

CONSTRUCTION SAFETY GENERAL NOTE
THE STRUCTURAL ENGINEER SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, OR FOR SAFETY PRECAUTIONS AND PROGRAMS, SINCE THESE ARE SOLELY THE CONTRACTOR'S RESPONSIBILITY.

GENERAL LOADING NOTES

1. Building Code: 2014 Indiana Building Code (2012 IBC)

2. Gravity Loads:

Location	Live Load Uniform	Dead Load Uniform
Slab-on-Grade	100 psf	---
Roof	30 psf (Per-As-Built)	25 psf (Per-As-Built)
Ground Snow Load, Pg	25 psf	---

*Uniform dead load includes actual structural weights.

THE STRUCTURAL ALTERATIONS OF STRUCTURAL ELEMENTS REPRESENTED IN THIS DRAWING PACKAGE CONFORMS TO THE REQUIREMENTS OF THE 2012 INTERNATIONAL EXISTING BUILDING CODE FOR LEVEL 2 ALTERATION AS DEFINED IN SECTION 504 AND DESIGN REQUIREMENT OUTLINED IN SECTION 807. CODE COMPLIANCE WITH CURRENT IBC LEVEL WIND AND SEISMIC IS NOT REQUIRED AS THE ALTERATION SCOPE IS INTERIOR ONLY & DOES NOT CHANGE THE BUILDING ELEVATION.

CAST-IN-PLACE CONCRETE NOTES

1. The concrete requirements are-
- A. 28 Day concrete compressive strengths-
- | Mix Location | Min. FC(PSI) | Max. Slump (in) | Max. W/C Ratio | Max. Aggregate ASTM C33 | Air Content |
|---------------|--------------|-----------------|----------------|-------------------------|-------------|
| Slab-on-Grade | 4000 | 4 | 0.45 | 3/4" No. 67 | 0% |
- *All Mixes exposed to freeze/thaw shall be air entrained, re: to specifications.
- B. Concrete clear cover over reinforcing shall be in accordance with the current addition of ACI 318 listed below unless otherwise noted -
- | Location | Clear Cover (inches) |
|--|----------------------|
| Cast against earth | 3 |
| Exposed to earth or weather #6 and larger | 2 |
| Exposed to earth or weather #5 and smaller | 1 1/2 |
| Slabs not exposed to weather | 1 |
| Slabs-on-grade (cover from top of slab) | 1 1/2 |
2. Concrete reinforcing shall meet the following -
- A. Reinforcing bars shall conform to the requirements of ASTM A615 Grade 60. Reinforcing bars required to be welded shall conform to the requirements of ASTM A706 Grade 60. Welding of reinforcing other than specified is prohibited.
- B. Shop Drawings shall be submitted with reinforcing steel detailed in accordance with the current addition of ACI 318.
3. Forming and embedment shall meet the following -
- A. All foundations are designed and detailed with formed sides. If the contractor elects to use earth formed sides, one inch shall be added to each side to provide adequate cover over the reinforcing at the contractor's expense.
- B. All exposed edges of concrete shall be chamfered 3/4" inside forms or tolled to 3/4" radius on slabs unless otherwise noted.
- C. Slabs-on-Grade shall have construction joints and control joints (sawed joints) located as shown on the drawings. Contractor shall locate slab joints on shop drawings.
- D. At the contractor's option, either the sawed or keyed construction joint may be used. The keyed joint shall be used to terminate any placement.
- E. Where necessary, vertical construction joints shall be located within the center one-third of the span. All joints shall be thoroughly cleaned and purposely roughened to 1/4" prior to placing adjacent concrete. Joints in exposed concrete shall be used with a maximum spacing of 50'.
- F. The contractor shall be responsible for the design of all forming, temporary bracing and shoring.
- G. No aluminum shall be embedded in concrete. Conduit and piping embedded in concrete shall be spaced a minimum of four diameters and the outside diameter shall be less than 30% of the member thickness placed between layers of reinforcing.
4. Curing for concrete surfaces not in contact with forms: One of the following procedures shall be applied immediately after completion of placement and finishing -
- A. Ponding or continuous sprinkling.
- B. Application of absorptive mats or fabric kept continuously wet.
- C. Application of waterproof sheet materials, conforming to specifications for waterproof sheet materials for curing concrete (ASTM C171).
- D. Application of a curing compound conforming to "specifications for liquid membrane-forming compounds for curing concrete" (ASTM C309). The compound shall be applied in accordance with the recommendations of the manufacturer immediately after any water sheen which may develop after finishing has disappeared from the concrete surface. It shall not be used on any surface against which additional concrete is to be bonded unless it is proven that the curing compound will not prevent bond, or unless positive measures are taken to remove it completely from areas to receive bonded applications. Curing shall be continued at least 7 days.
- E. Perform adequate slab moisture emission tests per ASTM F1869-04 to confirm that emission levels meet the covering manufacturer's specification before placing the covering. These tests should not be conducted until the buildings closed in and the HVAC equipment run sufficiently to create temperature/humidity environment that is representative of the typical conditions the covering will experience.
5. All vapor retarder's shall be Stego Wrap 15-Mil Class A vapor retarder or approved equal unless more stringent requirements are shown in specifications. 6 mil visqueen is not approved equal.

