

# GENERAL STRUCTURAL NOTES

## BUILDING CODE:

2021 INTERNATIONAL BUILDING CODE, (IBC) WITH APPLICABLE CITY AMENDMENTS.

## GRAVITY LOADS:

ROOF: ROOF LIVE LOAD = 20 PSF (REDUCIBLE). SUPERIMPOSED DEAD LOAD ON ROOF TRUSSES = 14 PSF. (EXCLUDES TRUSS WEIGHT) (10 PSF TOP CHORD / 4 PSF BOTTOM CHORD) ROOF DEAD LOAD = 18 PSF TRUSSES/JOISTS SHALL BE DESIGNED FOR A SUPERIMPOSED FUTURE MECHANICAL LOAD OF 300 LB AT ANY LOCATION. MECHANICAL LOADS SHOWN ON PLANS SHALL SUPERSEDE AND BE USED IN LIEU OF REQUIREMENTS NOTED ABOVE WHERE PLAN LOADS ARE GREATER THAN NOTED ABOVE. FUTURE MECHANICAL UNITS SHALL NOT BE LOCATED ON ROOF MEMBERS WHICH ALREADY SUPPORT MECHANICAL UNITS.

## LATERAL LOADS :

WIND: ULTIMATE DESIGN WIND SPEED = 105 MPH (3s GUST). NOMINAL DESIGN WIND SPEED = 82 MPH (3s GUST). RISK CATEGORY: WIND EXPOSURE: C. INTERNAL PRESSURE COEFFICIENT (ENCLOSED BUILDINGS): +0.18 / -0.18 COMPONENTS & CLADDING ULTIMATE WIND PRESSURE: 22.8 PSF - END ZONE, 20.6 PSF - TYPICAL

SEISMICITY: RISK CATEGORY II SEISMIC IMPORTANCE FACTOR: I<sub>s</sub> = 1.0 APPROPRIATE SPECTRAL RESPONSE ACCELERATION PARAMETERS: (S<sub>1</sub> = 0.175, S<sub>2</sub> = 0.064) SITE CLASS: D DESIGN SPECTRAL RESPONSE ACCELERATION PARAMETERS: (S<sub>DS</sub> = 0.187, S<sub>DS</sub> = 0.102) SEISMIC DESIGN CATEGORY: B BASIC SEISMIC FORCE RESISTANCE SYSTEM: STEEL ORDINARY MOMENT FRAMES SEISMIC RESPONSE COEFFICIENT, C<sub>s</sub> = 0.0287 RESPONSE MODIFICATION FACTOR R = 6.5 ANALYSIS PROCEDURE USED: EQUIVALENT FORCE METHOD

## FOUNDATIONS:

SIMPLY STRUCTURAL INC. RECOMMENDS THAT A SOILS REPORT BE COMPLETED ON ALL PROJECTS DESIGNED BY THIS COMPANY AND CAN NOT BE HELD RESPONSIBLE FOR FUTURE PROBLEMS ARISING FROM UNKNOWN SOIL CONDITIONS.

SPREAD FOOTINGS SHALL BEAR ON A FIRM, UNDISTURBED SOIL (CONTROLLED COMPACTED FILL) 18" MIN. BELOW ADJACENT FINISHED GRADE. PAD GRADE OR EXISTING GRADE AS STATED IN SOILS REPORT. FINISHED GRADE IS DEFINED AS TOP OF SLAB FOR INTERIOR FOOTINGS AND LOWEST ADJACENT GRADE WITHIN 5 FEET OF PERIMETER FOOTINGS.

DESIGN SOIL BEARING VALUE: 1500 PSF. (ISOLATED FOOTINGS) DESIGN SOIL BEARING VALUE: 1500 PSF. (CONTINUOUS FOOTINGS)

## STRUCTURAL CONCRETE:

ALL CAST-IN-PLACE CONCRETE CONSTRUCTION HAS BEEN DESIGNED ACCORDING TO ACI 318-11 AND SHALL CONFORM TO THE FOLLOWING:

CEMENT SHALL CONFORM TO ASTM C-150 TYPE I OR II. MIXING SHALL CONFORM TO ASTM C-959. AGGREGATES (NORMAL WEIGHT CONCRETE) SHALL CONFORM TO ASTM C-33. THE MINIMUM COMPRESSIVE STRENGTH OF CONCRETE (F'<sub>c</sub>) AT 28 DAYS SHALL BE:

FOUNDATIONS (DESIGN BASED ON 2,500 PSF) ----- 3,000 PSI SLABS ON GRADE (MOISTURE SENSITIVE FLOORING) W/C= 0.50 MAX ----- 4,500 PSI SLABS ON GRADE ----- 3,000 PSI

