

GENERAL CONDITIONS

1. CODE: 2018 INTERNATIONAL BUILDING CODE
2. BUILDING GRAVITY LOADS:
 - A. LIVE LOAD: ROOF 20 PSF
 - B. SNOW LOAD: GROUND SNOW LOAD P_g 10 PSF
3. BUILDING LATERAL LOADS:
 - A. WIND LOADS:
 - 1. BASIC WIND SPEED (3-SECOND GUST): 120 MPH
 - 2. WIND EXPOSURE CATEGORY: C
 - 3. RISK CATEGORY: II
 - 4. INTERNAL PRESSURE COEFFICIENT (C_{pi}): ±0.18
 - B. SEISMIC LOADS:
 - 1. RISK CATEGORY: II
 - 2. SEISMIC IMPORTANCE FACTOR (I_e): 1.0
 - 3. MAPPED SPECTRAL RESPONSE COEFFICIENT (S_e): 0.230
 - 4. MAPPED SPECTRAL RESPONSE COEFFICIENT (S₁): 0.099
 - 5. SITE CLASS: D
 - 6. SPECTRAL RESPONSE COEFFICIENT (S_{ds}): 0.245
 - 7. SPECTRAL RESPONSE COEFFICIENT (S_{d1}): 0.158
 - 8. SEISMIC DESIGN CATEGORY: C
 - 9. BASIC SEISMIC FORCE RESISTING SYSTEM: STEEL ORDINARY CONCENTRICALLY BRACED FRAMES
 - 10. DESIGN BASE SHEAR (V): 0.075W
 - 11. SEISMIC RESPONSE COEFFICIENT (C_s): 0.075
 - 12. RESPONSE MODIFICATION COEFFICIENT (R): 3.25
 - 13. ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE
4. STRUCTURE WAS DESIGNED IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE, 2015 EDITION (IBC 2015).
5. CONSULT STRUCTURAL ENGINEER IF LOCATIONS OR DESIGN WEIGHTS OF ROOF TOP UNITS DIFFER FROM THOSE ON PLANS.
6. FIELD VERIFY ALL RELEVANT DIMENSIONS AND CONDITIONS AT EXISTING STRUCTURES PRIOR TO STARTING SHOP DRAWINGS AND THE CONSTRUCTION PROCESS IN THOSE AREAS. SUBMIT APPROPRIATE PLANS AND DETAILS REFLECTING THE FIELD VERIFIED EXISTING CONDITIONS FOR THE ARCHITECT'S USE.
7. EXISTING CONDITIONS WHICH REQUIRE MODIFICATIONS TO THE DESIGN OF THE PROPOSED CONSTRUCTION SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE SADLER GROUP. CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO START OF CONSTRUCTION.
8. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF OTHER TRADES (MECHANICAL, ELECTRICAL, & ETC.) PRIOR TO FABRICATION AND INSTALLATION OF MATERIALS.
9. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF ARCHITECTURAL AND STRUCTURAL DRAWINGS PRIOR TO FABRICATION, FORMING, OR PLACEMENT OF MATERIALS. GENERAL CONTRACTOR SHALL REPORT DISCREPANCIES IMMEDIATELY TO ARCHITECT AND SHALL PROCEED WITH CONSTRUCTION ONLY AFTER DISCREPANCY HAS BEEN RESOLVED.
10. THE DETAILS DESIGNATED AS "TYPICAL DETAILS" APPLY GENERALLY TO THE DRAWINGS IN ALL AREAS WHERE CONDITIONS ARE SIMILAR TO THOSE SHOWN IN THE DETAILS.
11. IF A CONFLICT EXISTS BETWEEN PLANS AND SPECIFICATION, OR BETWEEN STRUCTURAL AND ARCHITECTURAL DRAWINGS THE CONTRACTOR SHALL REQUEST WRITTEN CONFORMANCE. IF IT IS NOT RESOLVED PRIOR TO SUBMITTING BIDS, THE CONTRACTOR SHALL PRICE THE MOST EXPENSIVE OPTION.
12. MATERIALS OR PRODUCTS SUBMITTED FOR APPROVAL WHICH ARE NOT AS SPECIFIED IN THE DOCUMENT SHALL BE ACCOMPANIED BY A CURRENT I.C.B.O. (INTERNATIONAL CONFERENCE OF BUILDING OFFICIALS) REPORT. MATERIALS OR PRODUCTS THAT DO NOT HAVE I.C.B.O. REPORTS INDICATING THE SUBSTITUTED MATERIAL OR PRODUCT TO BE EQUAL TO THAT SPECIFIED, WILL NOT BE CONSIDERED.

