MEMO

PLANNING AND COMMUNITY DEVELOPMENT

To:	Redevelopment Authority of the City of Kaukauna (RACK)
From:	Lily Paul, Associate Planner
Date:	March 31, 2022
Re:	Certificate of Appropriateness for 102 W Wisconsin Ave

John Lorbiecki, owner of Lorbiecki Homes, LLC, is renovating the building located at 102 W Wisconsin Ave, on the corner of Wisconsin Ave and Lawe Street. This site is in the Commercial Core District (CCD). This building will serve as the offices for Lorbiecki Homes, LLC.

The proposed façade renovations include covering the existing CMU wall with EIFS and new thin-stone veneer system. The original design plan showed the façade as Lap Siding, but the updated design was recommended to be EIFS instead. See attached the design and site plan created by Gries Architectural Group, Inc.

CCD – Commercial Core District zoning regulations grant design review to RACK for façade improvements.

Staff Recommendation:
Staff recommends to approve the design for façade improvements to 102 W Wisconsin Ave and grant a Certificate of Appropriateness.

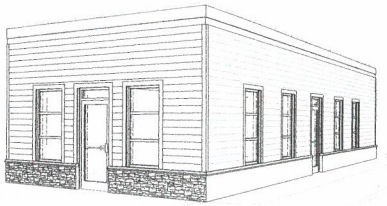
Conditionally Approved

11/5/2021

A BUILDING RENOVATION FOR:

102 W. WISCONSIN AVE.

KAUKAUNA, WISCONSIN



MATERIAL INDEX-PLANS,SECTIONS

- EARTH
- COMPACTED FILL
- GRAVEL FILL
- CERAMIC TILE
- POURED CONCRETE
- CONCRETE BLOCK
- CONCRETE BLOCK FILLED
- FACE BRICK
- STONE
- ROUGH LUMBER
- PLYWOOD
- FINISHED LUMBER
- RIGID INSULATION
- BATT INSULATION
- DRYWALL
- STEEL
- PRECAST CONCRETE
- ACOUSTIC TILE
- BITUMINOUS PAVING
- EXISTING WALL TO BE REMOVED
- EXISTING WALL TO REMAIN
- CONSTRUCT NEW WALL

REFERENCE SYMBOLS

SECTION CUT SYMBOL (WALL SECTIONS)
- SECTION DESIGNATION (NUMBER FOR CROSS SECTION & LETTER FOR WALL SECTION)
- DRAWING NUMBER ON WHICH SECTION APPEARS

PLAN DETAIL / ENLARGED PLAN SYMBOL
- DETAIL NUMBER
- DRAWING NUMBER ON WHICH DETAIL APPEARS

DETAIL CUT SYMBOL
- DETAIL NUMBER
- DRAWING NUMBER ON WHICH DETAIL APPEARS

Name / Elevation — ELEVATION MARK - NEW

Name / Elevation — ELEVATION MARK - EXISTING

DRAWING SYMBOLS

- DOOR TAG
- REVISION NUMBER
- WINDOW TAG
- COLUMN LINE DESIGNATION- NEW
- WALL TYPE
- UP — STAIRWAY DIRECTION INDICATION
- KEYNOTE MARK - ACCESSORIES
- KEYNOTE MARK - DEMOLITION NOTES
- KEYNOTE MARK - PLAN NOTES
- 10'-0" A.F.F. — SPOT ELEVATION MARKER

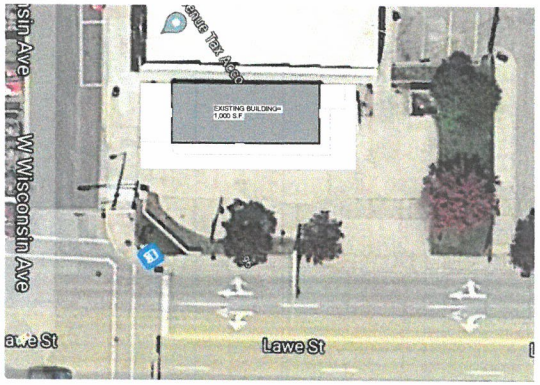
PROJECT DATA

GOVERNING AUTHORITY - WISCONSIN DEPT. OF COMMERCE SAFETY AND BUILDINGS DIVISION	
REFERENCED CODE	INTERNATIONAL BUILDING CODE 2015 (EXISTING)
CLASS OF CONSTRUCTION	V-B
OCCUPANCY CLASSIFICATION	BUSINESS (B)
LOCAL ZONING AUTHORITY	CITY OF KAUKAUNA
BUILDING SPRINKLED	NO
BUILDING AREA:	
EXISTING FIRST FLOOR:	1,000 S.F.
TOTAL BUILDING SQ. FT.:	1,000 S.F. (EXISTING)

SHEET INDEX

NOTE:
THE INTENT AND MEANING OF THE CONSTRUCTION DOCUMENTS IS THAT THE CONTRACTOR UNDER THE TERMS OF THE CONTRACT SHALL TAKE ALL ACTIONS NECESSARY AND REQUIRED TO PROVIDE ALL LABOR, MATERIALS, SUPPLIES, EQUIPMENT, TRANSPORTATION, FACILITIES AND APPURTENANCES WHICH ARE INDICATED OR REASONABLY IMPLIED BY EACH DRAWING AND EACH SECTION OF THE SPECIFICATIONS, ALL OF WHICH ARE COLLECTIVELY NECESSARY AND REQUIRED FOR THE CONSTRUCTION OF THE DESCRIBED STRUCTURES AND FACILITIES.

NOTE:
ALL TRADES SHALL CROSS REFERENCE ALL CONSTRUCTION DOCUMENTS FOR COORDINATION AND SCOPE OF WORK.



SITE PLAN
1" = 20'-0"

SITE NORTH

PLAN NORTH

PROJECT LOCATION

102 W. WISCONSIN AVE.
KAUKAUNA, WISCONSIN 54130

INDICATES PROJECT LOCATION

VICINITY PLAN
NO SCALE

CONSULTANTS

ARCHITECTURAL
GRIES ARCHITECTURAL GROUP, INC.
500 N. COMMERCIAL STREET
NEENAH, WI 54956
PH (920)722-2445 FX (920)722-6605
CONTACT: BRANNIN GRIES, AIA

Gries Architectural Group Inc.
500 North Commercial Street
Neenah, Wisconsin 54956
Phone: (920) 722-2445 Fax: (920) 722-6605
www.gries-design.com

A BUILDING RENOVATION FOR:
102 W. WISCONSIN AVE.
KAUKAUNA, WISCONSIN

WISCONSIN BRANNIN P. GRIES E-31577 NEENAH WI ARCHITECT

date: 10-25-21
job: 21-122
d. by: BJG, LCF
rev.: REV. #1 (10-25-21)

CONST. DOCS. 10-25-21

C-S

Z:\2021\21-122 102 West Wisconsin Ave-Kaukauna- Lorbiecki Homes\21-122_Revit\21-122_102 W Wisconsin Ave-Kaukauna.rvt

10/25/2021 9:19:35 AM

EMERGENCY LIGHTING NOTES:

1. ELECTRICAL CONTRACTOR TO INSTALL EMERGENCY LIGHTING THAT PROVIDES A MINIMUM OF 1 FOOT-CANDLE (11 LUX) OF LIGHT AT THE WALKING SURFACE ALONG THE PATH OF EGRESS (CODE SECTION 1008.2.1).
   - PER. SECTIONS 1008.3.4, THIS SYSTEM SHALL BE PROVIDE EMERGENCY LIGHTING POWER FOR A DURATION OF NOT LESS THAN 90 MINUTES.
   - PER SECTIONS 1008.3.5, THE PERFORMANCE OF THE SYSTEM SHALL PROVIDE AN INITIAL LIGHT ILLUMINATION THAT IS AT LEAST AN AVERAGE OF 1 FOOT-CANDLE AND THAT AT ANY POINT ALONG THE PATH, THE MINIMUM ILLUMINATION SHALL BE 0.1 FOOT CANDLE.
2. ELECTRICAL CONTRACTOR SHALL PROVIDE EMERGENCY LIGHTING BALLASTS ON CEILING LIGHT FIXTURES ALONG PATH OF EGRESS AS REQUIRED TO MINIMIZE THE NUMBER OF SINGLE PURPOSE EMERGENCY LIGHT FIXTURES. THESE SHALL BE COORDINATED DIRECTLY BETWEEN THE ELECTRICAL CONTRACTOR AND THEIR SUPPLIER SO THAT THE HIGHEST LUMEN OUTPUT EMERGENCY BALLAST AVAILABLE IS PROVIDED IN THE FIXTURES THAT ARE DUAL-PURPOSED FOR EMERGENCY LIGHTING.
3. ELECTRICAL CONTRACTOR SHALL PROVIDE A PHOTOMETRIC PLAN SHOWING THE EMERGENCY LIGHTING FIXTURE LAYOUT FOR REVIEW BY THE ARCHITECT PRIOR TO ORDERING FIXTURES. IF THE CONTRACTOR CANNOT PROVIDE SUCH A PLAN, THIS MAY BE COORDINATED THROUGH THE ARCHITECT AT AN ADDITIONAL COST TO THE CONTRACTOR.
4. THE ARCHITECT/SUPERVISING PROFESSIONAL IS RESPONSIBLE ONLY FOR VERIFYING COMPLIANCY OF THE EMERGENCY LIGHTING SYSTEM, AS WELL AS COORDINATING ANY ADDITIONAL REQUIREMENTS FROM THE LOCAL AND STATE INSPECTORS.

FIRE EXTINGUISHER NOTES:

- FIRE EXTINGUISHERS SHALL BE PROVIDED, AT A MINIMUM, TO MEET IBC 906 REQUIREMENTS. IBC 906 REFERENCES SECTION 906 OF THE IFC, WHEREIN TABLE 906.3(1) INDICATES THE MINIMUM REQUIREMENTS FOR FIRE EXTINGUISHER PLACEMENT. EACH SHALL BE PLACED SO THAT THE MAXIMUM TRAVEL DISTANCE TO AN EXTINGUISHER IS 75 FT., AND THE MAXIMUM FLOOR AREA PER 2-A UNIT IS 3000 S.F. A TYPICAL 4-A TYPE EXTINGUISHER WOULD COVER 6,000 S.F.
- GENERAL CONTRACTOR SHALL COORDINATE ANY ADDITIONAL LOCAL REQUIREMENTS WITH THE LOCAL FIRE DEPARTMENT OFFICIALS.

EXTERIOR WALL OPENINGS

- THERE IS NO LIMIT ON UNPROTECTED OPENINGS FOR THIS BUILDING, AS FIRE SEPARATION DISTANCE IS GREATER THAN 30' ON 3 SIDES OF EXISTING BUILDING (PER TABLE 705.8). SEE SITE PLANS FOR DISTANCE

HAZARDOUS MATERIAL NOTE:

- THERE WILL BE NO HAZARDOUS MATERIALS IN QUANTITIES GREATER THAN ALLOWED BY TABULAR VALUES IN SECTION 414 STORED IN BUILDING, SO NO CONTROL AREAS ARE REQUIRED.

MECHANICAL EQUIPMENT NOTE:

- NO SINGLE PIECE OF MECH. EQUIPMENT SHALL EXCEED 400,000 B.T.U.- REFER TO GENERAL NOTES ON SHT. A-1.1. FOR ADDITIONAL INFORMATION.

FIRE RESISTANCE REQUIREMENTS

CONSTRUCTION TYPE :	TYPE V-B	TABLE 601
STRUCTURAL FRAME:	0	
EXTERIOR BEARING WALLS:	0	TABLE 602
INTERIOR BEARING WALLS:	0	
EXTERIOR NON-BEARING WALLS:	0	
PERMANENT PARTITIONS:	0	
CORRIDOR WALLS:	0	
SHAFT ENCLOSURES:	N/A	
INTERIOR SHAFT WALLS:	N/A	
ELEVATOR MACHINE ROOM	N/A	
FLOORS:	0	
ROOFS:	0	

CODE STUDY 2015 IBC/SPS 362 WI Commercial Building Code & Existing Building Code

		CODE REFERENCE
CITY/ COUNTY :	KAUKAUNA/ OUTAGAMIE	
CLOSEST INTERSECTION :	W. WISCONSIN & LAWE ST.	
DIRECTION FROM INTERSECTION:	NORTHEAST	
SEWER TYPE :	PUBLIC	
FACILITY USE :	OFFICE	
SCOPE OF WORK :	RENOVATION OF EXIST. BUILDING	
BUILDING OCCUPANCY TYPE :	BUSINESS (B)	SECTION 306.2
CONSTRUCTION TYPE :	TYPE V-B	
NO. OF PERSONS EMPLOYED :	UNKNOWN	
NO. OF PERSONS (PUBLIC) :	Varies	
HANDICAP ACCESSIBILITY :	YES	
INITIAL ALLOWABLE AREA :	9,000 SQ. FT./FLOOR	TABLE 503
INITIAL ALLOWABLE STORIES:	TWO (2)	TABLE 503
ACTUAL STORIES:	ONE (1)	
AREA MODIFICATIONS :	NO FRONTAGE INCREASE TAKEN (EXIST.)	SECTION 506
SPRINKLER INCREASE:	NONE TAKEN- NO SPRNKLER	
ALLOWABLE AREA w/ MODS. :	NONE TAKEN (EXIST.)	SECTION 506.2
AUTOMATIC SPRINKLER :	NONE- EXIST. BLDG.	
FIRST FLOOR AREA :	1,000 S.F. (EXIST.)	
TOTAL BLDG. AREA	1,000 SQ. FT. (EXIST.)	

PLUMBING FIXTURE REQUIREMENT

(PER SECTION 29.02, TABLE 2902.1)

OCCUPANCY		WATER CLOSETS			LAVATORIES		TUB/SHOWER		D. FOUNTAINS	
TYPE	# PEOPLE	FACTOR(S)	# FIX. (M)	# FIX. (F)	FACTOR	# FIX.	FACTOR	# FIX.	FACTOR	# FIX.
FIRST FLOOR (B)	10	1/25 FOR 1ST 50	.40	.40	1/40	.25	N/A	N/A	1/100	.10

COMPLIANCE CHECK	MEN		WOMEN	LAVATORIES	TUB/SHOWER	D. FOUNTAINS	OTHER
	URINALS	W. C.'S	W. C.'S				
FIRST FLOOR REQUIRED	—	.40	.40	.25 (EA)	N/A	1	SERV.SINK NOT REQD.
PROVIDED	—	1- UNISEX USE*		1- UNISEX USE*	N/A	1**	NONE

* SINGLE TOILET ROOM IS BEING PROVIDED AS TOTAL OCCUPANT LOAD IS LESS THAN 15. AS PER (P) 2902.2, EXCEPTION #2.