STRUCTURAL WOOD NOTES

1. The design of the structure is based upon the use of the following products-
- A. Wood
- | Location | Wood Type | Grade | Fb psi | Fc psi |
|-------------------------|---------------|-------|---------------------|---------------------|
| Joists, Beams & Columns | Southern Pine | #2 | Per Latest NDS Code | Per Latest NDS Code |
| Studs (2 x 6) | Southern Pine | #2 | Per Latest NDS Code | Per Latest NDS Code |
- All members shall be surfaced dry and have a maximum moisture content of 19 percent. Stress increase shall be 15% for live load only.
2. Connections shall meet the following requirements-
- A. All bolts shall be ASTM A307. Oversized washers shall be used between the head or nut and wood member.
- B. Wood members, including sheathing, shall be connected together using table 2304.9.1 Fastening Schedule in IBC unless otherwise noted.
- C. All metal connections shall use Simpson connections or approved equal at the following locations U.N.O. -
- | Location | Simpson Model | Alternate |
|-------------------------|----------------------------------|-----------------------|
| Anchorage to Foundation | "Titen HD" Anchors or Equivalent | --- |
| Floor Tie Anchors | FTA2 | --- |
| Column/Post Bases | ASA | --- |
| Column/Post Caps | PCAX | --- |
| Joist Hangers | HJ2X | --- |
| Rafter/Truss Anchors | H2.5A or T | --- |
| Nailer/Steel Member | --- | 3/8"Ø bolts @ 24"o.c. |
- D. Special plywood nails may be substituted as follows-
10 ga. x 2" plywood nails for 8d commons
9 ga. x 2 1/2" plywood nails for 10d commons
3. Laminated Veneer Lumber (LVL) shall be Redlam 2 OE by Redbult or approved equal with a minimum Modulus of Elasticity (E) 2.0 x 10 6 psi and flexural stress (Fb) of 2,500 psi. No substitution shall be approved without submittal to SEQR for review.
4. Wood headers and lintels shall bear on top of a stud for openings less than 8'-0" and bear on top of two studs for wider openings, U.N.O. in header (Lintel) schedule.

