



Historic Preservation Services
Community Development & Neighborhood Services
281 North College Avenue
P.O. Box 580
Fort Collins, CO 80522.0580
970.224.6078
preservation@fcgov.com
fcgov.com/historicpreservation

CERTIFICATE OF APPROPRIATENESS
ISSUED: November 15, 2023
EXPIRATION: November 15, 2024

Karla and Scott Oceanak
c/o Taylor Meyer, VFLA Inc.
419 Canyon Ave.
Fort Collins, CO 80521

Dear Karla and Scott Oceanak:

As you are aware, Wednesday evening the Historic Preservation Commission gave Final Design Review approval for the work you are proposing for the George and Annie Spencer House, at 425 E. Elizabeth St.

More specifically, the Commission approved, as more particularly described in the attached application, plans, and other materials:

1. A rear addition
2. A dormer addition on the east side of the house
3. Raising the house 18-24 inches onto a new basement foundation
4. Other exterior alterations or repairs including:
 - Raised garden bed using foundation stones around porch
 - Extension of porch stairs and addition of railings related to added height from new basement foundation
 - Basement egress windows
 - West side basement access stair with railing
 - New door on rear elevation
 - Removal of non-historic features in rear gable
 - Removal of skylights from east side roof
 - Replacement of non-original window on east elevation
 - Infill of boarded up door opening on façade
 - Window repair and storm window replacement
 - Front door and transom repair and screen door replacement
 - Siding repair and painting
 - In-kind reroofing (asphalt shingles)

Applicable Code Standard	Summary of Code Requirement and Analysis	Standard Met (Y/N)
SOI #1	<p><i>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.</i></p> <p>The property is retaining its historic use.</p>	Y
SOI #2	<p><i>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.</i></p> <p>The 1893 George and Annie Spencer House was designated for its architectural and historical importance, as a representative example of a Queen Anne Cottage and as a contributing part of the Laurel School District, one of the first houses built on Elizabeth Street. Some of the most distinguishing features of this house include the prominent and highly decorated front porch, the front-facing bay window, the one-over-one wood windows, and the gable-end imbricated shingles and sunburst design.</p> <p>Although raising the height of the house to accommodate a basement will alter the appearance of the house to some extent, it will still appear to be a 1.5 story Queen Anne Cottage. The foundation stones being removed are not currently visible from the street due to the grading of the lot, and they will be repurposed in a raised garden bed. The installation of a raised garden bed also minimizes alterations the character-defining front porch because the balustrade will not need to be raised due to the change in surrounding grade.</p> <p>The mudroom on the rear elevation is not a part of the original design of the home and is therefore not considered a character-defining feature. Its removal therefore still meets this standard.</p> <p>The skylights, louvered vent, glass block window, and kitchen window proposed for removal are all non-historic materials, and so their removal still meets this standard.</p> <p>The new basement entry stair on the west elevation is visible from the street, but because it will connect to the new basement foundation, it will not physically impact the existing house. Due to the simple nature of the railing, its visual impact is also minimal.</p>	Y

	<p>The most significant change proposed that is visible from the street is the addition of an east-facing dormer. However, this alteration is required by the building code to create a means of egress for bedroom use and the minimum size is impacted by requirements for light/glazing. The hipped roof profile of the dormer does alter the roof form visible from the street, but a hipped roof dormer is compatible with the character of the house.</p>	
SOI #3	<p><i>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</i></p> <p>Because the added features, like the proposed dormer, addition, and side stair, are sufficiently differentiated through materials and/or design, this project avoids creating changes that create a false sense of historical development.</p>	Y
SOI #4	<p><i>Changes to a property that have acquired historic significance in their own right will be retained and preserved.</i></p> <p>The mudroom that is proposed to be demolished to accommodate the new rear addition is not an original feature of the house; it was modified sometime between 1939 and 1948, and then further modified in the 1960s, according to the Landmark nomination. For that reason, removal of this feature still meets this standard.</p>	Y
SOI #5	<p><i>Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.</i></p> <p>Character-defining features of this property are predominantly on the front of the building, and the proposed rear addition will not cover up the gable-end details that are present in the south-facing gable.</p> <p>Some materials known to be non-original are proposed for removal and replacement or infill, such as the glass block window and vent in the rear gable, the kitchen window, skylights, and roofing material.</p> <p>Some additional existing materials are proposed for removal and replacement, including the existing house's storm windows and front screen door. The applicant noted that they consulted with a window specialist, and that they do not</p>	Y

	<p>believe the existing storms to be historic, and some are missing. They also do not believe that the screen door is original due to the design being inconsistent with other elements of the house. Some existing wall material will also be lost for a new exterior door and to enlarge an existing door opening (currently inside the mudroom) to connect the main house to the addition; both alterations are on the rear elevation. Because of the minimal impact on character-defining features of the home, this standard is met.</p>	
SOI #6	<p><i>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.</i></p> <p>Siding and window repair is proposed as part of this rehabilitation project rather than replacement to address any deterioration.</p> <p>The storm windows are proposed for replacement with fixed wood frames with light-weight storm/screen inserts. The applicant consulted with a window specialist who did not believe the storms to be original and noted that some of the storms are missing. As described in the application, an insert half the size of the existing 1/1 window would be lighter weight for ease of use as the property owners age in place. The material and design would be compatible with the existing house. Because of the compatibility of the design of the proposed storm windows with the historic home and because the alteration would support the continued use of the home, this alteration meets this standard.</p>	Y
SOI #7	<p><i>Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.</i></p>	N/A
SOI #8	<p><i>Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.</i></p> <p>There is not reason to believe that there is a likelihood of uncovering archaeological resources during the excavation of the basement foundation or for the proposed addition, however, the property owners should note this requirement, and should any archaeological resources be uncovered, contact Historic Preservation Services immediately for assistance.</p>	Y

<p>SOI #9</p>	<p><i>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.</i></p> <p>Although historic materials would be removed to allow for the proposed addition, raising of the foundation, and new exterior door, these materials and features are either not currently visible or are located on the rear and are not character-defining in relation to the significance of the property.</p> <p>The proposed addition is differentiated from the historic house through its use of lap siding with smaller reveal, and use of window types that differ from the historic portion (casement, fixed, awning vs. typically one-over-one double-hung windows). The addition also appears compatible with the architectural features, scale, and massing of the property and its environment. For instance, the materials proposed are appropriate (e.g., wood lap siding, metal-clad wood windows, asphalt shingle roofing to match existing), and the pitch of the gable matches the existing rear gable. Additionally, due to the shorter height of the addition and it being slightly inset from the wall plane of the existing house, it is entirely screened from view from East Elizabeth Street.</p> <p>Raising the height of the entire house 18-24” does not pose a danger to the structural integrity of the existing house, according to a recent evaluation performed by a structural engineer (attached), and the visual impact of this change is minimal; the proposed height does not change the appearance of the house from a 1.5-story home to a 2-story home.</p> <p>The new proposed dormer is visible from the street. As noted previously, this addition is required by the building code for egress and glazing/light requirements impact the size. Although the dormer is the most significant change to the appearance of the house from the street, the design of the dormer is compatible with the existing house due to the hipped roof form and wood materials, and the design is differentiated through use of siding to match the addition rather than the historic part of the house. The applicant noted that the dormer/window could be made smaller and still accommodate egress, and that the size of the proposed dormer is related to providing sufficient daylighting in the bedroom after the removal of the skylights. Given that the pedestrian</p>	<p>Y</p>

	experience would likely change very little if the dormer were less wide because it is proposed to be located on a side elevation, the size of the dormer is not inconsistent with this standard.	
SOI #10	<p><i>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.</i></p> <p>The proposed addition is located at the rear of the existing house and would not remove character-defining features or elements that would be difficult to reconstruct if the addition were reversed in the future. Similarly, because the proposed new dormer impacts only roofing material, it could be reversed in the future with little impact on the historic building.</p>	Y

The Commission found that the proposed work meets the criteria and standards in Chapter 14, [Article IV](#) of the Fort Collins Municipal Code. Notice of the approved application has been forwarded to building and zoning staff to facilitate the processing of any permits that are needed for the work.

Please note that all ensuing work must conform to the approved plans. Any non-conforming alterations are subject to stop-work orders, denial of Certificate of Occupancy, and restoration requirements and penalties.

If the approved work is not completed prior to the expiration date noted above, you may apply for an extension by contacting staff at least 30 days prior to expiration. Extensions may be granted for up to 12 additional months, based on a satisfactory staff review of the extension request.

You may appeal this decision within two weeks by submitting a written notice of appeal to the City Clerk within fourteen (14) calendar days of this decision. Grounds and process for appeals are enumerated in Chapter 2, [Division 3](#) of the Fort Collins Municipal Code.

If you have any questions regarding this approval, or if I may be of any assistance, please do not hesitate to contact staff at preservation@fcgov.com or at (970) 224-6078.

Sincerely,

Jim Rose, Chair
Historic Preservation Commission



Design Review Application Historic Preservation Division

Fill this form out for all applications regarding designated historic buildings within the city limits of the City of Fort Collins. Review is required for these properties under Chapter 14, [Article IV](#) of the Fort Collins Municipal Code.

Applicant Information

Taylor Meyer - VFLA Inc.	970-224-1191		
Applicant's Name	Daytime Phone	Evening Phone	
419 Canyon Avenue, Fort Collins		CO	80521
Mailing Address (for receiving application-related correspondence)		State	Zip Code
taylor@vfla.com			
Email			

Property Information (put N/A if owner is applicant)

Karla and Scott Oceanak	970-689-8692		
Owner's Name	Daytime Phone	Evening Phone	
1209 Buttonwood Drive, Fort Collins		CO	80525
Mailing Address (for receiving application-related correspondence)		State	Zip Code
oceanak@comcast.net sdoceanak@comcast.net			
Email			

Project Description

Provide an overview of your project. Summarize work elements, schedule of completion, and other information as necessary to explain your project.

The goal is to renovate to allow comfortable modern living while aging-in-place and to restore and repair the existing structure and architectural elements while minimizing impact to the character features of the existing historic home. The existing home will be elevated 18"-24" on to a new basement foundation and a 29'x20' addition will be attached to the rear elevation. A new small dormer is proposed on the east side and a new rear entry will be added to the south wall. Windows will be repaired and the storms will be replaced. Construction would start in mid-2024 and complete in mid-2025.

The following attachments are REQUIRED:

- Complete Application for Design Review
- Detailed Scope of Work (and project plans, if available)
- Color photos of existing conditions

Reminders:

Complete application would need all of checklist items as well as both pages of this document.

Detailed scope of work should include measurements of existing and proposed.

Please note: if the proposal includes partial or full demolition of an existing building or structure, a separate demolition application will need to be approved.

Additional documentation may be required to adequately depict the project, such as plans, elevations, window study, or mortar analysis. If there is insufficient documentation on the property, the applicant may be required to submit an intensive-level survey form (at the applicant's expense).

Detail of Proposed Rehabilitation Work (*Required)

If your project includes multiple features (e.g. roof repair and foundation repair), you must describe each feature separately and provide photographs and other information on each feature.

Feature A Name: Rear Mudroom Addition	
<p>Describe property feature and its condition:</p> <p>The mudroom addition on the rear of the house we think was added in the 1970's and it does not match the character of the original house. It has a low-slope shed roof with an 8" fascia, sliding windows with different proportions than the original window and a sliding patio door. The exterior painted wood lap siding is noticeably patched and the door and window trim doesn't match the other trim around the original house.</p>	<p>Describe proposed work on feature:</p> <p>Demo the rear mudroom addition.</p>
Feature B Name: Foundation	
<p>Describe property feature and its condition:</p> <p>The house bears on a shallow-depth stacked stone foundation at the perimeter and some floor joists bear on masonry walls around a small dugout basement in the center of the house. The performance of the foundation is troubled by shrink/swell cycles of the soil as well as frost and root heave. Additionally the top of the existing foundation is relatively low and allows some backfill of grade against the framing.</p>	<p>Describe proposed work on feature:</p> <p>Lift the house 18"-24" up and off the existing foundation and place on new cast-in-place concrete foundation and therefore allowing for a full basement. Placing the house on a new foundation offers the opportunity to re-level sloping areas in the floor structure. Raising the floor elevation will allow for a wheelchair accessible route into the house from the alley-loaded garage. Also, raising the wood structure above grade will protect the structure from wood rot due to moisture intrusion and allow access to areas of framing that have been below grade allowing for repair of these portions of the wood structure. For more details regarding the structural performance, risks and opportunities please refer to the "Structural Observation - Historic Review" report written by Wayne Thompson of PEN Engineering, LLC dated April 21, 2023.</p> <p>Additionally, we plan to use the stones from the old foundation to build raised garden beds around the edges of the front porch.</p>

Use Additional Worksheets as needed.

