#### WIND LOAD INFORMATION:

WIDTH OF PRESSURE COEFFICIENT ZONE (a)

	-
BASIC WIND SPEED	90 MPH
BUILDING OCCUPANCY CATEGORY	Ш
WIND LOAD IMPORTANCE FACTOR (IW)	1.00
WIND EXPOSURE	В
INTERNAL PRESSURE COEFFICIENTS	±.18
COMPONENTS AND CLADDING (GROSS WIND PRESSURES): (FOR ZONE DEFINITIONS & DIAGRAMS SEE DESIGN GUIDE ASCE/SEI 7 SECTION 6	4 ft )

TRIBUTARY WIND LOAD AREAS: 10 ft<sup>2</sup> 50 ft<sup>2</sup> ROOF (GABLE/HIP/MONOSLOPE): **NEGATIVE ZONE 1** -18.4 psf -17.2 psf -16.7 psf **NEGATIVE ZONE 2** -32.1 psf -26.1 psf -23.5 psf **NEGATIVE ZONE 3** -47.4 psf -40.3 psf -37.2 psf POSITIVE PRESSURE ALL ZONES 11.6 psf 10.0 psf 10.0 psf WALLS: ZONE 4 -21.8 psf -20.2 psf -18.8 psf

-27.0 psf -23.6 psf -20.9 psf

-63.1 psf -48.8 psf -45.2 psf

OVERHANGS/CANOPIES: ZONE 1,2 -37.5 psf -37.5 psf -37.5 psf

### SEISMIC LOAD INFORMATION:

ZONE 5

ZONE 3

SEISMIC USE GROUP / OCCUPANCY CATEGORY	II
SEISMIC LOAD IMPORTANCE FACTOR (Ie)	1.00
EISMIC SITE CLASS	D
MAPPED SPECTRAL RESPONSE ACCELERATION (Ss)	10.40
MAPPED SPECTRAL RESPONSE ACCELERATION (S1)	4.40
SPECTRAL RESPONSE COEFFICIENT (Sds)	0.111
SPECTRAL RESPONSE COEFFICIENT (Sd1)	0.070
SEISMIC DESIGN CATEGORY	Α
BASIC SEISMIC FORCE RESISTING SYSTEM	LIGHT FRAME SHEAR WALLS
RESPONSE MODIFICATION FACTOR	2.5
SEISMIC RESPONSE COEFFICIENT (Cs)	0.044
ANALYSIS PROCEDURE	EQUIVALENT LATERAL FORCE

## **SNOW LOAD INFORMATION:**

GROUND SNOW LOAD (Pg) SNOW EXPOSURE FACTOR (Ce) SNOW LOAD IMPORTANCE FACTOR (Is) 1.00 1.10 THERMAL FACTOR (Ct) 1.20 AT OVERHANGS

DESIGN/BALANCED SNOW LOAD (Ps) 30 psf

## **SOIL LOAD INFORMATION:**

-	
COEFFICIENT OF SLIDING FRICTION $(\mu)$	0.40
LATERAL EARTH PRESSURE:	
ACTIVE	35 pcf
AT-REST	55 pcf
PASSIVE	200 pcf
ALLOWABLE NET SOIL BEARING PRESSURE (PRESUMED)	Qa = 1750psf
MODULUS OF SUB-GRADE REACTION	k = 125 pci
FROST DEPTH	42"

## LIVE LOADS:

FLOOR UNLESS NOTED	40 psf + 1psf PARTITION
PATIO/BALCONIES	75psf
ROOF	SEE SNOW LOAD INFO

### MATERIAL DESIGN PROPERTIES

-	
CIP CONCRETE STRENGTHS:	
FOOTINGS	f'c = 3000 psi
CONCRETE WALLS / PIERS / COLUMNS	f'c = 3500 psi
SLAB ON GRADE	f'c = 3500 psi
EXTERIOR SLAB ON GRADE	f'c = 4000 psi
REINFORCING STEEL STRENGTHS:	
BARS (ASTM A 615, grade 60)	Fy = 60,000 psi
WWF (ASTM A 185)	Fy = 65,000 psi
STRUCTURAL STEEL STRENGTHS:	
WF SHAPES (ASTM A992)	Fy = 50,000 psi
ANGLES, CHANNELS, PLATES, & BARS (ASTM A36)	Fy = 36,000 psi
SQUARE & RECTANGULAR TS OR HSS SECTIONS (ASTM A500, grade B)	Fy = 46,000 psi
ROUND HSS SECTIONS (ASTM A500, grade B)	Fy = 42,000 psi
STEEL PIPE (ASTM A53, grade B)	Fy = 35,000 psi

