THE CITY OF DULUTH MINNESOTA

MEETING AGENDA

Heritage Preservation Commission
Monday, November 13, 2023 – 12:00pm
City Council Chambers, Third Floor City Hall, 411 W. First Street

1. **Call to Order/Determination of Quorum**
2. **Public Hearings**

   COA for a chiller outside St Louis County building.
3. **Consideration of Minutes – June 12-2023**
4. **Presentation**

   Lake Superior & Mississippi Railroad NRHP and MHPR – Cliff Knettel, City of Duluth
5. **Communications**
6. **Report of Final Disposition on Matters Previously Before the Commission**

   Preservation Plan Review – Charles H. and Elizabeth Arthur House
7. **Reports of Officers, Staff and Committees**

   PC Liaison Update
8. **Consideration of Matters Regarding Commission Action**
9. **Other Business**
10. **Adjournment**

Heritage Preservation Commission
June 12, 2023 Meeting Minutes
Council Chambers – City Hall

Call to Order and Roll Call

President Jessica Glander called to order the meeting of the Heritage Preservation Commission (HPC) at 12:01 p.m. on Monday, June 12, 2023.

Attendance:
Attending: Ken Buehler, Gary Eckenberg, Jessica Glander, Brandon Hartung, Jess McCullough, and Kal Randa
Absent: N/A
Staff Present: Jenn Moses, and Tom Church

Consideration of Minutes

March 13, 2023 HPC Meeting
MOTION/Second: Buehler/Randa approved the minutes with minor change

VOTE: (6-0)

Presentation

Incline Steps Signage Project –Doug Stevens addressed the commission and gave an overview of the history of the incline, and his involvement. The city's parks commission approved adding the steps to their recreational hiking trail system. The Duluth Preservation Alliance agreed to sign on as the 501 3c organization. They are currently accepting donations. Stevens hopes to have the needed $4,000 for the signage by the end of the summer, so the signs can be built in the winter and hopefully installed next Spring. Stevens welcomed questions. Commissioner Gary Eckenberg asked about the signage project's round-up event. Stevens said the event was well attended and helped raise money. Stevens said project includes four interpretive signs, and the other signs would be wayfinding in nature. The signs will be created by Tony Dierckins. President Glander thanked Stevens for providing the HPC with the entire story. She asked him to consider sharing the signs with the HPC along with the Parks commission when they are ready for presentation in a joint meeting, so the project can move forward as soon as possible.

Communications

Section 106 APE Delineation – Blatnik Bridge – Church gave an overview. Three historic sites have been identified, and they will continue to track the project.

Section 106 Review – Verizon Antenna Replacement at Lakeside Early Learning – Per Church, the towers will be added to the newer portion of the building and will not exceed the chimney height.

FHWA Superior Hiking Trail Project – request for information on past SHT reviews. Church stated the location on the trail has not been determined yet. The FHWA will let the city know if the project will be within city limits.

Report of Final Disposition of Matters Previously Before the Commission –

N/A

Reports of Officers, Staff and Committees

Planning Commission overview – Gary Eckenberg gave an overview. There is land which was previously sold by the Women's Club going through a variance request, but nothing particularly historic in nature.

Consideration of Matters Regarding Commission Action

N/A

Other Business

N/A

Adjournment
Meeting adjourned at 12:29 p.m.

Respectfully,

_____

Adam Fulton – Deputy Director
Planning and Economic Development Division

Planning & Development Division
Planning & Economic Development Department

Room 160
411 West First Street
Duluth, Minnesota 55802

218-730-5580
planning@duluthmn.gov

MEMORANDUM

DATE: November 10, 2023

TO: Planning Commission

FROM: John Kelley, Planner II

SUBJECT: Application for Certificate of Appropriateness (PL 23-191) – Chillers and screening to be installed on the exterior of the St. Louis County Court House

Proposal:
The applicant is seeking an historic construction/demolition permit to install two mechanical chillers and screening to the southwest corner of the St. Louis County Court House within the Historic Resources Overlay – Duluth Civic Center Historic District.

Project Description:
Installing a mechanical screening to visually screen two (2) new chillers located on the southwest corner of the St. Louis County Court House. The screening consists of a metal louver wall installed within the existing concrete terrace and behind the existing guardrail. Section 50-26.1 of the Unified Development Chapter (UDC) requires screening of mechanical equipment. The project requires a public hearing by the Heritage Preservation Committee to review the screening design.

THE CITY OF DULUTH MINNESOTA

Planning & Development Division
Planning & Economic Development Department

Room 160
411 West First Street
Duluth, Minnesota 55802

218-730-5580
planning@duluthmn.gov

Check One Box

- ___ Accessory Home Share-**$101.50**
- ___ Appeal to Planning Com. - **$400**
- ___ Concurrent Use of Streets - **$784**
- ___ District Plan - **$1,125**
- ___ EAW or EIS- **$2,810,** plus any applicable professional fees
- _X_ Historic
  - _X_ Construction/Demolition - **$57**
  - ___ Resource Designation - **$100**
- ___ Interim Use Permit **$630**
- ___ Planning Review - **$1,051**
- ___ Sidewalk Use Permit
  - ___ New Permit- **$168**
  - ___ Renewal Permit - **$85**
- ___ Special Use Permit, General - **$1,580**
- ___ Special Use Permit, Wireless Telecommunications*
  - ___ Modifying or Co-locating – **$2,810**
  - ___ New Facility or Tower – **$5,623**
  - ___ Escrow Deposit - **$9,559**
- ___ Subdivision Plat Approval or Amendment:
  - ___ Concept Plan - **$281**
  - ___ Preliminary Plat - **$1,120**
  - ___ Final Plat- **$843**
  - ___ Minor Subdivision-**$420**
  - ___ Plat Amendment or Boundary Line Adjustment - **$281**
  - ___ Registered Land Survey-**$725**
- ___ Temporary Use Permit - **$275**
- ___ UDC Zoning Map Amendment/Rezoning
  - ___ General - **$897**
  - ___ MU-P or R-P **$2,500**
- ___ Vacation of Street or Utility Easement - **$890**
- ___ Variance - **$841**
- ___ Wetland,
  - ___ De Minimus, Delineation, or No Loss- **$223**
  - ___ Exemption-**$168**
  - ___ Replacement Plan - **$837**
- ___ Zoning Verification Letter-**$94**

APPLICATION COVER SHEET

CONTACT INFORMATION:

Applicant/Owner ST. LOUIS COUNTY PROPERTY MANAGEMENT

Phone 218.726.2406 Email 218.726.2406

Address 100 N 5TH AVE W RM 515

City DULUTH State MN Zip 55802

Owner's Agent (if applicable) ARCHITECTURE ADVANTAGE

Phone 218.724.5568 Email shane@architectureadvantage.com

Address 2715 PIEDMONT AVE

City DULUTH State MN Zip 55811

APPLICATION INFORMATION:

Street Address and Zoning of Property 100 N 5TH AVE W
FORM DISTRICT 5 (F-5) MID-RISE COMMUNITY SHOPPING AND OFFICE

Parcel ID Number 010-1230-02380

Reason for this Request (*Attach Additional Pages or Cover Letter if Necessary*)

(2) CHILLERS ARE BEING INSTALLED AND ARE REQUIRED TO HAVE SCREENING FROM THE PUBLIC RIGHT OF WAY PER UDC 50-26.1 SCREENING OF MECHANICAL EQUIPMENT. THE BUILDING IS ON THE NATIONAL REGISTER OF HISTORIC PLACES SO A HERITAGE PRESERVATION COMMITTEE (HPC) REVIEW AND PUBLIC HEARING IS REQUIRED TO REVIEW THE SCREENING DESIGN.

The undersigned hereby represents upon all of the penalties of law for the purpose of inducing the City of Duluth to take the action herein requested, that all statements herein and attached are true and that all work herein mentioned will be done in accordance with the Ordinances of the City of Duluth and the laws of the State of Minnesota. Undersigned also understands that all documents provided to the City may be considered public data, per Minnesota Government Data Practices Act.

Signature of Applicant — Date: 10/27/23

Reminder: include application checklist and all supporting information, including pre-application verification (if applicable). Submit completed information to Room 100, Construction Services and Inspections.

*Special Use Permit Checklist required to be submitted with this application coversheet.

RECEIPT

100 N 5TH AVE W
DULUTH, MN 55806

HIST. CON./DEM.

Project No: PL23-191
Receipt No: PJR03593

Fee Description	Account	Fee Amount
HISTORIC CONSTRUCTION/DEMOLITION PERMIT	110-132-1301-4307	$ 63.00

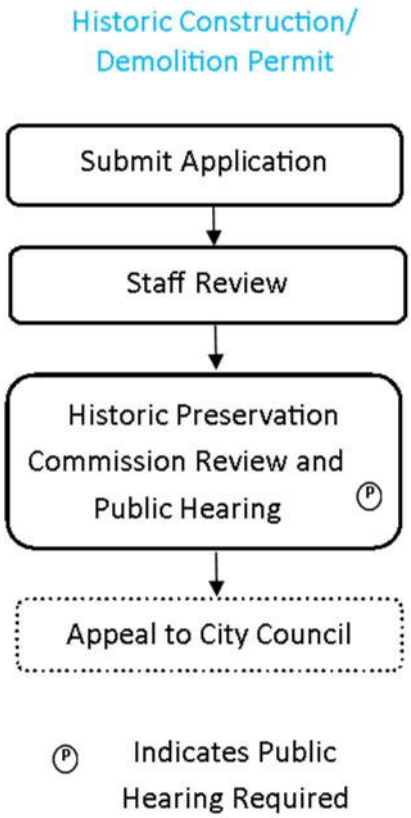
Total Fees Paid: **$ 63.00**
Date Paid: 10/30/2023
Paid By: ARCHITECTURE ADVANTAGE LLC
Pay Method: CHECK 4315
Received By: Donavan Fremling 2

Cardholder Signature Date

Customer

3.15 Checklist

Historic Construction/Demolition Permit



A historic construction/demolition permit applies for construction or demolition within a historic district or on a historic property listed in UDC Section 50-18.3. See UDC Section 50-37.14 for more information.

Starting the Application Process

- ☐ Submit your application materials by the application deadline, four weeks prior to an HPC meeting. HPC meetings are held on the second Tuesday of each month. There are numerous in-person and electronic application methods available; visit https://duluthmn.gov/planning-development/land-use-zoning-and-applications/applications-checklists/ for current information. Your application must include the following:
  - ☐ Application Cover Sheet, available at https://duluthmn.gov/planning-development/land-use-zoning-and-applications/applications-checklists/, and applicable fee
  - ☐ Application for Certificate of Appropriateness

After Your Application

1. Determination of Completeness. Within 15 business days of your application, you should expect to:

- Receive an "Applicant Letter," which acknowledges a complete application, shares the date of the Planning Commission meeting and the assigned staff person, and notifies you of State-mandated deadlines for the City to make a decision, **OR**
- Receive notification that your application is incomplete, with details on further information to submit.

2. Public Notice.

- ☐ **You are required to post a sign notice** on the property at least two weeks before the date of the public hearing. See UDC Section 50-37.1.H for information on size, placement, and content of each sign; you may want to contact a sign company or printing company to have the sign made. You must provide evidence that the signs were in place; ***submit photo(s) of the signs to the Planning Division at least two weeks before the date of the public hearing.***

3. Historic Preservation Commission Decision. The Historic Preservation Commission will review the application, conduct a public hearing, and make a decision to adopt, adopt with modifications, or deny the application. **We ask that applicants or an agent attend this meeting.** If approved, you will receive a Certificate of Appropriateness (COA).

Important Dates

Application Deadline: _____

Sign Notice Placed: _____

HPC: _____

Effective: _____

**Please note that these dates are approximate guidelines and may change*

Note that other City codes may apply to your project. Please be aware of any applicable Building Code (Construction Services Division), Fire Code (Life Safety Division), and stormwater/engineering (Engineering Division) regulations. The zoning approval may be only the first step in a several step process.

Application for
CERTIFICATE OF APPROPRIATENESS
for Duluth Heritage Preservation Landmarks and Districts

Please complete this application as it pertains to your project. Attach all information required, including a scope of work form.

Location of Building: 100 N 5th Ave. W (Street Address) Duluth, MN (City, State) 55802 (Zip Code)
St. Louis County Courthouse (Historic Name) Daniel Burnham (Architect Name(s) - if known)
Owner: Jerry Hall (Name) 100 N 5th Ave, W Duluth, MN 55802 Room 515 (Street Address, City, State, Zip Code) 218-725-5085 (Daytime Phone)
Applicant: Shane Nies (Applicant's Name, if other than owner) 2715 Piedmont Ave Duluth, MN 55811 (Street Address, City, State, Zip Code) 218-724-5568 (Daytime Phone)
Owner's Signature: _____ **Date:** 10/23/23

TYPE OF WORK PROPOSED
☒ Exterior Restoration ☐ Addition to Building ☐ Landscaping ☐ Signs ☐ New Construction
☐ Interior Restoration (COA may not be required - please check building's preservation plan)

☒ **EXTERIOR ALTERATIONS (CHECK ALL THAT APPLY)**

- ☐ **Windows**
- ☐ **Doors**
- ☐ **Siding**
- ☐ **Roof change**
- ☐ **Chimney**
- ☐ **Lighting**
- ☐ **Facade**
- ☒ **Other**

Checklist of items needed for application:
- ☐ Scale drawings of all building elevations impacted by change
- ☐ Photos of current condition of all building elevations impacted by
- ☐ Detailed specifications and scope of work
- ☐ Materials to be used (color number, sample of material & that which is being matched, name of manufacturer & material)
- ☐ Detailed drawings of new windows, doors, or other features in scope of work

Description of proposed changes:
Installing a mechanical screen to visually screen (2) new chillers.

Reason for changes: (2) chillers are being installed and are required to have screening from the public right of way per UDC 50-26.1 Screening of Mechanical Equipmcnt. The building is on the National Register of Historic Places so a Heritage Preservation Committee (HPC) review and public hearing is required to review the screening design.

Location of changes on building: Southwest corner of the Courthouse Building - See images and plans attached.

☐ **ADDITION TO BUILDING**
Description of addition:

Reason for changes:
Location of addition on site:
Reason for addition:
Size: (Number of Stories) (Length) (Width) (Height)
Architect: (Name) (Street Address, City, State, Zip Code) ( ) - (Phone)
Contractor: (Name) (Street Address, City, State, Zip Code) ( )- (Phone)

Checklist of items needed for application:

☐ Scale drawings of all building elevations impacted by change
☐ Photos of current condition of all building elevations impacted by change
☐ Detailed specifications and architectural drawings of existing structure
☐ Detailed specifications and architectural drawings of new construction (Including but not limited to materials to be used on exterior and architectural elements - color numbers, samples of materials & samples of existing materials being matched, name of manufacturers & materials)
☐ Site plan showing existing and new construction

☐ **LANDSCAPING:**

Description of proposed landscape changes: _____
_____
Reason for changes:_____
Location of changes on site: _____

Checklist of items needed for application:

☐ Detailed architectural landscape design plans to scale with building elevations shown
☐ Detailed site plans to scale
☐ Material samples and existing materials samples
☐ Photos of existing landscape and structures to be impacted.
☐ Detailed scope of work and specifications.
☐ Photos of statues, structures, etc. to be incorporated, if appropriate

☐ **SIGNS**

Purpose: _____
Location: _____
Size: _____
Material:_____
Description: _____

Checklist of items for application:

☐ Architectural drawings of all building elevations related to new sign - must illustrate the location of both proposed and existing signs and method of lighting (if any).
☐ Architectural drawings of all proposed signs illustrating style(s), noting dimensions, materials, method of attachment to building or below ground structure, if free-standing, etc.
☐ Samples of all materials to be used (specific colors).
☐ Associated lighting, specifications, photos and/or catalog cuts
☐ A full description of the work to be performed.
☐ If prefabricated sign, photos and name of manufacturer, model number, etc.

☐ **INTERIOR RESTORATION**

Description of proposed interior changes:
_____
_____
_____
Reason for interior changes: _____
_____

Location of changes within building: _____

_____

_____

Checklist of items for application:

☐ Scale drawings of all building elevations impacted by change

☐ Photos of current condition of all building to be impacted by changes

☐ Detailed specifications and architectural drawings of modifications to be made (Including but not limited to: materials to be used on exterior and architectural elements - color numbers, samples of materials & samples of existing materials being matched, name of manufacturers & materials)

☐ Detailed floor plan showing existing and new construction

☐ **NEW CONSTRUCTION ON SITE**

Description of Addition:_____

_____

_____

_____

Reason for Addition: _____

Location of Addition on site: _____

Size: _____

(Number of Stories) (Length) (Width) (Height)

Architect:_____(___) -_____

(Name) (Street Address, City, State, Zip Code) (Phone)

Contractor:_____(___)-_____

(Name) (Street Address, City, State, Zip Code) (Phone)

Checklist of items needed for application:

☐ Scale drawings of all building elevations impacted by change

☐ Photos of current condition of all building elevations impacted by change

☐ Detailed specifications and architectural drawings of existing structure

☐ Detailed specifications and architectural drawings of new construction (Including but not limited to: materials to be used on exterior and architectural elements - color numbers, samples of materials & samples of existing materials being matched, name of manufacturers & materials)

☐ Site Plan showing existing and new construction

Reductions to 11" by 17" are required of all oversized blueprints, plans, and drawings.

No applications will be processed without a complete application, signed by the owner, and all required attachments.

Duluth Heritage Preservation Commission
Duluth Community Planning Division
Room 208 City Hall
Duluth, MN 55802
Phone: 730-5580

SCOPE OF WORK FORM

Instructions for Completing the Scope of Work Form for Local Historic Landmark Designations

Detailed Description of Work. In the numbered blocks, provide a description of project work. Describe the site work. A separate block should be used to describe each work item and its effect on architectural features or spaces.

In the left block, identify the architectural feature to be impacted, and indicate whether the feature described is original to the building, was added at a later date, or is new construction. Give the approximate date of the feature. In the appropriate space, describe its physical condition. Indicate the photograph or drawing numbers that show the feature described.

In the right block, explain in detail the work to be undertaken. Describe the effect (visual, structural, or other) on existing features. List drawings, marked photographs, or specification page numbers that show the work and impact on the existing building.

Photographs. The applicant must submit a sifficient number of good, clear photographs to document both interior and exterior conditions, including site and environment, prior to any work to be performed, and to show the areas of proposed or completed work.

Elevations and interior features and spaces of the buildings should be shown. All photographs should be numbered, dated and labeled with the property name, the view (e.g., east side) and a brief description of what is shown; photographs should be keyed to the application narrative, where appropriate. In many cases, it may be helpful to mark directly on the photographs the areas of proposed or complete work. Photographs may be black-and-white or color, but must show architectural features *clearly.* Photographs are not returnable.

Drawings or sketches. Drawings or sketches are required for proposed work to show planned alterations or new construction. They must be sufficiently detailed to show existing wall configurations and anticipated changes. If warranted by the work to be performed, documentation should include floor plans, sections and elevations. All drawings and sketches submitted with the review form should be numbered and should be keyed to the form.

Project amendments. If changes are made to a project at any time after submission of the initial review form, submit a continuation/amendment sheet. Provide the name and address of the property, indicate changes in project work, giving the originally proposed treatment and the amended work item description. Give the owner's name. Sign and date the form. Give the owner's address and daytime telephone number. Return to City Planning Department. (See sample format.below)

Scope of Work (Please provide scope of work from architect for all features to be addressed - include all items that follow.) Work Item number: _____ Approx. Date of Feature: _____ Architectural Feature: _____ _____ Describe the existing feature and its condition: Accompanying photo number:	Describe the work to be done on existing feature: Paint Color Name & Number and Manufacturer: Other materials: Type, Color and Manufacturer (Use additional page if necessary)

SCOPE OF WORK

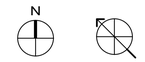
No. 1 **Architectural feature:** facade brick **Approximate date of feature:** ca. 1880 **Description of feature and its condition:** Hard pressed red brick with butter joints in good condition. Mortar mostly sound, but deteriorated and missing around downspout at east end of facade. Some graffiti at first floor. Photo No. 3.6 Drawing No. _____	**Description of work to be performed on existing feature:** Repair and replace existing mortar with new to match existing (see specs.). Remove graffitti with chemical cleaners (see specs.).
No. 2 **Architectural feature:** **Approximate date of feature:** **Description of feature and its condition:** Photo No._____ Drawing No. ____	**Description of work to be performed on existing feature:**

ST. LOUIS COUNTY COURTHOUSE CHILLER

100 N 5TH AVE W, DULUTH, MN 55802

LOCATION MAP

PROJECT LOCATION



TRUE NORTH PLAN NORTH

PROJECT TEAM

OWNER:
ST. LOUIS COUNTY
(218) 725-5085
HallJ3@StLouisCountyMN.gov
DULUTH COURTHOUSE, ROOM 515 100 N 5TH AVE W DULUTH, MN 55802

ARCHITECT:
ARCHITECTURE ADVANTAGE, LLC
(218) 724-5568
shane@architectureadvantage.com
2715 PIEDMONT AVENUE, DULUTH MN 55811

MECHANICAL ENGINEER:
WINDSOR ENGINEERS
(218) 206-8484
JHomola@WindsorEngineers.com
4802 ONEOTA STREET, SUITE 2 DULUTH, MN 55807

SHEET INDEX

ARCHITECTURE ADVANTAGE
Certified MN-Woman Owned Business
2715 Piedmont Avenue - Duluth, MN 55811
375 Jackson Street Suite 420E - Saint Paul, MN 55101
Phone: 218.724.5568 | 651.224.4831 - Email: info@architectureadvantage.com

SHEET TITLE: COVER SHEET

This sheet may be a reduced size copy. The bar above is 2" long at 1:1

SLC COURTHOUSE CHILLER
100 N 5th AVE W, DULUTH, MN 55802

DRAWN BY: RLP
CHECKED BY: STN
PROJECT NO: 2324

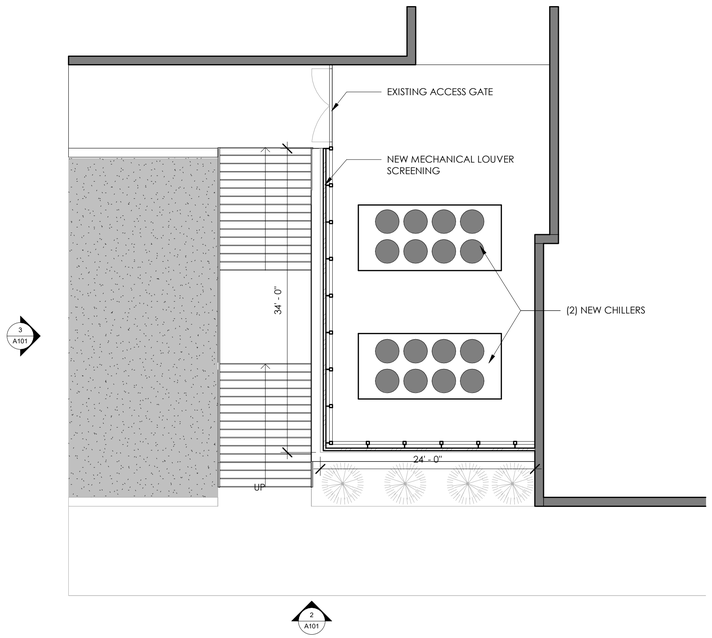
PRELIMINARY
NOT FOR CONSTRUCTION

RELEASE DATE
10/23/2023

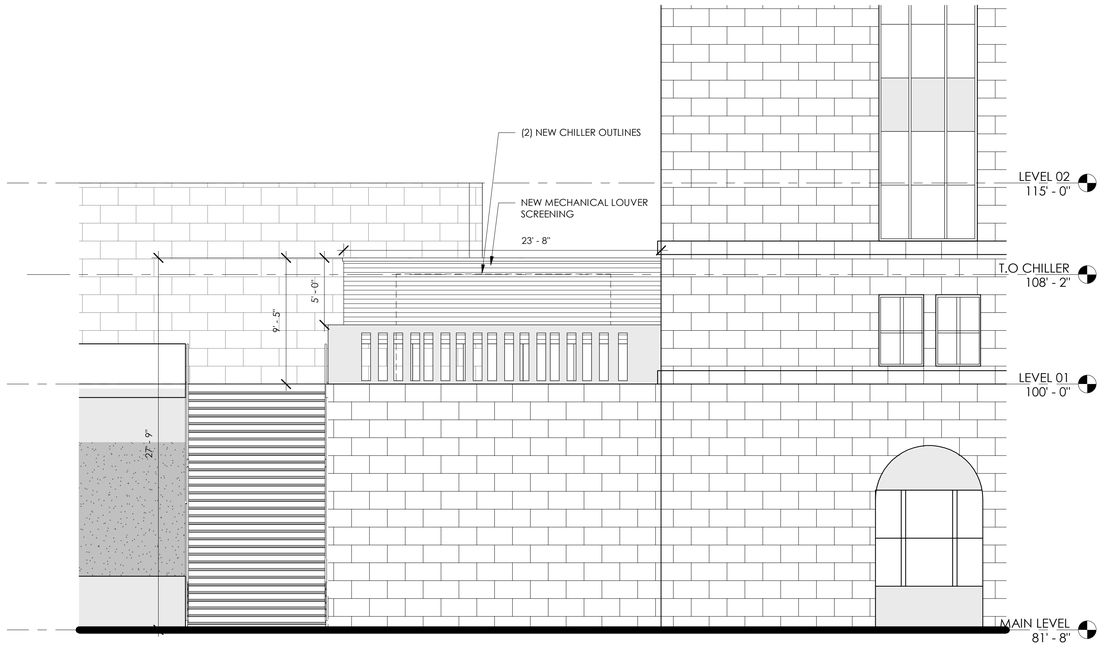
ISSUED FOR:

NO.	DATE	DESCRIPTION

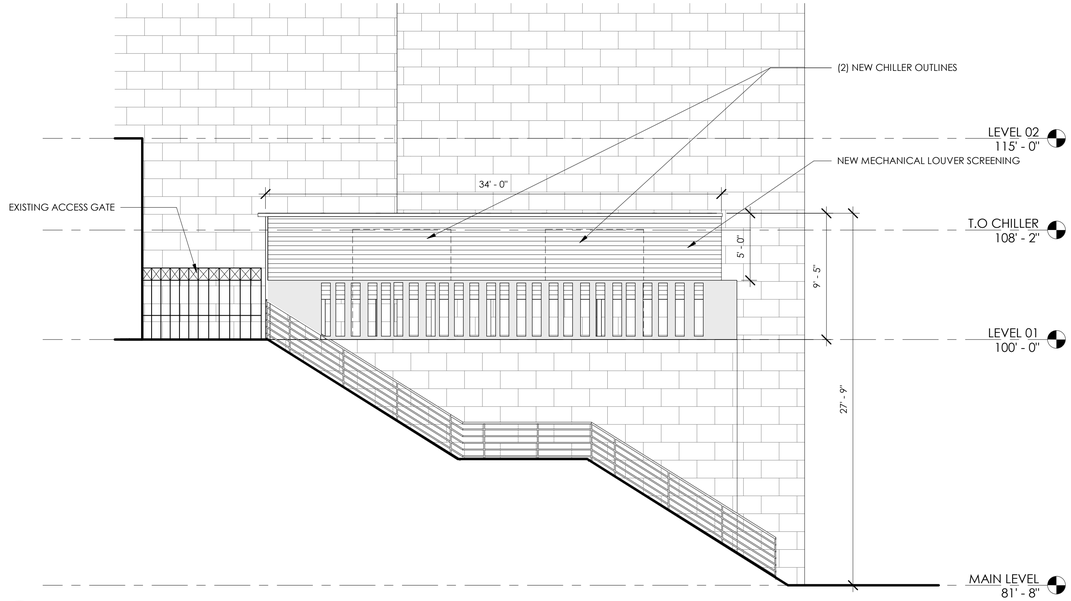
SHEET NO.
G001



1 A101 LEVEL 01 FLOOR PLAN
1/8" = 1'-0"



2 A101 SOUTH ELEVATION
3/16" = 1'-0"



3 A101 WEST ELEVATION
3/16" = 1'-0"

ARCHITECTURE ADVANTAGE
Certified MN-Woman Owned Business
2715 Piedmont Avenue · Duluth, MN 55811
375 Jackson Street Suite 420E · Saint Paul, MN 55101
Phone: 218.724.5568 | 651.224.4831 · Email: info@architectureadvantage.com

