



NOTE: ALL CHAPTERS, SECTIONS, TABLES, AND FIGURES CITED WITHOUT A PUBLICATION TITLE ARE FROM THE APPLICABLE RESIDENTIAL CODE (SEE TITLE SHEET).

**GENERAL**

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION. FURTHERMORE, CONTRACTOR IS ULTIMATELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, AND SAFETY ON SITE. NOTIFY JDS CONSULTING & DESIGN, PLLC IMMEDIATELY IF DISCREPANCIES ON PLAN EXIST.

2. BRACED-WALL DESIGN IS BASED ON SECTION R602.10 - WALL BRACING. PRIMARY PRESCRIPTIVE METHOD TO BE CS-WSP. SEE WALL BRACING PLANS AND DETAILS FOR ADDITIONAL INFORMATION.

ALL NON-PRESCRIPTIVE SOLUTIONS ARE BASED ON GUIDELINES ESTABLISHED IN THE AMERICAN SOCIETY OF CIVIL ENGINEERS PUBLICATION ASCE 7 AND THE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION - SPECIAL DESIGN PROVISIONS FOR WIND AND SEISMIC.

3. SEISMIC DESIGN SHALL BE PER SECTION R301.2.2 - SEISMIC PROVISIONS, INCLUDING ASSOCIATED TABLES AND FIGURES, BASED ON LOCAL SEISMIC DESIGN CATEGORY.

**DESIGN LOADS**

ASSUMED SOIL BEARING-CAPACITY 2,000 PSF

	LIVE LOAD
ULTIMATE DESIGN WIND SPEED	115 MPH, EXPOSURE B
GROUND SNOW	15 PSF
ROOF	20 PSF

RESIDENTIAL CODE TABLE R301.5	LIVE LOAD (PSF)
DWELLING UNITS	40
SLEEPING ROOMS	30
ATTICS WITH STORAGE	20
ATTICS WITHOUT STORAGE	10
STAIRS	40
DECKS	40
EXTERIOR BALCONIES	40
PASSENGER VEHICLE GARAGES	60
FIRE ESCAPES	40
GUARDS AND HANDRAILS	200 (pounds, concentrated)

COMPONENT AND CLADDING LOADS, INCLUDING THOSE FOR DOORS AND WINDOWS, SHALL BE DERIVED FROM TABLES R301.2(2) AND R301.2(3) FOR A BUILDING WITH A MEAN ROOF HEIGHT OF 35 FEET, LOCATED IN EXPOSURE B.

**ABBREVIATIONS**

ABV	ABOVE	KS	KING STUD COLUMN
AFF	ABOVE FINISHED FLOOR	LVL	LAMINATED VENEER LUMBER
ALT	ALTERNATE	MAX	MAXIMUM
BRG	BEARING	MECH	MECHANICAL
BISMT	BASEMENT	MFR	MANUFACTURER
CANT	CANTILEVER	MIN	MINIMUM
CJ	CEILING JOIST	NTS	NOT TO SCALE
CLG	CEILING	OA	OVERALL
CMU	CONCRETE MASONRY UNIT	OC	ON CENTER
CO	CASED OPENING	PT	PRESSURE TREATED
COL	COLUMN	R	RISER
CONC	CONCRETE	REF	REFRIGERATOR
CONT	CONTINUOUS	RFG	ROOFING
D	CLOTHES DRYER	RO	ROUGH OPENING
DBL	DOUBLE	RS	ROOF SUPPORT
DIAM	DIAMETER	SC	STUD COLUMN
DJ	DOUBLE JOIST	SH	SHELF / SHELVES
DN	DOWN	SHTO	SHEATHING
DP	DEEP	SHW	SHOWER
DR	DOUBLE RAFTER	SIM	SIMILAR
DSP	DOUBLE STUD POCKET	SJ	SINGLE JOIST
EA	EACH	SP	STUD POCKET
EE	EACH END	SPEC'D	SPECIFIED
EQ	EQUAL	SG	SQUARE
EX	EXTERIOR	T	TREAD
FAU	FORCED-AIR UNIT	TEMP	TEMPERED GLASS
FDN	FOUNDATION	THK	THICKNESS
FF	FINISHED FLOOR	TJ	TRIPLE JOIST
FLR	FLOORING	TOC	TOP OF CURB / CONCRETE
FP	FIREPLACE	TR	TRIPLE RAFTER
FTG	FOOTING	TYP	TYPICAL
HB	HOSE BIBB	UNO	UNLESS NOTED OTHERWISE
HDR	HEADER	W	CLOTHES WASHER
HGR	HANGER	WH	WATER HEATER
JS	JACK STUD COLUMN	WWF	WELDED WIRE FABRIC
		XJ	EXTRA JOIST

**MATERIALS**

1. INTERIOR / TRIMMED FRAMING LUMBER SHALL BE #2 SPRUCE PINE FIR (SPF) WITH THE FOLLOWING DESIGN PROPERTIES (#2 SOUTHERN YELLOW PINE MAY BE SUBSTITUTED):

Fb = 875 PSI Fv = 70 PSI E = 1.4E6 PSI

2. FRAMING LUMBER EXPOSED TO WEATHER OR IN CONTACT WITH THE GROUND, CONCRETE, OR MASONRY SHALL BE PRESSURE TREATED #2 SOUTHERN YELLOW PINE (SYP) WITH THE FOLLOWING DESIGN PROPERTIES:

Fb = 975 PSI Fv = 95 PSI E = 1.6E6 PSI

3. LVL STRUCTURAL MEMBERS TO BE LAMINATED VENEER LUMBER WITH THE FOLLOWING MINIMUM DESIGN PROPERTIES:

Fb = 2600 PSI Fv = 285 PSI E = 1.9E6 PSI

4. PSL STRUCTURAL MEMBERS TO BE PARALLEL STRAND LUMBER WITH THE FOLLOWING MINIMUM DESIGN PROPERTIES:

Fb = 2900 PSI Fv = 290 PSI E = 2.0E6 PSI

5. LSL STRUCTURAL MEMBERS TO BE LAMINATED STRAND LUMBER WITH THE FOLLOWING MINIMUM DESIGN PROPERTIES:

Fb = 2250 PSI Fv = 400 PSI E = 1.55E6 PSI

6. STRUCTURAL STEEL WIDE-FLANGE BEAMS SHALL CONFORM TO ASTM A992. Fy = 50 KSI

7. REBAR SHALL BE DEFORMED STEEL CONFORMING TO ASTM A618, GRADE 60.

8. POURED CONCRETE COMPRESSIVE STRENGTH TO BE A MINIMUM 3,000 PSI AT 28 DAYS. MATERIALS USED TO PRODUCE CONCRETE SHALL COMPLY WITH THE APPLICABLE STANDARDS LISTED IN AMERICAN CONCRETE INSTITUTE STANDARD ACI 318 OR ASTM C1157.

9. CONCRETE SUBJECT TO MODERATE OR SEVERE WEATHERING PROBABILITY PER TABLE R301.2(1) SHALL BE AIR-ENTRAINED WHEN REQUIRED BY TABLE R402.2.

10. CONCRETE MASONRY UNITS (CMU) SHALL CONFORM TO AMERICAN CONCRETE INSTITUTE PUBLICATION 530: BUILDING CODE REQUIREMENTS AND SPECIFICATIONS FOR MASONRY STRUCTURES AND COMPANION COMMENTARIES AND THE MASONRY SOCIETY PUBLICATION TMS 402/602: BUILDING CODE REQUIREMENTS AND SPECIFICATIONS FOR MASONRY STRUCTURES.

11. MORTAR SHALL COMPLY WITH ASTM INTERNATIONAL STANDARD C270.

12. INDICATED MODEL NUMBERS FOR ALL METAL HANGERS, STRAPS, FRAMING CONNECTORS, AND HOLD-DOWNS ARE SIMPSON STRONG-TIE BRAND. EQUIVALENT USP BRAND PRODUCTS ARE ACCEPTABLE.

13. REFER TO I-JOIST EQUIVALENCE CHART ON I-JOIST DETAIL SHEET FOR SUBSTITUTION OF MANUFACTURER SERIES.

**FOUNDATION**

1. MINIMUM ALLOWABLE SOIL BEARING CAPACITY IS ASSUMED TO BE 2,000 PSF. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY SOIL BEARING CAPACITY IF UNSATISFACTORY CONDITIONS EXIST.

2. CONCRETE FOUNDATION WALLS TO BE SELECTED AND CONSTRUCTED PER SECTION R404 OR AMERICAN CONCRETE INSTITUTE STANDARD ACI 318.

