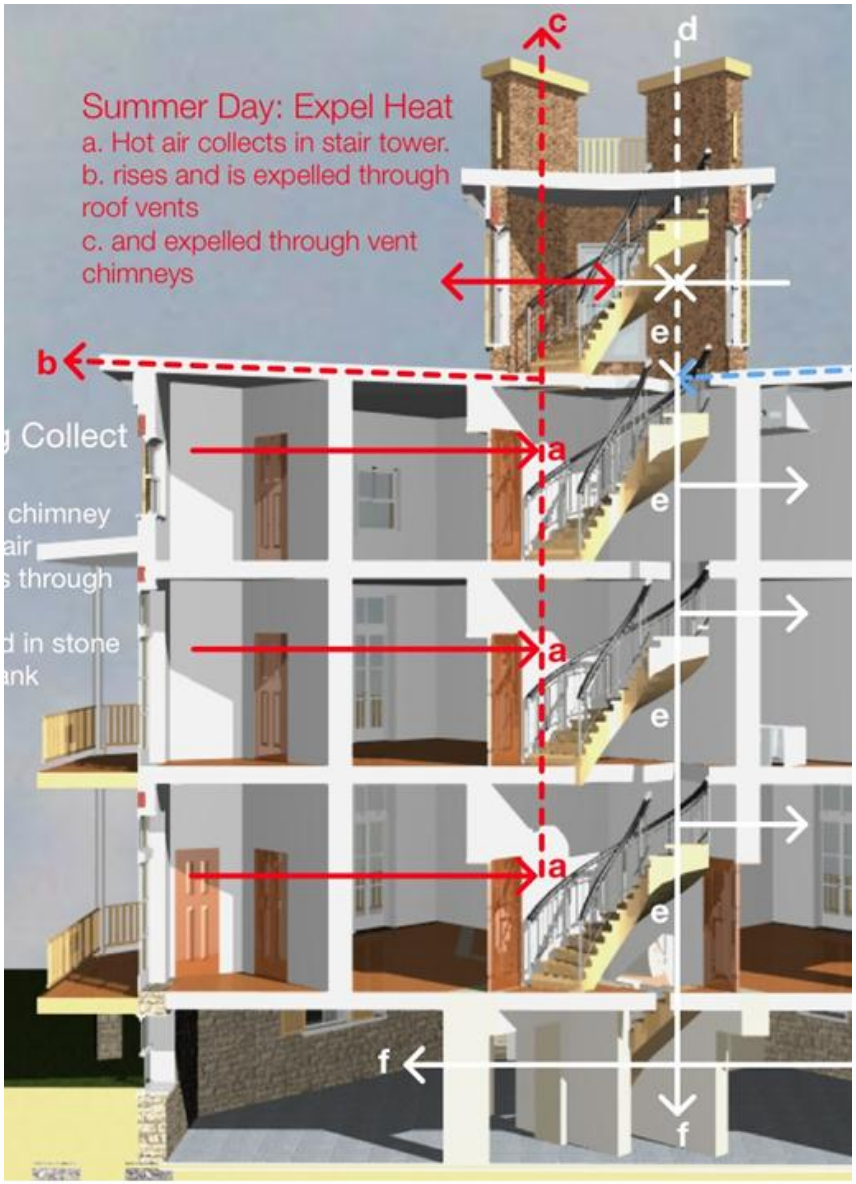

Proving Your Point:

Researched Sustainable Strategies in Historic Housing applied and documented in contemporary practice.

Sponsored by AIA Housing Knowledge Community
www.aia.org/housing

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April 11

Beyond the ADA: How to incorporate Universal Design principles in commercial facilities

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April 13

BIG BIM Bang – Enterprise BIM and BIG Data - Sharing Data

May 7

Behavioral and Technical Housing Research

May 9

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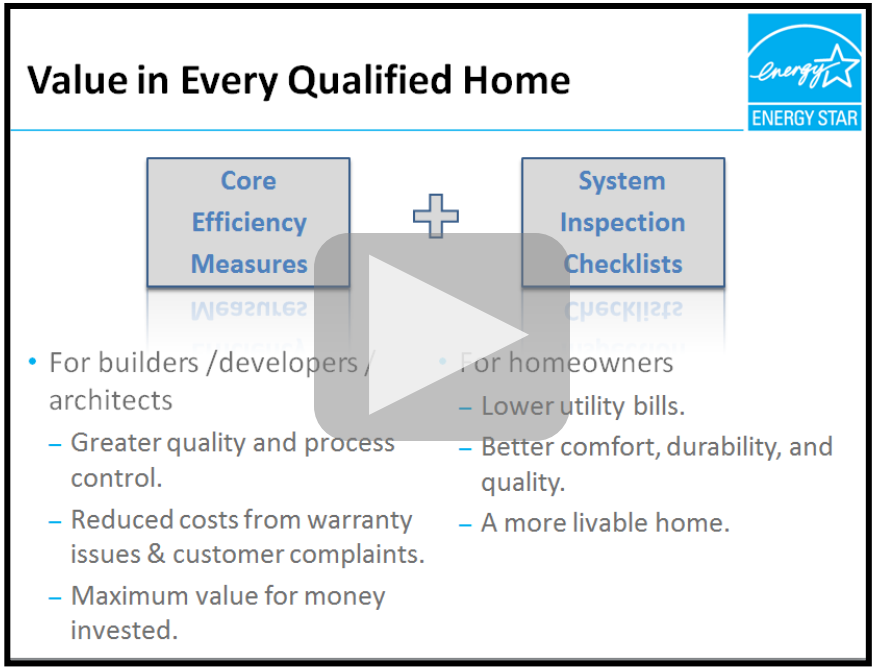

NEW: ENERGY STAR v3 – Best Practice for the Future of Environmental Design for Homes and Apartments

Research in Practice

Greening Housing Research

Researching Resiliency

Affordable Housing Research

Healthy Homes Research

Louis Wasserman AIA
Principal Architect

M. Caren Connolly
Landscape Designer

of Louis Wasserman & Associates

Submit a question to the moderator via the Chat box. They will be answered as time allows.

Stephen Schreiber FAIA
Professor and Architecture+Design Program Director
Department of Art, Architecture, and Art History
University of Massachusetts Amherst
Moderator

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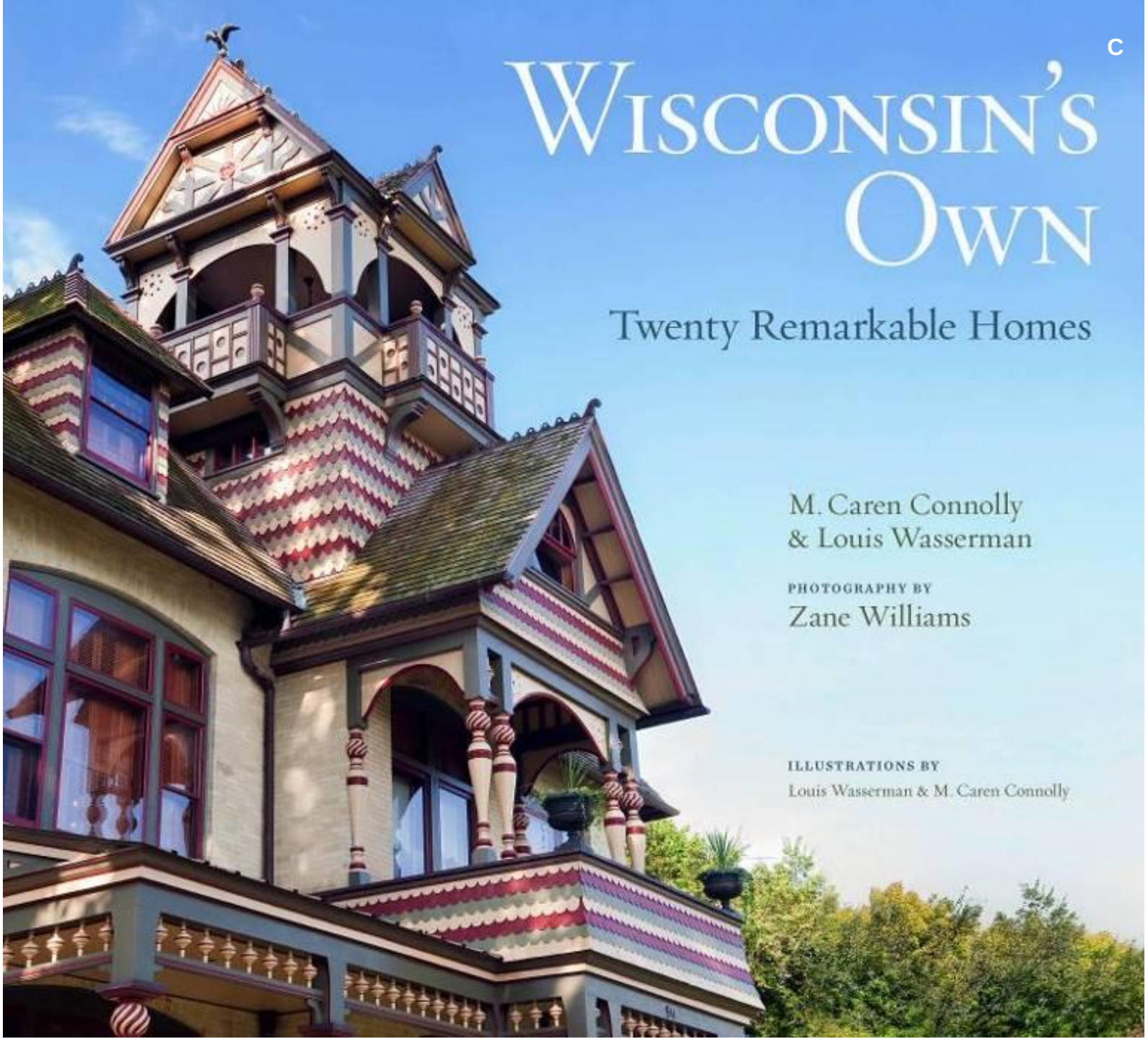
Course Description

When architects innovate they have a responsibility to "Prove their Point."