CODES & DESIGN SPECIFICATIONS

1. 2015 INTERNATIONAL BUILDING CODE (IBC2015).
2. STRUCTURAL STEEL: "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS," THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION, 2005.
3. STRUCTURAL WOOD: "NATIONAL DESIGN SPECIFICATIONS FOR WOOD CONSTRUCTION," THE AMERICAN FOREST AND PAPER ASSOCIATION, 2005.
4. STRUCTURAL CONCRETE: "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE (ACI 318-08)," THE AMERICAN CONCRETE INSTITUTE, 2008.
5. WHERE THERE IS A CONFLICT BETWEEN THE BUILDING CODE AND THE MATERIAL CODES, THE MOST STRINGENT REQUIREMENTS SHALL GOVERN.

SITE NOTES

1. THE FOUNDATION DESIGN IS BASED ON THE SOILS REPORTS PREPARED BY TERRACON CONSULTANTS, INC., REPORT NUMBER 70195052, DATED APRIL 4, 2019.
2. ISOLATED SPREAD FOOTINGS AND CONTINUOUS WALL FOOTINGS ARE DESIGNED, ON THE BASIS OF A NET ALLOWABLE BEARING CAPACITY OF 3,000 PSF.
3. ALL FOOTINGS SHALL BE FOUNDED A MINIMUM OF 2 FEET BELOW EXISTING GROUND SURFACE.
4. THE FOOTING EXCAVATIONS SHALL BE MADE TO NEAT LINES AND SHALL BE FREE OF LOOSE OR WET MATERIALS. CONCRETE SHALL BE PLACED DIRECTLY AGAINST THE SOIL WITHOUT FORMING.
5. ALL FOOTINGS SHALL BE INSPECTED BY THE SOIL ENGINEER PRIOR TO PLACING CONCRETE IN ORDER TO ASSURE THAT THE BEARING SURFACES ARE CONSISTENT WITH DESIGN RECOMMENDATIONS.
6. WHERE SOFT AREAS ARE ENCOUNTERED THE AREA SHALL BE UNDERCUT AS REQUIRED AND REPLACED WITH COMPACTED FILL TO A MINIMUM OF 98% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D 698.
7. PLACEMENT OF FILL SHALL BE IN ACCORDANCE WITH GEOTECHNICAL REPORT.
8. BUILDING PAD SHALL BE AS FOLLOWS:
 - A. THE BUILDING SITE AND AREAS TO BE PAVED SHALL BE STRIPPED OF ALL TOPSOIL, VEGETATION, ROOTS, EXISTING FILL, OLD CONSTRUCTION DEBRIS, OR OTHER ORGANIC MATERIAL TO AN EXTENT OF TEN (10) FEET BEYOND THE BUILDING LIMITS.
 - B. THE SUB GRADE SHALL BE FIRM AND ABLE TO SUPPORT THE CONSTRUCTION EQUIPMENT WITHOUT DISPLACEMENT AND BE COMPACTED AS RECOMMENDED HEREIN. SOFT OR YIELDING SUB GRADE SHALL BE CORRECTED AND MADE STABLE BEFORE CONSTRUCTION PROCEEDS. ANY OLD FILL FOUND ON THE SITE SHALL BE RE-worked TO PROVIDE ADEQUATE SUPPORT FOR FOUNDATIONS AND PAVEMENTS OR SHALL BE REMOVED. THE SUB GRADE SHALL BE PROOF ROLLED TO DETECT ANY SOFT SPOTS, WHICH IF EXIST, SHALL BE REWORKED, COMPACTED AND TESTED.
 - C. ALL FILL REQUIRED IN BUILDING AREAS SHALL BE SELECTED FILL HAVING A PLASTICITY INDEX UNDER NINE (9) AND A LIQUID LIMIT LESS TWENTY (20).
 - E. ALL FILL SHALL BE PLACED IN LOOSE LIFTS NOT EXCEEDING EIGHTEEN (18) INCHES UNCOMPACTED THICKNESS, AND BE COMPACTED TO A DENSITY OF AT LEAST NINETY EIGHT (98) PERCENT OF STANDARD PROCTOR (ASTM D 698) AT A MOISTURE CONTENT RANGING BETWEEN THREE (3) PERCENTAGE POINTS BELOW OPTIMUM TO THREE (3) PERCENTAGE POINTS ABOVE OPTIMUM (-3 TO +3) PERCENTAGE POINTS.
 - F. COMPACTION TESTS SHALL BE TAKEN AS FOLLOWS: ONE FIELD DENSITY TEST PER LIFT, FOR EACH 2,500 SQUARE FEET FOR BUILDING AREAS. EACH LIFT SHALL BE COMPACTED, TESTED AND APPROVED BEFORE ANOTHER LIFT IS PLACED.
9. CONTRACTOR SHALL BRACE WALL OR GRADE BEAM WHILE PLACING BACKFILL OR FILL MATERIAL.