- 1 ALL CONCRETE SHALL BE MECHANICALLY VIBRATED AND THOROUGHLY CONSOLIDATED DURING PLACEMENT AND SHALL BE THOROUGHLY WORKED AROUND REINFORCEMENT AND EMBEDDED FIXTURES AND INTO CORNERS OF THE FORMS UNLESS NOTED OTHERWISE.
2 SLUMP RANGE SHALL BE 4-6 INCHES. ADMIXTURES MAY NOT BE USED WITHOUT THE SPECIFIC PRIOR WRITTEN APPROVAL FROM THE ARCHITECT/STRUCTURAL ENGINEER. ADMIXTURES USING ANY FORM OF CHLORIDES SHALL NOT BE USED.
3 CAST CLOSURE POUR AROUND COLUMNS AFTER COLUMN DEAD LOAD IS APPLIED.
4 THE EMBEDMENT OF ANY CONDUITS, PIPES, SLEEVES, ETC. SHALL NOT BE PERMITTED WITHIN ANY CONCRETE STRUCTURAL ELEMENT (IE: COLUMNS, BEAMS, ELEVATED SLABS, ETC.) WITHOUT WRITTEN APPROVAL FROM SIMPLY STRUCTURAL INC. UNLESS NOTED OTHERWISE ON THE DRAWINGS.
5 FLY ASH - IF PERMITTED BY ARCHITECTURAL SPECIFICATIONS, SHALL CONFORM TO "STANDARD SPECIFICATIONS FOR COAL FLY ASH AND RAW OR SMOKE-DENATURAL POZZOLAN FOR USE IN CONCRETE" (ASTM C 618). FLY ASH SHALL NOT BE USED IN ARCHITECTUREALLY EXPOSED CONCRETE, ON SLABS WITH A BURNISHED OR AOD FINISH, OR WHERE IT COULD NEGATIVELY EFFECT ANY MATERIAL IN CONTACT WITH IT.
6 TESTING OF CONCRETE - SAMPLES FOR STRENGTH TESTS OF EACH CLASS OF CONCRETE PLACED EACH DAY SHALL BE TAKEN NOT LESS THAN: ONCE A DAY, NOR LESS THAN ONCE FOR EACH 150-103 OF CONCRETE NOR LESS THAN ONCE FOR EACH 5,000-FIT2 OF SURFACE AREA FOR SLABS OR WALLS. SAMPLES SHALL BE TAKEN IN ACCORDANCE WITH "STANDARD PRACTICE FOR MAKING AND CURING CONCRETE TEST SPECIMENS IN THE FIELD" (ASTM C 31), AND TESTED IN ACCORDANCE WITH "STANDARD TEST METHOD FOR COMPRESSIVE STRENGTH OF CYLINDRICAL CONCRETE SPECIMENS" (ASTM C 39).
7 TEST DATA FOR CONCRETE SUBMITTALS - TEST DATA SHALL BE SUBMITTED FOR REVIEW PER ACI 318 CHAPTER 5. REFERENCE TABLE R5.3 FOR SPECIFIC REQUIREMENTS.

## CONCRETE SLABS ON GRADE:

- 1 CONCRETE SHALL BE BATCHED, MIXED, TRANSPORTED, PLACED, CONSOLIDATED AND FINISHED PER ACI 302.1R-04 FOR THE APPROPRIATE FLOOR CLASS TYPE PER TABLE 2.1. SEE TABLE 6.1 (ACI 302.1R-04) FOR RECOMMENDED STRENGTH AND MAXIMUM SLUMP AT TIME OF PLACEMENT FOR CONCRETE FLOORS. MIX DESIGN SHALL PROVIDE THE LARGEST PRACTICAL-SIZE AGGREGATE THAT DOES NOT EXCEED 3/4 OF THE MIN. CLEAR SPACING OF REINFORCING BARS OR 1/3 OF THE SLAB DEPTH.
2 CONCRETE SLABS ON GRADE REQUIRE MECHANICAL VIBRATION ONLY AT TRENCHES, FLOOR DUCTS, TURNDOWNS ETC.
3 ALL CONCRETE SLABS ON GRADE SHALL BE BOUND BY SAW CUT CONTROL JOINTS, COLD JOINTS WITH DIAMOND PLATES PER ACI 302.1R-04 TABLE 3.2, OR KEYS JOINTS. (KEYED JOINTS ARE NOT PERMITTED IN WAREHOUSES, WHERE FORKLIFTS WILL BE USED OR WHERE STORAGE RACKING WILL BE INSTALLED). JOINTS MAY NOT BE MODIFIED UNLESS APPROVED IN WRITING BY SIMPLY STRUCTURAL INC. AND THE ARCHITECT, AND MUST BE LOCATED AS SHOWN ON THE FOUNDATION PLAN. FOR UNREINFORCED PLAIN CONCRETE SLABS, MAXIMUM SPACING BETWEEN JOINTS SHALL BE 16 TIMES THE SLAB THICKNESS OR 15'-0" ON CENTER MAX. MAXIMUM RATIO OF LONG SIDE TO SHORT SIDE SHALL BE 1 1/2 TO 1. COLD JOINTS OR KEYS CONTROL JOINTS NEED ONLY OCCUR AT EXPOSED EDGES DURING POURING; ALL OTHER JOINTS MAY BE SAW CUT.
4 FOR CONCRETE FLOOR SLABS SUBJECTED TO VEHICLES WITH HARD WHEELS SUCH AS FORKLIFTS, ACI 302.1R-04 RECOMMENDS THE USE OF A LOAD TRANSFER MECHANISM TO TRANSFER FORCES ACROSS THE SAW CUT JOINTS. SEE TABLE 3.1 (ACI 302.1R-04) FOR SIZE, SPACING AND TYPES. DOWEL BASKETS SHALL BE BY FINI, INC. OR APPROVED EQUAL.
5 ALL JOINTS SHALL BE FILLED AND OR SEALED AS SPECIFIED BY THE ARCHITECT. AT A MINIMUM, JOINTS SUBJECTED TO VEHICLES WITH HARD WHEELS SUCH AS FORKLIFTS SHALL BE FILLED WITH A SEMIRIGID EPOXY RESIN OR POLYUREAS CONSISTING OF 100% SOLIDS THAT HAS A MINIMUM SHORE HARDNESS OF 80 WHEN MEASURED IN ACCORDANCE WITH ASTM D 2240. ACI 302.1R-04 ADVISES TO DEFER JOINT FILLING AND SEALING AS LONG AS POSSIBLE (90-90 DAYS MIN.) TO MINIMIZE THE EFFECTS OF SHRINKAGE-RELATED JOINT OPENING ON THE FILLER OR SEALANT. SEMIRIGID AND POLYUREA FILLERS SHOULD BE INSTALLED FULL-DEPTH IN SUITABLY CLEAN SAW-CUT JOINTS.
6 VAPOR BARRIERS SHALL BE USED WHEN REQUIRED BY ARCHITECTURAL SPECIFICATIONS OR THE SOILS REPORT. VAPOR BARRIER MATERIAL SHALL BE IN COMPLIANCE WITH ASTM E 1745 AND THE THICKNESS SHALL BE 15 MILS OR GREATER. THE LAPS OR SEAMS SHALL BE OVERLAPPED 6" MINIMUM OR AS INSTRUCTED BY THE MANUFACTURER. JOINTS AND PENETRATIONS SHOULD BE SEALED WITH THE MANUFACTURER'S RECOMMENDED ADHESIVE. PRESSURE-SENSITIVE TAPE, OR BOTH, THE VAPOR BARRIER SHALL BE PLACED OVER A SMOOTH AND COMPACT SUBGRADE. THE FLOOR SLAB SHALL BE GRANULAR FILL (NOT SAND). GRANULAR FILL SHOULD BE PROTECTED FROM TAKING ON ADJACENT WATER.