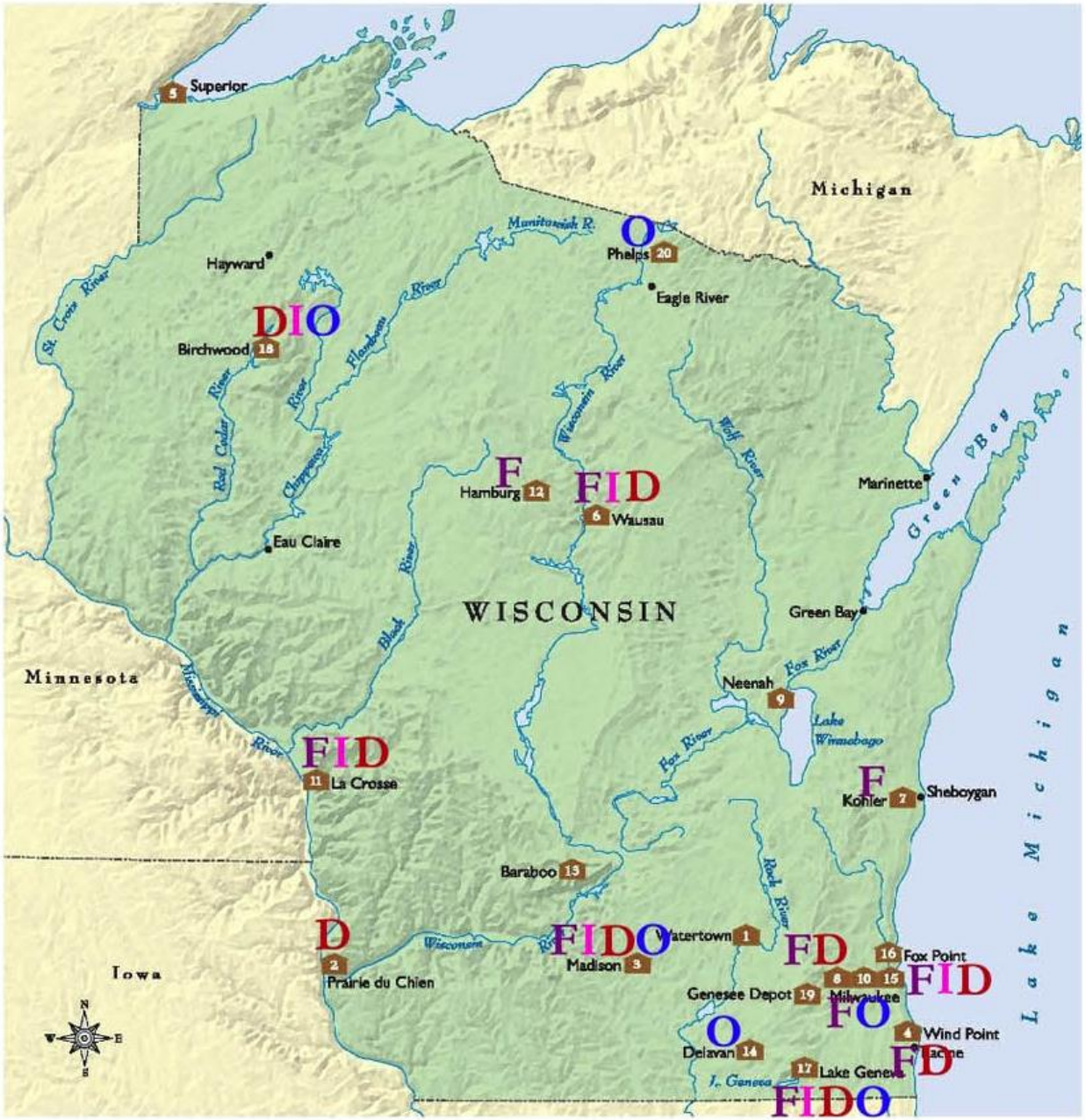
Wasserman and Connolly will demonstrate the innovative and sustainable building practices of historic residential architecture found in the homes they researched for their book Wisconsin's Own: Twenty Remarkable Homes. They will explain how one particular sustainable strategy: the Vent Chimney was researched and adapted to new projects. Wasserman and Connolly will show how they employed economical tools to gather the necessary data to "Prove their Point."

Learning Objectives

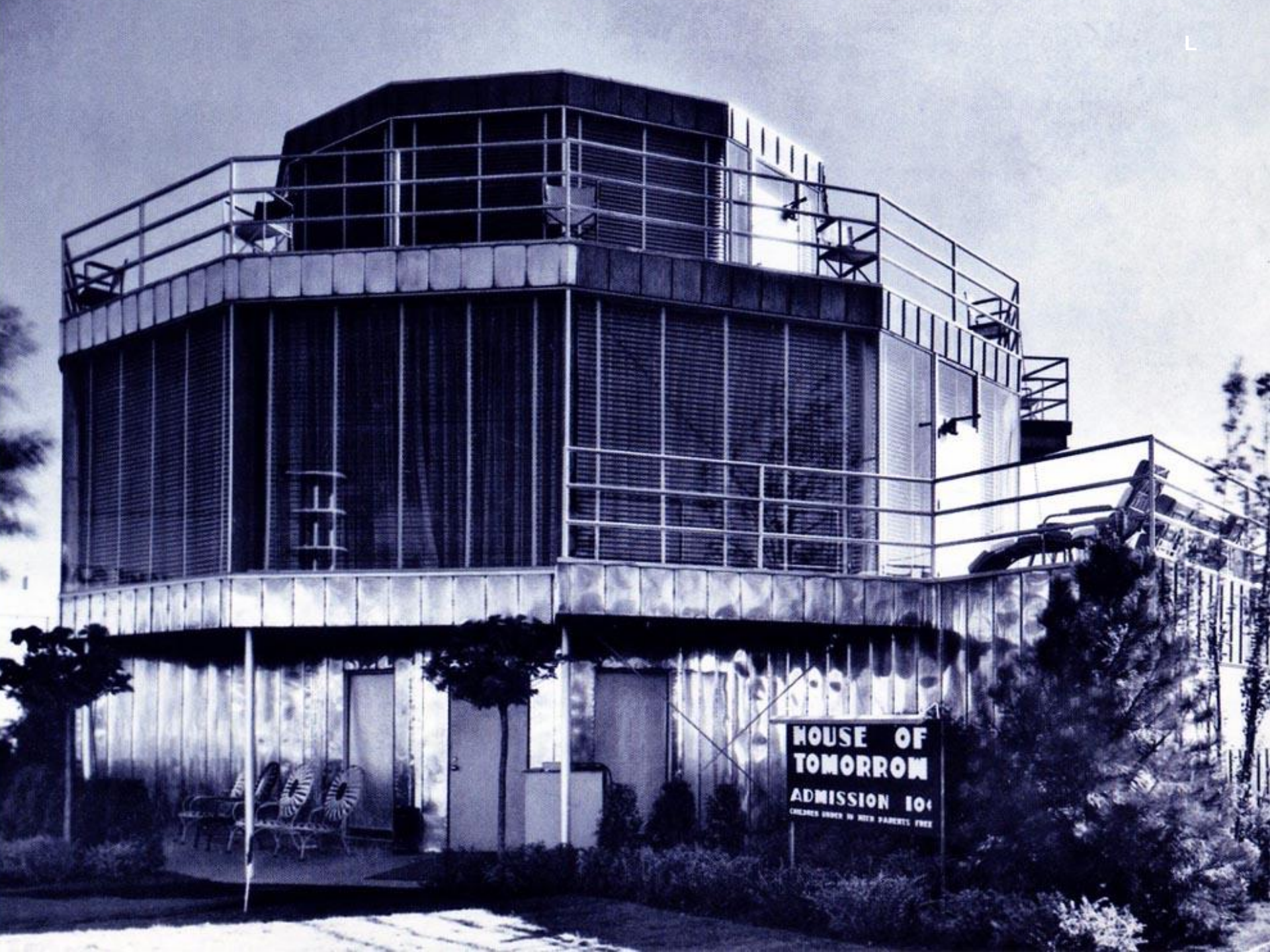
1. Explain the contribution that historic residential architecture makes to contemporary American architecture.
2. Evaluate an historic home's sustainable practices according to current environmental standards.
3. Discuss how sustainable strategies in historic residential architecture can actually be applied today.
4. Demonstrate how practicing architects can use economical and technical tools to gather data to demonstrate the efficacy of their design intent…to "prove their point."