Detail of Proposed Rehabilitation Work (*Required)

If your project includes multiple features (e.g. roof repair and foundation repair), you must describe each feature separately and provide photographs and other information on each feature.

Feature C Name: Front Porch Center Stair	
<p>Describe property feature and its condition: Wood-framed porch stair with open carriage stringers. There are 3 treads and 4 risers.</p>	<p>Describe proposed work on feature: While raising the floor elevation of the house, the front porch stair will be removed and replaced with like-kind construction with an additional 2 or 3 treads. A new slim handrail will be added on each side of the stair. The handrail will be 1 1/4" square steel tube rails and posts, powder-coated black.</p>
Feature D Name: Front Porch Side Stair	
<p>Describe property feature and its condition: Wood-framed porch stair with open carriage stringers. There are 2 treads and 3 risers.</p>	<p>Describe proposed work on feature: This stair will be removed and a new guardrail will be built along this edge of the porch to match the existing guardrail around the remaining edges of the porch.</p>

Use Additional Worksheets as needed.

Detail of Proposed Rehabilitation Work (*Required)

If your project includes multiple features (e.g. roof repair and foundation repair), you must describe each feature separately and provide photographs and other information on each feature.

Feature E Name: Boarded-Up Wall Opening	
<p>Describe property feature and its condition: There was once an accessory entry door on the front elevation that was at some point removed and the opening boarded up with a plywood sheet and trim painted to match the adjacent exterior siding. We guess it was boarded up when the house was clad in aluminum siding in the 1950s.</p>	<p>Describe proposed work on feature: Remove board and trim and patch with new siding to match existing siding from existing window edge to wall corner to avoid a seam in the siding.</p>
Feature F Name: 3 Skylights	
<p>Describe property feature and its condition: There are 3 skylights in the roof above the upstairs bedroom on the east side of the house. We think the skylights were added in the 1980's. One skylight faces north and another faces east and both of these are visible from the street. The third faces south. The skylights are not original to the home and do not provide proper emergency egress from the bedroom. There are no other windows in this bedroom.</p>	<p>Describe proposed work on feature: Remove all 3 skylights and patch the roof openings.</p>

Use Additional Worksheets as needed.

Detail of Proposed Rehabilitation Work (*Required)

If your project includes multiple features (e.g. roof repair and foundation repair), you must describe each feature separately and provide photographs and other information on each feature.

Feature G Name: Front Door and Transom Window	
<p>Describe property feature and its condition:</p> <p>The front entry door is solid wood with a half-lite and has millwork detailing typical of the Queen Anne style with a transom window above. The door and frame in stained. The door and window seals are weathered. The screen door is weathered and worn.</p>	<p>Describe proposed work on feature:</p> <p>Salvage the front entry door and transom window. The door and window frames will be disassembled, the wood stripped of paint and stain, repaired, holes patched, jointed tightened, and reassembled, then stained and sealed. The original glazing will be cleaned and reinstalled with new weather seals. The screen door will be replaced with like-kind.</p>
Feature H Name: Original Windows	
<p>Describe property feature and its condition:</p> <p>There are 11 original windows. They are all double-hung operation with painted wood frames and sashes with a 2:5 width-height proportion. Some windows are painted shut and some sash cords are broken. Moisture damage is present in most windows and weather seals are worn. Several window panes have been broken and replaced over the decades.</p>	<p>Describe proposed work on feature:</p> <p>Restore the original windows. The window frames will be disassembled, the wood stripped of paint, repaired, holes patched, jointed tightened, and reassembled, then painted and sealed. The original glazing will be cleaned and reinstalled with new weather seals.</p>

Use Additional Worksheets as needed.

Detail of Proposed Rehabilitation Work (*Required)

If your project includes multiple features (e.g. roof repair and foundation repair), you must describe each feature separately and provide photographs and other information on each feature.

Feature I Name: Exterior Storm Windows	
<p>Describe property feature and its condition: The storm windows are not original, lack interest, and do not contribute to the character of the house. The frames are in poor condition and a few are missing.</p>	<p>Describe proposed work on feature: The existing exterior storm windows are heavy and a burden for the home owners to swap out seasonally with the screens as they age-in-place, especially the 3 upstairs windows. Each storm window will be replaced with a permanently installed frame with interchangeable storm window/screen panels. The interchangeable panels will be half the size and lighter/more manageable for the owners to swap out seasonally and can be changed from the inside of the house without having to climb around out on top of the roof.</p>
Feature J Name: Kitchen Window	
<p>Describe property feature and its condition: The 48"x38" double casement window on east elevation is not original to home and exhibits weathering and water damage. We believe the kitchen window was added when the kitchen was remodeled in the 1970s.</p>	<p>Describe proposed work on feature: Remove and replace with new 54"x36" double casement window. The new window will have a dark bronze metal-clad wood frame.</p>

Use Additional Worksheets as needed.

Detail of Proposed Rehabilitation Work (*Required)

If your project includes multiple features (e.g. roof repair and foundation repair), you must describe each feature separately and provide photographs and other information on each feature.

Feature K Name: South Wall	
<p>Describe property feature and its condition: The south wall of the house has an original window centered under the gable with character-defining fishscale and sunburst siding details. The lower part of the wall has lap siding and an existing 7'-8" wide interior opening covered by the rear mudroom which will be demolished.</p>	<p>Describe proposed work on feature: After the rear mudroom is demolished, the 7'-8" wide wall opening will be expanded to a 13'-4" wide opening and two new openings will be added. A new 2'-8" opening will be added for interior circulation and a new exterior door will be added as a rear entry into the home. The new exterior entry door will be 30"x80", metal-clad (dark bronze color) wood door with a half lite.</p>
Feature L Name: Glass Block Window @ South Elevation (Upper Level)	
<p>Describe property feature and its condition: 8"x24" glass block window is not original to home.</p>	<p>Describe proposed work on feature: Remove and infill wall, patch siding to match surrounding fish-scale siding pattern.</p>

Use Additional Worksheets as needed.

Detail of Proposed Rehabilitation Work (*Required)

If your project includes multiple features (e.g. roof repair and foundation repair), you must describe each feature separately and provide photographs and other information on each feature.

Feature M Name: Vent @ South Elevation (Upper Level)	
Describe property feature and its condition: 12"x16" painted metal louver vent	Describe proposed work on feature: Remove and infill wall, patch siding to match surrounding fish-scale siding pattern.
Feature N Name: Chimney	
Describe property feature and its condition: 20"x16" brick and mortar chimney	Describe proposed work on feature: The intent is for the existing chimney to remain if possible, however the feasibility of keeping it will be determined during construction; the applicant will consult with Historic Preservation Services staff for a COA Amendment should any alteration to the chimney be necessary.

Use Additional Worksheets as needed.

Detail of Proposed Rehabilitation Work (*Required)

If your project includes multiple features (e.g. roof repair and foundation repair), you must describe each feature separately and provide photographs and other information on each feature.

Feature O Name: Roofing Shingles	
<p>Describe property feature and its condition: 3-tab asphalt shingle roofing, gray color, weathered and worn. The shingle roofing is a minimum 40 years old.</p>	<p>Describe proposed work on feature: Replace with new Class 4 impact-resistant roofing shingles. Light warm gray/tan color</p>
Feature P Name: Siding and Trim	
<p>Describe property feature and its condition: Siding: Painted 5" wood horizontal lap siding (6" width with 1" overlap for a 5" reveal) Window Trim: Painted 4" wood trim around window head and jambs with a sloping 1 1/2" sill. Corner Trim: Painted 3" wood trim Some weathering and separation at joints.</p>	<p>Describe proposed work on feature: Retain all siding and trim, repair as needed, caulk gaps, new white paint</p>

Use Additional Worksheets as needed.

Detail of Proposed Rehabilitation Work (*Required)

If your project includes multiple features (e.g. roof repair and foundation repair), you must describe each feature separately and provide photographs and other information on each feature.

Feature Q Name: New Raised Garden Beds	
<p>Describe property feature and its condition: The front porch currently does not have a raise garden bed in front of it.</p>	<p>Describe proposed work on feature: Build a new raised garden bed 3' around the perimeter of the front porch and on either side of the center front porch stair. The garden bed walls will be 18"-24" above grade, the same dimension that the floor elevation of the house is to be raised. The purpose of the raised garden beds to is avoid the need for a porch guardrail extension. The existing guardrail is only ~28" above the porch walking surface, and the building code requires a 36" tall guardrail when a walking surface is more than 30" above grade, which is would be after railing the house elevation. A 36" tall guardrail would require an extended guardrail addition which compete visually with the existing guardrail. So we decided to add the raised garden bed to avoid the need for the 36" tall guardrail and leave the existing 28" guardrail as-is.</p>
Feature R Name: New Exterior Stair for a Basement Entry Access	
<p>Describe property feature and its condition: The current house does not have an exterior stair because there is no basement entry access.</p>	<p>Describe proposed work on feature: Build a new below-grade concrete exterior stair access a basement entry door along the west wall of the new basement. The opening in the ground for the exterior stair will be built with an 8" concrete retaining wall and concrete slab landing at the bottom of the stairs. The concrete retaining wall will be capped with a 36" slim-design steel guardrail powder-coated dark bronze and a steel handrail will extend down the stairwell following the stairs to the basement.</p>

Use Additional Worksheets as needed.

Detail of Proposed Rehabilitation Work (*Required)

If your project includes multiple features (e.g. roof repair and foundation repair), you must describe each feature separately and provide photographs and other information on each feature.

Feature S Name: New Dormer @ east facing roof	
<p>Describe property feature and its condition: East facing roof currently has a skylight in it.</p>	<p>Describe proposed work on feature: The skylight will be removed. A new dormer will be added. The dormer will have a hipped roof with shingle roofing, 3" horizontal lap siding (to match the new horizontal lap siding on the new addition on the rear of the house), and a new 60"x30" window. The window will operate as a double casement allowing for emergency egress out of the existing east-facing upstairs bedroom. This is the smallest the dormer can be to allow for the emergency egress window. The window will also be the only means of natural light in that room since the 3 skylights in the roof will be removed. A rear elevation (south-facing) dormer isn't feasible because the roof of the new addition on the rear of the house over-frames the south facing roof on this bedroom.</p>
Feature T Name: New Addition on Rear of House	
<p>Describe property feature and its condition: The south wall of the house currently has a non-original mudroom addition that will be demolished.</p>	<p>Describe proposed work on feature: After demolishing the existing mudroom addition, a new 29' wide by 20' deep addition will be added for the purpose of a new kitchen, dining area, and living room. The exterior walls of the addition will be finished with painted 3" horizontal lap siding and 3" corner trim. The sliding patio door and all the new windows will have a dark bronze metal-clad wood frame, some windows will be fixed and some operable windows will be casements. The pitch of the gable roof will match the 12:12 pitch of the existing roof pitches and the low-slope 2:12 break-pitch shed roof will minimize the impact to the character-defining fish scale siding and sunburst detail on the existing south-facing gable wall. The new roof will have asphalt shingle roofing to match the existing and the fascia will be a 6" square profile, painted.</p>

Use Additional Worksheets as needed.

Required Additional information

The following items must be submitted with this completed application. Digital submittals preferred for photographs, and for other items where possible.

- At least one current photo for each side of the house. Photo files or prints shall be named/labeled with applicant name and elevation. For example, smitheast.jpg, smithwest.jpg, etc. If submitted as prints, photos shall be labeled
- Photos for each feature as described in the section "Detail of Proposed Rehabilitation Work". Photo files or prints shall be named or labeled with applicant name and feature letter. For example, smitha1.jpg, smitha2.jpg, smithb.jpg, smithc.jpg, etc.

Depending on the nature of the project, one or more of the following items shall be submitted. Your contractor should provide these items to you for attachment to this loan application.

- Drawing with dimensions.
- Product specification sheet(s).
- Description of materials included in the proposed work.
- Color sample(s) or chip(s) of all proposed paint colors.

Partial or full demolition is a part of this project.

Partial demolition could include scopes such as taking off existing rear porches to create space for a new addition or removing an existing wall or demolishing a roof. If you are taking away pieces of the existing residence, you are likely undergoing some partial demolition.