3. MASONRY FOUNDATION WALLS TO BE SELECTED AND CONSTRUCTED PER SECTION R404 AND/OR AMERICAN CONCRETE INSTITUTE PUBLICATION 530: BUILDING CODE REQUIREMENTS AND SPECIFICATIONS FOR MASONRY STRUCTURES AND COMPANION COMMENTARIES AND/OR THE MASONRY SOCIETY PUBLICATION TMS 402/602: BUILDING CODE REQUIREMENTS AND SPECIFICATIONS FOR MASONRY STRUCTURES.

4. CONCRETE WALL HORIZONTAL REINFORCEMENT TO BE PER TABLE R404.1.2(1) OR AS NOTED OR DETAILED. CONCRETE WALL VERTICAL REINFORCEMENT TO BE PER TABLES R404.1.2(3) AND (4) OR AS NOTED OR DETAILED. ALL CONCRETE WALLS SHALL COMPLY WITH APPLICABLE PROVISIONS OF CHAPTER 6.

- A. TABLES ASSUME THAT WALLS HAVE PERMANENT LATERAL SUPPORT AT THE TOP AND BOTTOM.
- B. FOUNDATION DRAINS ARE ASSUMED AT ALL WALLS PER SECTION R405.

5. PLAIN-MASONRY WALL DESIGN TO BE PER TABLE R404.1.1(1) OR AS NOTED OR DETAILED. MASONRY WALLS WITH VERTICAL REINFORCEMENT TO BE PER TABLES R404.1.1(2) THROUGH (4) OR AS NOTED OR DETAILED. ALL MASONRY WALLS SHALL COMPLY WITH APPLICABLE PROVISIONS OF CHAPTER 6.

- A. TABLES ASSUME THAT WALLS HAVE PERMANENT LATERAL SUPPORT AT THE TOP AND BOTTOM.
- B. WALL REINFORCING SHALL BE PLACED ACCORDING TO FOOTNOTE (c) OF THE TABLES (REINFORCING IS NOT CENTERED IN WALL).
- C. FOUNDATION DRAINS ARE ASSUMED AT ALL WALLS PER SECTION R405.

6. WOOD BILL PLATES TO BE ANCHORED TO THE FOUNDATION WITH 1/2" DIAMETER ANCHOR BOLTS WITH MINIMUM 7" EMBEDMENT, SPACED A MAXIMUM OF 6'-0" OC AND WITHIN 12" FROM THE ENDS OF EACH PLATE SECTION. INSTALL MINIMUM (2) ANCHOR BOLTS PER SECTION. SEE SECTION R403.1.6 FOR SPECIFIC CONDITIONS.

7. THE UNSUPPORTED HEIGHT OF SOLID MASONRY PIERS SHALL NOT EXCEED TEN TIMES THEIR LEAST DIMENSION. UNFILLED, HOLLOW PIERS MAY BE USED IF THE UNSUPPORTED HEIGHT IS NOT MORE THAN FOUR TIMES THEIR LEAST DIMENSION.

8. CENTERS OF PIERS TO BEAR IN THE MIDDLE THIRD OF THE FOOTINGS, AND GIRDERS SHALL CENTER IN THE MIDDLE THIRD OF THE PIERS.

9. ALL FOOTINGS TO HAVE MINIMUM 2" PROJECTION ON EACH SIDE OF FOUNDATION WALLS (SEE DETAILS).

10. ALL REBAR NOTED IN CONCRETE TO HAVE AT LEAST 2" COVER FROM EDGE OF CONCRETE TO EDGE OF REBAR.

11. FRAMING TO BE FLUSH WITH FOUNDATION WALLS.

12. WITH CLASS 1 SOILS, VAPOR BARRIER AND CRUSHED STONE MAY BE OMITTED.

**FRAMING**

1. ALL BEARING HEADERS TO BE (2) 2x6 SUPPORTED W/ MIN (1) JACK STUD AND (1) KING STUD EACH END, UNO.

2. ALL NON-BEARING HEADERS TO BE (2) 2x4, UNO.

3. NON-BEARING INTERIOR WALLS NOT MORE THAN 10' NOMINAL HEIGHT AND NOT SHOWN AS BRACED WALLS MAY BE FRAMED WITH 2x4 STUDS @ 24" OC.

4. SOLID BLOCKING TO BE PROVIDED AT ALL POINT LOADS THROUGH FLOOR LEVELS TO THE FOUNDATION OR TO OTHER STRUCTURAL COMPONENTS.

5. ALL BEAMS SPECIFIED ARE MINIMUM SIZES ONLY. LARGER MEMBERS MAY SUBSTITUTED AS NEEDED FOR EASE OF CONSTRUCTION.

6. ALL EXTERIOR WALLS TO BE FULLY SHEATHED WITH 7/16" OSB.

7. PORCH / PATIO COLUMNS TO BE 4x4 MINIMUM PRESSURE-TREATED LUMBER.

- A. ATTACH PORCH COLUMNS TO SLAB / FDN WALL USING ABA, ABU, ABW, OR CPT SIMPSON POST BASES TO FIT COLUMN SIZES NOTED ON PLAN -OR- ANY OTHER COLUMN CONNECTION WITH 500# UPLIFT CAPACITY.
- B. ATTACH PORCH COLUMNS TO PORCH BEAMS USING AC OR BC SIMPSON POST CAPS TO FIT COLUMN SIZES NOTED ON PLAN -OR- ANY OTHER COLUMN CONNECTION WITH 500# UPLIFT CAPACITY.
- C. TRIM OUT COLUMN(S) AND BEAM(S) PER BUILDER AND DETAILS.

7. ALL ENGINEERED WOOD PRODUCTS (LVL, PSL, LSL, ETC.) SHALL BE INSTALLED WITH CONNECTIONS PER MANUFACTURER SPECIFICATIONS.

8. ENGINEERED WOOD FLOOR SYSTEMS AND ROOF TRUSS SYSTEMS: A. SHOP DRAWINGS FOR THE SYSTEMS SHALL BE PROVIDED TO THE ENGINEER OF RECORD FOR REVIEW AND COORDINATION BEFORE CONSTRUCTION.

- B. TRUSS PROFILES SHALL BE SEALED BY THE TRUSS MANUFACTURER.
- C. INSTALLATION OF THE SYSTEMS SHALL BE PER MANUFACTURER'S INSTRUCTIONS.
- D. TRUSS LAYOUT AND PLACEMENT BY MANUFACTURER TO COINCIDE WITH THE SUPPORT LOCATIONS SHOWN IN THESE DRAWINGS.

9. ALL BEAMS TO BE CONTINUOUSLY SUPPORTED Laterally AND SHALL BEAR FULL WIDTH ON THE SUPPORTING WALLS OR COLUMNS INDICATED, WITH A MINIMUM OF THREE STUDS, UNO.

10. ALL STEEL BEAMS TO BE SUPPORTED AT EACH END WITH A MIN BEARING LENGTH OF 3 1/2" AND FULL FLANGE WIDTH. BEAMS MUST BE ATTACHED AT EACH END WITH A MINIMUM OF FOUR 1/4" NAILS OR TWO 1/2" x 4" LAG SCREWS, UNO.

11. STEEL FLITCH BEAMS TO BE BOLTED TOGETHER USING (2) ROWS OF 1/2" DIAMETER BOLTS (ASTM 307) WITH WASHERS PLACED UNDER THE THREADED END OF THE BOLT. BOLTS TO BE SPACED AT 24" OC (MAX) AND STAGGERED TOP AND BOTTOM OF BEAM (2" EDGE DISTANCE), WITH TWO BOLTS TO BE LOCATED AT 6" FROM EACH END OF FLITCH BEAM.

12. WHEN A 4-PLY LVL BEAM IS USED, ATTACH WITH (1) 1/2" DIAMETER BOLT, 12" OC, STAGGERED TOP AND BOTTOM, 1 1/2" MIN FROM ENDS. ALTERNATE EQUIVALENT ATTACHMENT METHOD MAY BE USED, SUCH AS SDS, SDW, OR TRUSSLOK SCREWS (SEE MANUFACTURER SPECIFICATIONS).

13. FOR STUD COLUMNS OF 4-OR-MORE STUDS, INSTALL SIMPSON STRONG-TIE CS16 STRAPS ACROSS STUDS @ 36" OC, 6" MAX FROM ENDS, ON INSIDE FACE OF COLUMN (EXTERIOR WALL), ON BOTH FACES OF COLUMN (INTERIOR WALL).

14. FLOOR JOISTS ADJACENT AND PARALLEL TO THE EXTERIOR FOUNDATION WALL SHALL BE PROVIDED WITH FULL-DEPTH SOLID BLOCKING, NOT LESS THAN TWO (2) INCHES NOMINAL IN THICKNESS, PLACED PERPENDICULAR TO THE JOIST AT SPACING NOT MORE THAN FOUR (4) FEET. THE BLOCKING SHALL BE NAILED TO THE FLOOR SHEATHING, THE SILL PLATE, THE JOIST, AND THE EXTERIOR RIM JOIST / BOARD.

