no trees will be removed

2. Inappropriate landscape treatments such as berms and extensive ground cover are discouraged.

RESPONSE:

No landscaping will be conducted

C. Building Height

1. In addition to the zoning requirements, the height of new additions shall not exceed the height of the historic building, or of historic buildings in the surrounding area.

RESPONSE:

True, Oregon wind law prohibits solar panel array above ridge of roof when applicable

D. Building Bulk

1. New additions smaller than the historic building or the historic buildings in the surrounding area are encouraged.

a. Where new additions must be larger, the new addition shall be articulated in such a manner that no single element is visually larger than the historic building or surrounding historic buildings.

RESPONSE:

True

E. Proportion and Scale

1. The relationship of height to width of new additions and their sub-elements such as windows and doors and of alterations shall be compatible with related elements of the historic building, and with the historic character of the District.

RESPONSE:

True, composition of roof is uniform

2. The relationship of solids to voids (wall to window) shall be compatible with related elements on the historic building, and with the historic character of the District.

RESPONSE:

True

F. Exterior Features

1. General

- a. To the extent practicable, original historic architectural elements and materials shall be preserved.*
- b. Architectural elements and materials for new additions shall be compatible with related elements of the historic building and with the historic character of the District.*
- c. The preservation, cleaning, repair and other treatment of original materials shall be in accord with the Secretary of Interior's Standards of Rehabilitation and Guidelines for Rehabilitating Historic Buildings.*

RESPONSE:

true, this code will be adhered to work is limited to roof

OREGON CITY HISTORIC RESOURCE SURVEY FORM

Street Address: 100 CENTER ST				City: OREGON CITY	
USGS Quad Name: Oregon City		GPS Latitude: 45 21 08 N		Longitude: 122 36 37 W	
Township: 02S	Range: 02E	Section: 31	Block: 83	Lot: 5	Map #: 22E31DB Tax Lot #: 5700
Date of Construction: c. 1885		Historic Name: Meyers, Samuel and Mary, House		Historic Use or Function: Domestic - single dwelling	
Grouping or Cluster Name: NA		*Current Name or Use: Domestic - single dwelling		Associated Archaeological Site: Unknown	
Architectural Classification(s): Vernacular			Plan Type/Shape: Rectangle		Number of Stories: 1.5
Foundation Material: Concrete block			Structural Framing: Unknown		Moved? Yes
Roof Type/Material: Gable / Composition shingle			Window Type/Material: 1/1 wood double-hung		
Exterior Surface Materials Primary: Channel drop			Secondary: Wood shingle		Decorative:
Exterior Alterations or Additions/Approximate Date: Open side porch enclosed; Original porch removed; Hip-roofed wing on south side added, c.1945.					
Number and Type of Associated Resources: Shed at rear (1)					
Integrity: Fair		Condition: Fair		Local Ranking: Designated Historic Site National Register Listed? No	
Potentially Eligible: ☐ Individually or ☐ As a contributing resource in a district Not Eligible: ☐ Intact but lacks distinction ☒ Altered (choose one): ☒ Reversible/Potentially eligible individually or in district ☐ Reversible/Ineligible as it lacks distinction ☐ Irretrievable loss of integrity ☐ Not 50 years old					
Description of Physical and Landscape Features: This 1-1/2 story vernacular house is rectangular in plan and sits on a concrete block foundation. The gable roof is covered in composition shingles. The house is covered with channel rustic drop siding ground by a water table and cap. Windows are primarily 1/1 wood double-hung. A hip roofed wing has been added to the south façade. A picket fence encircles the yard.					
Statement of Significance: The house at 100 Center Street was moved to its present site c.1947. The house is purported to have been built by Samuel Meyers c.1885. Samuel Meyers was born in 1838 in Germany, and arrived in the United States in 1870. His wife Mary was born in Germany in 1850. They had several daughters: Elfrida, Martha and Augusta. In 1880, Meyers was a laborer living with his two young daughters and wife, and a brother-in-law, Adolf Fredrick. This house was the first of three almost identical buildings erected along Center Street by Meyers. In 1919, the house was sold to D. Reddaway, who sold it in 1937 to the Satterlie family. They sold it c.1947 to the Catholic archdiocese, and the house was moved to its present site.					

Researcher/Organization: Heather Goodson / HPNW			Date Recorded: 4/12/2002		
Survey Form Page 1	Address: 100 CENTER ST	Local Designation #		SHPO #	