** PORTABLE WATER DISPENSER TO BE INSTALLED AT TIME OF TENANT OCCUPANCY, IN LIEU OF DRINKING FOUNTAIN.

OCCUPANCY LOAD CALCS.

ROOM/SPACE	USE PER TABLE 1004.1.2	RM. AREA	SQ. FT. AREA/OCC.	OCCUPANT LOAD
FIRST FLOOR	BUSINESS (B)	1,000 S.F.	100 GROSS	10 PERSONS
TOTAL BLDG. OCCUPANT LOAD				10 PERSONS

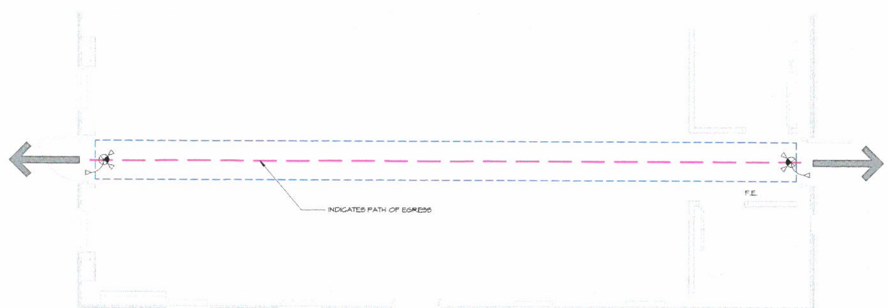
EGRESS WIDTH CALCS.

ROOM/SPACE	USE CLASS. OR OCCUPANCY	OCC. LOAD	STAIR WIDTH FACTOR	REQ. STAIR WIDTH	EGRESS COMP. FACTOR	REQ. EGRESS COMP. WIDTH
BUSINESS/OFF.	B	10 PERS.	.2"/OCC.	N/A	.2"/OCC.	2.0"

REQ. EGRESS WIDTH - FIRST FLOOR:	10(TOTAL OCC. LOAD) x .2"/OCC.=2.0"	SECT. 1005.3.2
ACTUAL WIDTH PROVIDED - FIRST FLR.:	64"	SECT. 1005.3.2
MAX. EXIT DIST. - FIRST FLOOR	60 FT. (TOTAL) MAX. ALLOWED	200 FT./75 FT. (COM)

LEGEND:

FEC / FE	FIRE EXTINGUISHER/FIRE EXTINGUISHER CABINET - MIN. 10# "A-B-C" (UNLESS NOTED OTHERWISE) OR OTHER AS REQ'D. BY STATE AND/OR LOCAL CODE.
	EXIT/EXIT PATH
	INDICATES EXIT/LIGHT SIGN.
	EMERGENCY EGRESS EXTERIOR BATTERY BACK-UP LIGHT FIXTURE PER. IBC 2015, SECTION 1006.



2
A-1.0 LIFE SAFETY PLAN
1/4" = 1'-0"

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date: 10/25/21
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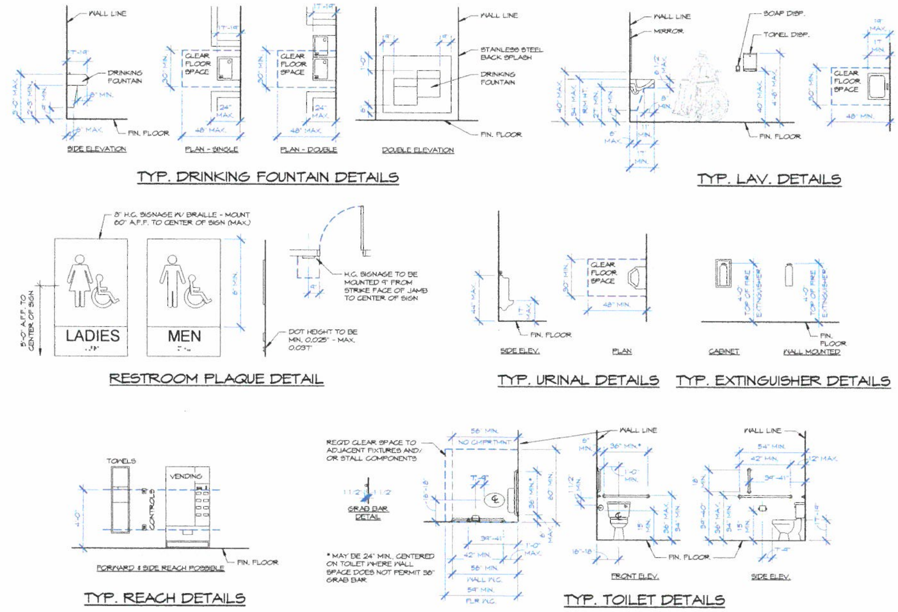
A-1.0



1 / A-2.1 **ACCESSIBILITY GUIDELINES**
1/4" = 1'-0"

ROOM FINISH SCHEDULE									
				WALLS					
ROOM NO.	ROOM NAME	FLOOR	BASE	NORTH	SOUTH	EAST	WEST	CEILING	REMARKS
FIRST FLOOR									
100	OPEN OFFICE	FF-1	BF-1	WF-1	WF-1	WF-1	WF-1	CF-1	
101	TOILET	FF-2	BF-2	WF-1	WF-1	WF-1	WF-1	CF-1	
102	MECH.	FF-3	BF-2	WF-1	WF-1	WF-1	WF-1	CF-1	

MATERIAL SCHEDULE	
FLOORING	
FF-1:	CARPET TILE-STYLE/COLOR: T.B.D. - SIZE: 24" x 24" (VERIFY)
FF-2:	CERAMIC/PORCELAIN TILE- SIZE: 12" x 12" (VERIFY)
FF-3:	EXIST. CONC. SEALED
BASE	
BF-1:	VINYL COVE BASE- SIZE: 4" HIGH
BF-2:	CERAMIC/POCELAIN TILE-SIZE: 6" HIGH FINISH: MATCH FLOOR
WALLS	
WF-1:	GYPSUM BOARD - PAINTED, PAINT TYPE: INTERIOR GRADE LATEX, PAINT COLOR: T.B.D.
CEILING	
CF-1:	GYPSUM BOARD - PAINTED, PAINT TYPE: INTERIOR GRADE LATEX, PAINT COLOR: T.B.D.

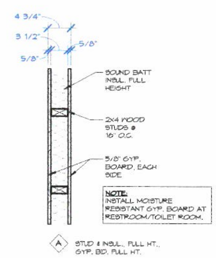
GENERAL ROOM FINISH NOTES:

- ALL GYP. BOARD SURFACES SHALL BE TAPED, MUDDED, PRIMED, AND FINISHED WITH TWO (2) COATS OF PAINT.
- PROVIDE TRANSITION STRIPS BETWEEN CONCRETE FLOORS AND FINISHED FLOORS TYPICAL.
- FLOOR FINISH MATERIALS SHALL TRANSITION AT THE CENTER OF THE COMMUNICATING DOOR.
- GYPSUM BOARD IN THE RESTROOMS AND SURROUNDING THE UTILITY SINK SHALL BE MOISTURE RESISTANT.
- METAL EDGE STRIPS TO BE INSTALLED WHERE EXPOSED EDGE OF TILE MEETS CARPET, WOOD OR OTHER FLOORING.
- USE SCHLUTER RONDEC AT TOP OF TILE (WHERE APPLICABLE, OR NO-BULL-NOSE TRIM IS USED) & OUTSIDE CORNERS.
- PROVIDE CRACK ISOLATION MEMBRANE AS REQUIRED.

GYPSUM BOARD CONTROL (EXPANSION) JOINT NOTE:

INSTALL CONTROL (EXPANSION) JOINTS ACCORDING TO ASTM C480 AND IN SPECIFIC LOCATIONS APPROVED BY ARCHITECT FOR VISUAL EFFECT.

1. CONTROL (EXPANSION) JOINTS SHALL BE INSTALLED IN CEILINGS EXCEEDING 2,500 S.F. IN AREA. THE DISTANCE SHALL NOT BE MORE THAN 50 FEET BETWEEN CEILING CONTROL (EXPANSION) JOINTS IN EITHER DIRECTION (WITH PERIMETER RELIEF, 30 FEET IN EITHER DIRECTION WITHOUT PERIMETER RELIEF).
2. CONTROL (EXPANSION) JOINTS SHALL BE INSTALLED IN PARTITION, WALL AND WALL FURRING RUNS EXCEEDING NOT MORE THAN 30 FEET. A CONTROL (EXPANSION) JOINT SHALL BE INSTALLED WHERE A CONTROL (EXPANSION) JOINT OCCURS IN THE BASE EXTERIOR WALL.
3. CONTROL (EXPANSION) JOINTS ARE NOT REQUIRED FOR WALL LENGTHS LESS THAN 30 FEET.
4. EXTEND CONTROL (EXPANSION) JOINTS THE FULL HEIGHT OF THE WALL OR LENGTH OF SOFFIT/CEILING MEMBRANE.
5. LOCATE CONTROL (EXPANSION) JOINTS AT BOTH JAMBS OF OPENINGS IF GYPSUM BOARD IS NOT "YOKED" (CENTERED ON HEAD OPENING). USE ONE SYSTEM THROUGHOUT.
6. WHERE VERTICAL AND HORIZONTAL CONTROL (EXPANSION) JOINTS INTERSECT, VERTICAL CONTROL (EXPANSION) JOINT SHALL BE CONTINUOUS; HORIZONTAL CONTROL (EXPANSION) JOINT SHALL ABUT IT.



INTERIOR WALL TYPES
1" = 1'-0"

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A BUILDING RENOVATION FOR:
102 W. WISCONSIN AVE.
KAUKAUNA, WISCONSIN

date: 10/25/21
job: 21-122
d. by: BJG, LCF
rev.:

A-2.1

Z:\2021\21-122 102 West Wisconsin Ave-Kaukauna- Lorbiecki Homes\21-122_Revit\21-122_102 W Wisconsin Ave-Kaukauna.rvt
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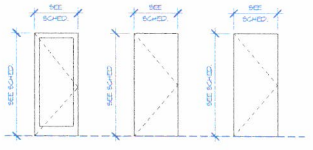
DOOR SCHEDULE

DOOR NO.	FROM	TO	HAND	DOOR OPENING WIDTH	DOOR OPENING HEIGHT	DOOR THICKNESS	DOOR TYPE	DOOR MAT'L	DOOR FINISH	FRAME TYPE	FRAME MAT'L	FRAME FINISH	HRD'W. GROUP	FIRE RATING	REMARKS
FIRST FLOOR															
100A	EXTERIOR	OPEN OFFICE	LHR	3' - 0"	7' - 0"		A	ALUM.	ANOD.	1	ALUM.	ANOD.	ENTRY	--	
100B	EXTERIOR	OPEN OFFICE	RHR	3' - 0"	7' - 0"		A	ALUM.	ANOD.	1	ALUM.	ANOD.	ENTRY	--	
100C	EXTERIOR	OPEN OFFICE	RHR	3' - 0"	7' - 0"	0' - 1 3/4"	B	H.M., INSUL.	PAINT	2	H.M.	PAINT	ENTRY	--	
101A	OPEN OFFICE	TOILET	RH	3' - 0"	7' - 0"	0' - 1 3/4"	C	S.C. WOOD	STAIN	3	H.M.	PAINT	PRIVACY	--	
102A	OPEN OFFICE	MECH.	RH	3' - 0"	7' - 0"	0' - 1 3/4"	C	S.C. WOOD	STAIN	3	H.M.	PAINT	STORAGE/CLASSROOM	--	

GENERAL DOOR & WINDOW NOTES:

- VERIFY ALL OPENING DIMENSIONS PRIOR TO FABRICATION OR CONSTRUCTION OF ALL DOORS & FRAMES.
- ALL HARDWARE TO BE AMERICANS WITH DISABILITIES ACT (A.D.A.) COMPLIANT.
- PROPER EXIT HARDWARE IS REQUIRED ON ALL EXIT AND EXIT ACCESS DOORS. HARDWARE SHALL COMPLY WITH REQUIREMENTS OF IBC SECTION 1008.1.8 THRU 1008.1.9.
- ALL FRAMES TO BE FIELD VERIFIED PRIOR TO FABRICATION BY WINDOW SUPPLIER.
- ALL GLAZING IN HAZARDOUS IMPACT AREAS SHALL BE SAFETY GLAZING IN ACCORDANCE WITH SECTION 2406.
- ALL HOLLOW METAL DOORS/FRAMES SHALL BE WELDED. NO KNOCK DOWN FRAMES PERMITTED.
- ALL EXPOSED STEEL LINTELS TO BE PRIMED & PAINTED.
- ALL EXTERIOR HOLLOW METAL EXIT DOORS TO HAVE LATCH GUARDS AND CLOSERS.
- ALUMINUM ENTRANCE DOORS SHALL BE EQUIPPED WITH CYLINDER LOCK, INTERIOR TURN-LOCK, SURFACE MOUNTED SELF CLOSER, AND DOOR STOP.
- STANDARD ROUND PUSH/PULLS UNLESS NOTED OTHERWISE. FINISH TO MATCH DOORS.
- ALL KEYING SHALL BE COORDINATED AND VERIFIED WITH OWNER AND/OR OWNER'S REPRESENTATIVE.
- ALL ALUMINUM STOREFRONT TO BE CLASS I ANODIZED ALUMINUM.