15. BRACED WALL PANELS SHALL BE FASTENED TO MEET THE UPLIFT-RESISTANCE REQUIREMENTS IN CHAPTERS 6 AND 8 OF THE APPLICABLE CODE (SEE TITLE SHEET). REQUIREMENTS OF THE STRUCTURAL DRAWINGS THAT EXCEED THE CODE MINIMUM SHALL BE MET.



**JDS**  
CONSULTING & DESIGN  
JDS CONSULTING & DESIGN, PLLC  
600 W. JERSEY CT. RALEIGH, NC 27617  
919.488.1073  
INFO@JDSDESIGNONLINE.COM  
WWW.JDSDESIGNONLINE.COM

JDS CONSULTING & DESIGN IS NOT LIABLE FOR CHANGES MADE TO PLANS DUE TO CONSTRUCTION METHODS OR ANY CHANGES TO PLANS MADE IN THE FIELD BY CONTRACTOR OR BY OTHERS. DRAWINGS ARE PROVIDED TO CLIENT FOR THE LOT NUMBER, PROPERTY OR AS A MASTER PLAN AS SPECIFIED ON TITLE SHEET. DIMENSIONS SHALL GOVERN OVER SCALE, AND CODE SHALL GOVERN OVER DIMENSIONS ON DRAWINGS.

**TIM HOWARD**  
PROJECT: 1770 THOMAS KELLY RD., SANFORD, NC  
LOCATION: NORTH CAROLINA  
SCALE: 1/4" = 1'-0" FOR 11X17 PAPER, 1/2" = 1'-0" FOR 22X34 PAPER, OR AS NOTED

PROJECT NO: 19900394  
DATE: 04/02/2019 DRAWN BY: FAB  
GENERAL NOTES  
**GN1.0**

**FASTENER SCHEDULE**

<b>CONNECTION</b>	3" x 0.131" NAIL, 3" x 0.120" NAIL	JOIST TO SILL PLATE (4) TOE NAILS (4) TOE NAILS	SOLE PLATE TO JOIST / BLOCKING (4) PER 16" SPACE (4) PER 16" SPACE (4) TRACED PANELS	STUD TO SOLE PLATE (4) TOE NAILS (4) TOE NAILS	TOP OR SOLE PLATE TO STUD (3) FACE NAILS (4) TOE NAILS	TOP PLATE OR BAND JOIST TO SOLE PLATE OR SILL PLATE (4) TOE NAILS @ 8" OC (4) TOE NAILS @ 8" OC	DOUBLE STUD NAILS @ 8" OC NAILS @ 8" OC	DOUBLE TOP PLATES NAILS @ 12" OC NAILS @ 12" OC	DOUBLE TOP PLATES LAP (2) MIN LAP LENGTH (2) NAILS IN LAPPED AREA, EA SIDE OF JOINT	TOP PLATE LAP AT CORNERS (2) FACE NAILS (2) FACE NAILS	OPEN WEB TRUSS BOTTOM CHORD TO TOP PLATES OR SILL PLATE PARALLEL TO WALL	NAILS @ 8" OC NAILS @ 8" OC	BOTTOM CHORD OF TRUSS TO TOP PLATES OR SILL PLATE PERPENDICULAR TO WALL	(2) TOE NAILS (2) TOE NAILS
-------------------	------------------------------------	---	--	--	--	--	---	---	--	--	--	--------------------------------	---	--------------------------------

SEE TABLE R602.3(1) FOR ADDITIONAL STRUCTURAL MEMBER FASTENING REQUIREMENTS.

DETAILS AND NOTES ON DRAWINGS GOVERN.

BALLOON WALL FRAMING SCHEDULE  
(USE THESE STANDARDS UNLESS NOTED OTHERWISE ON THE FRAMING PLAN SHEETS)

FRAMING MEMBER SIZE 115 MPH ULTIMATE DESIGN WIND SPEED  
MAX HEIGHT (PLATE TO PLATE)

2x4 @ 16" OC  
2x4 @ 12" OC  
2x6 @ 16" OC  
2x6 @ 12" OC  
2x4 @ 16" OC  
2x4 @ 12" OC  
2x6 @ 16" OC  
2x6 @ 12" OC  
2x4 @ 16" OC  
2x4 @ 12" OC

a. ALL HEIGHTS ARE MEASURED SUBFLOOR TO TOP OF WALL PLATE.

b. WHEN SPLIT-FRAMED WALLS ARE USED FOR HEIGHTS OVER 12', THE CONTRACTOR SHALL ADD 6" MINIMUM FOR C916 COIL STRAPPING (FULLY NAILED), CENTERED OVER THE WALL BREAK.

c. FINGER-JOINTED MEMBERS MAY BE USED FOR CONTINUOUS HEIGHTS WHERE TRADITIONALLY MILLED LUMBER LENGTHS ARE LIMITED.

d. FOR GREATER WIND SPEEDS, SEE ENGINEERED SOLUTION FOR CONDITION IN DRAWINGS.

**ROOF SYSTEMS**

TRUSSED ROOF - STRUCTURAL NOTES

1. PROVIDE CONTINUOUS BLOCKING THROUGH STRUCTURE FOR ALL POINT LOADS.
2.  DENOTES OVER-FRAMED AREA
3. MINIMUM 7/16" OSB ROOF SHEATHING
4. TRUSS LAYOUT AND PLACEMENT BY MANUFACTURER TO COINCIDE WITH THE SUPPORT LOCATIONS SHOWN. TRUSS PROFILES SHALL BE SEALED BY THE TRUSS MANUFACTURER. TRUSS PLANS TO BE COORDINATED WITH THE SEALED STRUCTURAL DRAWINGS. INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
5. MANUFACTURER TO PROVIDE REQUIRED UPLIFT CONNECTION.
6. PROVIDE H2 SA (MINIMUM) OR EQUIVALENT AT EACH TRUSS-TO-TOP PLATE CONNECTION AT OVER-FRAMED AREAS, UNLESS NOTED OTHERWISE.
7. UPLIFT CONNECTION TO BE CARRIED THROUGH TO FLOOR SYSTEM.

STICK-FRAMED ROOF - STRUCTURAL NOTES

1. PROVIDE 2x4 COLLAR TIES AT 48" OC AT UPPER THIRD OF RAFTERS, UNLESS NOTED OTHERWISE.
2. FUR RIDGES FOR FULL RAFTER CONTACT.
3. PROVIDE CONTINUOUS BLOCKING THROUGH STRUCTURE FOR ALL POINT LOADS.
4.  DENOTES OVER-FRAMED AREA
5. MINIMUM 7/16" OSB ROOF SHEATHING
6. PROVIDE 2x4 RAFTER TIES AT 16" OC AT 45° BETWEEN RAFTERS AND CEILING JOISTS. USE (4) 16d NAILS AT EACH CONNECTION. RAFTERS MAY BE SPACED AT 48" OC AT LOCATIONS WHERE NO KNEE WALLS ARE INSTALLED.
7. PROVIDE H2 SA (MINIMUM) OR EQUIVALENT AT EACH RAFTER-TO-TOP PLATE CONNECTION AT OVER-FRAMED AREAS, UNLESS NOTED OTHERWISE.
8. UPLIFT CONNECTION TO BE CARRIED THROUGH TO FLOOR SYSTEM.

BRICK VENEER LINTEL SCHEDULE

SPAN	STEEL ANGLE SIZE	END BEARING LENGTH
19'-0"	2x6 @ 12" OC	15'-0"
17'-0"	2x6 @ 12" OC	13'-0"
15'-0"	2x6 @ 12" OC	11'-0"
14'-0"	2x4 @ 16" OC	10'-0"
17'-0"	2x4 @ 12" OC	13'-0"
25'-0"	2x6 @ 12" OC	21'-0"
27'-0"	2x6 @ 16" OC	23'-0"
31'-0"	2x6 @ 12" OC	27'-0"

NOTE: BRICK LINTELS AT SLOPED AREAS TO BE 4"x3-1/2"x14" STEEL ANGLE WITH 16d NAILS IN 3/4" HOLES IN 4" ANGLE LEGS AT 12" OC TO TRIPLE RAFTER, WHEN THE SLOPE EXCEEDS 4:12 A MINIMUM OF 3"x3-1/4" PLATES SHALL BE WELDED AT 24" OC ALONG THE STEEL ANGLE.