C
Wisconsin's Own
Twenty Remarkable Homes
M. Caren Connolly
& Louis Wasserman
PHOTOGRAPHY BY
Zane Williams
ILLUSTRATIONS BY
Louis Wasserman & M. Caren Connolly

Illinois Connections



1. Octagon House
2. Villa Louis
3. Harold C. Bradley House
4. Wingspread
5. Fairlawn
6. Cyrus C. Yawkey House
7. Riverbend
8. Villa Terrace
9. Havilah Babcock House
10. Captain Frederick Pabst Mansion
11. Henry A. Salzer House
12. Walter and Mabel Fromm House
13. House of Seven Gables
14. Allyn Mansion
15. Adam J. Mayer House
16. Brooks Stevens House
17. Wadsworth Hall
18. Island of Happy Days
19. Ten Chimneys
20. Fort Eagle

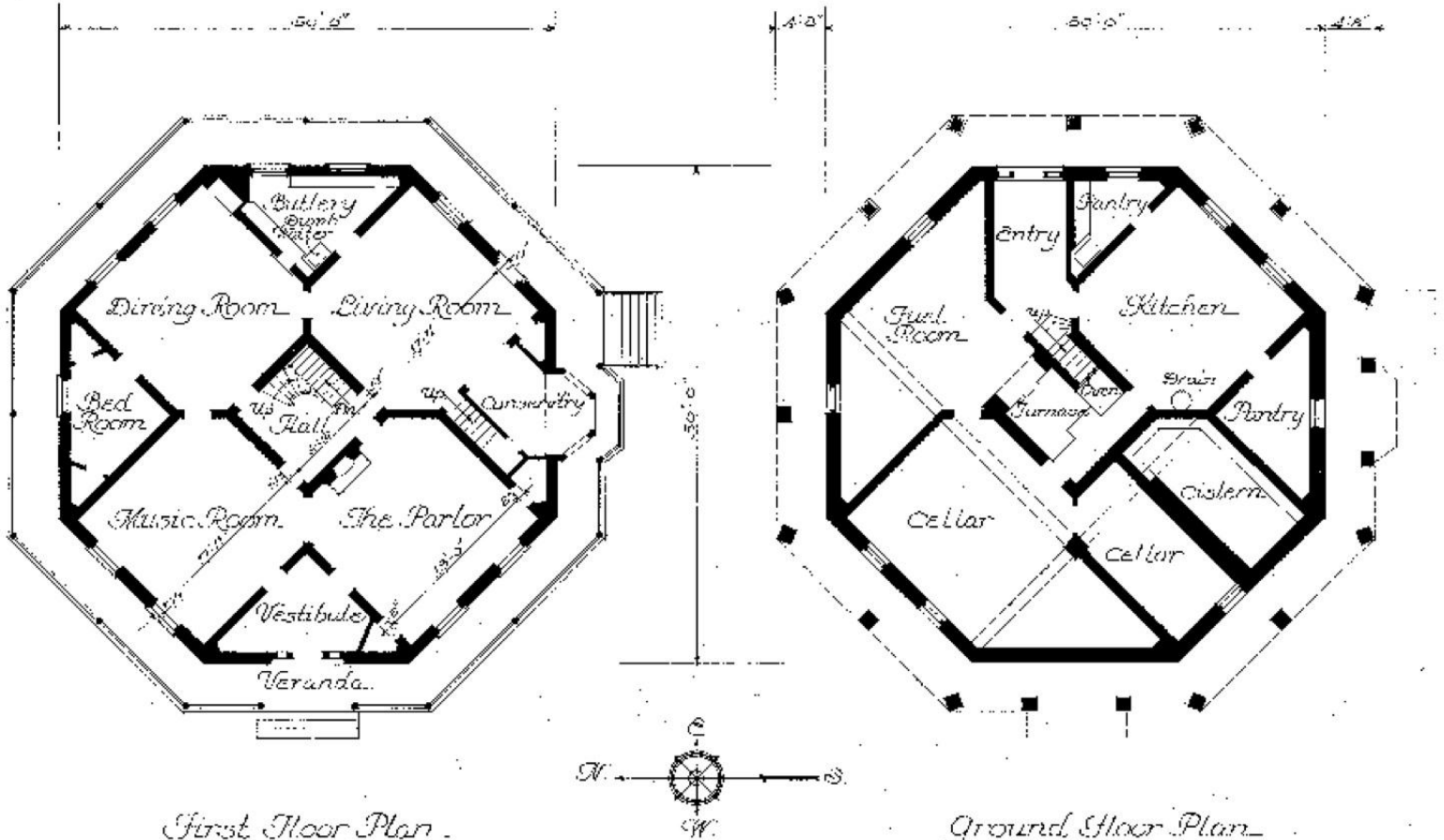

HOUSE OF
TOMORROW
ADMISSION 10¢

Octagon House
Watertown 1854

C


buttery
dining room
living room
bedroom
hall
conservatory
music room
parlor
vestibule
0
8
OCTAGON

C



First Floor Plan
Scale 1/8"-1'0"

Ground Floor Plan
Scale 1/8"-1'0"

Foundation walls below grade, stone & brick above, 17" thick. Walls 13" & partitions 8" brick, except minor partitions of closets etc which are frame. Cistern walls 24 thick.

Wall around central square is two 4" tiers of brick with a 4" space between, which is divided to form 4 chimney flues and hot air ducts to each of the 12 major rooms.

Joists, rafters, studs & timbers are of oak. Floors of 1/8" M.&D. white pine, 1 1/8 to 7" face. Ground Floor Entry paved with 6" brick hexagons Plaster, smooth finish lime, on hand split laths.

Scale 1/8"-1'0"
0' 5' 10' 16'
Proportional Scale in Meters

--Delineators--
Hugo Logemann
E.T. Bernhard
R.T. Reymar
W.H. Mitterhausen

U.S. DEPARTMENT OF THE INTERIOR OFFICE OF NATIONAL PARKS, BUILDINGS, AND RESERVATIONS BRANCH OF PLANS AND DESIGN	Located in Watertown	NAME OF STRUCTURE OCTAGON HOUSE	Jefferson City Wisconsin	SURVEY NO. WIS-35 WI-28-36	HISTORIC AMERICAN BUILDINGS SURVEY SHEET 1 OF 5 SHEETS	INDEX NO.

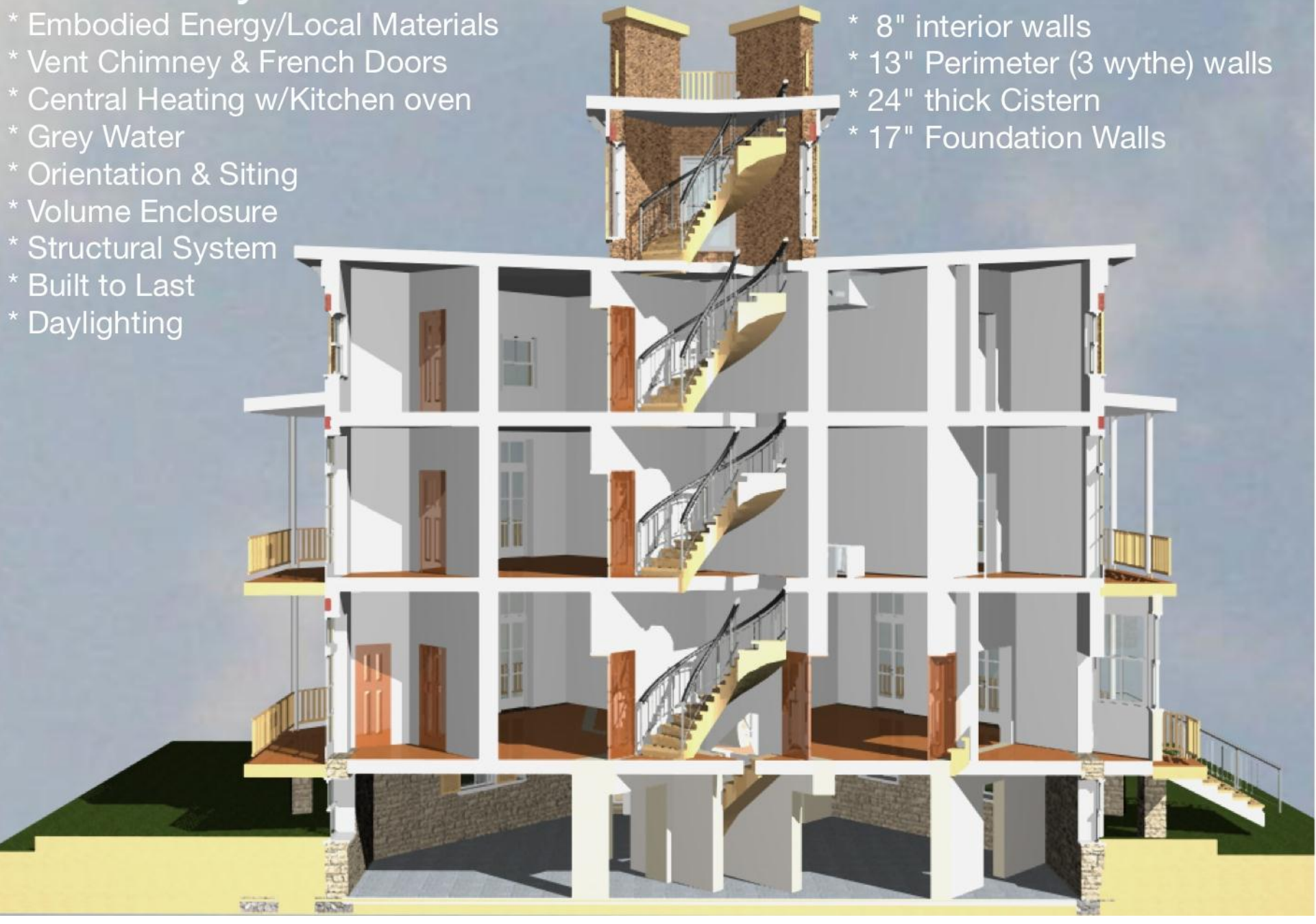

C


OCTAGON HOUSE WATERTOWN, MASS.

