Residence for

Triple A Homes Lot 64 Prince Place Fuquay-Varina, North Carolina

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FIRST FLOOR PLAN

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CRAWL SPACE FRAMING PLAN S2 S3 FIRST FLOOR CEILING FRAMING PLAN S4 SECOND FLOOR CEILING FRAMING PLAN

S5 ROOF FRAMING PLAN

SD1 STRUCTURAL DETAILS STRUCTURAL DETAILS SD2 **SPECS** STRUCTURAL SPECIFICATIONS

GENERAL NOTES:

ALL WORK IS TO BE DONE IN STRICT ACCORDANCE WITH NORTH CAROLINA STATE RESIDENTIAL BUILDING CODE, 2018 EDITION (HEREWITH SHOWN AS N.C.S.R.B.C.).

- DIMENSIONS SHOWN ON DRAWINGS GOVERN OVER SCALE..
- STUD WALL DESIGN SHALL CONFORM TO ALL N.C.S.R.B.C. REQUIREMENTS.
- CONTRACTOR SHALL USE TEMPERED SAFETY GLASS IN ALL LOCATIONS AS REQUIRED BY N.C.S.R.B.C., SECTION R308.4
- ANY HABITABLE ROOM SHALL MEET ALL LIGHT/VENTILATION AND EGRESS AS REQUIRED BY N.C.S.R.B.C., SECTIONS R-303.1 AND R-310.1
- ALL WALLS SHOWN ON FLOOR PLANS ARE 2x4 FRAME UNLESS NOTED OTHERWISE.
- ALL ANGLED WALLS SHOWN ON FLOOR PLANS ARE 45° UNLESS NOTED
- ALL WINDOWS SHALL HAVE A MINIMUM DPI RATING OF 25. BUILDER SHALL VERIFY WITH WINDOW MANUFACTURER THAT UNITS INSTALLED MEET THESE REQUIREMENTS AS PER N.C.S.R.B.C., TABLE 301.2(6).
- ENERGY EFFICIENCY REQUIREMENTS FOR THE SPECIFIC CLIMATE ZONE WHERE STRUCTURE IS BEING BUILT SHALL BE IN ACCORDANCE WITH CHAPTER II OF THE NORTH CAROLINA RESIDENTIAL BUILDING CODE, AS SHOWN IN TABLES NIIOI,2 AND NIIO2,I.
- O. TERMITE TREATMENT BORATE APPLIED TO ALL FRAME MEMBERS WITHIN 24" AFF.

MATERIALS LEGEND

EARTH/COMPACT FILL	FINISH WOOD
CONCRETE	ROUGH WOOD
BRICK	BLOCKING
CONCRETE BLOCK/STO	PLYWOOD
STEEL	BATT INSULATION
ALUMINUM	RIGID INSULATION

TOILET ACCESSORIES LEGEND

PROVIDE 2x4 BLOCKING IN THE WALL FOR THE FOLLOWING

TOWEL BAR TOILET PAPER HOLDER TOWEL RING MEDICINE CABINET MAGAZINE RACK

THE PURPOSE OF THESE DRAWINGS IS TO SHOW THE INTENT OF THE DESIGN THE PURPOSE OF THESE DRAWINGS IS TO SHOW THE INTENT OF THE DESIGN AND CONSTRUCTION OF THIS HOME. ANY ERRORS AND/OR OMISSIONS FOUND IN THIS SET SHOULD IMMEDIATELY BE REPORTED TO HOMES UNIQUE FOR CLARIFICATION OR CORRECTION. THE CONTRACTOR SHOULD VERIFY ALL CONDITIONS AND DIMENSIONS FRIOR TO CONSTRUCTION. ONCE A PERMIT HAS BEEN ISSUED FOR CONSTRUCTION, THE CONTRACTOR SHALL ASSUME ALL RESPONSIBILITY AS TO THE ACCURACY OF THE PLANS AND TO ANY CHANGES MADE BY THE CONTRACTOR AND/OR THE OWNER.

DUE TO VARYING LOCAL AND STATE CODES, <u>HOMES UNIQUE</u> CANNOT BE HELD RESPONSIBLE FOR ANY REQUIREMENTS THAT EXISTING SITE CONDITIONS MAY CREATE.