WELD NOTES

1. WELDED CONSTRUCTION SHALL CONFORM TO THE AMERICAN WELDING SOCIETY "STRUCTURAL WELDING CODE", D1.1 AND "REINFORCING STEEL WELDING CODE", D1.4. ELECTRODES FOR FIELD AND SHOP WELDS SHALL BE E70XX.
2. FULL PENETRATION GROOVE WELDS SHALL BE INSPECTED BY ULTRASONIC TESTING, TWENTY-FIVE PERCENT OF THE WELDS SHALL BE INSPECTED AT RANDOM UNLESS NOTED OTHERWISE. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
3. WHEN WELDS ARE NOT CALLED OUT ON DRAWINGS, THEY ARE MINIMUM SIZE CONTINUOUS FILLET WELDS IN ACCORDANCE WITH AWS D1.1 FILLET WELDS NOT SPECIFIED AS TO LENGTH SHALL BE CONTINUOUS.
4. UNLESS NOTED OTHERWISE ON THE DRAWINGS, ALL GROOVE WELDS SHALL BE FULL PENETRATION. ONLY LOW HYDROGEN ELECTRODES SHALL BE USED ON REINFORCING STEEL AND ASTM A572 STEEL.
5. PROVIDE FILLET WELDS AT ALL CONTACT JOINTS BETWEEN STEEL MEMBERS SUFFICIENT TO DEVELOP THE ALLOWABLE TENSILE STRENGTH OF THE SMALLER MEMBER AT THE JOINT UNLESS DETAILED OTHERWISE ON THE DRAWINGS.

CONCRETE NOTES

1. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS.
2. REINFORCING STEEL SHALL BE ASTM A615 GRADE 60.
3. LAP SPLICES SHALL BE IN ACCORDANCE WITH THE FOLLOWING TABLE, UNLESS NOTED OTHERWISE. WHERE CLASSES ARE NOT SPECIFIED ON DRAWINGS, USE CLASS "B" SPLICES.

BAR SIZE	TENSION SPLICES				COMPRESSION SPLICES
	TOP BARS		OTHER BARS		
	A	B	A	B	
#3	1'-10"	2'-4"	1'-5"	1'-10"	1'-0"
#4	2'-5"	3'-1"	1'-10"	2'-5"	1'-5"
#5	3'-0"	3'-11"	2'-4"	3'-0"	1'-7"
#6	3'-7"	4'-8"	2'-9"	3'-7"	1'-11"

COMPRESSION DOWEL EMBEDMENT: 22 BAR DIAMETERS
LAP WELDED WIRE FABRIC ONE SPACING OF CROSS WIRES PLUS 2".