Fy = 36,000 psi

Fu = 55,000 psi

E = 1,900 ksi

E70 XX

#### **WOOD STRENGTHS:** DIMENSIONAL LUMBER (SEE PLANS & WOOD FRAMING NOTES)

HIGH STRENGTH BOLTS (ASTM A325)

HEADED WELDED STUDS (ASTM A108)

ANCHOR BOLTS (ASTM F1554)

LAMINATED VENEER LUMBER:

WELD ELECTRODES

-	Fb = 2,600 psi Fv = 285 psi Fc(perp) = 750 psi Fc(para) = 2,510 psi
PARALLEL STRAND LUMBER:	E = 2,000 ksi Fb = 2,900 psi Fv = 290 psi Fc(perp) = 750 psi Fc(para) = 2,900 psi
GLULAMINATED LUMBER	WESTERN SPECIES BALANCED CONDITION 24F-1.8E WS
LAMINATED STRAND LUMBER:	E = 1,500 ksi Fb = 2,250 psi Fv = 400 psi Fc(perp) = 750 psi Fc(para) = 1,950 psi

## **EARTHWORK NOTES**

- 1. AN ALLOWABLE SOIL BEARING PRESSURE OF 1750 psf HAS BEEN PRESUMED. CONTRACTOR TO FIELD VERIFY ALLOWABLE SOIL BEARING PRESSURE AT THE TIME OF EXCAVATION BY ENGAGING THE SERVICES OF A GEOTECHNICAL ENGINEER. CONTACT A/E FOR EVALUATION IF A LOWER SOIL BEARING PRESSURE IS ENCOUNTERED
- 2. ALL TOPSOIL, DEBRIS, SILTS, AND ORGANIC MATERIAL SHALL BE STRIPPED AND REMOVED FROM LIMITS OF EXCAVATIONS AND EXISTING SUBGRADE SHALL BE COMPACTED TO 95%
- PROCTOR MAXIMUM DRY DENSITY PRIOR TO PLACEMENT OF FILL MATERIAL 3. FILL MATERIAL SHALL BE PLACED AND COMPACTED IN LIFTS NO THICKER THAN 8".
- EACH LIFT SHALL MEET COMPACTION REQUIREMENTS PRIOR TO PLACEMENT AND COMPACTION OF ADDITIONAL
- 4. FILL MATERIAL SHALL BE PLACED AND COMPACTED AT +1% TO -4% OPTIMUM MOISTURE CONTENT TO 95% STANDARD PROCTOR MAXIMUM DRY DENSITY, UNLESS RECOMMENDED OTHERWISE BY A
- QUALIFIED SOILS ENGINEER. 5. UNSATISFACTORY SOILS LOCATED BELOW FOUNDATIONS SHALL BE REMOVED AND