MISCELLANEOUS NOTES

1. Reproduction of structural contract documents as shop drawings, erection plans, fabrication plans or details if not authorized and, if submitted, will be rejected without checking. A license to use any portion or all the CAD files for the limited purpose of assisting contractor's preparation of shop drawings for submittal under the construction contract may be purchased from HFA AE under a standard form of agreement for \$1,000. Files were created in Revit 2018.
2. Contractor shall supply all items for attaching mechanical and electrical equipment to the building structure to resist all loads including seismic forces. Attachment shall be made so as not to overstress structural members. Coordinate the attachments and locations of the equipment with the structural shop drawings. Re: to mechanical and electrical drawings for additional requirements.
3. Substitution of expansion anchors for embedded anchors as shown on the drawings will not be permitted unless approved by the engineer in advance.
4. The contractor shall provide the following additional services -
- A. Verification of all dimensions, elevations, opening sizes, and mechanical equipment weights prior to starting work.
- B. Provide temporary bracing and shoring as required for stability during construction.
- C. Verification of all floor depressions and offsets with architectural drawings.
- D. Remove all abandoned foundations, utilities, pipelines, etc. that interfere with new construction.
- E. Review and approve all shop drawings prior to submittal noting changes made which do not comply with design drawings.
5. Plans, sections, and details are not to be scaled for determination of quantities, lengths, or fit of materials.
6. See architectural, mechanical and electrical drawings for size and location of all openings, sleeves, curbs, pads, inserts, etc. not shown on structural drawings. Before fabrication of materials, coordinate with mechanical and electrical requirements.
7. Construction documents consist of these drawings and a separate book of specifications. The drawings and specifications are complimentary, neither is meant to stand alone for any portion of the work described herein. Any conflict between drawings and specifications shall be reported immediately to the architect.
8. Epoxy anchors shall be Hilti HAS Rods embed with Hilti HIT-HY 200 adhesive. Anchor rod size and embedment shall be as indicated in the details.