SHEET TITLE:
ARCH PLANS & ELEVATIONS

2"
1"
0
This sheet may be a reduced size copy. The bar above is 2" long at 1:1

SLC COURTHOUSE CHILLER

100 N 5th AVE W, DULUTH, MN 55802

DRAWN BY: RLP
CHECKED BY: STN
PROJECT NO: 2324

PRELIMINARY
NOT FOR CONSTRUCTION

RELEASE DATE
10/23/2023

ISSUED FOR:

NO.	DATE	DESCRIPTION

SHEET NO.
A101

Scope of Work Form

Property Name: St. Louis County Courthouse **Date:** 10.23.2023

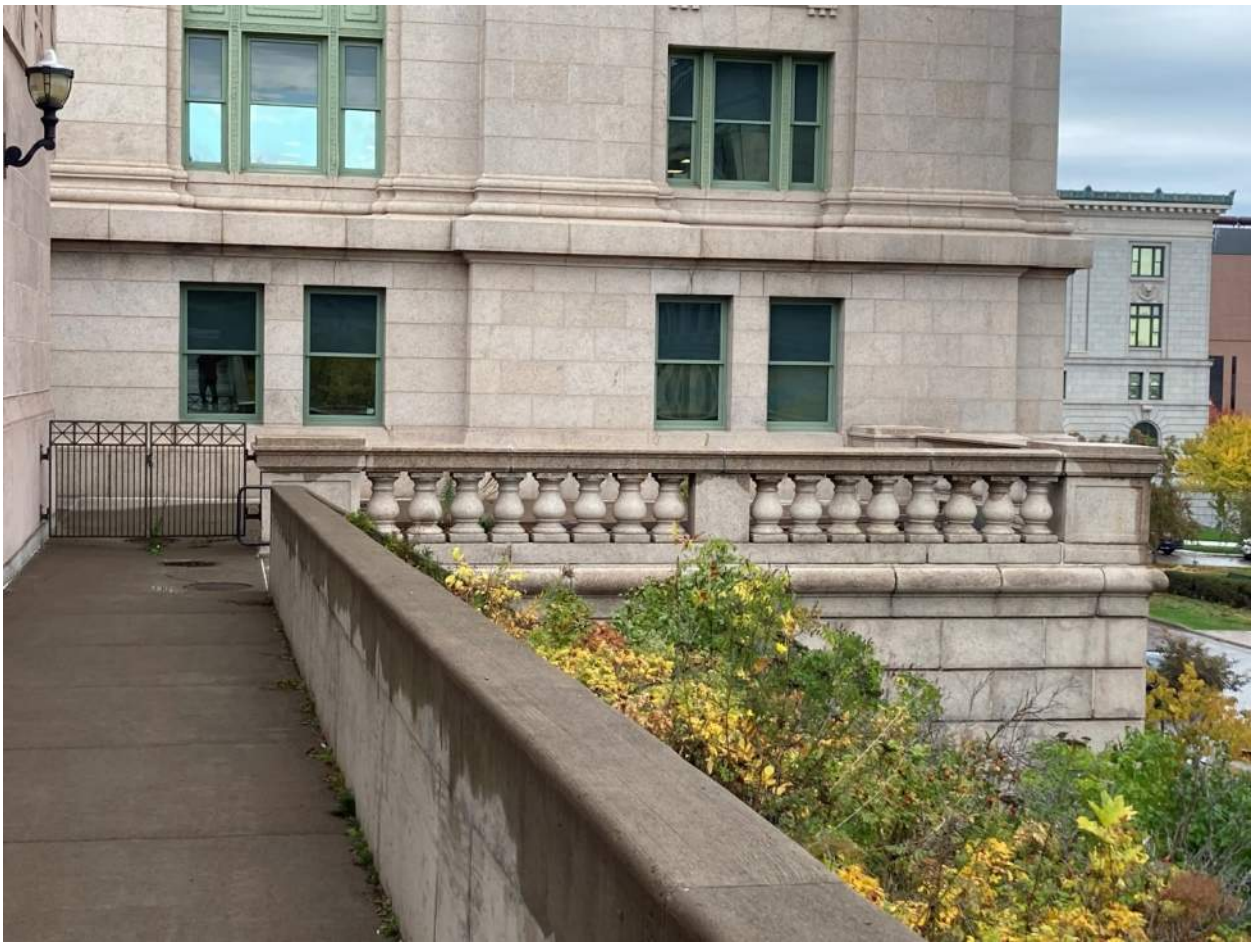
Property Address: 100 N 5th Ave, Duluth, MN 55802

NUMBER: 1 Architectural feature: N/A Approx. date of feature: 1909 **Describe existing feature and its condition:** N/A Photo No. 1, 2, 3 Drawing No. A101	**Describe work and impact on existing feature:** Adding a mechanical screening wall next to the existing building and behind the existing guardrail. See drawings attached for more detailed notes.
NUMBER: 2 Architectural feature: N/A Approx. date of feature: 1909 **Describe existing feature and its condition:** N/A Photo No. 1, 2, 3 Drawing No. A101	**Describe work and impact on existing feature:** Adding a mechanical screening wall next to the existing building and behind the existing guardrail. See drawings attached for more detailed notes.
NUMBER: 3 Architectural feature: N/A Approx. date of feature: 1909 **Describe existing feature and its condition:** N/A Photo No. 1, 2, 3 Drawing No. A101	**Describe work and impact on existing feature:** Adding a mechanical screening wall next to the existing building and behind the existing guardrail. See drawings attached for more detailed notes.
NUMBER: Architectural feature: Approx. date of feature: **Describe existing feature and its condition:** Photo No. Drawing No.	**Describe work and impact on existing feature:**

ARCHITECTURE ADVANTAGE

PICTURE #1
View from street/parking lot level

ARCHITECTURE ADVANTAGE



PICTURE #2
View from upper level

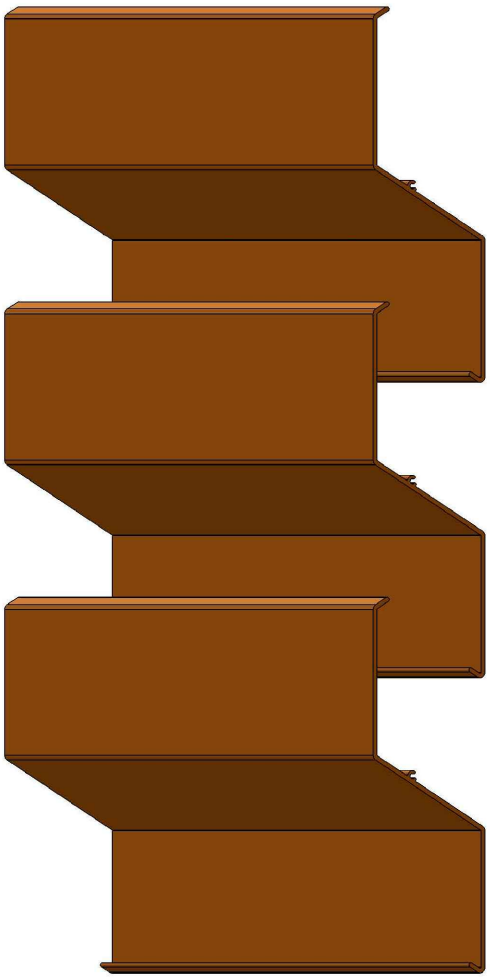
2715 Piedmont Avenue I Duluth, MN 55811 I 218.724.5568
278 East 7th Street I St. Paul, MN 55101 I 651.224.4831

ARCHITECTURE ADVANTAGE

PICTURE #3
View where (2) new chillers will be placed and mechanical louver wall will by built

Industrial
Louvers, Inc.

MODEL 350XPI



STANDARD CONSTRUCTION

- Material: Extruded Aluminum 6061-T6 / 6063-T6
- Vertical Supports: 5" (127 mm) Deep, 0.125" (3.2 mm) Wall Thickness
- Blade: 3.5" (76 mm) Deep, 0.125" (3.2 mm) Wall Thickness
- Blade Spacing: 8" (203.2 mm) On Center
  -Blade spacing may be adjusted to coordinate with metal panel profile
- Blade Angle: 30°

OPTIONAL ACCESSORIES

- Cap Flashing
- Visible Mullions
- Invisible Mullions for Continuous Blade Appearance
- Hinged Access Panels

FINISHES

- 2-Coat Fluoropolymer: Fluropon Pure® 70% PVDF (AAMA 2605)*
- 3-Coat Fluoropolymer: Fluropon Pure® 70% PVDF (AAMA 2605)*
- Anodic Finishes: Class I & Class II, Clear & Bronze Spectrum
- Prime Coat: Recommended When Field Painting
  *Fluropon Pure® is Living Building Challenge Red List Free
  *Custom Colors Available

SUGGESTED SPECIFICATIONS

- General: Furnish and install where indicated on drawings 3.5" (76 mm) Extruded Aluminum Inverted Blade Equipment Screen Model 350XPI as manufactured by Industrial Louvers, Inc. Delano, MN.
- Material: Extruded aluminum vertical supports shall be one piece 6061-T6 alloy. Extruded aluminum blades shall be one piece 6063-T6 alloy. Vertical supports shall have a material thickness of 0.125" (3.2 mm). Fixed blades shall have a material thickness of 0.125" (3.2 mm). Vertical supports and blades shall be joined by stainless steel fasteners.
- Performance: Equipment screen shall provide 100% visual screening from a horizontal vantage point. Free area shall be approximately 35.9%.

REV: MARCH 2019

Industrial Louvers, Inc.

MODEL 350XPI

STANDARD CONSTRUCTION

- Material: Extruded Aluminum 6061-T6 / 6063-T6
- Vertical Supports: 5" (127 mm) Deep, 0.125" (3.2 mm) Wall Thickness
- Blade: 3.5" (76 mm) Deep, 0.125" (3.2 mm) Wall Thickness
- Blade Spacing: 8" (203.2 mm) On Center
  -Blade spacing may be adjusted to coordinate with metal panel profile
- Blade Angle: 30°

OPTIONAL ACCESSORIES - Mark All Required Options

- Cap Flashing
- Visible Mullions
- Invisible Mullions for Continuous Blade Appearance
- Hinged Access Panels

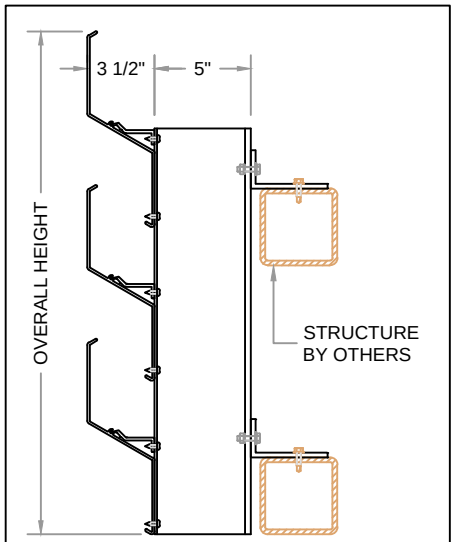
FINISHES - Select One

- 2-Coat Fluoropolymer: Fluropon Pure® 70% PVDF (AAMA 2605)*
- 3-Coat Fluoropolymer: Fluropon Pure® 70% PVDF (AAMA 2605)*
- Anodic Finishes: Class I & Class II, Clear & Bronze Spectrum
- Prime Coat: Recommended When Field Painting
- Mill Finish: Bare Aluminum

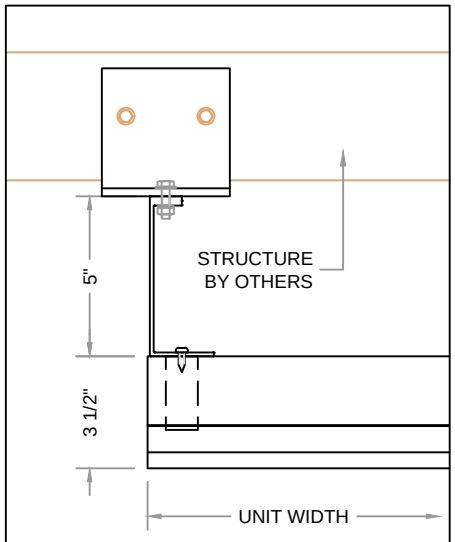
*Fluropon Pure® is Living Building Challenge Red List Free
*Custom Colors Available

Mark	Qnty	Circle One: Louver Size / Rough Opening		Mullion Type (IVM or VVM)	Num. of Sections	Notes
		Width	Height			

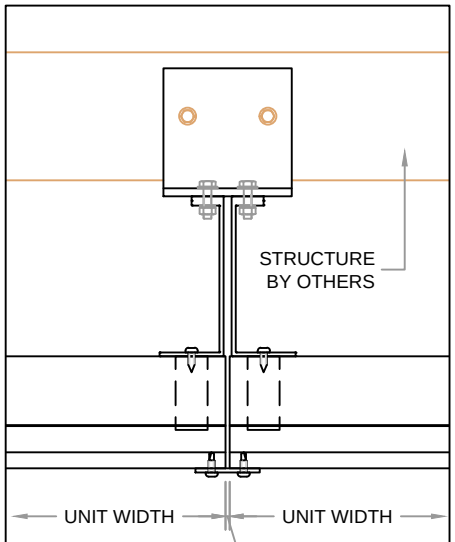
Please complete table above for quotation or immediate release to production. Indicate any required optional accessories and finishes listed above.



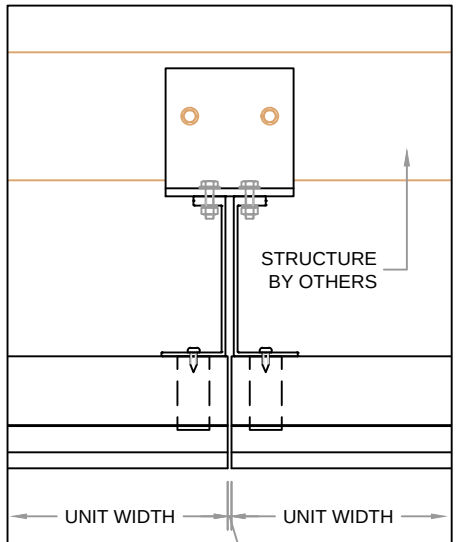
Vertical Section



Plan View @ Jamb



Plan View @ Visible Mullion



Plan View @ Invisible Mullion

www.IndustrialLouvers.com | ilinfo@IndustrialLouvers.com | Tel: 763.972.2981 | Fax: 763.972.2911 | 511 South 7th Street, Delano MN 55328

www.IndustrialLouvers.com
511 South 7th Street
Delano, MN 55328
763-972-2981

Installation Instructions for Horizontal Blade Equipment Screen Attaching to Horizontal Structure

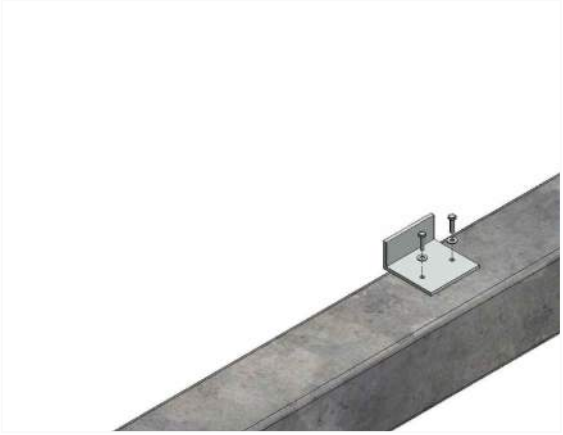
Note:

- The information included in the submittal drawing package shall supersede any information included in these installation instructions. Fastener type, size, and quantity shall be dictated by the submittals. It is the responsibility of the installer to follow all building codes and comply with all safety regulations.
- The product depicted in these installation instructions may not match the product supplied, however the installation process is the same.

Step 1: Installing the Clip Angles

-The following tasks shall be done along each horizontal support. Ensure that the upper and lower clips are installed plumb.

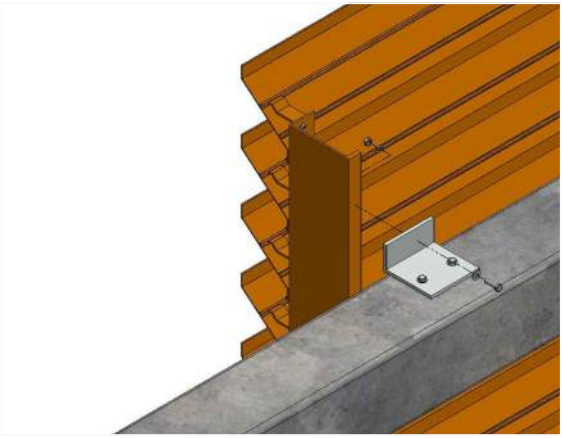
A. Mark location of all clip angles per the Industrial Louvers prepared shop drawings.
B. Install a clip angle on each end of the equipment screen run.
C. Place a string line between the two outer clip angles. This will locate the intermediate clip angles in/out.
D. Install all intermediate clip angles using the string line as a reference.



Step 2: Installing the First Unit

-Begin by installing a corner unit. Work away from the corner to allow for variations in unit sizes and/or steel support measurements.

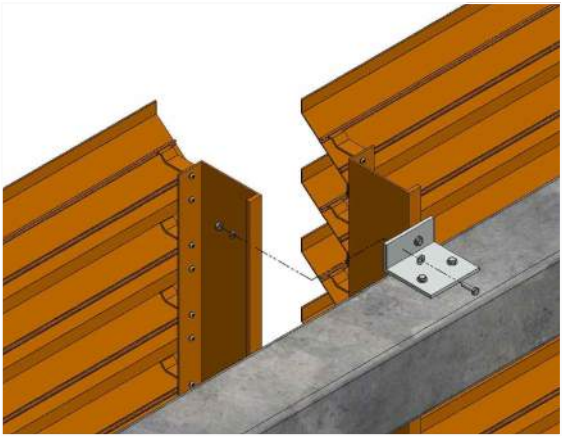
A. Clamp vertical supports to clip angles.
B. Verify that equipment screen blades are running level and at the correct elevation. Unclamp vertical supports and adjust if necessary.
C. Drill clearance hole through clip angle and rear flange of vertical support.
D. Install bolt through clip angle and rear flange.
E. Repeat steps 2C and 2D for each anchor point of the first unit.



Step 3: Installing the Remaining Units

-The following tasks shall be completed for each remaining unit.

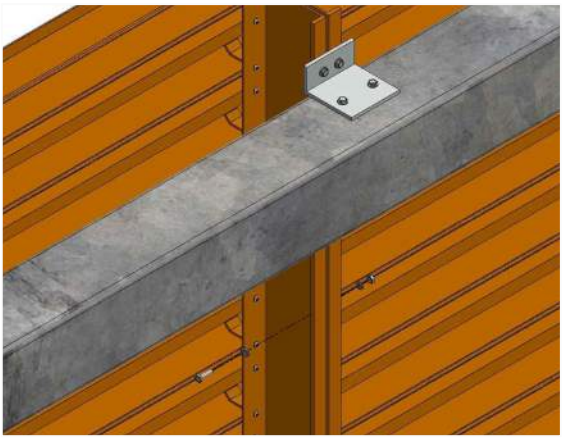
A. Clamp vertical supports to clip angles.
B. Verify that equipment screen blades are running level and at the correct elevation. Unclamp vertical supports and adjust if necessary.
C. Drill clearance hole through clip angle and rear flange of vertical support.
D. Install bolt through clip angle and rear flange.
E. Repeat steps 3C and 3D for each anchor point.



Step 4: Vertical Support Bracing

-The following tasks shall be completed only after all units have been bolted to clip angles. Note: vertical support bracing may not be required, see shop drawings for requirements.

A. Mark location of all through bolts for vertical support bracing purposes per the Industrial Louvers prepared shop drawings.
B. Drill clearance hole through both vertical supports at each location marked in step 4A.
C. Install bolts through vertical supports.




MODEL HOME

Finishes

Industrial Louvers, Inc. (ILI) offers a comprehensive range of painted and anodized finishes. Beautiful, durable fluoropolymer coatings are resistant to chalking, abrasion and ultraviolet degradation, and keep products looking new for years. ILI offers the advantage of in-house painting for 70% PVDF finishes allowing for the highest possible quality standards, and reduces lead times.

ILI's standard finish is Sherwin-Williams' Fluropon® Pure line of coatings. With significantly reduced hazardous materials, these coatings are formulated with material transparency and environmental impacts in mind. Fluropon Pure coatings offer opportunities to comply with material disclosure and optimization credits in LEED® V4. ILI is committed to sustainable practices on all projects.

Fluropon Pure Specifications:

- Meets or exceeds AAMA 2605
- Appropriate for building components designed for high-rise and monumental structures.
- Appropriate for projects located in areas with intense sunlight, extreme temperatures or high levels of atmospheric pollutants.
- Formulated without the use of PFOA, hexavalent chromium, cadmium, lead and phthalates.

Please note that some custom finishes may not be available in the Fluropon Pure formulation.
Download a PDF of the finish guide from Verta, our exclusive on-site finisher, by clicking here.

Illumipon FEVE Specifications:

- Meets or exceeds FGIA / AAMA 2605
- Resin based coating that is highly resistant to weathering, airborne chemicals, acid rain and other environmental damage.
- Outstanding color consistency and superior hardness are ideal for corporate facilities, retail locations and architectural features.

Click here for more information on Sherwin-Williams Illumipon™ FEVE fluoropolymer finish and here for a comparison between PVDF and FEVE.

Please note that on-screen colors or colors printed from our downloadable finish guide will not match actual finishes. When making a final color selection, please request a hard copy of our finish guide or samples of color chips.

Solid Colors

Matte Black 398A1937FP	Extra Dark Bronze 397B1820FP	Mansard Brown 397C0247FP	Hartford Green 395C196FP	Award Blue 396B766FP
Charcoal 392B651FP	Statuary Bronze 397F262FP	Brandywine 394A735FP	Evergreen 395C903FP	Electric Blue 396B1088FP
Fashion Grey 392A849FP	Dark Bronze 397B791FP	Colonial Red 394A946FP	Interstate Green 395F081FP	Rex Blue 396B502FP
Cityscape 392B869FP	Seal Brown 397B036FP	Brick Red 394F146FP	Dark Ivy 395C1508FP	Sky Blue 396B5712FP
Stone White 391A454FP	Grayish 392B4031FP	Tile Red 394A572FP	Mint Green 395B880FP	Teal 395A832FP

Bright White 391B9513FP[1]	Beige 397F199FP	Sandstone 393X321FP	Almond 397B1117FP	Ivory 393A361FP

Mica/Metallic Colors *

Dark Bronze Mica 399C8157FP	Harvest Gold 399C8787FP	Cosmic Gray 399C9126FP	West Pewter Mica 399C9753FP	Bright Silver 399X440FP
Medium Bronze 399D0427FP	Apple Fizzie 399B812FP	Gray Velvet 399D0508FP	Silver 399B697FP	Platinum 399C7551FP
Driftwood 399C9411FP	Champagne Metallic 399C711FP	Medium Gray 399D7582FP	Silversmith 399D0502FP	Sunlight Silver 399D0280FP
Vancouver Copper 399C9350FP	Champagne Pearl 399C245FP	Pewter 399C1180FP	Silver Metallic 399C8897FP	Anodic Clear 399C210FP
Copper 399C505FP				

Vibrant Colors **

Galactic Darkness SL4A625FP	Eggplant SL6A1169FP	Yellow 393B4927FP	Neon Orange 384A3437P	Bright Red SL4A625FP

*Mica/Metallic Colors: Most colors are achieved with a standard two-coat, single bake process. Some colors may require additional coats or processing.
**Vibrant Colors: Colors shown are eligible for our full 20-year warranty. Some vibrant and exotic colors carry a warranty for adhesion only.
[1] 2-coat/2-bake process required. Additional fees apply.

Anodized Finishes:
Although not as durable, anodized finishes offer an attractive finish for some applications. We offer Class 1 (minimum of .7 mil thickness) clear and color anodized finishes. Like staining wood instead of painting it, anodizing allows the character of the raw material to show through. It will not cover up variances in the material.

Solid Colors

Matte Black 398A1937FP	Extra Dark Bronze 397B1820FP	Mansard Brown 397C0247FP	Hemlock Green 395C196FP	Award Blue 396B766FP
Charcoal 392B651FP	Statuary Bronze 397F262FP	Brandywine 394A735FP	Evergreen 395C903FP	Electric Blue 396B1088FP
Fashion Grey 392A849FP	Dark Bronze 397B791FP	Colonial Red 394A946FP	Interstate Green 395F081FP	Rex Blue 396B502FP
Cityscape 392B869FP	Seal Brown 397B036FP	Brick Red 394F146FP	Dark Ivy 395C1508FP	Sky Blue 396B5712FP
Stone White 391A454FP	Grayish 392B4031FP	Tile Red 394A572FP	Mint Green 395B880FP	Teal 395A832FP
Bone White 391B803FP	Sierra Tan 393B4397FP	Beige 393F061FP	Patina Green 395C1321FP	Hemlock Green 395C1966FP
Bright White 391B9513FP[1]	Seawolf Beige 397F199FP	Sandstone 393X321FP	Almond 397B1117FP	Oriental Ivory 393A361FP

Mica/Metallic Colors *

Dark Bronze Mica 399C8157FP	Harvest Gold 399C8787FP	Cosmic Gray 399C9126FP	West Pewter Mica 399C9753FP	Bright Silver 399X440FP
Medium Bronze 399D0427FP	Apple Fizzie 399B812FP	Gray Velvet 399D0508FP	Silver 399B697FP	Platinum 399C7551FP
Driftwood 399C9411FP	Champagne Metallic 399C711FP	Medium Gray 399D7582FP	Silversmith 399D0502FP	Sunlight Silver 399D0280FP
Vancouver Copper 399C9350FP	Champagne Pearl 399C245FP	Pewter 399C1180FP	Silver Metallic 399C8897FP	Anodic Clear 399C210FP
Copper 399C505FP				

Vibrant Colors **

Galactic Darkness SL4A825FP	Eggplant SL6A1169FP	Yellow 393B4927FP	Neon Orange 384A3437P	Bright Red SL4A625FP

Job Information	Technical Data Sheet
Job Name	SLC Chiller Projects
Date	6/16/2023
Submitted By	Tom McCarty
Software Version	14.00
Unit Tag	CH-1 and CH-2 (Courthouse)

Image may not represent ordered unit

Unit Overview

Model Number	Capacity ton	Voltage	Unit Starter Type	ASHRAE 90.1	LEED Enhanced Refrigerant Management Credit
AGZ130E	133.1	208 V / 60 Hz / 3 Ph	Across the Line	'07, '10, '13 & '16	Pass

Unit

Unit Type	Platform	Unit Revision
Air-Cooled Scroll Compressor Chiller	Packaged	0B

Head Pressure	Tubing
Fantrol Only (32°F Min)	Replaceable Filter Dryer with Discharge & Liquid Valves, no HGBP

Unit Controls	Display
Electronic Expansion Valve	On Controller only

Refrigerant Type	Refrigerant Weight
R410A	130 lb (per unit)

Pump Controls
Dual Evaporator Pumps - Dual Control Output

Approval
ETL/cETL, AHRI & ASHRAE 90.1

Evaporator

Fluid Volume:	13.8 gal
Connection Hand:	Universal Connection - Facing out back
Connection Size:	3.0 in
Insulation:	Single Layer Insulation to Suction at each Compressor

Entering Fluid Temperature	Leaving Fluid Temperature	Fluid Type	Glycol Concentration	Fluid Flow	Fluid Flow (with glycol) Min / Max	Pressure Drop	Pressure Drop (with glycol) Min / Max	Fouling Factor
56.00 °F	44.00 °F	Ethylene Glycol	35.0 %	298.5 gpm	138.9 / 579.0 gpm	18.5 ft H_2O	2.40 / 36.9 ft H_2O	0.000100 °F.ft².h/Btu

Note: Evaporator Pressure Drop includes Factory Installed Strainer. Pressure drop without strainer is 10.4. Minimum flow is based on a Variable Flow Pumping System Type and applies to part load conditions only.