RESIDENTIAL BUILDING CODE SUMMARY

- PLANS ARE DESIGNED TO THE 2018 NORTH CAROLINA RESIDENTIAL BUILDING CODE.
- 2. HOUSE IS DESIGNED FOR 115 MPH, 3 SECOND GUST (89 MPH FASTEST WIND), EXPOSURE B.
- 3. ANCHOR BOLTS SHALL BE MIN. I/2" DIAMETER WITH STANDARD WASHER AND NUT AND SHALL EXTEND 7" MIN. INTO MASONRY OR CONCRETE. BOLTS TO BE NO MORE THAN 6' O.C. AND WITHIN 12" OF CORNERS. ALTERNATE ANCHOR STRAPS CAN BE USED INSTEAD OF ANCHOR BOLTS SPACED AT THE EQUIVALENT SPACING AND INSTALLED PER MANUFACTURER'S SPECIFICATION'S EXCEPT AT GARAGE LUG FTG.
- MEAN ROOF HEIGHT: 29'-8"

5. COMPONENT & CLADDING DESIGNED FOR THE FOLLOWING LOADS: MEAN ROOF HGT: UP TO 30' 30'-1"TO 35' 35'-1"TO 40' 40'-1"TO 45'

ZONE I		17.3, -18.9	18.0, -19.6	18.5, -20.2
ZONE 2 ZONE 3	16.5, -21.0 16.5, -21.0	17.3, -22.1 17.3, -22.1	18.0, -22.9 18.0, -22.9	18.5, -23.5 18.5, -23.5
ZONE 4		18.9, -20.5	,	20.2, -21.8
ZONE 5	16.0, -24.1	18.9, -25.3	19.6, -26.3	20.2, -27.0

- 6. MINIMUM VALUES FOR ENERGY COMPLIANCE:
- MAXIMUM GLAZING U-FACTOR: 0.35
- INSULATING VALUES: CEILING: R-30* / WALLS: R-15 / FLOOR: R-19 SLABS: R-IO. CODE REFERENCE: TABLE NIIO2. (*R-30 ONLY IF UNCOMPRESSED, R-38 REQUIRED IF COMPRESSED)
- 9. FLASHING SHALL BE INSTALLED IN ACCORDANCE WITH SECTION R703.8 OF THE N.C.R.B.C.
- IO. FIREBLOCKING SHALL BE INSTALLED IN ACCORDANCE WITH SECTION R602.8 OF THE N.C.R.B.C.
- DRAFTSTOPPING SHALL BE INSTALLED IN ACCORDANCE WITH SECTION R302.12 OF THE N.C.R.B.C.

AREA CALCULATIONS

HEATED:		UNHEATED:	
IST FLOOR:	2008	GARAGE:	846
2ND FLOOR:	968	FRONT PORCH:	104
TOTAL:	: 2976 SCREEN PORCH:		176
		TOTAL:	1126
WIDTH:	64'-4"	UNFINISHED:	415
DEDELI	TIL OI		

FOUNDATION VENTING CALCULATIONS

(REFERENCE: N.C.S.R.B.C., 2018 EDITION, SECTION R408)
THE MINIMUM NET AREA OF VENTILATION OPENINGS SHALL BE NOT LESS THAN ONE (1) SQUARE FOOT FOR EACH 150 SQUARE FEET OF CRANL SPACE GROUND AREA AND ONE FOUNDATION VENT SHALL BE WITHIN THREE (3) FEET OF EACH CORNER OF TI BUILDING.

EXCEPTION: THE TOTAL AREA OF VENTILATION OPENINGS MAY BE REDUCED TO 1/1500 OF THE UNDER-FLOOR AREA WHERE THE GROUND SURFACE IS TREATED MITH AN APPROVED VAPOR RETARDER MATERIAL AND THE REQUIRED OPENINGS ARE PLACED SO AS TO PROVIDE CROSS-VENTILATION.