\* FOR QUEEN BRICK LINTELS AT THIS CONDITION MAY BE 5"x3-1/2"x16"

FOR QUEEN BRICK LINTEL w/ 12" OVER 72" THRU BOLT @ 12" OC, 3" FROM EACH END

UP TO 42"	L3-1/2"x3-1/2"x14" (LLV)	8" (MIN. @ EACH END)
UP TO 72"	L6"x4"x5/16" (LLV)	8" (MIN. @ EACH END)

**ELIAH B. SMITH**  
REGISTERED PROFESSIONAL ENGINEER  
37975  
NORTH CAROLINA

CONSULTING & DESIGN

JDS  
1600 W. HESSY CT. RALEIGH, NC 27617  
919.481.1873  
WWW.JDSDESIGNONLINE.COM

JDS CONSULTING & DESIGN IS NOT LIABLE FOR CHANGES MADE TO PLANS MADE IN THE FIELD BY METHODS OR ANY CHANGES TO CONTRACTOR OR BY OTHERS. CLIENT FOR THE LOT NUMBER. DRAWINGS ARE PROVIDED TO PROPERTY OR AS A MASTER PLAN AS SPECIFIED ON THE SHEET. DIMENSIONS SHALL GOVERN OVER SCALE AND COORDINATE OVER DIMENSIONS ON DRAWINGS.

**G.N.I.**  
GENERAL NOTES

PROJECT NO. 19900394

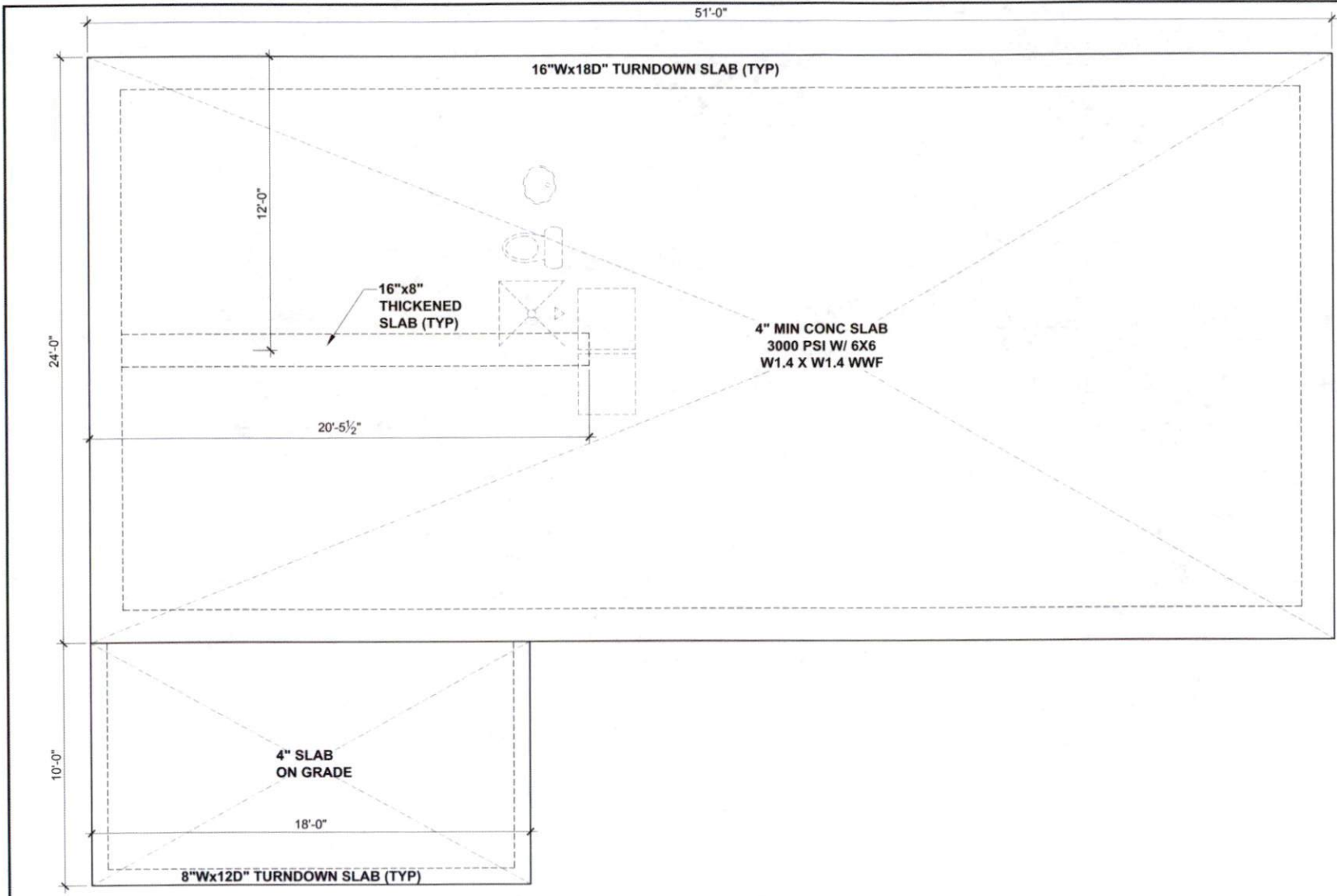
DATE 04/02/2019  
DRAWN BY FAB

CLIENT  
**TIM HOWARD**

PROJECT  
**1770 THOMAS KELLY RD. SANFORD, NC**

LOCATION  
**NORTH CAROLINA**

SCALE: 1/4" = 1'-0" FOR 11x17 PAPER, 1/2" = 1'-0" FOR 22x34 PAPER, OR AS NOTED



# FOUNDATION PLAN

SCALE: 1/4" = 1'-0"



**JDS**  
CONSULTING & DESIGN

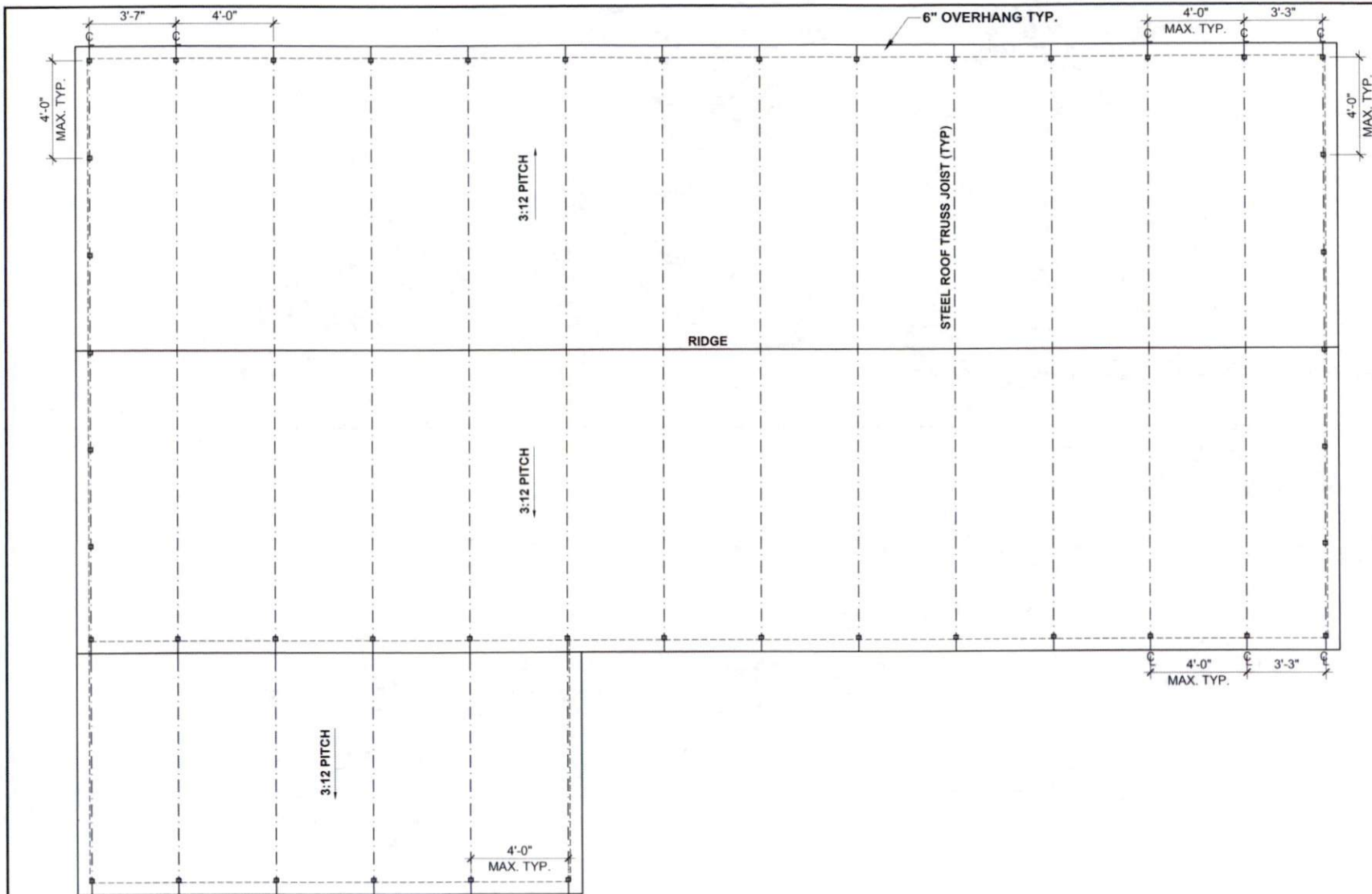
JDS CONSULTING & DESIGN, PLLC  
660 W. JERSEY CT. RALEIGH, NC 27617  
919.490.1075

INFO@JDSDESIGNONLINE.COM  
WWW.JDSDESIGNONLINE.COM

JDS CONSULTING & DESIGN IS NOT  
LIABLE FOR CHANGES MADE TO  
PLANS DUE TO CONSTRUCTION  
METHODS OR ANY CHANGES TO  
PLANS MADE IN THE FIELD BY  
CONTRACTOR OR BY OTHERS.  
DRAWINGS ARE PROVIDED TO  
CLIENT FOR THE LOT NUMBER,  
PROPERTY, OR AS A MASTER PLAN  
AS SPECIFIED ON TITLE SHEET.  
DIMENSIONS SHALL GOVERN OVER  
SCALE, AND CODE SHALL GOVERN  
OVER DIMENSIONS ON DRAWINGS.