Practically Green: Sustainable Hallmarks

* Embodied Energy/Local Materials
* Vent Chimney & French Doors
* Central Heating w/Kitchen oven
* Grey Water
* Orientation & Siting
* Volume Enclosure
* Structural System
* Built to Last
* Daylighting

* 8" interior walls
* 13" Perimeter (3 wythe) walls
* 24" thick Cistern
* 17" Foundation Walls




Gray Water System
1. Inverted roof collects rainwater
2. Water sent through core to reservoir
3. Delivered to bathtub & lavatories
4. Basement cistern receives overflow
from reservoir and collects "gray" water.
5. Hot water heated through kitchen
range coil then directed to 2nd & 3rd floor niches
1
1
2
5
5
3
4

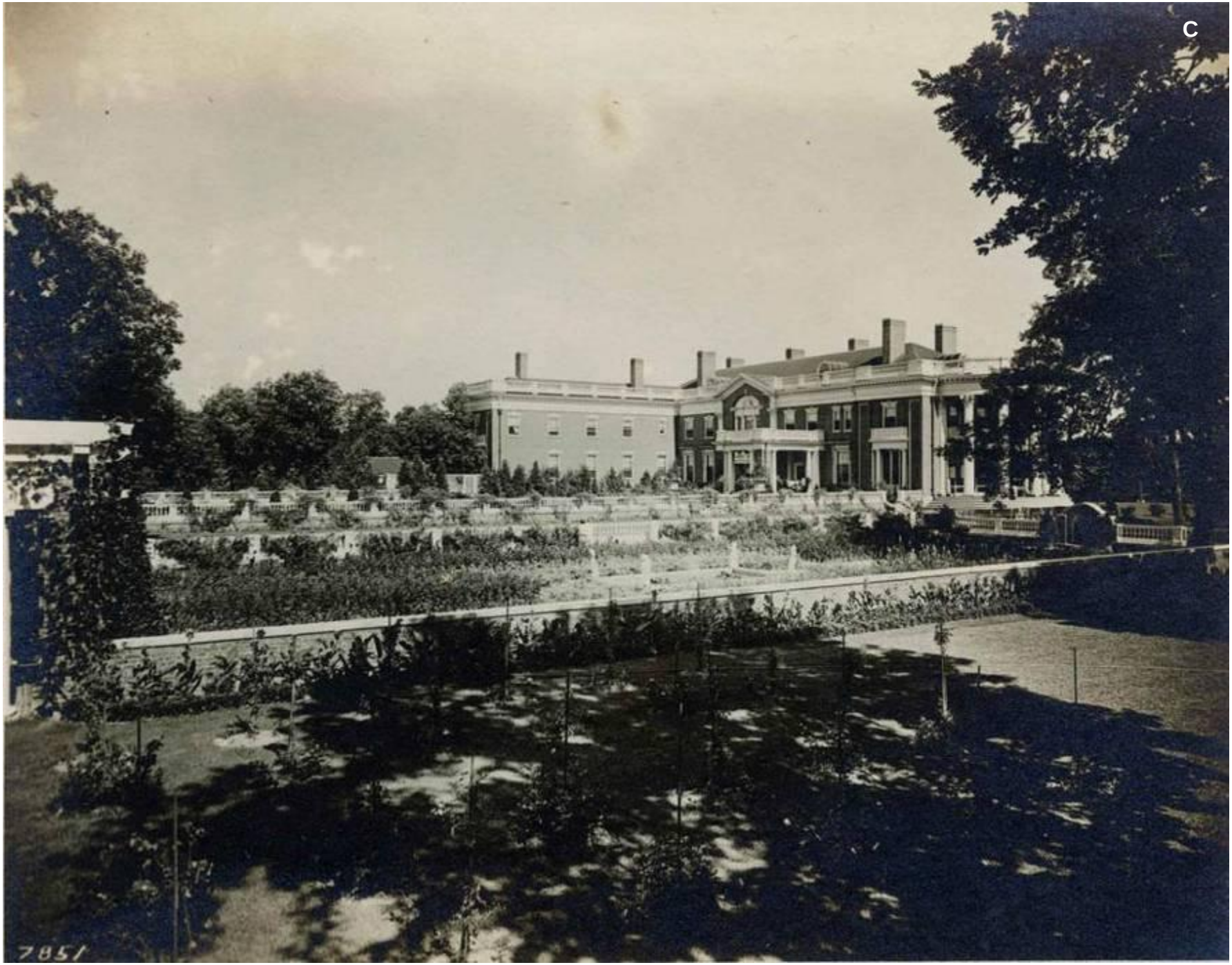

Summer Day: Expel Heat
a. Hot air collects in stair tower.
b. rises and is expelled through roof vents
c. and expelled through vent chimneys
Summer Evening Collect Cool Air
d. Roof Vents & vent chimney collect cool evening air
e. Heavy cool air falls through stair tower
f. Cool air is collected in stone basement thermal bank
c
d
b
a
e
f

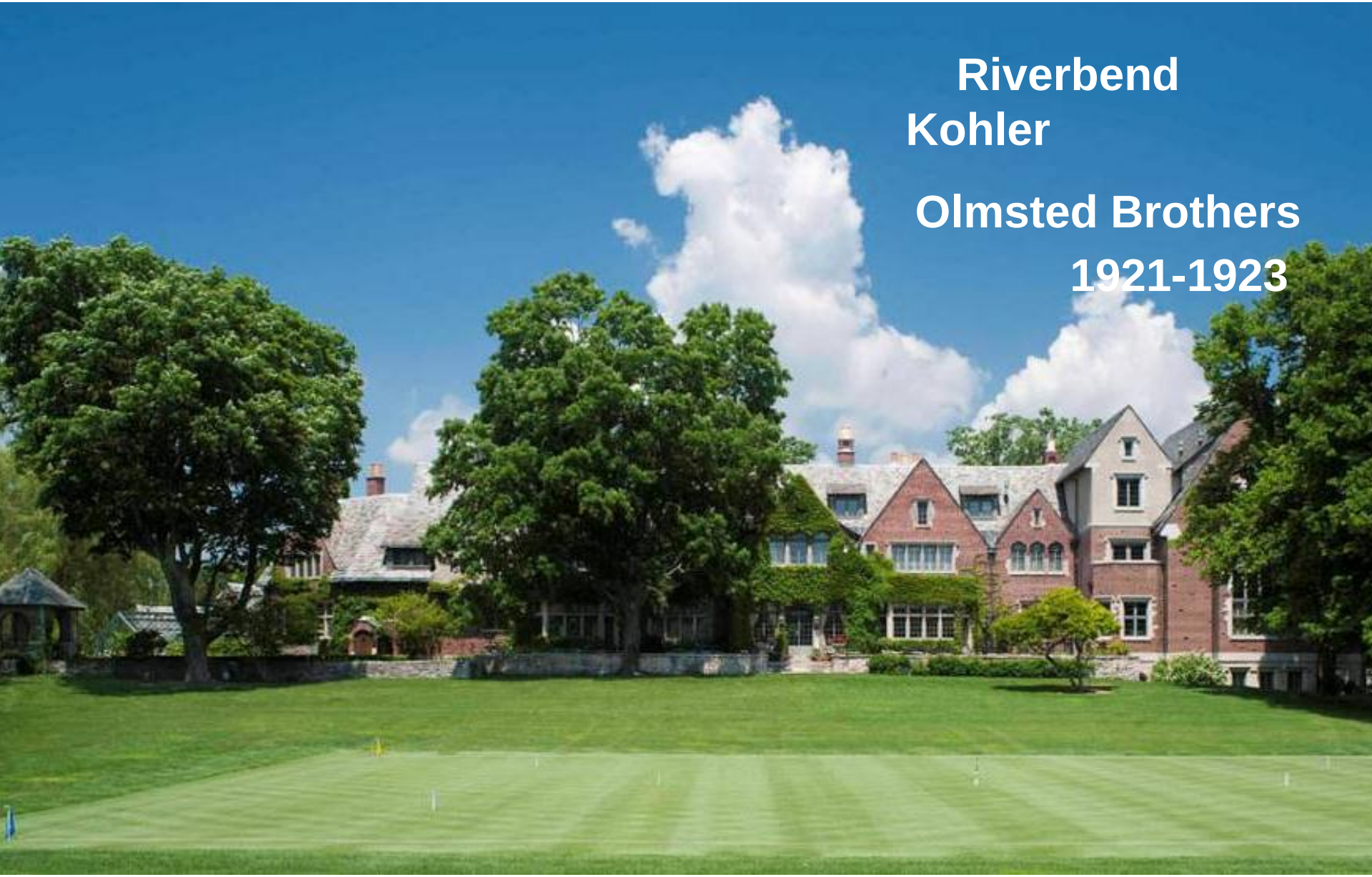

Winter Day: Central Heat
g. Central heating provided by wood burning furnace
h. Twelve major rooms heated by vents in walls.
h
h
h
h
h
h
g