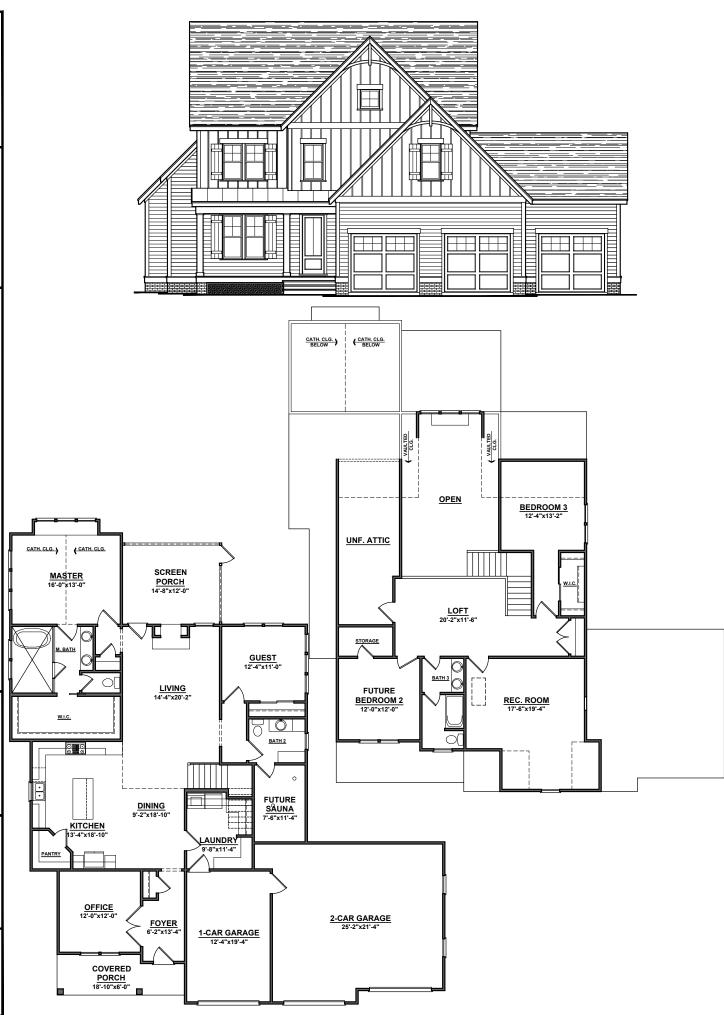
2008 SQUARE FEET OF CRANL SPACE AREA / 150 =

13.39 SQUARE FEET OF NET FREE AREA REQUIRED

ATTIC VENTILATION REQUIREMENTS

NATURAL ROOF VENTILATION	MECHANICAL ROOF VENTILATOR
5a. FT. = 20.89 5a. FT. VENT REQ'D.	3134 SQ. FT. = 10.45 SQ. FT. VENT REQ'D.
- 20.0450. FT. VENT REQU.	300 - 10.45 9Q. FT. VENT REQ D.

BUILDER TO PROVIDE APPROPRIATE VENTILATING AS REQUIRED PER CODE





1027 Hwy 70 West Suite 223

Garner, NC 27529 919-779-6005

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The purpose of these drawings is to show the intent of the design and construction of this home. Contractor should verifu all conditions and dimensions prior to construction. Once a permit has been issued contractor shall assume a responsibility to the accuracy of the plans and any changes made during construction.

Sheeet O

PROJECT NUMBER 5590

DRAWN BY: J.A.D.

CHECKED BY: J.T.S.

REVISIONS:

DATE: 8/2/2022





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TRIPLE A HOMES
Lot 64 Prince Place
Fuquay Varina, North Carolina

PROJECT INFO:

Elevations

PROJECT NUMBER: 5590

DRAWN BY:

J.A.D.

CHECKED BY: J.T.S.

REVISIONS:

DATE: 8/2/2022

SHEET:

1



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TRIPLE A HOMES
Lot 64 Prince Place
Fuquay Varina, North Carolina

PROLECT INFO:

Elevations

PROJECT NUMBER: 5590

DRAWN BY:

CHECKED BY:

REVISIONS:

DATE:

8/2/2022

SHEET:

SCALE: 1/8"=1'-0"
NOTE - SLOPE ALL GRADES AWAY FROM HOUSE FOR POSITIVE DRAINAGE

NOTES:

ALL DOORS AND CASED OPENINGS TO BE 8'-O" TALL UNLESS NOTED OTHERWISE.