Signature of Owner

10/20/23

Date



OCEANAK REMODEL & ADDITION

45 EAST ELIZABETH
FORT COLLINS CO
80504



VAUGHT FRYE LARSON ARCHITECTURE
4501 W. 10TH AVE. SUITE 100
FORT COLLINS, CO 80504

Strength in design. Strength in partnership.
Strength in community.

45 EAST ELIZABETH, FORT COLLINS, CO 80504

PROJECT NO: 2023-21

HPC DESIGN REVIEW SUBMITTAL

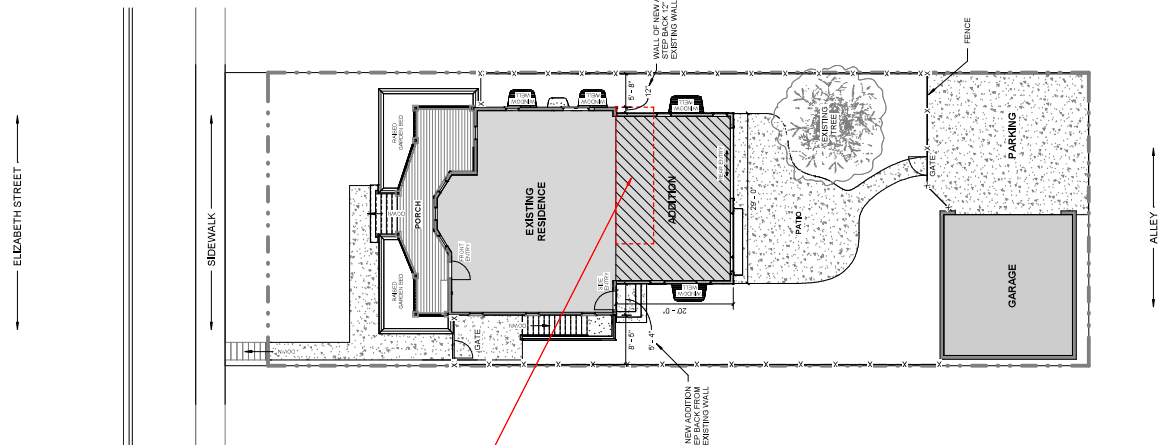
DATE	DESCRIPTION
08/15/23	INITIAL REVIEW
08/22/23	REVISIONS
09/05/23	FINAL REVIEW



COMPLETION: 10/31/23 TO 11/30/23
DATE OF REVIEW: 08/15/23
DATE OF REVISION: 08/22/23
DATE OF FINAL REVIEW: 09/05/23

SITE PLAN

A1



PORTION OF EXISTING RESIDENCE TO BE DEMOLISHED

CODE DATA

CODES: 2021 ILLINOIS LOCAL AMENDMENTS
2021 ILLINOIS LOCAL AMENDMENTS
2021 ILLINOIS LOCAL AMENDMENTS
WALLS: MIN R30 CAVITY (OR R30 CAVITY + R5 CUI)
MIN R30 CAVITY (OR R30 CONT. OR MIN. R-10 CAVITY)
MIN R30 CAVITY (OR R30 CONT. OR MIN. R-10 CAVITY)
WINDOW FACTOR: MAX 20

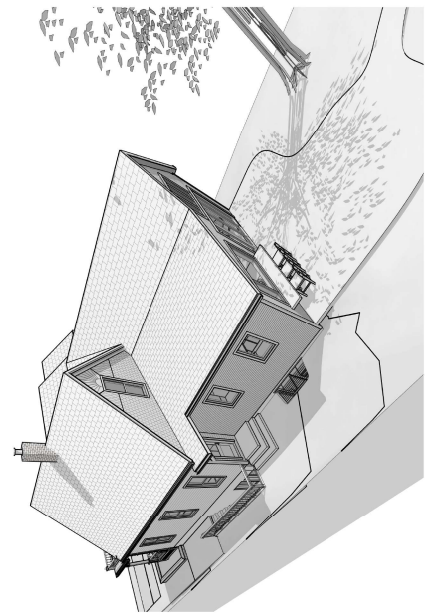
Address: 45 EAST ELIZABETH
Site Area: 1000 SF
Zone District: NCM - NEIGHBORHOOD CONSERVATION,
Occupancy Classification: TYPE R-3
Construction Type: I-4B
Number of Stories: 2 + BASEMENT

Max Allowable Floor Area (Overall):
= 7000 SF ± .25 + 1000 SF ± 25% (if)
= 8000 SF ± .33
= 1200 SF Garage
= 1200 SF Deck
= 2214 SF PORCHES/DECKS/SCREENED PATIOS
= 886 SF TOTAL FLOOR AREA ON THE REAR HALF

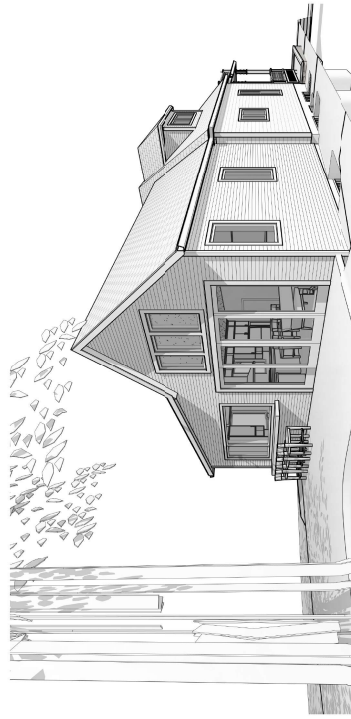
Max Allowable Floor Area (on the rear half of the lot):
= 1000 SF ± .33
= 1200 SF Garage
= 1200 SF Deck
= 2214 SF PORCHES/DECKS/SCREENED PATIOS
= 886 SF TOTAL FLOOR AREA ON THE REAR HALF

Max Allowable Floor Area (on the rear half of the lot):
= 1000 SF ± .33
= 1200 SF Garage
= 1200 SF Deck
= 2214 SF PORCHES/DECKS/SCREENED PATIOS
= 886 SF TOTAL FLOOR AREA ON THE REAR HALF

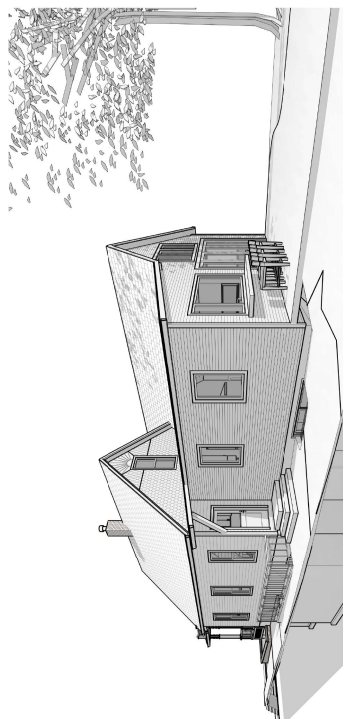
1 ARCHITECTURAL SITE PLAN
1" = 10'-0"



2 ABOVE SOUTHWEST 5



3 SOUTHWEST 5



4 SOUTHWEST 5

**OCEANAK
RESIDENCE
REMODEL &
ADDITION**

435 EAST ELMBETH
FORT COLLINS, CO
80504



VFLA
VAUGHT FRYE LARSON ARONSON
ARCHITECTS INTERIORS

Strength in design. Strength in partnership.
Strength in community.

435 East Elmbeth Fort Collins, CO 80504
Phone: 970.226.4444 | www.vfla.com

PHOTOGRAPHY BY VFLA

HPC DESIGN REVIEW SUBMITTAL

DATE	DESCRIPTION	BY	FOR
10/20/23	INITIAL HPC REVIEW	VAUGHT FRYE LARSON ARONSON	OWNER
11/15/23	REVISIONS	VAUGHT FRYE LARSON ARONSON	OWNER
12/15/23	FINAL HPC REVIEW	VAUGHT FRYE LARSON ARONSON	OWNER
01/15/24	PERMITS	VAUGHT FRYE LARSON ARONSON	OWNER
02/15/24	CONSTRUCTION	VAUGHT FRYE LARSON ARONSON	OWNER
03/15/24	COMPLETION	VAUGHT FRYE LARSON ARONSON	OWNER



CONTRACT: 15032321-01-01
DATE: 10/20/23
PROJECT: OCEANAK RESIDENCE REMODEL & ADDITION
DRAWN BY: VAUGHT FRYE LARSON ARONSON
CHECKED BY: VAUGHT FRYE LARSON ARONSON
SCALE: AS SHOWN

**EXTERIOR
ELEVATIONS**

CONTRACT NUMBER:

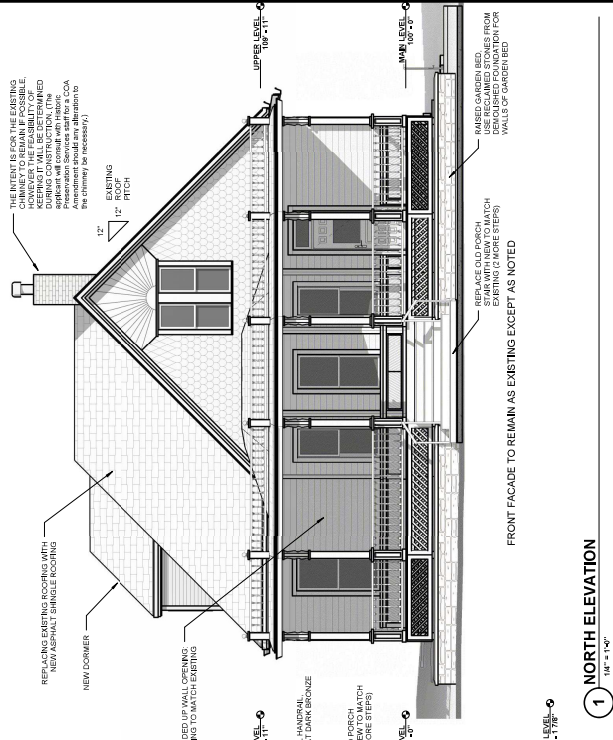
A2



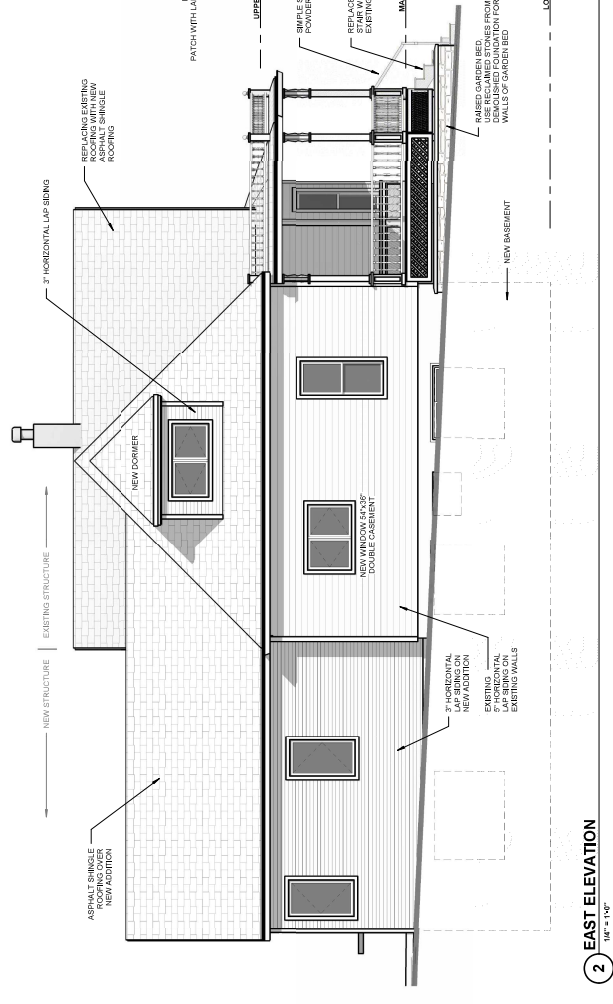
PHOTO: EXISTING NORTH ELEVATION



PHOTO: EXISTING EAST ELEVATION



1 NORTH ELEVATION
1/4" = 1'-0"



2 EAST ELEVATION
1/4" = 1'-0"

OCEANAK RESIDENCE REMODEL & ADDITION

435 EAST ELMENETH
FORT COLLINS, CO
80504



VFLA
VAUGHT FRYE LARSON ARONSON
ARCHITECTS INTERIORS

Strength in design. Strength in partnership.
Strength in community.