Wadsworth Hall, Lake Geneva

Olmsted Brothers

1905


C
7851

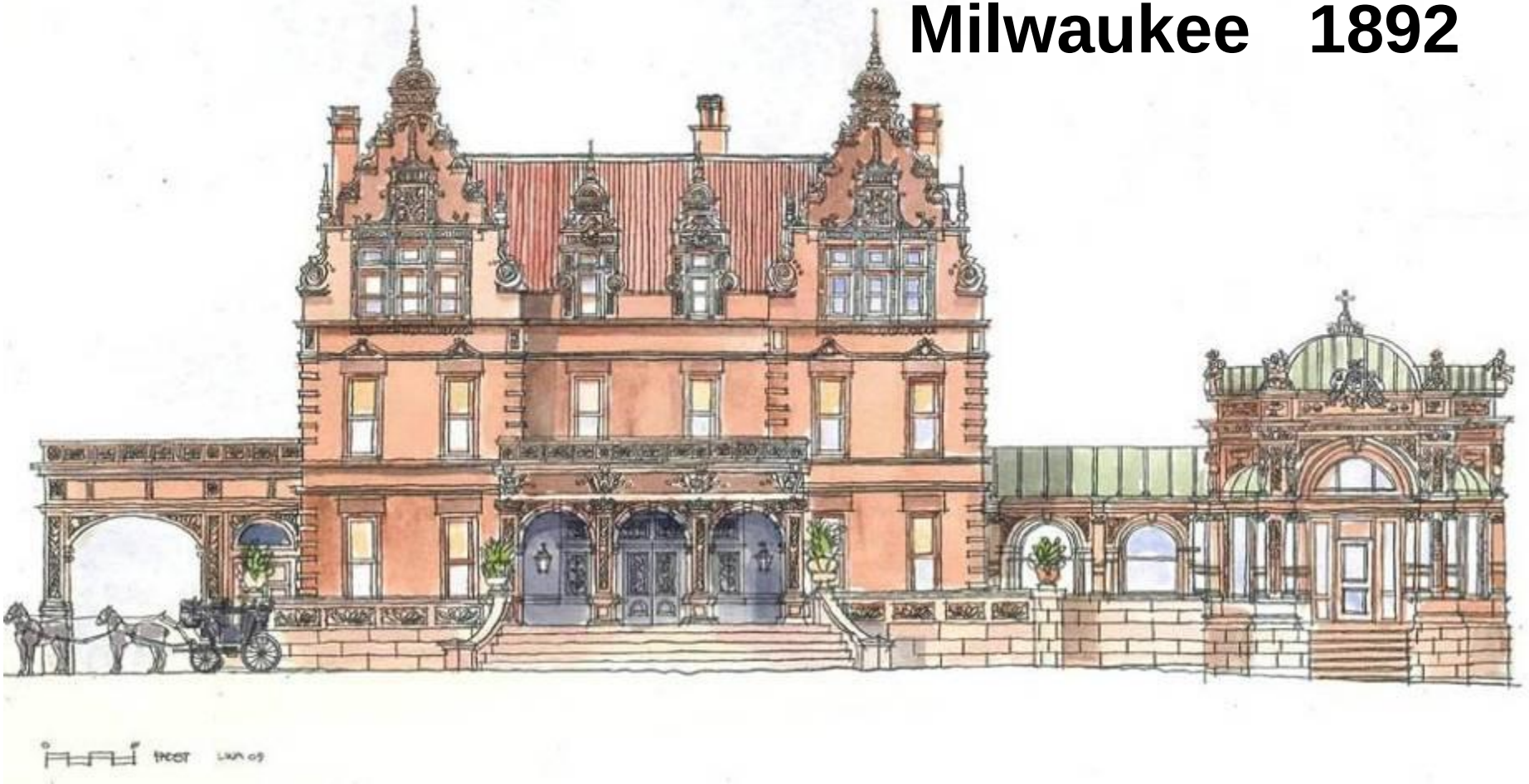

Riverbend
Kohler
Olmsted Brothers
1921-1923

Brooks Stevens House Fox Point
1939


L


C

Captain Frederick Pabst Mansion
Milwaukee 1892

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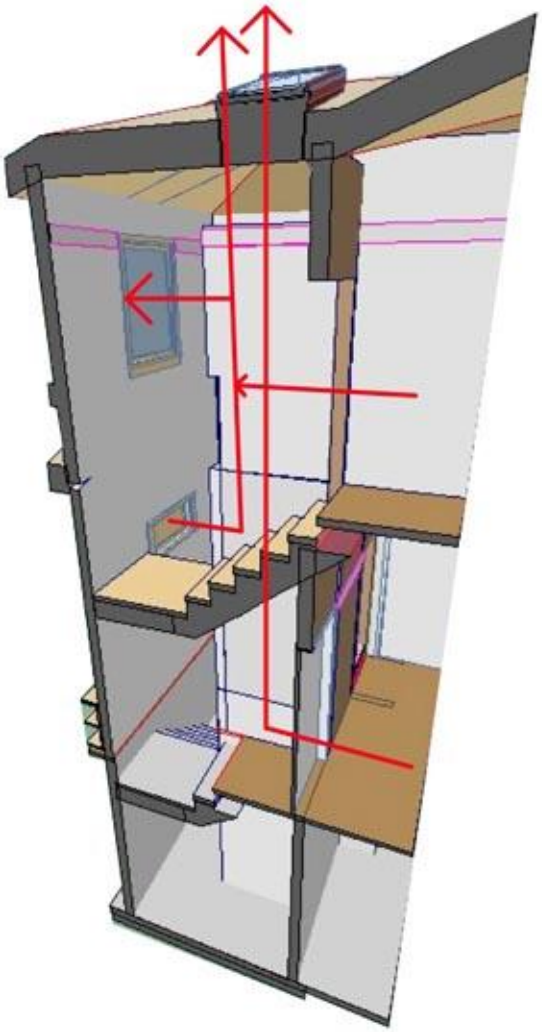
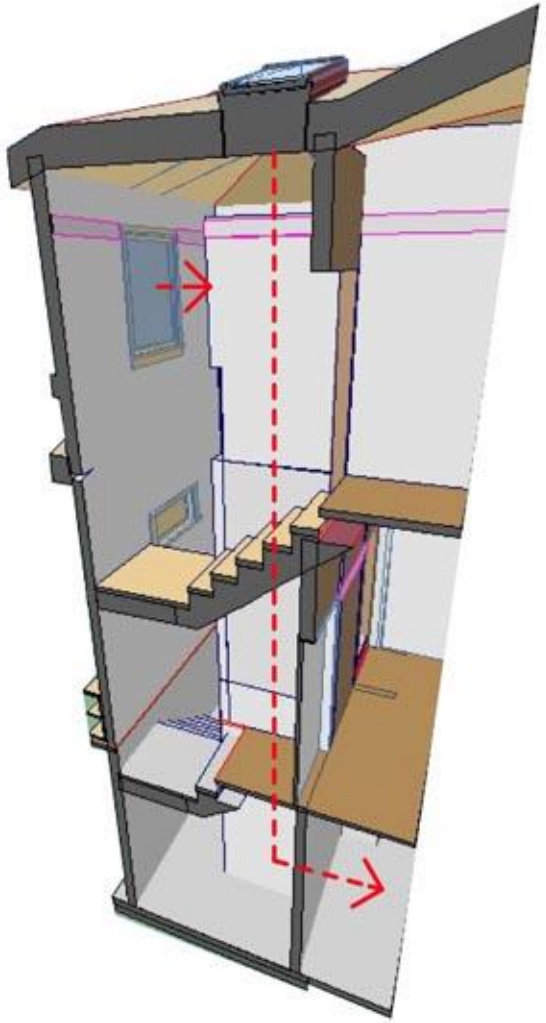
A Prairie Style Home in Middleton Hills