Condenser

Coil Fins:	MicroChannel
Guards:	Condenser Coil Louvers & Base Frame Wire Grilles

Design Ambient Air Temperature	Altitude	Fan Diameter	Minimum Design Ambient Temperature
90.0 °F	0.000 ft	30.0 in	32.0 °F

Unit Performance

Design			
Capacity	**Input Power**	**Efficiency (EER)**	**IPLV.IP (EER)***
133.1 ton	145.8 kW	10.96 Btu/W.h	15.77 Btu/W.h

Performance Points rated at AHRI Ambient Relief - with Glycol

Unit					Evaporator				Condenser	
Point #	**% Load**	**Capacity** ton	**Input Power** kW	**Efficiency (EER)** Btu/W.h	**Fluid Flow** gpm	**Pressure Drop** ft H_2O	**Entering Fluid** °F	**Leaving Fluid** °F	**Ambient Air** °F	**Altitude** ft
1	100.0	133.1	145.8	10.96	298.5	10.4	56.00	44.00	90.0	0.000
2	75.0	99.83	83.38	14.37	298.5	10.4	53.00	44.00	76.9	0.000
3	50.0	66.56	46.92	17.02	298.5	10.3	50.00	44.00	63.8	0.000
4	25.0	33.28	21.61	18.48	298.5	10.3	47.00	44.00	55.0	0.000

** IPLV reflects AHRI standard rating conditions with water and does not change with user defined conditions*
Note: Evaporator Pressure Drop in this table does Not include strainer. For strainer pressure drop data see 'Evaporator' table on page 1.

Sound (without insulation)

Sound Pressure (*at 30 feet*)

63 Hz dB	125 Hz dB	250 Hz dB	500 Hz dB	1 kHz dB	2 kHz dB	4 kHz dB	8 kHz dB	Overall dBA	75% Load dBA	50% Load dBA	25% Load dBA
67	68	68	64	61	60	60	55	**68**	67	65	64

Sound Power

63 Hz dB	125 Hz dB	250 Hz dB	500 Hz dB	1 kHz dB	2 kHz dB	4 kHz dB	8 kHz dB	Overall dBA	75% Load dBA	50% Load dBA	25% Load dBA
94	97	93	93	91	85	85	84	**96**	95	93	92

Octave band is non 'A' weighted and overall readings are 'A' weighted. Sound data rated in accordance with AHRI Standard-370.

Physical

Unit				
Length*	**Height**	**Width***	**Shipping Weight***	**Operating Weight***
192 in	99 in	88 in	6222 lb	6333 lb

**Shipping and Operating Weights are based on 'worst case' unit configuration variations and include the below listed Option weights but do not include the weights of any Accessories. Contact Chiller Applications for additional information.*

Option Weights	
Louvers:	430 lb
Total:	430 lb

Note: Option weights shown may be 'worst case' and should not be used to calculate unit weight without the option present.

Electrical

Unit Electrical Data

Voltage	Starter Type	Fan Motor Quantity	LRA Fan Motor (each)	FLA Fan Motors (each)
208 V / 60 Hz / 3 Ph	Across the Line	8	31.7 A	7.8 A
Power Connection Type:	High Short Circuit Current Rating with Single Point Disconnect Switch and Circuit Protection			
Short Circuit Current Rating:	65 kA			

Single Point Power Connection

Minimum Circuit Ampacity (MCA):	583 A
Recommended Overcurrent Protection Size:	700 A
Maximum Overcurrent Protection Size(MOCP):	700 A
Lug Connection Size:	(3) 2/0 - 400 MCM

Compressor Electrical Data

Compressor Type	Compressor Quantity	Starter Type
Scroll	4	Across the Line

Circuit #:	**1**		**2**	
Compressor #:	**1**	**3**	**2**	**4**
Rated Load Amps (RLA):	111 A	111 A	111 A	138.8 A
Inrush Current:	599 A	599 A	599 A	943 A

Note: Power wiring connections to the chiller may be done with either copper or aluminum wiring. Wire should be sized per NEC and/or local codes. Wire sizing and wire count must fit in the power connection lug sizing listed above. Please contact your local sales office for more information.

Options

Basic Unit

Suction Shut-off Valve:	Included
Evaporator Strainer:	Factory Installed Evaporator Strainer – 175 PSI Pressure Rating

Control

Communication:	BACnet MS/TP

Electrical

Water Flow Indicator:	Thermal Dispersion Type

Warranty

Unit Startup	By Others
Standard Warranty:	1st Year Entire Unit Parts only
Extended Compressor Warranty:	Compressor Only; extended 4 years parts only (5 Years Total)

AHRI Certification

Certified in accordance with the AHRI Air-Cooled Water-Chilling Packages Certification Program, which is based on AHRI Standard 550/590 (I-P) and AHRI Standard 551/591 (SI). Certified units may be found In the AHRI Directory at www.ahridirectory.org. Unit contains freeze protection liquids in the evaporator and is certified when rated per the Standard with water.

Performance at AHRI Standard Condition – with Water

Unit					Evaporator				Condenser	
% Load	Capacity ton	Input Power kW	Efficiency (EER) Btu/W.h	IPLV.IP* (EER) Btu/W.h	Fluid Flow gpm	Pressure Drop ft H_2O	Entering Fluid °F	Leaving Fluid °F	Ambient Air °F	Altitude ft
100	130.9	153.6	10.22	15.77	313.1	9.40	54.00	44.00	95.0	0.000

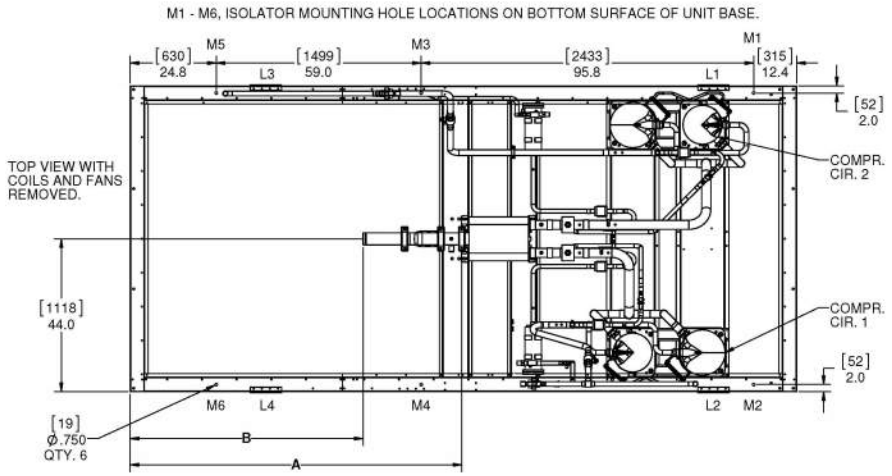
Note: Performance with water given as reference only to show compliance with AHRI Standard 550/590. Unit will be configured from the factory to support glycol performance as rated. The unit must not operate with water only without consulting the factory.

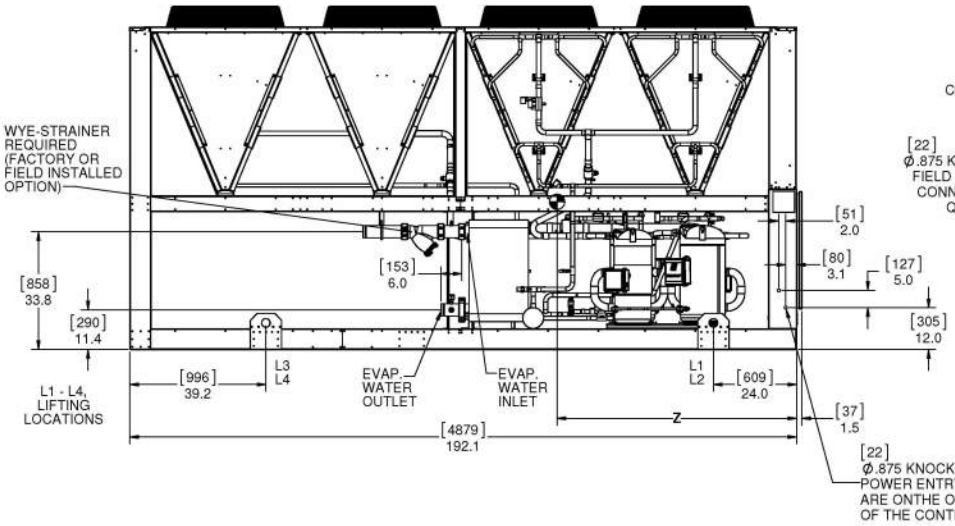
Accessories

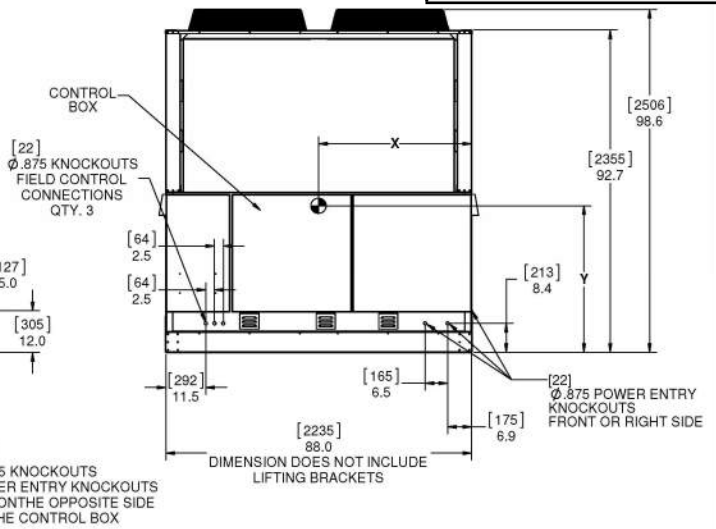
Optional	
Part Number	**Description**
332325113	RIS Isolator Kit; AGZ: Package, 110-180E; Single Pump 110E, 130E; Dual Pmp 110-120E

AGZ130E Packaged (Microchannel Condenser)

Unit Dimensions







Unit Weight Data												
Units	Weight		Lifting Weight				Mounting Weight					
	Shipping	Operating	L1	L2	L3	L4	M1	M2	M3	M4	M5	M6
lb	5792	5903	1941	1863	1015	974	1575	1511	920	883	517	496
kg	2627	2678	880	845	460	442	714	685	417	401	235	225

Unit and Center of Gravity Dimensions						
Units	A (No Strainer)	B (With Strainer)	Connection Size (Victaulic)	Center of Gravity		
				X	Y	Z
in	92.0	65.5	3.0	43.1	41.0	68.3
mm	2337	1664	76	1095	1041	1735

NOTE

IT IS RECOMMENDED THAT THE SIDE LOCATIONS BE USED FOR POWER ENTRY WIRE SIZES LARGER THAN 350 MCM.

NOTE

A water strainer must be installed at the inlet of the evaporator to protect it from damage. Please refer to the IOM for additional details.

Product Drawing	Unit Tag: CH-1 and CH-2 (Courthouse)			Sales Office: Schwab-Vollhaber-Lubratt, Inc.		
Product: Air-Cooled Scroll Chiller	Project Name: SLC Chiller Projects			Sales Engineer: Tom McCarty		
Model: AGZ130E	June 16, 2023	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/- 1.0"	Dwg Units: in [mm]

DAIKIN
13600 Industrial Park Blvd. Minneapolis, MN 55441
www.DaikinApplied.com Software Version: 14.00

AGZ-E Guards: Condenser Coil Louvers, Base Wire Grilles, Painted Base

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Diagram Notes
Diagram simulates wrap, grille and louver options as selected only. Refrigeration components may vary depending on selected options.

Product Drawing	Unit Tag: CH-1 and CH-2 (Courthouse)			Sales Office: Schwab-Vollhaber-Lubratt, Inc.			DAIKIN
Product: Air-Cooled Scroll Chiller	Project Name: SLC Chiller Projects			Sales Engineer: Tom McCarty			13600 Industrial Park Blvd. Minneapolis, MN 55441
Model: AGZ110-130E	June 16, 2023	Ver/Rev:	Sheet: 1 of 1	Scale: N/A	Tolerance: N/A	Dwg Units: N/A	www.DaikinApplied.com Software Version: 14.00

AGZ-E Close Spacing Performance

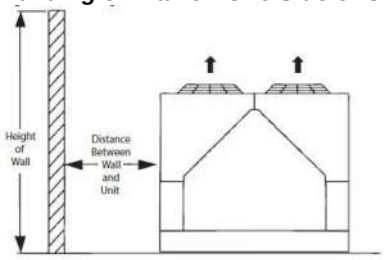
0A

The graphs below are based on individual cases and should not be combined with other scenarios

Case 1: Building or Wall on One Side of Unit

Assumes a solid height wall taller than unit. Refer to Case 4 for partial wall openings

Building or Wall on One Side of Unit



For models AGZ030-101E, maintain a 4 feet minimum from a wall of any height.

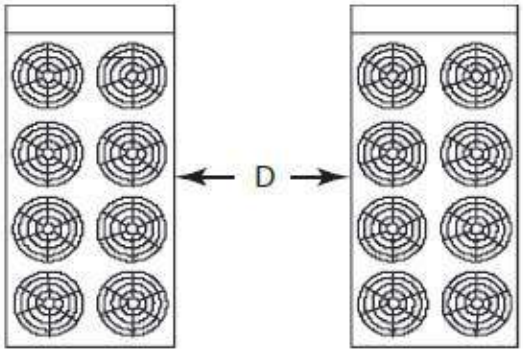
For models AGZ110-130E, maintain a 6 feet minimum from a wall of any height.

For models AGZ140-241E, maintain an 8 feet minimum from a wall of any height.

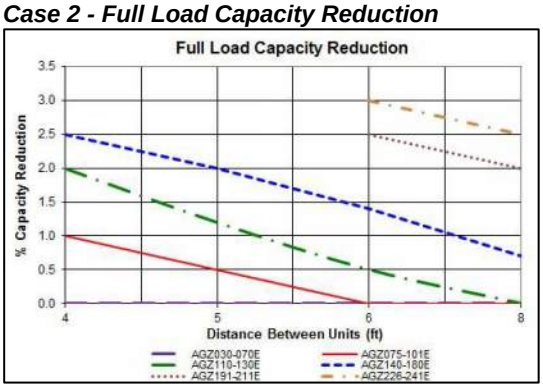
Case 2: Two Units, Side-by-Side

For models 030-180, there must be a minimum of 4 feet between two units placed side-by-side; however, performance may be affected at this distance. For models 191-241, the minimum is 6 feet as closing spacing may cause air recirculation and elevated condenser pressure. Assuming the requirement of one side having at least 8 feet of service clearance is met, Case 2 figures show performance adjustments as the distance between two units increases.

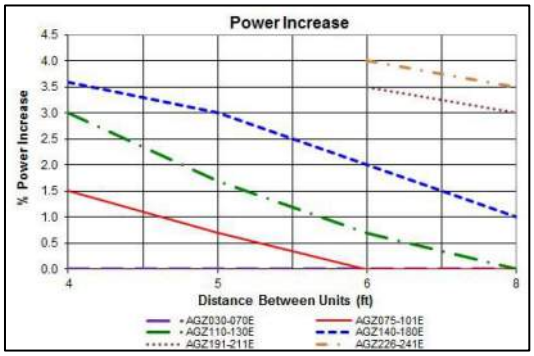
Two Units, Side-by-Side



Case 2 - Full Load Capacity Reduction



Case 2 – Power Increase

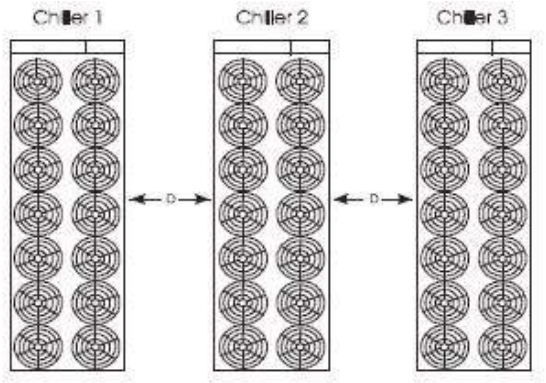


Product Drawing						
Product: Air-Cooled Scroll Chiller	Project Name:					
Model: AGZ-E	Sales Office: Schwab-Vollhaber-Lubratt,					
Sales Engineer: Tom McCarty	June 16, 2023	Ver/Rev:	Sheet 1 of 1	Scale: NTS	Tolerance: +/-1.0"	Dwg Units: in [mm]

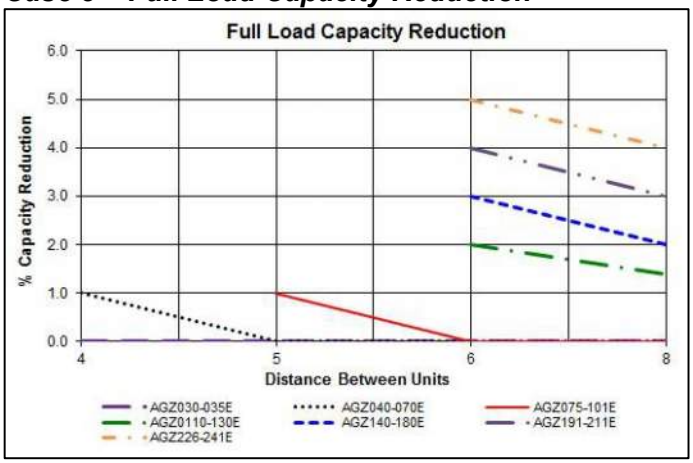
Case 3: Three or More Units, Side-by-Side

For all models, there must be a minimum distance between any units placed side-by-side; however, performance may be affected at this distance. Minimum distances are: models 030 to 070 - 4 feet, models 075 to 101 - 5 feet, models 110 to 241 - 6 feet. The Case 3 charts below depict Case 3 performance adjustments as the distance between units increases. Data shown is for the middle unit with a unit on each side. See Case 2 adjustment factors for the two outside units.

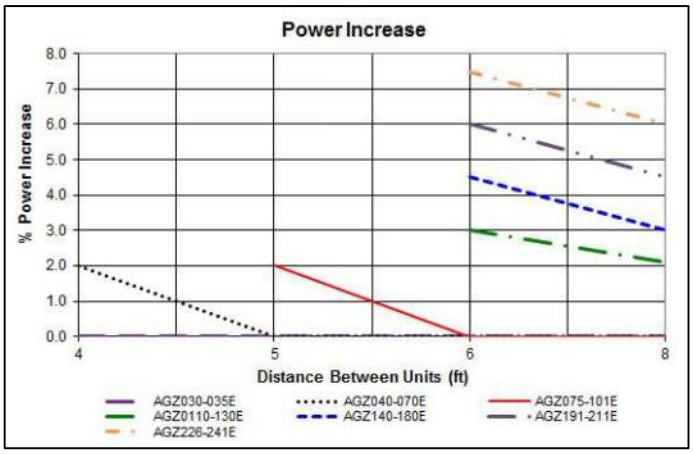
Three or More Units, Side-by-Side



Case 3 – Full Load Capacity Reduction



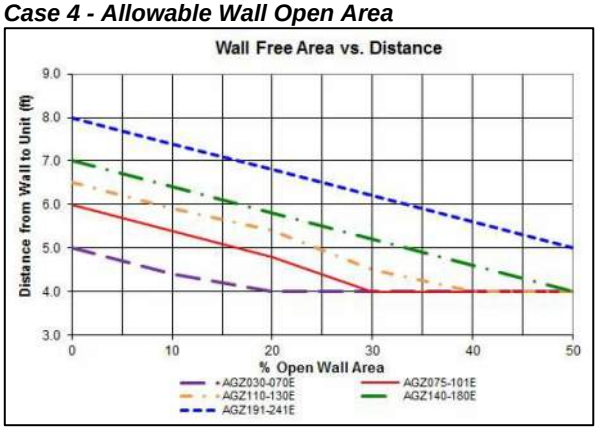
Case 3 – Power Increase



Case 4: Open Screening Walls

Decorative screening walls are often used to help conceal a unit either on grade or on a rooftop. When possible, design these walls such that the combination of their open area and distance from the unit (see chart below) do not require performance adjustment. If the wall opening percentage is less than recommended for the distance to the unit, it should be considered as a solid wall. It is assumed that the wall height is equal to or less than the unit height when mounted on its base support. If the wall height is greater than the unit height, see Case 5: Pit Installation for performance adjustment factors. The distance from the sides of the unit to the side walls must be sufficient for service, such as opening control panel doors. For uneven wall spacing, the distance from the unit to each wall can be averaged providing no distance is less than 4 feet. Values are based on walls on all four sides.

Case 4 - Allowable Wall Open Area



Case *5: Pit Installation*

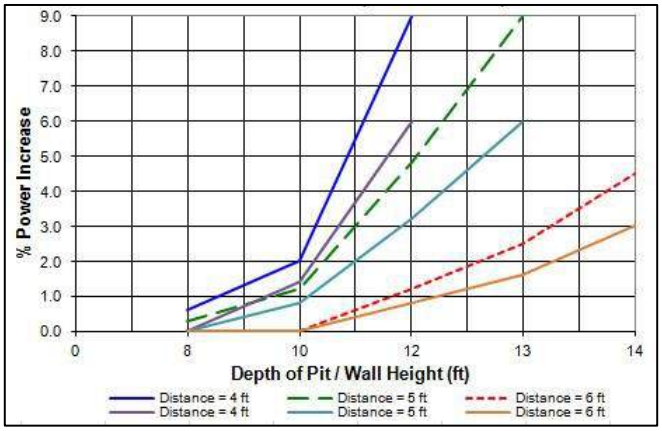
Pit installations can cause operating problems resulting from air recirculation and restriction and require care that sufficient air clearance is provided, safety requirements are met and service access is provided. A solid wall surrounding a unit is substantially a pit and this data should be used. Derates are based on single chiller installation only.

Steel grating is sometimes used to cover a pit to prevent accidental falls or trips into the pit. The grating material and installation design must be strong enough to prevent such accidents, yet provide abundant open area to avoid recirculation problems. Have any pit installation reviewed by the Daikin Applied sales representative prior to installation to ensure it has sufficient air-flow characteristics and approved by the installation design engineer to avoid risk of accident.

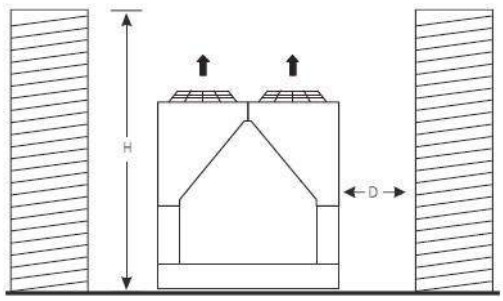
Models AGZ030-070E:

The Case 5 figures for models AGZ030-070E show adjustment factors for pit/wall heights of 4 feet, 5 feet, and 6 feet.

Case 5 - Full Load Capacity Reduction and Power Increase (AGZ030E-070E)



Case 5- Pit Installation

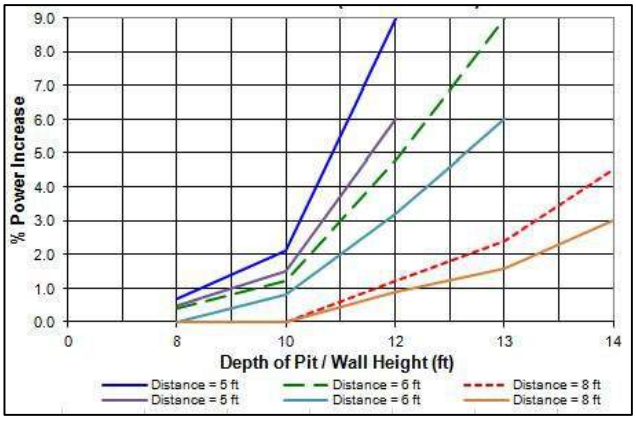


KEY:
- - - - - - - - - - : ***Power Increase***
_____***: Capacity Reduction***

Models AGZ075-130E:

The Case 5 figures for models AGZ075-130E show adjustment factors for pit/wall heights of 5 feet, 6 feet, and 8 feet.

Case 5 - Full Load Capacity Reduction and Power Increase (AGZ075-130E)

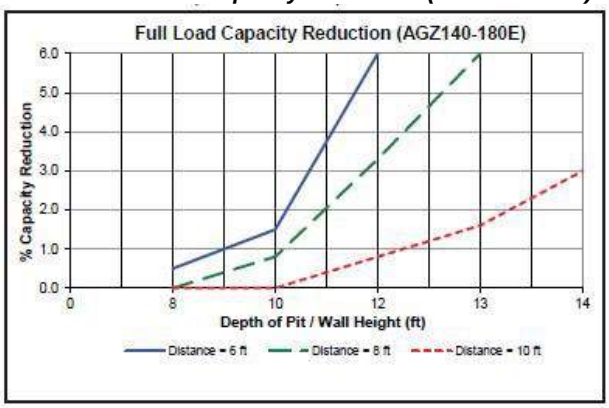


KEY:
- - - - - - - - - - : ***Power Increase***
_____***: Capacity Reduction***

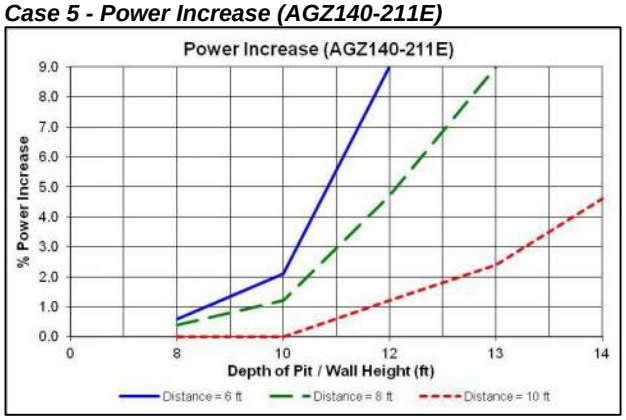
Models AGZ140-241E:

The Case 5 figures for models AGZ140-241E show adjustment factors for pit/wall heights of 6 feet, 8 feet, and 10 feet.