4. NON-SCHEDULED HORIZONTAL GRADE BEAM REINFORCEMENT SHALL BE CONTINUOUS AND PLACED AS FOLLOWS:
 - TOP BARS - SHALL BE SPLICED, 30 BAR DIAMETERS, AT THE MID-POINT BETWEEN SUPPORTS. PROVIDE STANDARD ACI HOOKS AT ENDS OF BEAMS.
 - BOTTOM BARS - SHALL BE SPLICED OVER EACH INTERIOR SUPPORT AND SHALL EXTEND 12" INTO ADJACENT SPAN.
5. STIRRUPS SHALL BE SPACED AS SPECIFIED, STARTING FROM THE FACE OF EACH SUPPORT, WHERE THE FIRST STIRRUP IS SPACED AT "S/2" FROM THE FACE OF THE SUPPORT, WHERE "S" IS THE FIRST SPECIFIED STIRRUP SPACING.
6. PROVIDE CORNER BAR REINFORCEMENT AT ALL CORNERS AND INTERSECTIONS OF GRADE BEAMS OR WALLS. REFER TO TYPICAL DETAIL ON SHEET S1 FOR PLACEMENT AND ADDITIONAL NOTES.
7. ALL REINFORCEMENT SHALL BE DETAILED IN ACCORDANCE WITH THE LATEST ACI DETAILING MANUAL. CONTRACTOR SHALL COORDINATE ALL PENETRATIONS, CONDUIT, CHAMFERS AND EMBEDDED ITEMS PRIOR TO CONCRETE PLACEMENT.

STRUCTURAL STEEL

1. ALL STEEL PIPES SHALL BE ASTM A53 GRADE B (F_y=35 KSI) STEEL, ALL TUBES (HSS SECTIONS) SHALL BE ASTM A500 GRADE B (F_y=46 KSI) STEEL, AND ALL WIDE FLANGE SECTIONS SHALL BE ASTM A992 (F_y=50 KSI) STEEL.
2. ALL OTHER STRUCTURAL STEEL SHALL BE ASTM A36 STEEL.
3. STEEL JOISTS SHALL MEET ALL SPECIFICATIONS OF THE LATEST S.I.I. EDITION, F_y=50 KSI.
4. STEEL JOISTS AND BRIDGING SHALL BE DESIGNED BY MANUFACTURERS FOR NET UPLIFT FORCES DUE TO WIND OF 10 P.S.F.
5. CONNECTIONS SHALL BE DESIGNED AND FABRICATED ACCORDING TO THE FOLLOWING NOTES:
 - A. ALL CONNECTIONS SHALL BE TYPE 2 CONNECTION, FRAMED BEAM CONNECTIONS CONFORMING TO PARTS 4, TABLES II AND III, OF AISC MANUAL OF STEEL CONSTRUCTION, ALLOWABLE STRESS DESIGN, NINTH EDITION.
 - B. ALL TYPE 2 BEAM CONNECTIONS SHALL BE STANDARD DOUBLE ANGLE TYPE UNLESS DETAILED OTHERWISE. CONNECTIONS MAY BE 100% BOLTED IN ACCORDANCE WITH TABLE II OR A COMBINATION OF WELDS AND BOLTS PER TABLE III.
 - C. ALL BOLTED CONNECTIONS SHALL USE A325-N BOLTS (LALUENE IS ACCEPTABLE) UNLESS NOTED OTHERWISE. MINIMUM NUMBER AND SIZE OF BOLTS PER CONNECTION SHALL BE TWO (2) 3/4" INCH DIAMETER BOLTS. ALL CONNECTIONS SHALL DEVELOP A MINIMUM SHEAR CAPACITY OF 6 KIPS.
 - D. CONNECTIONS SHALL BE SELECTED TO CARRY THE END REACTIONS AS SHOWN OR SCHEDULED ON THE DRAWINGS. STEEL FABRICATOR TO SELECT ANGLE SIZES, WELD SIZES, AND NUMBER AND SIZE OF BOLTS IN CONFORMANCE WITH AISC DETAILING MANUAL INCLUDING TABLE, SPECIFICALLY TABLES II AND/OR III.
 - E. WHEN THE END REACTIONS ARE NOT SHOWN OR SCHEDULED ON THE DRAWINGS, FABRICATE CONNECTIONS WITH 1/4" INCH THICK DOUBLE ANGLES, USING 1/4" DIA. A325-N BOLTS. THE NUMBER OF HORIZONTAL ROWS OF BOLTS SHALL BE DETERMINED BY DIVIDING THE NOMINAL BEAM DEPTH BY 5.5 AND ROUNDING ANY FRACTION UP TO THE NEXT HIGHEST NUMBER.
6. ALL WELDS SHALL BE MADE USING E70 ELECTRODES.
7. HEADED STUDS (H.S.) SHALL BE NELSON OR BETTER.