415 SHIPLEY AVENUE, SUITE 100, FORT COLLINS, CO 80501

PHOTOGRAPHY BY



REMOVE EXISTING GLASS
IN REAR WALL AND PATCH
SIDING TO MATCH
REMOVE SKYLIGHT
IN REAR WALL AND PATCH
SIDING TO MATCH

PHOTO: EXISTING SOUTH ELEVATION



PHOTO: EXISTING WEST ELEVATION

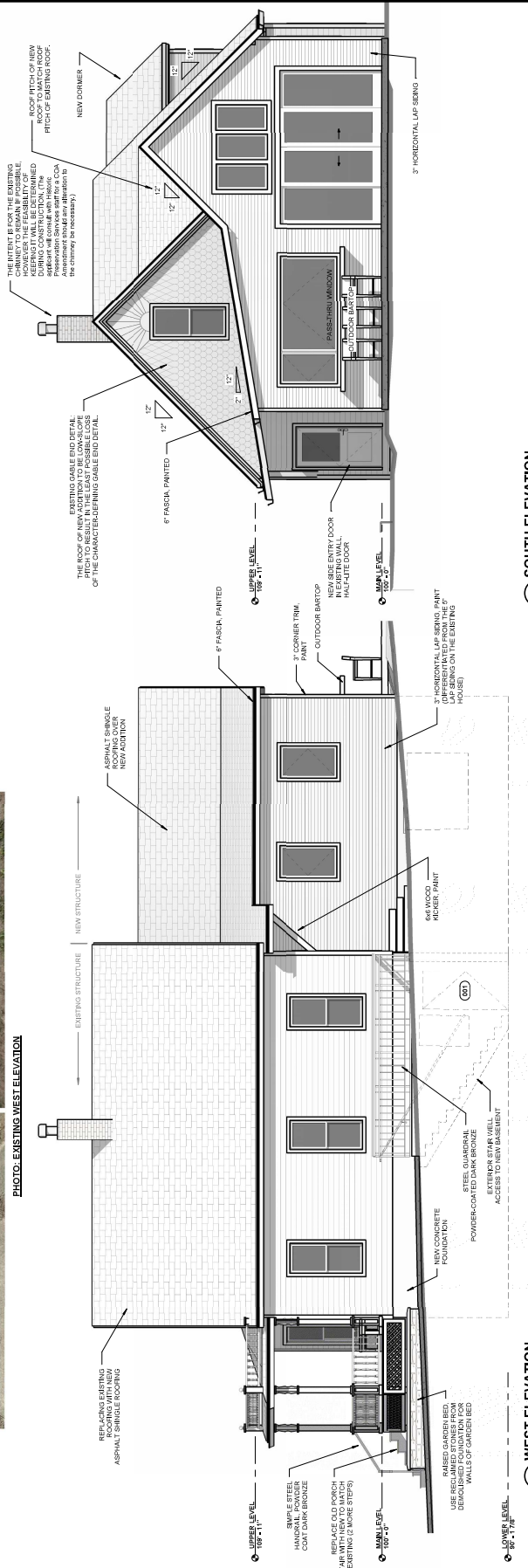
HPC DESIGN REVIEW SUBMITTAL

REVISION NUMBER	DATE	DESCRIPTION
1	10/20/23	ISSUED FOR PERMIT
2	10/20/23	ISSUED FOR PERMIT
3	10/20/23	ISSUED FOR PERMIT
4	10/20/23	ISSUED FOR PERMIT
5	10/20/23	ISSUED FOR PERMIT
6	10/20/23	ISSUED FOR PERMIT
7	10/20/23	ISSUED FOR PERMIT
8	10/20/23	ISSUED FOR PERMIT
9	10/20/23	ISSUED FOR PERMIT
10	10/20/23	ISSUED FOR PERMIT
11	10/20/23	ISSUED FOR PERMIT
12	10/20/23	ISSUED FOR PERMIT
13	10/20/23	ISSUED FOR PERMIT
14	10/20/23	ISSUED FOR PERMIT
15	10/20/23	ISSUED FOR PERMIT
16	10/20/23	ISSUED FOR PERMIT
17	10/20/23	ISSUED FOR PERMIT
18	10/20/23	ISSUED FOR PERMIT
19	10/20/23	ISSUED FOR PERMIT
20	10/20/23	ISSUED FOR PERMIT
21	10/20/23	ISSUED FOR PERMIT
22	10/20/23	ISSUED FOR PERMIT
23	10/20/23	ISSUED FOR PERMIT
24	10/20/23	ISSUED FOR PERMIT
25	10/20/23	ISSUED FOR PERMIT
26	10/20/23	ISSUED FOR PERMIT
27	10/20/23	ISSUED FOR PERMIT
28	10/20/23	ISSUED FOR PERMIT
29	10/20/23	ISSUED FOR PERMIT
30	10/20/23	ISSUED FOR PERMIT
31	10/20/23	ISSUED FOR PERMIT
32	10/20/23	ISSUED FOR PERMIT
33	10/20/23	ISSUED FOR PERMIT
34	10/20/23	ISSUED FOR PERMIT
35	10/20/23	ISSUED FOR PERMIT
36	10/20/23	ISSUED FOR PERMIT
37	10/20/23	ISSUED FOR PERMIT
38	10/20/23	ISSUED FOR PERMIT
39	10/20/23	ISSUED FOR PERMIT
40	10/20/23	ISSUED FOR PERMIT
41	10/20/23	ISSUED FOR PERMIT
42	10/20/23	ISSUED FOR PERMIT
43	10/20/23	ISSUED FOR PERMIT
44	10/20/23	ISSUED FOR PERMIT
45	10/20/23	ISSUED FOR PERMIT
46	10/20/23	ISSUED FOR PERMIT
47	10/20/23	ISSUED FOR PERMIT
48	10/20/23	ISSUED FOR PERMIT
49	10/20/23	ISSUED FOR PERMIT
50	10/20/23	ISSUED FOR PERMIT

NOT FOR CONSTRUCTION
NOT FOR PERMITS

CONTRACT NUMBER: 2023-21
DATE: 10/20/23
PROJECT: OCEANAK RESIDENCE REMODEL & ADDITION
SHEET: EXTERIOR ELEVATIONS

EXTERIOR ELEVATIONS



3 WEST ELEVATION
1/8" = 1'-0"

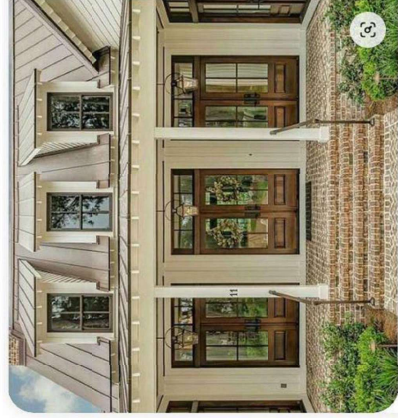
3 SOUTH ELEVATION
1/8" = 1'-0"

EXISTING



- 6" LAP SIDING
- 4" TRIM WITH SLOPING SILL
- EXISTING WINDOWS:
- REPAIR OPERATIONS
- WHITE PAINTED WOOD FRAME
- DOUBLE HUNG OPERATION

COLOR PALLETTE INSPIRATION IMAGE

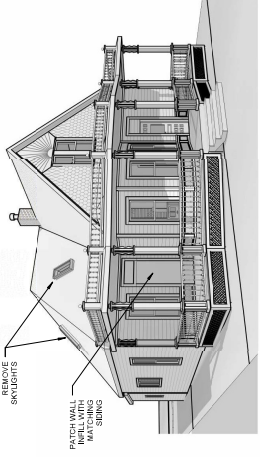


- SIDING: WHITE LAP SIDING AND WHITE TRIM
- EXISTING WINDOWS: PAINT WHITE
- NEW WINDOWS: DARK BRONZE METAL-CLAD WOOD WINDOWS
- ASPHALT SHINGLE ROOFING: LIGHT WARM GRAY/TAN

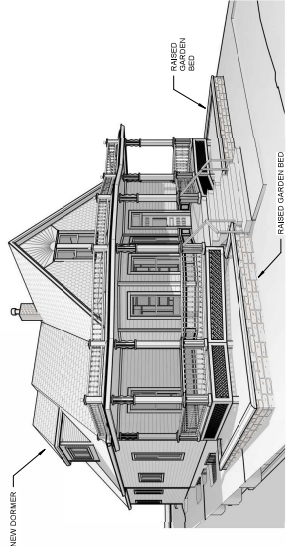
PROPOSED ON ADDITION



- 3" WOOD LAP SIDING - PAINT WHITE
- 3" PICTURE FRAME TRIM - SQUARE PROFILE, PAINT WHITE
- NEW WINDOWS:
- 2:3 PROPORTION
- EXISTING WOOD FRAME - DARK BRONZE
- OPERATION: CASERMENT

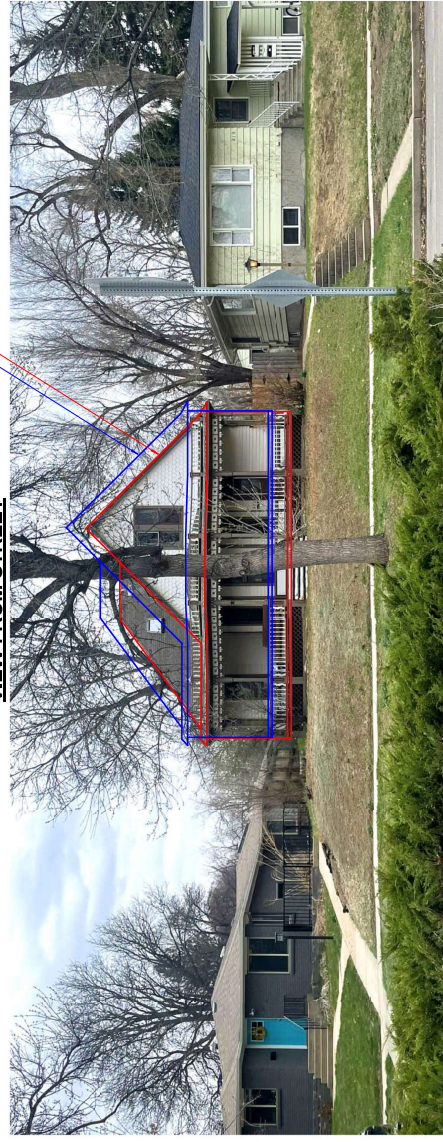


3 EXISTING NORTHEAST VIEW



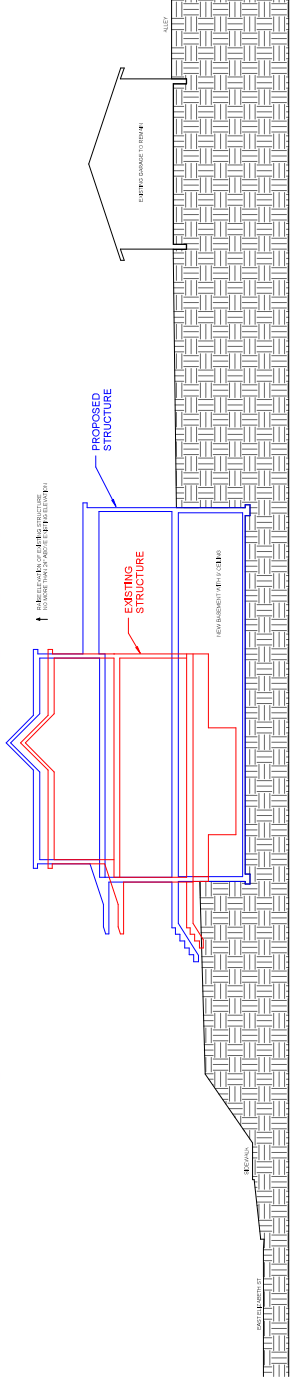
2 PROPOSED NORTHEAST VIEW

VIEW FROM STREET



↑ ROOF HEIGHT TO MATCH EXISTING
↑ RAMP SIDE PORCH TO MATCH EXISTING

↑ PROPOSED STRUCTURE ELEVATION
↑ EXISTING STRUCTURE ELEVATION
↑ RAISE STRUCTURE UP NO MORE THAN 24"



1 SITE SECTION
1/8" = 1'-0"

PROJECT NUMBER: 2023-21

OCEANAK RESIDENCE REMODEL & ADDITION

453 EAST ELMENETH
FORT COLLINS CO
98524



VAUGHT PRYE LARSON ARLINSON
ARCHITECTS + INTERIORS
Strength in design. Strength in partnership.
Strength in community.