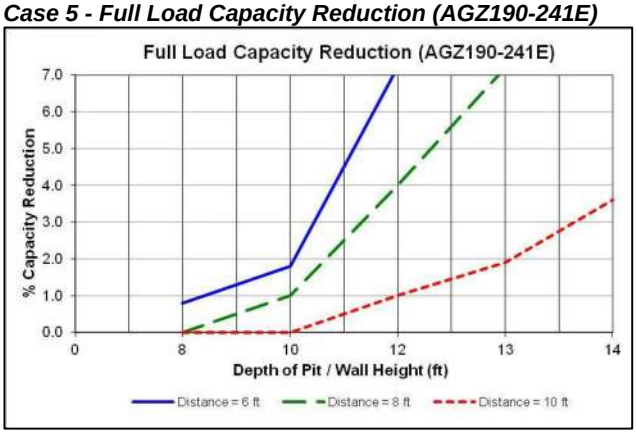
Case 5 - Full Load Capacity Reduction (AGZ140-180E)



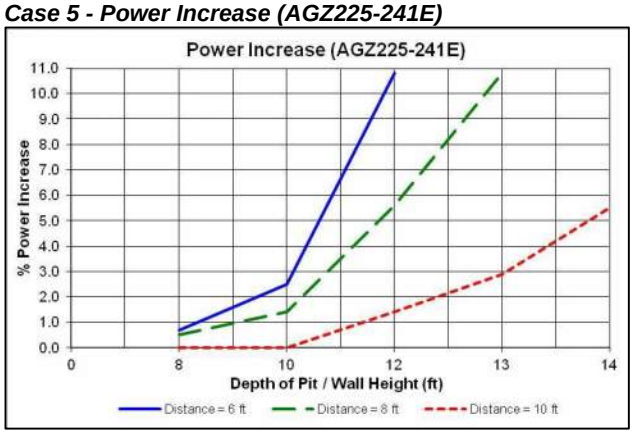
Case 5 - Power Increase (AGZ140-211E)



Case 5 - Full Load Capacity Reduction (AGZ190-241E)



Case 5 - Power Increase (AGZ225-241E)



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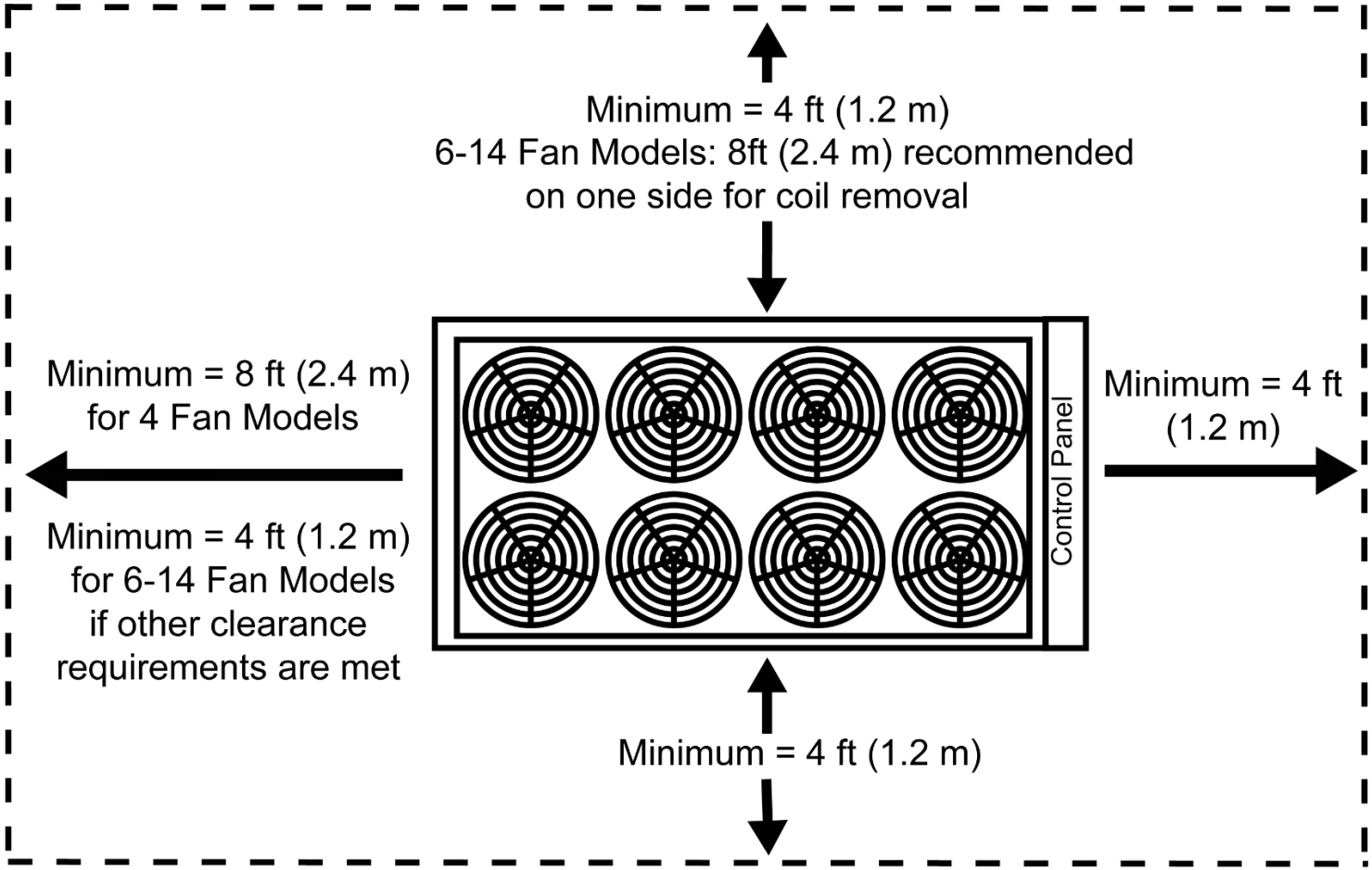
AGZ-E Service Clearance

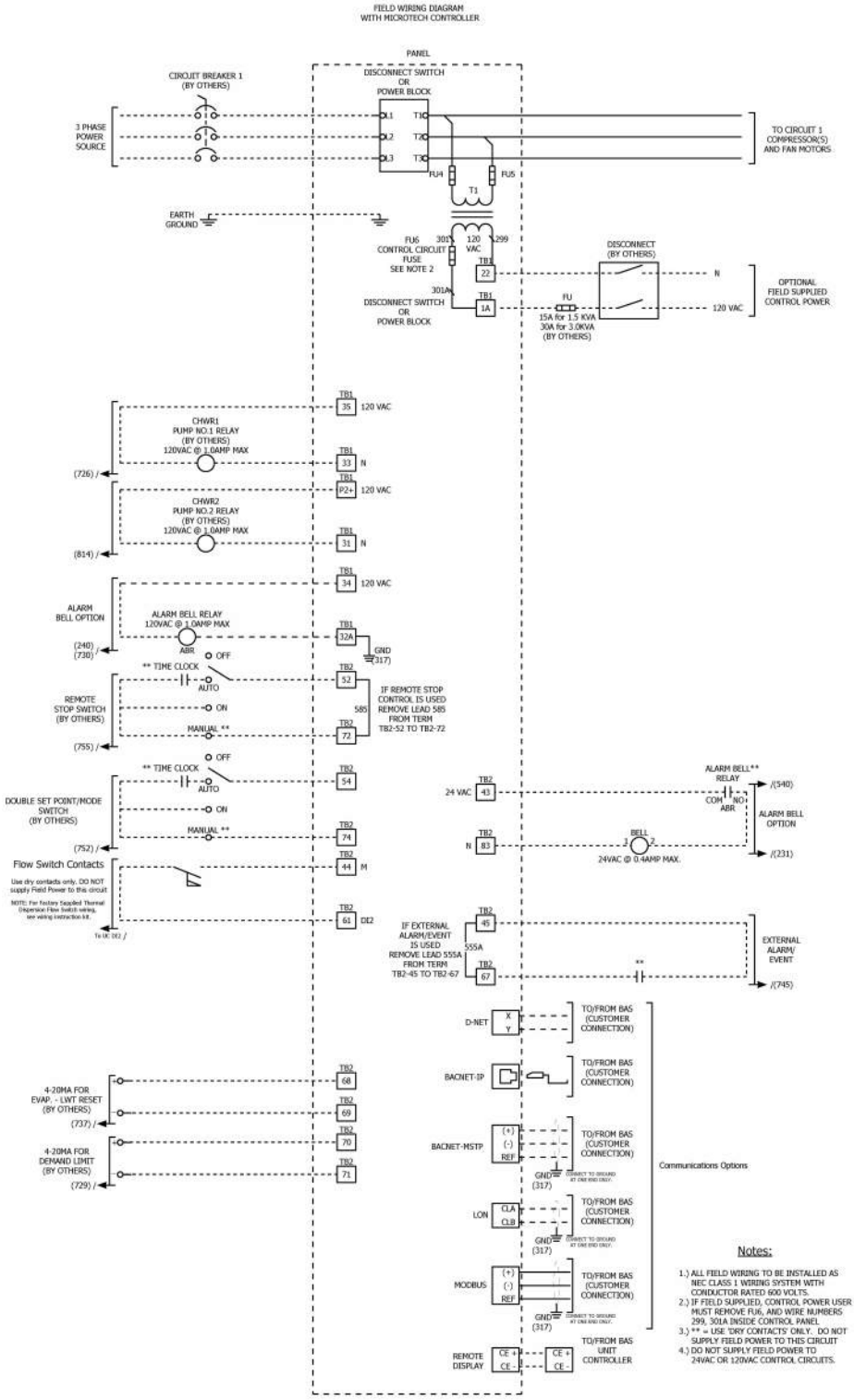


- NOTE: Additional clearance may be required for proper airflow. Please consult Close Spacing drawings and IOM for additional details.

Product Drawing	Unit Tag: CH-1 and CH-2 (Courthouse)			Sales Office: Schwab-Vollhaber-Lubratt, Inc.			DAIKIN
Product: Air-Cooled Scroll Chiller	Project Name: SLC Chiller Projects			Sales Engineer: Tom McCarty			13600 Industrial Park Blvd. Minneapolis, MN 55441
Model: AGZ-E	June 16, 2023	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/- 1.0"	Dwg Units: in [mm]	www.DaikinApplied.com Software Version: 14.00

0D

AGZ030-241E Single-Point Connection Field Wiring Diagram



Field Wiring Diagram	Unit Tag: CH-1 and CH-2 (Courthouse)			DAIKIN		
Product: Air-Cooled Scroll	Project Name: SLC Chiller Projects			13600 Industrial Park Blvd. Minneapolis, MN 55441		
Model: AGZ030-241E Single-Point	Sales Office: Schwab-Vollhaber-			www.DaikinApplied.com		Software Version: 14.00
Sales Engineer: Tom McCarty	June 16, 2023	Ver/Rev:	Sheet 1 of 1	Scale: N/A	Tolerance: N/A	Dwg Units: N/A

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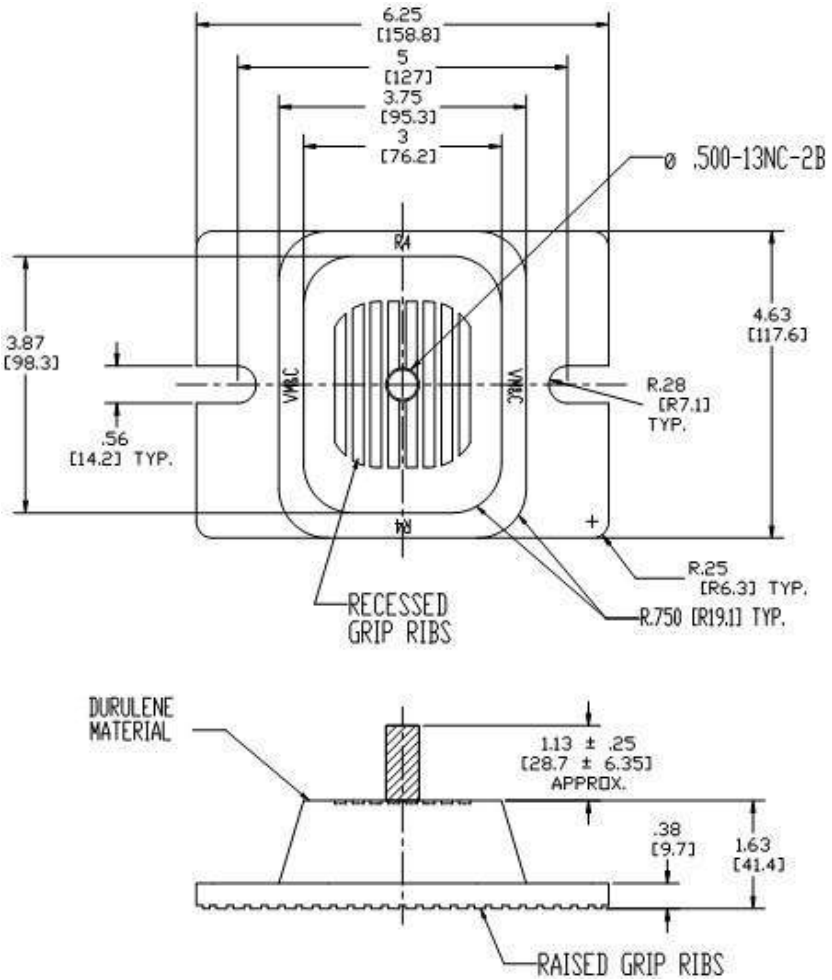
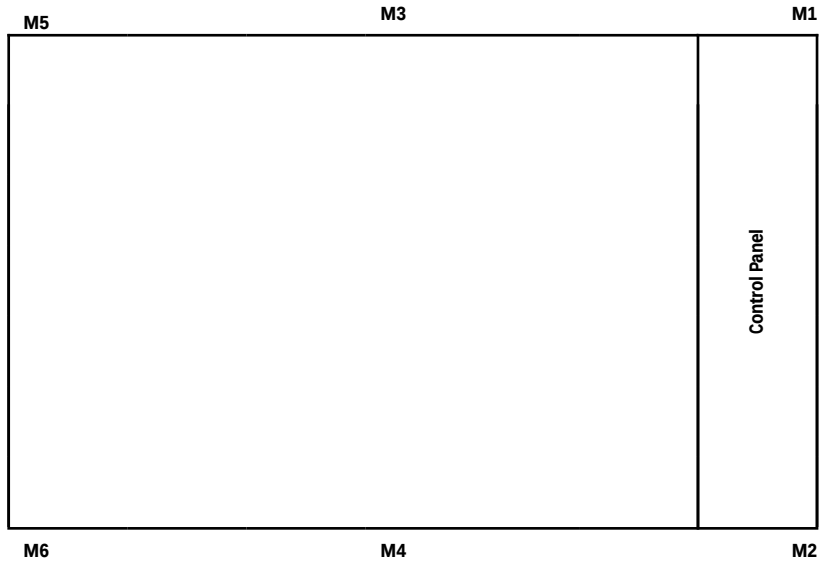
Rubber-in-Shear (RIS) Isolator Kit

Dimensions and Placement



Mounting Location					
M1	M2	M3	M4	M5	M6
Red	Red	Brown	Brown	Brown	Brown



Product Drawing	Unit Tag: CH-1 and CH-2 (Courthouse)			Sales Office: Schwab-Vollhaber-Lubratt, Inc.			DAIKIN
Accessory: Rubber-in-Shear (RIS) Isolator Kit	Project Name: SLC Chiller Projects			Sales Engineer: Tom McCarty			13600 Industrial Park Blvd. Minneapolis, MN 55441
Kit Part Number: 332325113	June 16, 2023	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/- 1.0"	Dwg Units: in [mm]	www.DaikinApplied.com Software Version: 14.00

ST LOUIS COUNTY COURT HOUSE

100 N 5th Ave W

100 N 5th Ave W

ZONING NOTICE

APPLICANT: St. Louis County
ADDRESS: 100 N 5th Ave, Duluth, MN 55802
NARRATIVE: (2) chillers are being installed and are required to have screening from the public right of way per UDC 50-26.1 Screening of Mechanical Equipment. The building is on the National Register of Historic Places so a Heritage Preservation Committee (HPC) review and public hearing is required to review the screening design.
APPROVAL: Historic Construction Permit
CONTACT INFO: St. Louis County: 218.726.2406
CONTACT INFO Jen Moses (City of Duluth): 218.730.5328
PUBLIC HEARING: When: Monday, Nov 13, 2023
Where: City Council Chambers
Third Floor City Hall
411 W. First Street
Time: 12:00 p.m.

NEW HISTORY

CHARLES H. AND ELIZABETH ARTHUR HOUSE PRESERVATION PLAN

230 East Fourth Street, Duluth, Minnesota

September 2023

575 9TH STREET SE, STE 215 | MINNEAPOLIS, MN 55414 | 612.843.4140 | NEWHISTORY.COM

Charles H. and Elizabeth Arthur House Preservation Plan

1. Introduction

The following preservation plan contains design review guidelines which will serve as a basis for the Duluth Heritage Preservation Commission's permit review decisions with regard to the Charles H. and Elizabeth Arthur House at 230 East 4th Street.

These guidelines define the acceptable means by which the building's physical appearance can be preserved and enhanced through rehabilitation. The guidelines are based on the Secretary of the Interior's *Standards for the Treatment of Historic Properties* (the "Standards"). The guidelines explain and interpret the Standards as they apply to this property, providing guidance for evaluating both changes to the existing site and residence and the design of new construction.

These guidelines are divided into the three sections outlined below.

- Areas to Be Preserved (Character-Defining Features)
- Rehabilitation (Alterations to Existing Building)
- New Construction

Where these guidelines do not provide specific guidance, the Standards should be followed. In addition to these design guidelines, other resources exist to provide guidance in evaluating the appropriateness of alterations to the Arthur House. Preservation Briefs and ITS Bulletins (tech notes) by the National Park Service provide detailed guidance on the treatment of historic features and materials to meet the Standards. A list of relevant briefs and bulletins is attached as Appendix A. Additionally, the local landmark designation study for the property (attached as Appendix C) provides information on its historic context and significance.[1] These historic design guidelines should also be considered in conjunction with municipal ordinances, building codes, and applicable planning documents.

These guidelines will be interpreted with flexibility depending on the particular merit of the proposed changes and their impacts on the portion of the building under review. Consideration will be given to the availability of historic building materials. When applying the guidelines, the Commission will also consider financial constraints and economic factors.

2. Site Overview and Historic Significance

The local landmark property 230 East 4th Street consists of a two-story, Queen Anne-style residence with attached garage located in Duluth's Central Hillside neighborhood, on an approximately 5,000 square foot rectangular corner lot at the southwest[2] corner of the intersection East 4th Street and North 3rd Avenue East. 230 East 4th Street was constructed in 1886 for Charles H. Arthur, co-founder of a Duluth grain commission firm, and his wife Elizabeth. From 1886

[1] Lauren Anderson, "City of Duluth Historic Preservation Commission Local Landmark Nomination: Charles H. and Elizabeth Arthur House," prepared on behalf of Zak Skelton and Cameron Carlson, November 2023, on file at the City of Duluth.
[2] For ease of reference, plan rather than cardinal directions are used. The property's true northwest elevation is referred to as the north elevation, true northeast as east, etc.

through the first decade of the twentieth century, the property was occupied by middle or upper-class residents. Around 1912, reflecting the Central Hillside neighborhood's transition from wealthy residential area to a working-class neighborhood, the property began to consistently function as a multi-family residence, with up to eight residents at one time. Today, the property contains four residential units. 230 East 4th Street is a good example of the Queen Anne architectural style. Often used in the design of houses constructed in the Central Hillside neighborhood during the late nineteenth and early twentieth centuries, the style is characterized by irregular plan and massing and an emphasis on variety through use of multiple colors and textures and abundant detailing.[3]

The Arthur House is significant under local designation Criteria A and D for its representation of residential development in the Central Hillside neighborhood during the late nineteenth and early twentieth centuries, and as an example of the Queen Anne architectural style. The period of significance is 1886, when the property was constructed, until 1920, the approximate date by which the Central Hillside neighborhood had been substantially developed. The materials and features of the site and residence that were installed by 1920 are considered historic; materials and features installed after 1920 are considered non-historic.

3. Secretary of the Interior's Standards for Rehabilitation

According to the National Park Service (NPS), the Standards "are a series of concepts about maintaining, repairing, and replacing historic materials, as well as designing new additions or making alterations."[4] They are applicable to historic properties of all types, including buildings, landscape features, and sites. The Standards allow for four treatment options: Reconstruction, Preservation, Restoration, and Rehabilitation. The design guidelines that follow are based on the Secretary of the Interior's *Standards for Rehabilitation*. The Standards for Rehabilitation are applied to historic properties being adapted for current uses, and provide guidance for altering properties to meet current uses in a way that retains their historic integrity. Along with the Standards, the National Park Service has also developed the Secretary of the Interior's *Guidelines for the Rehabilitation of Historic Buildings* ("the Guidelines"). The Guidelines provide general design and technical recommendations for applying the Standards. Taken together, the Standards and Guidelines provide an outline for design changes at historic properties.

The ten *Standards for Rehabilitation* are as follows:

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.
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.

[3] Lauren Anderson, "City of Duluth Historic Preservation Commission Local Landmark Nomination: Charles H. and Elizabeth Arthur House," prepared on behalf of Zak Skelton and Cameron Carlson, November 2023, on file at the City of Duluth.
[4] National Park Service, Technical Preservation Services, *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings*, https://www.nps.gov/tps/standards/treatment-guidelines-2017.pdf, accessed April 24, 2023.

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.
4. Changes to a property that have acquired historic significance in their own right will be retained and preserved.
5. Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.
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.
7. 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.
8. Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.
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.
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.[5]

4. Areas to Be Preserved (Character-Defining Features)

In order to apply the Standards to a specific property, it is necessary to understand which elements of the property are "historic" and "character-defining." All features, materials, and spaces installed or altered during a property's period of significance should be considered "historic." "Character-defining" elements are those historic features and materials that express the historic significance of a resource and contribute to its historic character. According to the National Park Service (NPS), character-defining elements can include "the overall shape of the building, its materials, craftsmanship, decorative details …, as well as the various aspects of its site and environment."

[5] National Park Service, Technical Preservation Services, *The Secretary of the Interior's Standards for Rehabilitation*, https://www.nps.gov/tps/standards/rehabilitation/rehab/stand.htm, accessed April 24, 2023.

At the Arthur House, features and materials present between 1886 and 1920 (the period of significance) are historic and should be retained and repaired.[6] Character-defining features of the property (illustrated in Appendix B) include:

A. Site

- Parcel with sloped grade, grass lawn, vegetation, and metal fence remnant

B. Building Orientation, Shape, and Footprint

- Two-story residence with irregular footprint and massing, including one and two-story bump-outs and two-story tower at the northeast corner
- Primary north façade (oriented to East 4th Street) and east façade (oriented to North 3rd Avenue East) and secondary west and south façades

C. Roof

- Hipped roof with cross gables, dormers, and overhanging eaves
- Bell-shaped tower roof
- Brick chimney at the south end of the roof

D. Porches

- Open wood porch at the north elevation

E. Circulation Patterns

- Primary entrance location at the north elevation, accessed via stairs
- Secondary entrance location at the west elevation

F. Fenestration Patterns

- Patterns, locations, and proportions of historic window openings

G. Windows

- Hung and fixed historic wood windows

H. Materials

- Exposed stone foundation
- Masonry window sills and headers at lower-level window openings
- Historic wood detailing and trim, including at the north porch, east dormer, and west secondary entrance

[6] No photographs of the property dating to the period of significance were available. Assessment of historic and non-historic features is based on a photograph that dates to c. 1930s/1940s, historic Sanborn maps, and on-site assessment. For more information, see Appendix C, local landmark designation study.

5. Rehabilitation (Alterations to Existing Building)

A. General

- Historic features and materials should be retained.
- Regular maintenance and repair are preferred over replacement of any historic features or materials.
- Historic features that are deteriorated beyond repair or missing should be replaced in kind to match the appearance and materials of the historic, if known. Replacement with substitute materials will be considered if the form and design of the substitute is compatible with the character of the building.
- Non-historic features can remain as is, be repaired, or be replaced. If replaced, the replacement feature can (1) match the historic design, if known or (2) be a simpler version of the historic design. If no evidence of the historic design exists, replacement features should be of a compatible design.

B. Site

- New landscaping should be in harmony with the historic residential character of the site. Grass lawn, trees, and plantings are appropriate. New hardscape elements should be kept to a minimum.
- The generally sloped grading should be retained, with major grade changes minimized and only used as necessary to meet local municipal codes and requirements.
- The existing non-historic concrete driveway and concrete retaining walls can be retained, repaired, replaced, or removed. Asphalt, concrete, or other pavement is appropriate for a replacement driveway. Stone, masonry, and concrete are appropriate materials for replacement retaining walls; new walls should have a simple design that is compatible with the historic character of the property and distinguished as a non-historic alteration.
- The metal fence remnant should be retained and may be repaired. Modifications to the fence for safety reasons will be considered.

C. Building Orientation, Shape, and Footprint

- The historic footprint, orientation, irregular massing, and setback of the building should be retained (see Section 6, New Construction, below).

D. Roofs

- Historic roof forms, dormers, overhanging eaves, and the historic brick chimney should be retained.
- The non-historic east concrete block chimney can be retained, repaired, or replaced. If replaced, the new chimney should match the historic chimney formerly present at this

location (as seen in the past photograph of the property) *or* be a simpler version of the historic design.
- The non-historic asphalt roof shingles can be retained, repaired, or replaced.
- Any new roof drainage system should be designed and installed with the least amount of impact to historic features and materials.
- Given the roof configuration and limited height of this building, new roof decks or rooftop additions are not appropriate (see Section 6 New Construction below).

E. Masonry

- Historic masonry should be preserved and retained to the greatest extent possible.
- Deteriorated, loose, and damaged masonry should be repaired following best practices for historic masonry, including cleaning, repointing, patching, and repairing.
- Replacement of existing masonry should only occur when masonry is damaged beyond repair or prevents the resource from being safe or weathertight. Replacement masonry should match the existing historic masonry as closely as possible.
- Repointing should be done only where joints are deteriorated or missing. Repointing mortar should match the existing historic mortar in joint tooling, joint size, color, and texture. To prevent damage to the historic masonry, the new mortar must have greater vapor permeability and be softer than the masonry units, and be as vapor permeable and as soft or softer than the historic mortar.
- Cleaning and removal (environmental staining, biological growth, graffiti, etc.) should be done using the gentlest means possible. Abrasive techniques should be avoided.
- Previously unpainted masonry should not be painted. Previously painted masonry may be repainted.

F. Wood

- Historic wood detailing and trim should be preserved and retained to the greatest extent possible. Damaged wood should be repaired to match the existing. If replacement is required, the original profile should be replicated.
- Non-historic railings at the north porch stair can be retained, repaired, or replaced. If replaced, new railings should match the historic as closely as possible *or* be a simpler version of the historic design.
- Painted historic wood elements can be repainted and should not be left unfinished/exposed.

G. Siding

- The existing asbestos and metal siding is not historic and can be retained, repaired, or replaced. If historic siding is discovered beneath non-historic materials, it should be repaired. If deteriorated beyond the point of a cost-effective repair or insufficient to

ensure a watertight building envelope, it should be replaced to match the historic. Replacement with substitute materials will be considered, if the substitute materials can reflect the design and appearance of the historic. If no historic siding remains beneath non-historic materials and is missing, the new siding can match the historic (as visible in the past photograph of the property) *or* be a simpler version of the historic design.

- If the historic cornice is discovered beneath non-historic siding materials, it should be retained and repaired. If deteriorated beyond repair, it should be replaced to match the historic. Replacement with substitute materials will be considered, if the substitute materials can reflect the design and appearance of the historic. If no historic cornice remains beneath non-historic materials and is missing, the new cornice can match the historic *or* be a simpler version of the historic design.

H. Porches and Entrances

- The location of the historic entrances and porch should be retained.
- It is preferable to keep historic primary entrances functioning as primary entrances. Alternately, historic secondary entrances may be reused as primary entrances. If historic entrance locations are not reused, the entrance opening should remain and the door be fixed shut rather than removed.
- The primary entrance has been altered since the period of significance (see also Section 5.I below). The non-historic painted wood paneling surrounding the entrance opening and the painted plywood floor may be retained, repaired, or replaced/covered. If covered or replaced, the new material should match the historic, if known, *or* be compatible with the historic character of the property.
- If new entrances are necessary, they should not be cut into the primary north or east façades. New entrances should be minimal and limited to the secondary west and south façades. When considering new entrance locations, conversion of existing window openings to door openings is preferred over creating new openings. Additionally, it would be appropriate to re-open the historic entrance on the south elevation of the garage.
- Modifications, such as adding new ramps or wheelchair lifts, might be necessary at the exterior to provide accessibility. When considering modifications for accessibility, interior locations for ramps and wheelchair lifts should also be considered, in order to find the location with the least impact to the building's historic character.

I. Doors and Windows

- Historic windows and doors should be retained and repaired along with their frames. Historic door and window openings should not be blocked or obscured from the interior or exterior.

- Non-historic infill in historic door and window openings can be retained, repaired, or removed. If removed, the opening should be restored with a new door or window.
- Where historic doors or windows are missing or deteriorated beyond repair, replacement doors/windows should match the historic as closely as possible based on photographic or other evidence. Replacement doors and windows should be located in the original rough openings. Acceptable replacement door and window materials generally include wood or metal clad wood for historic wood doors and windows. Doors and windows should have clear glass. If no evidence of the historic design exists, replacement doors or windows should be of a compatible design.
- The non-original[7] wood door and wood casing at the primary entrance may be retained, repaired, or replaced. If replaced, the new door(s) can match the historic *or* be a simpler version of the historic design.
- Non-historic door openings may be removed or modified. Replacement doors for non-historic openings may be a similar, but simpler version of the historic doors, or a contemporary, but compatible and differentiated design may be proposed.
- When replacing a divided light window, true divided lights are recommended. Where true divisions are not possible, applied muntins, with an interstitial spacer will be considered. Internal muntins, sandwiched between two layers of glass alone, are not appropriate.
- Recommended locations for any new window openings include the secondary west and south façades. New openings should be set back from the primary façades and be appropriately sized, with similar proportions to existing windows. Windows in new openings should not create a false sense of history by replication of historic window details.

J. Signage and Light Fixtures

- New signage may be added to the property if desired. New signage should be compatible with the historic character and materials of the building and should not obscure character-defining features. New signage should not create a false sense of history and should be distinguished as contemporary.
- Internally-lit signs are generally not appropriate.
- Non-historic exterior light fixtures can be retained, repaired, removed, or replaced.
- New exterior light fixtures shall be compatible with, but differentiated from, the character of the historic building. The location, size, and scale of new exterior light fixtures should be appropriate to the building. Lighting is generally appropriate over entrances, at signage, or between window openings. Site lighting to facilitate wayfinding and site safety will also be considered.

[7] The existing door is not original to this location and was installed here after the end of the period of significance. Given the door's design and materials, it may have been relocated from another part of the building.

- Downlighting is preferred to uplighting. Softened and subtle light quality is generally appropriate. Blinking or flashing lights should be avoided.

6. New Construction

New construction refers to any new addition to the building. New construction should be designed to be compatible with the building without competing with or detracting from the historic character of the property.

