GENERAL STRUCTURAL NOTES:

1. GENERAL STRUCTURAL NOTES ARE CONSTRUCTION DOCUMENTS THAT SHALL BE INCLUDED WITH THE STRUCTURAL PLANS AND PROJECT SPECIFICATIONS.
2. TYPICAL DETAILS AND SCHEDULES SHALL APPLY WHERE SPECIFIC DETAILS ARE NOT SHOWN.
3. "CONTRACTOR" REFERS TO THE CONTRACTOR OR SUB-CONTRACTOR RESPONSIBLE FOR THE PARTICULAR TRADE REFERRED TO IN THE NOTES. THE "CONTRACTOR" SHALL MEET ALL NOTE REQUIREMENTS AND SHALL INCLUDE THE ASSOCIATED COSTS IN HIS/HER BID.
4. C.E. REFERS TO COMPASS ENGINEERING, LLC
5. THE GENERAL CONTRACTOR, PROJECT MANAGER, OR SUPERINTENDENT SHALL COORDINATE THE WORK PERFORMED BY ALL TRADES, AND IS ULTIMATELY RESPONSIBLE FOR COMPLIANCE WITH ALL NOTE AND CODE REQUIREMENTS.
6. THE CONTRACTOR SHALL PERFORM HIS/HER TRADE AND DUTIES IN A MANNER CONFORMING TO THE PROCEDURES AND REQUIREMENTS AS STATED IN THE 2018 INTERNATIONAL BUILDING CODE (IBC), AND/OR THE LATEST CODE AND ORDINANCES ADOPTED BY THE LOCAL BUILDING OFFICIAL.
7. CONTRACTOR SHALL BE RESPONSIBLE FOR SAFETY AND PROTECTION WITHIN AND ADJACENT TO THE JOB SITE.
8. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND / OR ARCHITECT OF ANY DISCREPANCIES, OMISSIONS OR CONFLICTS BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWINGS, SPECIFICATIONS, AND / OR THE NOTES BEFORE PROCEEDING WITH THE FABRICATION OR CONSTRUCTION OF ANY EFFECTED ELEMENTS. ANY WORK DONE BY THE CONTRACTOR BEFORE RECEIVING THE ENGINEERS WRITTEN APPROVAL WILL BE AT THE CONTRACTOR'S RISK/EXPENSE. IN CASE OF CONFLICT, THE MOST STRINGENT REQUIREMENTS SHALL GOVERN AND BE PERFORMED AT NO ADDITIONAL COST TO THE OWNER.
9. FAILURE TO FOLLOW PLANS AND CONSTRUCTION DOCUMENTS CONSTITUTES CHANGE IN PROJECT SCOPE. THE ENGINEER RESERVES THE RIGHT TO REQUEST REPLACEMENT OF ANY PORTION OF THE STRUCTURE DEVIATING FROM THE PLANS WHERE WRITTEN APPROVAL HAS NOT BEEN OBTAINED. DEVIATION FROM CONSTRUCTION DOCUMENTS WITHOUT WRITTEN APPROVAL RELIEVES ENGINEER OF ALL LIABILITY, AND CONTRACTOR ASSUMES FULL LIABILITY.
10. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS, DIMENSIONS, SLOPES AND ELEVATIONS, ETC... (BOTH ON PLANS AND AT THE JOB SITE PRIOR TO DOING WORK), AND SHALL COORDINATE THESE WITH THE ARCHITECT AND ALL TRADES. CONSTRUCTION DRAWINGS SHALL NOT BE SCALED FOR DIMENSIONS.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR, PROVIDE AND INSTALLING ALL TEMPORARY SHORING AND BRACING AS NECESSARY. SHORING AND BEAMS SHALL SUPPORT ALL LOADS TO WHICH THE STRUCTURE MAY BE SUBJECTED (i.e. WIND, CONSTRUCTION LOADING, ETC.). SHORING SHALL REMAIN IN PLACE AS LONG AS SAFETY REQUIRES AND/OR UNTIL ALL THE STRUCTURAL ELEMENTS ARE COMPLETED.
12. DURING AND AFTER CONSTRUCTION, THE LOADS IMPOSED ON THE STRUCTURE BY THE CONTRACTOR AND OWNER SHALL BE WITHIN THE LIMITS OF THE OCCUPANCY DESIGN LOADS. SEE STRUCTURAL PLANS AND CALCULATIONS FOR THE OCCUPANCY DESIGN LOADINGS AND CRITERIA.
13. VISITS TO THE JOB SITE BY REPRESENTATIVES OF COMPASS ENGINEERING DO NOT CONSTITUTE APPROVAL OR SPECIAL INSPECTION OF THE WORK PERFORMED BY THE CONTRACTOR OR HIS SUBCONTRACTORS.
14. STRUCTURAL SHOP DRAWINGS SHALL BE APPROVED BY THE ENGINEER AND ARCHITECT OF RECORD PRIOR TO FABRICATION AND ERECTION. SHOP DRAWINGS SHALL BE STAMPED BY A PROFESSIONAL ENGINEER REGISTERED IN THE SAME STATE AS THE PROJECT.
15. SEE STRUCTURAL PLANS AND PROJECT SPECIFICATIONS FOR ADDITIONAL STRUCTURAL NOTES AND REQUIREMENTS.
16. ALL COMPONENTS AND SYSTEMS NOT SPECIFICALLY ENGINEERED BY THE ENGINEER OF RECORD SHALL BE "DESIGN-BUILD" BY THE CONTRACTOR. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING SHOP DRAWINGS OR AS-BUILT DRAWINGS STAMPED BY A PROFESSIONAL ENGINEER IF REQUIRED BY THE CITY. IF PRE-ENGINEERED SYSTEM IMPACTS THE ORIGINAL DESIGN FOR INTENT OF THE PROJECT IN ANY WAY, CONTRACTOR SHALL COORDINATE WITH ENGINEER OF RECORD PRIOR TO INSTALLATION.
17. PRE-ENGINEERED SYSTEMS SUCH AS JOISTS, TRUSSES, GREENHOUSES, POOLS, DECKS, ETC. SHALL BE ENGINEERED AND DETAILED BY OTHERS UNLESS SPECIFICALLY CONTRACTED OTHERWISE. THE ENGINEER OF RECORD IS NOT RESPONSIBLE FOR, NOR HAS ANY LIABILITY REGARDING PRE-ENGINEERED SYSTEMS. THE CONTRACTOR SHALL PROVIDE SHOP DRAWINGS AS REQUIRED. JOIST AND TRUSS, ETC.. PROVIDED BY THE ENGINEER ARE FOR COORDINATION AND ESTIMATING ONLY. THE JOIST AND TRUSS MANUFACTURER (OR OTHER MANUFACTURERS) ARE REPSONSIBLE FOR THE ACTUAL DESIGN BASED ON CODE PRESCRIBED, AND ACTUAL LOADS AND FORCES.
18. THE ENGINEER OF RECORD IS ONLY RESPONSIBLE FOR ITEMS SPECIFICALLY ENGINEERED BY HIM OR UNDER HIS DIRECT SUPERVISION. THE ENGINEER OF RECORD IS NOT LIABLE FOR ANY NON-STRUCTURAL ISSUES UNLESS SPECIFICALLY CONTRACTED OTHERWISE. C.E. IS NOT RESPONSIBLE FOR THE COST OF CONSTRUCTION NOR PROJECT BUDGETS, U.N.O. ANY
19. STRUCTURAL CHANGES REQUIRED BY THE CONTRACTOR, OWNER, ARCHITECT, ETC.. SHALL BE INVOICED BY C.E. AND TREATED AS ADDITIONAL SERVICES. C.E. SHALL BE COMPENSATED FOR ADDITIONAL ENGINEERING REQUIRED AS A RESULT OF ANY THIRD PARTY OR
20. CITY REVIEW. PROVIDED ORIGINAL DESIGN IS IN ACCORDANCE WITH THE CURRENT BUILDING CODE. OMISSIONS IDENTIFIED DURING PLAN REVIEW OR CONSTRUCTION SHALL BE ENGINEERED BY THE ENGINEER OF
21. RECORD AT NO ADDITIONAL COST TO THE OWNER. THE OWNER SHALL BE RESPONSIBLE FOR PAYMENT OF OMISSIONS THROUGH AN APPROVED CHANGE ORDER. THE CONTRACTOR IS RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION.
22. CHECKING OF SUBMITTAL ITEMS BY C.E. IS ONLY FOR GENERAL CONFORMATION WITH THE DESIGN CONCEPT
23. OF THE PROJECT AND GENERAL COMPLIANCE WITH THE INFORMATION GIVEN IN THE CONTRACT DOCUMENTS. ANY ACTION SHOWN IS SUBJECT TO THE REQUIREMENTS OF THE PLANS AND SPECIFICATIONS. CONTRACTOR IS RESPONSIBLE FOR: DIMENSIONS WHICH SHALL BE CONFIRMED AND CORRELATED AT THE JOB SITE; FABRICATION PROCESS AND TECHNIQUES OF CONSTRUCTION; COORDINATION OF HIS WORK WITH THAT OF ALL OTHER TRADES AND THE SATISFACTORY PERFORMANCE OF HIS WORK.