ROUGH FRAME ALL CASED OPENINGS 2" BIGGER THAN FINISHED OPENING CALL FOR

PROVIDE 2x4 BLOCKING FOR: TOILET PAPER

HOLDER, TOWEL BARS, MEDICINE CABINETS

BOTTOM OF WINDOW CLEAR OPENINGS SHALL BE MORE THAN 24" ABOVE FINISH FLOOR OR A FALL PREVENTION DEVICE SHALL BE INSTALLED IN ACCORDANCE WITH SECTION R312.3 OF THE 2018 NORTH CAROLINA RESIDENTIAL BUILDING CODE.

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any changes made during
construction.

TRIPLE A HOMES
Lot 64 Prince Place
Fuquay Varina, North Carolina

Floor

PROJECT NUMBER:

DRAWN BY:

5590

J.A.D.

CHECKED BY: J.T.S.

REVISIONS:

DATE: 8/2/2022

SHEET:

SCALE: 1/8"=1'-0"

NOTES:

ALL DOORS AND CASED OPENINGS TO BE 6'-8" TALL UNLESS NOTED OTHERWISE.

ROUGH FRAME ALL CASED OPENINGS 2" BIGGER THAN FINISHED OPENING CALL FOR

PROVIDE 2x4 BLOCKING FOR: TOILET PAPER HOLDER, TOWEL BARS, MEDICINE CABINETS

BOTTOM OF WINDOW CLEAR OPENINGS SHALL BE MORE THAN 24" ABOVE FINISH FLOOR OR A FALL PREVENTION DEVICE SHALL BE INSTALLED IN ACCORDANCE WITH SECTION R312.3 OF THE 2018 NORTH CAROLINA RESIDENTIAL BUILDING CODE.

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TRIPLE A HOMES
Lot 64 Prince Place
Fuquay Varina, North Carolina

Floor Plan

PROJECT NUMBER: 5590

DRAWN BY:

J.A.D.

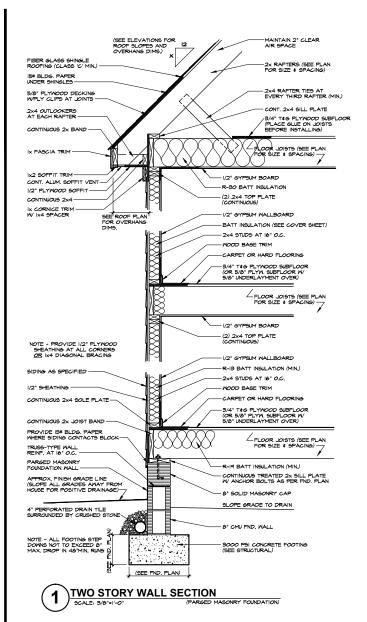
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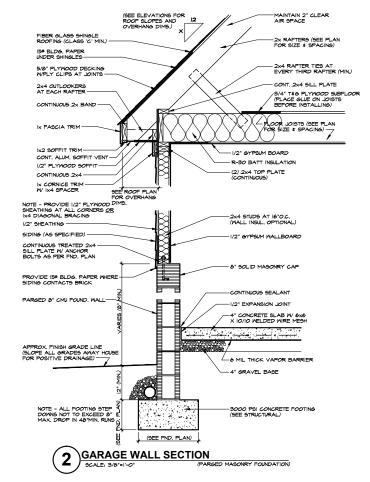
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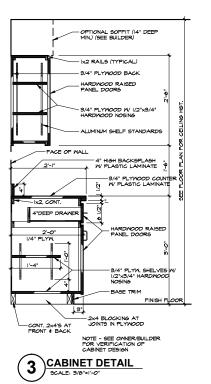
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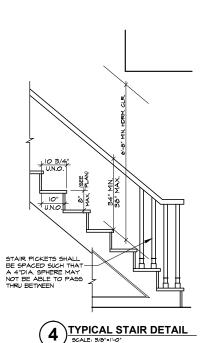
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SECOND FLOOR PLAN SCALE: 1/8"=1'-0" 9'-0" (NOM.) CLG. HGT. U.N.O. SET WINDOWS @ 7'-4" U.N.O.