## DRYPACK:

DRYPACK SHALL HAVE A MINIMUM ULTIMATE COMPRESSIVE STRENGTH OF 2500 PSI AT 7 DAYS AND 5,000 PSI AT 28 DAYS. DRYPACK SHALL BE NON-SHRINK GROUT, FIVE STAR OR EQUIVALENT. INSTALL DRYPACK UNDER BEARING PLATES BEFORE FRAMING MEMBER IS INSTALLED. AT COLUMNS, INSTALL DRYPACK UNDER BASE PLATES AFTER COLUMN HAS BEEN PLUMBED BUT PRIOR TO SUPPORTED FRAMING BEING INSTALLED.

## REINFORCING STEEL:

LATEST ACI 318-11 CODE AND DETAILING MANUAL APPLY. ALL REINFORCING SHALL BE CHAired TO ENSURE PROPER CLEARANCES. SUPPORT OF FOUNDATION REINFORCING MUST PROVIDE ISOLATION FROM MOISTURE/CORROSION BY USE OF PLASTIC OR CONCRETE CHAIR. DUCT-TAPE COVERED REINFORCING IS NOT AN ACCEPTABLE CHAIR. ALL DIMENSIONS REFERENCED IN DRAWINGS AS "CLEAR" SHALL BE FROM FACE OF STRUCTURE TO EDGE OF REINFORCING, AND SHALL NOT BE LESS THAN STATED, NOR GREATER THAN "CLEAR" DIMENSION PLUS 3/8". ALL OTHERS SHALL BE PLUS OR MINUS 1/4" TYPICAL UNLESS NOTED OTHERWISE. ALL REINFORCING SHALL BE SECURELY TIED IN PLACE TO PREVENT MOVEMENT DURING CONCRETE PLACEMENT. DEFORMED REINFORCING SPECIFICATIONS AS FOLLOWS:

- 1 ASTM A615 (Fy = 60 KSI) FOR ALL BARS.
2 ASTM A706 (Fy = 60 KSI) FOR ALL BARS TO BE WELDED.
3 ASTM A193 (Fy = 70 KSI) WELDED WIRE FABRIC, WIRE PER ASTM A82.

CLEAR CONCRETE COVERAGE'S OF ALL STEEL SHALL BE: CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH ----- 3" EXPOSED TO EARTH OR WEATHER: #6 OR LARGER ----- 2" #5 AND SMALLER ----- 1 1/2"

## POST INSTALLED ANCHORS:

THESE ANCHORS MAY ONLY BE USED WHERE SPECIFIC ANCHORS ARE NOT DENOTED ON PLANS, DETAILS OR NOTES.

SPECIAL STRUCTURAL INSPECTION IS REQUIRED DURING PLACEMENT OF ALL ANCHORS UNLESS SPECIFICALLY NOTED OTHERWISE.

USE OF OTHER ANCHOR PRODUCTS MUST BE APPROVED BY THE ENGINEER OF RECORD.

Table with 3 columns: Adhesive, Concrete, and Masonry. Rows include DEWALT/POWERS, HILTI, SIMPSON, and SOWE-W BOLT with corresponding product codes and specifications.

## STRUCTURAL STEEL:

THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS AND STRUCTURES SHALL BE IN ACCORDANCE WITH AISC 360. FOR ALL STEEL WHERE Fy > 36 KSI, THE ASTM OR OTHER SPECIFICATION DESIGNATION SHALL BE INCLUDED NEAR THE ERECTION MARK ON EACH SHIPPING ASSEMBLY OR IMPORTANT CONSTRUCTION COMPONENT OVER ANY SHOP COAT OF PAINT PRIOR TO SHIPMENT FROM THE FABRICATOR'S PLANT. USE THE FOLLOWING MINIMUM PROPERTIES UNLESS NOTED OTHERWISE:

- \* ROUND HSS SHALL BE ASTM A500 GRADE C (Fy = 46 KSI).
\* RECTANGULAR AND SQUARE HSS SHALL BE ASTM A500 GRADE C (Fy = 50 KSI).
\* MISCELLANEOUS STEEL SHALL BE ASTM A36 (Fy = 36 KSI).
\* BOLTS SHALL BE F1554 GRADE 36 (ASTM A307).