DESIGN CODE

2018 INTERNATIONAL BUILDING CODE (IBC)

DESIGN CRITERIA

SNOW LOADING:

SLOPED-ROOF SNOW LOAD, PS	=30PSF
SNOW EXPOSURE FACTOR, CE	=1.0
SNOW LOAD IMPORTANCE FACTOR, I	=1.0
THERMAL FACTOR, CT	=1.0

DESIGN LOADS

ROOF LIVE LOAD	=30PSF
ROOF DEAD LOAD	=15PSF
FLOOR LIVE LOAD	=40PSF
FLOOR DEAD LOAD	=12PSF

EARTHWORK:

DESIGN CRITERIA

1. SOILS REPORT:	NONE
2. SOIL BEARING PRESSURE:	1500 PSF
3. FROST PROTECTION:	30 INCHES
4. COEFF. OF FRICTION	0.35

REQUIREMENTS

1. CONTRACTOR TO REMOVE ETC. EXISTING FOOTINGS, FOUNDATIONS, SLABS, SITE PAVING, DEBRIS, AND STRUCTURES AS REQUIRED.
2. CONTRACTOR SHALL STRIP THE BUILDING AREA FROM ALL VEGETATION, DEBRIS AND TOPSOIL. CONTRACTOR SHALL EXCAVATE ANY REMAINING LOOSE NATURAL OR FILL SOILS TO EXPOSE COMPETENT NATURAL SOILS.
3. CONTRACTOR SHALL CHECK FOR SOFT SPOTS OR OTHER UNSUITABLE SOILS BY PROOF ROLLING THE ENTIRE BUILDING PAD AREA WITH NORMAL COMPACTION EQUIPMENT. REMOVE UNSUITABLE MATERIALS AND REPLACE WITH COMPACTED ENGINEERED STRUCTURAL FILL OR 2,000 PSI LEAN CONCRETE. (FLOWABLE FILL). IF THE GROUND WATER IS HIGH, PROOFROLLING IS NOT RECOMMENDED AND 2 FEET OF STRUCTURAL SITE GRADING FULLS ARE RECOMMENDED TO RAISE THE OVERALL SITE GRADE.
4. ENGINEERED OR STRUCTURAL FILL MATERIAL SHALL BE WELL-GRADED, GRANULAR, WITH A MAXIMUM SIZE LESS THAN 4 INCHES, AND NOT MORE THAN 18 PERCENT FINES PASSING A NO. 200 SIEVE. PLACE STRUCTURAL FILL IN MAXIMUM LIFTS OF 8 INCHES. COMPACT STRUCTURAL FILL TO 95 PERCENT OF THE MAXIMUM LABORATORY DENSITY AS DETERMINED BY ASTM D 1557, UNO. TEST ALL STRUCTURAL FILL. FILL MATERIAL AND PLACEMENT OF ALL FILL MATERIAL MUST MEET THE APPROVAL OF THE SOILS ENGINEER.
5. SEE PLANS FOR THICKNESS OF ALL FLOOR SLABS. UNDERLAY ALL SLABS WITH AT LEAST A 4 INCH THICK LAYER OF FREE-DRAINING GRANULAR MATERIAL. GRANULAR MATERIAL SHALL BE "PEA" GRAVEL OR ¾ - 1 INCH MINUS CLEAN GAP-GRADED GRAVEL.
6. REFER TO THE PROJECT SPECIFICATIONS AND SOILS REPORT FOR FURTHER EARTHWORK REQUIREMENTS.
7. ANY UNFORSEEN CONDITIONS ENCOUNTERED DURING SITE PREPARATION SHALL BE BROUGHT TO THE ATTENTION OF THE SOILS ENGINEER.
8. THE CONTRACTOR SHALL BE RESPONSIBLE TO HAVE ALL SITE SOILS CONDITIONS FIELD VERIFIED.
9. EXPANSIVE SOILS, COLLAPSIVE SOILS, SOILS WITH A HIGH LIQUEFACTION POTENTIAL, HIGH WATER TABLE, STEEP SLOPES, ETC. ALL REQUIRE ADDITIONAL ENGINEERING. CONTRACTOR TO COORDINATE WITH PROJECT ENGINEER AND SOILS ENGINEER.
10. IF NO SOILS REPORT HAS BEEN PROVIDED THE SOILS DESIGN CRITERIA HAS BEEN ASSUMED PER TABLE 1804.2 OF THE IBC. A BEARING PRESSURE OF 1500 PSF HAS BEEN USED FOR DESIGN. THE CONTRACTOR AND OWNER ARE RESPONSIBLE TO HAVE ALL SITE CONDITIONS, SOILS, FILLS, ETC.. FIELD VERIFIED PRIOR TO STARTING CONSTRUCTION.
11. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DE-WATERING AS REQUIRED FOR CONSTRUCTION.
12. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY BRACED, TIEBACK, SLURRY WALLS OR SHEET PILING REQUIRED FOR EXCAVATIONS.
13. ALL EARTHWORK, MATERIALS AND PLACEMENT MUST MEET THE APPROVAL OF THE GEOTECHNICAL / SOILS ENGINEER.
14. BACKFILL AROUND FOUNDATION WALLS SHALL BE PERFORMED USING GRANULAR MATERIAL. CARE SHALL BE TAKEN IN PLACING BACKFILL MATERIALS SO AS NOT TO DAMAGE THE FOUNDATION. CONTRACTOR TO MONITOR AS NEEDED.

CONCRETE NOTES

1. ALL WORK SHALL BE IN STRICT ACCORDANCE WITH THE 2018 IBC, ACI 318, AND LOCAL ORDINANCES.
2. CONTRACTOR SHALL COORDINATE WITH MECHANICAL, ELECTRICAL, AND ARCHITECTURAL PRIOR TO PLACING CONCRETE. PROVIDE SLEEVES, BLOCK OUTS, ETC... AS REQUIRED.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER PLACEMENT OF ALL ANCHOR BOLTS, SEISMIC ANCHORS OR STRAPS, ETC... INSTALL PER MANUFACTURER'S SPECIFICATIONS.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN, DETAILING, CARE, PLACEMENT AND REMOVAL OF ALL FORMWORK AND SHORES.
5. DO NOT REMOVE FORMS AND SHORING UNTIL STRUCTURAL MEMBERS ACQUIRE SUFFICIENT STRENGTH TO SUPPORT THEIR OWN WEIGHT PLUS CONSTRUCTION LOADS.