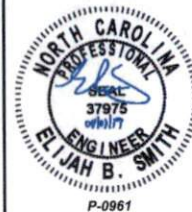
CLIENT	TIM HOWARD
PROJECT	1770 THOMAS KELLY RD. SANFORD, NC
LOCATION	NORTH CAROLINA
SCALE	1/4" = 1'-0" FOR 11X17 PAPER, 1/2" = 1'-0" FOR 22X34 PAPER, OR AS NOTED

PROJECT NO.	19900394
DATE	04/02/2019
DRAWN BY	FAB
FOUNDATION PLAN	
<b>F1.0</b>	



# ROOF FRAMING PLAN

SCALE: 1/4" = 1'-0"



**JDS**  
CONSULTING & DESIGN

JDS CONSULTING & DESIGN, PLLC  
6600 TP JERSEY CT. RALEIGH, NC 27617  
919.480.1075

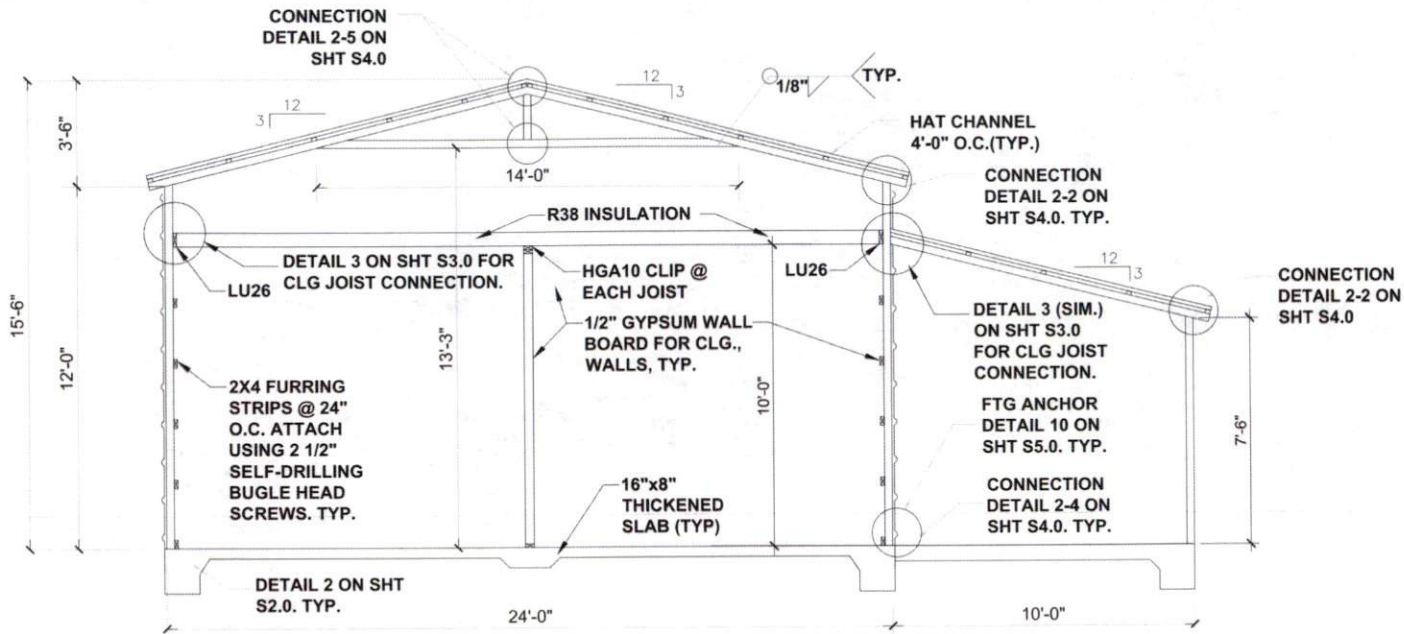
EMAIL: JDS@JDSCONSULTING.COM  
WWW: JDSDESIGNONLINE.COM

JDS CONSULTING & DESIGN IS NOT  
LIABLE FOR CHANGES MADE TO  
PLANS DUE TO CONSTRUCTION  
METHODS OR ANY CHANGES TO  
PLANS MADE IN THE FIELD BY  
CONTRACTOR OR BY OTHERS.  
DRAWINGS ARE PROVIDED TO  
CLIENT FOR THE LOT NUMBER,  
PROPERTY, OR AS A MASTER PLAN  
AS SPECIFIED ON TITLE SHEET.  
DIMENSIONS SHALL GOVERN OVER  
SCALE, AND CODE SHALL GOVERN  
OVER DIMENSIONS ON DRAWINGS.

CLIENT	TIM HOWARD
PROJECT	1770 THOMAS KELLY RD. SANFORD, NC
LOCATION	NORTH CAROLINA
SCALE	1/4" = 1'-0" FOR 11x17 PAPER, 1/2" = 1'-0" FOR 22x34 PAPER, OR AS NOTED

PROJECT NO.	19900394
DATE	04/02/2019
DRAWN BY	FAB
ROOF FRAMING PLAN	
<b>F2.0</b>	



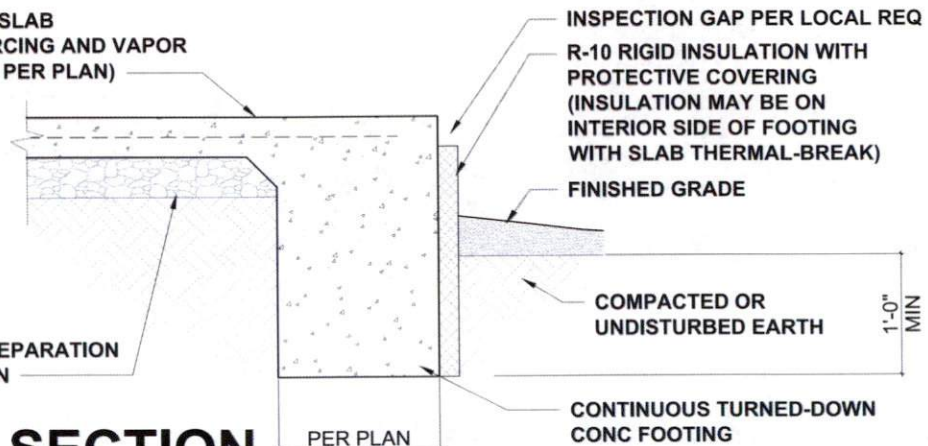


# 1- BUILDING SECTION

SCALE: 1/4" = 1'-0"

4" CONC SLAB  
(REINFORCING AND VAPOR  
BARRIER PER PLAN)

SLAB PREPARATION  
PER PLAN



# 2- DETAIL SECTION

SCALE: 3/4" = 1'-0"