ALL REFERENCE TO HEADED STUDS SHALL BE "TRW/NELSON" HIGH STRENGTH HEADED STUDS OR APPROVED EQUAL. AT CONTRACTOR'S OPTION HEADED STUDS PER ABOVE MAY BE SUBSTITUTED FOR CONVENTIONAL ANCHORS AND MACHINE BOLTS (REVERSE SUBSTITUTION NOT ALLOWABLE). ALL BOLTS, ANCHOR BOLTS, EXPANSION BOLTS, ETC. SHALL BE INSTALLED WITH STEEL WASHERS. AT SHORT SLOTTED HOLES USE SMOG TIGHT INSTALLATION UNLESS NOTED OTHERWISE.

## WELDING:

ALL WELDING SHALL BE PERFORMED BY WELDERS HOLDING VALID CERTIFICATES ISSUED BY AN ACCEPTED TESTING AGENCY AND HAVING CURRENT EXPERIENCE IN THE TYPE OF WELD SHOWN. THESE DRAWINGS DO NOT DISTINGUISH BETWEEN SHOP AND FIELD WELDS; THE CONTRACTOR MAY SHOP WELD OR FIELD WELD AT THEIR DISCRETION. SHOP WELDS AND FIELD WELDS SHALL BE SHOWN ON THE SHOP DRAWINGS SUBMITTED FOR REVIEW. UNLESS NOTED OTHERWISE.

ALL WELDS PER THE REFERENCED OR LATEST EDITION OF THE AMERICAN WELDING SOCIETY (AWS) STANDARDS:

- AWS D1.1-00 STRUCTURAL WELDING CODE - STEEL
AWS D1.3-98 STRUCTURAL WELDING CODE - SHEET STEEL
AWS D1.4-98 STRUCTURAL WELDING CODE - REINFORCING STEEL
AWS C5.4 RECOMMENDED PRACTICES FOR STUD WELDING

ALL WELDING DONE BY E70 SERIES LOW HYDROGEN RODS UNLESS NOTED OTHERWISE. FOR GRADE 60 REINFORCING BARS, USE E90 SERIES.

## STRUCTURAL WOOD:

### SAWN LUMBER:

FRAMING LUMBER SHALL COMPLY WITH THE LATEST EDITION OF THE GRADING RULES OF THE WESTERN WOOD PRODUCTS ASSOCIATION (WWPA) OR THE WEST COAST LUMBER INSPECTION BUREAU (WCLIB). ALL SAWN LUMBER SHALL BE STANDARD DRESSED (S&S) AND SHALL BE STAMPED WITH THE GRADE MARK OF AN APPROVED LUMBER GRADING AGENCY AND SHALL MEET OR EXCEED THE FOLLOWING WOOD TYPES AND PROPERTIES:

- WOOD TYPE
JOISTS ----- D.F. #2
BEAMS ----- D.F. #1
LEDGERS AND TOP PLATES ---- D.F. #2
STUDS ----- D.F. #2

### GLUE-LAMINATED BEAMS(GLULAM):

ALL BEAMS SHALL BE FABRICATED USING WATERPROOF-GLUE. FABRICATION AND HANDLING PER LATEST AITC AND WCLA STANDARDS. CAMBER BEAMS AS SHOWN ON DRAWINGS. BEAMS TO BEAR BOTH GRADE STAMP AND AITC STAMP AND CERTIFICATE. STANDARD CAMBER R = 2500" U.N.O.

- SIMPLE SPAN BEAMS: 24F-V4
CANTILEVERING BEAMS: 24F-V8

## ENGINEERED WOOD PRODUCTS:

FRAMING MEMBERS SHALL BE DESIGNED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE REFERENCED BUILDING CODE, AND ALL OTHER APPLICABLE REPORTS. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS WITH DESIGN CALCULATIONS SEALED BY A LICENSED ENGINEER IN THE STATE OF CONSTRUCTION FOR REVIEW AND APPROVAL BY SIMPLY STRUCTURAL INC. PRIOR TO FABRICATION. CALCULATIONS HAVE BEEN REVIEWED AND THEY HAVE BEEN FOUND TO BE IN GENERAL CONFORMANCE WITH THE DESIGN OF THE BUILDING. THE DEFERRED SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL THEIR DESIGN AND SUBMITTAL DOCUMENTS HAVE BEEN APPROVED BY THE BUILDING OFFICIAL. ALL DEFERRED SUBMITTALS SHALL BE SEALED BY A LICENSED ENGINEER IN THE STATE OF CONSTRUCTION.

- 1 DEFLECTION/CAMBER: ROOFS WITHOUT PLASTER OR GYPBOARD CEILINGS TOTAL LOAD MAXIMUM = L/180, LIVE LOAD MAXIMUM = L/360. ROOFS WITH PLASTER OR GYPBOARD CEILINGS TOTAL LOAD MAXIMUM = L/240, LIVE LOAD MAXIMUM = 7/360. FOR ROOF SLOPES LESS THAN 1/4" PER FOOT, JOISTS MUST BE DESIGNED FOR PONDING.
2 TOP CHORD MEMBER WOOD SPECIES SHALL BE DOUGLAS FIR-LARCH, OR SOUTHERN PINE. ALL OTHER SPECIES MUST BE SUBMITTED TO SIMPLY STRUCTURAL INC. FOR REVIEW AND APPROVAL PRIOR TO BIDDING. THE ABSOLUTE MINIMUM SPECIFIC GRAVITY THAT WILL BE CONSIDERED IS 0.42.

- 3 CONNECTIONS AND BEARING MATERIAL TO BE SHOP CONNECTED, DESIGNED AND FURNISHED BY FABRICATOR.
4 ADDITIONAL FRAMING MEMBERS SHALL BE SUPPLIED AS REQUIRED TO SUPPORT MECHANICAL EQUIPMENT.