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TRIPLE A HOMES
Lot 64 Prince Place
Fuquay Varina, North Carolina

etails

PROJECT NUMBER:

5590 DRAWN BY:

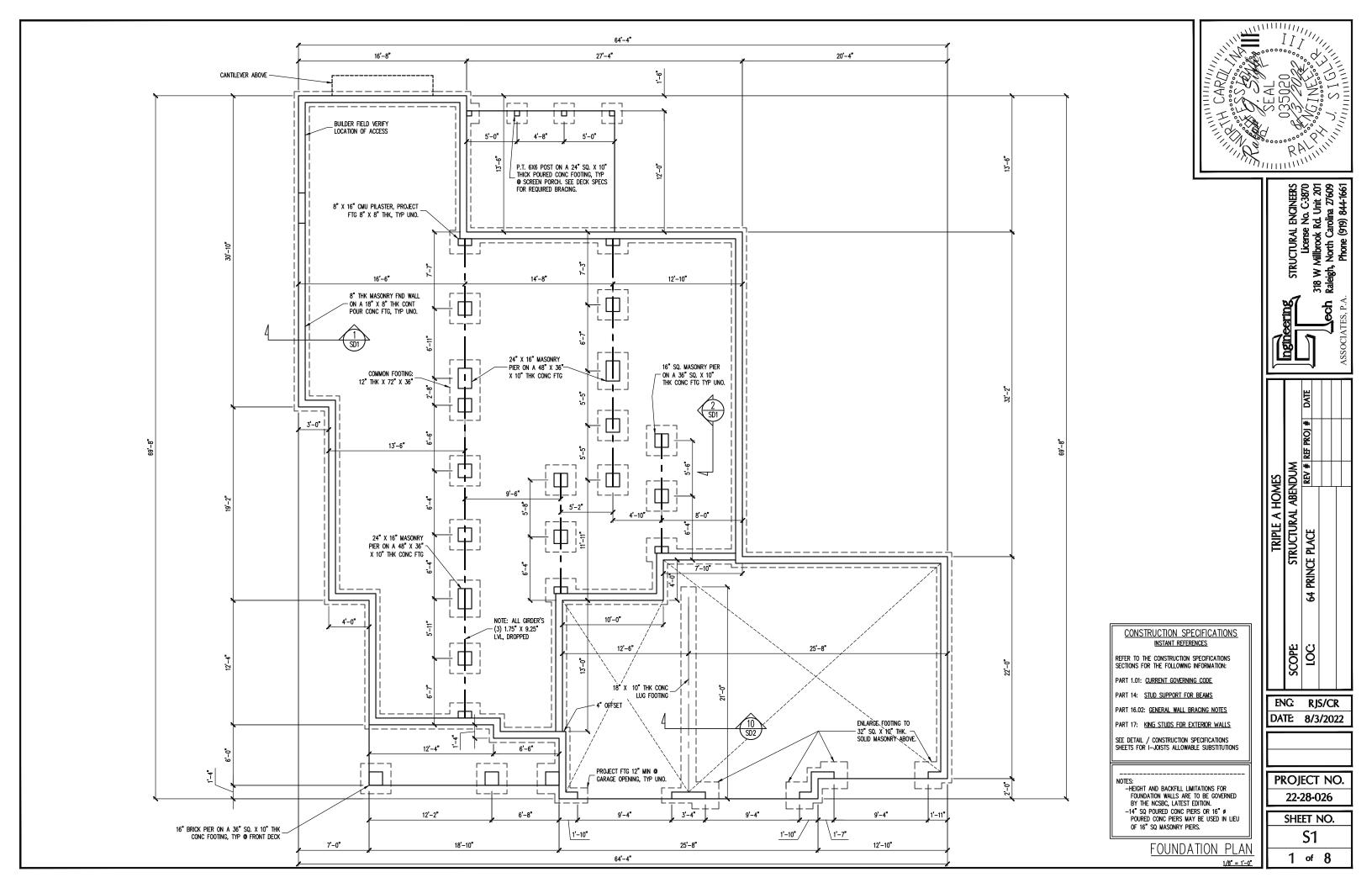
J.A.D.