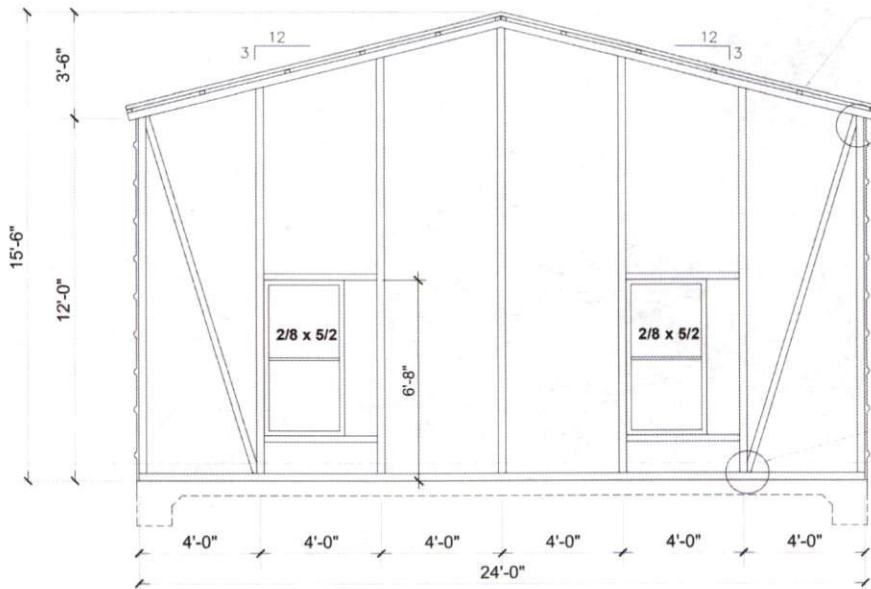
JDS CONSULTING & DESIGN, PLLC  
5600 W. JERSEY CT. RALEIGH, NC 27617  
919.486.1075  
INFO@JDSDESIGNONLINE.COM  
WWW.JDSDESIGNONLINE.COM

JDS CONSULTING & DESIGN IS NOT  
LIABLE FOR CHANGES MADE TO  
PLANS DUE TO CONSTRUCTION  
METHODS OR ANY CHANGES TO  
PLANS MADE IN THE FIELD BY  
CONTRACTOR OR BY OTHERS.  
DRAWINGS ARE PROVIDED TO  
CLIENT FOR THE LOT NUMBER,  
PROPERTY OR AS A MASTER PLAN  
AS SPECIFIED ON TITLE SHEET.  
DIMENSIONS SHALL GOVERN OVER  
SCALE, AND CODE SHALL GOVERN  
OVER DIMENSIONS ON DRAWINGS.

CLIENT	TIM HOWARD
PROJECT	1770 THOMAS KELLY RD. SANFORD, NC
LOCATION	NORTH CAROLINA
SCALE	1/4" = 1'-0" FOR 11x17 PAPER, 1/2" = 1'-0" FOR 22x34 PAPER, OR AS NOTED

PROJECT NO.	19900394
DATE	04/02/2019
DRAWN BY	FAB

BUILDING SECTION
<b>S2.0</b>



HAT CHANNEL  
3'-0" O.C.(TYP.)

WIND BRACE  
CONNECTION .  
SEE DETAIL 2-5  
ON SHT S4.0.  
TYP. @ CORNER  
BAYS.

WIND BRACE  
CONNECTION .  
SEE DETAIL 2-5  
ON SHT S4.0.  
TYP. @ CORNER  
BAYS.

# END WALL FRAMING ELEVATION

SCALE: 1/4" = 1'-0"



JDS CONSULTING & DESIGN, PLLC  
6600 17<sup>TH</sup> JERSEY CT. RALEIGH, NC 27617  
919.480.1075  
INFO@JDSDESIGNONLINE.COM  
WWW.JDSDESIGNONLINE.COM

JDS CONSULTING & DESIGN IS NOT  
LIABLE FOR CHANGES MADE TO  
PLANS DUE TO CONSTRUCTION  
METHODS OR ANY CHANGES TO  
PLANS MADE IN THE FIELD BY  
CONTRACTOR OR BY OTHERS.  
DRAWINGS ARE PROVIDED TO  
CLIENT FOR THE LOT NUMBER,  
PROPERTY OR AS A MASTER PLAN  
AS SPECIFIED ON TITLE SHEET.  
DIMENSIONS SHALL GOVERN OVER  
SCALE AND CODE SHALL GOVERN  
OVER DIMENSIONS ON DRAWINGS.

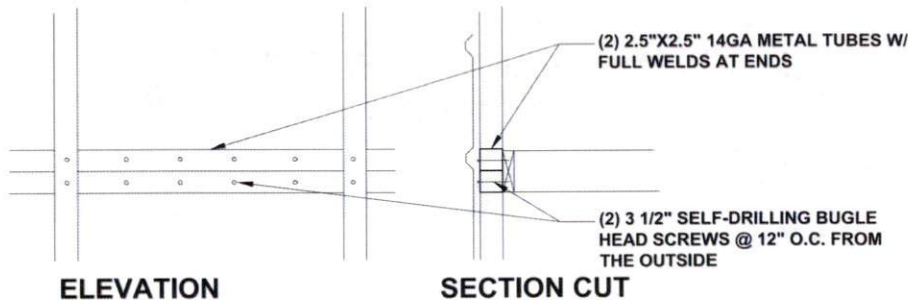
CLIENT: **TIM HOWARD**  
PROJECT: **1770 THOMAS KELLY RD. SANFORD, NC**  
LOCATION: **NORTH CAROLINA**  
SCALE: 1/4" = 1'-0" FOR LIST PAPER, 1/2" = 1'-0" FOR 22x34 PAPER, OR AS NOTED

PROJECT NO.: **19900394**  
DATE: **04/02/2019** DRAWN BY: **FAB**  
BUILDING SECTION  
**S2.1**



# SEISMIC

DESIGN LOADS		STRUCTURAL DESIGN	
IMPORTANCE FACTORS:	WIND ( $I_w$ )	1.0	
	SNOW ( $I_s$ )	1.0	
	SEISMIC ( $I_e$ )	1.0	
LIVE LOADS: (TABLE 1607.1)	ROOF	12 psf	
	MEZZANINE	N/A psf	
	GROUND FLOOR	100 psf	
GROUND SNOW LOAD: (SECTION 1608)		15 psf	
WIND LOAD: (SECTION 1609)	BASIC WIND SPEED	117 mph (ASCE7-16)	
	EXPOSURE CATEGORY	C	
	WIND BASE SHEARS (for MWFRS)	$V_x = 27.6k$ $V_y = 13.0k$	
RAIN LOAD: (SECTION 1611)		INCHES/HOUR	
SEISMIC DESIGN CATEGORY	<input type="checkbox"/> A	<input checked="" type="checkbox"/> B	<input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E
PROVIDE THE FOLLOWING SEISMIC DESIGN PARAMETERS:			
OCCUPANCY CATEGORY (TABLE 1604.5)		<input type="checkbox"/> I <input checked="" type="checkbox"/> II <input type="checkbox"/> III <input type="checkbox"/> IV	<b>WIND CONTROLS</b>
SPECTRAL RESPONSE ACCELERATION		$S_s = 0.135$ $S_1 = 0.066$ $S_2$	
SITE CLASSIFICATION (TABLE 1613.5.2)		<input type="checkbox"/> A <input type="checkbox"/> B <input checked="" type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E <input type="checkbox"/> F	
DATA SOURCE: <input type="checkbox"/> FIELD TEST <input checked="" type="checkbox"/> PRESUMPTIVE <input type="checkbox"/> HISTORICAL DATA			
BASIC STRUCTURAL SYSTEM (CHECK ONE)			
<input type="checkbox"/> BEARING WALL <input type="checkbox"/> DUAL W/ SPECIAL MOMENT FRAME			
<input checked="" type="checkbox"/> BUILDING FRAME <input type="checkbox"/> DUAL W/ INTERMEDIATE R/C OR SPECIAL STEEL			
<input type="checkbox"/> MOMENT FRAME <input type="checkbox"/> INVERT PENDULUM			
SEISMIC BASE SHEAR $V_x =$ $V_y =$			
ANALYSIS PROCEDURE <input type="checkbox"/> SIMPLIFIED <input checked="" type="checkbox"/> EQUIVALENT LATERAL FORCE <input type="checkbox"/> MODAL			
ARCHITECTURAL, MECHANICAL, COMPONENTS ANCHORED? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO			
LATERAL DESIGN CONTROL: EARTHQUAKE <input type="checkbox"/> WIND <input checked="" type="checkbox"/>			
SOIL BEARING CAPACITIES:			
FIELD TEST (PROVIDE COPY OF TEST REPORT) _____ psf			
PRESUMPTIVE BEARING CAPACITY 2000 psf			
PILE SIZE, TYPE, AND CAPACITY _____			



ELEVATION

SECTION CUT

## 3- DETAIL

N.T.S.