4100 S. WATSON AVENUE, SUITE 300, FORT COLLINS, CO 80501

PR0202300302.VFLA

HPC DESIGN REVIEW SUBMITTAL	
PROJECT NUMBER	2023-21
PROJECT NAME	OCEANAK RESIDENCE REMODEL & ADDITION
PROJECT ADDRESS	453 EAST ELMENETH, FORT COLLINS CO 98524
PROJECT PHASE	CONCEPT
OWNER	VAUGHT PRYE LARSON ARLINSON ARCHITECTS + INTERIORS
DESIGNER	VAUGHT PRYE LARSON ARLINSON ARCHITECTS + INTERIORS
DATE	02/23/24
DATE	02/23/24
DATE	02/23/24
DATE	02/23/24
DATE	02/23/24
DATE	02/23/24
DATE	02/23/24
DATE	02/23/24
DATE	02/23/24
DATE	02/23/24
DATE	02/23/24
DATE	02/23/24
DATE	02/23/24
DATE	02/23/24
DATE	02/23/24
DATE	02/23/24



CONTRACT NO: 15050233 FOR 04/26/23
PROJECT NO: 2023-21
PROJECT NAME: OCEANAK RESIDENCE REMODEL & ADDITION
PROJECT ADDRESS: 453 EAST ELMENETH, FORT COLLINS CO 98524
DATE: 02/23/24
SCALE: AS SHOWN

FLOOR ELEVATION & EXTERIOR FINISHES

02/23/24

Responses to Work Session Questions

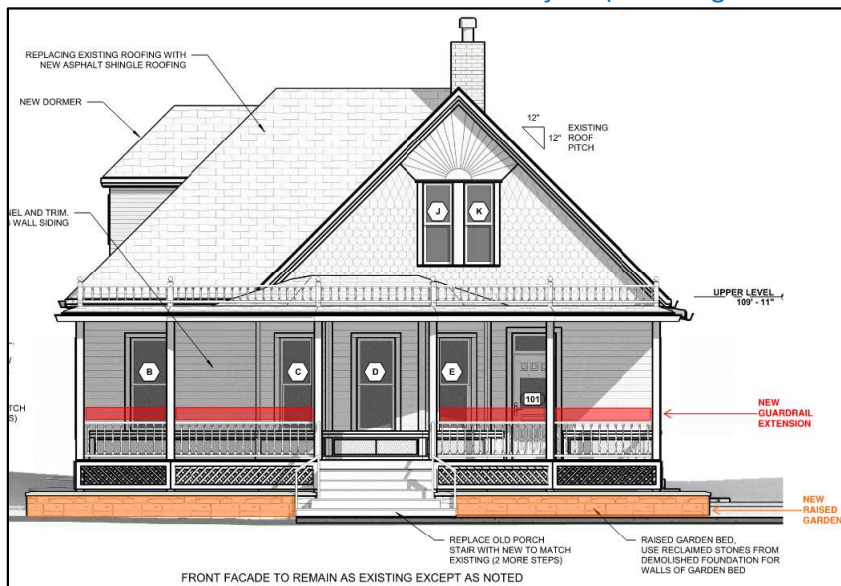
Address: 425 E. Elizabeth St. (George and Annie Spencer House)

Project: Conceptual Landmark Design Review for addition and other exterior alterations

During the November 8, 2023 HPC Work Session, commissioners posed questions or requested additional information to inform their discussion during the regular meeting. These questions are below, and responses from the applicant or staff are in blue (respondent parenthetically noted):

- 1) Would you please add a floor plan of the addition and basement? Just a very basic sketch would do.
 - a) (Applicant) Attached are floor plans of the main level and the basement level.
- 2) How do you know the storm windows are not original?
 - a) (Applicant) Attached is a letter from Jeremy Spiegel from Spiegel Restoration concerning his assessment of the window storms.
- 3) On packet Page 80, it shows the 1948 Tax Assessor photo of the house, and it appears that the house is quite high up; the commissioner noted this just to recognize that raising the house up may actually bring it back to its original position with respect to the land, but he also recognized the need to conform to modern building code and not impact the porch railing by raising the grade using the proposed garden beds. Would you please explain the choice for the garden bed in greater detail?
 - a) (Applicant) Adding guardrail extension on the front of the porch would be more disruptive to the original character of the front façade because it would add a new horizontal element in the middle of the elevation of the house, whereas a new raised garden bed would introduce a new horizontal element only at the base of the house.

Picture Below: diagram of visual impact of adding a new horizontal element in the middle of the front façade (a guardrail extension shown in RED) versus the visual impact of addition a new horizontal element at the base of the front façade (a raised garden shown in ORANGE)





Historic Preservation Services
Community Development & Neighborhood Services
281 North College Avenue
P.O. Box 580
Fort Collins, CO 80522.0580

970.224.6078
preservation@fcgov.com
fcgov.com/historicpreservation

Furthermore, a new guardrail extension would need to be non-congruent so as to not be confused with the design of the original porch guardrail. As such, the guardrail would intentionally appear to be an element foreign to the porch design and we'd rather choose the raised garden bed approach to avoid introducing a foreign design element. Below is a picture of an example of a new guardrail extension to an historic porch guardrail:



- 4) Concerning raising the level of the house and area compatibility, would you please provide some context related to neighboring houses or nearby contemporaries to this house?
 - a) (Staff) Attached are some images of the area surrounding 425 E. Elizabeth St., with captions noting the year built and number of stories of each building (Tax Assessor data). The last page of the attachment is the 1939 Sanborn Fire Insurance Map showing the 300 and 400 Blocks of East Elizabeth Street.
- 5) The applicant noted that the dormer is not the smallest it could be for egress, but what about the code requirements for light and air? Would you please provide some information about that in relation to the size of the proposed dormer?
 - a) (Applicant) Regarding the dormer size, there is a minimum amount of glazing and ventilation required for a habitable space: 8% glazing area of the total area of the room and 4% ventilation area of the total area of the room (IRC 303.1). The bedroom has 155 sq ft of floor area and therefore the minimum amount of glazing must be 12.4 sq ft. The glazing in the dormer we proposed in the drawings we submitted on October 20th is only 8.7 sq ft. We'd like to propose adding a third fixed window between the two casements windows for a total 13 sq ft of glazing. We'd widen the dormer structure an addition 16" to make room for the wider window. (Please see the attached PDF.) This is the smallest allowable dormer size to meet the minimum glazing requirement for a habitable space. The minimum amount of ventilation must be 6.2 sq ft and the proposed windows would have about 9 sq ft of ventilation, meeting the minimum code requirement.

PROJECT NUMBER: 2023-21

OCEANAK RESIDENCE REMODEL & ADDITION

42 EAST ELMBETH FORT COLLINS, CO 80524

VFLA
VAUGHT FRYE LARSON ARCHITECTS
405 W. 10TH ST. FORT COLLINS, CO 80521
STRENGTH IN DESIGN. STRENGTH IN PARTNERSHIP. STRENGTH IN COMMUNITY.

SCHEMATIC DESIGN 10-05-2023

DATE: 10/23/23

PROJECT: 2023-21

PROJECT NUMBER: 2023-21

PROJECT NAME: OCEANAK RESIDENCE REMODEL & ADDITION

PROJECT LOCATION: 42 EAST ELMBETH FORT COLLINS, CO 80524

PROJECT ARCHITECT: VAUGHT FRYE LARSON ARCHITECTS

PROJECT ENGINEER: VAUGHT FRYE LARSON ARCHITECTS

PROJECT CONTRACTOR: VAUGHT FRYE LARSON ARCHITECTS

PROJECT OWNER: VAUGHT FRYE LARSON ARCHITECTS

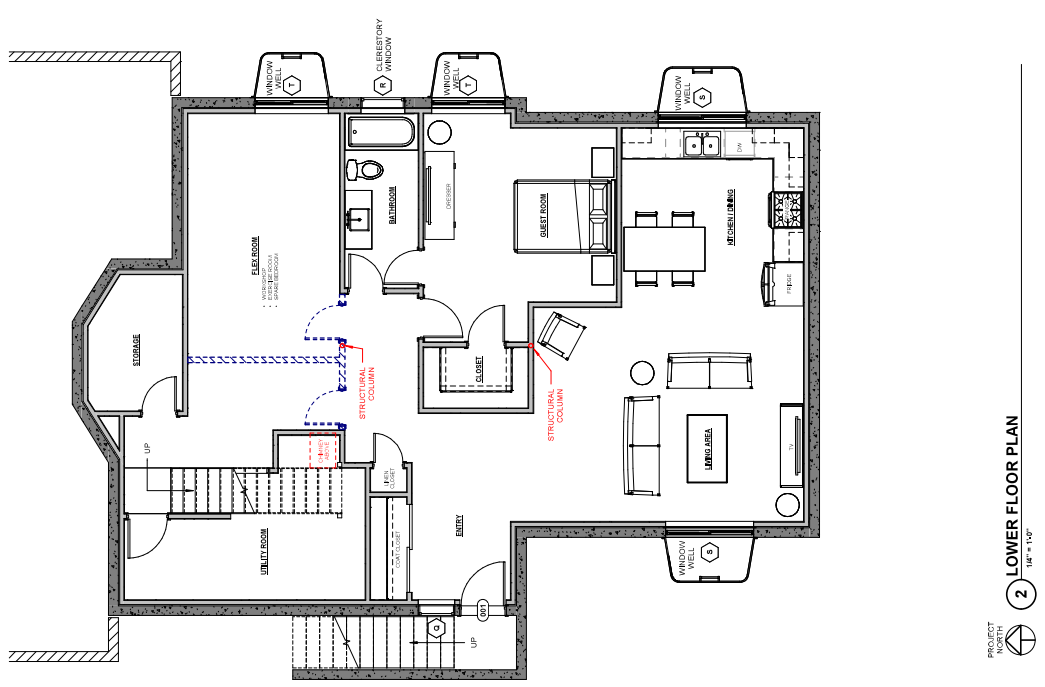
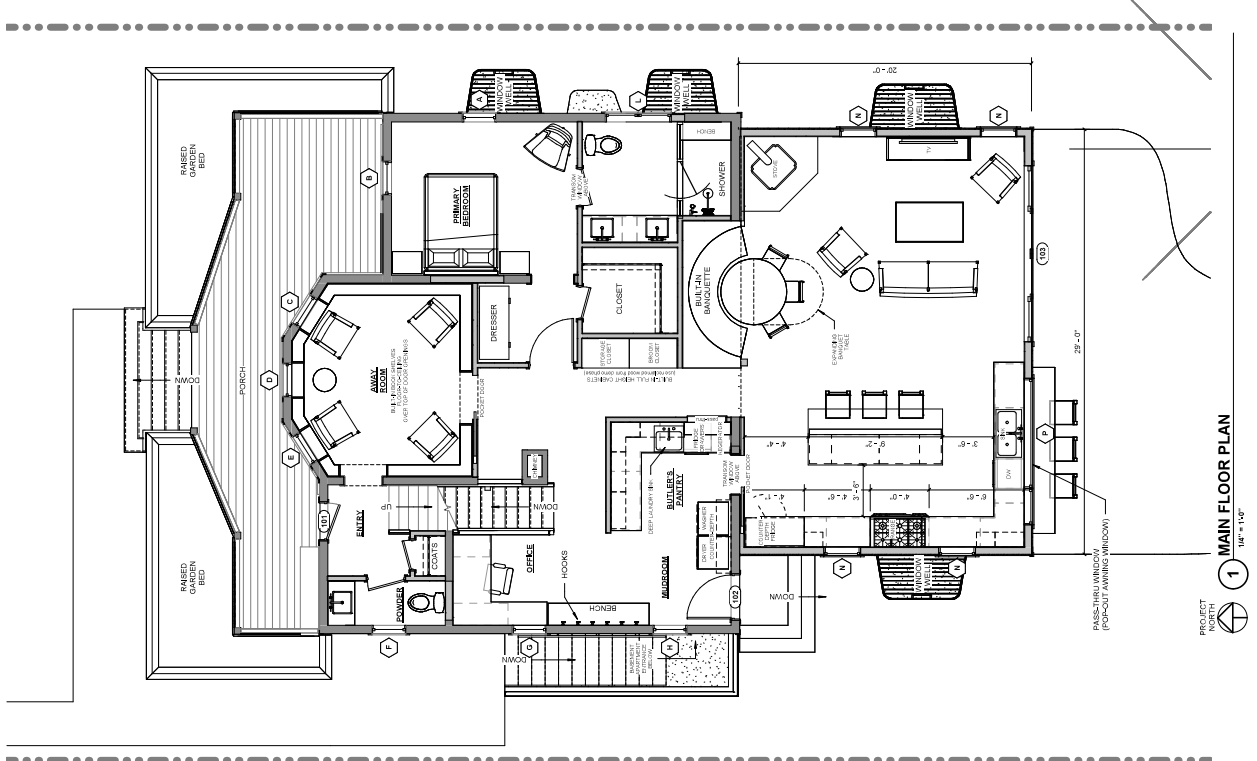
PROJECT DATE: 10-05-2023