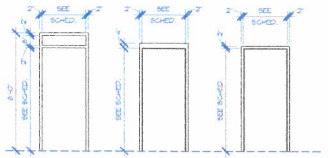
A — ALUM., CLEAR ANODIZED, MEDIUM STILE. 1" CLEAR TEMP. INSULATED GLAZING

B — HOLLOW METAL, INSUL. CORE PAINTED

C — SOLID CORE WOOD, PLAIN SLICED BIRCH/MAPLE. STAIN & VARNISH

DOOR ELEVATIONS

1/4" = 1'-0"



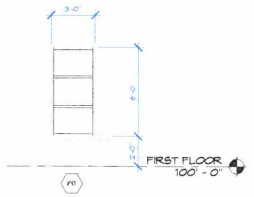
1 — ALUM., CLEAR ANODIZED, THERMALLY BROKEN STOREFRONT FRAME (2"X4 1/2"). 1" CLEAR TEMP. INSULATED GLAZING

2 — HOLLOW METAL PAINTED

3 — HOLLOW METAL PAINTED

FRAME ELEVATIONS

1/4" = 1'-0"



BOYD BRAND WINDOW, CLEAR ANODIZED ALUMINUM FRAME, WITH 1 1/4" THICK INSUL. CLEAR LOW-E GLAZING, ARGON FILLED AIR-SPACE

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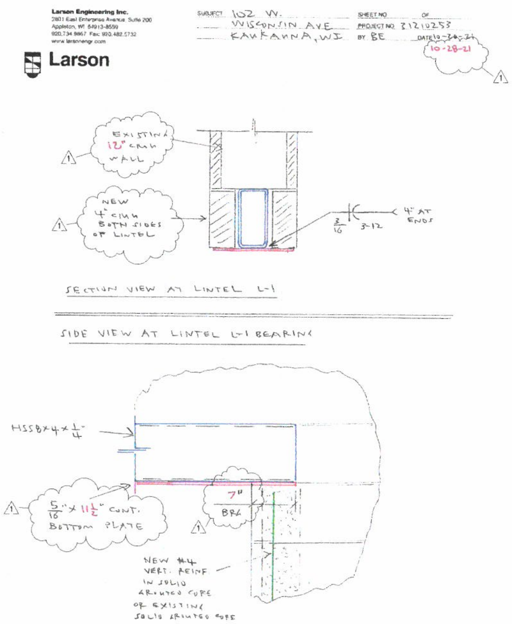
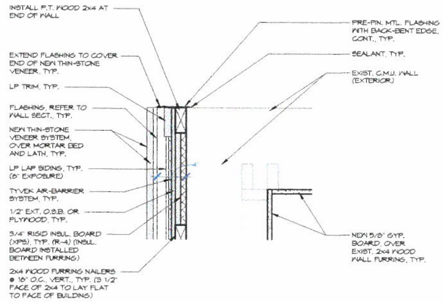


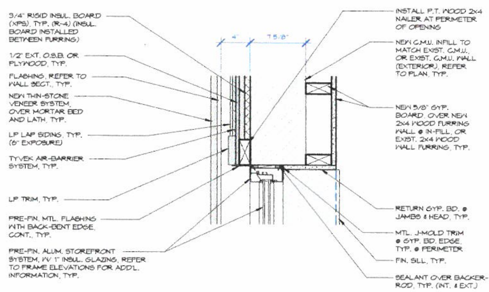
NEW LINTEL DETAILS- STRUCTURAL INFO.

4 A-6.1 12" = 1'-0"



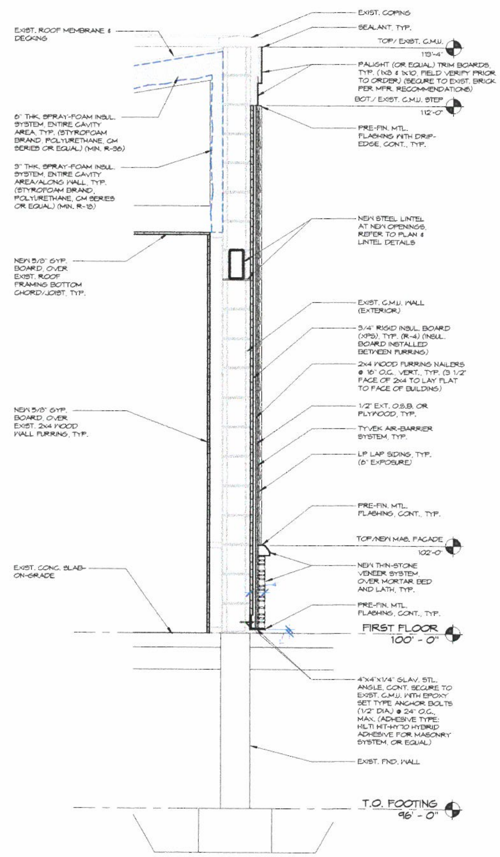
PLAN DET. @ NEW FACADE TO EXIST. C.M.U.

2 A-6.1 1 1/2" = 1'-0"



PLAN DET. @ EXT. OPENING JAMB

3 A-6.1 1 1/2" = 1'-0"



TYP. WALL SECT.

1 A-6.1 3/4" = 1'-0"

Z:\2021\21-122 102 West Wisconsin Ave-Kaukauna- Lorbiecki Homes\21-122_Revit\21-122_102 W Wisconsin Ave-Kaukauna.rvt

10/28/2021 1:10:48 PM

Gries Architectural Group Inc.

500 North Commercial Street Neenah, Wisconsin 54956 Phone: 920-722-2445 Fax: 920-722-6605 www.gries.design

A BUILDING RENOVATION FOR:

102 W. WISCONSIN AVE.

KAUKAUNA, WISCONSIN

date: 10/28/21

job: 21-122

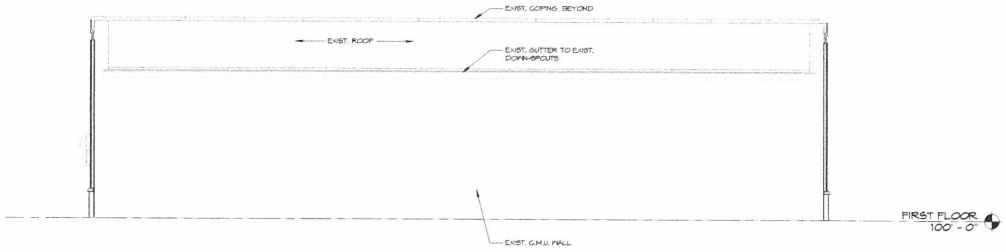
d. by: BJG, LCP

rev.: REV. #1 (10-28-21)

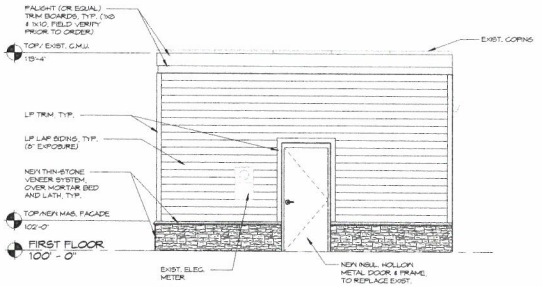
A-6.1

2 A-4.1 SOUTH ELEVATION
1/4" = 1'-0"

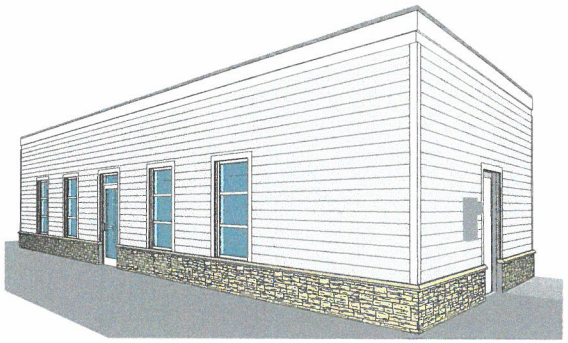
1 A-4.1 WEST ELEVATION
1/4" = 1'-0"



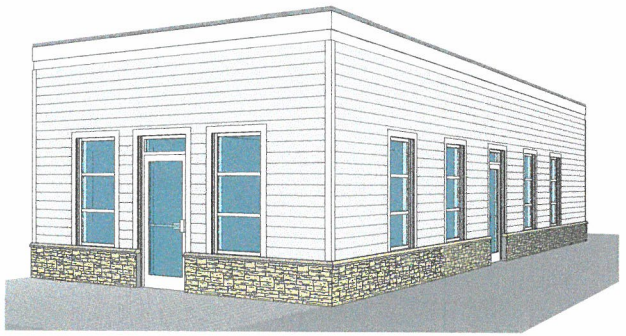
4 A-4.1 NORTH ELEVATION
1/4" = 1'-0"



3 A-4.1 EAST ELEVATION
1/4" = 1'-0"



3D VIEW- SOUTHEAST CORNER



3D VIEW- SOUTHWEST CORNER

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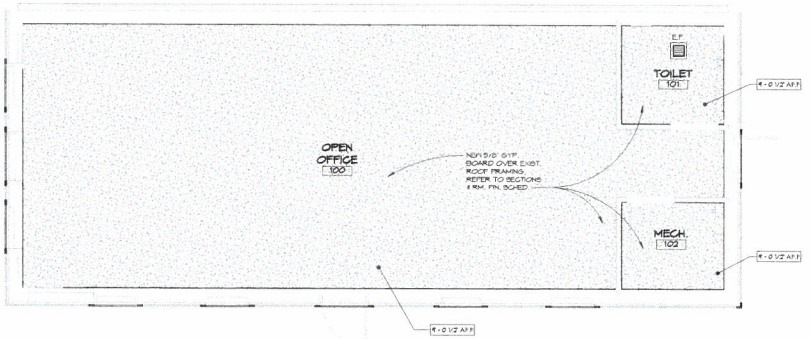
500 North Commercial Street
Neenah, Wisconsin 54956
Phone: 920-722-2451 Fax: 920-722-4665
www.griesdesign.com

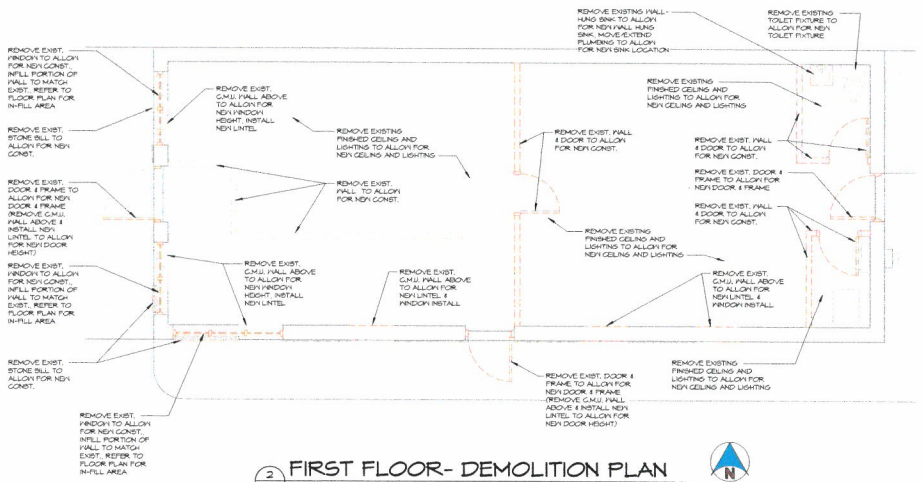
A BUILDING RENOVATION FOR:
102 W. WISCONSIN AVE.
KAUKAUNA, WISCONSIN

date: 10/25/21
job: 21-122
d. by: BJG, LCF
rev.:

A-4.1



3 A-1.1 REFLECTED CEILING PLAN
1/4" = 1'-0"



2 A-1.1 FIRST FLOOR- DEMOLITION PLAN
1/4" = 1'-0"

GENERAL PLAN DEMOLITION NOTES:

- ALL CONTRACTORS SHALL VISIT THE SITE AND FIELD VERIFY THE LOCATION OF ALL WALLS, DOORS, LIGHTS, DUCTS, PLUMBING FIXTURES, ETC. TO BE REMOVED.
- ALL MATERIAL SHALL BECOME THE PROPERTY OF THE CONTRACTOR, AND MUST BE REMOVED FROM THE SITE IN A TIMELY MANNER UNLESS NOTED OTHERWISE.
- REMOVE ALL EXISTING ROOM FINISHES AS REQUIRED TO ALLOW FOR APPLICATION OF NEW MATERIALS WHERE INDICATED ON THE ROOM FINISH SCHEDULE.
- PATCH OPENINGS IN FLOORS, WALLS, AND ROOF WHERE MECHANICAL EQUIPMENT, PLUMBING DUCTS, PIPES, CONDUITS, ETC. ARE REMOVED. MATCH ALL EXISTING FINISHES.
- PATCH ANY AREAS OF LAWN, PAVING, OR CONCRETE PAVING AND/OR CONCRETE CURBS DISTRUBED BY CONSTRUCTION AND MATERIAL DELIVERY.
- ALL SITE UTILITIES MUST BE FIELD VERIFIED PRIOR TO DEMOLITION WORK.
- PROVIDE PROTECTION FOR ANY EXISTING CONSTRUCTION OPEN TO THE ELEMENTS DUE TO DEMOLITION.
- PATCHING OF MASONARY TO BE TOOTHED IN WHEN PATCHING NEW AND EXISTING.
- PRIOR TO DEMOLITION, VERIFY THAT ALL OWNER ITEMS HAVE BEEN REMOVED.

GENERAL FLOOR PLAN NOTES:

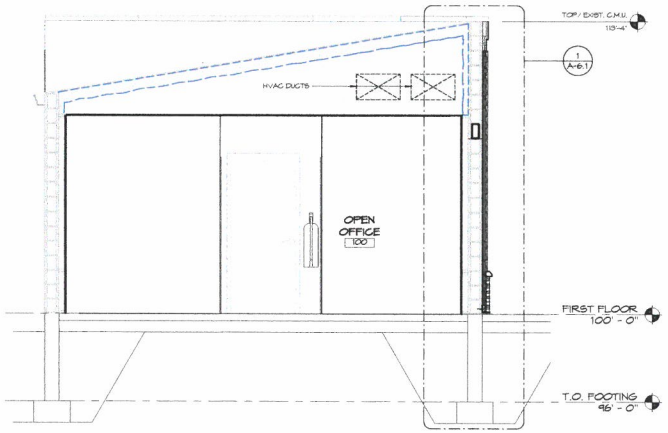
- CONTRACTOR TO PROVIDE ALL NECESSARY PERMITS & FEES REQUIRED TO COMPLETE THE PROJECT.
- CONSTRUCTION & INSTALLATION SHALL CONFORM TO ALL APPLICABLE LOCAL, STATE & NATIONAL BUILDING CODES & THE AMERICANS WITH DISABILITY ACT.
- ALL NEW WALLS SHALL BE CONSTRUCTED AS PER THE WALL TYPE & SHALL BE CARRIED TO THE STRUCTURE ABOVE, UNLESS OTHERWISE NOTED. PREPARE ALL SURFACES FOR FINISHES INDICATED.
- CONTRACTOR TO PROVIDE BLOCKING FOR ALL WALL SUPPORTED CASEWORK, TOILET ACCESSORIES, HANDRAILS, EQUIPMENT, DOOR STOPS, SHELVING, ETC. AS REQUIRED

GENERAL FLOOR PLAN NOTES:

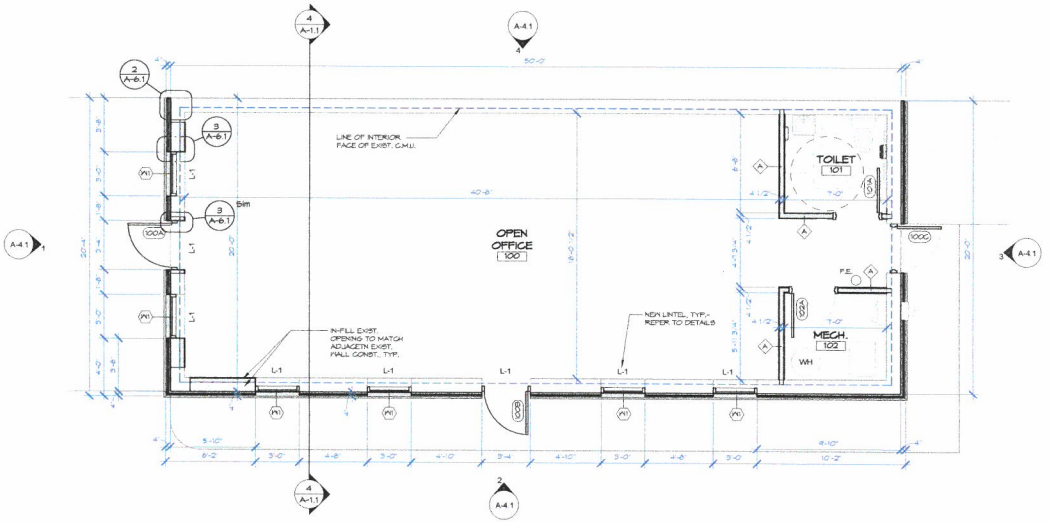
- WHERE MOUNTING HEIGHTS ARE NOT INDICATED, MOUNT INDIVIDUAL UNITS OF WORK AT A.D.A. STANDARD MOUNTING HEIGHTS FOR THE PARTICULAR APPLICATION INDICATED. REFER QUESTIONABLE MOUNTING HEIGHT CHOICES TO THE ARCHITECT FOR A FINAL DECISION.
- DO NOT SCALE THE DRAWINGS.
- ALL DIMENSIONS AND INTERIOR WALL THICKNESSES ARE FROM THE FINISHED FACE OF WALL TO FINISHED FACE OF WALL, UNLESS NOTED OTHERWISE.
- ALL DOOR OFFSETS (HINGE SIDE) TO BE A MINIMUM OF 4", UNLESS NOTED OTHERWISE.
- ALL GYP. BOARD SHALL RETURN TO ALL WINDOW/DOOR FRAMES AT JAMBS & HEAD, TYPICAL, UNLESS NOTED OTHERWISE.