# CONSTRUCTION NOTES

- ALL WORK SHALL BE IN ACCORDANCE WITH THE 2015 INTERNATIONAL BUILDING CODE (WITH ASCE 7-10 WIND LOAD) AND ALL OTHER APPLICABLE LOCAL CODES, REGULATIONS AND REQUIREMENTS
- ALL WELDING SHALL BE ACCORDING TO AWS D1.1. VERIFY ALL DIMENSIONS WITH THE OWNER PRIOR TO BEGINNING WORK OR ORDERING MATERIALS.
- CONTRACTOR TO VERIFY SOIL BEARING CAPACITY PRIOR TO BEGINNING WORK. SOIL BEARING CAPACITY TO BE A MINIMUM OF 2000 PSF. IF CAPACITY IS LESS THAN 2000 PSF, CONTACT ENGINEER PRIOR TO BEGINNING WORK FOR POSSIBLE FOUNDATION REDESIGN.
- DESIGN LOADS:
  - ROOF DEAD LOAD: 4 PSF
  - ROOF LIVE LOAD: 12 PSF (SPECIAL SCAFFOLDING SHALL BE REQUIRED AS A WORK SURFACE FOR WORKMAN AND MATERIALS DURING ROOF INSTALLATION, MAINTENANCE, AND REPAIR.)
  - BASIC WIND SPEED: 104 MPH (3 SECOND GUST)
  - GROUND SNOW LOAD: 10 PSF EXPOSURE CATEGORY C
- THE MINIMUM YIELD STRENGTH OF THE STEEL USED IN THE LIGHT GAUGE METAL FRAMES SHALL BE 55,000 PSI, RAW OR GALVANIZED TUBES.
- THE MINIMUM YIELD STRENGTH OF THE STEEL USED FOR THE LIGHT GAUGE METAL DECK SHALL BE 80,000 PSI, DECKING PANELS SHALL COVER A MINIMUM OF THREE SPANS.
- ALL WELDS SHALL BE COATED WITH GALVANIZED PRIMER AND PAINT AFTER WELDING. ALL STRUCTURAL WELDING SHALL BE PERFORMED BY AWS CERTIFIED WELDERS.
- ALL FOOTINGS AND SLABS SHALL BE PLACED ON UNDISTURBED SATISFACTORY ON SITE SOIL. THE BOTTOM OF ALL FOOTINGS SHALL BE PLACED BELOW THE FROST LINE.
- CONCRETE SHALL HAVE A 28 DAY COMPRESSIVE STRENGTH OF 3000 PSI AND SHALL HAVE 5% TO 7% ENTRAINED AIR.
- REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 40 (FYI=40,000 PSI) AND SHALL HAVE STANDARD DEFORMATIONS. ALL LAP SPLICES SHALL BE 48 BAR DIAMETERS UNLESS OTHERWISE NOTED. CONTRACTOR TO SECURELY TIE ALL REINFORCING STEEL TO PREVENT MOVEMENT DURING PLACEMENT OF CONCRETE.
- WELDED WIRE FABRIC (WWF) SHALL CONFORM TO ASTM A185, LAP ONE FULL MESH PLUS 2" AT SPLICES. FABRIC SHALL BE FURNISHED IN FLAT SHEETS. CONTRACTOR MAY USE FIBER FILL CONCRETE IN LIEU OF WWF IF DESIRED OVER PROPERLY DRAINED BASE MATERIAL AND VAPOR BARRIER.
- ALL BUILDING DIMENSIONS ARE NOMINAL.



JDS CONSULTING & DESIGN, PLLC  
8600 17<sup>th</sup> JERSEY CT, RALEIGH, NC 27617  
919.480.1075  
INFO@JDSDESIGNONLINE.COM  
WWW.JDSDESIGNONLINE.COM

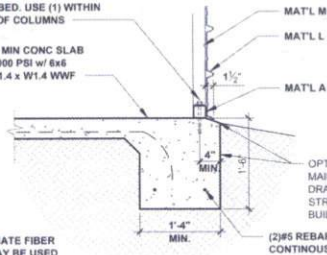
JDS CONSULTING & DESIGN IS NOT LIABLE FOR CHANGES MADE TO PLANS DUE TO CONSTRUCTION METHODS OR ANY CHANGES TO PLANS MADE IN THE FIELD BY CONTRACTOR OR BY OTHERS. DRAWINGS ARE PROVIDED TO CLIENT FOR THE LOT NUMBER, PROPERTY OR AS A MASTER PLAN AS SPECIFIED ON TITLE SHEET. DIMENSIONS SHALL GOVERN OVER SCALE, AND CODE SHALL GOVERN OVER DIMENSIONS ON DRAWINGS.

CLIENT: **TIM HOWARD**  
PROJECT: **1770 THOMAS KELLY RD. SANFORD, NC**  
LOCATION: **NORTH CAROLINA**  
SCALE: 1/4" = 1'-0" FOR 11x17 PAPER, 1/2" = 1'-0" FOR 22x34 PAPER OR AS NOTED

PROJECT NO: **19900394**  
DATE: **04/02/2019** DRAWN BY: **FAB**  
GENERAL NOTES  
**S3.0**

1/2" TRUBOLT ANCHOR,  
MINIMUM OF 2 1/2"  
EMBED. USE (1) WITHIN  
4" OF COLUMNS

4" MIN CONC SLAB  
3,000 PSI w/ 6x6  
W1.4 x W1.4 WWF

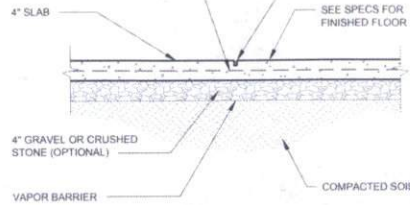


NOTE: (ALTERNATE FIBER  
MESH CONC MAY BE USED  
IN LIEU OF WIRE MESH)

TYPICAL FOUNDATION

NTS 10

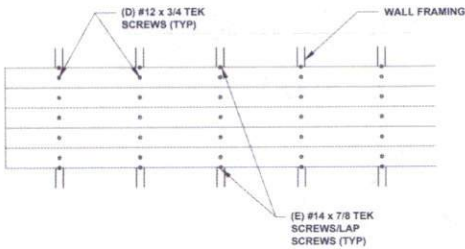
FLOOR SLAB REINFORCING 6x6  
W1.4 x W1.4 WWF OR FIBER MESH  
EXTENDED THROUGH JOINT



NTS 11

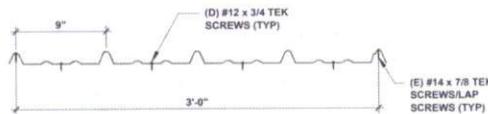
BILL OF MATERIALS

A	2.5" x 2.5" x 14GA TUBING
B	4" x 4" x 1/4" ANGLE MIN. A36 STEEL
C	NOT USED
D	#12 x 3/4" TEK SCREW
E	#12/#14 x 7/8" TEK SCREW/LAP SCREW
F	#14 x 1-1/4" TEK SCREW/LAP SCREW
G	29 GA METAL ROOF PANELS
H	29 GA GALVANIZED TP15 TIE PLATE 1 1/2" X5" OR SIMPSON STRONG TIE A-21
J	2 x 2 x 3/16L 36KSI STEEL ANGLE
K	4 x 14 GA BAR
L	29 GA METAL WALL PANELS
M	2.5" x 2.5" x 14GA NESTED W/ 2.25" x 2.25" X 12GA TUBING



WALL SCREW PATTERN

NTS 12



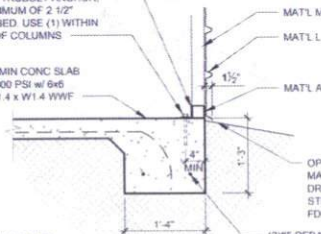
SECTION - SCREW PATTERN

NTS 13

2.5" x 2.5" x 3" LG. 1/4" BASE ANGLE

1/2" TRUBOLT ANCHOR,  
MINIMUM OF 2 1/2"  
EMBED. USE (1) WITHIN  
4" OF COLUMNS

4" MIN CONC SLAB  
3,000 PSI w/ 6x6  
W1.4 x W1.4 WWF



NOTE: (ALTERNATE FIBER  
MESH CONC MAY BE USED  
IN LIEU OF WIRE MESH)

ALTERNATE FOUNDATION

NTS 14



JDS CONSULTING & DESIGN, PLLC  
8600 17 JERSEY CT. RALEIGH, NC 27617  
919.480.1075

INFO@JDSDESIGNONLINE.COM  
WWW.JDSDESIGNONLINE.COM

JDS CONSULTING & DESIGN IS NOT  
LIABLE FOR CHANGES MADE TO  
PLANS DUE TO CONSTRUCTION  
METHODS OR ANY CHANGES TO  
PLANS MADE IN THE FIELD BY  
CONTRACTOR OR BY OTHERS.  
DRAWINGS ARE PROVIDED TO  
CLIENT FOR THE LOT NUMBER,  
PROPERTY, OR AS A MASTER PLAN  
AS SPECIFIED ON TITLE SHEET.  
DIMENSIONS SHALL GOVERN OVER  
SCALE, AND CODE SHALL GOVERN  
OVER DIMENSIONS ON DRAWINGS.