CONCRETE AND REINFORCING MATERIAL

1. REQUIRED MIN. 28 DAY COMPRESSIVE STRENGTH OF CONCRETE:

A. FOOTINGS AND FOUNDATIONS:	3000 PSI
B. INTERIOR SLABS ON GRADE:	3000 PSI U.N.O.
C. WALLS:	4000 PSI
D. CONCRETE OVER STEEL DECK:	4000 PSI
E. SITE CONCRETE:	4000 PSI

2. PROVIDE NORMAL WEIGHT AGGREGATES PER ASTM C-33. U.N.O.
3. PROVIDE TYPE I OR II CEMENT PER ASTM C-150 FOR ALL CONCRETE. U.N.O.
4. MAXIMUM WATER TO CEMENT RATIO IS EQUAL TO 0.50 FOR ALL CONCRETE.
5. MAXIMUM SLUMP OF CONCRETE IS EQUAL TO 4 INCHES PLUS OR MINUS 1 INCH.
6. PROVIDE AIR ENTRAINING AS RECOMMENDED BY ACI 318 AND ASTM C-260.
7. DO NOT ADD CALCIUM CHLORIDE TO CONCRETE MIX.
8. THE MAX. CHLORIDE ION CONTENT FOR CORROSION PROTECTION OF REINFORCEMENT IS 0.15% BY WEIGHT OF CEMENT.
9. SEE PROJECT SPECIFICATIONS FOR ADDITIONAL CONCRETE DESIGN REQUIREMENTS.

FOOTINGS

1. ALL FOOTINGS SHALL BE 12" THICK & PROPERLY FORMED. INTERIOR FOOTINGS MAY BE MONOLITHIC WITH SLAB.
2. ALL EXTERIOR FOOTINGS SHALL BEAR BELOW FROST DEPTH (30 INCHES, FIELD VERIFY)
3. FOOTINGS SHALL BEAR ON UNDISTURBED NATURAL MATERAL, OR ON PROPERLY PLACED ENGINEERED FILL, SEE EARTHWORK NOTES FOR ADDITIONAL REQUIREMENTS, AND SOILS REPORT.
4. CONTRACTOR SHALL STEP FOOTINGS & FOUNDATION AS REQUIRED.
5. NO FOOTING SHALL BE PLACED IN WATER OR ON FROZEN GROUND.

REINFORCEMENT

1. ALL REINFORCING STEEL SHALL BE GRADE 60 BARS PER ASTM A615. FIELD BENT DOWELS MAY BE GRADE 40.
2. ALL DEFORMED BAR ANCHORS SHALL CONFORM TO ASTM A496.
3. ALL HEADED STUD ANCHORS SHALL CONFORM TO ASTM A108.
4. ALL WELDED WIRE FABRIC SHALL CONFORM TO ASTM 185. LAP ONE MESH TIE.
5. ALL REINFORCING STEEL SHALL BE DETAILED AND PLACED IN ACCORDANCE WITH THE ACI DETAILING MANUAL AND ACI STANDARDS (LATEST ADDITION).
6. REINFORCING STEEL AND EMBEDS SHALL BE PROPERLY TIED INTO PLACE PRIOR TO PLACING CONCRETE.
7. ALL SPLICES IN REINFORCING BARS SHALL LAP A MINIMUM OF 40 BAR DIAMETERS (U.N.O.). ALL SPLICES SHALL OCCUR IN A COMPRESSION ZONE UNLESS NOTED OTHERWISE. TERMINATE ALL REINFORCING BARS WITH A 90 DEG. BEND OR WITH SEPARATE CORNER BARS.
8. MECHANICAL SPLICES SHALL BE POSITIVE CONNECTING COUPLERS AND SHALL MEET ALL APPLICABLE CODE REQUIREMENTS. ADJACENT MECHANICAL SPLICES SHALL BE STAGGERED A MINIMUM OF 24 INCHES ALONG THE REINFORCING BARS. TENSILE CAPACITY OF MECHANICAL SPLICES SHALL BE 125% OF THE SPLICED BAR.
9. HORIZONTAL REINFORCEMENT SHALL BE CONTINUOUS THROUGH CONSTRUCTION AND CONTROL JOINTS.
10. DO NOT SPLICE STIRRUPS AND TIES.
11. DO NOT WELD REINFORCING BARS. DO NOT SUBSTITUTE REINFORCING BARS FOR DEFORMED ANCHOR BARS OR HEADED ANCHOR STUDS.
12. REINFORCEMENT SHALL HAVE THE FOLLOWING CLEAR COVER:

A. CAST-IN-PLACE CONCRETE:

i. CAST AGAINST/PERMANENTLY EXPOSED TO EARTH	3"
ii. FORMED CONCRETE EXPOSED TO EARTH/WEATHER:	
a. #6 THRU #18 BARS	2"
b. #5 AND SMALLER BARS	1-1/2"
iii. CONCRETE NOT EXPOSED EARTH/WEATHER:	
a. SLABS, WALLS, JOISTS (#11 AND SMALLER)	3/4"
b. BEAMS, COLUMNS, TIES, STIRRUPS	1-1/2"

FOUNDATION AND RETAINING WALLS

1. BRACE WALLS AS REQUIRED UNTIL FLOOR SLABS AND/OR FLOOR FRAMING ARE IN PLACE, AND UNTIL WALLS HAVE PROPERLY CURED.
2. BACKFILL ADJACENT TO FOUNDATION WALLS OR IN LANDSCAPED AREAS SHALL BE PLACED IN 8 INCH MAXIMUM LOOSE LIFTS. FILL SHALL BE COMPACTED TO AT LEAST 90% AND HAVE THE MOISTURE CONTENT WITHIN 2% OF OPTIMUM MAXIMUM DENSITY (ASTM D 1557). HEAVY EQUIPMENT SHALL NOT BE USED TO BACKFILL WITHOUT PRIOR CONSENT OF THE ENGINEER.
3. SEE ARCHITECTURAL DRAWINGS FOR DRAINAGE METHOD BEHIND FOUNDATION AND RETAINING WALLS.
4. CONSTRUCTION JOINTS (COLD JOINTS) IN WALLS SHALL BE WATERPROOFED TO PREVENT LEAKS.
5. DO NOT SPLICE VERTICAL BARS IN RETAINING WALLS UNLESS SPECIFICALLY SHOWN.
6. CONTRACTOR SHALL COORDINATE STEPS IN WALLS WITH THE ARCHITECT, AND SHALL VERIFY WITH COMPASS ENGINEERING.
7. PROVIDE CORNER BARS AT INTERSECTING WALL CORNERS USING THE SAME BAR SIZE AND SPACING AS THE HORIZONTAL WALL REINFORCING.
8. PROVIDE VERTICAL DOWELS INTO FOOTINGS AND FOUNDATIONS THAT MATCH THE SIZE AND SPACING OF THE VERTICAL REINFORCEMENT IN THE ABOVE MEMBER.
9. DO NOT SURCHARGE FDN. AND RETAINING WALLS WITH EQUIPMENT NOR STAGING.
10. PROVIDE (2) #5 BARS MIN. AROUND ALL DOOR AND WINDOW OPENINGS. U.N.O.
11. PENETRATIONS THROUGH PANELS SHALL BE REINFORCED BY PROVIDING ONE ADDITIONAL BAR AT THE EDGE OF OPENING FOR EACH BAR INTERUPTED BY THE PENETRATION. PROVIDE UNIFORM NUMBER OF BARS EACH SIDE. PROVIDE (2) #5 DIAGONAL BARS ON 4 SIDES TYP. U.N.O.
12. SEE SCHEDULES, TABLES, AND DETAILS FOR ADDITIONAL REINFORCING AND INFORMATION.