## PREFABRICATED WOOD TRUSS FRAMING MEMBERS:

FRAMING MEMBERS SHALL BE CAMBERED FOR 1.5 TIMES THE DEAD LOAD DEFLECTION. MULTIPLE FRAMING MEMBERS SHALL BE FASTENED TOGETHER TO ALLOW TRANSFER OF SHEAR AND TENSION FORCES (MINIMUM 200 PLF) AT PLYWOOD SHEATHING JOINTS AND TO PREVENT CROSS GRAIN BENDING OF TOP CHORDS. ATTACHMENT SHALL BE A CONTINUOUS 20 GAGE METAL PLATE OR OTHER APPROVED MEANS. METHOD OF ATTACHMENT SHALL BE INDICATED ON SHOP DRAWINGS FOR REVIEW.

PREFABRICATED WOOD TRUSSES SHALL BE MANUFACTURED BY SHOPS, WHICH HAVE CURRENT I.C.C. CERTIFICATION AS AN APPROVED FABRICATOR PER THE REFERENCED BUILDING CODE. TRUSS CONSTRUCTION DOCUMENTS SHALL BE PREPARED IN ACCORDANCE WITH 2303.A.1.

## PLYWOOD:

ALL PLYWOOD SHALL BE AMERICAN PLYWOOD ASSOCIATION "CDX" RATED SHEATHING OR BETTER AND SHALL BEAR THE STAMP OF AN APPROVED TESTING AGENCY. LAY PLYWOOD WITH FACE GRAIN PERPENDICULAR TO SUPPORTS. WHERE PLYWOOD IS LAID UP WITH FACE GRAIN PARALLEL TO SUPPORTS, USE A MINIMUM OF 5-PLY PLYWOOD. ALL PLYWOOD SHALL BE LAID WITH STAGGERED JOINTS AND BE OF THE FOLLOWING NOMINAL THICKNESS, SPAN/INDEX RATIO AND SHALL BE ATTACHED WITH COMMON NAILS AS FOLLOWS UNLESS NOTED OTHERWISE:

Table with 4 columns: Thickness, Span/Index Ratio, Edge Attachment, Intermediate Attachment. Rows for Roof 1, Roof 2, Shear Wall.

## ALTERNATE:

AMERICAN PLYWOOD ASSOCIATION PERFORMANCE RATED SHEATHING MAY BE USED AS AN ALTERNATE TO PLYWOOD WITH PRIOR APPROVAL OF OWNER, ARCHITECT AND ROOFING CONTRACTOR. WHERE ROOF IS TO BE GUARANTEED, IT MAY NOT BE USED WITHOUT PRIOR APPROVAL FROM ROOF SYSTEM MANUFACTURER. RATED SHEATHING SHALL COMPLY WITH I.C.C. REPORT NO. ESR-2586, EXPOSURE 1, AND SHALL HAVE A SPAN RATING AND SHEAR VALUES EQUIVALENT TO OR BETTER THAN THE PLYWOOD IT REPLACES. ATTACHMENT AND THICKNESS (WITHIN 1/32") SHALL BE THE SAME AS THE PLYWOOD IT REPLACES. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

## GENERAL:

WOOD FRAMING MEMBER SHALL NOT BE NOTCHED OR DRILLED WITHOUT PRIOR APPROVAL OF THE STRUCTURAL ENGINEER THROUGH THE ARCHITECT. ALL NAILING NOT NOTED SHALL BE PER TYPICAL DETAIL. ALL BOLTING SHALL BE PER STEEL SECTION. WOOD CONNECTORS SHALL BE AS MANUFACTURED BY SIMPSON STRONG-TIE COMPANY, INC. OR OTHER MANUFACTURER WITH CURRENT AND EQUIVALENT I.C.C. APPROVAL. WHERE "TYPE" OF CONNECTOR IS INDICATED ON THE DRAWINGS, THE CONNECTOR AND ATTACHMENT SHALL BE PER THE MAXIMUM MODEL NUMBER BASED ON THE SIZE OF THE MEMBERS CONNECTED.

IN STUD WALLS, UNLESS NOTED OTHERWISE, INSTALL DOUBLE STUDS AT ALL JAMBS, CORNERS, INTERSECTIONS AND AT ISOLATED BEARING POINTS OF FRAMING MEMBERS ABOVE. EVERY OTHER STUD OF WOOD FRAME BEARING WALL SHALL HAVE A SIMPSON H3 ANCHOR TOP AND BOTTOM. EXCEPT AT THOSE WALLS WHERE PLYWOOD SHEATHING IS NAILED DIRECTLY TO THE TOP AND BOTTOM PLATES. PROVIDE 2X SOLID BLOCKING AT MID-HEIGHT OF BEARING STUD WALLS. SILL PLATES AT ALL EXTERIOR WALLS SHALL BE EITHER PRESERVATIVELY TREATED WOOD OR FOUNDATION - GRADE REDWOOD.

## SHOP DRAWINGS:

USE OF DRAWINGS CREATED BY SIMPLY STRUCTURAL INC. ARE NOT ACCEPTABLE FOR USE AS SHOP DRAWINGS. ANY SUBMITTALS CONTAINING SUCH WILL BE REJECTED WITHOUT REVIEW.