- A new addition should be sensitively located to minimize visibility from the public right-of-way and impact to historic character-defining features. At this property, the south elevation or the south side of the west elevation may be appropriate locations for a small addition.
- The addition should not obstruct or remove key character-defining features of the building (like windows, porches, and entrances) and should be reversible, so that it could be removed in the future without impairing the integrity and form of the building.
- The size and scale of the addition should be limited and appropriate for the historic building. New construction should not exceed the height or footprint of the existing building.
- The addition should be simple in design and sympathetic to the historic building. The design should be differentiated from and compatible with the historic character of the building. This means that new construction should take its design cues from, but not copy, the historic building. An addition may include simplified architectural features that reflect, but do not duplicate, similar features on the historic building.
- The size, rhythm, and alignment of new window and door openings should be based on those of the historic building.
- An addition should use building materials in the same color range 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 building.
- Vertical additions, rooftop additions, and roof decks are not appropriate, given the roof configuration and limited height of this building.

7. Demolition

- The Heritage Preservation Commission is charged with reviewing permit applications for demolition or structures under Duluth City Code, Chapter 28A, Article II, Section 28A-5; Duluth City Code, Chapter 10, Article II, Sec. 10.3; and Duluth City Code, Chapter 10, Article III, Sec. 10-4.
- In general, demolition of 230 East 4th Street will be discouraged. In the event that a building is over 50% destroyed by fire or an act of God, demolition may be permitted.

Appendix A: Additional Resources

Preservation Briefs

http://www.nps.gov/tps/how-to-preserve/briefs.htm

1: Cleaning and Water-Repellent Treatments for Historic Masonry Buildings
2: Repointing Mortar Joints in Historic Masonry Buildings
3: Improving Energy Efficiency in Historic Buildings
4: Roofing for Historic Buildings
6: Dangers of Abrasive Cleaning to Historic Buildings
8: Aluminum and Vinyl Siding on Historic Buildings: The Appropriateness of Substitute Materials for Resurfacing Historic Wood Frame Buildings
9: The Repair of Historic Wooden Windows
10: Exterior Paint Problems on Historic Woodwork
14: New Exterior Additions to Historic Buildings: Preservation Concerns
16: The Use of Substitute Materials on Historic Building Exteriors
17: Architectural Character—Identifying the Visual Aspects of Historic Buildings as an Aid to Preserving their Character
19: The Repair and Replacement of Historic Wooden Shingle Roofs
24: Heating, Ventilating, and Cooling Historic Buildings: Problems and Recommended Approaches
27: The Maintenance and Repair of Architectural Cast Iron
31: Mothballing Historic Buildings
32: Making Historic Properties Accessible
33: The Preservation and Repair of Stained and Leaded Glass
35: Understanding Old Buildings: The Process of Architectural Investigation
36: Protecting Cultural Landscapes: Planning, Treatment and Management of Historic Landscapes
37: Appropriate Methods of Reducing Lead-Paint Hazards in Historic Housing
38: Removing Graffiti from Historic Masonry
39: Holding the Line: Controlling Unwanted Moisture in Historic Buildings
43: The Preparation and Use of Historic Structure Reports
45: Preserving Historic Wooden Porches
47: Maintaining the Exterior of Small and Medium Size Historic Buildings

ITS Bulletins

http://www.nps.gov/tps/standards/applying-rehabilitation/standards-bulletins.htm

3: New Additions: New Additions to Mid-Size Historic Buildings
4: Exterior Doors: Inappropriate Replacement Doors
9: Porches: Inappropriate Porch Alterations
10: Stair Tower Additions: Exterior Stair/Elevator Tower Additions

14: Adding New Openings: New Openings in Secondary Elevations or Introducing New Windows in Blank Walls
18: New Additions: New Additions to Mid Size Historic Buildings
21: Adding New Openings: Adding New Openings on Secondary Elevations
22: Adding New Openings: Adding New Entrances to Historic Buildings
23: Windows: Selecting New Windows to Replace Non-Historic Windows
26: Entrances and Doors: Entrance Treatments
29: Garage Doors: Adding Vehicular Entrances and Garage Doors to Historic Buildings
33: Secondary Elevations: Alterations to Rear Elevations
36: Rooftop Additions
37: Rear Additions: Rear Additions to Historic Houses
38: Alterations Without Historical Basis
39: Site and Setting: Changes to Historic Site
41: Incompatible Alterations to the Setting and Environment of a Historic Property
47: Rooftop Additions on Mid-Size Historic Buildings
50: Reusing Special Use Structures
51: Installing New Systems in Historic Buildings
52: Incorporating Solar Panels in a Rehabilitation Project
53: Designing New Additions to Provide Accessibility
54: Installing Green Roofs on Historic Buildings
56: Alterations Without Historical Basis

Preservation Tech Notes

http://www.nps.gov/tps/how-to-preserve/tech-notes.htm

Exterior Woodwork

1: Proper Painting and Surface Preparation. Sharon Park, AIA. 1986.
2: Paint Removal from Wood Siding. Alan O'Bright. 1986.
4: Protecting Woodwork Against Decay Using Borate Preservatives. Ron Sheetz and Charles Fisher. 1993.

Masonry

3: Water Soak Cleaning of Limestone. Robert M. Powers. 1992.
4: Non-destructive Evaluation Techniques for Masonry Construction. Marilyn E. Kaplan, Marie Ennis and Edmund P. Meade. 1997.

Metals

6: Repair and Reproduction of Metal Canopies and Marquees with Glass Pendants. Lauren Van Damme and Charles E. Fisher. 2006.

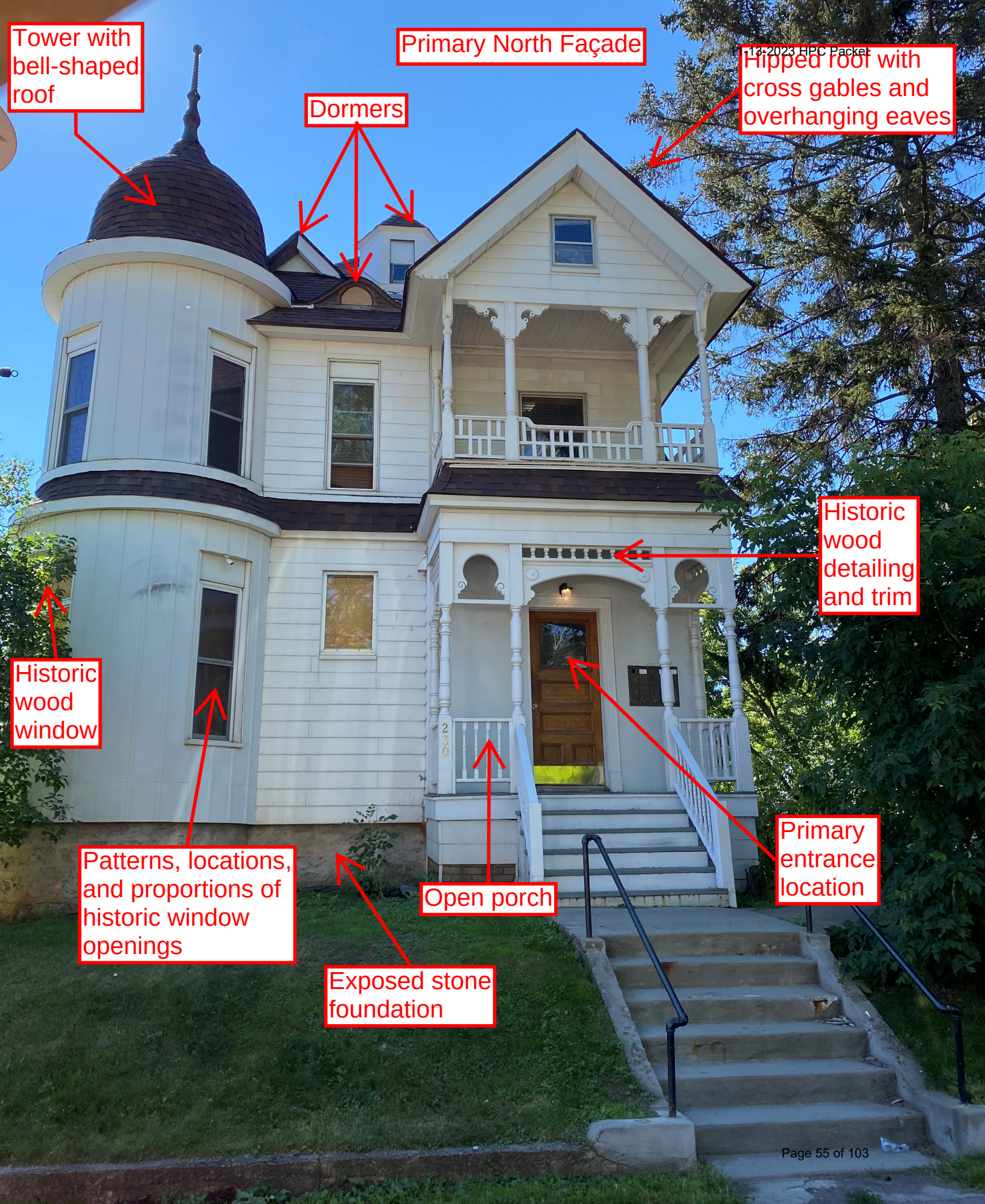
Temporary Protection

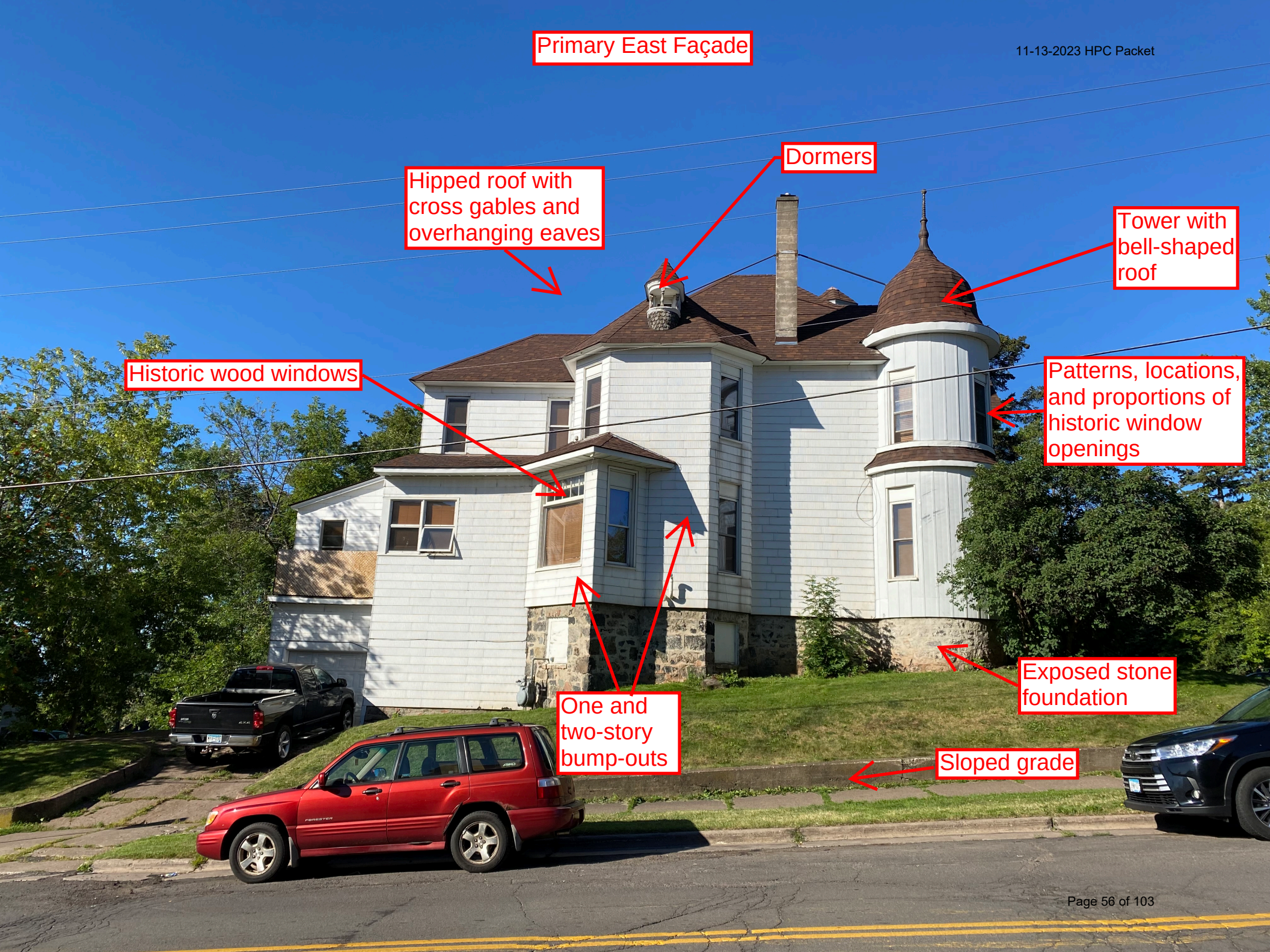
3: Protecting A Historic Structure during Adjacent Construction. Chad Randl. 2001.

Windows

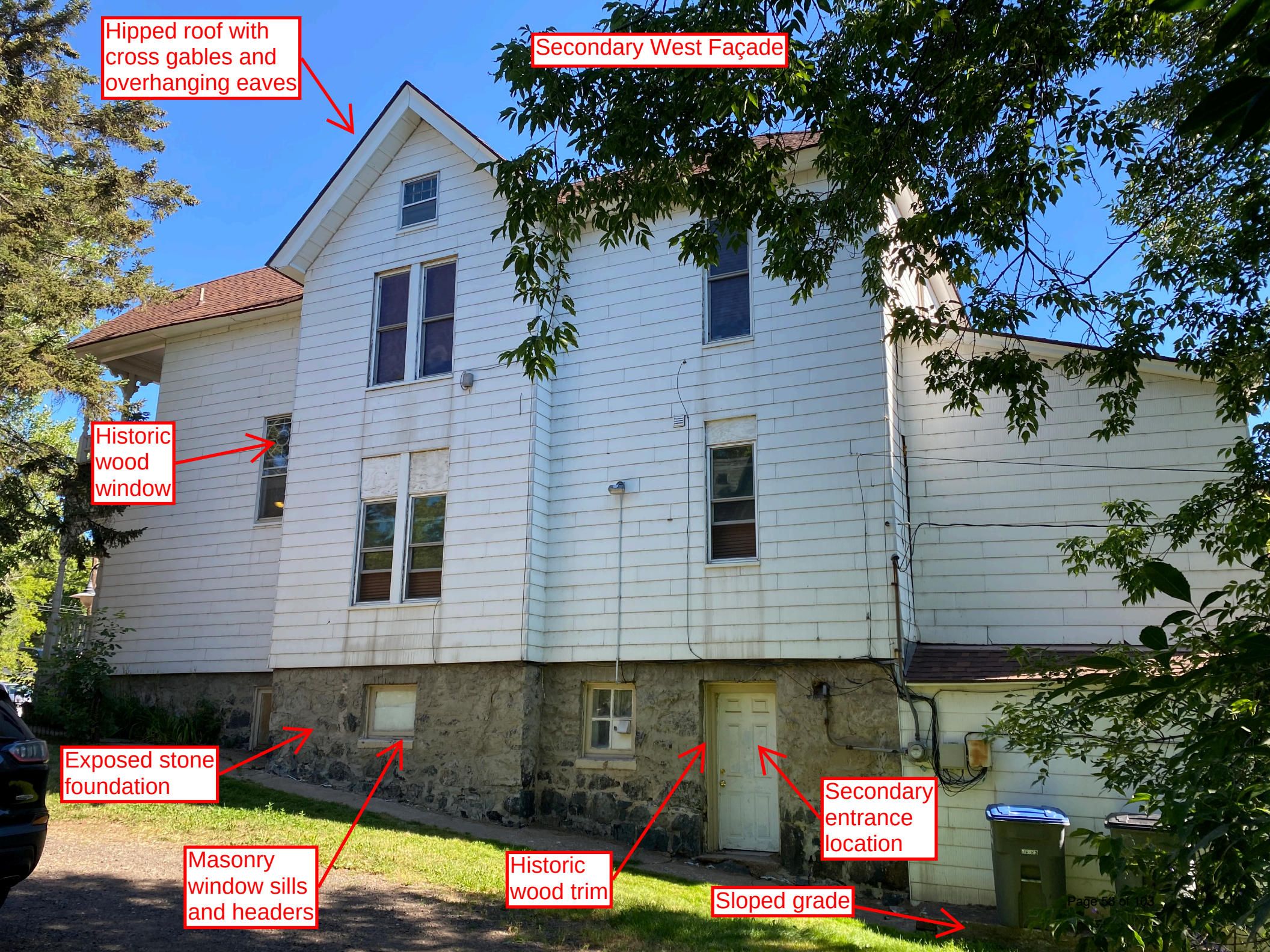
1: Planning Approaches to Window Preservation. Charles Fisher. 1984.
3: Exterior Storm Windows: Casement Design Wooden Storm Sash. Wayne Trissler and Charles Fisher. 1984.
4: Replacement Wooden Frames and Sash. William Feist. 1984.
5: Interior Metal Storm Windows. Laura Muckenfuss and Charles Fisher. 1984.
6: Replacement Wooden Sash and Frames With Insulating Glass and Integral Muntins. Charles Parrott. 1984.
7: Window Awnings. Laura Muckenfuss and Charles Fisher. 1984.
9: Interior Storm Windows: Magnetic Seal. Charles Fisher. 1984.
11: Installing Insulating Glass in Existing Wooden Sash Incorporating the Historic Glass. Charles Fisher. 1985.
14: Reinforcing Deteriorated Wooden Windows. Paul Stumes, P.Eng 1986.
16: Repairing and Upgrading Multi-Light Wooden Mill Windows. Christopher W. Closs. 1986.

Appendix B: Character-Defining Features


Tower with bell-shaped roof
Primary North Façade
Dormers
Hipped roof with cross gables and overhanging eaves
Historic wood detailing and trim
Historic wood window
Patterns, locations, and proportions of historic window openings
Open porch
Primary entrance location
Exposed stone foundation


Primary East Façade
Dormers
Hipped roof with cross gables and overhanging eaves
Tower with bell-shaped roof
Historic wood windows
Patterns, locations, and proportions of historic window openings
Exposed stone foundation
One and two-story bump-outs
Sloped grade


Secondary South Façade
Hipped roof with cross gables and overhanging eaves
Brick chimney


Hipped roof with cross gables and overhanging eaves
Secondary West Façade
Historic wood window
Exposed stone foundation
Masonry window sills and headers
Historic wood trim
Secondary entrance location
Sloped grade

Appendix C: Local Landmark Designation Study

Planning & Development Division
Planning & Economic Development Department

Room 160
411 West First Street
Duluth, Minnesota 55802

218-730-5580

planning@duluthmn.gov

Check One Box

____ Accessory Home Share-**$250**

____ Accessory Vacation Dwelling Unit, Limited **-$250**

____ Appeal to Planning Com. - **$407**

____ Concurrent Use of Streets - **$797**

____ District Plan - **$1,144**

____ EAW or EIS- **$2,856,** plus any applicable professional fees

____ Historic
- ____ Construction/Demolition - **$59**
- _X_ Resource Designation - **$103**

____ Interim Use Permit **$1,600**

____ Planning Review - **$1,068**

____ Sidewalk Use Permit
- ____ New Permit- **$171**
- ____ Renewal Permit - **$86**

____ Special Use Permit, General - **$1,606**

____ Special Use Permit, Wireless Telecommunications*
- ____ Modifying or Co-locating – **$2,856**
- ____ New Facility or Tower – **$5,716**
- ____ Escrow Deposit - **$9,717**

____ Subdivision Plat Approval or Amendment:
- ____ Concept Plan - **$286**
- ____ Preliminary Plat - **$1,138**
- ____ Final Plat- **$857**
- ____ Minor Subdivision-**$427**
- ____ Plat Amendment or Boundary Line Adjustment - **$286**
- ____ Registered Land Survey-**$737**

____ Temporary Use Permit - **$275**

____ UDC Zoning Map Amendment/Rezoning
- ____ General - **$912**
- ____ MU-P or R-P **$2,578**

____ Vacation of Street or Utility Easement - **$905**

____ Variance - **$855**

____ Wetland,
- ____ De Minimus, Delineation, or No Loss- **$227**
- ____ Exemption-**$177**
- ____ Replacement Plan - **$851**

____ Zoning Verification Letter-**$96**

APPLICATION COVER SHEET

CONTACT INFORMATION:

Applicant/Owner Zak Skelton and Cameron Carlson, Aspenglow Properties

Phone (801) 698-7751 Email aspenglowpropertiesllc@gmail.com

Address 250 N Red Cliffs Dr., Suite 4B #353

City St. George State UT Zip 84790

Owner's Agent (if applicable) Lauren Anderson, New History

Phone (612)843-4146 Email anderson@newhistory.com

Address 575 Ninth Street Southeast, Suite 215

City Minneapolis State MN Zip 55437

APPLICATION INFORMATION:

Street Address and Zoning of Property 230 East 4th Street (F-6)

Parcel ID Number 010-0990-01110

Reason for this Request (*Attach Additional Pages or Cover Letter if Necessary*)

Historic Resource Designation

The undersigned hereby represents upon all of the penalties of law for the purpose of inducing the City of Duluth to take the action herein requested, that all statements herein and attached are true and that all work herein mentioned will be done in accordance with the Ordinances of the City of Duluth and the laws of the State of Minnesota. Undersigned also understands that all documents provided to the City may be considered public data, per Minnesota Government Data Practices Act.

Lauren Anderson 11/23/22

Signature of Applicant Date

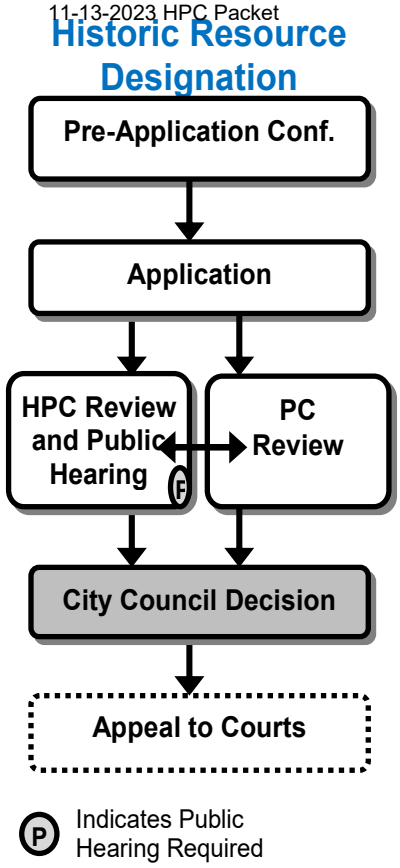
Reminder: include application checklist and all supporting information, including pre-application verification (if applicable). Submit completed information to Room 100, Construction Services and Inspections.

*Special Use Permit Checklist required to be submitted with this application coversheet.

3.8 Checklist

Historic Resource Designation

Historic resource designation aims to preserve districts and landmarks that reflect elements of the City's cultural, social, economic, political, engineering, visual, or architectural history. See UDC Section 50-37.8 for more information.



Starting the Application Process

☐ Submit your application materials by the application deadline, four weeks prior to an HPC meeting. HPC meetings are held the second Tuesday of the month. There are numerous in-person and electronic application methods available; visit https://duluthmn.gov/planning-development/land-use-zoning-and-applications/applications-checklists/ for current information. Your application must include the following:

- ☐ Application Cover Sheet, available at https://duluthmn.gov/planning-development/land-use-zoning-and-applications/applications-checklists/, and applicable fee
- ☐ Nomination form and any documentation

After Submitting Your Application

1. Determination of Completeness. Within 15 business days of your application, you should expect to:

- Receive an "Applicant Letter," which acknowledges a complete application, shares the date of the HPC meeting and the assigned staff person, and notifies you of State-mandated deadlines for the City to make a decision, **OR**
- Receive notification that your application is incomplete, with details on further information to submit.

2. Public Notice. A mail notice will be sent by the City to property owners within 350 feet of the subject property.

3. Heritage Preservation Commission Hearing. The HPC will review the application, send it to Planning Commission for their review and recommendation, conduct a public hearing, and forward a recommendation to City Council. You will be notified when an HPC hearing is scheduled for your application. **We ask that applicants attend this meeting.**

4. City Council Decision. The Historic Preservation Commission recommendation will be forwarded to City Council in the form of an ordinance, which will require two readings. City Council will make a decision whether to approve the historic resource designation, approve it with modifications, or deny it. Planning staff will send notice of the Council action to the applicant.

Important Dates

Application Deadline: _____

Sign Notice Placed: _____

HPC Mtg: _____

Planning Commission: _____

City Council (1st read)*: _____

City Council (2nd read)*: _____

Effective*: _____

**Please note that these dates are approximate guidelines and may change*

5. Preservation Plan. Historic landmarks and districts require a Preservation Plan. **You will need** to submit a Plan to the HPC for their approval. There is no fee for this process. Contact your assigned Planning Staff person if you need examples of Preservation Plans or guidance on this part of the process.

CITY OF DULUTH **HPC FN** _____
HISTORIC PRESERVATION COMMISSION
LOCAL LANDMARK NOMINATION

I. Name of Property

A. Historic: Charles H. and Elizabeth Arthur House
B. Common: N/A

II. Location

A. Address: 230 East 4th Street, Duluth MN 5505
B. Legal Description: The Northerly 100 Feet of Lot 48, East Fourth Street, Duluth Proper, First Division, St. Louis County, Minnesota

III. Classification

A. Type of Property: Single family residence
B. Current Use: Multi-family residence (fourplex)
C. Current Zoning: F-6

IV. Current Owner

A. Name: Zak Skelton and Cameron Carlson, Aspenglow Properties
B. Address: 250 N. Red Cliffs Drive, Suite 4B #353, St. George, UT 84790
C. Telephone: (801) 698-7751

V. Property Status

A. Occupied/Vacant: Occupied
B. Assessed Value: $318,000
C. Condition: Good

VI. Historical Background

A. Year Built: c. 1886
B. Architect and/or Builder: Unknown
C. Original Site: Yes
D. Altered/Unaltered: Minor alterations, including window replacement and installation of asbestos siding
E. Architectural Style: Queen Anne

VII. Description of Property

See attached continuation sheets.

VIII. Present Condition

See attached continuation sheets.

IX. Statement of Significance

See attached continuation sheets.

X. Findings On Designation Criteria

See attached continuation sheets.

The following criteria are established by ordinance as the basis for designation of a site/district, with the requirement that the property proposed for designation meet at least one of the criteria.

Findings responding to each of the criteria are as follows:

A. It has character, interest, or value as part of the development, heritage, or cultural characteristics of the City of Duluth, State of Minnesota, or the United States.•

FINDING:

B. Its location was a site of a significant historical event.•

FINDING:

C. It is identified with a person or persons who significantly contributed to the cultural development of the City of Duluth, State of Minnesota, or the United States.•

FINDING:

D. It embodies a distinguishing characteristic of an architectural type.•

FINDING:

E. It is identified as the work of an architect or master builder whose individual work has influenced the development of the City of Duluth or the State of Minnesota.•

FINDING:

F. It embodies elements of architectural design, detail, materials, and craftsmanship which represent significant architectural innovation.•

FINDING:

G. Its unique location or singular physical characteristics represent an established and familiar visual feature of a neighborhood, community, or the City as a whole.•

FINDING:

XI. Conclusions See attached continuation sheets.

A. Points in Favor:

B. Points in Opposition:

XII. Attachments

A. Bibliography
See attached.

B. Location Map
See attached.

C. Photos of subject property
See attached.

D. Figures
See attached

City of Duluth Historic Preservation Commission Local Landmark Nomination: Continuation Sheets

VII. Description of Property

230 East 4th Street is a two-story, Queen Anne-style residence located in Duluth's Central Hillside neighborhood (Photo 0001). Constructed in 1886, the property was originally designed as a single-family home and subdivided in the early twentieth century into multiple residential units; today, it operates as a fourplex. The property is located on a rectangular corner lot at the southwest[1] corner of the intersection East 4th Street and 3rd Avenue East (See attached Location Map and Figure A). The house is built into Duluth's hillside, which rises from the shoreline of Lake Superior to the south up towards the bluffs on the north. Parking lots are located on the adjacent parcels to the west and south. The subject parcel is bounded by a concrete retaining wall and concrete sidewalks to the east and north; a stone wall is located on the south edge of the site (Photos 0002, 0003, and 0013). Site landscaping includes a grass lawn with several shrubs and trees. At the primary north elevation, a set of concrete steps with metal pipe handrails accommodate the slight grade change between East 4th Street and the front lawn. Near the southeast corner of the property, a sloped concrete driveway likewise provides access from 3rd Avenue East to the attached garage at the rear of the house (Photo 0004). Two concrete steps provide access from the driveway to the lawn to the north. A short segment of a decorative metal picket fence (Photos 0008 and 0010) and a concrete walkway are located along the west side of the house.