SLABS

1. SLABS ON GRADE WILL BE 4" THICK U.N.O. REINFORCE ALL SLABS W/ #4 @ 18" O.C. EACH WAY, OR WITH 6 x 6 - W2.1xW2.1 WELDED WIRE FABRIC (WWF) UNLESS NOTED OTHERWISE ON THE PLAN. REINFORCEMENT SHALL BE PLACED 1/4th THE SLAB THICKNESS + 1/2" BELOW THE TOP OF SLAB. WELDED WIRE FABRIC MAY BE 100% VIRGIN POLYPROPYLENE FIBRILLATED FIBERS PER CUBIC SUBSTITUTED WITH 1.5 POUNDS OF 100 YARD OF CONCRETE. U.N.O.
2. ALL REINFORCING BARS SHALL BE CHAIRED IN THE SLAB. WWF SHALL BE CONTINUOUSLY SUPPORTED AT 36" ON CENTER PRIOR TO PLACING CONCRETE.
3. BEGIN POUR OF COMPOSITE STEEL DECK AND CONCRETE FLOORS AT OR NEAR A SUPPORT OR BEARING WALL TO AVOID EXCESSIVE DEFLECTION AND/OR STRESSING OF THE FLOOR STRUCTURE. SEE SUSPENDED SLAB CONSTRUCTION NOTES FOR ADDITIONAL REQUIREMENTS.
4. RECESS FOUNDATION AND POUR SLABS THROUGH, TYPICAL AT ALL EXTERIOR DOORS AND STORE FRONT TYPE WINDOWS.
5. DEPRESS SLABS AS REQUIRED IN AREAS OF CERAMIC TILE, SPECIAL ENTRY MATS, HARDWOOD FLOORS, ETC. COORDINATE LOCATION AND DEPTH WITH THE ARCHITECT.
6. PROVIDE ISOLATION JOINTS AROUND COLUMNS/SPREAD FOOTINGS, AND CONTROL JOINTS AS REQUIRED (I.E., WHERE SLABS TRANSITION IN SIZE).
7. THE CONTRACTOR SHALL ENSURE THAT HEAVY EQUIPMENT AND STAGING AREAS DO NOT CRACK AND DAMAGE SLABS. DAMAGED SLABS SHALL BE REPAIRED OR REPLACED AT NO ADDITIONAL EXPENSE TO THE OWNER.
8. PROVIDE 2 - #4 BARS X 48 INCHES AT ALL DISCONTINUOUS CONTROL OR CONSTRUCTION JOINTS IN SLAB-ON-GRADE.
9. SPACING BETWEEN CONSTRUCTION OR CONTROL JOINTS IN SLABS-ON-GRADE SHALL NOT EXCEED 15'-0" FOR 4" THICK SLABS AND 20'-0" FOR 5" AND 6" THICK SLABS.
10. THE LENGTH TO WIDTH RATIO OF CONTROL JOINTS SHALL NOT EXCEED 1.25:1. CONSTRUCTION AND CONTROL JOINTS SHALL BE INSTALLED AS DETAILED IN THE DRAWINGS.
11. SAWCUT JOINTS SHALL BE MADE WITHIN 12 HOURS AT PLACING CONCRETE.
12. PROVIDE (1) DIAGONAL #4 BAR x 48" AT ALL INSIDE CORNERS.
13. ALL SLABS SHALL BE PROPERLY CURED.
14. REFER TO THE ARCHITECTURAL PLANS FOR SPECIFICATION OF ALL FLAT WORK.
15. PROVIDE 4" MIN. OF FREE-DRAINING GRANULAR MATERIAL, "PEA" GRAVEL OR 3/4" TO 1" MINUS CLEAN GAP-GRADED GRAVEL, UNDER ALL SLABS-ON-GRADE.
16. PROPERLY CURE ALL CONCRETE. ALL CONCRETE (OTHER THAN HIGH-EARLY-STRENGTH) SHALL BE MAINTAINED ABOVE 50 F AND A MOIST CONDITION FOR AT LEAST THE FIRST 7 DAYS AFTER PLACEMENT, (HIGH-EARLY-STRENGTH CONCRETE TO REMAIN IN A MOIST CONDITION FOR THE FIRST 3 DAYS) EXCEPT WHEN CURED IN ACCORDANCE WITH ACI 318-"ACCELERATED CURING".

STEEL NOTES:

1. ALL WORK TO BE IN STRICT ACCORDANCE WITH THE 2018 IBC, LOCAL ORDINANCES, AWS STRUCTURAL WELDING CODE, AND THE FOLLOWING AISC PUBLICATIONS: "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUTURAL STEEL FOR BUILDINGS" WITH "COMMENTARY", "CODE OF STANDARD PRACTICE", SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS", AND "SEISMIC PROVISION FOR STRUCTURAL BUILDINGS".
2. ALL DIMENSIONS AND CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION AND ERECTION.
3. SEE ARCHITECTURAL SHEETS FOR DIMENSIONS AND DECK BEARING ELEVATIONS.
4. SEE ARCHITECTURAL FOR ACCESS HATCHES, DRAFT STOPS, ETC.
5. SEE ARCHITECTURAL, MECHANICAL AND ELECTRICAL FOR ADDITIONAL STEEL MEMBERS (BRACKETS, ANGLES, ETC...) REQUIRED.
6. SUBMIT SHOP DRAWINGS OF ALL STRUCTURAL STEEL, STEEL JOISTS, STEEL DECKING AND MISCELLANEOUS STEEL TO COMPASS ENGINEERING, LLC. FOR APPROVAL PRIOR TO FABRICATION.
7. ALL STEEL SHALL BE PROPERLY PRIMED EXCEPT AREAS THAT REQUIRE FIELD WELDING.
8. PROVIDE A STANDARD AISC FRAMED CONNECTION FOR ONE HALF THE BEAM'S TOTAL UNIFORM LOAD CAPACITY WHERE A CONNECTION IS NOT SHOWN.
9. STEEL DETAILER SHALL PROVIDE STANDARD STAIR DETAILING INCORPORATING C12 x 20.7 STRINGERS OR APPROVED EQUAL (U.N.O.). SUBMIT DRAWINGS FOR APPROVAL PRIOR TO FABRICATION.
10. PROVIDE ADDITIONAL STEEL AS REQUIRED FOR; POUR STOPS, DECK ANGLES @ ROOF AND FLOORS, DECK SUPPORT ANGLES AS NEEDED, ROOF AND FLOOR DIAPHRAGM CHORDS, CLIP ANGLES, ETC.. AS NEEDED.
11. REINFORCE DECK OPENINGS FOR SKYLIGHTS, ACCESS HATCHES, MECHANICAL EQUIPMENT, ETC. WITH L4x4x3/8" OR L6x4x5/16" U.N.O., ON ALL EDGES. ANGLES SHALL SPAN BETWEEN JOISTS AND BETWEEN OTHER ANGLES ETC... AS REQUIRED. USE 1/4" MIN. FILLET WELDS.
12. ANY CONNECTION NOT DETAILED SHALL BE THE RESPONSIBLILITY OF THE STEEL FABRICATOR. CONNECTIONS MUST BE DESIGNED BY A LICENSED PROFESSIONAL ENGINEER. CONNECTIONS MUST ACCOUNT FOR ALL LOADS & STRESSES INCLUDING BUT NOT LIMITED TO ; GRAVITY, SEISMIC, WIND, THERMAL STRESSES, EXPANSION / CONTRACTION ETC...
13. CAMBERING OF STEEL BEAMS SHALL BE PROVIDED BY LOCAL STEEL FABRICATOR OF STEEL MILL. SHOP CAMBERING OF BEAMS SHALL BE DONE BY A HEAT/SHRINK METHOD. ANY OTHER METHOD OF CAMBERING SHALL BE APPROVED BY AISC AND PROJECT ENGINEER.
14. ALL EXPOSED STEEL SHALL HAVE WELDS GROUND SMOOTH.