PROJECT SCALE: 1/8" = 1'-0"

PROJECT SHEET: A1.1

PROJECT TITLE: MAIN FLOOR PLAN & LOWER FLOOR PLAN

PROJECT NUMBER: 2023-21



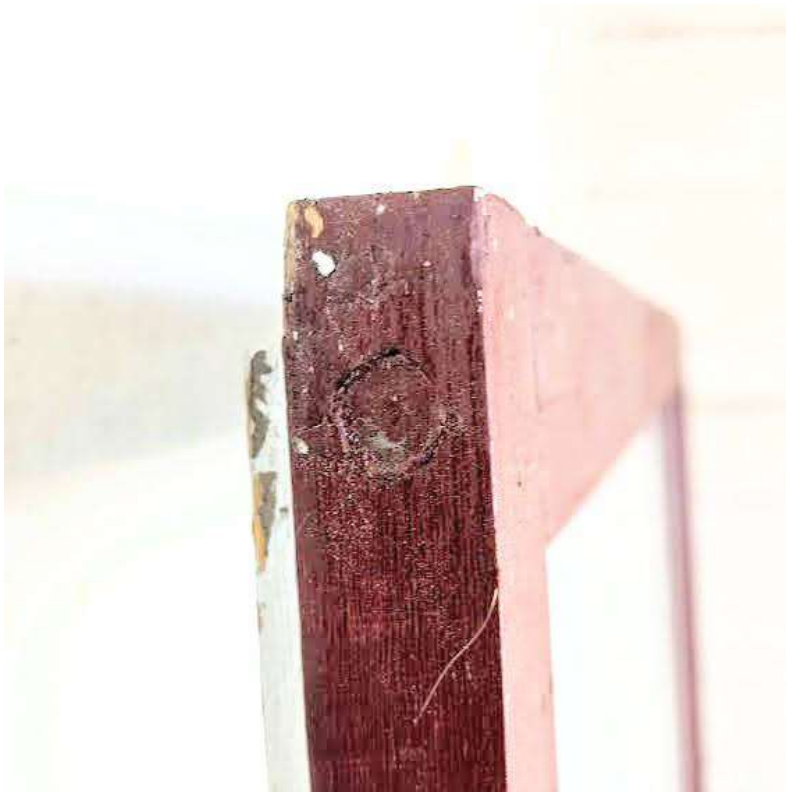
#2 - Storm windows

Jeremy Spiegel
Spiegel Restoration
SpiegelRestoration@gmail.com
404.323.4453

November 10, 2023

To Whom it May Concern:

Based upon my experience and consultation with other window restorationists, I can confidently say that the storm windows at 425 East Elizabeth Street are not original to the house. My primary source for this conclusion is the use of dowel joints for the joinery. Late 19th and early 20th century window makers rarely used this type of joint.



Additionally, if the storms had been sourced at the same time as the windows, they most likely would have been sourced from the same manufacturer. Since the window manufacturer utilized mortise and tenon joinery on the windows, it would make sense that they would utilize the same joinery technique on the storm windows. Therefore, these storm windows are likely not original to the house.

Along with the joinery, the use of mitered molding in place of glazing compound also indicates modern craftsmanship, and not what would be expected from a manufacturer during the late 19th and early 20th century.



While it is possible that all of the glazing could have been replaced at some point with molding, I would find that highly improbable.

If you have any questions about my assessment of these storm windows, please don't hesitate to contact me.

Sincerely,

Jeremy Spiegel
Spiegel Restoration

500 Block East Elizabeth Street (south side)

#4 - Area context



Address: 501 E. Elizabeth
St. Year Built: 1919
Stories: 2

400 Block East Elizabeth Street (northeast side)



Address: 416 E. Elizabeth St.
Year Built: 1923
Stories: 1

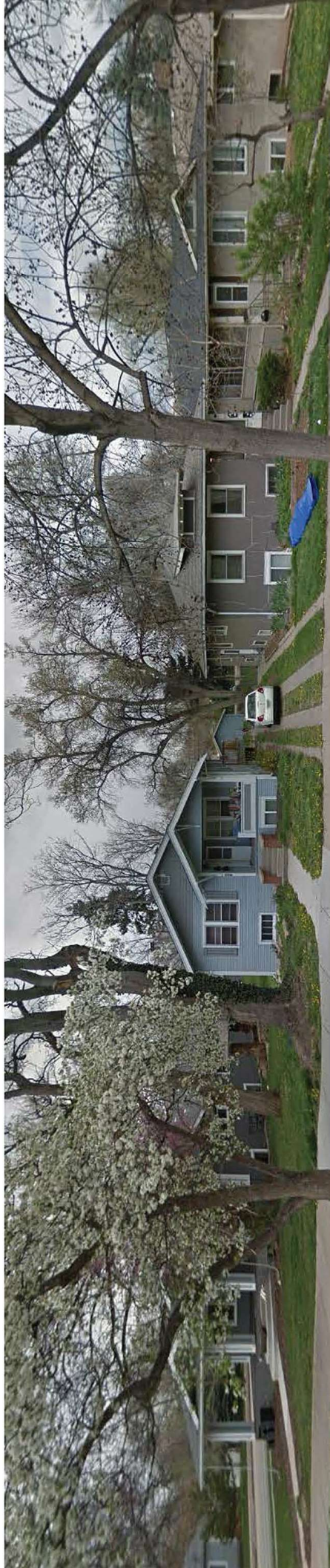
Address: 420 E. Elizabeth St.
Year Built: 1923
Stories: 1

Address: 424 E. Elizabeth St.
Year Built: 1923
Stories: 1

Address: 428 E. Elizabeth St.
Year Built: 1923
Stories: 1

Address: 430 E. Elizabeth St.
Year Built: 1923
Stories: 1

400 Block East Elizabeth Street (northwest side)



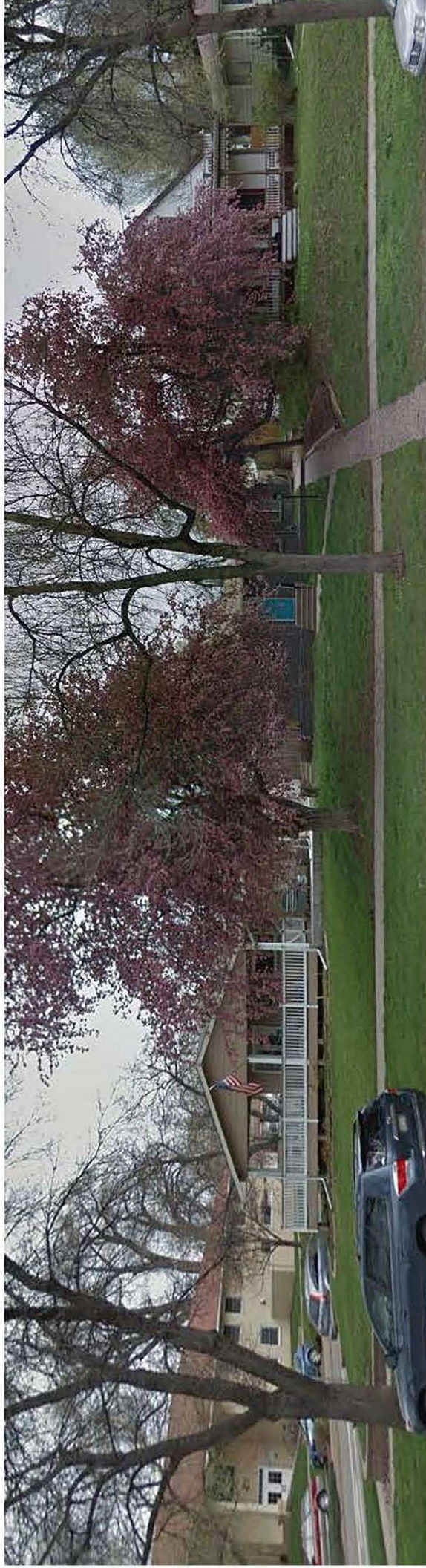
Address: 400 E. Elizabeth St.
Year Built: 1924
Stories: 1

Address: 408 E. Elizabeth St.
Year Built: 1928
Stories: 1

Address: 412 E. Elizabeth St.
Year Built: 1923
Stories: 1

Address: 414 E. Elizabeth St.
Year Built: 1923
Stories: 1

400 Block East Elizabeth Street (southeast side)



Address: 1001 Whedbee St.
Year Built: 1955
Stories: 1.5

Address: 427 E. Elizabeth St.
Year Built: 1960
Stories: 1

Address: 425 E. Elizabeth St.
Year Built: c. 1893
Stories: 1.5

400 Block East Elizabeth Street (southwest side)



Address: 425 E. Elizabeth St.
Year Built: c. 1893
Stories: 1.5

Address: 419 E. Elizabeth St.
Year Built: 1956
Stories: 1

Address: 415 E. Elizabeth St.
Year Built: 1900
Stories: 1

Address: 413 E. Elizabeth St.
Year Built: 1898
Stories: 1

Address: 411 E. Elizabeth St.
Year Built: 1936
Stories: 1

Address: 1002 Peterson St.
Year Built: 1895
Stories: 1

300 Block East Elizabeth Street (southeast side)



Address: 339 E. Elizabeth St.
Year Built: 1925
Stories: 1

Address: 335 E. Elizabeth St.
Year Built: 1928
Stories: 1

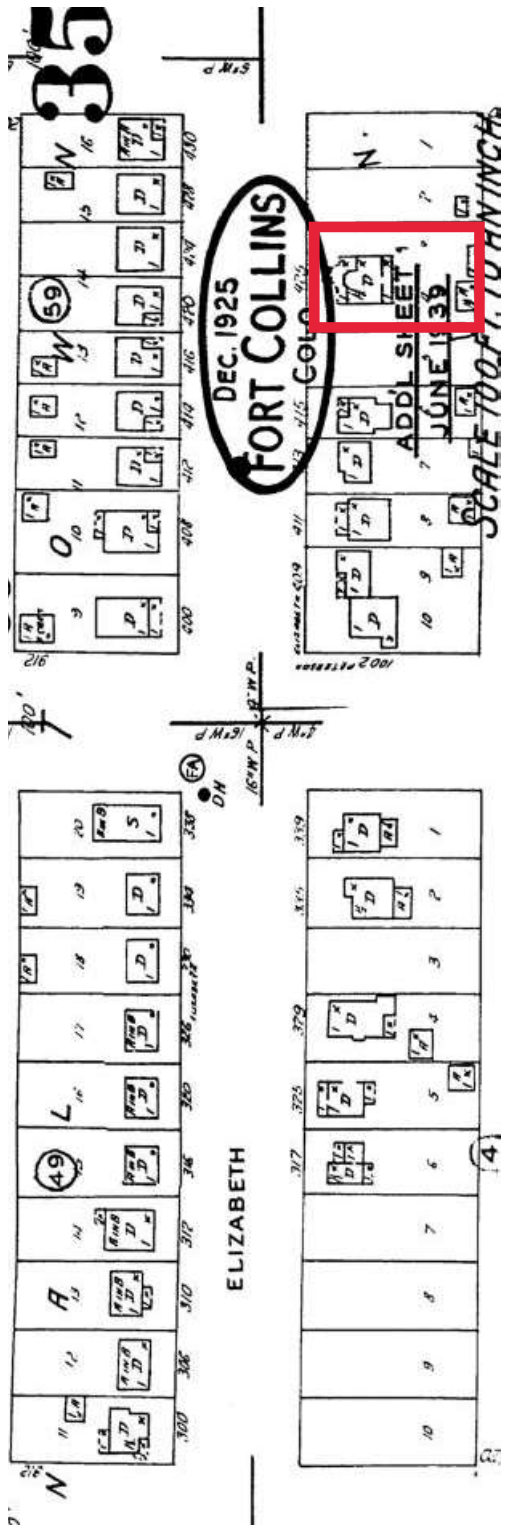
400 Block East Elizabeth Street (southwest side)



Address: 331 E. Elizabeth St.
Year Built: 1949
Stories: 1

Address: 329 E. Elizabeth St.
Year Built: 1900
Stories: 1

Address: 305 E. Elizabeth St.
Year Built: c. 1893
Stories: 2





Strength in design. Strength in partnership. Strength in community.