STANDARD FLOOR PLAN NOTATION:

- INDICATES EXIT LIGHTS (SEE LIFE-SAFETY PLAN SHEET, REFL. CLG. PLANS AND ELECTRICAL PLANS FOR LOCATIONS)
- F.E.C. F.E. — INDICATES SEMI-RECESSED FIRE EXTINGUISHER CABINET
- INDICATES FIRE EXTINGUISHER - MIN. 10# "A-B-C" (UNLESS NOTED OTHERWISE) OR OTHER AS REQ'D. BY STATE AND/OR LOCAL CODE. SEE SPECIFICATIONS. MOUNT AT 4'-0" A.F.F. MAX. TO TOP (EXTINGUISHER).
- INDICATES WALL TYPES, REFER TO INT. WALL TYPES FOR INFORMATION.



4 A-1.1 BUILDING SECTION-1
3/8" = 1'-0"



1 A-1.1 FIRST FLOOR PLAN
1/4" = 1'-0"

Gries Architectural Group Inc.
561 North Greenmount Street
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Phone: 920-722-2441 Fax: 920-733-4645
www.grieadesign

A BUILDING RENOVATION FOR:
102 W. WISCONSIN AVE.
KAUKAUNA, WISCONSIN

date: 10/25/21
job: 21-122
d. by: BJS, LCF
rev.:

A-1.1

Larson Engineering, Inc.
2801 E. Enterprise Avenue, Suite 200
Appleton, WI 54913-7889
920.734.9867 Fax: 920.734.9880
www.larsonengr.com

Larson

A Building Renovation For:

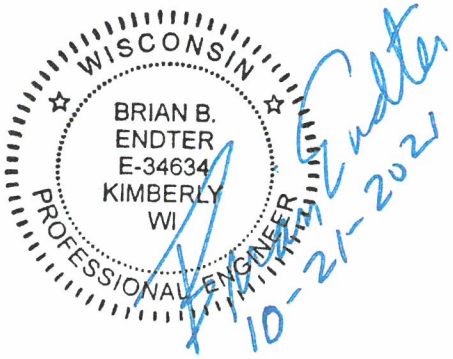
102 W. Wisconsin Ave.

Kaukauna, Wisconsin

Structural Calculations

Book 1 of 1
Calculation Release #1

Prepared for
Gries Architectural Group Inc.
500 North Commercial Street
Neenah, Wisconsin



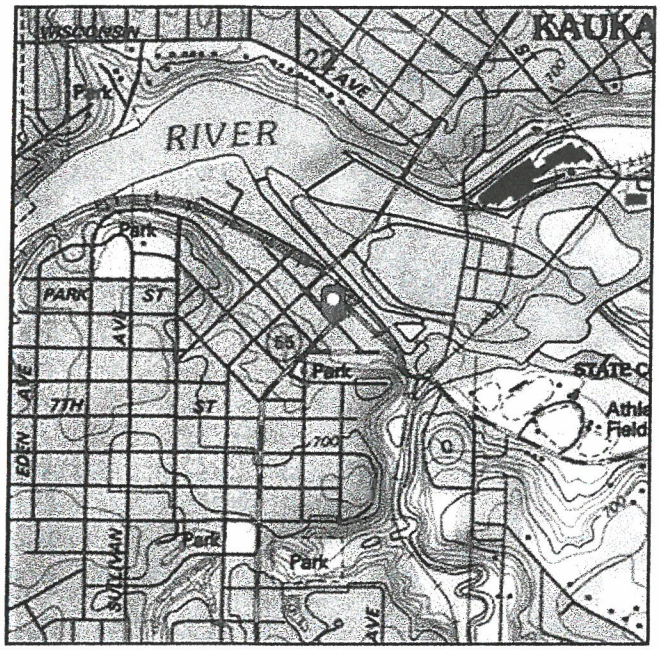
Larson Engineering, Inc.
Appleton, Wisconsin
Project Number 31210253.000

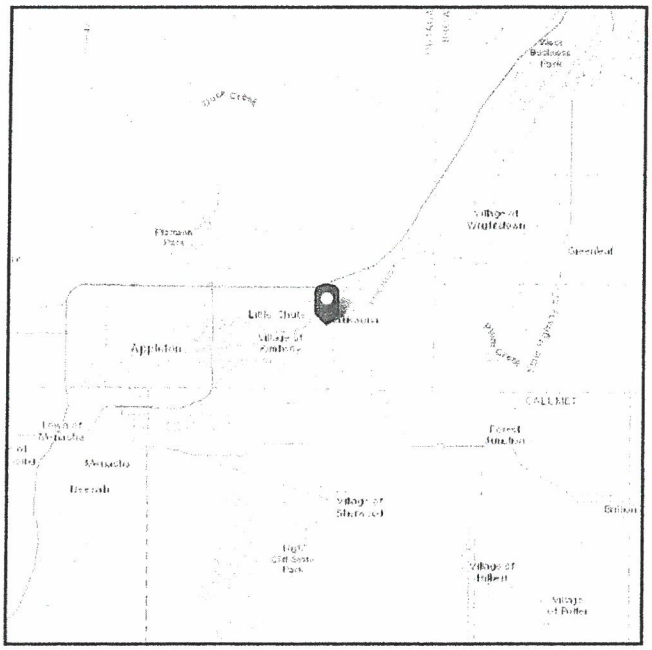
ASCE 7 Hazards Report

Address:
Kaukauna
Wisconsin,

Standard: ASCE/SEI 7-10
Risk Category: II
Soil Class: D - Stiff Soil

Elevation: 657.94 ft (NAVD 88)
Latitude: 44.27702
Longitude: -88.27116





Wind

Results:

Wind Speed:	115 Vmph
10-year MRI	76 Vmph
25-year MRI	84 Vmph
50-year MRI	89 Vmph
100-year MRI	96 Vmph

Fig. 26.5-1A and Figs. CC-1–CC-4, and Section 26.5.2, incorporating errata of March 12, 2014

Value provided is 3-second gust wind speeds at 33 ft above ground for Exposure C Category, based on linear interpolation between contours. Wind speeds are interpolated in accordance with the 7-10 Standard. Wind speeds correspond to approximately a 7% probability of exceedance in 50 years (annual exceedance probability = 0.00143, MRI = 700 years).

Site is not in a hurricane-prone region as defined in ASCE/SEI 7-10 Section 26.2.

ASCE
AMERICAN SOCIETY OF CIVIL ENGINEERS

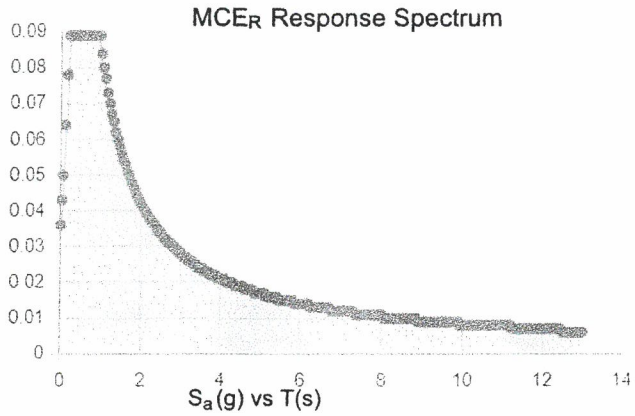
Seismic

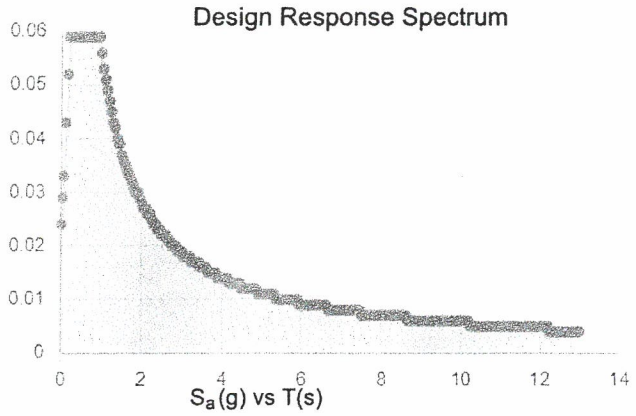
Site Soil Class: D - Stiff Soil

Results:

S_S :	0.056	S_{DS} :	0.059
S_1 :	0.035	S_{D1} :	0.056
F_a :	1.6	T_L :	12
F_v :	2.4	PGA :	0.026
S_{MS} :	0.089	PGA_M :	0.042
S_{M1} :	0.084	F_{PGA} :	1.6
		I_e :	1

Seismic Design Category A





Data Accessed: Sat Oct 02 2021

Date Source: USGS Seismic Design Maps based on ASCE/SEI 7-10, incorporating Supplement 1 and errata of March 31, 2013, and ASCE/SEI 7-10 Table 1.5-2. Additional data for site-specific ground motion procedures in accordance with ASCE/SEI 7-10 Ch. 21 are available from USGS.

ASCE
AMERICAN SOCIETY OF CIVIL ENGINEERS

Snow

Results:

Ground Snow Load, p_g:	40 lb/ft^2
Elevation:	657.9 ft
Data Source:	ASCE/SEI 7-10, Fig. 7-1.
Date Accessed:	Sat Oct 02 2021

Values provided are ground snow loads. In areas designated "case study required," extreme local variations in ground snow loads preclude mapping at this scale. Site-specific case studies are required to establish ground snow loads at elevations not covered.

Larson Engineering
2801 East Enterprise Avenue, Suite 200
Appleton, WI 54913-8559
920-734-9867

JOB TITLE	102 W. Wisconsin Ave.		
	Kaukauna, Wisconsin		
JOB NO.	31210253.000	SHEET NO.	
CALCULATED BY	BBE	DATE	10/20/21
CHECKED BY		DATE	

Code Search

Code: International Building Code 2015

Occupancy:

Occupancy Group = B Business

Risk Category & Importance Factors:

Risk Category =	II	
Wind factor =	1.00	use 0.60 NOTE: Output will be nominal wind pressures
Snow factor =	1.00	
Seismic factor =	1.00	

Type of Construction:

Fire Rating:

Roof = See Arch.
Floor = See Arch.

Building Geometry:

Roof angle (θ)	2.00 / 12	9.5 deg
Building length (L)	50.0 ft	
Least width (B)	20.3 ft	
Mean Roof Ht (h)	11.7 ft	
Parapet ht above grd	13.3 ft	
Minimum parapet ht	0.0 ft	

Live Loads:

Roof 0 to 200 sf: 20 psf
200 to 600 sf: 24 - 0.02Area, but not less than 12 psf
over 600 sf: 12 psf

Floor:

100 psf
N/A

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	Kaukauna, Wisconsin
JOB NO.	31210253.000
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CHECKED BY	
DATE	

Wind Loads : ASCE 7- 10

Ultimate Wind Speed	115 mph
Nominal Wind Speed	89.1 mph
Risk Category	II
Exposure Category	B
Enclosure Classif.	Enclosed Building
Internal pressure	+/-0.18
Directionality (Kd)	0.85
Kh case 1	0.701
Kh case 2	0.575
Type of roof	Monoslope

Topographic Factor (Kzt)

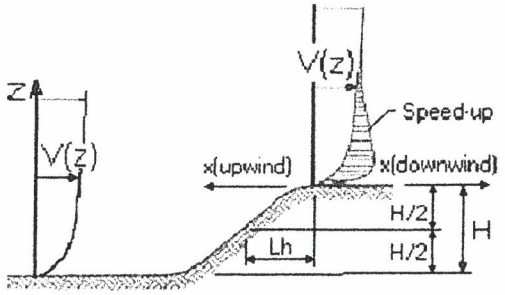
Topography		Flat
Hill Height	(H)	0.0 ft
Half Hill Length	(Lh)	0.0 ft
Actual H/Lh	=	0.00
Use H/Lh	=	0.00
Modified Lh	=	0.0 ft
From top of crest: x =		0.0 ft
Bldg up/down wind?		downwind

H/Lh= 0.00 K_1 = 0.000
x/Lh = 0.00 K_2 = 0.000
z/Lh = 0.00 K_3 = 1.000

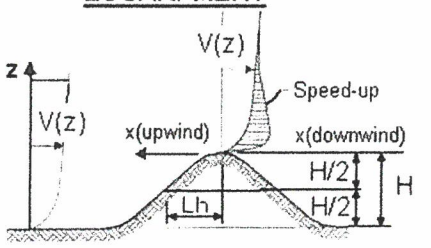
At Mean Roof Ht:

$Kzt = (1+K_1K_2K_3)^2 = 1.00$

H< 60ft;exp B
∴ Kzt=1.0



ESCARPMENT



2D RIDGE or 3D AXISYMMETRICAL HILL

Gust Effect Factor

h =	11.7 ft
B =	20.3 ft
/z (0.6h) =	30.0 ft

Flexible structure if natural frequency < 1 Hz (T > 1 second).
However, if building h/B < 4 then probably rigid structure (rule of thumb).
h/B = 0.58 Rigid structure

G = 0.85 Using rigid structure default

Rigid Structure

$\bar{e}$ =	0.33
ℓ =	320 ft
z_{min} =	30 ft
c =	0.30
g_Q, g_v =	3.4
L_z =	310.0 ft
Q =	0.93
I_z =	0.30
G =	0.88 use G = 0.85

Flexible or Dynamically Sensitive Structure

Natural Frequency (η_1) =	0.0 Hz				
Damping ratio (β) =	0				
/b =	0.45				
/α =	0.25				
Vz =	74.1				
N_1 =	0.00				
R_n =	0.000				
R_h =	28.282	η =	0.000	h =	11.7 ft
R_B =	28.282	η =	0.000		
R_L =	28.282	η =	0.000		
g_R =	0.000				
R =	0.000				
G =	0.000				

Larson Engineering
2801 East Enterprise Avenue, Suite 200
Appleton, WI 54913-8559
920-734-9867

JOB TITLE 102 W. Wisconsin Ave.
Kaukauna, Wisconsin
JOB NO. 31210253.000 SHEET NO.
CALCULATED BY BBE DATE 10/20/21
CHECKED BY DATE

Enclosure Classification

Test for Enclosed Building: A building that does not qualify as open or partially enclosed.