MATERIALS

1. WIDE FLANGE SECTIONS:	ASTM A992 (50 KSI).
2. OTHER SHAPES AND PLATES:	ASTM A36.
3. TUBULAR COLUMNS:	ASTM A500 GRADE B (46 KSI).
4. PIPE COLUMNS:	ASTM A501 (36 KSI) OR A53 GRADE B.
5. DEFORMED BAR ANCHORS:	ASTM A496
6. HEADED STUD ANCHORS:	ASTM A108
7. ANCHOR BOLTS:	ASTM A307 WITH ASTM A563 HEAVY HEX NUTS WITH HARDENED WASHERS GRADE A (U.N.O.)
8. BOLTED CONNECTIONS:	ASTM A325-N (3/4" DIAMETER MIN.)
9. WELDS:	E70 XX AT ALL JOISTS E60 XX AT ALL DECKS E70 XX AT ALL OTHER LOCATIONS

CONSTRUCTION

1. ALL WELDS AND BOLTING TO MEET APPROVAL OF SPECIAL INSPECTOR AS REQUIRED BY BUILDING OFFICIAL.
2. ALL WELDING AND CUTTING SHALL BE PERFORMED BY AWS CERTIFIED WELDERS.
3. ALL INTERSECTING STEEL SHAPES WHICH ARE NOT BOLTED SHALL BE CONNECTED BY A FILLET WELD ALL AROUND, UNLESS NOTED OTHERWISE.
4. FOR THICKNESSES 1/4" AND LARGER, WELD SIZES SHALL BE 1/16" LESS THAN THE THINNEST CONNECTED PART, UNLESS NOTED OTHERWISE. FOR THICKNESSES LESS THAN 1/4", WELD SIZE SHALL BE THE SAME SIZE AS THE THINNEST CONNECTED PART, UNLESS NOTED OTHERWISE.
5. DO NOT WELD REBAR OR ANCHOR BOLTS, INCLUDING "TACK" WELDS.
6. WELD HEADED STUD ANCHORS AND DEFORMED BAR ANCHORS PER MANUFACUTER'S SPECIFICATIONS.
7. TIGHTEN BOLTS BY THE TURN OF THE NUT, CALIBRATED WRENCH, OR DIRECT TENSION INDICATOR METHOD.
8. USE HARDENED WASHERS BENEATH THE TURNED ELEMENT OF ALL BOLTS OR NUTS. ALSO USE HARDENED BEVELED WASHERS TO COMPENSATE FOR THE LACK OF PARALLELISM.
9. PROVIDE HARDENED WASHERS BENEATH THE HEAD AND NUT WHERE A490 BOLTS ARE SPECIFIED PER AISC REQUIREMENTS.
10. HARDENED WASHERS AND PLATES AT OVERSIZED HOLES SHALL CONFORM TO ASTMF-436 AND SHALL .COMPLETELY COVER THE SLOT AFTER INSTALLATION.
11. DO NOT REUSE BOLTS, NUTS OR WASHERS.
12. PROVIDE FULL-DEPTH STIFFENER PLATES AT EACH SIDE OF ALL BEAMS AT ALL BEARING POINTS. STIFFENER PLATE THICKNESS EQUALS THE BEAM WEB THICKNESS (1/4" MIN.). FILLET WELD BOTH SIDES OF STIFFENER, ALL AROUND.
13. STANDARD PENETRATIONS THROUGH STRUCTURAL MEMBERS FOR MECHANICAL, PLUMBING, ELECTRICAL SYSTEMS, ETC. SHALL BE PROVIDED ON THE CENTER LINE OF THE MEMBER'S DEPTH AND WITHIN THE MIDDLE ONE-THIRD OF THE SPAN. PENETRATIONS LARGER THAN STANDARD (OR GREATER THAN 1/3 THE BEAM DEPTH) ARE NOT PERMITTED WITHOUT PRIOR WRITTEN APPROVAL FROM COMPASS ENGINEERING, LLC.

WOOD FRAMING NOTES:

1. ALL WORK TO BE IN STRICT ACCORDANCE WITH THE 2018 IBC, NDS, AND LOCAL ORDINANCES.

ENGINEERED LUMBER

1. GLU-LAMINATED BEAMS FOR SIMPLE SPANS SHALL BE 24F-V4 DF/DF. GLU-LAMINATED BEAMS FOR CONTINUOUS SPANS AND CANTILEVERS SHALL BE 24F-V8 DF/DF. DO NOT INSTALL GLU-LAMINATED BEAMS UPSIDE DOWN.
2. LAMINATED VENEER LUMBER AND THE LIKE SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS AND SPECIFICATIONS.
3. I-JOISTS SHALL BE TJI OR EQUIVALENT, AND SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS AND SPECIFICATIONS.
4. ENGINEERED LUMBER, WITH THE EXCEPTION OF GLU-LAMINATED LUMBER, SHALL NOT BE USED IN EXTERIOR APPLICATIONS.
5. USE REDWOOD OR PRESSURE TREATED LUMBER FOR ALL WOOD IN CONTACT WITH CONCRETE, MASONRY, OR EARTH (i.e. MUD SILL).

DIMENSIONAL LUMBER

1. DIMENSIONAL LUMBER USED AS STRUCTURAL FRAMING (i.e. JOISTS, RAFTERS, AND HEADERS) SHALL BE DOUGLAS FIR-LARCH NO.2 OR EQUAL.
2. DIMENSIONAL LUMBER USED FOR STUD WALLS SHALL BE STUD GRADE 2x6 UNLESS NOTED OTHERWISE. SPACE AT 16" O.C. MINIMUM, WITH A DOUBLE TOP PLATE. SPLICES IN THE DOUBLE TOP PLATE SHALL ALTERNATE TOP AND BOTTOM.
3. ALL SILL PLATES ARE TO BE BOLTED TO FOUNDATION w/ 5/8" DIA x 10" J-BOLTS @ 32" O.C. MAXIMUM, UNLESS NOTED OTHERWISE ON THE STRUCTURAL DRAWINGS AND SHEARWALL SCHEDULE.
4. IN NO CASE SHALL 2 X 4" BEARING WALLS SUPPORT MORE THAN TWO FLOORS OF FRAMING IN ADDITION TO ROOF AND CEILING.
5. REFER TO CONSTRUCTION DOCUMENTS FOR ROUGH CUT TIMBER USED AS STRUCTURAL FRAMING.
6. ALL NAILS SPECIFIED ON THE DETAILS AND SCHEDULES SHALL BE COMMON NAILS UNLESS NOTE OTHERWISE.