- 1. SIMPLY STRUCTURAL INC. ASSUMES NO RESPONSIBILITY FOR THE FAILURE OF THE CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR REVIEW. SIMPLY STRUCTURAL INC. WILL REVIEW COMPLETED CONTRACTOR SHOP DRAWINGS AND OTHER APPROPRIATE SUBMITTALS THAT ARE A PROPERLY FUNCTIONING AND INTEGRAL ELEMENT OF THE OVERALL STRUCTURAL SYSTEM DESIGNED BY SIMPLY STRUCTURAL INC. REVIEWING IS INTENDED ONLY AS AN AID TO THE CONTRACTOR IN OBTAINING CORRECT SHOP DRAWINGS.
2. SHOP DRAWINGS SUBMITTALS SHALL INCLUDE AT A MINIMUM:
A LAYOUT PLAN KEYED TO TRUSS/JOIST/BEAMS ETC.
B CLEARLY DEFINED DESIGN LOADS.
C SEAL AND SIGNATURE OF A LICENSED ENGINEER IN THE STATE OF CONSTRUCTION AFFIXED DIRECTLY TO BOUND DOCUMENTS.
3. BEFORE SUBMITTING SHOP DRAWINGS OR ANY RELATED MATERIAL, THE CONTRACTOR SHALL:
A REVIEW EACH SUBMISSION FOR CONFORMANCE WITH THE MEANS, METHODS, TECHNIQUES, SEQUENCES, OPERATIONS OF CONSTRUCTION, AND SAFETY PRECAUTIONS AND PROGRAMS ALL OF WHICH ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
B APPROVE AND STAMP AND SIGN EACH SUBMISSION BEFORE SUBMITTING IT.
C ITEMS NOT IN ACCORDANCE WITH CONTRACT DOCUMENTS SHALL BE FLAGGED UPON CONTRACTOR'S REVIEW. SIMPLY STRUCTURAL INC. SHALL ASSUME THAT NO SHOP DRAWING OR RELATED SUBMITTAL COMPRISES A VARIATION UNLESS THE CONTRACTOR ADVISES SIMPLY STRUCTURAL INC. IN WRITING.
D VERIFY ALL DIMENSIONS WITH ARCHITECT.
4. THE ENGINEER HAS THE RIGHT TO APPROVE OR DISAPPROVE ANY CHANGES TO CONTRACT DOCUMENTS AT ANYTIME BEFORE OR AFTER SHOP DRAWING REVIEW.
5. THE SHOP DRAWINGS DO NOT REPLACE THE CONTRACT DOCUMENTS. ITEMS OMITTED OR SHOWN INCORRECTLY AND ARE NOT FLAGGED BY THE STRUCTURAL ENGINEER OR ARCHITECT SHALL NOT BE CONSIDERED CHANGES TO CONTRACT DOCUMENTS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE ALL ITEMS ARE CONSTRUCTED ACCORDING TO THE CONTRACT DOCUMENTS.
6. SIMPLY STRUCTURAL INC. WILL REDLINE UP TO FIVE COPIES OF EACH SUBMITTAL. FOUR WILL BE RETURNED TO THE SUBMITTING PARTY OR CONTRACTOR. SIMPLY STRUCTURAL INC. WILL RETAIN ONE COPY OF EACH SUBMITTAL FOR REFERENCE AND RECORDS.

## DEFERRED SUBMITTALS:

DEFERRED SUBMITTALS ARE DEFINED AS THOSE PORTIONS OF THE DESIGN THAT ARE NOT SUBMITTED AT THE TIME OF APPLICATION. DEFERRAL OF ANY SUBMITTAL SHALL HAVE PRIOR APPROVAL OF THE BUILDING OFFICIAL. SUBMITTAL DOCUMENTS FOR DEFERRED SUBMITTAL ITEMS SHALL BE SUBMITTED TO SIMPLY STRUCTURAL INC. WHO SHALL REVIEW AND NOTE THAT THE DEFERRED SUBMITTAL DOCUMENTS HAVE BEEN REVIEWED AND THAT THEY HAVE BEEN FOUND TO BE IN GENERAL CONFORMANCE WITH THE DESIGN OF THE BUILDING. THE DEFERRED SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL THEIR DESIGN AND SUBMITTAL DOCUMENTS HAVE BEEN APPROVED BY THE BUILDING OFFICIAL. ALL DEFERRED SUBMITTALS SHALL BE SEALED BY A LICENSED ENGINEER IN THE STATE OF CONSTRUCTION.

THE FOLLOWING ITEMS SHALL BE SUBMITTED BY THIS SECTION:

- PREFABRICATED WOOD TRUSSES

## GENERAL NOTES:

- 1. THE STRUCTURAL CONSTRUCTION DOCUMENTS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. DURING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF THE BUILDING AND THE CONSTRUCTION SITE. THE CONTRACTOR SHALL USE ADEQUATE SHORING, BRACING, AND GUYS IN ACCORDANCE WITH ALL NATIONAL, STATE AND LOCAL SAFETY ORDINANCES. THE STRUCTURAL ENGINEER OF RECORD SHALL NOT BE RESPONSIBLE FOR THE CONTRACTOR'S MEANS, METHODS, TECHNIQUES, SEQUENCES FOR PROCEDURE OF CONSTRUCTION, OR THE SAFETY PRECAUTIONS AND THE PROGRAMS INCIDENT THERETO (NOR SHALL OBSERVATION VISITS TO THE SITE INCLUDE OR IMPLY INSPECTION OF THESE ITEMS).
2. WHERE REFERENCE IS MADE TO VARIOUS TEST STANDARDS FOR MATERIALS, SUCH STANDARDS SHALL BE THE LATEST EDITION AND/OR ADDENDA, ANY ENGINEERING DESIGN, PROVIDED BY OTHERS AND SUBMITTED FOR REVIEW SHALL BEAR THE SEAL OF A REGISTERED ENGINEER RECOGNIZED BY THE BUILDING CODE JURISDICTION OF THIS PROJECT.
3. NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL STRUCTURAL NOTES AND TYPICAL DETAILS. WHERE NO DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT, AND/OR PROVIDED FOR IN THE CONTRACT DOCUMENTS. WHERE DISCREPANCIES OCCUR BETWEEN PLANS, DETAILS, GENERAL STRUCTURAL NOTES AND SPECIFICATIONS, THE MOST STRINGENT REQUIREMENT SHALL GOVERN.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS PRIOR TO START OF CONSTRUCTION. RESOLVE ANY DISCREPANCY WITH THE ARCHITECT. ESTABLISH AND VERIFY ALL OPENINGS AND INSERTS FOR ARCHITECTURAL, CIVIL, MECHANICAL, PLUMBING AND ELECTRICAL ITEMS WITH APPROPRIATE TRADE DRAWINGS AND SUBCONTRACTORS PRIOR TO CONSTRUCTION.
5. TYPICAL DETAILS MAY NOT NECESSARILY BE CUT ON PLANS, BUT APPLY UNLESS NOTED OTHERWISE.
6. CONSTRUCTION MATERIALS SHALL BE SPREAD OUT IF PLACED ON FRAMED CONSTRUCTION, LOAD SHALL NOT EXCEED THE DESIGN LIVE LOAD PER SQUARE FOOT.
7. OPTIONS ARE FOR CONTRACTOR'S CONVENIENCE. IF AN OPTION IS CHOSEN, CONTRACTOR SHALL BE RESPONSIBLE FOR ALL NECESSARY CHANGES, APPROVALS AND THE COORDINATION OF THE WORK WITH ALL RELATED TRADES AND SUPPLIERS.

## STATEMENT OF SPECIAL STRUCTURAL INSPECTIONS:

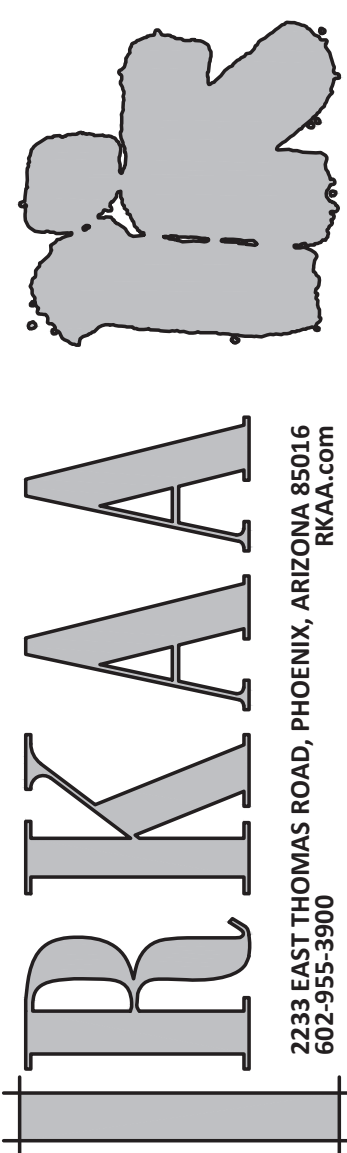
IN ADDITION TO THE INSPECTIONS REQUIRED BY SECTION 110 OF THE INTERNATIONAL BUILDING CODE, SPECIAL STRUCTURAL INSPECTIONS IS REQUIRED FOR THE WORK LISTED BELOW AS STATED IN SECTION 1704 AND 1705 OF THE INTERNATIONAL BUILDING CODE. THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK/TESTING ASSIGNED FOR CONFORMANCE WITH THE APPROVED DRAWINGS AND SPECIFICATIONS.

- 1. CONCRETE CONSTRUCTION: (REFERENCE IBC TABLE 1705.3)
\* CONTINUOUSLY DURING THE TAKING OF TEST SPECIMENS AND PLACING OF ALL CONCRETE.
\* NO INSPECTION IS REQUIRED DURING PLACEMENT OF CONCRETE FOR SLABS ON GRADE OR SPREAD FOOTINGS FOR LIGHT FRAMED BUILDINGS UP TO 3 STORES TALL (PLACEMENT OF ALL SLAB AND FOOTING REINFORCING SPECIAL INSPECTION AS NOTED BELOW).
\* VERIFY USE OF REQUIRED DESIGN STRENGTH.
2. BOLTS IN CONCRETE:
\* PRIOR TO AND CONTINUOUSLY DURING THE PLACEMENT OF CONCRETE AROUND BOLTS.
\* NO INSPECTION IS REQUIRED FOR PLACEMENT OF CONCRETE AROUND FOUNDATION ANCHOR BOLTS.
3. REINFORCING STEEL: (REFERENCE IBC SECTION 1705.3 AND TABLE 1705.3)
INSPECTION OF IN PLACE REINFORCING. THE SPECIAL INSPECTOR NEED NOT BE PRESENT CONTINUOUSLY DURING PLACEMENT OF REINFORCING STEEL PROVIDED THE SPECIAL INSPECTOR HAS INSPECTED FOR CONCRETE SHEATHING TO CLOSING FORMS OR THE DELIVERY OF CONCRETE TO THE JOBSITE.
\* FOR ALL CONCRETE HAVING SPECIAL STRUCTURAL INSPECTION PER ITEM 1.
\* FOR SLABS ON GRADE.
\* FOR CONCRETE FOOTINGS.
4. WELDING: (REFERENCE AISC 360 SECTION N; IBC TABLE 1705.2.2)
\* INSPECT WELDS ACCORDING TO AWS D1.1/D1.1M.
\* INSPECT WELDING OF REINFORCING STEEL ACCORDING TO AWS D1.4 AND A01 318.3.5.2.
\* SPECIAL INSPECTION IS REQUIRED FOR ALL WELDS NOT PERFORMED IN AN APPROVED FABRICATOR'S SHOP IN ACCORDANCE WITH SECTION 1704.3.1 OF THE INTERNATIONAL BUILDING CODE.
\* VERIFICATION OF THE QUALIFICATIONS OF WELDING PROCEDURES AND WELDERS.
\* AN AWS CERTIFIED WELDING INSPECTOR FROM AN INDEPENDENT TESTING LABORATORY SHALL VISUALLY INSPECT ALL FIELD WELDS.
5. EXPANSION AND EPOXY (ADHESIVE) ANCHORS: CONTINUOUS DURING THE PLACEMENT OF ALL ANCHORS.
\* ALL HOLES MUST BE DRILLED PRIOR TO SPECIAL INSPECTORS ARRIVAL ON SITE.
\* INSPECTOR TO VERIFY CORRECT DIAMETER AND DEPTH OF ALL HOLES AS WELL AS CORRECT ANCHOR TYPE, NUMBER, AND SPAcing OF ALL ANCHORS AND THE EPOXY (ADHESIVE) TYPE.
\* INSPECTOR TO OBSERVE BRUSHING AND CLEANING OF ALL HOLES WITH COMPRESSED AIR PER MANUFACTURERS REQUIREMENTS.