230 East 4th Street is a two-story house with roughly rectangular footprint, with one-story segments at the south and east elevations. Due to the grade change on the site, the lower level of the building is at grade at the rear south elevation (Photos 0005 and 0006) and progressively concealed below grade as one moves to the north (Photos 0001 – 0004, 0007, and 0008). The building has an exposed stone foundation, non-historic metal and asbestos siding, a combination of historic wood and non-historic metal and vinyl windows, and a shingled roof with overhanging eaves capped with non-historic metal paneling. The roof shape is complex, consisting of a hipped roof with cross gables at all four elevations and multiple dormers. At the south elevation, there is a shed-roofed, one-story segment which contains a garage at the lower level (Photo 0014); another shed-roofed, one-story segment is located at the east elevation (visible in Photos 0016 and 0017). There are two chimneys – a non-historic concrete block chimney at the east elevation (Photo 0015) and a brick chimney at the south elevation (Photo 0005). The primary north elevation features a two-story, gable-front open porch (Photo 0009); a prominent turret with bell-shaped roof is located at the northeast corner (Photos 0001 – 0003, 0015).

The property's period of significance is 1886 – 1920. In the following description, the term "historic" is used to refer to existing features that appear to date to the period of significance, 1886 – 1920; features that appear to have been installed after 1920 are identified as non-historic.[2]

[1] For ease of reference, plan rather than cardinal directions are used. The property's true northwest elevation is referred to as the north elevation, true northeast as east, etc.

[2] No photographs of the property dating to the period of significance were available. Assessment of historic and non-historic features is based on a photograph that dates to c. 1930s/1940s, historic Sanborn maps, and on-site assessment.

North Elevation (Photos 0001, 0002, 0009)

The house's primary north elevation fronts on East 4th Street. As is typical for Queen Anne-style houses, the elevation is asymmetrical in design. Window openings at the first and second levels consist primarily of non-historic hung metal or vinyl windows with transom infill panels; two wood windows that appear historic are located at the first level. The west side of the elevation features a two story, gable-front porch with decorative painted wood balustrades, porch supports, and friezes, as well as painted wood ceilings.[3] Painted wood steps with wood handrails lead up to the primary entrance, which consists of a wood paneled door with light in a painted wood cased opening. Metal mailboxes are set into the façade to the west of the door. At the second level of the porch, the wood balustrade features a geometric design that stands in contrast to the spindle work at the first level. According to historic Sanborn maps, the second level of the porch is not original to the 1886 house, but was installed at an unknown date.[4]

The east side of the north elevation features a two-story turret. The tower is clad with non-historic vertical metal paneling and has a bell-shaped roof with metal finial. During the period of significance, the tower featured a decorative cornice, which has now been removed or obscured by the metal paneling. Between the tower and porch, three dormers are located at the roof: an eyebrow dormer with an infilled portal window; a blind gable-roofed dormer; and a hexagonal-roofed dormer with central window.

East Elevation (Photos 0003, 0004, 0014 – 0017)

The house's east elevation fronts on 3rd Avenue North. Near the center of the elevation, the roof holds a dormer with conical roof supported by wood spindles. The dormer features a small window and is partially clad with wooden shingles. Windows at the first and second levels consist primarily of non-historic hung windows, some infill transom panels; one historic wood window with divided-light transom is located at the first level. At the exposed stone foundation at the lower level, two former window openings with brick headers have been infilled.

At the south side of the elevation, the attached shed-roofed garage is completely clad in asbestos siding and set on what appears to be a concrete foundation. The vehicular entrance to the garage consists of a modern overhead door in a wood-framed opening. A painted flat slab door, also in a wood-framed opening, is located to the north of the garage. A narrow balcony with non-historic wood lattice is located at the first level above the garage door. The balcony is accessed from the interior via a non-historic door in wood-framed opening.

Another one-story shed roofed segment is located directly north of the garage. Sanborn maps (see Figures D - F) and building permits indicate that this section may have originally functioned as an open porch and was enclosed in 1964.

[3] Spindle work at the east handrail does not match the rest of the porch and appears to be a non-original replacement. The porch floor appears to be finished with painted plywood and may be non-historic.

[4] The front porch is shown as a one-story porch in the 1888, 1909, and 1947 Sanborn Maps. A photograph of the house that appears to date to the 1930s or 1940s shows the porch with two levels. Sanborn maps were often not updated consistently, so it is possible that the second level of the porch was added during the period of significance.

South Elevation (Photos 0005 and 0006)

The south elevation faces the adjacent parking lot to the south of the property. At the first level, the south façade of the one-story attached garage holds a former door opening that has been infilled. One window opening with non-historic hung window is located at the second level.

West Elevation (Photos 0007, 0008, 0011, 0012)

The west elevation faces the adjacent parking lot to the west of the property. Windows at the first and second levels consist primarily of non-historic hung windows, some with infill transom panels. One historic wood window with divided upper light is located in the gable near the center of the façade, and one historic wood window with stained glass is located at the first level on the north side of the façade. At the exposed stone foundation at the lower level, there are three wood-framed openings with brick headers and painted masonry sills: one opening with a multi-light historic wood window, another with a single-light wood window, and the third with a metal vent. A wood-framed door opening with brick header and non-historic paneled door is located at the south side of the elevation.

VIII. Present Condition

The property is generally in good condition. The most noticeable areas of deterioration include the non-historic siding, portions of which are discolored, broken, and/or missing; and the stone foundation, some of which has been painted and exhibits deteriorated mortar joints.

The property retains sufficient physical integrity to convey its historical significance.[5] The house has not been moved and retains integrity of location. Though some changes have been made to the property's immediate surroundings since the early twentieth century, including new construction associated with the hospital to the east and the demolition of some residences to the immediate north and west, the blocks to the north remain primarily residential, as they were during the property's period of significance.[6] The property retains integrity of design, including many of the features that mark it as an example of the Queen Anne style: a complex roofline with multiple dormers and gables, asymmetrical elevations, and a prominent turret. The house also appears to retain most of its historic fenestration patterns. While the majority of windows have been replaced and historic siding removed or covered, some historic materials remain visible, such as the exposed stone foundation, several wood windows, decorative spindle work at the front porch, and metal finial at the tower. These features are evidence of the craftsmanship of the individuals who built the house, and allow the property to convey integrity of workmanship. As a Queen Anne-style house still used as a multi-family residence, the property has integrity of association and feeling.

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[5] Integrity has been assessed according to the seven aspects of integrity defined by the National Park Service: location, setting, design, materials, workmanship, association and feeling. See National Park Service, *How to Apply the National Register Criteria for Evaluation,* rev. ed. (Washington, D.C.: 1995), 44 – 48.

[6] Sanborn Map Publishing Company, *Duluth, Minnesota* (New York: Sanborn Map Publishing Company, 1909), Sheets 152 – 155, 160 – 164, and 173 – 178; Sanborn Map Publishing Company, *Duluth, Minnesota,* Vol. 2 (New York: Sanborn Map Publishing Company, 1947), Sheets 162 and 176; St. Louis County, County Land Explorer, accessed November 28, 2022, https://www.stlouiscountymn.gov/departments-a-z/assessor/property-information.

IX. Statement of Significance

230 East 4th Street was constructed in 1886 in Duluth's Central Hillside neighborhood. The property is significant under local designation Criteria A and D for its representation of residential development in the Central Hillside neighborhood during the late nineteenth and early twentieth centuries, and as an example of the Queen Anne architectural style. The recommended period of significance is 1886, when the property was constructed, until 1920, the approximate date by which the Central Hillside neighborhood had been substantially developed.

In 2014, a historic resources survey was completed for the area of the city bounded by North Lake Avenue on the west, East 2nd Street and Superior Street on the south, 6th Avenue East on the east, and East 6th Street on the north, an area that comprises the majority of Duluth's Central Hillside neighborhood. The historic context study prepared as part of this survey provides a historic framework within which to evaluate the significance of 230 East 4th Street; applicable sections of this context study are quoted and referenced throughout the following statement of significance.[7]

Single Family Residential Development in the Central Hillside Neighborhood

Euro-American settlement of what is now known as the City of Duluth began in the mid-1850s, following the 1854 Treaty of La Pointe between the United States government and the Ojibwe. Several Euro-American settlements were platted along the north shore of Lake Superior at this time, including the town of Duluth at the base of Minnesota Point (1856) and the town of Portland directly to the east (1855), platted from 2nd Avenue East on the west to 9th Avenue East on the east. Though the financial panic of 1857 put a temporary damper on the area's development, railroad access and the construction of a ship canal brought new vitality to the area by 1870. That year, the population of Duluth increased from 14 families to 3,500 individuals, and the community was incorporated as the City of Duluth. The new city annexed neighboring Portland, and Portland's streets were re-platted so as to align with those in Duluth.[8]

In 1873, another economic crisis (the Panic of 1873) halted development again; in 1874 the city's population declined from 5,000 to 1,300. By the late 1870s, however, population was again on the rise, supported by increases in grain shipments from the Duluth port. The 1880s brought new growth and expansion to Duluth. As rising immigration from other areas of the country and Europe to the Great Plains fueled the growth of the lumbering and grain industries, Duluth became a key terminal for sawmilling and the shipping of lumber from the area's white pine forests, as well as grain grown by Great Plains farmers. By 1887, the city boasted a population of approximately 30,000. By 1890, Duluth was the fifth largest seaport in the United States.[9]

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[7] Andrew Schmidt, Sara J. Nelson, and Marjorie Pearson, "Historic Resources Inventory for the East End Residential Area: Phase V," prepared for the City of Duluth, October 2014.

[8] Lawrence J. Sommer, project director, *Duluth Historic Resources Survey: Final Report,* (Duluth, MN: St. Louis County Historical Society, 1984), 7 – 8; Nancy Eubank, "The Zenith City of the Unsalted Sea: Duluth Historic Contexts Study," prepared for the Duluth Heritage Preservation Commission, August 1991, p. 57; Andrew B Stone, "Treaty of La Pointe, 1854," MNopedia, last modified July 22, 2021, https://www.mnopedia.org/event/treaty-la-pointe-1854#:~:text=The%20Treaty%20of%20La%20Pointe,negotiations%20with%20the%20U.S.%20government; Schmidt, Nelson, and Pearson, "Historic Resources Inventory for the East End Residential Area: Phase V," p. 7 – 9.

[9] Sommer, *Duluth Historic Resources Survey: Final Report,* 8 – 10; Schmidt, Nelson and Pearson, "Historic Resources Inventory," p. 8.

In the 1890s, iron ore mining became another significant driver of the local economy. Railroads transported iron ore from mines in the Mesabi, Vermillion, and Cuyna ranges to the north and west of Duluth to the city's port for shipment to processing facilities in the eastern United States. This industry brought a variety of individuals to Duluth, including not only mining pioneers and company officials but also lawyers, brokers, engineers, and consultants. Mining and lumbering also stimulated the development of other industries, including the U. S. Steel plant, hardware manufacturer Marshall Wells, and numerous smaller service and manufacturing firms.[10]

This economic growth fueled new construction within the city, including residential development of the Central Hillside neighborhood. According to the 2014 context study on the neighborhood "much of the residential area northeast of downtown was platted as the City of Duluth, Portland Division when the area was annexed by the City in 1870. While there was scattered development in the 1870s, residential construction only began in large numbers in the 1880s and 1890s."[11]

Early concentration of Duluth's wealthy residents was located an area roughly bounded by East 1st and 4th Streets and 2nd and 6th Avenues East. Known as Ashtabula Heights, the area was named for Ashtabula, Ohio, the hometown of many of the neighborhood's residents.[12] This wealthy neighborhood was short-lived, however, as the establishment of Duluth's streetcar line in 1882 encouraged those with sufficient means to move east. By 1887, the city's streetcar line ran along Superior Street from 5th Avenue West all the way to 22nd Avenue East. In 1890, the lines were electrified, and a new line was installed that ran east along East 2nd Street, north along 6th Avenue East, and east again on East 4th Street until 14th Avenue East.[13] As streetcar lines provided access, the city's elite began constructing large homes east of 13th Avenue East along Superior, First and Second Streets during the 1890s and 1900s, in the East Hillside, London Road, and Glen Avon-Hunter's Park neighborhoods, leaving their houses closer to downtown to be demolished or subdivided into multiple units rented by working class individuals.[14]

Review of 1888 Sanborn fire insurance maps indicates that the Central Hillside neighborhood was only partially developed by this date, with most development contained to the south of East 5th Street. Most residential development consisted of single-family houses, most of frame construction and one to two stories in height. A small number of duplexes and rowhouses were also present. Though platted, a significant amount of lots in this area remained vacant and undeveloped.[15]

By 1909, the neighborhood had expanded to approximately 10th Street East on the north, and additional residential construction had been added to the older, south half of the neighborhood. In addition to single family houses, this new construction included multi-unit flats and duplexes, some

[10] Sommer, *Duluth Historic Resources Survey: Final Report,* p. 8 – 11; Schmidt, Nelson and Pearson, "Historic Resources Inventory," p. 8.
[11] Schmidt, Nelson, and Pearson, "Historic Resources Inventory," p. 9.
[12] Van Brunt, ed. *Duluth and St. Louis County,* p. 236; Schmidt, Nelson, and Pearson, "Historic Resources Inventory," p. 9; Eubank, "The Zenith City," p. 57.
[13] Schmidt, Nelson, and Pearson, "Historic Resources Inventory," p. 10.
[14] Schmidt, Nelson, and Pearson, "Historic Resources Inventory," p. 10; Sommer, *Duluth Historic Resources Survey: Final Report,* 8 – 11; Eubank, "The Zenith City," 57.
[15] Sanborn Map Publishing Company, *Duluth, Minnesota* (New York: Sanborn Map Publishing Company, 1888), Sheets 16 – 21 and 25.

of which were built of masonry.[16] The 2014 historic resource survey notes that "as development moved up the hill beyond East 5th Street, many of [the houses in the study area] were built on smaller lots and have smaller footprints. Some of the earlier, larger houses close to downtown were built for individual well-to-do owner-residents, [in the area that] became known as Ashtabula Heights…However, it appears that many of the smaller, later houses were built by developers, contractors, and real estate investors, either for sale or rental to working-class residents.[17]

In his 1974 book on Duluth architecture, James Allen Scott summarizes the residential development of the Central Heights neighborhood this way:

> The lower middle class – small shopkeepers, skilled artisans, better paid office and sales personnel – filled out the blocks along Third, Fourth, Fifth, Sixth, and Seventh Streets between Lake Avenue and Eight and Ninth Avenues East. Mixed in with them…were artisans whose work locations changed frequently or whose families depended on multiple employment which required a centrally located home near good crosstown transportation service. Houses – detached single family frame structures, two-family duplexes, three-deckers with one apartment per story and stores with apartments above them – filled in the narrow city lots.[18]

By 1920, the City of Duluth had nearly reached the height of its growth, both in terms of geography and number of residents. The city had expanded to encompass most of its modern-day land area, and its population had increased from 30,000 individuals in 1887 to approximately 100,000 individuals, a number that would remain relatively steady in the decades to come. Author Nancy Eubank notes that "by the 1920s Duluth had reached a growth plateau, and many of its neighborhoods continued to look much as they had at the turn of the century...it was not until after World War II, with the changes brought by freeways and new growth "over the hill," that Duluth's appearance began to change."[19]

From the 1930s onward, many of the Central Hillside neighborhood's single-family houses were subdivided into duplexes or apartments, or converted to boarding houses.[20] During the 1960s and 1970s, the neighborhood experienced significant redevelopment, as the expansion of local hospitals and development of higher-density multi-family housing led to the demolition of some older residential properties.[21]

230 East 4th Street: Construction

The history of 230 East 4th Street represents the broad trends of residential development in the Central Hillside neighborhood during the late nineteenth and early twentieth centuries. County property records give the building's construction date as 1886.[22] While this cannot be confirmed

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[16] Sanborn Map Publishing Company, *Duluth, Minnesota* (New York: Sanborn Map Publishing Company, 1909), Sheets 152 – 155, 160 – 164, and 173 – 178.
[17] Schmidt, Nelson, and Pearson, "Historic Resources Inventory," p. 12.
[18] James Allen Scott, *Duluth's Legacy: Volume 1 Architecture* (Duluth: City of Duluth Department of Research and Planning, 1974), as cited in Schmidt, Nelson and Pearson, "Historic Resources Inventory," p. 9.
[19] Sommer, *Duluth Historic Resources Survey: Final Report,* p. 11; Eubank, "The Zenith City," p. 63.
[20] Schmidt, Nelson, and Pearson, "Historic Resources Inventory," p. 12.
[21] Schmidt, Nelson, and Pearson, "Historic Resources Inventory," p. 11 – 13.
[22] St. Louis County, Property Details Report for Parcel 010-0990-01110, November 22, 2022, https://reports.stlouiscountymn.gov/ssrswrapper/ShowSSRSReport.aspx?reportPath=/Assessor/PropertyDetails/Main&param1

using city building permit records, city directories and fire insurance maps produced by the Sanborn Map Company suggest that this date is accurate. In 1885, the portion of Duluth mapped by the Sanborn Fire Insurance Company was primarily limited to areas south of East 2nd Street close to the lakefront, suggesting that little notable development had occurred northwest of this thoroughfare.[23]

By 1888, as noted above, residential development had expanded north as far as 5th Street, encompassing the site of 230 East 4th Street. The property appears on the 1888 Sanborn map as a two-story, frame dwelling with shingled roof, with a footprint matching the existing building. One-story, open porches are shown at the primary north (Fourth Street) elevation and secondary east (Third Avenue) elevations (Figure D). Given the absence of original historic photographs, the property's original cladding material cannot be determined with certainty. However, a photo of the house that appears to date to the 1930s or 1940s (Figure B) indicates that the building may have originally been clad with wooden shingles above its exposed stone foundation.[24]

Queen Anne Architecture

230 East Fourth Street displays the character-defining features of the Queen Anne architectural style, a style commonly employed for the designs of single-family houses constructed in the Central Hillside neighborhood during the late nineteenth and early twentieth centuries. According to the 2014 historic context study, the forms and styles of these houses:

> are characteristic of popular types during the late nineteenth and early twentieth centuries seen throughout Minnesota communities. These include the Queen Anne, Stick Style, and Colonial Revival. Some of the larger, more distinguished examples were designed by Duluth architects. The majority follow vernacular examples based on plan shapes and roof forms, such as front-gable-form, intersecting gable form, and Foursquare. Most of the single-family houses are frame construction, originally with wood clapboard and/or wood shingle siding, wood ornamental detail, and an open wood porch with ornamental columns or posts. Some have brick walls or brick facing over frame construction. Because of Duluth's geography and the availability of local bluestone (gabbro), they are often set on stone basements or foundations. Wood siding and ornament have been susceptible to deterioration and change over the years. It is unusual to find largely unaltered examples in the study area.

Developed by a group of nineteenth-century English architects including Richard Norman Shaw, the Queen Anne style is characterized (in the words of architectural historian Marcus Whiffen) by "irregularity of plan and massing and variety of color and texture."[25] In her seminal work on the architectural styles of American houses, architectural historian Virginia McAlester notes that this was "the dominant style of domestic building [in the United States] during the period from

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=parcelnum=010-0990-01110&pdf=true.

[23] Sanborn Map Publishing Company, *Duluth, Minnesota* (New York: Sanborn Map Publishing Company, 1884), Index; Sanborn Map Publishing Company, *Duluth, Minnesota* (New York: Sanborn Map Publishing Company, 1885), Index; Sanborn Map Publishing Company, *Duluth, Minnesota* (New York: Sanborn Map Publishing Company, 1888), Sheets 20 and 25.

[24] Sanborn Map Publishing Company, *Duluth, Minnesota* (New York: Sanborn Map Publishing Company, 1888), Sheet 20; E.S. Ciebigra, photograph of 230 East 4th Street, Box 6, Collection S2386, General Historic Photo Collection (Real Estate), Kathryn A. Martin Library Archives and Special Collections, Duluth, Minnesota.

[25] Whiffen, *American Architecture Since 1780*, 115; Virginia Savage McAlester, *A Field Guide to American Houses,* rev. ed. (New York: Alfred A. Knopf, 2014), 348.

about 1880 until 1900."[26] McAlester notes that the style "uses wall surfaces as primary decorative elements. This is accomplished in two ways: (1) by avoiding plain flat walls through such devices as bays, towers, overhangs, and wall projections, and (2) by using several wall materials of differing textures wherever expanses of planar wall do occur."[27] This desire to create variety is also expressed by an "abundance of decorative detail."[28]

The Queen Anne style can be divided into subtypes by 1) shape and 2) the style of decorative detailing employed. The general irregularity of plan and massing displayed at 230 East 4th Street – the variety of roof shapes, one and two-story bump outs, and asymmetrical façades – clearly marks the property as an example of the Queen Anne style. More specifically, the shape of 230 East 4th Street is an example of the "Hipped Roof with Lower Cross Gables" subtype, the most common subtype for Queen Anne style houses, in which a steeply-pitched hipped roof is intersected by one or more lower cross gables. Additional dormers and gables, such as the eyebrow and hipped dormers present at 230 East 4th Street, were commonly added. The presence of a corner tower is another common characteristic of this subtype. [29]

230 East 4th Street is also an example of the "Spindle Work" subtype of Queen Anne detailing, which is characterized by "delicate turned porch supports and spindle work ornamentation" used at porch balustrades and friezes, at gables, and other locations.[30] At 230 East 4th Street, this detailing is most obvious at the front porch. Several wooden spindles also remain at the dormer on the east elevation.

Based on the only available older photograph of the property (Figure B), 230 East 4th Street appears to have been originally clad with wooden shingles, a common cladding material for Queen Anne style houses. As is not uncommon for surviving examples of Queen Anne houses, these shingles have since been removed or covered up by non-historic siding.[31]

230 East 4th Street: Occupant History

The succession of individuals who occupied 230 East 4th Street provides a cross section of the residents of the Central Hillside neighborhood during the late nineteenth and early twentieth centuries. By 1920, when the neighborhood was substantially developed, the property had begun to function as a multi-family residence, as it does today.

Charles Arthur: 1887

The first known occupant of 230 East 4th Street appears in the 1887-1888 Duluth City Directory as Charles H. Arthur. Arthur was a founding member of the Arthur, Waters and Company. According to a newspaper article, the Duluth company was established in 1886 as the "Duluth house" of the Buffalo firm of Arthurs and Waters, and consisted of C. H. Arthur, H. S. Waters, and C. H. Modisette. The 1886 Duluth City Directory lists the company as one of

[26] McAlester, *A Field Guide to American Houses,* p. 350.
[27] McAlester, *A Field Guide to American Houses,* p. 348.
[28] "Queen Anne Style 1880 – 1910," *Pennsylvania Architectural Field Guide,* accessed November 28, 2022, http://www.phmc.state.pa.us/portal/communities/architecture/styles/queen-anne.html.
[29] McAlester, *A Field Guide to American Houses,* 344 – 350.
[30] McAlester, *A Field Guide to American Houses,* 346.
[31] McAlester, *A Field Guide to American Houses*, 348.

approximately 30 grain commission firms in the city. Both Charles' place of residence and his business venture were short lived. By 1888, the firm of Arthur & Waters had disappeared from the city directory, and Charles resided at a home along West 3rd Street. [32]

Alexander Morison: 1888 – c. 1892

From 1888 until approximately 1892, 230 East 4th Street was occupied by real estate agent Alexander Morison, associated first with Morison & Macfarlane and then the Simon Clark & Company. According to an 1888 newspaper article, Morison & Macfarlane were real estate agents with offices in the Duluth Exchange Building. The company sold lots in Duluth's West End and acreage outside of the city with lumber and mineral resources, as well as life insurance. The firm is listed in the 1888 city directory as one of more than 100 real estate companies in Duluth. In 1888, Morison lived at 230 East 4th Street with Amanda Anderson, whose occupation is listed as "domestic," suggesting that she provided housekeeping services for Morison. A Miss Dina Morison, possibly Alexander's daughter, is listed in the 1891 and 1892 directories as a boarder at the property. Dina worked as a clerk and a stenographer.[33]

Reverend Thomas Cleland: c. 1894 – 1898

Morison was succeeded by Reverend Thomas A. Cleland, who resided at 230 East 4th Street from 1893 or 1894 until 1898. Cleland was the pastor of First Presbyterian Church, established in Duluth in 1869. Cleland was the church's pastor from 1894 until 1906. Under his leadership, the church constructed its second building in 1901 at the southeast corner of Second Avenue and Third Avenue East, only two blocks south of 230 East 4th Street. City directories indicate that Cleland lived at the house with his two sons, Frank and William, both of whom were students at the time.[34]

Cook and Gittleson Families: 1899 – 1911

From 1899 until 1911, 230 East 4th Street was occupied by Moses and Anna Cook. At the time that Moses acquired the house, he was a manager at S. E. Gittleson & Co. Located at 400 West Superior Street, the firm was one of about three dozen clothing stores in the city in 1899. Anna's relation to Moses is unknown, but the S. E. Gittleson & Company is also listed as her employer.[35] During the Cooks' occupation of the house, they employed a succession of live-in helpers and housekeepers, including Lena Peterson (1902), Bertha Myelde (1904), Deila Donnelly (1905), and Lottie Wiek (1906 and 1907).[36] Two individuals who may have been related to Moses and Anna -

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[32] "Twenty Years Ago," *Duluth Evening Herald,* March 6, 1906; *R. L. Polk & Co.'s Duluth Directory, 1887-8* (Duluth, MN: R. L. Polk & Co., 1887), 129; *R. L. Polk & Co.'s Duluth Directory, 1886-7* (Duluth, MN: R. L. Polk & Co., 1886), 390 – 391.

[33] *R. L. Polk & Co.'s Duluth Directory, 1888-9* (Duluth, MN: R. L. Polk & Co., 1888), 134, 408, 599, 620; *R. L. Polk & Co.'s Duluth Directory, 1892-93* (Duluth, MN: R. L. Polk & Co., 1892), 498; *R. L. Polk & Co.'s Duluth Directory, 1891-2* (Duluth, MN: R. L. Polk & Co., 1891), 517, 408; "Morison & Macfarlane, Real Estate." *Duluth Evening Herald,* June 27, 1888.

[34] Dwight E. Woodbridge and John S. Pardee, eds., *History of Duluth and St. Louis County: Past and Present,* vol. 2 (Chicago: C. F. Cooper & Company, 1910), 598 – 601; *R. L. Polk & Co.'s Duluth Directory, 1894-95* (Duluth, MN: R. L. Polk & Co., 1894), 134, 408; *R. L. Polk & Co.'s Duluth Directory, 1897-98* (Duluth, MN: R. L. Polk & Co., 1897), 207, 208; "Paralysis Kills Rev. T. H. Cleland," *Minneapolis Sunday Journal,* August 27, 1916.

[35] *R. L. Polk & Co.'s Duluth Directory, 1899* (Duluth, MN: Duluth Directory Co., 1899), 175, 176, 544; *R. L. Polk & Co.'s Duluth Directory, 1911* (Duluth, MN: Duluth Directory Co., 1911), 315, 352.

[36] *R. L. Polk & Co.'s Duluth Directory, 1902* (Duluth, MN: Duluth Directory Co., 1902); 176, 484; *R. L. Polk & Co.'s Duluth Directory, 1904* (Duluth, MN: Duluth Directory Co., 1904); 206, 207, 302, 546; *R. L. Polk & Co.'s Duluth Directory, 1905* (Duluth, MN: Duluth Directory Co., 1905), 250, 323; *R. L. Polk & Co.'s Duluth Directory, 1906* (Duluth, MN: Duluth Directory Co., 1906),

Emmanuel Cook (bookkeeper at the Cook store) and Norman A Cook (clerk at an unknown firm) are listed as boarders in 1908 and 1911, respectively.[37]

In 1904, the S. E. Gittleson & Co. partnership was dissolved. The firm's junior partner Samuel Gittleson focused his attention on the jewelry business, opening a jewelry store at 311 West Superior Street, while it appears that Moses assumed the operations of the clothing store at 400 West Superior Street under the name Cook's Loan Bank & Clothing House. In 1905, Gittleson moved his jewelry store into the clothing store at 400 West Superior Street.[38] By 1905, Gittleson's jewelry store was one of about two dozen retail jewelers in the city. The business appears to have been short-lived, however; by 1907, the firm is no longer listed in the city business directory, and by 1908 Gittleson was working at Cook's clothing store.[39]

From 1904 until 1910, city directories list Samuel Gittleson as a boarder at 230 East 4th Street. Through 1911, other members of the Gittleson families boarded at the property, including: Marian Gittleson, a stenographer at the Minnesota Mining & Manufacturing Company (1906); Sadie Gittleson (1908); and Isaac Gittleson, a clerk at an unknown firm (1910 and 1911).[40] By 1909, the Sanborn map indicates that exterior stairs had been added to the southwest corner of the house (at the southwest corner of the current garage), perhaps as a means of providing a separate entrance for the Gittleson family (Figure E).[41]

1912 – Present

From 1912 until the present day, the property has been utilized as multi-family housing. From 1912 until 1919, city directories list as many as eight different occupants in any given year, though some occupants had the same last names, suggesting that they may have been related and shared rooms. In contrast to the house's earlier occupants, most residents appear to have been employed in working or lower middle-class occupations, with jobs that included laundress, teacher, telephone operator, nurse, bar tender, and mechanical foreman. A few occupants were listed as "residents," rather than boarders, and are more likely to have owned the property. These included Tobias Gordon, who worked at the Northwestern Leather Company (1912); Nettie Brownell (1913); Byron C. Harris, solicitor and district manager of the *Duluth News Tribune* (1914 – 1916);

226, 334, 871; *R. L. Polk & Co.'s Duluth Directory, 1907* (Duluth, MN: Duluth Directory Co., 1907); 242, 932.