L

2 Summer Day:Expel Heat



3 Summer Night: Collect Cool Air

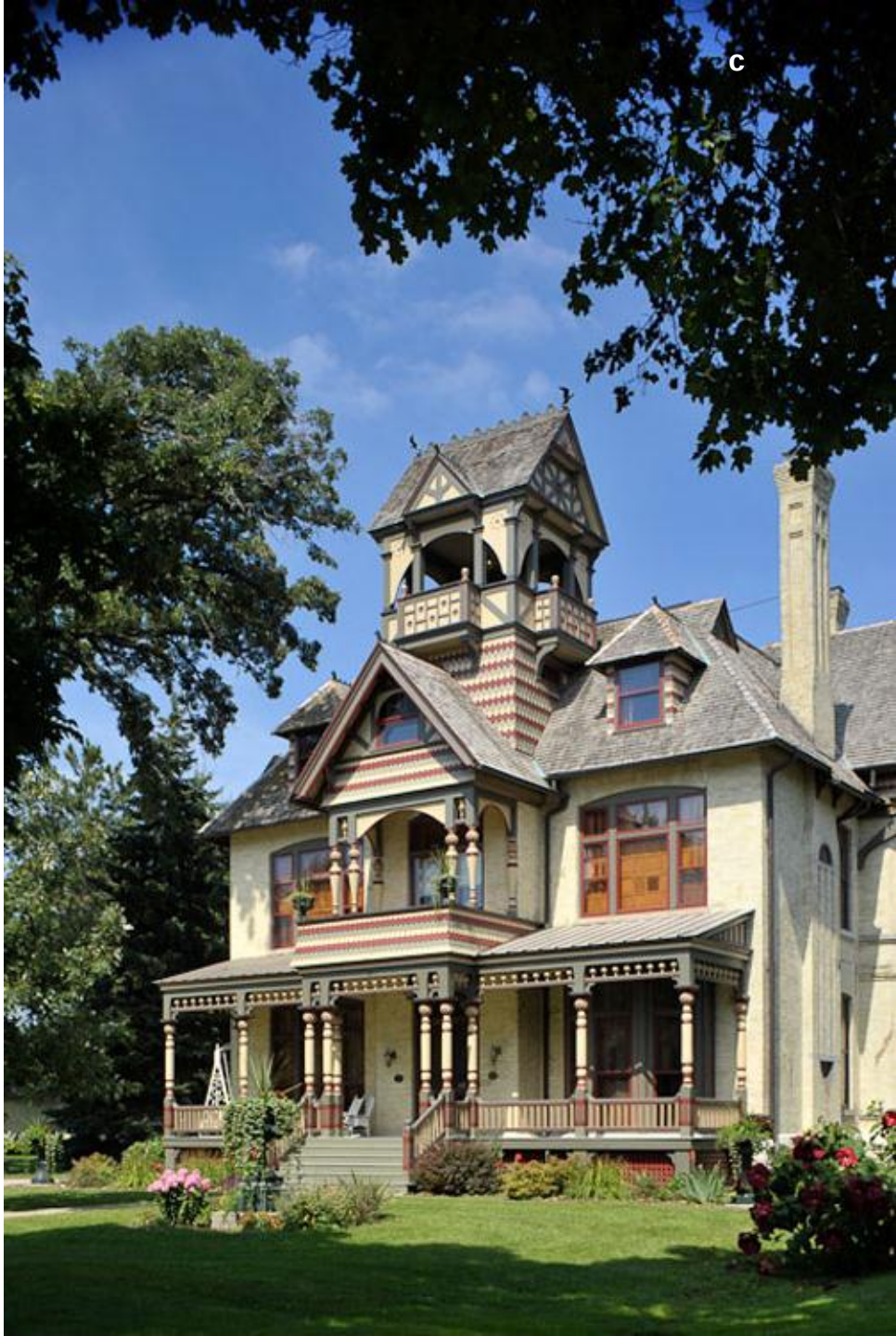


Ventilation Chimney Notes for Summer Cooling Cycle

1. Mechanical system provides conditioned air.
2. Hot air collects in Stair Tower aided by building fan at roof of tower and is expelled by skylights, windows and building fan.
3. At evening/cool cycle stair and vent shaft collect outside cool air and store in basement thermal mass then distribute to floors above.

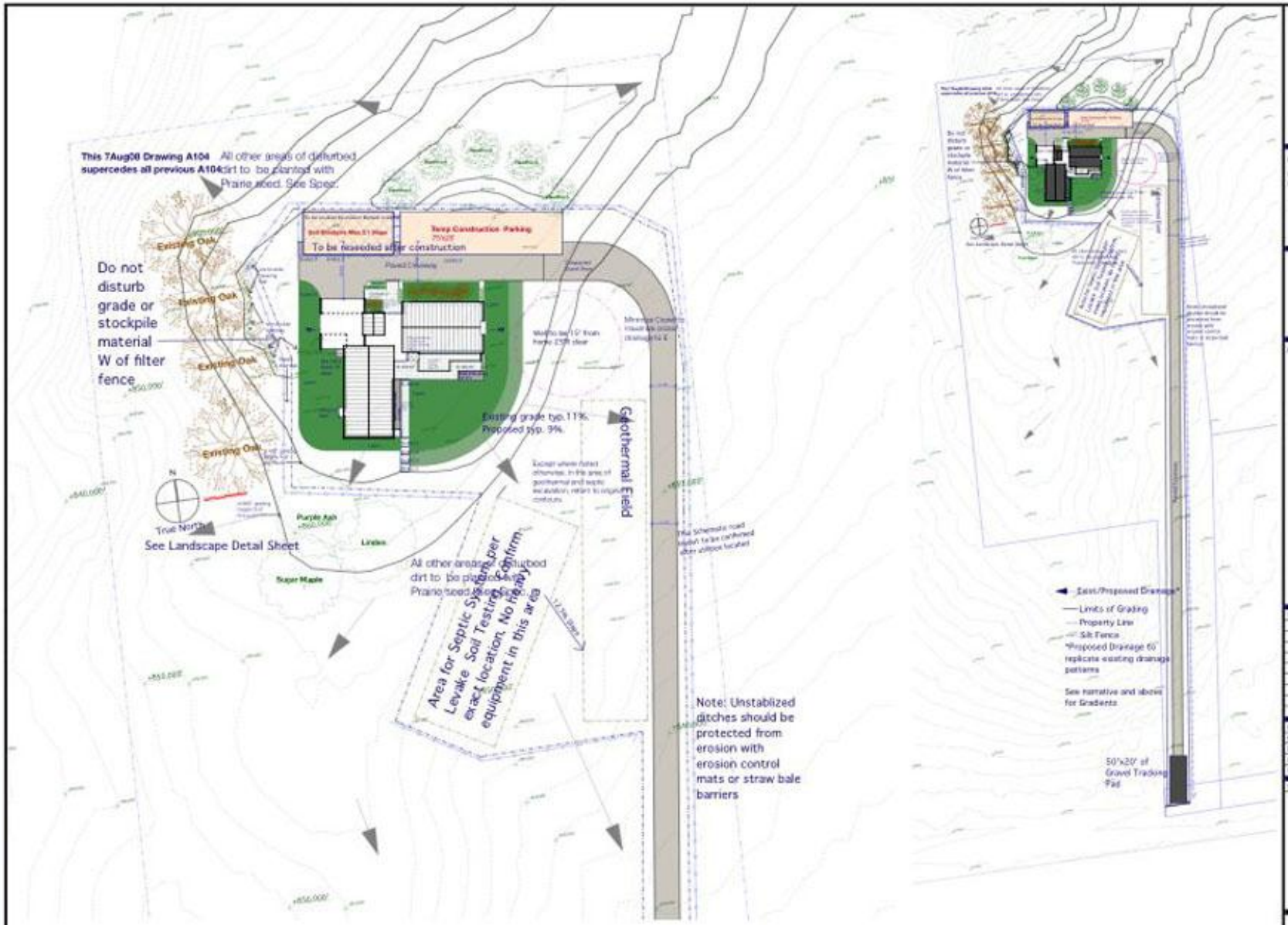
Allyn Mansion Delavan
1884-1885


Residence of A. H. Allyn, Delavan, Wis.




L

A family home on 80 acres in Whitewater



1. Stormwater 1" = 20'

2. Stormwater all lot 1" = 50'

Wasserman Connolly

Studio On Broadway

Louis Wasserman & Associates

CONSULTANTS

M. Caren Connolly
Landscape Architecture

Mike West,
Computerized Structural Design

William Yudichej
Revelations Architects, Geothermal

A Home for Nola, Katie, Aidan, Jessica and Joe Coburn

1844N6 Pipe Road
Whitewater, WI 53190-2308

MARK	DATE	DESCRIPTION
	16April07	Design Development
	02June07	24x36 Checkset
	06Aug07	Preliminary Bidding
	12Oct07	Preliminary Bidding
	03Nov07	Stormwater/Revisions
	10Dec07	Revisions
	2June08	BOP Revisions
	7Aug08	Landscape