TYPICAL STRUCTURAL ABBREVIATIONS

ACI	AMERICAN CONCRETE INSTITUTE	LBS.	POUNDS
AISC <td>AMERICAN INSTITUTE OF STEEL CONSTRUCTION</td> <td>LG.</td> <td>LONG</td>	AMERICAN INSTITUTE OF STEEL CONSTRUCTION	LG.	LONG
A.B. <td>ANCHOR BOLT</td> <td>LLH</td> <td>LONG LEG HORIZONTAL</td>	ANCHOR BOLT	LLH	LONG LEG HORIZONTAL
AEES <td>ARCHITECTURALLY EXPOSED STRUCTURAL STEEL</td> <td>LLV</td> <td>LONG LEG VERTICAL</td>	ARCHITECTURALLY EXPOSED STRUCTURAL STEEL	LLV	LONG LEG VERTICAL
A.F.F. <td>ABOVE FINISH FLOOR</td> <td>LONG.</td> <td>LONGITUDINAL</td>	ABOVE FINISH FLOOR	LONG.	LONGITUDINAL
ARCH. <td>ARCHITECT</td> <td>MAX.</td> <td>MAXIMUM</td>	ARCHITECT	MAX.	MAXIMUM
ASTM <td>AMERICAN SOCIETY OF TESTING MATERIALS</td> <td>MBM</td> <td>METAL BUILDING MANUFACTURER</td>	AMERICAN SOCIETY OF TESTING MATERIALS	MBM	METAL BUILDING MANUFACTURER
BAL. <td>BALANCE</td> <td>MECH.</td> <td>MECHANICAL</td>	BALANCE	MECH.	MECHANICAL
B.F.F. <td>BELOW FINISHED FLOOR</td> <td>MFR.</td> <td>MANUFACTURER</td>	BELOW FINISHED FLOOR	MFR.	MANUFACTURER
B.L. <td>BLOCK LINTEL</td> <td>MIN.</td> <td>MINIMUM</td>	BLOCK LINTEL	MIN.	MINIMUM
BLDG. <td>BUILDING</td> <td>MISC.</td> <td>MISCELLANEOUS</td>	BUILDING	MISC.	MISCELLANEOUS
BM. <td>BEAM</td> <td>MTL.</td> <td>METAL</td>	BEAM	MTL.	METAL
B.O.D. <td>BOTTOM OF DECK</td> <td>N.I.C.</td> <td>NOT IN CONTRACT</td>	BOTTOM OF DECK	N.I.C.	NOT IN CONTRACT
BOTT. <td>BOTTOM</td> <td>N.S.</td> <td>NEAR SIDE</td>	BOTTOM	N.S.	NEAR SIDE
BRG. <td>BEARING</td> <td>N.T.S.</td> <td>NOT TO SCALE</td>	BEARING	N.T.S.	NOT TO SCALE
CL or CL. <td>CENTERLINE</td> <td>No.</td> <td>NUMBER</td>	CENTERLINE	No.	NUMBER
C.J. <td>CONTRACTION JOINT</td> <td>O.C.</td> <td>ON CENTER</td>	CONTRACTION JOINT	O.C.	ON CENTER
CLR. <td>CLEAR</td> <td>O.D.</td> <td>OUTSIDE DIAMETER</td>	CLEAR	O.D.	OUTSIDE DIAMETER
CMU. <td>CONCRETE MASONRY UNIT</td> <td>O.F.</td> <td>OUTSIDE FACE</td>	CONCRETE MASONRY UNIT	O.F.	OUTSIDE FACE
COL. <td>COLUMN</td> <td>O.H.</td> <td>OPPOSITE HAND</td>	COLUMN	O.H.	OPPOSITE HAND
CONC. <td>CONCRETE</td> <td>OPNG.</td> <td>OPENING</td>	CONCRETE	OPNG.	OPENING
CONN. <td>CONNECTION</td> <td>PAF.</td> <td>POWDERED ACTUATED FASTENER</td>	CONNECTION	PAF.	POWDERED ACTUATED FASTENER
CONST. <td>CONSTRUCTION</td> <td>P.M.E.J.</td> <td>PREMOLDED EXPANSION JOINT</td>	CONSTRUCTION	P.M.E.J.	PREMOLDED EXPANSION JOINT
CONT. <td>CONTINUOUS</td> <td>PCF.</td> <td>POUNDS PER CUBIC FOOT</td>	CONTINUOUS	PCF.	POUNDS PER CUBIC FOOT
CTRD. <td>CENTERED</td> <td>PEID.</td> <td>PEDESTAL</td>	CENTERED	PEID.	PEDESTAL
D.B.A. <td>DEFORMED BAR ANCHOR</td> <td>PL.</td> <td>PLATE</td>	DEFORMED BAR ANCHOR	PL.	PLATE
DEG. or ° <td>DEGREE</td> <td>PLF.</td> <td>POUNDS PER LINEAR FOOT</td>	DEGREE	PLF.	POUNDS PER LINEAR FOOT
DIA. or Ø <td>DIAMETER</td> <td>PROJ.</td> <td>PROJECTION</td>	DIAMETER	PROJ.	PROJECTION
DIM. <td>DIMENSION</td> <td>PSF.</td> <td>POUNDS PER SQUARE FOOT</td>	DIMENSION	PSF.	POUNDS PER SQUARE FOOT
DN <td>DOWN</td> <td>PSI.</td> <td>POUNDS PER SQUARE INCH</td>	DOWN	PSI.	POUNDS PER SQUARE INCH
DO <td>DITTO</td> <td>QTY.</td> <td>QUANTITY</td>	DITTO	QTY.	QUANTITY