#### **GENERAL FOUNDATION NOTES**

1. PROTECT IN-PLACE FOUNDATIONS AND SLABS ON GRADE FROM FROST PENETRATION PROJECT COMPLETION

#### CAST-IN-PLACE CONCRETE NOTES

- 1. DESIGN AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST
- PROVISIONS OF ACI 318/318R. 2. CONTRACTOR SHALL NOTIFY THE ARCHITECT/ENGINEER AT LEAST 48 HOURS PRIOR
- TO PLACING CONCRETE TO FACILITATE ON SITE OBSERVATION OF REBAR.
- 3. ARRANGEMENT AND BENDING OF REINFORCING STEEL SHALL BE IN ACCORDANCE WITH ACI DETAILING MANUAL (ACI SP-66), LATEST EDITION. 4. WHEN THE AVERAGE TEMPERATURE FROM MIDNIGHT TO MIDNIGHT IS EXPECTED TO
- DROP BELOW 40 DEGREES FAHRENHEIT FOR THREE SUCCESSIVE DAYS, COLD WEATHER CONCRETING REQUIREMENTS MUST BE FOLLOWED. 5. WHEN AMBIENT AIR OR CONCRETE TEMPERATURES EXCEED 90 DEGREES FAHRENHEIT, STEEL REINFORCING AND/OR FORMING SURFACES ARE ABOVE 120 DEGREES, OR WHEN WIND VELOCITY, HUMIDITY, OR SOLAR RADIATION CREATE CONDITIONS OF
- ACCELERATED MOISTURE LOSS AND INCREASED RATE OF HYDRATION, HOT WEATHER CONCRETING REQUIREMENTS SHALL BE FOLLOWED.
- 6. ALL HOOKS IN STEEL REINFORCING SHALL BE ACI STANDARD HOOKS, UNLESS NOTED
- OTHERWISE IN CONSTRUCTION DOCUMENTS. 7. ALL CONCRETE SURFACES SHALL BE FORMED, UNLESS OTHERWISE NOTED.
- 8. CONTROL JOINTS SHALL BE PLACED IN SLAB ON GRADE AND SLAB ON METAL DECK CONSTRUCTION WITHIN 24 HOURS OF INITIAL POUR.
- 9. WIRE SPACERS, CHAIRS, TIES, ETC., FOR SUPPORT OF STEEL REINFORCING SHALL BE PROVIDED BY THE CONTRACTOR TO ENSURE REINFORCING IS PLACED IN THE PROPER POSITION DURING CONCRETE PLACEMENT.
- 10. STEEL REINFORCING SPLICES OF ADJACENT BARS SHALL BE STAGGERED SUCH THAT
- SPLICES ARE 4 FEET APART, MINIMUM. 11. WELDED WIRE REINFORCING SHALL BE IN FLAT SHEETS ONLY, AND LAPPED A MINIMUM
- OF 6 INCHES. 12. WELDING OF STEEL REINFORCING IS NOT PERMITTED.
- 13. SLEEVES, CONDUITS, OR PIPES THROUGH SLABS AND WALLS SHALL BE PLACED AT
- THREE DIAMETERS ON CENTER, OR 4 INCHES MINIMUM.
- 14. ALUMINUM CONDUIT OR PIPING SHALL NOT BE CAST IN CONCRETE.
- 15. PROVIDE A 3/4" CHAMFER ON EXPOSED CORNERS OF CONCRETE UNO. TOP EDGES OF WALLS SHALL BE TOOLED UNO.

### CAST-IN-PLACE CONCRETE TOLERANCES

CONCRETE COVER MEASURED PERPENDICULAR FROM THE SURFACE IN DIRECTION OF TOLERANCES:	
MEMBERS 12" OR LESS	±3/8"
MEMBERS OVER 12"	±1/2"

# 1/4" SPACING DISTANCE,

1" IN 10'

	NOT TO EXCEED 1"
PLACEMENT OF EMBEDDED ITEMS SHALL BE WITHIN THE FOLLOWING TOLERANCES:	
VERTICAL ALIGNMENT	±1"
LATERAL ALIGNMENT	±1"
LEVEL ALIGNMENT	±1"
PLACEMENT OF FOOTINGS SHALL BE WITHIN THE FOLLOWING TOLERANCES:	
LATERAL ALIGNMENT	±2"
LEVEL ALIGNMENT	+1/2" TO -2"
(LEVEL ALIGNMENT SUPPORTING MASONRY)	±1/2"
CROSS-SECTIONAL DIMENSION OF FOOTINGS SHALL BE WITHIN THE FOLLOWING TOLERANCES:	
FORMED FOOTINGS	+2" TO -1/2"
EARTHCAST FOOTINGS:	
2' OR LESS	+3" TO -1/2"
GREATER THAN 2' BUT LESS THAN 6'	+6" TO -1/2"
GREATER THAN 6'	+12" TO -1/2"

## MILD STEEL PROTECTION

FOOTINGS - BOTTOM & SIDES	3"
FOOTING - TOP	2"
PERIMETER WALLS - #5 & SMALLER	1 1/2"
PERIMETER WALLS - #6 & LARGER	2"
INTERIOR WALLS 3/4"	
BEAMS, PIERS, & COLUMNS	1 1/2"
SLABS - BOTTOM & SIDES	1"
SLABS - TOP	3/4"