PROJECT NO: 4034
MODEL FILE: NMcbyCoburn.pln
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CHK'D BY: LW
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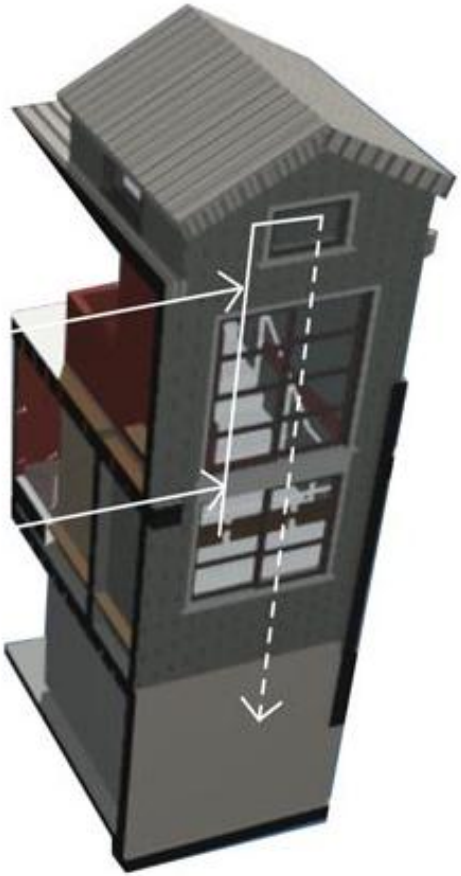
SHEET TITLE

Stormwater

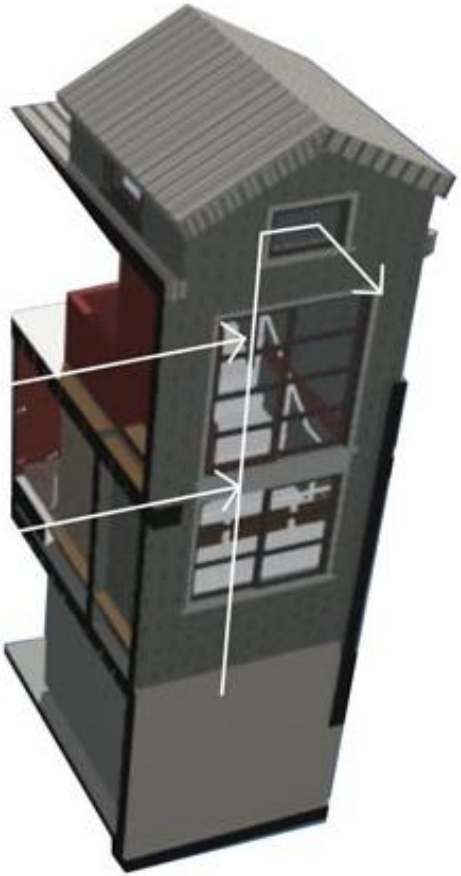
A103

SHEET 4 OF 27

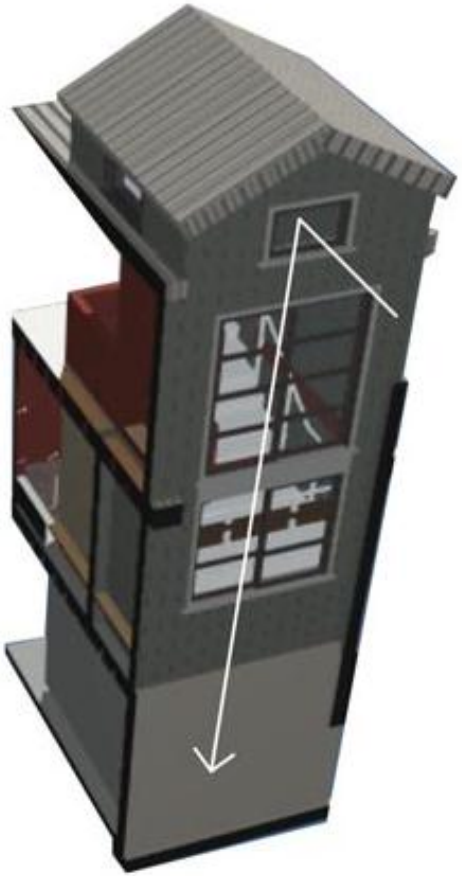


Winter

Ventilation Chimney Notes for Winter Heat Cycle
1. Mechanical system provides heat.
2. Stair tower collects rising heat aided by building fan at roof of tower
3. Vent shaft collects hot air at top of stair tower and redirects to first floor aided by fan at base of vent shaft.