431 East Elmhurst Street, Fort Collins, CO 80524

PROJECT NO: 2023-21

HPC DESIGN REVIEW SUBMITTAL

PROJECT NAME:	OCEANAK RESIDENCE REMODEL & ADDITION
DATE:	10/23/2023
DESIGNER:	VAUGHT FRYE LARSON ARCHITECTURE
ARCHITECT:	
ENGINEER:	
PLUMBER:	
ELECTRICIAN:	
MECHANICAL:	
CONTRACTOR:	
CITY/STATE:	
PROJECT NO.:	2023-21
DATE:	
APPROVED BY:	
DATE:	
CHECKED BY:	
DATE:	

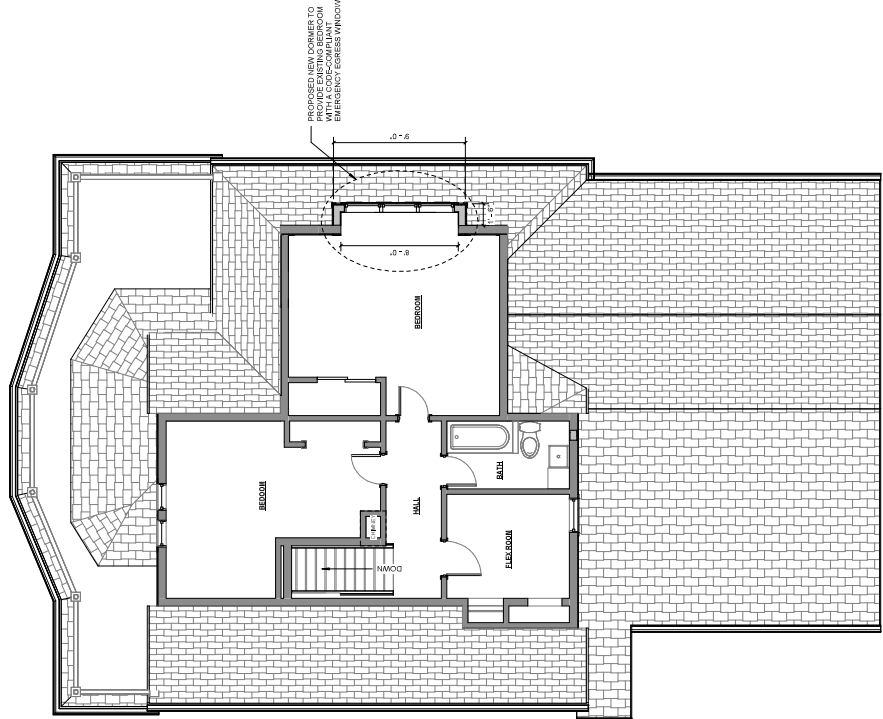


COPYRIGHT © 2023 BY VFLA ARCHITECTURE. ALL RIGHTS RESERVED. THIS DOCUMENT IS THE PROPERTY OF VFLA ARCHITECTURE AND IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT PERMISSION IN WRITING FROM VFLA ARCHITECTURE.

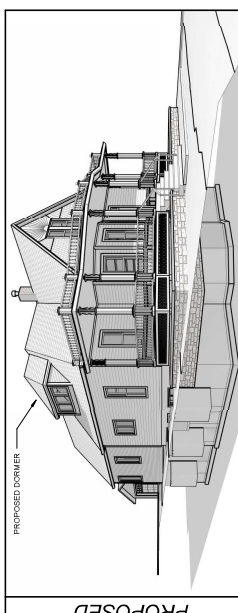
DORMER ADDITION

2023-21-00000

A5



1 UPPER FLOOR PLAN
1/8" = 1'-0"

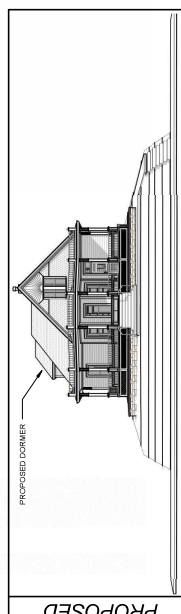


PROPOSED

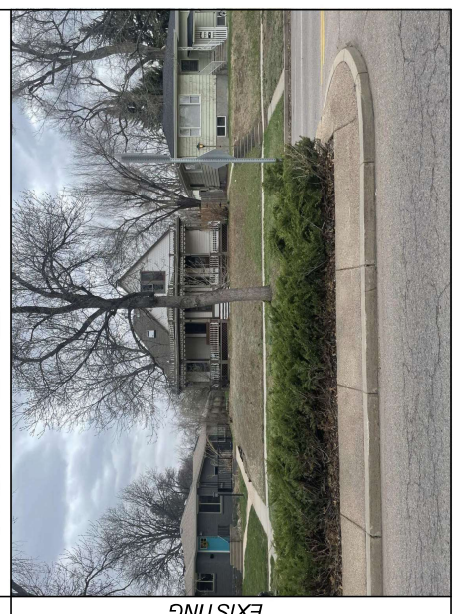


EXISTING

3 NORTHEAST VIEW



PROPOSED



EXISTING

2 NORTH VIEW













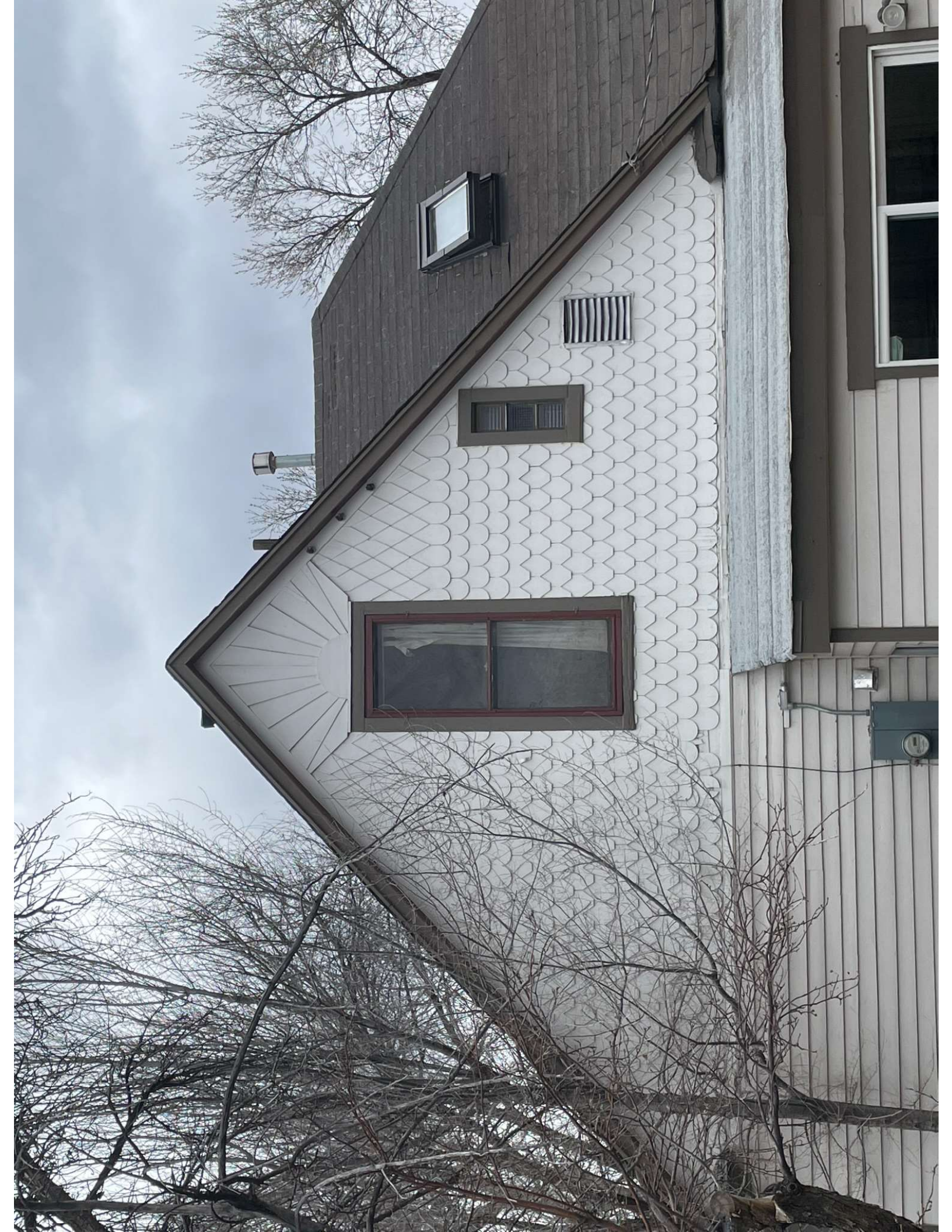














**TOP OF FOUNDATION
BELOW GRADE**

TOP OF FOUNDATION
BELOW GRADE





**TOP OF FOUNDATION
BELOW GRADE**







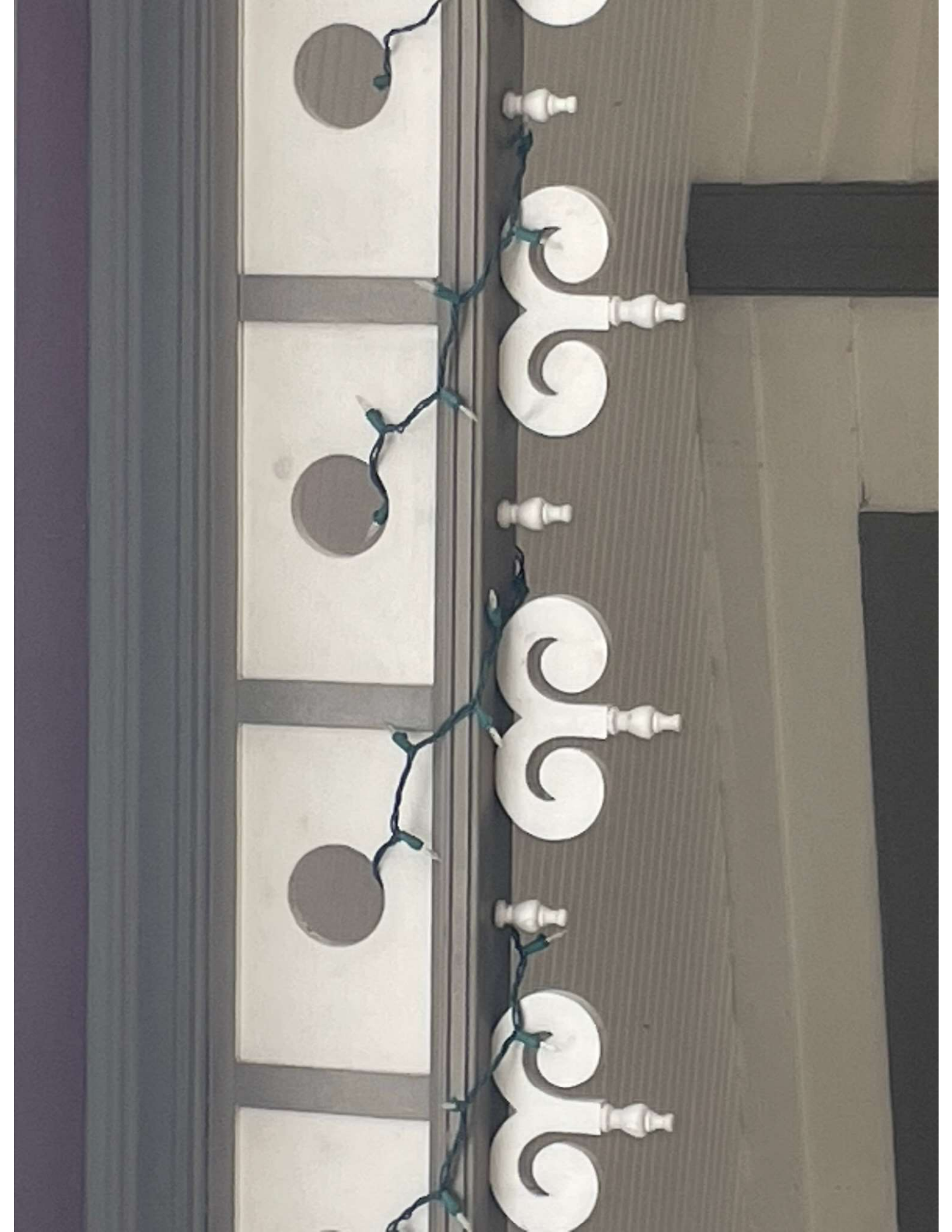






425

















425



NO
WRITING
ON MAIL



425



Ca Ca



25

Small white label with illegible text

STRUCTURAL OBSERVATION – HISTORIC REVIEW

425 East Elizabeth Street, Fort Collins



Date of Visit: April 21, 2023



May 18, 2023

Yani Jones
Community Development & Neighborhood Services
281 North College Avenue
Fort Collins, CO 80521

Project Name: 425 East Elizabeth Street, Fort Collins
Project Number: 23-04008

Dear Ms. Jones:

Per your request, Wayne Thompson of PEN Engineering visited the subject site on April 21, 2023. The purpose of the visit was to review the structural integrity of the existing foundation and house, then provide a professional opinion as to the existing and possible future foundation systems.