CLIENT: **TIM HOWARD**  
PROJECT: **1770 THOMAS KELLY RD. SANFORD, NC**  
LOCATION: **NORTH CAROLINA**  
SCALE: 1/4" = 1'-0" FOR 11x17 PAPER, 1/2" = 1'-0" FOR 25x35 PAPER, OR AS NOTED

PROJECT NO: **19900394**

DATE: **04/02/2019** DRAWN BY: **FAB**

DETAILS

**S5.0**



**JDS**  
CONSULTING & DESIGN

JDS CONSULTING & DESIGN, PLLC  
9600 TP JERSEY CT. RALEIGH, NC 27617  
919.880.1075

INFO@JDSDESIGNONLINE.COM  
WWW.JDSDESIGNONLINE.COM

JDS CONSULTING & DESIGN IS NOT  
LIABLE FOR CHANGES MADE TO  
PLANS DUE TO CONSTRUCTION  
METHODS OR ANY CHANGES TO  
PLANS MADE IN THE FIELD BY  
CONTRACTOR OR BY OTHERS.  
DRAWINGS ARE PROVIDED TO  
CLIENT FOR THE LOT NUMBER  
PROPERTY OR AS A MASTER PLAN  
AS SPECIFIED ON TITLE SHEET.  
DIMENSIONS SHALL GOVERN OVER  
SCALE AND CODE SHALL GOVERN  
OVER DIMENSIONS ON DRAWINGS.

CLIENT: **TIM HOWARD**

PROJECT: **1770 THOMAS KELLY RD. SANFORD, NC**

LOCATION: **NORTH CAROLINA**

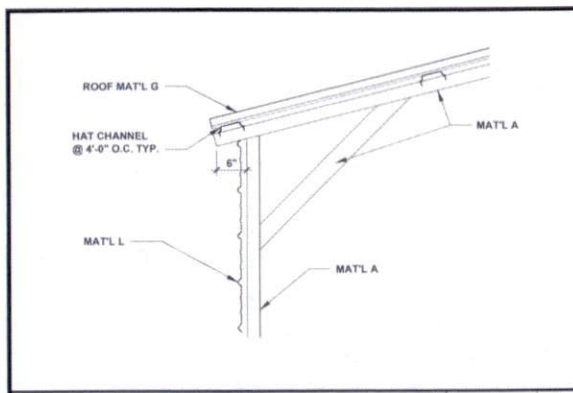
SCALE: 1/4" = 1'-0" FOR 11x17 PAPER, 1/2" = 1'-0" FOR 25x34 PAPER, OR AS NOTED

PROJECT NO: **19900394**

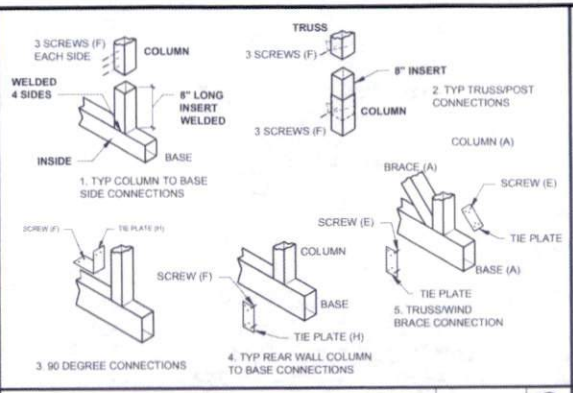
DATE: **04/02/2019** DRAWN BY: **FAB**

DETAILS

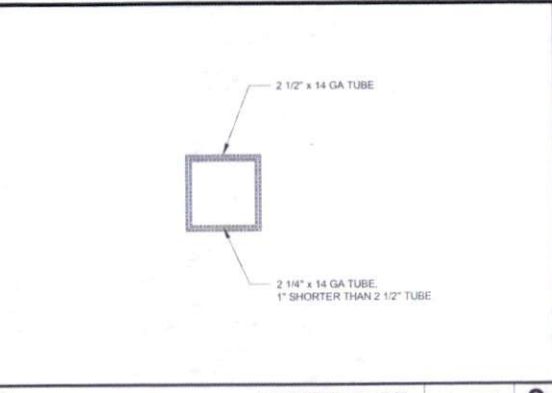
**S4.0**



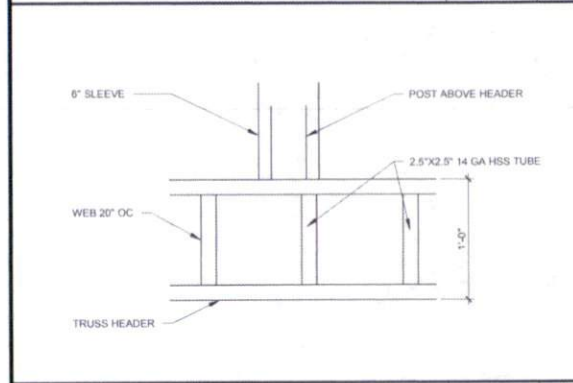
**KNEE BRACE** NTS **1**



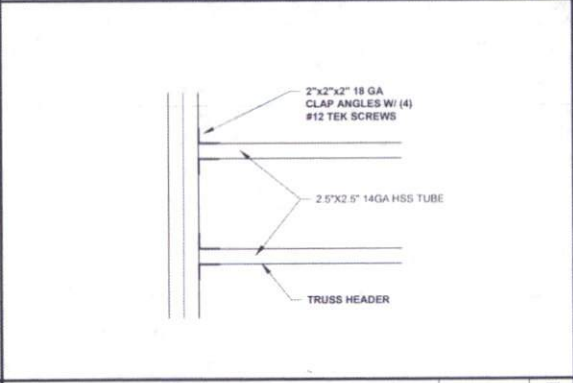
**CONNECTIONS** NTS **2**



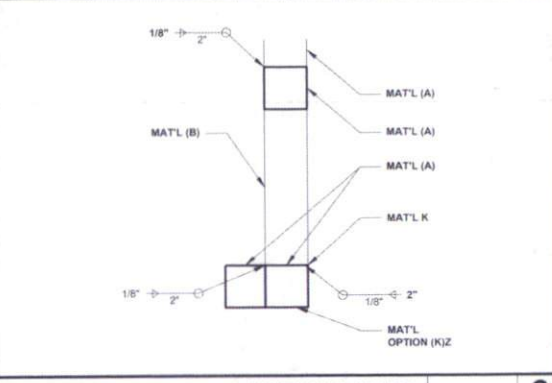
**NESTED TUBE** 3" = 1'-0" **3**



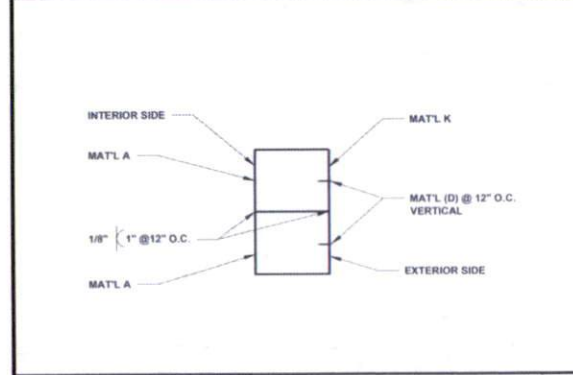
**HEADER** NTS **4**



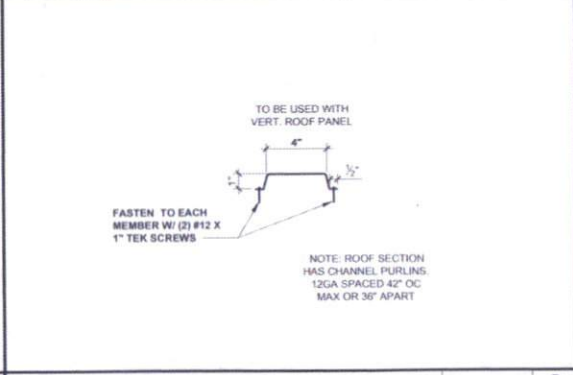
**HEADER** NTS **5**



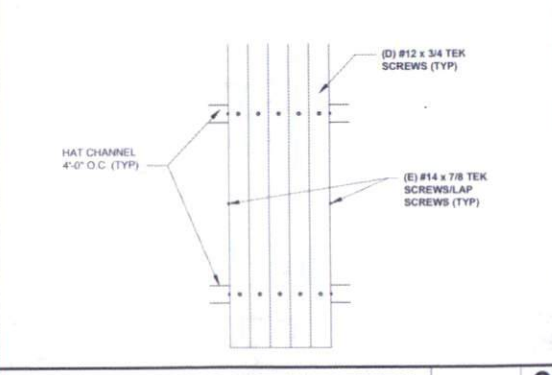
**OPENING JAMB** NTS **6**



**DOUBLE LEG** NTS **7**



**HAT CHANNEL** 1 1/2" = 1'-0" **8**



**ROOF SCREW PATTERN** NTS **9**