#### **Wood Framing Notes**

- FRAMING MEMBERS:
- VERTICAL MEMBERS:
- SPRUCE PINE FIR (SPF) STUD GRADE HORIZONTAL MEMBERS:
- SPRUCE PINE FIR (SPF) NO 1/NO2

SPRUCE PINE FIR (SPF) - STUD GRADE

- LUMBER TO BE KILN DRIED, MOISTURE CONTENT SHALL BE BETWEEN 15% AND
- TOP & BOTTOM PLATES OF STUD WALLS SHALL BE THE SAME AS THE WALL STUDS.
- PLATE TO BE TREATED). ROOF SHEATHING SHALL BE 3 AT FLAT ROOFS ATTACHED TO THE ROOF FRAMING MEMBERS w/8d COMMON OR BOX NAILS @ 6" O.C. ALONG EDGES AND 12" O.C. ALONG INTERMEDIATE MEMBERS. STAGGER PANEL EDGES. (1" MIN. EMBED. INTO FRAMING MEMBER). INSTALL EDGE CLIPS ON PANEL EDGES BETWEEN FRAMING MEMBERS.
- EXTERIOR WALLS TO BE SHEATHED w/APA RATED SHEATHING, SEE ARCH DRAWINGS FOR THICKNESS. ATTACH DIRECTLY TO THE OUTSIDE FACE OF EXTERIOR STUD WALLS WITH 8d COMMON OR BOX NAILS @ 6"O.C. ALONG EDGES AND 12" O.C. ALONG INTERMEDIATE MEMBERS. U.N.O.
- AS A MINIMUM, ALL CONNECTIONS SHALL CONFORM TO IBC 2006 TABLE 2304.9.1 FASTENING SCHEDULE. DRAWING DETAILS SHALL GOVERN IF THEIR CONNECTION CAPACITY IS GREATER THAN THOSE SPECIFIED IN TABLE 2304.9.1.
- WHERE BUILT-UP/MULTI-PLY BEAMS AND HEADERS OF DIMENSIONAL LUMBER OR LVL MATERIAL ARE INDICATED, SEE DETAIL 1/S4.00 FOR TOP LOADED MEMBERS FOR MINIMUM FASTENING REQUIREMENTS. ALSO SEE MANUFACTURER'S MINIMUM FASTENING REQUIREMENTS. WHERE BUILT-UP/MULTI-PLY POSTS AND JAMBS ARE INDICATED, FASTENING SHALL BE IN ACCORDANCE WITHNATIONAL DESIGN SPECIFICATION SECTION 15.3.3.
- USE JOIST HANGERS DESIGNED FOR GIVEN MEMBER SIZE TO SUPPORT ALL JOISTS/HEADERS FRAMING INTO SIDES OF OTHER MEMBERS

### LAMINATED WOOD STRESS COMBINATIONS:

SPECIES	DOUGLAS FIR UNLESS NOTED
LAMINATION THICKNESS	1 1/2" (2" NOM.) UNLESS NOTED
STRESS COMBINATION	SEE STRESS LISTING BELOW
TREATING	ALL MEMBERS EXPOSED TO THE EXTERIOR TO BE TREATED
ADHESIVE	RESORCINOL RESIN
AITC APPEARANCE GRADE	ARCHITECTURAL SMOOTH TEXTURE
FINISH (EXPOSED	FACTORY STAIN - ONE COAT.
SURFACES)	ARCHITECT TO SELECT COLOR
FINISH (UNEXPOSED SURFACES)	ONE COAT SEALER
PROTECTION	WRAP INDIVIDUAL MEMBERS w/WATER-RESISTANT PAPER OR
(TRANSIT)	OPAQUE POLYETHYLENE, TAPE SEAMS

- MATERIALS AND WORKMANSHIP SHALL BE IN CONFORMANCE WITH "AMERICAN
- NATIONAL STANDARD", ANSI/AITC A190.1-1992.
- MEMBERS SHALL BE MARKED WITH A QUALITY MARK INDICATING CONFORMANCE TO THE STANDARD LISTED IN NOTE 1.