Test for Open Building: All walls are at least 80% open.
Ao ≥ 0.8Ag

Test for Partially Enclosed Building:

	Input			Test	
Ao	100000.0	sf	Ao ≥ 1.1Aoi	YES	
Ag	0.0	sf	Ao > 4' or 0.01Ag	YES	
Aoi	0.0	sf	Aoi / Agi ≤ 0.20	NO	Building is NOT Partially Enclosed
Agi	0.0	sf			

ERROR: Ag must be greater than Ao

Conditions to qualify as Partially Enclosed Building. Must satisfy all of the following:
Ao ≥ 1.1Aoi
Ao > smaller of 4' or 0.01 Ag
Aoi / Agi ≤ 0.20
Where:
Ao = the total area of openings in a wall that receives positive external pressure.
Ag = the gross area of that wall in which Ao is identified.
Aoi = the sum of the areas of openings in the building envelope (walls and roof) not including Ao.
Agi = the sum of the gross surface areas of the building envelope (walls and roof) not including Ag.

Reduction Factor for large volume partially enclosed buildings (Ri) :

If the partially enclosed building contains a single room that is unpartitioned , the internal pressure coefficient may be multiplied by the reduction factor Ri.

Total area of all wall & roof openings (Aog): 0 sf
Unpartitioned internal volume (Vi) : 0 cf
Ri = 1.00

Altitude adjustment to constant 0.00256 (caution - see code) :

Altitude = 0 feet
Constant = 0.00256
Average Air Density = 0.0765 lbm/ft^3

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JOB TITLE 102 W. Wisconsin Ave.
Kaukauna, Wisconsin
JOB NO. 31210253.000 SHEET NO.
CALCULATED BY BBE DATE 10/20/21
CHECKED BY DATE

Wind Loads - MWFRS h≤60' (Low-rise Buildings) Enclosed/partially enclosed only

Kz = Kh (case 1) = 0.70
Base pressure (qh) = **12.1 psf**
GCpi = +/-0.18

Edge Strip (a) = 3.0 ft
End Zone (2a) = 6.0 ft
Zone 2 length = 10.2 ft

Wind Pressure Coefficients

Surface	CASE A GCpf	CASE A θ = 9.5 deg w/-GCpi	CASE A w/+GCpi		CASE B GCpf	CASE B w/-GCpi	CASE B w/+GCpi
1	0.44	0.62	0.26		-0.45	-0.27	-0.63
2	-0.69	-0.51	-0.87		-0.69	-0.51	-0.87
3	-0.40	-0.22	-0.58		-0.37	-0.19	-0.55
4	-0.33	-0.15	-0.51		-0.45	-0.27	-0.63
5					0.40	0.58	0.22
6					-0.29	-0.11	-0.47
1E	0.67	0.85	0.49		-0.48	-0.30	-0.66
2E	-1.07	-0.89	-1.25		-1.07	-0.89	-1.25
3E	-0.58	-0.40	-0.76		-0.53	-0.35	-0.71
4E	-0.49	-0.31	-0.67		-0.48	-0.30	-0.66
5E					0.61	0.79	0.43
6E					-0.43	-0.25	-0.61

Nominal Wind Surface Pressures (psf)

1	7.5	3.1		-3.3	-7.6
2	-6.2	-10.5		-6.2	-10.5
3	-2.7	-7.0		-2.3	-6.7
4	-1.8	-6.2		-3.3	-7.6
5				7.0	2.7
6				-1.3	-5.7
1E	10.2	5.9		-3.6	-8.0
2E	-10.8	-15.1		-10.8	-15.1
3E	-4.8	-9.2		-4.2	-8.6
4E	-3.8	-8.1		-3.6	-8.0
5E				9.6	5.2
6E				-3.0	-7.4

Parapet

Windward parapet = 18.1 psf (GCpn = +1.5)
Leeward parapet = -12.1 psf (GCpn = -1.0)

Windward roof overhangs = 8.5 psf (upward) add to windward roof pressure

Horizontal MWFRS Simple Diaphragm Pressures (psf)

Transverse direction (normal to L)

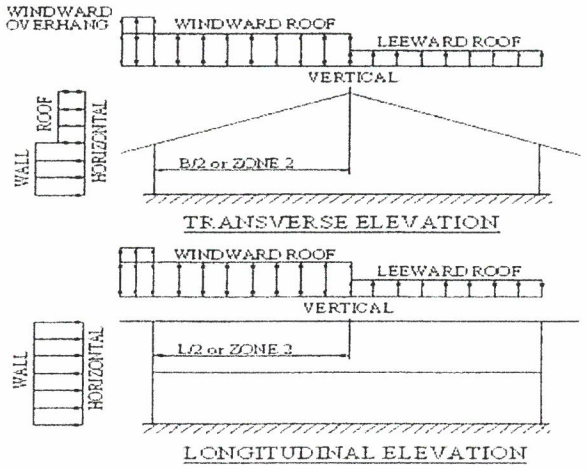
Interior Zone: Wall 9.3 psf
Roof -3.5 psf **
End Zone: Wall 14.0 psf
Roof -6.0 psf **

Longitudinal direction (parallel to L)

Interior Zone: Wall 8.3 psf
End Zone: Wall 12.6 psf

** NOTE: Total horiz force shall not be less than that determined by neglecting roof forces (except for MWFRS moment frames).

The code requires the MWFRS be designed for a min ultimate force of 16 psf multiplied by the wall area plus an 8 psf force applied to the vertical projection of the roof.



Location of MWFRS Wind Pressure Zones

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2801 East Enterprise Avenue, Suite 200
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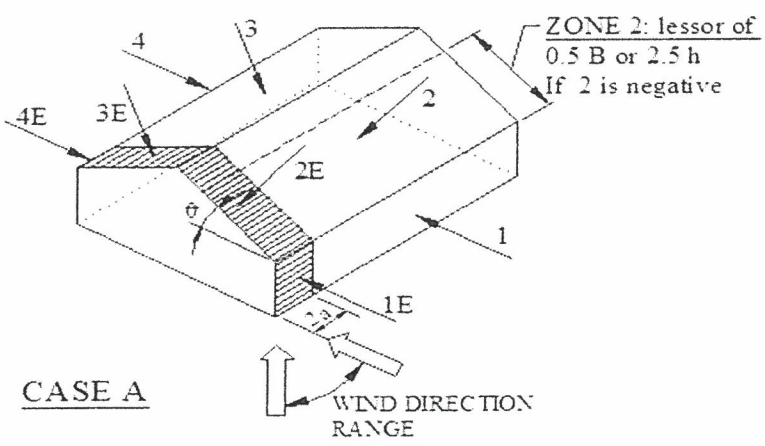
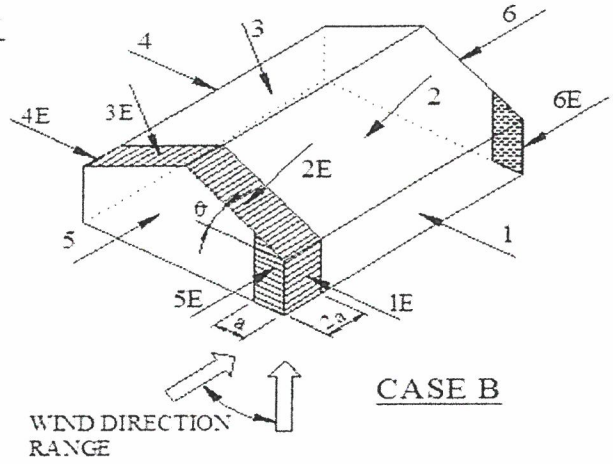
920-734-9867

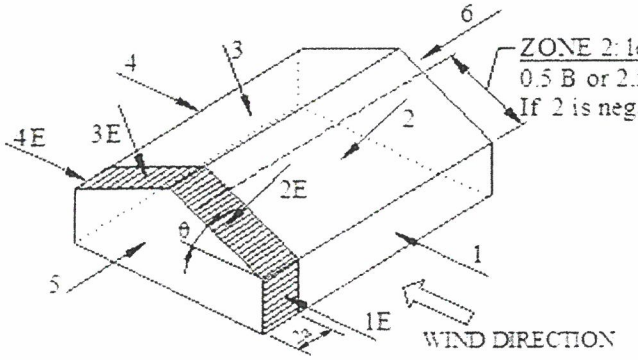
JOB TITLE	102 W. Wisconsin Ave. Kaukauna, Wisconsin		
JOB NO.	31210253.000	SHEET NO.	
CALCULATED BY	BBE	DATE	10/20/21
CHECKED BY		DATE	



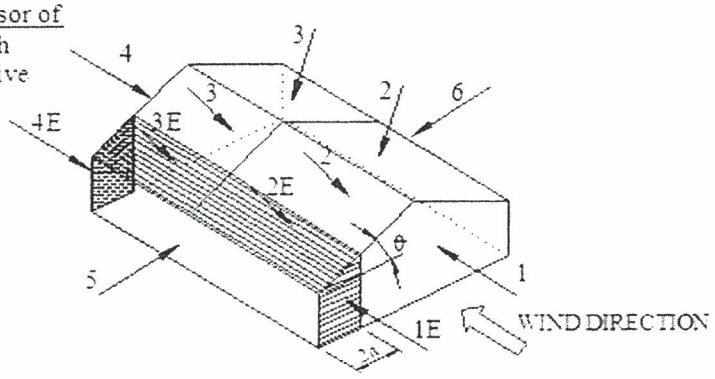


NOTE: Torsional loads are 25% of zones 1 - 6. See code for loading diagram.

ASCE 7 -99 and ASCE 7-10 (& later)



Transverse Direction



Longitudinal Direction

NOTE: Torsional loads are 25% of zones 1 - 4. See code for loading diagram.

~~ASCE 7 -02 and ASCE 7-05~~

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JOB TITLE 102 W. Wisconsin Ave.
Kaukauna, Wisconsin
JOB NO. 31210253.000 SHEET NO.
CALCULATED BY BBE DATE 10/20/21
CHECKED BY DATE

Nominal Wind Pressures

Wind Loads - Components & Cladding : h <= 60'

Kh (case 1) =	0.70	h =	11.7 ft
Base pressure (qh) =	**12.1 psf**	a =	3.0 ft
Minimum parapet ht =	0.0 ft	GCpi =	+/-0.18
Roof Angle (θ) =	9.5 deg		
Type of roof =	Monoslope		

Roof

	GCp +/- GCpi			Surface Pressure (psf)			User input	
Area	10 sf	50 sf	100 sf	10 sf	50 sf	100 sf	10 sf	100 sf
Negative Zone 1	-1.28	-1.28	-1.28	-15.5	-15.5	-15.5	-15.5	-15.5
Negative Zone 2	-1.48	-1.41	-1.38	-17.9	-17.1	-16.7	-17.9	-16.7
Negative Zone 3	-1.98	-1.56	-1.38	-24.0	-18.9	-16.7	-24.0	-16.7
Positive All Zones	0.48	0.41	0.38	10.0	10.0	10.0	10.0	10.0
Negative Zone 2'	-1.78	-1.71	-1.68	-21.5	-20.7	-20.3	-21.5	-20.3
Negative Zone 3'	-2.78	-2.08	-1.78	-33.6	-25.2	-21.5	-33.6	-21.5

Parapet

qp = 12.1 psf

CASE A = pressure towards building (pos)
CASE B = pressure away from bldg (neg)

	Surface Pressure (psf)			User input
Solid Parapet Pressure	10 sf	100 sf	500 sf	10 sf
CASE A : Interior zone:	0.0	0.0	0.0	0.0
Corner zone:	0.0	0.0	0.0	0.0
CASE B : Interior zone:	0.0	0.0	0.0	0.0
Corner zone:	0.0	0.0	0.0	0.0

Walls

	GCp +/- GCpi			Surface Pressure (psf)			User input	
Area	10 sf	100 sf	500 sf	10 sf	100 sf	500 sf	10 sf	59 sf
Negative Zone 4	-1.17	-1.01	-0.90	-14.2	-12.2	-10.9	-14.2	-12.7
Negative Zone 5	-1.44	-1.12	-0.90	-17.4	-13.6	-10.9	-17.4	-14.5
Positive Zone 4 & 5	1.08	0.92	0.81	13.1	11.1	10.0	13.1	11.6

Note: GCp reduced by 10% due to roof angle <= 10 deg.