[37] *R. L. Polk & Co.'s Duluth Directory, 1908* (Duluth, MN: Duluth Directory Co., 1908); 315, 412; *R. L. Polk & Co.'s Duluth Directory, 1911* (Duluth, MN: Duluth Directory Co., 1911), 315, 352.

[38] *R. L. Polk & Co.'s Duluth Directory, 1905* (Duluth, MN: Duluth Directory Co., 1905), 884 and 933; "Dissolution of Partnership," *Duluth Evening Herald,* October 7, 1904; "City Briefs," *Duluth Evening Herald,* February 29, 1904.

[39] *R. L. Polk & Co.'s Duluth Directory, 1904* (Duluth, MN: Duluth Directory Co., 1904); 206, 207, 302, 546; *R. L. Polk & Co.'s Duluth Directory, 1905* (Duluth, MN: Duluth Directory Co., 1905), 933; *R. L. Polk & Co.'s Duluth Directory, 1910* (Duluth, MN: Duluth Directory Co., 1910), 314, 448; *R. L. Polk & Co.'s Duluth Directory, 1908* (Duluth, MN: Duluth Directory Co., 1908); 315, 412; *R. L. Polk & Co.'s Duluth Directory, 1907* (Duluth, MN: Duluth Directory Co., 1907), 242, 932, 963.

[40] *R. L. Polk & Co.'s Duluth Directory, 1904* (Duluth, MN: Duluth Directory Co., 1904); 206, 207, 302, 546; *R. L. Polk & Co.'s Duluth Directory, 1905* (Duluth, MN: Duluth Directory Co., 1905), 933; *R. L. Polk & Co.'s Duluth Directory, 1910* (Duluth, MN: Duluth Directory Co., 1910), 314, 448; *R. L. Polk & Co.'s Duluth Directory, 1908* (Duluth, MN: Duluth Directory Co., 1908); 315, 412; *R. L. Polk & Co.'s Duluth Directory, 1907* (Duluth, MN: Duluth Directory Co., 1907), 242, 932, 963; *R. L. Polk & Co.'s Duluth Directory, 1911* (Duluth, MN: Duluth Directory Co., 1911), 315, 352; R*. L. Polk & Co.'s Duluth Directory, 1906* (Duluth, MN: Duluth Directory Co., 1906), 226, 334, 871.

[41] Sanborn Map Publishing Company, *Duluth, Minnesota,* Vol. 2 (New York: Sanborn Map Publishing Company, 1909), Sheet 176; "Detailed Statement of Application for Additions, Alterations or Repairs…," Application No. 23754, 230 East 4th Street, June 11, 1928, on file at the City of Duluth.

and Mary Murphy, assistant at M. M. Bagnell (1917).[42]

During the 1920s, the property was occupied by several members of the Cameron family, as well as unrelated boarders. The house appears to have been owned by Peter Cameron, a manager at the Singer Sewing Machine Company.[43] Other members of the Cameron family who resided at the property from 1920 through 1928 included Frank Cameron (a salesman at the Singer Sewing Machine Company), David Cameron (a student and later manager of the Superior Money Company), Durah Cameron (a pricer at the Kelley-Hw-Thompson Company), John Cameron (a student and later a clerk), Virginia Cameron (a student and later a clerk and bookkeeper), and Mrs. Annie Cameron. Several unrelated occupants are also listed in city directories, including clerk Arthur Wells (listed as a boarder in 1921), carpenter Frank Hoffman (listed as a resident in 1925), and salesman Cecil P. Gardner and barber Samuel H. Walton (listed as residents in 1927).[44]

Sometime during the Camerons' tenure, a building permit was filed to re-shingle the property.[45] In 1928, one window was installed at the first level near the southwest corner of the house, to permit installation of a bathroom at the interior.[46]

During the 1930s and 1940s, the property continued to function as multi-family housing, with between one and four occupants listed in city directories each year. For the majority of these two decades, the property owners also lived at the house – first Martin and Marion Usiak (who owned the property by 1928 and lived here from 1932 through 1939) and then James and Viola Pyette (who owned the property from approximately 1942 through 1948).[47]

During the mid-twentieth century, the property appears to have transitioned to providing housing primarily for widowed and/or older populations. City directories from 1950 until 1972 list between three and seven occupants each year. With the exception of the owner, cabinet maker Viekko Hautamaa, most occupants are listed as widows.[48] In 1964, a permit was filed to enclose the

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[42] *R. L. Polk & Co.'s Duluth Directory, 1912* (Duluth, MN: Duluth Directory Co., 1912), 410, 446, 476; *R. L. Polk & Co.'s Duluth Directory, 1913* (Duluth, MN: Duluth Directory Co., 1913), 214, 600, 833; *R. L. Polk & Co.'s Duluth Directory, 1914* (Duluth, MN: Duluth Directory Co., 1914), 436, 493, 496, 508, 733, 743, 785; *R. L. Polk & Co.'s Duluth Directory, 1915* (Duluth, MN: Duluth Directory Co., 1915), 419, 471, 474, 484, 623, 909; *R. L. Polk & Co.'s Duluth Directory, 1916* (Duluth, MN: Duluth Directory Co., 1916), 410; *R. L. Polk & Co.'s Duluth Directory, 1917* (Duluth, MN: Duluth Directory Co., 1917), 467; *R. L. Polk & Co.'s Duluth Directory, 1918* (Duluth, MN: Duluth Directory Co., 1918), 355, 112, 401, 476.

[43] *R. L. Polk & Co.'s Duluth Directory, 1913* (Duluth, MN: Duluth Directory Co., 1913), 229.

[44] *R. L. Polk & Co.'s Duluth Directory, 1920* (Duluth, MN: Duluth Directory Co., 1920), 145, 146; *R. L. Polk & Co.'s Duluth Directory, 1921* (Duluth, MN: Duluth Directory Co., 1921), 143, 619; *R. L. Polk & Co.'s Duluth Directory, 1924* (Duluth, MN: Duluth Directory Co., 1924), ; *R. L. Polk & Co.'s Duluth Directory, 1925* (Duluth, MN: Duluth Directory Co., 1925), 162, 163, 331; *R. L. Polk & Co.'s Duluth Directory, 1926* (Duluth, MN: Duluth Directory Co., 1926), 151; *R. L. Polk & Co.'s Duluth Directory, 1927* (Duluth, MN: Duluth Directory Co., 1927), 146, 238; *R. L. Polk & Co.'s Duluth Directory, 1928* (Duluth, MN: Duluth Directory Co., 1928), 135.

[45] "Detailed Statement of Application for Additions, Alterations or Repairs…," Application No. 14428, 230 East 4th Street, undated, on file at the City of Duluth.

[46] "Detailed Statement of Application for Additions, Alterations or Repairs…," Application No. 23754, 230 East 4th Street, June 11, 1928, on file at the City of Duluth. The permit notes that the property's use at the time of the application was as a "one family dwelling," but that the function after the installation of the windows would be a "two family dwelling." However, city directory records indicate that the house clearly functioned as multi-family housing prior to this date. The window installed in 1928 is no longer visible from the exterior.

[47] For example, see *Polk's Duluth City Directory, 1932* (Duluth, MN: Duluth Directory Co., 1932), 758; *Polk's Duluth City Directory, 1942* (Duluth, MN: Duluth Directory Co., 1942), 671.

[48] For example, see *Polk's Duluth City Directory, 1951* (St. Paul, MN: R.L. Polk & Co., 1951), 331; *Polk's Duluth City Directory, 1955* (St. Paul, MN: R.L. Polk & Co., 1955), 52; *Polk's Duluth City Directory, 1962* (St. Paul, MN: R.L. Polk & Co., 1962), 179.

building's rear porch, which might have been a reference to the existing shed-roofed, one-story section at the house's east elevation.[49] A building permit to reside the house with "mineral siding," including capping the sills and covering the roof eaves, was filed in 1970. Presumably, this is the asbestos siding that covers the majority of the building today.[50]

Today, the property contains four residential units and continues to provide housing for residents of the Central Hillside neighborhood, as it has for more than 130 years.

X. Findings on Designation Criteria

In the recent 2014 historic resources survey, 230 East 4th Street was recommended as eligible for local landmark designation. Research completed for this nomination supports this recommendation.[51] Specifically, the property meets Designation Criteria A and D. Findings responding to each of the criteria are as follows:

A. It has character, interest, or value as part of the development, heritage, or cultural characteristics of the City of Duluth, State of Minnesota, or the United States.

FINDING: 230 East 4th Street represents the early residential development of the Central Hillside neighborhood during the late nineteenth and early twentieth centuries. The initial construction of the single-family home in 1886 and its conversion into multi-family housing in the early 1900s reflects the growth and development of the neighborhood. Therefore, the property meets Criterion A.

B. Its location was a site of a significant historical event.

FINDING: The property is not known to be the site of a significant historical event. Therefore, it does not meet Criterion B.

C. **It is identified with a person or persons who significantly contributed to the cultural development of the City of Duluth, State of Minnesota, or the United States.**

FINDING: During the late nineteenth and early twentieth centuries, the property was occupied by several residents who contributed to the commercial and social fabric of Duluth, including grain commission firm founder Charles Arthur, real estate agent Alexander Morison, Reverend Thomas Cleland, and retailers Moses Cook and Samuel Gittleson. However, preliminary research using historic newspapers, city directories, and biography files and newspaper indices available at the Duluth Public Library did not suggest that the achievements of any of these individuals constitute a *significant* contribution to the cultural development of the City of Duluth, the State of Minnesota, or the United States. Most of these individuals only lived at 230 East 4th Street for a few years; with the exception of Moses Cook, all appear to have had tenures of less than ten years. Some of these individuals

[49] "Detailed Statement of Application for Additions, Alterations or Repairs…," Application No. 81085, 230 East 4th Street, November 9, 1964, on file at the City of Duluth; Sanborn Map Publishing Company, *Duluth, Minnesota,* Vol. 2 (New York: Sanborn Map Publishing Company, 1947), Sheet 176.

[50] City of Duluth Building Permit Application #3218, Building Permit #88285, 230 East 4th Street, October 2, 1970, on file at the City of Duluth.

[51] Schmidt, Nelson, and Pearson, "Historic Resources Inventory," p. 21.

are also associated with other residences or workplaces in the city, making it less likely that 230 East 4th Street is the property most strongly associated with their achievements. Likewise, preliminary research using the library's biography files did not reveal significant contributions by residents of the property during the mid-twentieth century, when the building functioned as multi-family housing. Therefore, the property does not meet Criterion C.

D. It embodies a distinguishing characteristic of an architectural type.

FINDING: 230 East 4th Street embodies the distinguishing characteristics of the Queen Anne architectural style. While the property has experienced some alterations, such as the application of new siding and replacement windows, it retains many of the character-defining features that mark it as an example of the Queen Anne style, such as its irregular form and massing, asymmetrical elevations, complex roofline with multiple dormers and gables, and prominent turret. Furthermore, the property embodies the distinguishing characteristics of single-family houses constructed in the Central Hillside neighborhood during the late nineteenth and early twentieth centuries, including frame construction, wood ornamental detail, an open wood porch with ornamental columns, and stone foundation. Therefore, the property meets Criterion D.

E. It is identified as the work of an architect or master builder whose individual work has influenced the development of the City of Duluth or the State of Minnesota.

FINDING: The property's architect and builder are unknown. Therefore, the property does not meet Criterion E.

F. It embodies elements of architectural design, detail, materials, and craftsmanship which represent significant architectural innovation.

FINDING: The property does not embody elements of design, detail, materials, and craftmanship that represent significant architectural innovation. Therefore, the property does not meet Criterion F.

G. Its unique location or singular physical characteristics represent an established and familiar visual feature of a neighborhood, community, or the City as a whole.

FINDING: 230 East 4th Street is over 125 years old, making it a long-time feature of this neighborhood. However, the property's location and physical characteristics do not appear to rise to the level of uniqueness or distinction that would merit designation under this Criterion as an established and familiar visual landmark of the Central Hillside neighborhood or the City as a whole.

XI. Conclusions

A. **Points in Favor**: 230 East 4th Street meets the City of Duluth's Designation Criteria A and D and is therefore nominated for designation as a local landmark.

B. **Points in Opposition**: N/A.

BIBLIOGRAPHY

Articles, Reports, and Published Materials

Duluth Directory Company. *Duluth Directory.* Duluth, MN: Duluth Directory Co., 1886 – 1949.

Eubank, Nancy. "The Zenith City of the Unsalted Sea: Duluth Historic Contexts Study." Prepared for the Duluth Heritage Preservation Commission, August 1991.

McAlester, Virginia Savage. *A Field Guide to American Houses.* Rev. ed. New York, NY: Alfred A. Knopf, 2014.

Pennsylvania Historical and Museum Commission. *Pennsylvania Architectural Field Guide*. Accessed November 23, 2022. http://www.phmc.state.pa.us/portal/communities/architecture/styles/queen-anne.html.

R. L. Polk & Company. *Duluth City Directory.* St. Paul, MN: R. L. Polk & Company, 1950 – 1972.

Schmidt, Andrew, Sara J. Nelson, and Marjorie Pearson. "Historic Resources Inventory for the East End Residential Area: Phase V." Prepared for the City of Duluth, October 2014.

Sommer, Lawrence J. *Duluth Historic Resources Survey: Final Report.* Duluth, MN: St. Louis County Historical Society, 1984.

Stone, Andrew. "Treaty of La Pointe, 1854." MNopedia. Last modified July 22, 2021, https://www.mnopedia.org/event/treaty-la-pointe-1854#:~:text=The%20Treaty%20of%20La%20Pointe,negotiations%20with%20the%20U.S.%20government.

Van Brunt, Walter. Ed. *Duluth and St. Louis County: Their Story and People.* Vol 1. Chicago IL: American Historical Society, 1921.

Whiffen, Marcus. *American Architecture Since 1780: A Guide to the Styles.* Rev. ed. Cambridge, MA: The MIT Press, 1969, rev. 1992.

Woodbridge, Dwight E. and John S. Pardee, Eds. *History of Duluth and St. Louis County: Past and Present.* Vol. 2. Chicago, IL: C. F. Cooper & Company, 1910.

Newspapers

Duluth Evening Herald.

Minneapolis Sunday Journal.

Archival Collections

City of Duluth Building Permit Records for 230 East 4th Street.

Maps and Aerial Photographs

Sanborn Map Publishing Company. *Duluth, Minnesota.* New York: Sanborn Map Publishing Company, 1888.

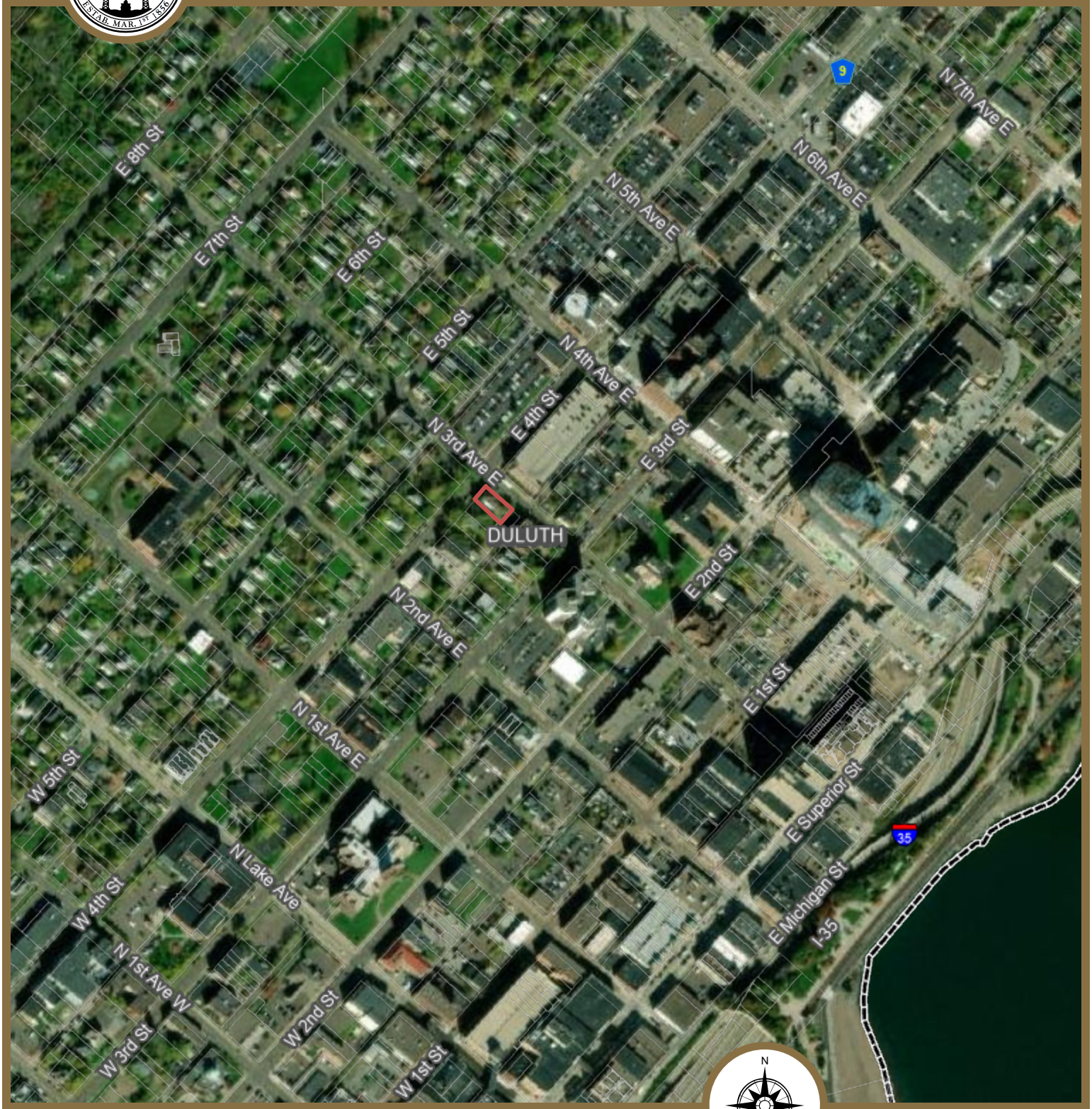
Sanborn Map Publishing Company. *Duluth, Minnesota,* Vol. 2. New York: Sanborn Map Publishing Company, 1909.

Sanborn Map Publishing Company. *Duluth, Minnesota,* Vol. 2. New York: Sanborn Map Publishing Company, 1947.

Duluth

St. Louis County, Minnesota

St. Louis County MN



230 East 4th Street

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CDBG Eligibility

St. Louis County **www.stlouiscountymn.gov** Minnesota

Disclaimer

This is a compilation of records as they appear in the Saint Louis County Offices affecting the area shown. This drawing is to be used only for reference purposes and the County is not responsible for any inaccuracies herein

Map created using CDBG Eligibilty Web Map | St. Louis County, Minnesota

Printed 11/28/2022

CURRENT PHOTOGRAPHS

Photo 0001: View of north and east elevations, looking southwest.

All photographs taken by New History in August 2022 unless otherwise noted.

Photo 0002: View of north elevation, looking south.

All photographs taken by New History in August 2022 unless otherwise noted.

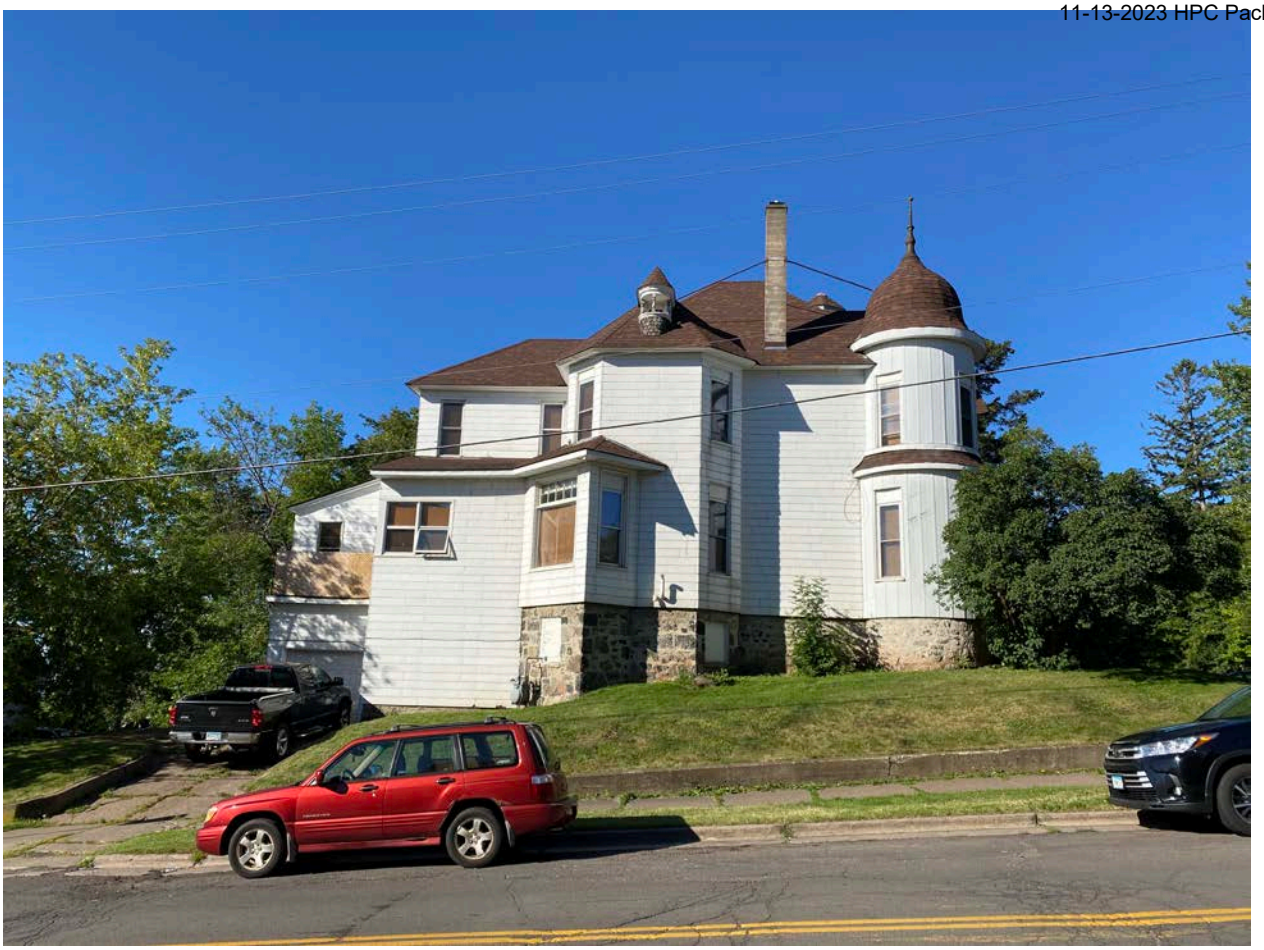

Photo 0003: View of east elevation, looking west.

All photographs taken by New History in August 2022 unless otherwise noted.

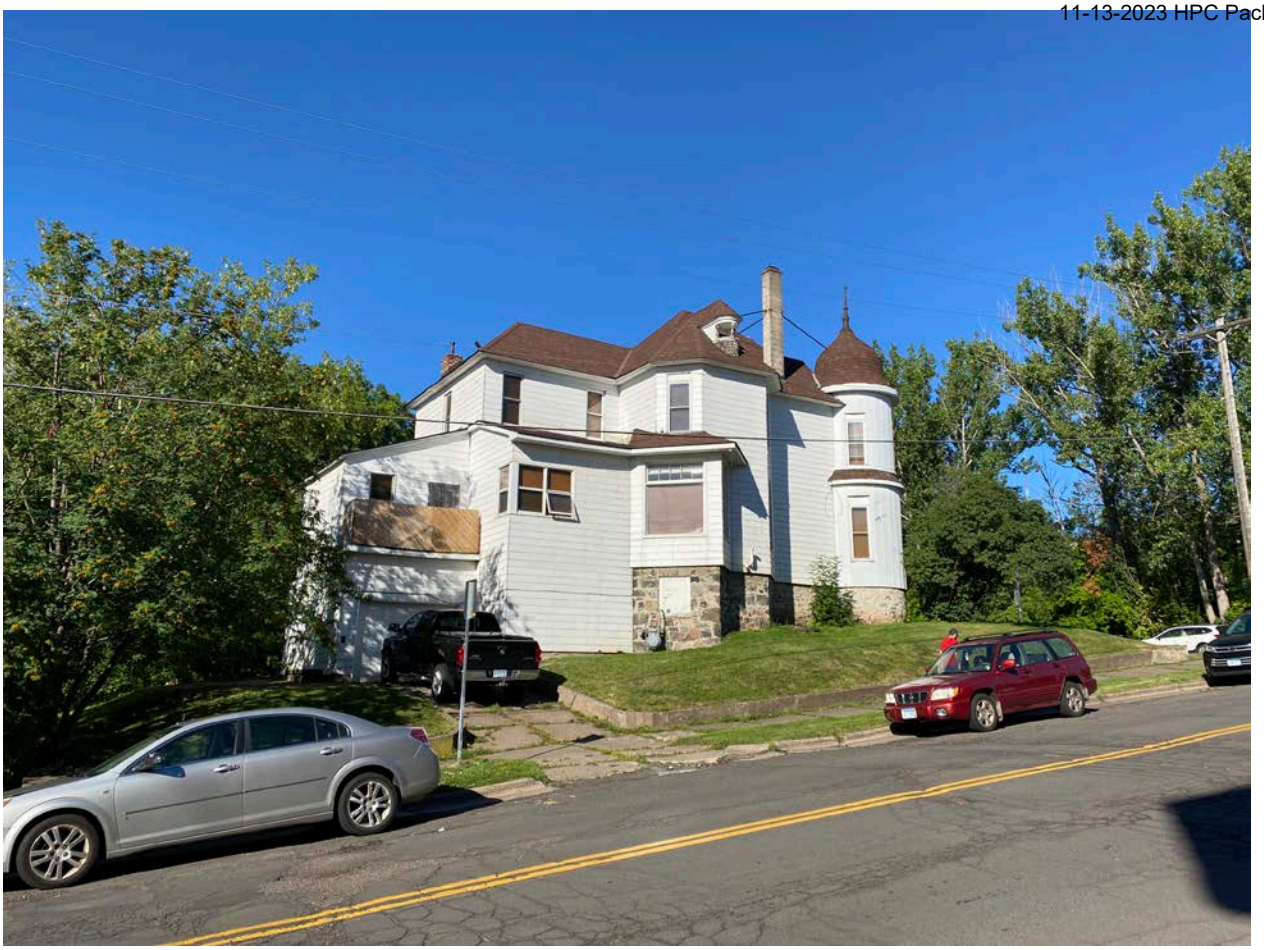

Photo 0004: View of east elevation, looking northwest.

All photographs taken by New History in August 2022 unless otherwise noted.

Photo 0005: View of south elevation, looking northeast.

All photographs taken by New History in August 2022 unless otherwise noted.

Photo 0006: View of south elevation, looking northeast.

All photographs taken by New History in August 2022 unless otherwise noted.

Photo 0007: View of west elevation, looking northeast.

All photographs taken by New History in August 2022 unless otherwise noted.

Photo 0008: View of west elevation, looking southeast.

All photographs taken by New History in August 2022 unless otherwise noted.