## SPECIAL STRUCTURAL INSPECTION NOTES:

- 1. CONTACT SIMPLY STRUCTURAL INC. PRIOR TO THE START OF CONSTRUCTION FOR ADDITIONAL INFORMATION.
2. SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL, THE ENGINEER OR ARCHITECT OF RECORD, AND OTHER DESIGNATED PERSONS AT A MINIMUM OF ONCE PER WEEK.
3. THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT STATING WHETHER THE WORK REQUIRING SPECIAL INSPECTION WAS, TO THE BEST OF THE INSPECTOR'S KNOWLEDGE, IN CONFORMANCE TO THE APPROVED PLANS AND SPECIFICATIONS AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE BUILDING CODE.
4. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR, THEN, IF UNCORRECTED, THE PROPER DESIGN AUTHORITY AND THE BUILDING OFFICIAL. THE SPECIAL INSPECTOR IS NOT AUTHORIZED TO APPROVE DEVIATIONS FROM THE DESIGN DRAWINGS OR SPECIFICATIONS.
5. CONTRACTOR SHALL PROVIDE THE SPECIAL INSPECTOR SAFE ACCESS TO ALL ITEMS REQUIRING SPECIAL INSPECTION. ACCESS SHALL BE PROVIDED VIA IN-PLACE LADDERS, SCAFFOLDING, AND/OR CONTRACTOR OPERATED LIFTS AS REQUIRED FOR SAFE OBSERVATION.
6. SPECIAL INSPECTIONS SHALL BE PERFORMED UNDER THE DIRECT SUPERVISION OF A STATE LICENSED STRUCTURAL ENGINEER WHO IS FAMILIAR WITH THE STRUCTURAL DESIGN OF THIS PROJECT. THE SUPERVISING STRUCTURAL ENGINEER SHALL SEAL THE SPECIAL INSPECTION CERTIFICATE.
7. CONTACT SIMPLY STRUCTURAL INC. FOR SPECIAL STRUCTURAL INSPECTIONS IN THE PHOENIX AREA AT (602) 443-0303 PRIOR TO STARTING CONSTRUCTION.
8. ALL SPECIAL INSPECTIONS REQUIRED IN 2018 IBC 1704 AND 1705 FOR THIS PROJECT MUST BE PERFORMED. THE SPECIAL INSPECTOR'S DAILY LOGS/REPORTS SHALL BE MAINTAINED ON-SITE BY THE PROJECT SUPERINTENDENT FOR USE AND REFERENCE BY THE TOC INSPECTION STAFF. A FINALIZED "CERTIFICATE OF SPECIAL INSPECTION" THAT HAS BEEN EXECUTED BY THE PROJECTS STRUCTURAL ENGINEER MUST BE PROVIDED TO THE TOC BUILDING INSPECTOR AT THE FINAL BUILDING INSPECTION. REF: 2012 IBC 1704.

Table with 2 columns: STANDARD ABBREVIATIONS. Lists various abbreviations and their corresponding full names, such as A.B. for ANCHOR BOLT, I.J. for ISOLATION JOINT, etc.



OWNER CHANGES: 08-22-24
CITY COMMENTS: 05-18-24
DATE: 08-27-24

CONSTRUCTION SET\_11-12-24

NOTES OF ALTERNATE BUILD OR PARTIAL BUILD: THE CONTRACTOR MAY ALLOW THE OWNER TO REQUIRE THE DRAWINGS AND INSTRUMENTS OF SERVICE. IF THE CONTRACTOR MAY ALLOW OWNER TO MAKE ANY OTHER CERTIFICATION AND APPROVAL OF BUILDING AND TESTING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. BUILDING CODE APPLICABLE TO THE PROJECT IS DETERMINED BY OWNER OR DESIGNER.

NEW COMMERCIAL PAD
PAD 58 AT PASEO LINDO SHOPPING CENTER
NEC OF ARIZONA AVE AND OCCITOLLO RD.
CHANDLER, AZ
CONSTRUCTION SET\_11-12-24

design by: LV
drawn by: GS
checked by: GS

S1.1
project #: 23057

Simply Structural Inc. #24-121 ENG:GS
730 N. 52nd Street, Suite 105 Phoenix, Arizona 85008
www.simplystructural.com

602-443-0303
Fax: 602-443-0404
8/9/2024 1:15 PM