According to the Larimer County Assessor, the house was constructed in 1888.

Structural System

The roof is framed with wood boards bearing on steeply pitched 2x wood rafters. The second floor is constructed with wood boards bearing on sawn lumber joists. Those joists bear on exterior walls, plus wood and masonry interior walls. At the time of the visit, wall framing was not visible. However, this style of house typically utilized 2x4 studs at 16 inches on center. The main floor appears to be constructed with areas of either wide planks or narrow planks over 2x6 floor joists. Those joists bear on stacked stone foundations at the perimeter, and a variety of bearing systems at the interior of the crawl space. A small dugout basement in the center of the house is bounded by masonry walls that support some joists.

Structural Conditions

The crawl space was inaccessible at the time of the site visit. There are a few small holes in the upper walls of the dugout basement that allow limited visibility into the crawl space areas.

Notable variation in the main floor elevation was observed, with slight slopes in some areas and a more notable slope in the kitchen. In general, the center of the house is higher than the floor at the perimeter. Cracking in the second floor walls (Figure 1) is consistent with the apparent foundation movement.



Figure 1: Cracking in Walls - North Bedroom at Second Floor

Grading & Drainage

The perimeter of the house has minimal grade away from the house. There are gutters on the roof, but those were apparently installed in the last 10 years. Towards the rear of the house, the grade is flat and appears to be built up against the siding / framing.

On there are some large trees, with a few smaller trees growing against the foundation.

Further back on the lot, a detached garage sits on grade that is raised above the rear of the house.

Refer to Figures 2 through 4.



Figure 2: West Side of House



Figure 4: East Side of House



Figure 3: Rear of House



Assessment of Existing Foundation

The existing foundation has shifted over the years due to a variety of causes, including:

- The shallow depth of the perimeter foundation makes it more susceptible to soil volume changes due to:
 - Frost heave and settlement
 - Cyclical moisture changes (e.g. wet years vs drought)
 - Short terms moisture changes due to poor drainage and an historical lack of gutters, especially when transitioning from wet Springs to dry Autumns
- Trees drawing water out of soil within the root perimeter of the tree, while other areas stay moist.
- Uplift due to tree root expansion.
- Foundations built prior to the late 20th century did not account for the variety of soil characteristics in Colorado, allowing more settlement at heavily loaded walls (or heave at lighter walls).

In the future, improved grading, proper drainage practices, and tree removal can all minimize the effects of moisture cycles. However, the existing foundation can still be expected to heave seasonally due to frost and is also susceptible to soil volume changes due to drought.

If no other improvements are made, every effort should be made to revise the grading in order to get soil away from the siding and framing. Once that is done, it is anticipated that some framing repairs will need to be made. Refer to Figure 5 for a schematic of some anticipated repairs.

Feasibility of New Foundation at Rear of House Only

One future possibility for the house is to build an addition at the rear of the existing house. If building a crawl space level foundation for the addition, then there would be minimal impact to the existing stone foundation. The largest concern would be differential movement between the new foundation (designed for the soil conditions) and the existing foundation which is more susceptible to movement.

If a basement foundation is proposed adjacent to the existing crawl space, then precautions would need to be taken. Specifically, the new basement would have to be separated by several feet from the existing foundation, with a new crawl space level foundation “bridging” the gap between the new basement and the existing stone foundation. New basement depth walls should not be constructed immediately adjacent to the existing foundation.



Feasibility of New Foundation at Under Existing House

Based on the site observations, the existing house has sufficient structural integrity to be temporarily lifted in place. Then, a new basement foundation could be constructed below the house, and the house could later be lowered onto the new foundation. Refer to Figure 6 for a schematic wall section.

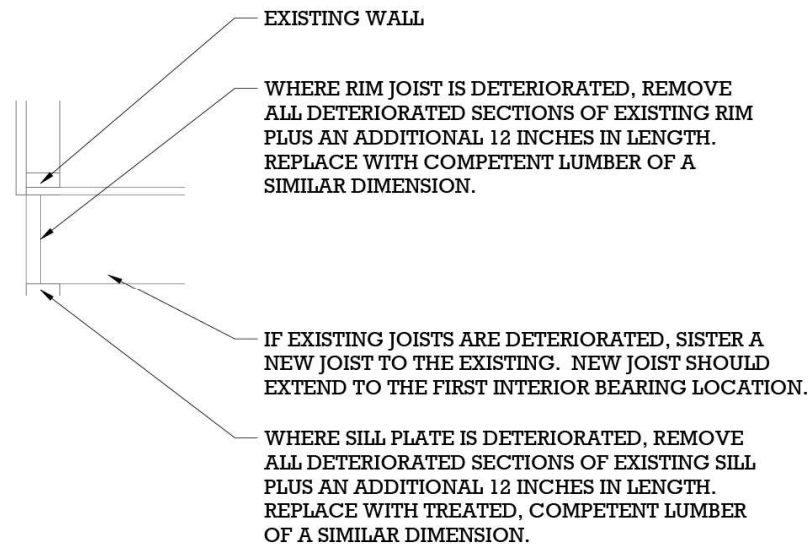
The structural benefits of that proposal include:

- Raising the wood framing sufficiently to provide proper grading around the house.
- Opportunity to re-level the floor of the house during lifting operations.
- Opportunity to access areas of framing that have been below grade near the rear of the house, allowing repair activities to take place.

Challenges of lifting the house include:

- Construction access to the site would likely need to be from East Elizabeth Street.
- The floor joists don't have much depth, so spans are short. More beams than normal would be necessary to support the house during lifting. To provide a functional basement, more beams will be required for the permanent condition as well.
- Interior masonry walls are sensitive to movement. Those walls may require additional beam support and will likely need to be re-pointed after lifting.

These challenges have cost implications, but are should otherwise be manageable. This new foundation under the house would also be compatible with any addition at the rear.



REPAIRS ANTICIPATED

Figure 5: Framing Repairs as Needed



Summary

The existing house foundation is performing the function of supporting the house, but with performance issues caused by shrink/swell cycles of the soil, as well as frost and root heave. In addition, the top of the existing foundation is relatively low and appears to allow some backfill against framing. Access to the underside of the existing main floor is severely limited. If no other changes are made, grading improvements are required and some framing repairs are anticipated.

If an addition is built at the rear of the existing house, differential movement between the new and the existing foundations should be expected. A new basement at the rear addition would present some challenges depending on its proximity to the existing foundation walls.

If a new basement is desired under the existing house, the existing structure could be temporarily lifted to allow construction of a new foundation below. Minor repairs may be required prior to lifting, with additional repairs and reinforcing anticipated during and after the lift. The long term benefits of constructing a new foundation include improved drainage, eliminating soil against siding and wood framing, and better performance (less movement) of the existing house. Better performance results in a more durable exterior envelope and better moisture protection of the wood framing and interior. That all translates into greater longevity for the exterior façade.

Limitations

This report is based upon site observations, PEN Engineering's experience with existing wood structures, and the limited scope of the project. Future use of the structure will need to consider the capacity of the existing members and whether interior structural reinforcing may be required. Please contact the undersigned if you have any questions.

With regards,

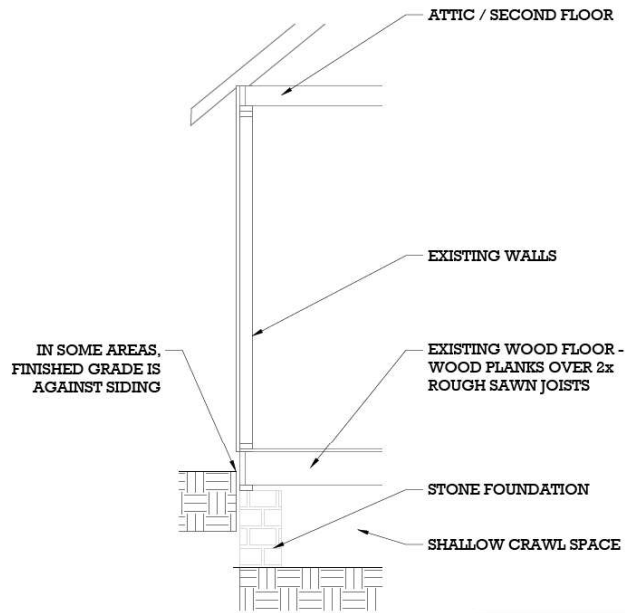
PEN Engineering, LLC



Wayne Thompson, PE

Principal, Structural Engineer

wthompson@pen-engineeringllc.com



EXISTING

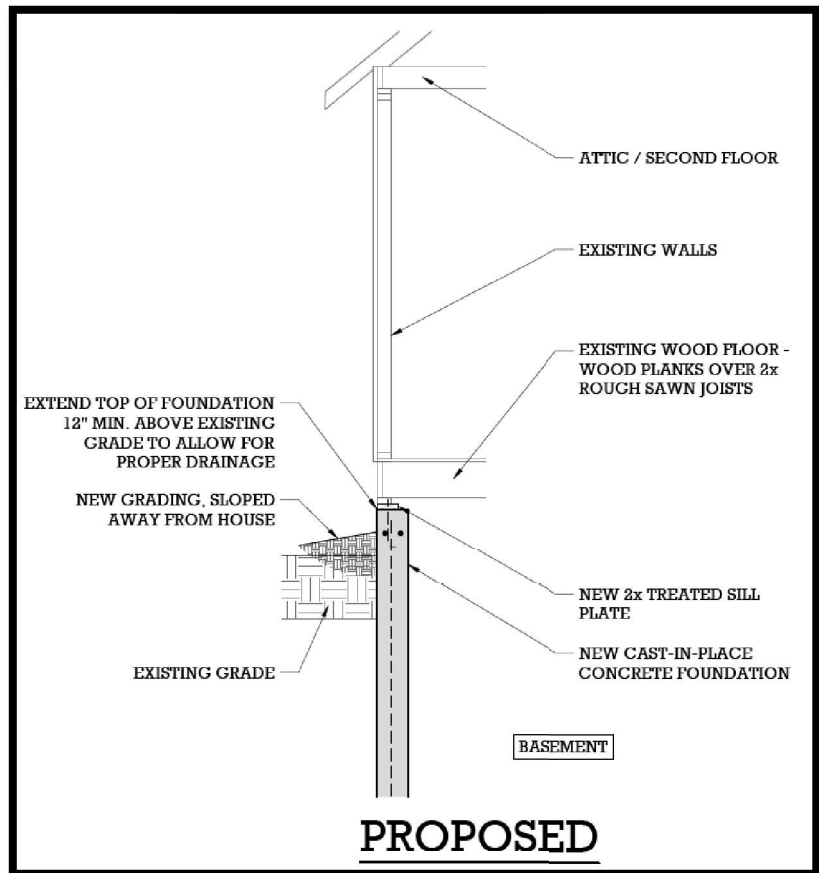


Figure 6: Schematics