WOOD NOTES

1. DIMENSION LUMBER FOR ROOF JOISTS, RAFTERS OR INTERIOR LOAD BEARING STUDS SHALL BE SOUTHERN PINE #2 OR BETTER. DESIGN VALUES ARE AS FOLLOWS:
 - 2x4's F_b = 1172 PSI FOR SINGLE/REPETITIVE USE, AND F_v = 90 PSI.
 - 2x6's F_b = 1240 PSI FOR SINGLE/REPETITIVE USE, AND F_v = 90 PSI.
 - 2x8's F_b = 1200 PSI FOR SINGLE/REPETITIVE USE, AND F_v = 90 PSI.
 - 2x10's F_b = 1050 PSI FOR SINGLE/REPETITIVE USE, AND F_v = 90 PSI.
 - 2x12's F_b = 970 PSI FOR SINGLE/REPETITIVE USE, AND F_v = 90 PSI.
 2. PLYWOOD OR OSB DECK SHALL BE 19/32" THICK APA RATED SHEATHING, EXPOSURE 1 (PLYWOOD OR OSB) OR UNBLOCKED DIAPHRAGMS NAIL DECK TO SUPPORTS WITH 10d COMMON NAILS AT 6" ON CENTER AT DIAPHRAGM BOUNDARIES AND SUPPORTING MEMBERS. FOR BLOCKED DIAPHRAGMS THE DECK SHALL BE NAILED WITH 10d COMMON NAILS AT 4" ON CENTER AT DIAPHRAGM BOUNDARIES, 6" ON CENTER AT OTHER PANEL EDGES AND AT 12" ON CENTER ALONG INTERMEDIATE FRAMING MEMBERS. FASTENERS SHALL BE LOCATED A MINIMUM OF 3/8" FROM PANEL EDGES. EXTERIOR SHEATHING ON PLYWOOD SHEAR WALLS SHALL BE 15/32" THICK APA RATED SHEATHING, EXPOSURE 1 (PLYWOOD OR OSB). NAIL PANELS TO VERTICAL STUDS WITH 8d COMMON NAILS, REFER TO DETAILS FOR SPACING. FASTENERS SHALL BE LOCATED A MINIMUM OF 3/8" FROM PANEL EDGES. WOOD CONNECTORS SHALL BE SIMPSON OR BETTER.
 3. SILL ON CONCRETE SHALL BE FOUNDATION GRADE REDWOOD OR PRESSURE TREATED SOUTHERN PINE OR FIR, ANCHORED WITH 5/8" INCH DIAMETER X 10" ANCHOR BOLTS AT 48 INCH O.C., UNLESS NOTED OTHERWISE ON SHEAR WALL SCHEDULE. MINIMUM OF 2 BOLTS PER PIECE WITH ONE BOLT WITHIN 9 INCHES OF EACH END. PROVIDE STANDARD WASHERS FOR MACHINE BOLTS AND LAG SCREWS WITH HEADS OR NUTS BEARING ON WOOD, UNLESS NOTED OTHERWISE.
 4. NAILING SCHEDULE - ALL MEMBERS THROUGHOUT THIS PROJECT SHALL BE CONNECTED TOGETHER WITH NAILS LISTED IN THIS SCHEDULE UNLESS A GREATER NUMBER OR SIZE IS INDICATED ON DRAWINGS. ALL NAILS SHALL BE A COMMON WIRE AND STANDARD LENGTH EXCEPT AS OTHERWISE NOTED.
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|---|--|
| JOISTS OR RAFTERS TO ALL BEARING STUDS TO BEARING | 2-8d TOENAILS EA. SIDE
4-8d TOENAILS EA. SIDE
OR 2-16d END NAILS |
| BLOCKING BETWEEN JOISTS OVER TOP PLATE HERRINGBONE AND STUD BLOCKING MULTIPLE STUDS AND BUILT UP BEAMS 2X CEILING STRIPPING (FURRING) BLOCKING BETWEEN RAFTERS OVER TOP PLATE | 2-8d TOENAILS EA. SIDE
2-8d NAILS EACH END
16d @ 12" O.C. MAX.
2-16d TO EA. BEARING
10d TOENAILS @ 6" O.C. |
| DOUBLE TOP PLATES:
LOWER PLATE TO TOP STUD
UPPER PLATE TO LOWER PLATE
PLYWOOD OR OSB SHEATHING (U.N.O.) | 2-16d NAILS
16d @ 6" O.C. (MIN. 8" LAP)
8d COMMON @ 6" O.C. PLY EDGES
8d COMMON @ 12" O.C. FIELD |