DTL. <td>DETAIL</td> <td>R.O.</td> <td>ROUGH OPENING</td>	DETAIL	R.O.	ROUGH OPENING
DWG. <td>DRAWING</td> <td>RE.</td> <td>REFER</td>	DRAWING	RE.	REFER
DWL. <td>DOWEL</td> <td>R.</td> <td>RADIUS</td>	DOWEL	R.	RADIUS
EA. <td>EACH</td> <td>REINF.</td> <td>REINFORCEMENT</td>	EACH	REINF.	REINFORCEMENT
E.F. <td>EACH FACE</td> <td>REQD.</td> <td>REQUIRED</td>	EACH FACE	REQD.	REQUIRED
E.J. <td>EXPANSION JOINT</td> <td>RTU.</td> <td>ROOF TOP UNIT</td>	EXPANSION JOINT	RTU.	ROOF TOP UNIT
E.O.D. <td>EDGE OF DECK</td> <td>S.D.S.</td> <td>SELF-DRILLING SCREWS</td>	EDGE OF DECK	S.D.S.	SELF-DRILLING SCREWS
E.O.S. <td>EDGE OF SLAB</td> <td>SCHED.</td> <td>SCHEDULE</td>	EDGE OF SLAB	SCHED.	SCHEDULE
EL. <td>ELEVATION</td> <td>SECT.</td> <td>SECTION</td>	ELEVATION	SECT.	SECTION
EQ. <td>EQUAL</td> <td>SIM.</td> <td>SIMILAR</td>	EQUAL	SIM.	SIMILAR
EW. <td>EACH WAY</td> <td>SJI.</td> <td>STEEL JOIST INSTITUTE</td>	EACH WAY	SJI.	STEEL JOIST INSTITUTE
EXIST. <td>EXISTING</td> <td>S.O.G.</td> <td>SLAB-ON-GRADE</td>	EXISTING	S.O.G.	SLAB-ON-GRADE
EXP. <td>EXPANSION</td> <td>SPA.</td> <td>SPACING</td>	EXPANSION	SPA.	SPACING
F.F.E. <td>FINISH FLOOR ELEVATION</td> <td>SPECS.</td> <td>SPECIFICATIONS</td>	FINISH FLOOR ELEVATION	SPECS.	SPECIFICATIONS
FLR. <td>FLOOR</td> <td>STD.</td> <td>STANDARD</td>	FLOOR	STD.	STANDARD
FDN. <td>FOUNDATION</td> <td>STIFF.</td> <td>STIFFENER</td>	FOUNDATION	STIFF.	STIFFENER
FTG. <td>FOOTING</td> <td>STL.</td> <td>STEEL</td>	FOOTING	STL.	STEEL
F.S. <td>FAR SIDE</td> <td>T&B</td> <td>TOP AND BOTTOM</td>	FAR SIDE	T&B	TOP AND BOTTOM
G.B. <td>GRADE BEAM</td> <td>T.O.</td> <td>TOP OF</td>	GRADE BEAM	T.O.	TOP OF
GA. <td>GAUGE</td> <td>T.O.P.</td> <td>TOP OF PIER</td>	GAUGE	T.O.P.	TOP OF PIER
GALV. <td>GALVANIZED</td> <td>TOC.</td> <td>TOP OF CONCRETE</td>	GALVANIZED	TOC.	TOP OF CONCRETE
HK. <td>HOOK</td> <td>TOF.</td> <td>TOP OF FOOTING</td>	HOOK	TOF.	TOP OF FOOTING
HORIZ. <td>HORIZONTAL</td> <td>TOW.</td> <td>TOP OF WALL</td>	HORIZONTAL	TOW.	TOP OF WALL
H.S.A. <td>HEADED STUD ANCHOR</td> <td>TRANS.</td> <td>TRANSVERSE</td>	HEADED STUD ANCHOR	TRANS.	TRANSVERSE
I.F. <td>INSIDE FACE</td> <td>TYP.</td> <td>TYPICAL</td>	INSIDE FACE	TYP.	TYPICAL
IBC. <td>INTERNATIONAL BUILDING CODE</td> <td>U.N.O.</td> <td>UNLESS NOTED OTHERWISE</td>	INTERNATIONAL BUILDING CODE	U.N.O.	UNLESS NOTED OTHERWISE
INFO. <td>INFORMATION</td> <td>VERT.</td> <td>VERTICAL</td>	INFORMATION	VERT.	VERTICAL
JBE. <td>JOIST BEARING ELEVATION</td> <td>W/.</td> <td>WITH</td>	JOIST BEARING ELEVATION	W/.	WITH
JST. <td>JOIST</td> <td>WT.</td> <td>WEIGHT</td>	JOIST	WT.	WEIGHT
JT. <td>JOINT</td> <td>W.P.</td> <td>WORK POINT</td>	JOINT	W.P.	WORK POINT
KSI. <td>KIPS PER SQUARE INCH</td> <td>WWF.</td> <td>WELDED WIRE FABRIC</td>	KIPS PER SQUARE INCH	WWF.	WELDED WIRE FABRIC

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STORE NUMBER: 417
3150 GRANT ST
GARY, IN 46408

PROJECT NUMBER: 03-18-10417

ISSUE BLOCK

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DRAWN BY: JWK

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GENERAL NOTES

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