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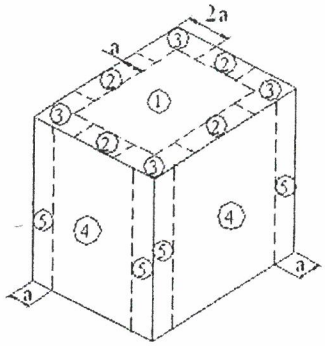
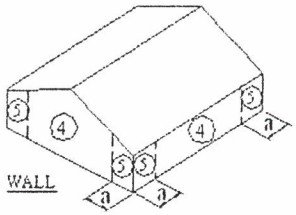
JOB TITLE	102 W. Wisconsin Ave. Kaukauna, Wisconsin		
JOB NO.	31210253.000	SHEET NO.	
CALCULATED BY	BBE	DATE	10/20/21
CHECKED BY		DATE	

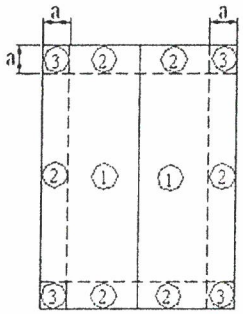
Location of C&C Wind Pressure Zones



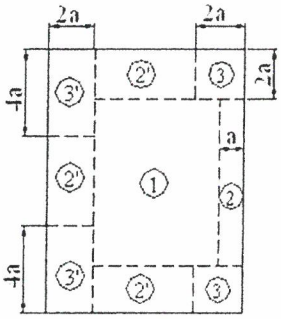
Roofs w/ $\theta \leq 10°$ and all walls
h > 60'



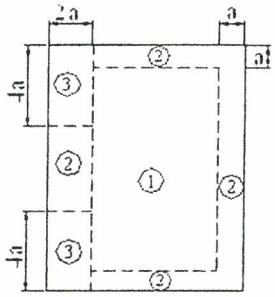
Walls h ≤ 60' & alt design h<90'



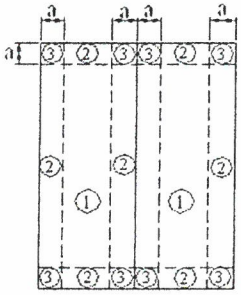
Gable, Sawtooth and Multispan Gable $\theta \leq 7$ degrees & Monoslope ≤ 3 degrees
h ≤ 60' & alt design h<90'



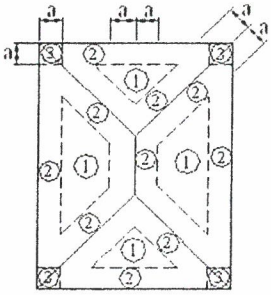
Monoslope roofs $3° < \theta \leq 10°$
h ≤ 60' & alt design h<90'



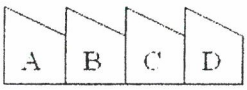
Monoslope roofs $10° < \theta \leq 30°$
h ≤ 60' & alt design h<90'

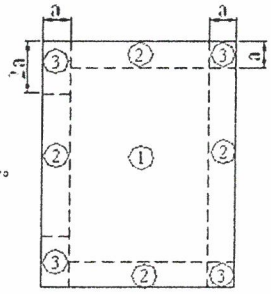


Multispan Gable & Gable $7° < \theta \leq 45°$

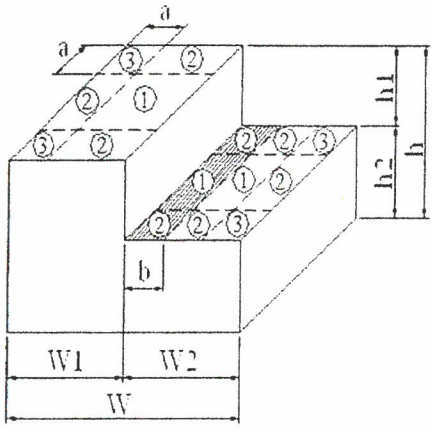


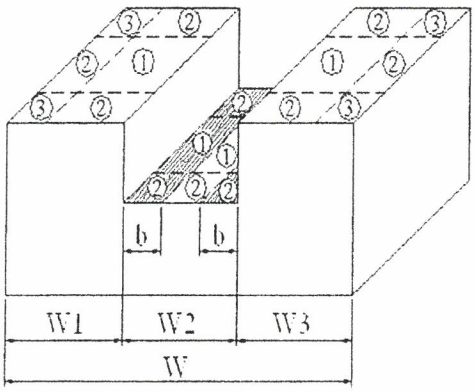
Hip $7° < \theta \leq 27°$





Sawtooth $10° < \theta \leq 45°$
h ≤ 60' & alt design h<90'





Stepped roofs $\theta \leq 3°$
h ≤ 60' & alt design h<90'

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JOB TITLE 102 W. Wisconsin Ave.
Kaukauna, Wisconsin
JOB NO. 31210253.000 SHEET NO.
CALCULATED BY BBE DATE 10/20/21
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Snow Loads : ASCE 7-10

Nominal Snow Forces

Roof slope	=	9.5 deg
Horiz. eave to ridge dist (W)	=	10.2 ft
Roof length parallel to ridge (L)	=	50.0 ft

Type of Roof			Hip and gable w/ trussed systems
Ground Snow Load	Pg	=	40.0 psf
Risk Category		=	II
Importance Factor	I	=	1.0
Thermal Factor	Ct	=	1.10
Exposure Factor	Ce	=	1.0
Pf = 0.7*Ce*Ct*I*Pg		=	30.8 psf
Unobstructed Slippery Surface			no
Sloped-roof Factor	Cs	=	1.00
Balanced Snow Load	**Ps**	=	**30.8 psf**
Rain on Snow Surcharge Angle			0.20 deg
Code Maximum Rain Surcharge			5.0 psf
Rain on Snow Surcharge		=	0.0 psf
Ps plus rain surcharge		=	30.8 psf
Minimum Snow Load	Pm	=	20.0 psf
Uniform Roof Design Snow Load		=	**30.8 psf**

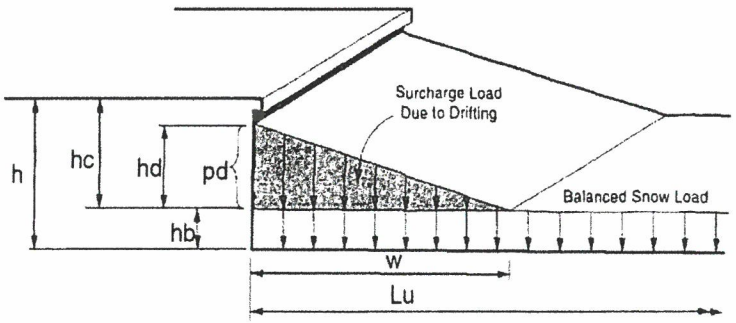
NOTE: Alternate spans of continuous beams and other areas shall be loaded with half the design roof snow load so as to produce the greatest possible effect - see code.

Unbalanced Snow Loads - for Hip & Gable roofs only

Required if slope is between 7 on 12 =	30.26 deg	
and 2.38 deg =	2.38 deg	**Unbalanced snow loads must be applied**
Windward snow load =	9.2 psf	= 0.3Ps
Leeward snow load from ridge to 12.04' =	45.2 psf	= hdγ / √S + Ps
Leeward snow load from 12.04' to the eave =	30.8 psf	= Ps

Windward Snow Drifts 1 - Against walls, parapets, etc more than 15' long

Upwind fetch	lu	=	50.0 ft
Projection height	h	=	3.3 ft
Snow density	g	=	19.2 pcf
Balanced snow height	hb	=	1.60 ft
	hd	=	2.03 ft
	hc	=	1.73 ft
hc/hb >0.2 = 1.1	**Therefore, design for drift**		
Drift height (hc)		=	1.73 ft
Drift width	w	=	9.59 ft
Surcharge load:	pd = γ*hd	=	**33.1 psf**
Balanced Snow load:		=	30.8 psf
			63.9 psf



Windward Snow Drifts 2 - Against walls, parapets, etc > 15'

Upwind fetch	lu	=	
Projection height	h	=	
Snow density	g	=	19.2 pcf
Balanced snow height	hb	=	1.60 ft
	hd	=	1.20 ft
	hc	=	-1.60 ft
hc/hb <0.2 = -1.0	**Therefore, no drift**		
Drift height (hc)		=	0.00 ft
Drift width	w	=	-12.83 ft
Surcharge load:	pd = γ*hd	=	**0.0 psf**
Balanced Snow load:		=	30.8 psf
			30.8 psf

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JOB TITLE 102 W. Wisconsin Ave.
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CALCULATED BY BBE DATE 10/20/21
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Snow Loads - from adjacent building or roof:

ASCE 7-10

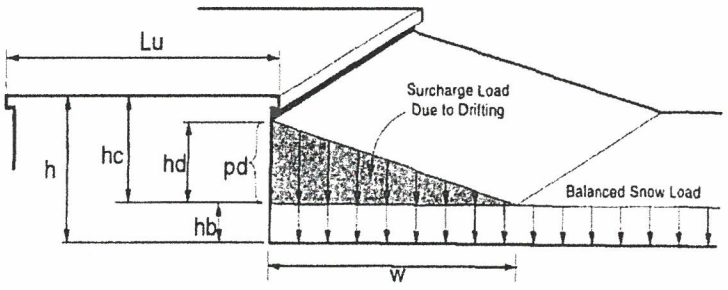
Nominal Snow Forces

		Higher Roof	Lower Roof
Roof slope	=	9.5 deg	2.00 / 12 = 9.5 deg
Horiz. eave to ridge dist (W)	=	20.3 ft	20.3 ft
Roof length parallel to ridge (L)	=	50.0 ft	50.0 ft
Projection height (roof step) h	=		20.0 ft
Building separation s	=		2.0 ft
Type of Roof		Monoslope	Monoslope
Ground Snow Load	Pg =	40.0 psf	40.0 psf
Risk Category	=	II	II
Importance Factor	I =	1.0	1.0
Thermal Factor	Ct =	1.10	1.10
Exposure Factor	Ce =	1.0	1.0
Pf = 0.7*Ce*Ct*I*Pg	=	30.8 psf	30.8 psf
Unobstructed Slippery Surface		no	no
Sloped-roof Factor	Cs =	1.00	1.00
Balanced Snow Load	**Ps =**	**30.8 psf**	**30.8 psf**
Rain on Snow Surcharge Angle		0.41 deg	0.41 deg
Code Maximum Rain Surcharge		5.0 psf	5.0 psf
Rain on Snow Surcharge	=	0.0 psf	0.0 psf
Ps plus rain surcharge	=	30.8 psf	30.8 psf
Minimum Snow Load	Pm =	20.0 psf	20.0 psf
Uniform Roof Design Snow Load	=	**30.8 psf**	**30.8 psf**
Building Official Minimum	=		

NOTE: Alternate spans of continuous beams and other areas shall be loaded with half the design roof snow load so as to produce the greatest possible effect - see code.

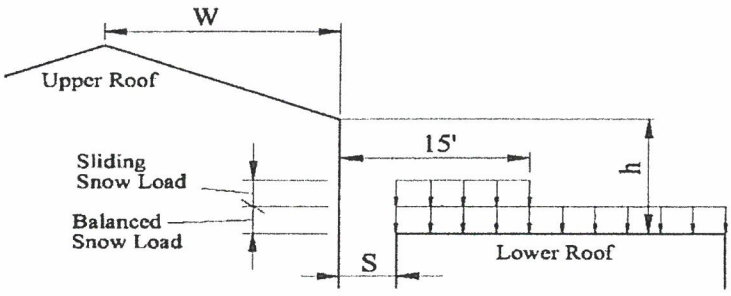
Leeward Snow Drifts - from adjacent higher roof

Upper roof length	lu =	30.0 ft
Snow density	g =	19.2 pcf
Balanced snow height	hb =	1.60 ft
	hc =	18.40 ft
hc/hb >0.2 = 11.5	**Therefore, design for drift**	
(6h-s)/6	=	19.67 ft
Drift height (hd)	=	2.05 ft
Drift width	w =	12.32 ft
Surcharge load:	pd = γ*hd =	**39.4 psf**
Balanced Snow load:	=	30.8 psf
		70.2 psf



Windward Snow Drifts - from low roof against high roof

Lower roof length	lu =	50.0 ft
Adj structure factor	=	0.75
Drift height	hd =	1.53 ft
Drift width	w =	6.14 ft
Surcharge load:	pd = γ*hd =	**29.5 psf**
Balanced Snow load:	=	30.8 psf
		60.3 psf



Sliding Snow - onto lower roof

Sliding snow = 0.4 Pf W =	0.0 plf
Distributed over 15 feet =	0.0 psf
hd + hb =	1.60 ft
hd + hb < =h therefore sliding snow =	**0.0 psf**
Balanced snow load =	30.8 psf
Uniform snow load within 15' of higher roof =	30.8 psf

Not required since upper roof slope is 2 in 12 or less and non-slippery roof

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Roof Design Loads

Items	Description	Multiple	psf (max)	psf (min)
Roofing	Single ply		2.0	1.0
Insulation	Urethane Foam w/ skin per i	x 6.0	1.6	0.1
Decking	Metal Roof deck, 1.5, 22 ga.		1.8	1.8
Decking	3/4" plywood/OSB		2.6	2.6
Ceiling	5/8" gypsum		2.8	2.5
Mech & Elec	Mech. & Elec.		1.0	0.0
Misc.	Collateral		3.0	0.0
		Actual Dead Load ○	14.8 ○	8.0
		Use this DL instead ◉	15.0 ◉	8.0
		Live Load	20.0	0.0
		Snow Load	30.8	0.0
		Ultimate Wind (zone 2 - 100sf)	16.7	-27.8
ASD Loading		D + S	45.8	-
		D + 0.75(0.6*W + S)	45.6	-
		0.6*D + 0.6*W	-	-11.9
LRFD Loading		1.2D + 1.6 S + 0.5W	75.6	-
		1.2D + 1.0W + 0.5S	50.1	-
		0.9D + 1.0W	-	-20.6

Roof Live Load Reduction Roof angle 2.00 / 12 9.5 deg

0 to 200 sf: 20.0 psf
200 to 600 sf: 24 - 0.02Area, but not less than 12 psf
over 600 sf: 12.0 psf

	300 sf	18.0 psf
	400 sf	16.0 psf
	500 sf	14.0 psf
User Input:	450 sf	15.0 psf

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JOB TITLE 102 W. Wisconsin Ave.
Kaukauna, Wisconsin
JOB NO. 31210253.000 SHEET NO.
CALCULATED BY BBE DATE 10/20/21
CHECKED BY DATE

www.struware.com

CODE SUMMARY

Code: International Building Code 2015

Live Loads:

Floor	100 psf

Dead Loads:

Roof	15.0 psf

Wind Design Data:

Ultimate Design Wind Speed	115 mph
Nominal Design Wind Speed	89.08 mph
Risk Category	II
Mean Roof Ht (h)	11.7 ft
Exposure Category	B
Enclosure Classif.	Enclosed Building
Internal pressure Coef.	+/-0.18
Directionality (Kd)	0.85

Roof Snow Loads:

Design Uniform Roof Snow load	=	30.8 psf
Flat Roof Snow Load	Pf =	30.8 psf
Balanced Snow Load	Ps =	30.8 psf
Ground Snow Load	Pg =	40.0 psf
Importance Factor	I =	1.00
Snow Exposure Factor	Ce =	1.00
Thermal Factor	Ct =	1.10
Sloped-roof Factor	Cs =	1.00
Drift Surcharge load	Pd =	
Width of Snow Drift	w =	

Earthquake Design Data:

Risk Category	=	II
Importance Factor	I =	1.00
Mapped spectral response acceleratic	Ss =	5.60 %g
	S1 =	3.50 %g
Site Class	=	D
Spectral Response Coef.	Sds =	0.060
	Sd1 =	0.056
Seismic Design Category	=	A
Basic Structural System	=	Bearing Wall Systems
Seismic Resisting System	=	Ordinary plain masonry shear walls
Design Base Shear	V =	Minimum lateral force Fx = 0.01Wx at each floor level
Seismic Response Coef.	Cs =	
Response Modification Factor	R =	1.5
Analysis Procedure	=	Index Force Analysis

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JOB TITLE 102 W. Wisconsin Ave.
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CODE SUMMARY- continued

Component and cladding nominal wind pressures

Roof	Surface Pressure (psf)		
Area	10 sf	50 sf	100 sf
Negative Zone 1	-15.5	-15.5	-15.5
Negative Zone 2	-17.9	-17.1	-16.7
Negative Zone 3	-24.0	-18.9	-16.7
Positive All Zones	10.0	10.0	10.0
Negative Zone 2'	-21.5	-20.7	-20.3
Negative Zone 3'	-33.6	-25.2	-21.5

Parapet	Solid Parapet Pressure (psf)		
Area	10 sf	100 sf	500 sf
CASE A: Interior zone	0.0	0.0	0.0
Corner zone	0.0	0.0	0.0
CASE B: Interior zone	0.0	0.0	0.0
Corner zone	0.0	0.0	0.0

Wall	Surface Pressure (psf)		
Area	10 sf	100 sf	500 sf
Negative Zone 4	-14.2	-12.2	-10.9
Negative Zone 5	-17.4	-13.6	-10.9
Positive Zone 4 & 5	13.1	11.1	10.0

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SUBJECT

SHEET NO. OF

PROJECT NO. 312.0253

BY BE DATE 10-21-2

→ EXISTING 8" MASONRY WALLS

UNBRACED HEIGHT = 9'

WIND C&C = -14.5 PSF MAX.