METAL ROOF DECK NOTES

1. PROVIDE 1.5" GALVANIZED METAL DECKING, 20 GAGE, TYPE "B" ROOF DECK.
2. ATTACH DECK UNITS TO SUPPORTS BY ONE OF THE FOLLOWING METHODS:
 - A. FIVE-EIGHTS INCH (5/8") EFFECTIVE DIAMETER PUDDLE OR 1/8" X 1" FILLET WELDS AT 12" ON CENTER.
 - B. HILTI ENP2K-20-L15 POWDER ACTUATED FASTENERS OR HILTI X-EDNK22-THQ12 POWDER OR PNEUMATIC FASTENERS (BASE MATERIAL THICKNESS 1/8" UP TO AND INCLUDING 1/4") AT 12" ON CENTER.
 - C. HILTI X-EDN19-THQ12 POWDER OR PNEUMATIC DRIVEN FASTENER (BASE MATERIAL THICKNESS 1/4" THRU 3/8") AT 12" ON CENTER.
 - D. HILTI ENP2-21-L15 POWDER ACTUATED FASTENERS (BASE MATERIAL 1/4" AND GREATER) AT 12" ON CENTER.
 - E. HILTI ENPH2-21-L15 POWDER ACTUATED FASTENERS (BASE MATERIAL THICKNESS 1/4" AND GREATER WITH F_y GREATER THAN 36 KSI) AT 12" ON CENTER.
3. SIDE LAP CONNECTIONS SHALL BE #10 TEK SCREWS, PLACED AT THE THIRD POINTS BETWEEN THE SUPPORTS.
4. WELDING WASHER SHALL BE USED ON ALL DECK UNITS WITH METAL THICKNESS EQUAL TO OR LESS THAN 0.028 INCHES THICK (22 GAGE). WELDING WASHERS SHALL BE A MINIMUM THICKNESS OF 0.0568 INCHES (16 GAGE) AND HAVE A NOMINAL 3/8" DIAMETER HOLE.
5. DECK SPECIFIED HAS BEEN DETERMINED ON THE BASIS OF 3 CONTINUOUS SPANS. DECK SUPPLIER SHALL USE HEAVIER GAGE IF REQUIRED FOR ONE AND TWO SPAN CONDITIONS.
6. WHERE PARTIAL PANELS MAY BE REQUIRED TO COMPLETE DECK INSTALLATION AT PERIMETER OF STRUCTURE, PROVIDE WELDS IN EACH FLUTE TO STRUCTURAL MEMBERS. ROOF DECK SHALL BE CONTINUOUS OVER A MINIMUM OF 3 SPANS.
7. AT PERIMETERS OF DECK: SECURE DECK TO STRUCTURAL MEMBERS WITH SAME ATTACHMENT AND SPACING AS SIDE LAP CONNECTIONS OR PUDDLE WELDS AS NOTED ABOVE.
8. SUSPENDED CEILING, LIGHT FIXTURES, DUCTS OR OTHER UTILITIES SHALL NOT BE SUPPORTED BY THE STEEL DECK.
9. OPENINGS THROUGH ROOF DECK WHICH ARE LARGER THAN TWELVE INCHES WIDE SHALL BE FRAMED WITH STRUCTURAL STEEL SUPPORT ANGLES. REFER TO ARCHITECTURAL AND MECHANICAL DRAWINGS FOR MISCELLANEOUS OPENINGS NOT SHOWN ON STRUCTURAL DRAWINGS. FRAME ALL OPENINGS WITH L3x3x1/2 UNLESS NOTED OTHERWISE ON PLANS.
10. AT FREE EDGES OF DECK BETWEEN JOISTS, WHERE NO DECK SUPPORT EXISTS, SUPPORT DECK WITH CONTINUOUS ANGLE L3x3x1/2. (THIS NOTE APPLIES TO DIAPHRAGM BOUNDARIES)