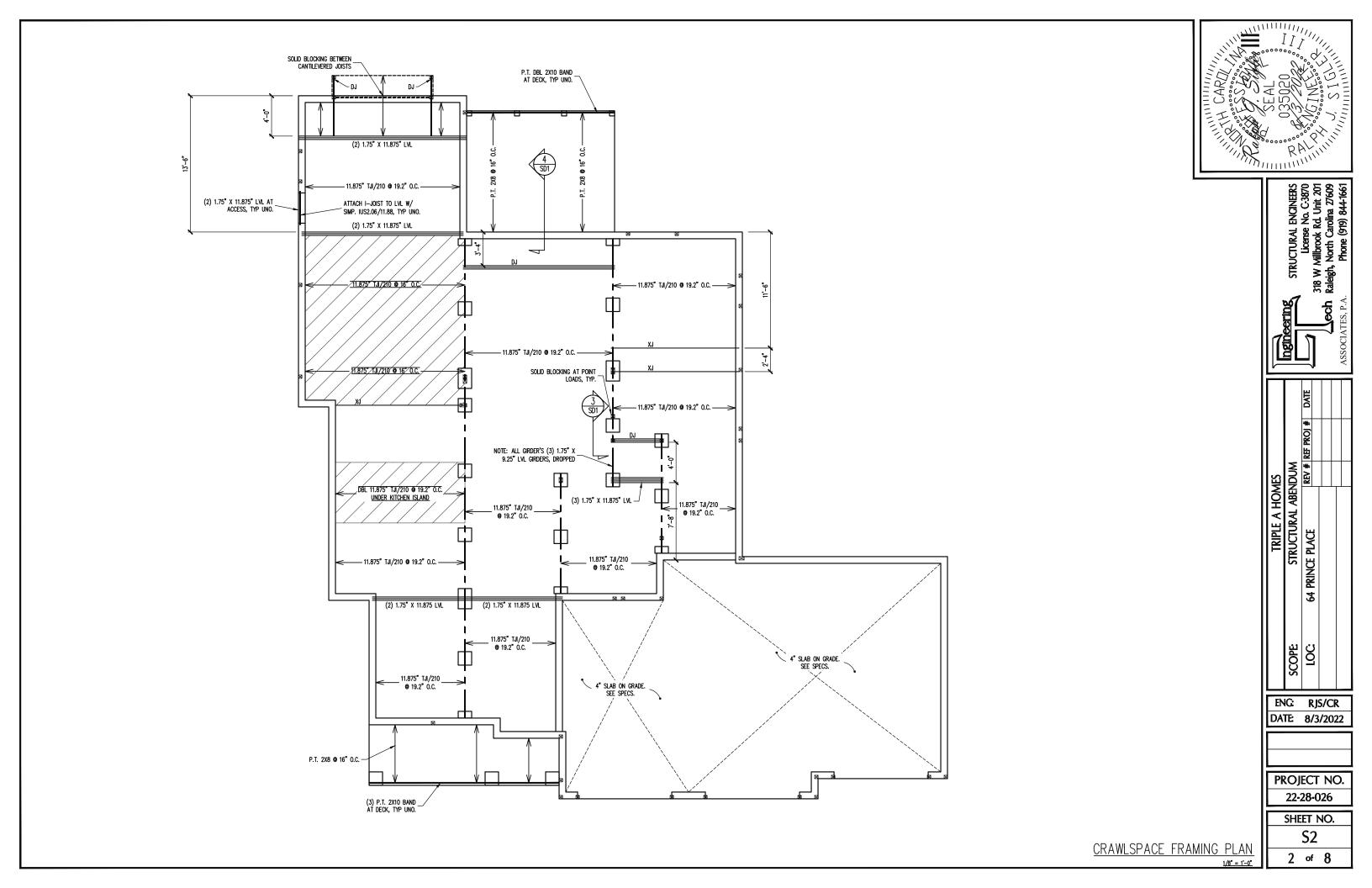
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