AT SIDES OF 3'-4" MAX. M.O.

$$\text{WIND} = \left(\frac{3.33'}{2} + 0.67'\right)(-14.5\ \text{PSF})$$

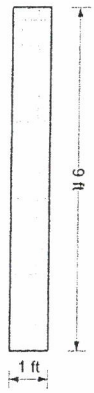
$$= 34\ \text{PSF}$$

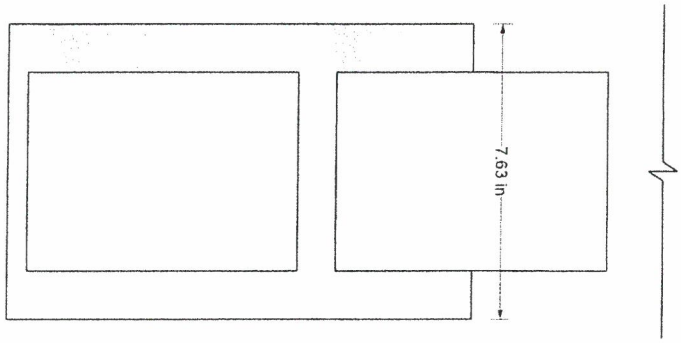
8" MASONRY UNREINFORCED WALL

0.90 < 1.0 OK

Brian Endter LARSON ENGINEERING, INC.	102 W. Wisconsin Ave Kaukauna Existing 8" Masonry Wall - Unreinforced Wall - OK	Job # 31210253.0...	Bearing Wall Design • TMS 402-13 (MSJC-13) • SD (Strength Design) • Unreinforced • Concrete Masonry (CMU)

Design Detail





Check Summary

Ratio	Check	Provided	Required	Combination
----- Strength Checks -----				
✓ 0.900	Flexural Tension	50.4 psi	45.35 psi	0.9D + 1.0W
✓ 0.033	Buckling	16.28 k	0.53 k	1.4D
✓ 0.049	Combined Stress	1200 psi	58.58 psi	1.2D + 1.0W
✓ 0.114	Shear	1.34 k	0.15 k	1.2D + 1.0W

Interaction Diagram

No interaction diagram - wall is unreinforced.

Criteria

Use basic criteria from common project...	No
Building Code	TMS 402-13 (MSJC-13...
Strength Combinations	ASCE 7-10 (Strength)
Service Combinations	ASCE 7-10 (ASD)
Apply Sds Factor to Seismic Combinati...	No
Seismic R Value	1.50
f'm	1500 psi
fy	60000 psi
Specify Wall Weight Manually	No
Block Weight	Normal weight
Design As Clay Masonry	No
Include Wall Self-Weight	Yes
Neglect Lateral Load on Parapet	No
Include Wall Wt In Virtual Eccentricity	No
Always use I-cracked	No

Load Combinations

ASCE 7-10 (Strength)
1.4D
1.2D + 0.5W
1.2D + 1.0W
1.2D
0.9D + 1.0W
0.9D

Loads Summary

Load Set	Source	Axial Uniform ...	Axial Pt Load	Pt Ld Eff Width	Eccentricity	Lateral Press...	Top Lateral Pr...	Parapet Press...	Lateral Unifor...	Lat Unif Ld He...	Moment
	Wind	0 lb/ft	0 k	1 ft	0 in	34 psf	34 psf	34 psf	0 lb/ft	1 ft	0 in·lb/ft

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SUBJECT

SHEET NO. OF
PROJECT NO. 31210253
BY BE DATE 10-20-

→ LINTELS AT OPENINGS IN EXISTING 8" MASONRY WALL

RUNNING BOND CMU

T/CMU = 113'-4"

T/OPENINGS = 8'-0"

$W_{DL} = 5.33'(55\ PSF) + \frac{20'}{2}(15\ PSF) = 450\ PLF$ (300, 150)

$W_{SL} = \frac{20'}{2}(30.8\ PSF) + \frac{1}{2}(12)(40\ PSF)\left(\frac{4}{20}\right) = 360\ PLF$ (310, 50)

3'-4" M.O. MAX. WIDTH

4'-0" EFFECTIVE SPAN

USE HSS8x4x1/4"
w/ 5/16" x 7 1/2" BOTTOM PLATE

$M_a = 1.0\ K\text{-}FT < M_n/R = 30.5\ K\text{-}FT$ ok

$\Delta_{TL} = 0.004"$ ok

$R_{TL} = 1,660\#$ $f_p = \frac{1,660}{4(6)} = 69\ psi << 375\ psi$

USE 6" BEARING ok

Gravity Beam Design

RAM SBeam v5.01
102 W. Wisconsin Ave. Kaukauna
L-1 Lintel

10/20/21 16:04:38

STEEL CODE: AISC 360-05 ASD

SPAN INFORMATION (ft): I-End (0.00,0.00) J-End (4.00,0.00)

Beam Size (User Selected) = HSS8X4X1/4 Fy = 46.0 ksi
Total Beam Length (ft) = 4.00
Mp (kip-ft) = 50.98
Top flange not braced by decking.

LINE LOADS (k/ft):

Load	Dist (ft)	DL	LL
1	0.000	0.018	0.000
	4.000	0.018	0.000
2	0.000	0.450	0.360
	4.000	0.450	0.360

SHEAR: Max Va (DL+LL) = 1.66 kips Vn/1.67 = 61.61 kips

MOMENTS:

Span	Cond	LoadCombo	Ma kip-ft	@ ft	Lb ft	Cb	Ω	Mn / Ω kip-ft
Center	Max +	DL+LL	1.7	2.0	4.0	1.14	1.67	30.53
Controlling		DL+LL	1.7	2.0	4.0	1.14	1.67	30.53

REACTIONS (kips):

	Left	**Right**
DL reaction	0.94	0.94
Max +LL reaction	0.72	0.72
Max +total reaction	1.66	1.66

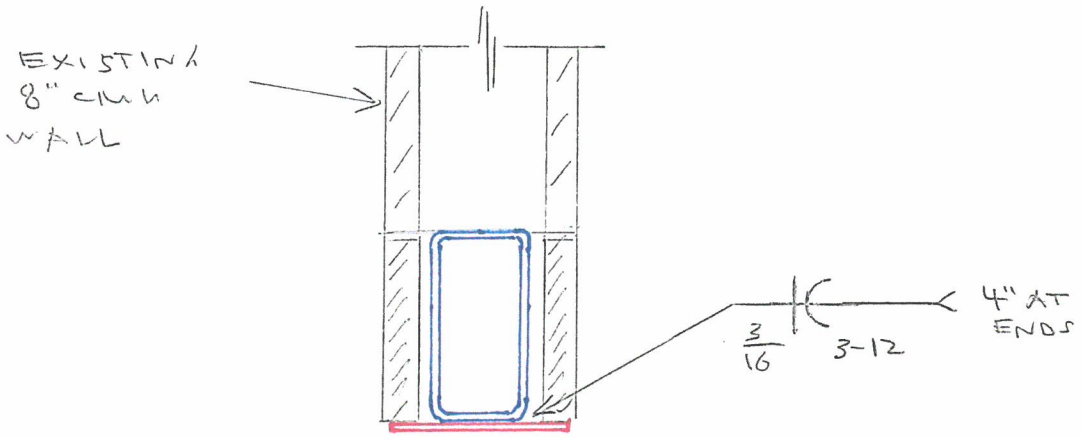
DEFLECTIONS:

Dead load (in)	at	2.00 ft	=	-0.002	L/D	= 21954
Live load (in)	at	2.00 ft	=	-0.002	L/D	= 28530
Net Total load (in)	at	2.00 ft	=	-0.004	L/D	= 12407

Larson Engineering Inc.
2801 East Enterprise Avenue, Suite 200
Appleton, WI 54913-8559
920.734.9867 Fax: 920.482.5732
www.larsonengr.com

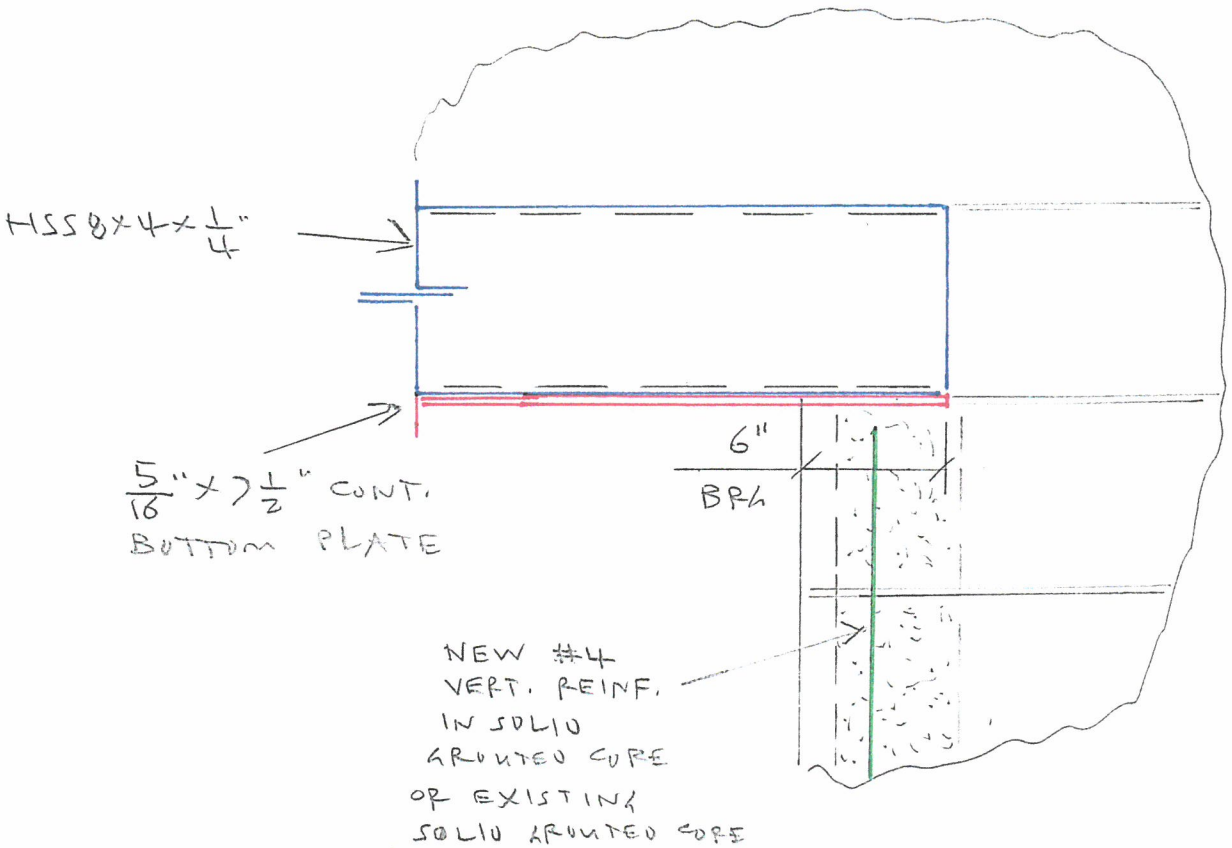
Larson

SUBJECT	102 W. WISCONSIN AVE KAUKAUNA, WI
SHEET NO.	OF
PROJECT NO.	31210253
BY	BE
DATE	10-20-2



SECTION VIEW AT LINTEL L-1

SIDE VIEW AT LINTEL L-1 BEARING



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SUBJECT

SHEET NO. OF
PROJECT NO. 31210253
BY BE DATE 10-21-12

→ STEEL LEDGER ANGLE AT THIN-STONE VENEER

L4X4X1/4 CONT. GALVANIZED STEEL ANGLE W/ 1/2" DIA EPOXY ANCHORS @ 24" O.C. (HILTI HIT-HY70 MASONRY ADHESIVE ANCHORING SYSTEM)

$V_{DL} = [2'(20\ psf) + 2'(2.5) + 7]$ ~~2.65'~~ 2' o.c.

= ~~140~~ 105 #/ANCHOR

$T_{DL} = \frac{140(3)}{\frac{2}{3}(2)}$ = ~~315~~ 240 #/ANCHOR

$V_{CAP} = 670$#

$T_{CAP} = 390$#

$\frac{\text{~~140~~ } 105}{670} + \frac{\text{~~315~~ } 240}{390}$ = ~~0.21~~ 0.16 + ~~0.81~~ 0.62 = ~~1.02~~ 0.78 > 1.0

∴ USE 24" O.C. SPACING OF ANCHORS

Applications

- Retrofits of historic masonry buildings, including seismic retrofit of multi-wythe walls
- Sign, fence or awning attachment to masonry wall or façade
- Façade tie-backs to masonry structural wall
- Scaffolding attachment to masonry structure
- Pipe, cable tray, fixture fastening to masonry base material

Outperform and Outlast

- Cures in ~ 30 minutes at 70° F providing quick installation times to finish the job earlier
- Achieve various embedment depths by combining mesh sleeves to custom lengths

Flexible, strong and reliable.

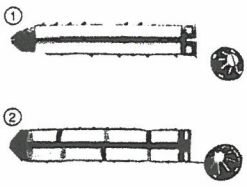
HIT-HY 70 Masonry Adhesive Anchoring System

Life just got easier with one adhesive anchoring product to solve all your masonry needs. The new Hilti HIT-HY 70 Masonry Adhesive Anchoring System works in a variety of masonry base materials: grout-filled CMU, hollow CMU, solid brick, hollow brick, multi-wythe solid brick walls. The improved formula and innovative composite sleeve design provides strong, reliable and easy to install fastenings.