COLUMNS

1. ALL COLUMNS SHALL EXTEND DOWN THROUGH THE STRUCTURE TO THE FOUNDATION.
2. COLUMNS SHALL BE BRACED AT EACH FLOOR LEVEL.
3. POSTS SHALL BE DOUGLAS FIR-LARCH NO. 1 OR EQUAL.
4. BEARING POINTS OF COLUMNS ARE TO BE SUPPORTED BY ADDITIONAL BUILT-UP BLOCKING AT JOISTS AND RAFTERS EQUAL TO THE NUMBER OF PLYS IN POST OR EQUAL TO WIDTH OF POST. BLOCKING SHALL BE CONSTRUCTED USING RIM BOARD MATERIAL OR SOLID SAWN LUMBER.

FLOOR, ROOF AND WALL SHEATHING

1. ALL ROOF SHEATHING SHALL BE A MINIMUM OF 15/32" APA EXP. 1 RATED SHEATHING OR EQUAL WITH 8d COMMON NAILS AT 6" O.C. PERIMETER, 6" O.C. PANEL EDGES, AND AT 12" O.C. IN THE FIELD UNLESS NOTED OTHERWISE ON SHEATHING SCHEDULE.
2. PROVIDE 2 X SHAPED BLOCKING AT RIDGES UNLESS A CONTINUOUS MEMBER EXISTS. PANEL EDGES ARE UNBLOCKED UNLESS NOTED OTHERWISE ON THE STRUCTURAL PLANS.
3. ALL FLOOR SHEATHING SHALL BE A MINIMUM OF 3/4" THICK T&G SHEATHING GLUED AND NAILED WITH 10d COMMON NAILS OR EQUAL AT 6" O.C. PERIMETER, 6" O.C. PANEL EDGES, AND AT 10" O.C. IN THE FIELD UNLESS NOTED OTHERWISE ON SHEATHING SCHEDULE. PANEL EDGES ARE UNBLOCKED UNLESS NOTED OTHERWISE ON THE STRUCTURAL PLANS.
4. ALL EXTERIOR WALLS SHALL BE SHEATHED WITH 7/16" APA EXP. 1 RATED SHEATHING OR EQUAL WITH 8d COMMON NAILS AT 6" O.C. EDGES AND AT 12" O.C. IN THE FIELD - FLAT BLOCKED AT ALL PANEL EDGES, UNLESS NOTED OTHERWISE IN THE STRUCTURAL PLANS AND SHEAR WALL SCHEDULE.
5. AT ROOF AND FLOOR DIAPHRAGMS, PANEL EDGE NAILING IS TO INCLUDE DRAG STRUTS, TENSION CHORDS, BLOCKING OVER BEARING WALLS AND SHEAR WALLS, AND ANY OTHER SPECIAL DIAPHRAGM MEMBERS NOTED ON PLANS.
6. AT SHEAR WALLS, PANEL EDGE NAILING IS TO INCLUDE TOP AND BOTTOM PLATES, END POSTS, ALL VERTICAL ELEMENTS @ HOLDOWN ANCHORS, AND HORIZONTAL BLOCKING. ALL PANEL EDGES MUST BE BLOCKED.

STRUCTURAL CONNECTIONS

1. THE CONTRACTOR IS ULTIMATELY RESPONSIBLE TO PROVIDE ADEQUATE STRUCTURAL CONNECTIONS. CONNECTIONS MUST CARRY THE BEARING CAPACITY OF THE MEMBER AND ANY UPLIFT OR SEISMIC FORCES GENERATED IN THE MEMBER. SPECIAL CONSIDERATION SHALL BE GIVEN TO PREVENT CRUSHING OF THE MEMBER AT BEARING, SPLITTING AND / OR CRACKING OF THE WOOD, ETC.
2. WRITTEN PRIOR APPROVAL FROM COMPASS ENGINEERING IS REQUIRED FOR ANY DEVIATION FROM THE CONSTRUCTION DOCUMENTS. COMPASS ENGINEERING IS NOT RESPONSIBLE FOR CONNECTIONS NOT APPROVED PRIOR TO CONSTRUCTION OR INSTALLATION.
3. PROVIDE SIMPSON CONNECTIONS OR EQUAL IF CONNECTION DETAILS ARE NOT PROVIDED IN THE CONSTRUCTION DOCUMENTS. INSTALL PER MANUFACTURERS RECOMMENDATIONS. REQUEST ADDITIONAL ASSISTANCE FROM COMPASS ENGINEERING IF NON-STANDARD CONNECTIONS ARE REQUIRED.
4. ALL STRUCTURAL MEMBERS SHALL HAVE 1 3/4" BEARING (MINIMUM).
5. SEE SCHEDULES IN THE 2018 IBC FOR ADDITIONAL NAILING PATTERNS.
6. FASTENERS USED BELOW GRADE IN PONY WALLS, CRIPPLE WALLS OR KNEE WALLS AND FASTENERS USED TO ATTACH SHEATHING TO THE EXTERIOR FACE OF EXTERIOR BASEMENT OR CRAWLSPACE WALL STUDS SHALL BE TYPE 304 OR 316 STAINLESS STEEL.
7. FASTENERS USED ABOVE GRADE TO ATTACH SHEATHING TO PRESSURE TREATED SILL PLATES SHALL BE OF TYPE 304 OR 316 STAINLESS STEEL, SILICON BRONZE, COPPER, HOT-DIPPED GALVANIZED (ZINC COATED) STEEL NAILS, OR HOT-TUMBLED GALVANIZED (ZINC COATED) STEEL NAILS. ELECTRO-GALVANIZED STEEL NAILS AND GALVANIZED (ZINC COATED) STEEL STAPES SHALL NOT BE PERMITTED.

BLOCKING, BRIDGING, MISCELLANEOUS.

1. ALL JOISTS AND RAFTERS SHALL HAVE FULL-HEIGHT SOLID BLOCKING AT THEIR BEARING POINTS. CONNECT EACH BLOCK TO THE TOP OF EXTERIOR WALLS WITH SIMPSON A34 CLIPS (U.N.O.). EACH RAFTER AND/OR ROOF TRUSS SHALL BE ANCHORED WITH SIMPSON H1 ANCHORS AT EACH END.
2. I-JOIST JOISTS USED AS JOISTS AND RAFTERS SHALL HAVE FULL-HEIGHT SOLID BLOCKING AT THEIR BEARING POINTS. CONNECT EACH BLOCK TO THE TOP OF EXTERIOR WALLS WITH SIMPSON A34 CLIPS (U.N.O.). EVERY OTHER I-JOIST RAFTER SHALL BE ANCHORED WITH A SIMPSON H3 CLIP.
3. INSTALL BRIDGING AT THE MID-SPAN OF ALL FLOOR JOISTS AND/OR AT 8'-0 O.C. (WHICH EVER IS SMALLER). INSTALLATION SHALL BE PER MANUFACTURER'S RECOMMENDATIONS AND SPECIFICATIONS TO AVOID EXCESSIVE FLOOR VIBRATION AND/OR SQUEAKING.
4. STANDARD PENETRATIONS THROUGH STRUCTURAL MEMBERS FOR MECHANICAL, PLUMBING, ELECTRICAL SYSTEMS, ETC. SHALL BE PROVIDED ON THE CENTER LINE OF THE MEMBER'S DEPTH AND WITHIN THE MIDDLE ONE-THIRD OF THE SPAN. LARGER THAN STANDARD PENETRATIONS ARE NOT PERMITTED WITHOUT PRIOR APPROVAL.
5. BIRDS MOUTHS AND/OR NOTCHING OF STRUCTURAL MEMBERS NOT SPECIFICALLY DETAILED ON THE STRUCTURAL PLANS IS NOT PERMITTED WITHOUT PRIOR WRITTEN APPROVAL.