SPECIAL INSPECTIONS

- ### STRUCTURAL TESTS AND INSPECTION
1. THIS SECTION APPLIES TO THE STRUCTURAL PORTION OF THE PROJECT REQUIRING SPECIAL INSPECTION. THE SPECIAL INSPECTOR'S DUTIES ARE DEFINED IN IBC 1704 AND SHALL BE VERIFIED WITH THOSE LISTED BELOW PRIOR TO THE START OF WORK.
 2. COPIES OF TEST REPORTS AND FINISH REPORTS SHALL BE SUPPLIED TO THE ENGINEER OF RECORD IN ADDITION TO OTHER NORMAL DISTRIBUTIONS WITHIN ONE WEEK OF THE VISIT OR INSPECTION. FINAL REPORTS SHALL STATE WHETHER WORK WAS DONE IN CONFORMANCE TO APPROVED CONSTRUCTION DOCUMENTS. CONTRACTOR SHALL BE NOTIFIED IMMEDIATELY OF ANY/ALL DISCREPANCIES. AFTER NOTIFICATION TO CONTRACTOR, IF THE DISCREPANCIES ARE NOT CORRECTED, THE BUILDING OFFICIAL AND ENGINEER OF RECORD SHALL BE NOTIFIED IMMEDIATELY.
 3. TESTS AND INSPECTIONS SHALL BE PERFORMED BY AN INDEPENDENT TESTING AND INSPECTION AGENCY EMPLOYED BY THE OWNER AND APPROVED BY THE BUILDING OFFICIAL. JOB SITE VISITS BY THE STRUCTURAL ENGINEER OF RECORD DO NOT CONSTITUTE A SPECIAL INSPECTION.
 4. THE CONTRACTOR SHALL PROVIDE THE TEST AND INSPECTION AGENCY WITH A SCHEDULE TO FACILITATE THE PROPER COORDINATION OF WORK.
 5. PORTIONS OF WORK REQUIRING SPECIAL INSPECTION:

	CONTINUOUS	PERIODIC	NONE	N/A
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STEEL CONSTRUCTION SECTION 1705.2	CONTINUOUS	PERIODIC	NONE	N/A
1. INSPECTION OF WELDING:				
A. REINFORCING STEEL:				
1. VERIFICATION OF WELDABILITY OF REINFORCING STEEL OTHER THAN ASTM A706.		■		
2. REINFORCING STEEL RESISTING FLEXURAL AND AXIAL FORCES IN INTERMEDIATE AND SPECIAL MOMENT FRAMES, AND BOUNDARY ELEMENTS OF SPECIAL STRUCTURAL WALLS OF CONCRETE.	■			
3. SHEAR REINFORCEMENT.	■			
4. OTHER REINFORCING STEEL.	■			
CONCRETE CONSTRUCTION SECTION 1705.3				
1. INSPECTION OF REINFORCING STEEL, INCLUDING PRE-STRESSING TENDONS & PLACEMENT.		■		
2. INSPECTION OF REINFORCING STEEL WELDING.		■		
3. INSPECTION OF ANCHORS CAST IN CONCRETE WHERE ALLOWABLE LOADS HAVE BEEN INCREASED OR WHERE STRENGTH DESIGN IS USED.		■		
4. INSPECTION OF ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS.		■		
5. VERIFYING USE OF REQUIRED DESIGN MIX.		■		
6. AT THE TIME OF FRESH CONCRETE IS SAMPLED TO FABRICATE SPECIMENS FOR STRENGTH, SLUMP, AND AIR CONTENT TESTS.		■		
7. INSPECTION OF CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.		■		
8. INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.		■		
9. INSPECTION OF PRE-STRESSED CONCRETE:				
A. APPLICATION OF PRE-STRESSING FORCES.				
B. GROUTING OF BONDED PRE-STRESSING TENDONS IN SEISMIC FORCE RESISTING SYSTEM.		■		
10. VERIFICATION OF PRECAST CONCRETE MEMBERS.		■		
11. VERIFICATION OF IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POST TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS.		■		
12. INSPECT FORM WORK FOR SHAPE, LOCATION, AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.		■		
CAST-IN-PLACE DEEP FOUNDATIONS SECTION 1705.8				
1. OBSERVE DRILLING OPERATIONS AND MAINTAIN COMPLETE AND ACCURATE RECORDS FOR EACH ELEMENT.	■			
2. VERIFY PLACEMENT LOCATIONS AND PLUMBNESS, CONFIRM ELEMENT DIAMETERS, BELL DIAMETERS (IF APPLICABLE), LENGTHS, EMBEDMENT INTO BEDROCK (IF APPLICABLE), AND ADEQUATE END BEARING STRATA CAPACITY. RECORD CONCRETE OR GROUT VOLUMES.	■			
3. CONTINUOUS INSPECTION INDICATES FULL TIME OBSERVATION/TESTING BY APPROVED SPECIAL INSPECTOR, PERIODIC INSPECTION INDICATES PART-TIME OR INTERMITTENT OBSERVATION/TESTING BY APPROVED SPECIAL INSPECTOR.	■			
4. ALL OFFSITE FABRICATION SHALL BE INSPECTED AS OUTLINED ABOVE UNLESS FABRICATOR IS APPROVED PER IBC 1704. APPROVED FABRICATORS MUST SUBMIT CERTIFICATE OF COMPLIANCE FOR ALL OFFSITE FABRICATION SUCH AS STRUCTURAL STEEL, GLULAMS, PRECAST CONCRETE, ETC.	■			
5. FOR STRUCTURAL OBSERVATION REQUIRED BY THE ENGINEER OF RECORD OR THE BUILDING DEPARTMENT, THE OWNER SHALL EMPLOY AN ENGINEER APPROVED BY THE ENGINEER OF RECORD AN BUILDING OFFICIAL TO PERFORM STRUCTURAL OBSERVATIONS AS DEFINED IN IBC 2009.	■			

01/22/2020



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SHELL BUILDING

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Revisions:
01/03/2020 - REVISION 3
01/22/2020 - REVISION 4

File Name: S_SHEETS
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Drawn By: GTS
Checked By: TFS

SHEET
S1
GENERAL NOTES

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