Technical Data	HIT-HY 70
Product	Hybrid Urethane Methacrylate
Base material temperature (grout-filled and hollow CMU)	23° F to 104° F (-5° C to 40° C)
Base material temperature (hollow brick, solid brick, and multi-wythe solid brick)	41° F to 104° F (5° C to 40° C)
Diameter range	1/4" to 3/4"
Listings/Approvals	• ICC-ES (International Code Council) - ESR for hollow masonry, grouted masonry and hollow brick (pending) - ESR for Un-Reinforced Masonry (URM) (pending)
Package volume	• Volume of HIT-HY 70 11.1 fl oz/330 ml foil pack is 20.1 in³ • Volume of HIT-HY 70 16.9 fl oz/500 ml foil pack is 30.5 in³

Composite Mesh Sleeves for Hollow Masonry and Brick Material

Description		For use with:	Qty	Actual Dia. (in)	Length (in)	Bit Dia.	Item No.
Mesh sleeve HIT-SC 12x50	①	1/4" dia. rods	20	0.47	1.97	1/2"	00375979
Mesh sleeve HIT-SC 12x85	①	1/4" dia. rods	20	0.47	3.35	1/2"	00375980
Mesh sleeve HIT-SC 16x50	①	5/16", 3/8" dia. rods and 5/16" HIT-IC rods	20	0.63	1.97	5/8"	00375981
Mesh sleeve HIT-SC 16x85	①	5/16", 3/8" dia. rods and 5/16" HIT-IC rods	20	0.63	3.35	5/8"	00375982
Mesh sleeve HIT-SC 18x50	①	1/2" dia. rods	20	0.71	1.97	11/16"	00360485
Mesh sleeve HIT-SC 18x85	①	1/2" dia. rods	20	0.71	3.35	11/16"	00360486
Mesh sleeve HIT-SC 22x50	①	5/8" dia. rods, 3/8" and 1/2" HIT-IC rods	20	0.87	1.97	7/8"	00273662
Mesh sleeve HIT-SC 22x85	①	5/8" dia. rods, 3/8" and 1/2" HIT-IC rods	10	0.87	3.35	7/8"	00284511
Mesh sleeve HIT-SC 26x125	②	3/4" dia. rods	20	1.02	4.92	1"	00360487
Mesh sleeve HIT-SC 26x200	②	3/4" dia. rods	20	1.02	7.87	1"	00360488

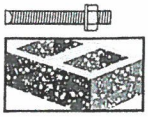


Internally Threaded Inserts for Hollow Masonry, Grouted Masonry and Brick Material

Description		For use with:	Qty	Bit Dia. (in)	Threads per inch	Item No.
Internally Threaded HIT-IC 5/16" x 2"		In hollow material use with HIT-SC 16 x 50	10	5/8"	18	00047945
Internally Threaded HIT-IC 5/16" x 3-3/16"	③	In hollow material use with HIT-SC 16 x 85	10	5/8"	18	00047941
Internally Threaded HIT-IC 3/8" x 2"		In hollow material use with HIT-SC 22 x 50	10	7/8"	16	00047946
Internally Threaded HIT-IC 3/8" x 3-3/16"	③	In hollow material use with HIT-SC 22 x 85	10	7/8"	16	00047942
Internally Threaded HIT-IC 1/2" x 2"		In hollow material use with HIT-SC 22 x 50	10	7/8"	13	00047947
Internally Threaded HIT-IC 1/2" 3-3/16"	③	In hollow material use with HIT-SC 22 x 85	10	7/8"	13	00047943

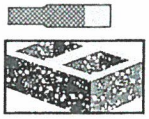
1.3 Technical Data

Allowable Tension and Shear Loads for Threaded Rods in the Face of Hollow Concrete Masonry Units[1, 3, 7, 9]



Anchor Diameter, in. (mm)	Embedment, in. (mm)[2]	Tension Load, lb (kN)[4, 5]	Minimum Edge Distance, c_{min}, in. (mm)[6]	Shear Load @ c_{cr}, lb (kN)[4, 5, 8]	Edge Distance[6]		
					Critical, c_{cr}, in. (mm)	Minimum, c_{min}, in. (mm)	Load Reduction Factor @ c_{min}
1/4 (6.4)	2 (50.8)	215 (1.0)	4 (101.6)	355 (1.6)	4 (101.6)	4 (101.6)	1.00
5/16 (7.9)		390 (1.7)		630 (2.8)	12 (304.8)		0.73
3/8 (9.5)		390 (1.7)		640 (2.8)	12 (304.8)		0.73
1/2 (12.7)		390 (1.7)		670 (3.0)	12 (304.8)		0.73

Allowable Tension and Shear Loads for HIT-IC Inserts in the Face of Hollow Concrete Masonry Units[1, 3, 7, 9]



Anchor Diameter, in. (mm)	Embedment, in. (mm)[2]	Tension Load, lb (kN)[4, 5]	Minimum Edge Distance, c_{min}, in. (mm)[6]	Shear Load @ c_{cr}, lb (kN)[4, 5, 8]	Edge Distance[6]		
					Critical, c_{cr}, in. (mm)	Minimum, c_{min}, in. (mm)	Load Reduction Factor @ c_{min}
#14 Screw (6.4)	2 (50.8)	190 (0.8)	4 (101.6)	235 (1.0)	4 (101.6)	4 (101.6)	1.00
5/16 (7.9)		415 (1.8)		600 (2.7)	12 (304.8)		0.80
3/8 (9.5)		480 (2.1)		620 (2.8)	12 (304.8)		0.78
1/2 (12.7)		495 (2.2)		620 (2.8)	12 (304.8)		0.75

1 All values are for anchors installed in hollow concrete masonry with minimum masonry prism strength of 1500 psi. Concrete masonry units shall be light-, medium-, normal-weight conforming to ASTM C 90. Allowable loads are computed using a safety factor of 5.
2 Tabulated embedment depth is the length of the plastic HIT-SC screens.
3 Anchors shall be installed in the face of the hollow CMU masonry wall. A maximum of two anchors for each cell of the hollow CMU block is allowed.
4 Tabulated values are for one anchor installed in the center of the cell of the hollow CMU. Installation in other locations of the hollow CMU (mortar joints, flange or cell web) is not permitted.
5 Two anchors installed in the same cell or adjacent cells may be spaced as close as 4 inches apart without any load reduction.
6 The critical edge distance, c_{cr}, is the edge distance where full load values in the Table may be used. The minimum edge distance, c_{min}, is the minimum edge distance for which values are available and installation is recommended. Edge distance is measured from the center of the anchor to the closest edge.
7 Anchors are not recognized for resisting earthquake forces. For short-term loading due to wind forces, the allowable loads shall not be increased.
8 Allowable shear loads must be the lesser of the adjusted masonry or bond tabulated values and the steel values given in Section 1.3.
9 Tabulated allowable loads shall be adjusted for increased base material temperatures in accordance with Figure 1, as applicable.

COMcheck Software Version 4.1.5.1

Envelope Compliance Certificate

Project Information

Energy Code:	2015 IECC
Project Title:	102 W. Wisconsin Ave.
Location:	Kaukauna, Wisconsin
Climate Zone:	6a
Project Type:	Alteration
Vertical Glazing / Wall Area:	11%

Construction Site:
102 W. Wisconsin Ave.
Kaukauna, WI 54130

Owner/Agent:
John Lorbiecki
Lorbiecki Homes LLC
2303 Olde Country Cir.
Kaukauna, WI 54130
920-707-0146
lorbieckihomesllc@gmail.com

Designer/Contractor:
Brannin Gries
Gries Archictectural Group Inc
500 N. Commercial Street
Neenah, WI 54956
920-722-2445
bgries@gries.design

Building Area	Floor Area
1-Office : Nonresidential	1000

Envelope Assemblies

Post-Alteration Assembly	R-Value		Proposed		Max. Allowed	
	Cavity	Cont.	U-Factor	SHGC	U-Factor	SHGC
NORTH						
Exterior Wall 4: Other Mass Wall, Heat capacity 1.0, [Bldg. Use 1 - Office], Exemption: Framing cavity not exposed. (a)	---	---	---	---	---	---
EAST						
Exterior Wall 3: Other Mass Wall, Heat capacity 1.0, [Bldg. Use 1 - Office], Exemption: Framing cavity not exposed. (a)	---	---	---	---	---	---
Door 3: Insulated Metal, Swinging, [Bldg. Use 1 - Office]	---	---	0.350	---	0.370	---
SOUTH						
Exterior Wall 1: Other Mass Wall, Heat capacity 1.0, [Bldg. Use 1 - Office], Exemption: Framing cavity not exposed. (a)	---	---	---	---	---	---
Window 1: Metal Frame with Thermal Break:Fixed, Other, Fixed, Fixed, [Bldg. Use 1 - Office]	---	---	0.260	0.400	0.360	0.400
Window 2: Metal Frame with Thermal Break:Fixed, Other, Fixed, Fixed, [Bldg. Use 1 - Office]	---	---	0.260	0.400	0.360	0.400
Window 3: Metal Frame with Thermal Break:Fixed, Other, Fixed, Fixed, [Bldg. Use 1 - Office]	---	---	0.260	0.400	0.360	0.400
Window 4: Metal Frame with Thermal Break:Fixed, Other, Fixed, Fixed, [Bldg. Use 1 - Office]	---	---	0.260	0.400	0.360	0.400
Door 1: Glass (> 50% glazing):Metal Frame, Entrance Door, Entrance Door, Entrance Door, [Bldg. Use 1 - Office]	---	---	0.470	0.400	0.770	0.400
WEST						
Exterior Wall 2: Other Mass Wall, Heat capacity 1.0, [Bldg. Use 1 - Office], Exemption: Framing cavity not exposed. (a)	---	---	---	---	---	---
Window 5: Metal Frame with Thermal Break:Fixed, Other, Fixed, Fixed, [Bldg. Use 1 - Office]	---	---	0.260	0.400	0.360	0.400

Post-Alteration Assembly	R-Value		Proposed		Max. Allowed	
	Cavity	Cont.	U-Factor	SHGC	U-Factor	SHGC
Window 6: Metal Frame with Thermal Break:Fixed, Other, Fixed, Fixed, [Bldg. Use 1 - Office]	---	---	0.260	0.400	0.360	0.400
Door 2: Glass (> 50% glazing):Metal Frame, Entrance Door, Entrance Door, Entrance Door, [Bldg. Use 1 - Office]	---	---	0.470	0.400	0.770	0.400

(a) 'Other' components require supporting documentation for proposed U-factors.

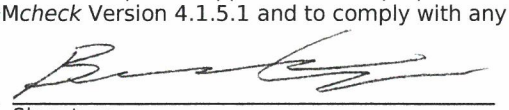
(b) Fenestration product performance must be certified in accordance with NFRC and requires supporting documentation.

Envelope PASSES

Envelope Compliance Statement

Compliance Statement: The proposed envelope alteration project represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed envelope systems have been designed to meet the 2015 IECC requirements in COM*check* Version 4.1.5.1 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Brannin Gries- Architect — Name - Title


Signature

10-25-2021 — Date

COM*check* Software Version 4.1.5.1

Inspection Checklist

Energy Code: 2015 IECC

Requirements: 0.0% were addressed directly in the COM*check* software

Text in the "Comments/Assumptions" column is provided by the user in the COMcheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

Section # & Req.ID	Plan Review	Complies?	Comments/Assumptions
C103.2 [PR1][1]	Plans and/or specifications provide all information with which compliance can be determined for the building envelope and document where exceptions to the standard are claimed.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C402.4.1 [PR10][1]	The vertical fenestration area <= 30 percent of the gross above-grade wall area.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C402.4.1 [PR11][1]	The skylight area <= 3 percent of the gross roof area.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Footing / Foundation Inspection	Complies?	Comments/Assumptions
C303.2.1 [FO6][1]	Exterior insulation protected against damage, sunlight, moisture, wind, landscaping and equipment maintenance activities.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Framing / Rough-In Inspection	Complies?	Comments/Assumptions
C303.1.3 [FR12][2]	Fenestration products rated in accordance with NFRC.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C303.1.3 [FR13][1]	Fenestration products are certified as to performance labels or certificates provided.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C402.4.3 [FR10][1]	Vertical fenestration SHGC value.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
C402.4.3, C402.4.3.4 [FR8][1]	Vertical fenestration U-Factor.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
C402.4.4 [FR14][2]	U-factor of opaque doors associated with the building thermal envelope meets requirements.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
C402.5.1 [FR16][1]	The building envelope contains a continuous air barrier that is sealed in an approved manner and either constructed or tested in an approved manner. Air barrier penetrations are sealed in an approved manner.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C402.5.2, C402.5.4 [FR18][3]	Factory-built fenestration and doors are labeled as meeting air leakage requirements.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C402.5.7 [FR17][3]	Vestibules are installed on all building entrances. Doors have self-closing devices.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Mechanical Rough-In Inspection	Complies?	Comments/Assumptions
C402.5.5, C403.2.4.3 [ME3][3]	Stair and elevator shaft vents have motorized dampers that automatically close.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C402.5.5, C403.2.4.3 [ME58][3]	Outdoor air and exhaust systems have motorized dampers that automatically shut when not in use and meet maximum leakage rates. Check gravity dampers where allowed.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Insulation Inspection	Complies?	Comments/Assumptions
C303.1 [IN10][2]	Building envelope insulation is labeled with R-value or insulation certificate providing R-value and other relevant data.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C303.2 [IN7][1]	Above-grade wall insulation installed per manufacturer's instructions.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C303.2.1 [IN14][2]	Exterior insulation is protected from damage with a protective material. Verification for exposed foundation insulation may need to occur during Foundation Inspection.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C104 [IN6][1]	Installed above-grade wall insulation type and R-value consistent with insulation specifications reported in plans and COMcheck reports.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
C402.2.6 [IN18][3]	Radiant panels and associated components, designed for heat transfer from the panel surfaces to the occupants or indoor space are insulated with a minimum of R-3.5.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C402.5.1.1 [IN1][1]	All sources of air leakage in the building thermal envelope are sealed, caulked, gasketed, weather stripped or wrapped with moisture vapor-permeable wrapping material to minimize air leakage.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Final Inspection	Complies?	Comments/Assumptions
C402.5.3 [FI51][3]	Where open combustion air ducts provide combustion air to open combustion fuel burning appliances, the appliances and combustion air opening are located outside the building thermal envelope or enclosed in a room, isolated from inside the thermal envelope. Such rooms are sealed and insulated.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C402.5.6 [FI37][1]	Weatherseals installed on all loading dock cargo doors.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C402.5.8 [FI26][3]	Recessed luminaires in thermal envelope to limit infiltration and be IC rated and labeled. Seal between interior finish and luminaire housing.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)