FABRICATED FRAMING

1. FABRICATED (PRE-ENGINEERED) TRUSSES MAY BE USED FOR ROOF AND/OR FLOOR FRAMING. INSTALL PER MANUFACTURER'S RECOMMENDATIONS AND SPECIFICATIONS. TRUSS MANUFACTURER SHALL DESIGN TRUSSES FOR ALL LOADS PER IBC, INCLUDING UNBALANCED SNOW LOADS, SNOW DRIFTING, SNOW BUILD UP IN VALLEYS AND ON EAVES, ETC. TRUSS MANUFACTURER SHALL RECOMMEND AND PROVIDE ALL REQUIRED TRUSS BRACING, BLOCKING, TRUSS TO TRUSS AND TRUSS TO BEAM CONNECTIONS, ETC. SEE GENERAL TRUSS NOTES.
2. SHOP DRAWINGS FOR ALL FABRICATED FRAMING SHALL BE SUBMITTED FOR REVIEW AND APPROVAL PRIOR TO FABRICATION AND INSTALLATION.

VENEER:

1. OTHER METHODS OF ATTACHMENT MAY BE USED WITH WRITTEN PERMISSION FROM THE ARCHITECT AND STRUCTURAL ENGINEER.
2. PROVIDE STEEL ANGLE LINTELS AT ALL OPENINGS. SEE THE STEEL ANGLE LINTEL SCHEDULE FOR SIZE AND REQUIREMENTS.

BRICK VENEER

1. ATTACH TO STEEL AND WOOD STUD WALLS WITH DUR-O-WAL DA 213 SEISMIC VENEER ANCHORS OR HOHMANN & BARNARD DW-10 OR DW-10HS SEISMIC VENEER ANCHORS SPACED AT 16" O.C. EACH WAY. ATTACH VENEER ANCHORS TO STUDS WITH #10 CORROSION RESISTANT SELF-DRILLING SCREWS. ATTACH THE VENEER TO THE ANCHORS WITH DUR-O-WAL SEISMIC STEEL PINTELS OR HOHMANN & BARNARD 3/16" DIAMETER BYNA-TIE WITH SEISMICLIPS. ANCHOR TIES MUST ENGAGE A CONTINUOUS, HORIZONTAL GALVANIZED #9 GAUGE WIRE PLACED IN THE CENTER OF THE VENEER AT 16" O.C. (MAX.).
2. ATTACH TO CONCRETE WALLS WITH 22 GAUGE GALVANIZED, VERTICAL DOVETAIL SLOTS AND DUR-O-WAL 16 GAGE SEISMIC DOVETAIL ANCHOR TIES OR HOHMANN & BARNARD 3/16" DIAMETER BYNA-TIE WITH SEISMICLIPS SPACED AT 16" O.C. (MAX.) IN EACH DIRECTION. ANCHOR TIES MUST ENGAGE A HORIZONTAL GALVANIZED #9 GAUGE WIRE PLACED IN THE CENTER OF THE VENEER AT 16" O.C. (MAX).
3. ATTACH TO REINFORCED MASONRY WALLS WITH TRI-ROD LADDER TYPE REINFORCEMENT WITH THREE #9 GAUGE GALVANIZED CORRUGATED WIRES SPACED AT 16" O.C. (MAX.) VERTICALLY. OPTION: ATTACH VENEER WITH DUR-O-WAL DA 3605 SEISMIC LADDER-EYE SPACED AT 16" O.C. (MAX.) IN EACH DIRECTION. ANCHOR TIES MUST ENGAGE A HORIZONTAL GALVANIZED #9 GAUGE WIRE PLACED IN THE CENTER OF THE VENEER AT 16" O.C. (MAX). ANCHORS MUST EXTEND INTO THE GALVANIZED LADDER TYPE JOINT REINFORCEMENT IN THE MASONRY WALL.

STONE VENEER NOTES

1. ATTACH TO CONCRETE OR MASONRY BACKING, WITH 12 GAUGE MIN. GALVANIZED WIRE, FORMED BEYOND THE BASE OF THE BACKING. THE LEGS OF THE LOOPS SHALL BE 6" MIN IN LENGTH BENT AT RIGHT ANGLES AND LAID IN THE MORTAR JOINT, AND SPACED SO THAT THE EYES OR LOOPS ARE 12" MAX. ON CENTER IN BOTH DIRECTIONS. THERE SHALL BE A 12 GAUGE MIN. GALVANIZED WIRE TIE THREADED THROUGH THE EXPOSED LOOPS FOR EVERY 2 SQUARE FEET OF STONE VENEER. THIS TIE SHALL BE A LOOP HAVING LEGS 15" MIN. LENGTH BENT SO THAT IT WILL LIE IN THE MORTAR JOINT. THE LAST 2" OF EACH WIRE LEG SHALL HAVE A 90° BEND. 1" MIN. THICKNESS OF CEMENT GROUT SHALL BE PLACED BETWEEN THE BACKING AND THE STONE VENEER.
2. ATTACH TO STUD BACKING WITH A 2"X2"X16 GALVANIZED WIRE MESH WITH TWO LAYERS OF WATERPROOF PAPER BACKING APPLIED DIRECTLY TO STUDS AT 16" O.C. MAX., THE MESH SHALL BE ATTACHED WITH 2" LONG GALVANIZED STEEL WIRE FURRING NAILS AT 4" O.C. WITH 1 1/8" MIN PENETRATION INTO STUDS AND 8d COMMON NAILS AT 8" O.C. INTO TOP AND BOTTOM PLATES OR WITH EQUIVALENT WIRE TIES. THERE SHALL BE A 12 GAUGE MIN. GALVANIZED WIRE LOOPED THROUGH THE MESH FOR EVERY 2 SQUARE FEET OF STONE VENEER. THIS TIE SHALL BE A LOOP HAVING LEGS 15" MIN. LENGTH BENT SO THAT IT WILL LIE IN THE MORTAR JOINT. THE LAST 2" OF EACH WIRE LEG SHALL HAVE A 90° BEND. 1" MIN. THICKNESS OF CEMENT GROUT SHALL BE PLACED BETWEEN THE BACKING AND THE STONE VENEER.

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DRAWING DATE: 08/03/2020	JOB NO. 20202
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GENERAL NOTES

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FOOTING SCHEDULE

MARK	WIDTH	LENGTH	DEPTH	REINFORCING CROSSWISE				REINFORCING LENGTHWISE				REMARKS
				NO	SIZE	LENGTH	SPACING	NO	SIZE	LENGTH	SPACING	
FS24	2'-0"	2'-0"	1'-0"	3	#4	1'-6"	EQUAL	3	#4	1'-6"	EQUAL	