Summer Day



Summer Night

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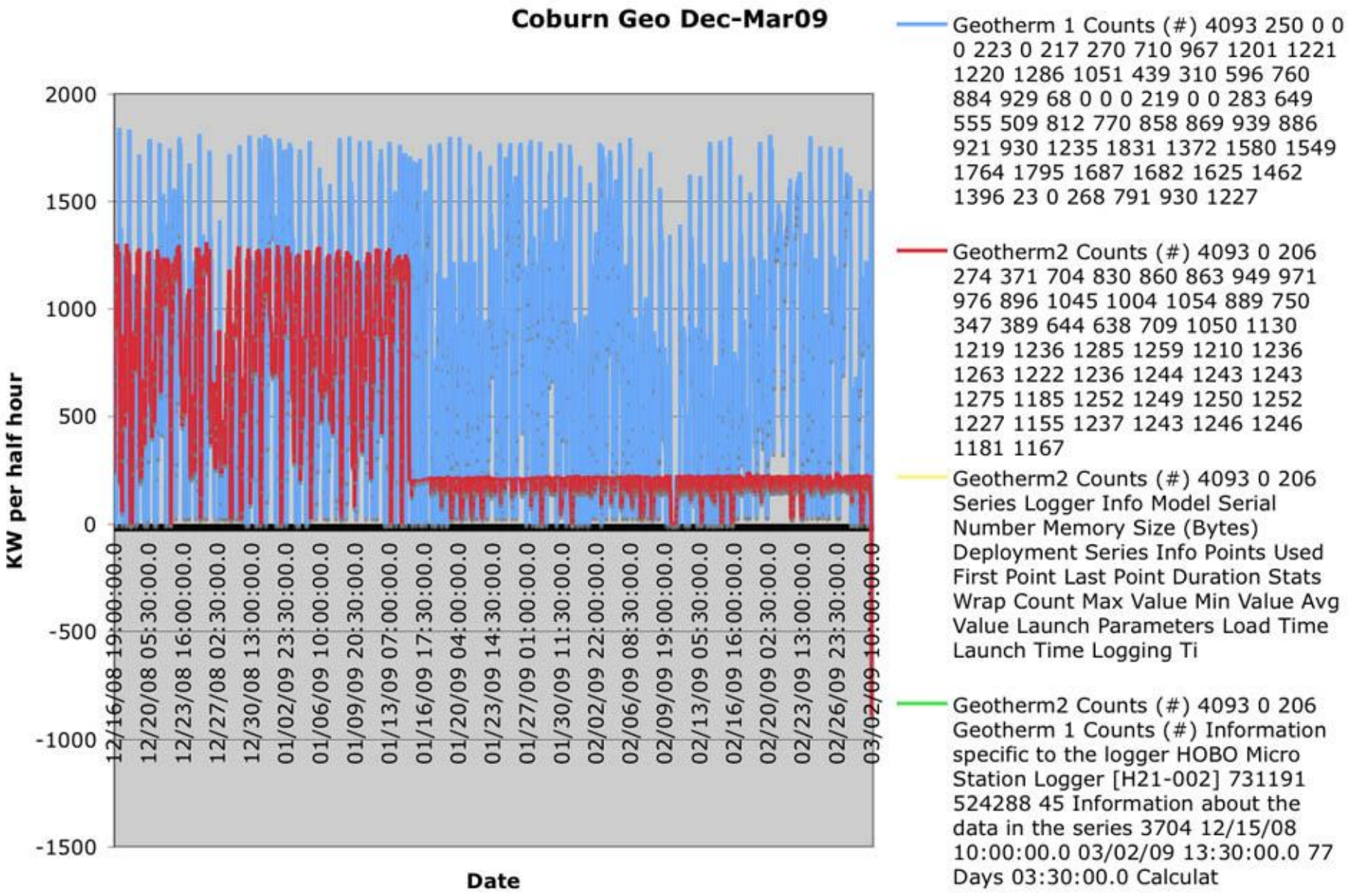
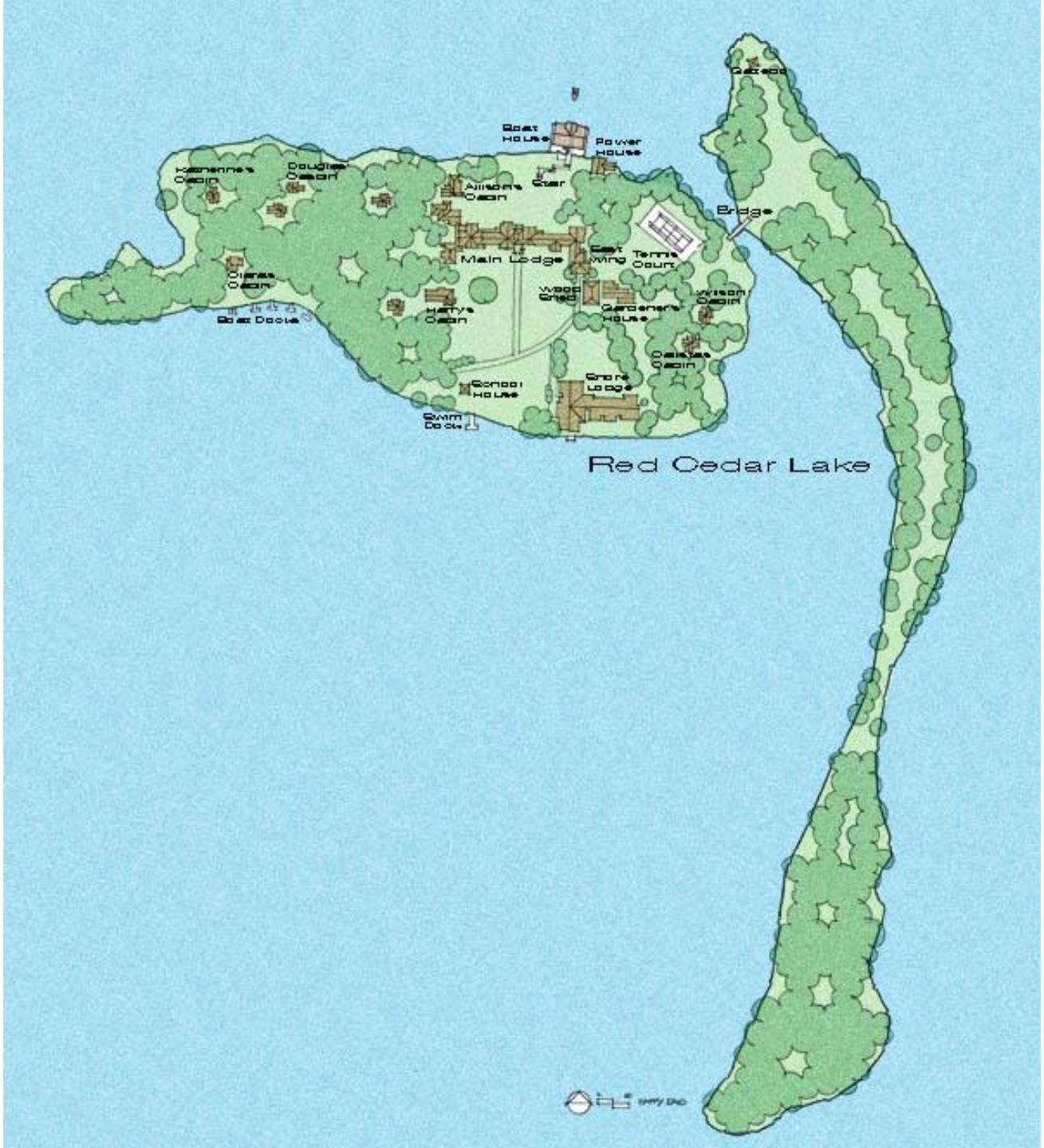
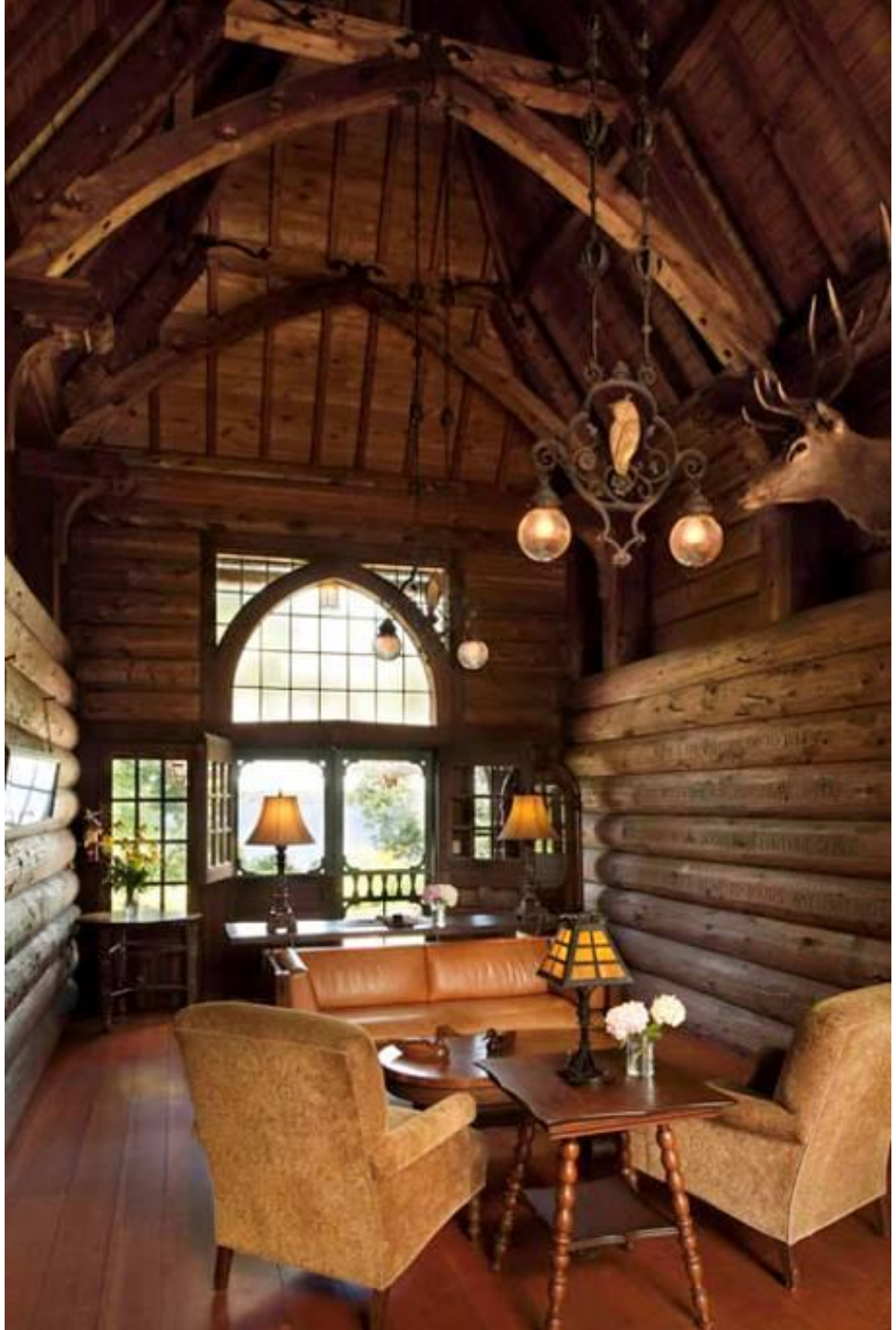
The Wisconsin Energy Conservation Corp & The Energy Center loaned data loggers


Coburn Geo Dec-Mar09
KW per half hour
2000
1500
1000
500
0
-500
-1000
-1500
12/16/08 19:00:00.0
12/20/08 05:30:00.0
12/23/08 16:00:00.0
12/27/08 02:30:00.0
12/30/08 13:00:00.0
01/02/09 23:30:00.0
01/06/09 10:00:00.0
01/09/09 20:30:00.0
01/13/09 07:00:00.0
01/16/09 17:30:00.0
01/20/09 04:00:00.0
01/23/09 14:30:00.0
01/27/09 01:00:00.0
01/30/09 11:30:00.0
02/02/09 22:00:00.0
02/06/09 08:30:00.0
02/09/09 19:00:00.0
02/13/09 05:30:00.0
02/16/09 16:00:00.0
02/20/09 02:30:00.0
02/23/09 13:00:00.0
02/26/09 23:30:00.0
03/02/09 10:00:00.0
Date
Geotherm 1 Counts (#) 4093 250 0 0 0 223 0 217 270 710 967 1201 1221 1220 1286 1051 439 310 596 760 884 929 68 0 0 0 219 0 0 283 649 555 509 812 770 858 869 939 886 921 930 1235 1831 1372 1580 1549 1764 1795 1687 1682 1625 1462 1396 23 0 268 791 930 1227
Geotherm2 Counts (#) 4093 0 206 274 371 704 830 860 863 949 971 976 896 1045 1004 1054 889 750 347 389 644 638 709 1050 1130 1219 1236 1285 1259 1210 1236 1263 1222 1236 1244 1243 1243 1275 1185 1252 1249 1250 1252 1227 1155 1237 1243 1246 1246 1181 1167
Geotherm2 Counts (#) 4093 0 206 Series Logger Info Model Serial Number Memory Size (Bytes) Deployment Series Info Points Used First Point Last Point Duration Stats Wrap Count Max Value Min Value Avg Value Launch Parameters Load Time Launch Time Logging Ti
Geotherm2 Counts (#) 4093 0 206 Geotherm 1 Counts (#) Information specific to the logger HOBO Micro Station Logger [H21-002] 731191 524288 45 Information about the data in the series 3704 12/15/08 10:00:00.0 03/02/09 13:30:00.0 77 Days 03:30:00.0 Calculat


Boat House
Power House
Douglas' Cabin
Allison's Cabin
Pier
Bridge
Main Lodge
East Wing
Tennis Court
Wood Shed
Gardener's House
Wilson Cabin
Harry's Cabin
Boat Docks
Cabin
Guest Lodge
Canoe House
Swim Dock
Red Cedar Lake


C




C

M. Caren Connolly & Louis Wasserman
Architecture Landscape Architecture

www.louiswassermanandassociates.com

Louis Wasserman AIA
Principal Architect

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Stephen Schreiber FAIA
Professor and Architecture+Design Program Director
Department of Art, Architecture, and Art History
University of Massachusetts Amherst
Moderator

Thank you for joining us!

This concludes the AIA/CES Course #H12003.

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