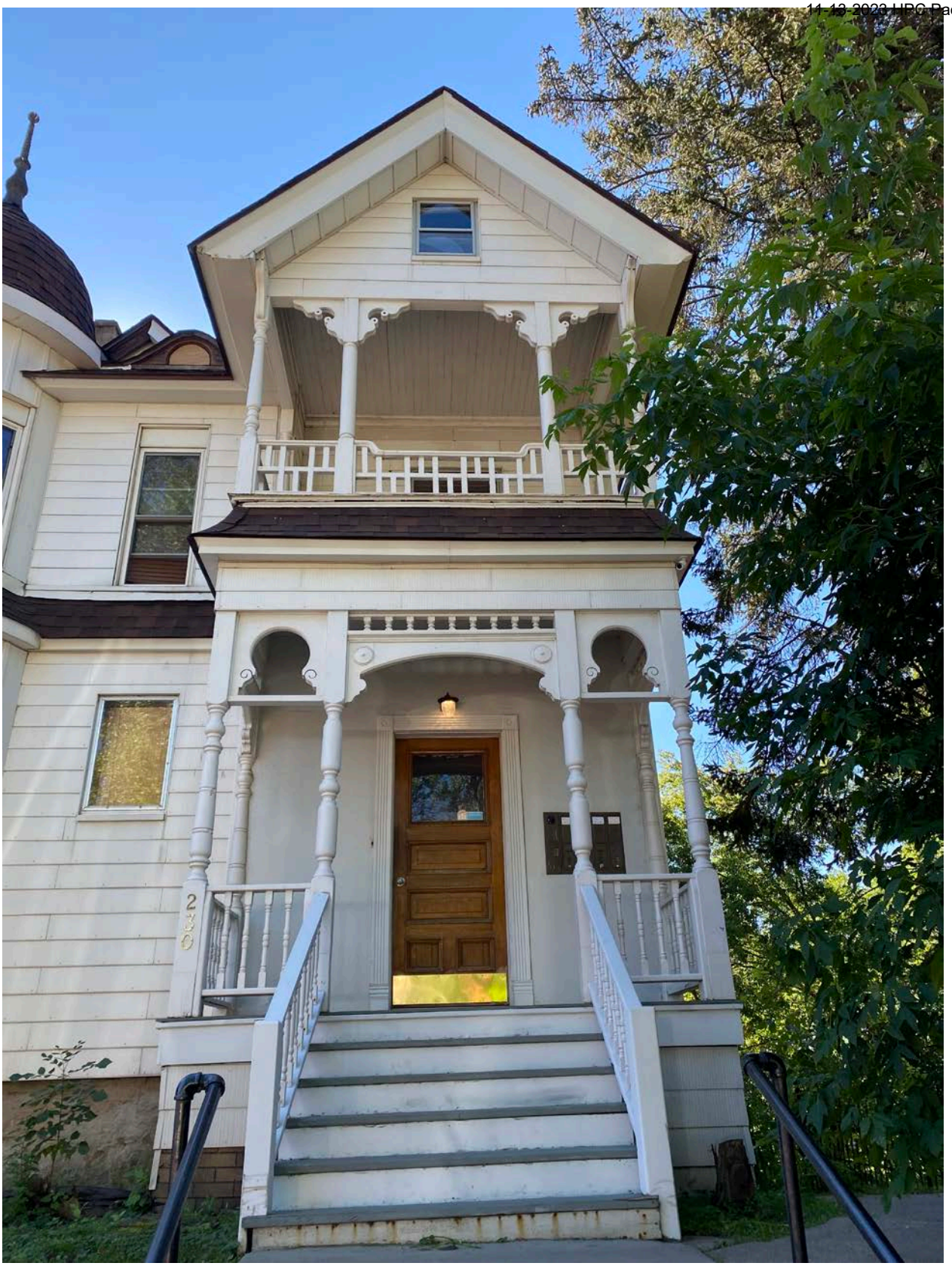

Photo 0009: View of porch on the north elevation, looking south.

All photographs taken by New History in August 2022 unless otherwise noted.

Photo 0010: View of metal fence at west elevation, looking north.

All photographs taken by New History in August 2022 unless otherwise noted.

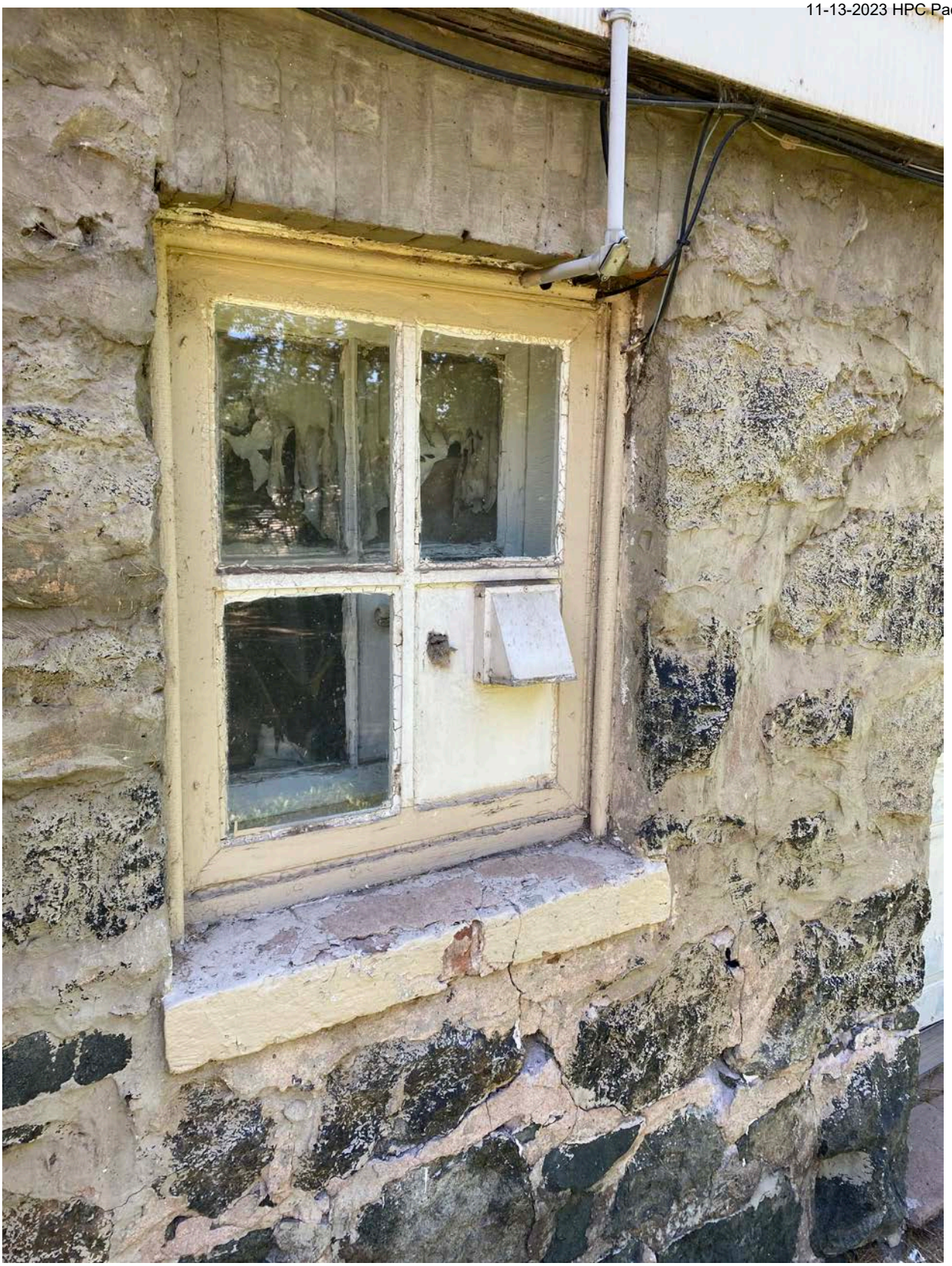

Photo 0011: View of wood window and stone foundation at west elevation, looking southeast.

All photographs taken by New History in August 2022 unless otherwise noted.

Photo 0012: View of entrance at west elevation, looking northeast.

All photographs taken by New History in August 2022 unless otherwise noted.

Photo 0013: View of stone wall to the south of the property, looking northwest.

All photographs taken by New History in August 2022 unless otherwise noted.

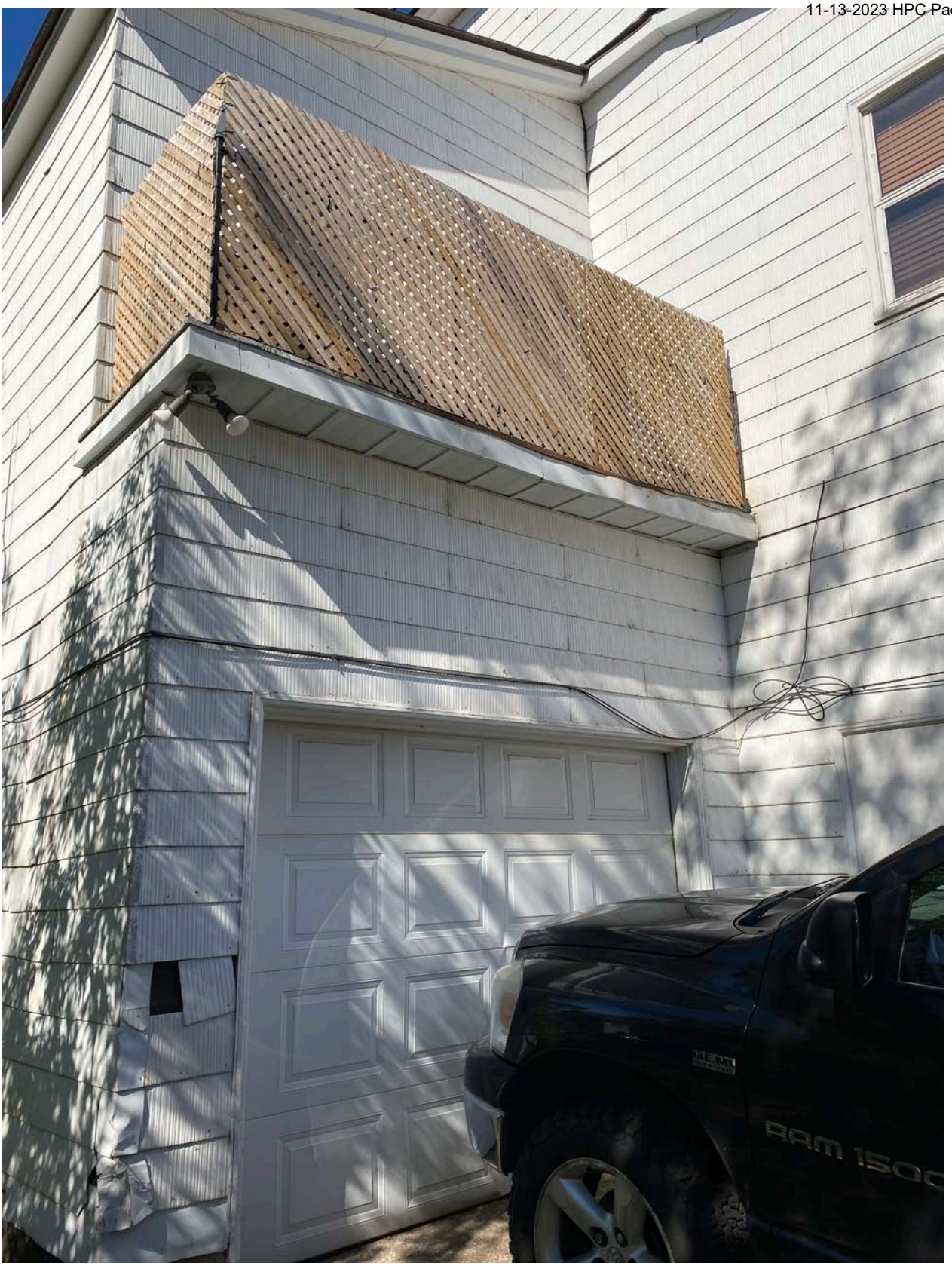

Photo 0014: View of garage entrance at east elevation, looking northwest.

All photographs taken by New History in August 2022 unless otherwise noted.

Photo 0015: View of tower, chimney, and dormer at the east elevation, looking west.

All photographs taken by New History in August 2022 unless otherwise noted.

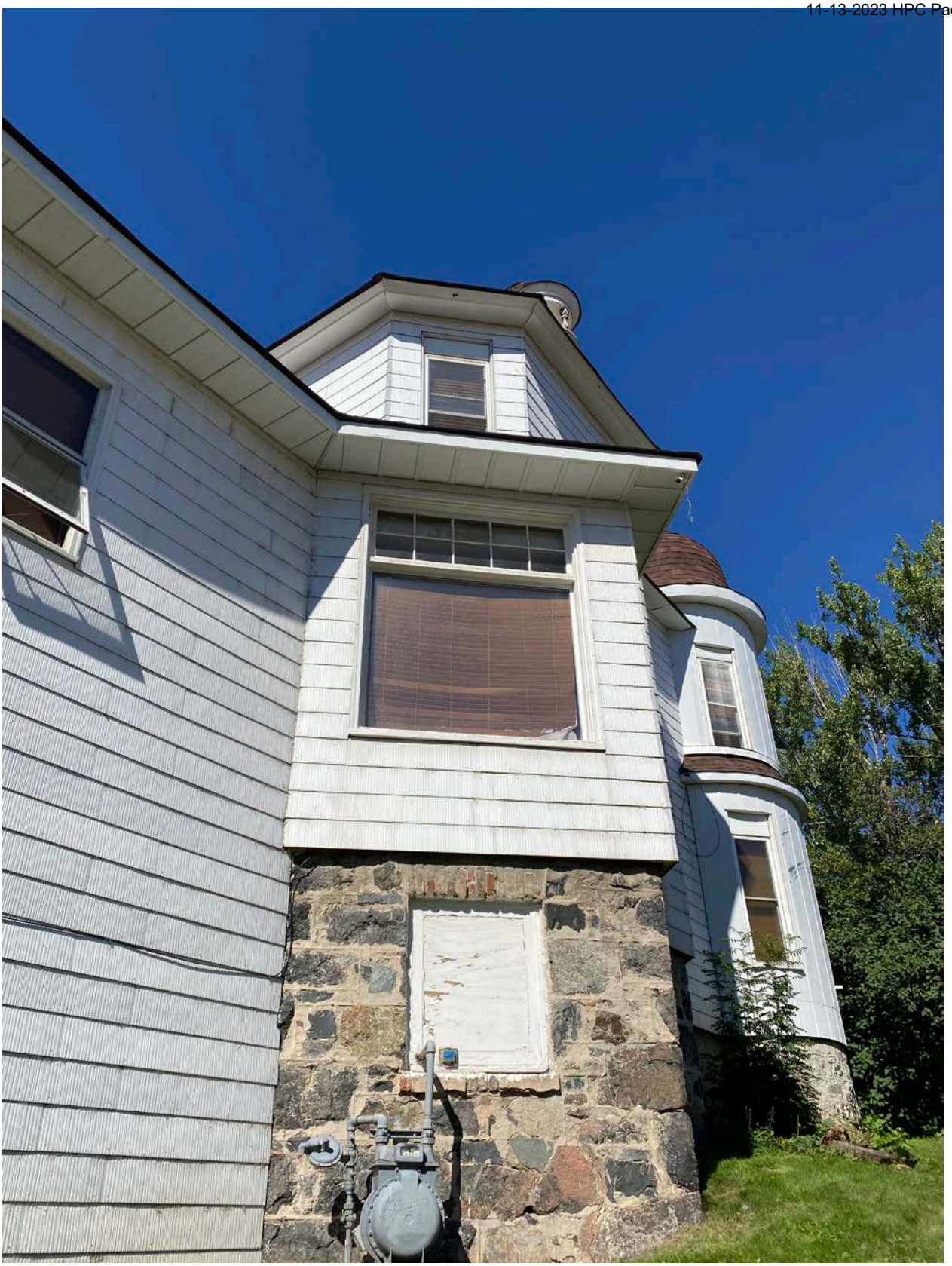

Photo 0016: View of east elevation, looking northwest.

All photographs taken by New History in August 2022 unless otherwise noted.

Photo 0017: View of east elevation, looking southwest.

All photographs taken by New History in August 2022 unless otherwise noted.

FIGURES

Figure A: Location of 230 East 4th Street. Aerial image courtesy of Google, 2022. North is up.

Figure B: Photograph of 230 East 4th Street, undated. Photo by E. S. Ciebigra. Photograph taken from Box 6, Collection S2386, General Historic Photo Collection (Real Estate), Kathryn A. Martin Library Archives and Special Collections, Duluth,

Figure C: Photo of 230 East 4th Street, undated. Photo courtesy of the Duluth Public Library.

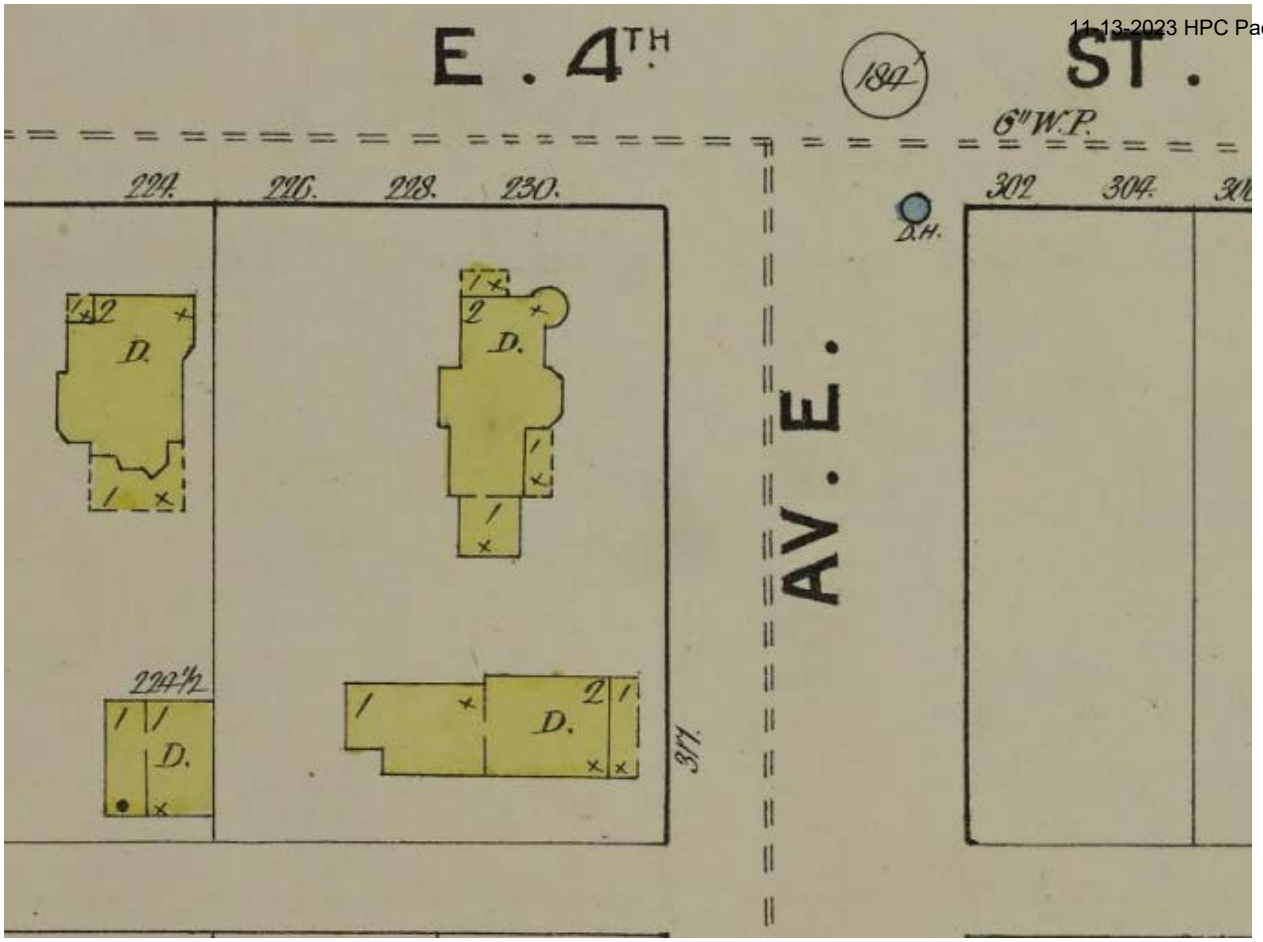

Figure D: 1888 Sanborn Fire Insurance Map showing 230 East 4th Street. Sanborn Map Publishing Company, *Duluth, Minnesota* (New York: Sanborn Map Publishing Company, 1888), Sheet 20.

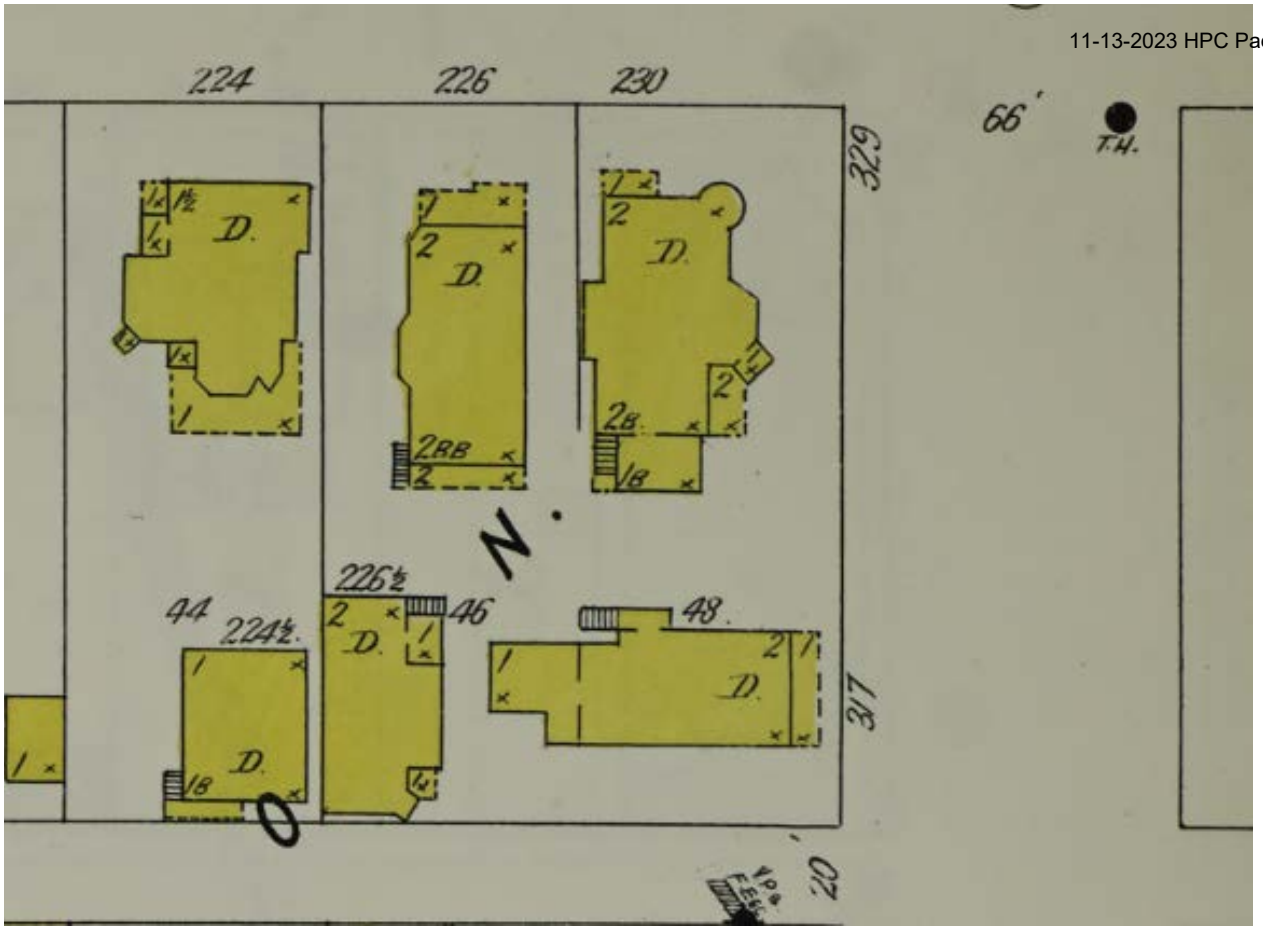

Figure E: 1909 Sanborn Fire Insurance Map showing 230 East 4th Street. Sanborn Map Publishing Company, *Duluth, Minnesota* (New York: Sanborn Map Publishing Company, 1909), Sheet 176.

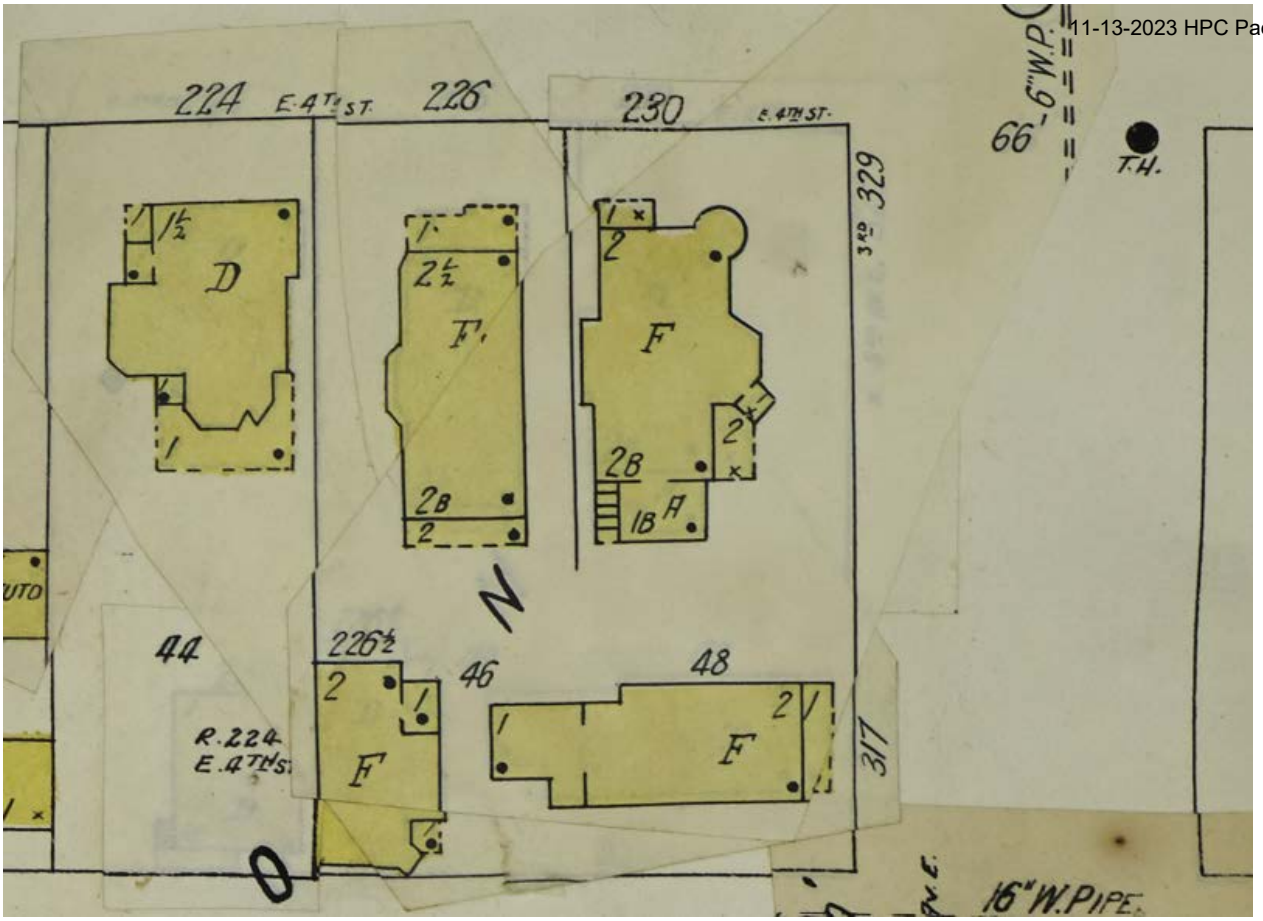

Figure F: 1947 Sanborn Fire Insurance Map showing 230 East 4th Street. Sanborn Map Publishing Company, *Duluth, Minnesota,* Vol. 2 (New York: Sanborn Map Publishing Company, 1947), Sheet 176.