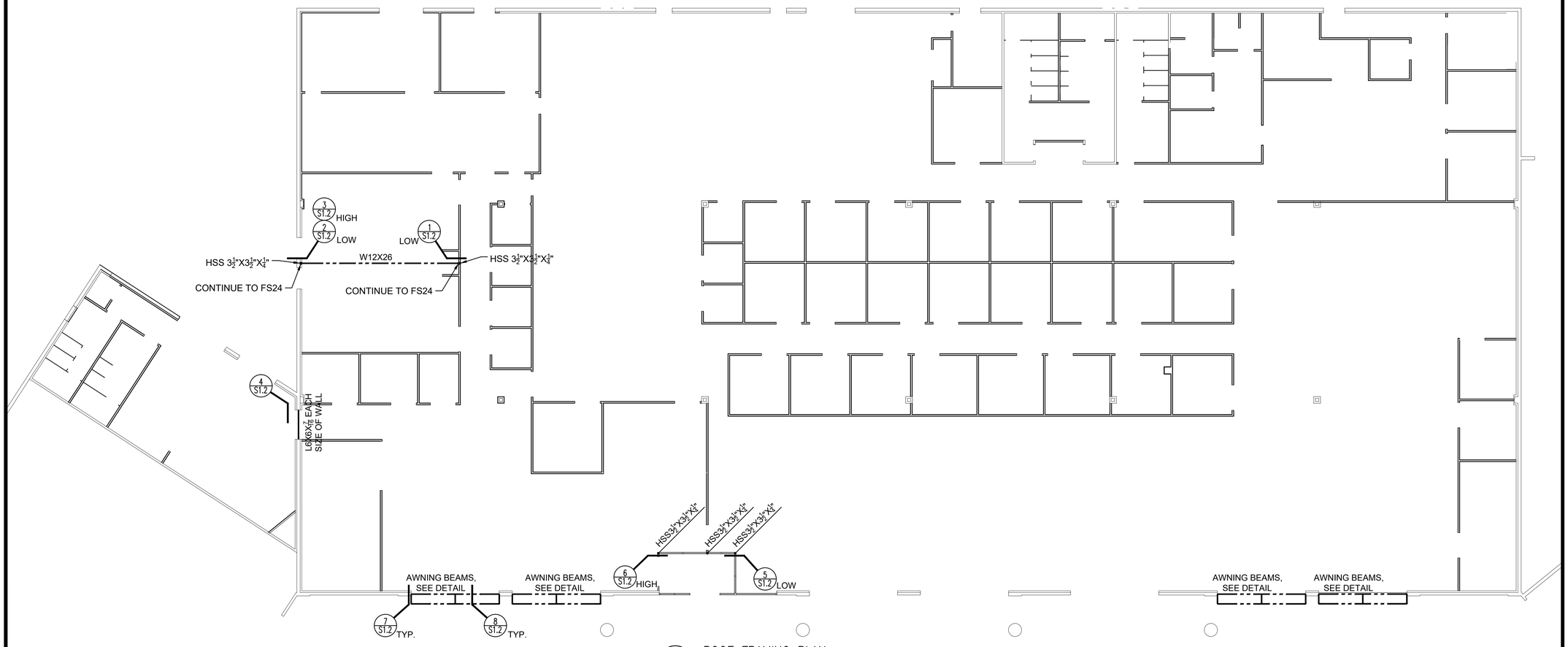
ASSUMED ALLOWABLE SOIL BEARING PRESSURE = 1500 PSF (ASSUMED FROM TABLE 1806.2 OF THE 2018 IBC) (CONTRACTOR TO VERIFY)
MINIMUM COMPRESSIVE CONCRETE STRENGTH f'c = 3000 PSI
ALL REINFORCING STEEL SHALL BE GRADE 60 AND BE PROPERLY TIED INTO PLACE PRIOR TO POUR
ALL CONCRETE WORK MUST MEET THE REQUIREMENTS OF THE 2018 IBC, ACI 318 AND LOCAL ORDINANCES
ALL BARS MUST BE 3" CLEAR FROM GRADE

ROOF FRAMING NOTES:

1. ALL EXTERIOR WALLS SHALL BE CONSIDERED BEARING U.N.O.
2. ALL EXTERIOR BEARING WALLS SHALL BE CONSTRUCTED WITH DFL#2 2x6 STUDS @ 16" ON CENTER. U.N.O.
3. PROVIDE STANDARD CONSTRUCTION FOR ALL WINDOW AND DOOR OPENINGS (TWO KING STUDS AND ONE TRIMMER AT EACH END) U.N.O.
4. WALL SHEATHING: 7/16" APA SHEATHING 8D @ 6" O.C. AT PANEL EDGES AND 12" O.C. IN FIELD. U.N.O.
5. PROVIDE DOUBLE TRIMMERS @ OPENINGS ≥ 5'-0"
6. ALL POSTS AND COLUMNS MUST PROVIDE A DIRECT CONTINUOUS BEARING LINE THROUGH TO THE FOOTING/FOUNDATION.
7. U.N.O. THE TRUSS MFG. SHALL BE RESPONSIBLE FOR ALL TRUSS RELATED CONNECTIONS.
8. TRUSS MANUFACTURER TO DESIGN FOR ALL ADD LOADS; MECHANICAL UNITS, SNOW DRIFT ETC.
9. ROOF SHEATHING: 15/32" APA 32/16 WITH 8D COMMON NAILS @ 6" O.C. AT SUPPORTED EDGES AND 12" O.C. IN FIELD. U.N.O.
10. USE 'H' CLIPS ON ROOF SHEATHING

LEGEND

= OVERBUILD
(2)2x_ = HEADER/BEAM LOCATION
= BEARING WALL



1 S3.1 ROOF FRAMING PLAN
SCALE (24x36): 3/32"=1'-0"
SCALE (11x17): 3/64"=1'-0"

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DRAWING TITLE
ROOF FRAMING PLAN

JOB NO. 20202
FILE NO:

DRAWING DATE: 08/03/2020
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CHECKED BY:SP

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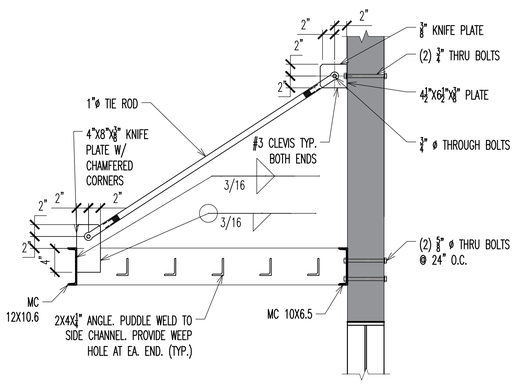
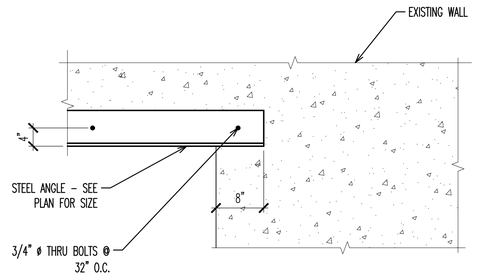


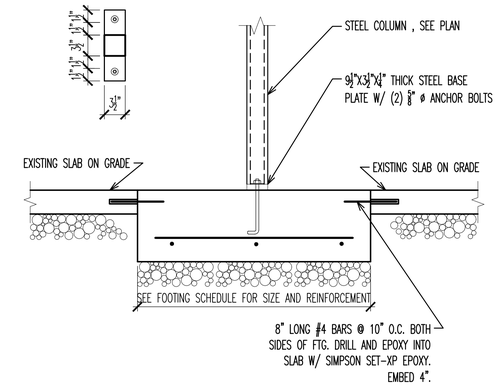
7 S1.2 AWNING DETAIL

N.T.S.



4 S1.2 STEEL LINTEL

N.T.S.



1 S1.2 FOOTING ADDITION DETAIL

N.T.S.

8 S1.2 AWNING MIDSPAN SUPPORT

N.T.S.

5 S1.2 STEEL COLUMN AT EXSITING SLAB

N.T.S.

2 S1.2 FOOTING ADDITION DETAIL

N.T.S.

6 S1.2 STEEL COLUMN BRACING DETAIL

N.T.S.

3 S1.2 STEEL BEAM @ STEEL COLUMN

N.T.S.

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