## LAMINATED WOOD STRESS COMBINATIONS:

BEAMS 24F-1.8E(SIMPLE SPAN, 3500' RADIUS) COLUMNS COMB 2

# LAMINATED WOOD CONNECTION / HARDWARE NOTES:

- ALL CONNECTIONS PLATES SHALL BE FABRICATED WITH ASTM A36 STEEL
- WELDING SHALL BE PERFORMED IN ACCORDANCE WITH AWS STANDARDS
- ALL HOLES SHALL BE 13/16" UNLESS NOTED OTHERWISE
- ALL BOLTS SHALL BE 3/4" ASTM A307 UNLESS NOTED OTHERWISE ALL LAGS SHALL CONFORM TO ANSI/ASME STANDARDS
- ALL SHEAR PLATES SHALL CONFORM TO ANSI/AF&PA STANDARDS.
- SHAPED STEEL CONNECTION PLATES MAY BE CUT FROM A SINGLE PLATE OR CONSTRUCTED OF MULTIPLE PLATES w/ BEVELED, FULL PENETRATION WELDS
- (GROUND SMOOTH) • ALL FABRICATED STEEL, BOLTS, WASHERS, SHEAR PLATES, LAGS, AND NAILS SHALL BE HOT DIP GALVANIZED WHERE EXPOSED TO THE WEATHER OR EMBEDDED IN

## LAMINATED WOOD STORAGE / ERECTION NOTES:

- JOB-SITE STORAGE SHALL BE PROVIDED IN A LEVEL AREA TO PREVENTWARPAGE. MEMBERS SHALL BE SUPPORTED WITH BLOCKING SPACED TO PROVIDE UNIFORM AND
- ADEQUATE SUPPORT. MATERIAL SHALL BE BLOCKED WELL OFF THE GROUND AND SEPARATED WITH
- STRIPPING TO ALLOW AIR CIRCULATION AROUND ALL FOUR SIDES OF EACH MEMBER. • INDIVIDUAL MEMBER WRAPPINGS SHALL BE SLIT OR PUNCTURED ON THE LOWER SIDE TO ALLOW DRAINAGE OF WATER.
- MATERIAL SHALL BE STORED BENEATH AN OPAQUE, MOISTURE-RESISTANT COVERING UNTIL ERECTED.
- PADDED OR NONMARRING SLINGS SHALL BE USED FOR ERECTION, AND CORNERS
- SHALL BE PROTECTED WITH WOOD BLOCKING. PROVIDE ADEQUATE TEMPORARY BRACING UNTIL THE ROOF STRUCTURE IS
- MODERATE USE OF DRIFT PINS, MODERATE REAMING, AND SLIGHT CUTTING ARE ACCEPTABLE MEANS OF CORRECTION FOR PROPER ASSEMBLY AND FITTING. CONTACT PIERCE ENGINEERS FOR METHOD OF CORRECTION IF ERROR OR MATERIAL DEFECTS DO NOT ALLOW PROPER ASSEMBLY.
- HEAT SHOULD NOT BE FULLY TURNED ON AS SOON AS THE STRUCTURE IS ENCLOSED. EXCESSIVE CHECKING MAY OCCUR DUE TO RAPID LOWERING OF THE RELATIVE HUMIDITY IN THE BUILDING. A GRADUAL SEASONING PERIOD AT MODERATE TEMPERATURE SHOULD BE PROVIDED.

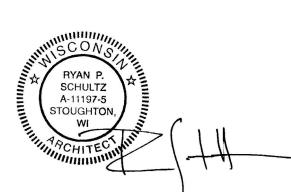
FYF LLC. 43 S Water St E | Fort Atkinson, WI



Plumbing Designer: Zenteno Solutions 1530 P B Lane # Z4646 WICHITA FALLS, TX, 76302 roberto@zenteno.net | 832.449.9278



#1075-B, 10th main, HAL 2nd stage, Bengaluru -08 HVAC Designer: Desapex shreenidhi@desapex.com





openingdesign

Architect: OpeningDesign 312 W. Lakeside St. | Madison, WI 53715 hello@openingdesign.com | 773-425-6456

Date Description 05.03.2017 Issue for Permit

**TOP OF FOOTING SLOPE** 

The Downtowner | 640 West Main Street, Lake Geneva, WI 53147

5/3/2017 10:24:12 PM