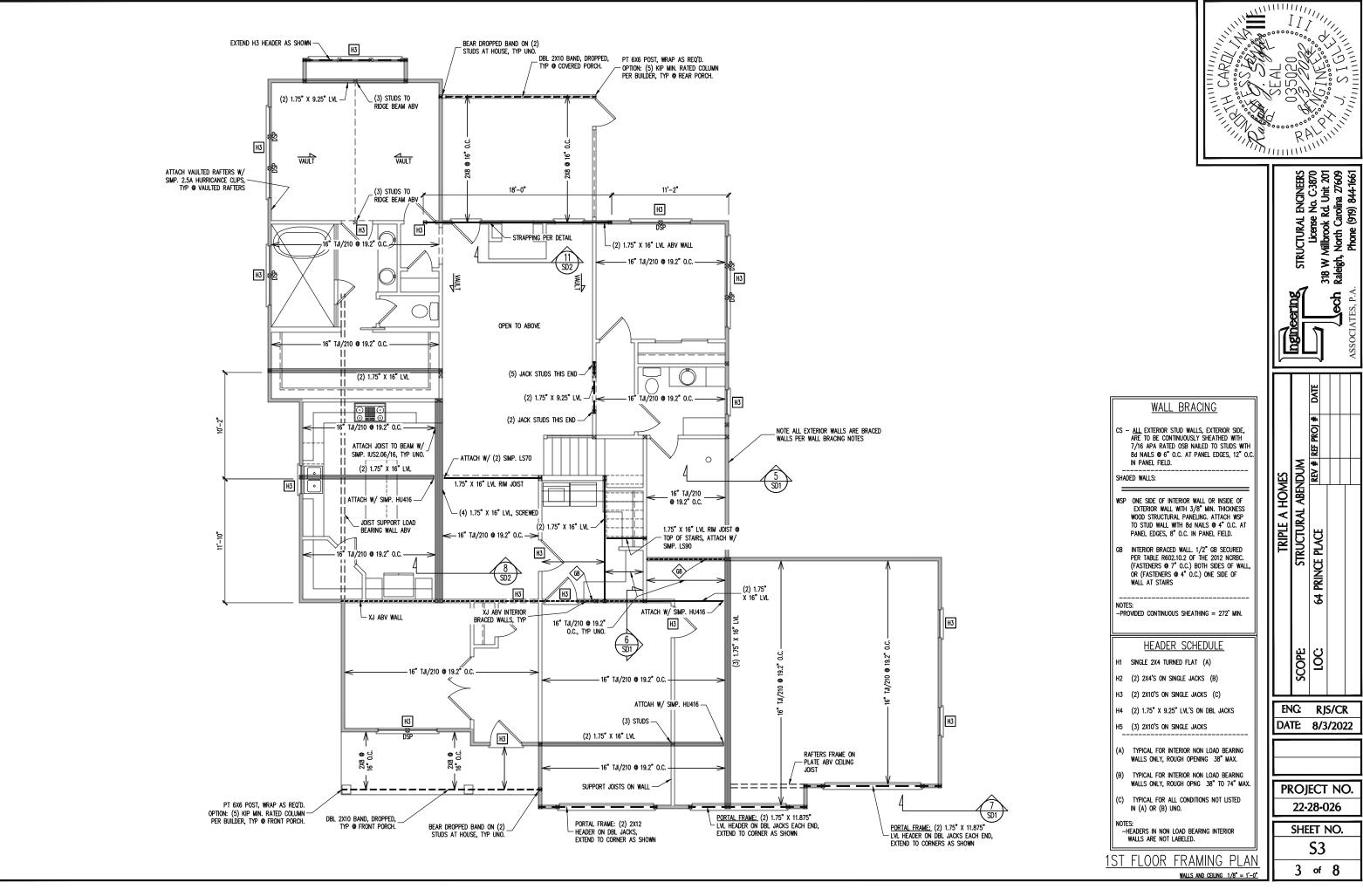
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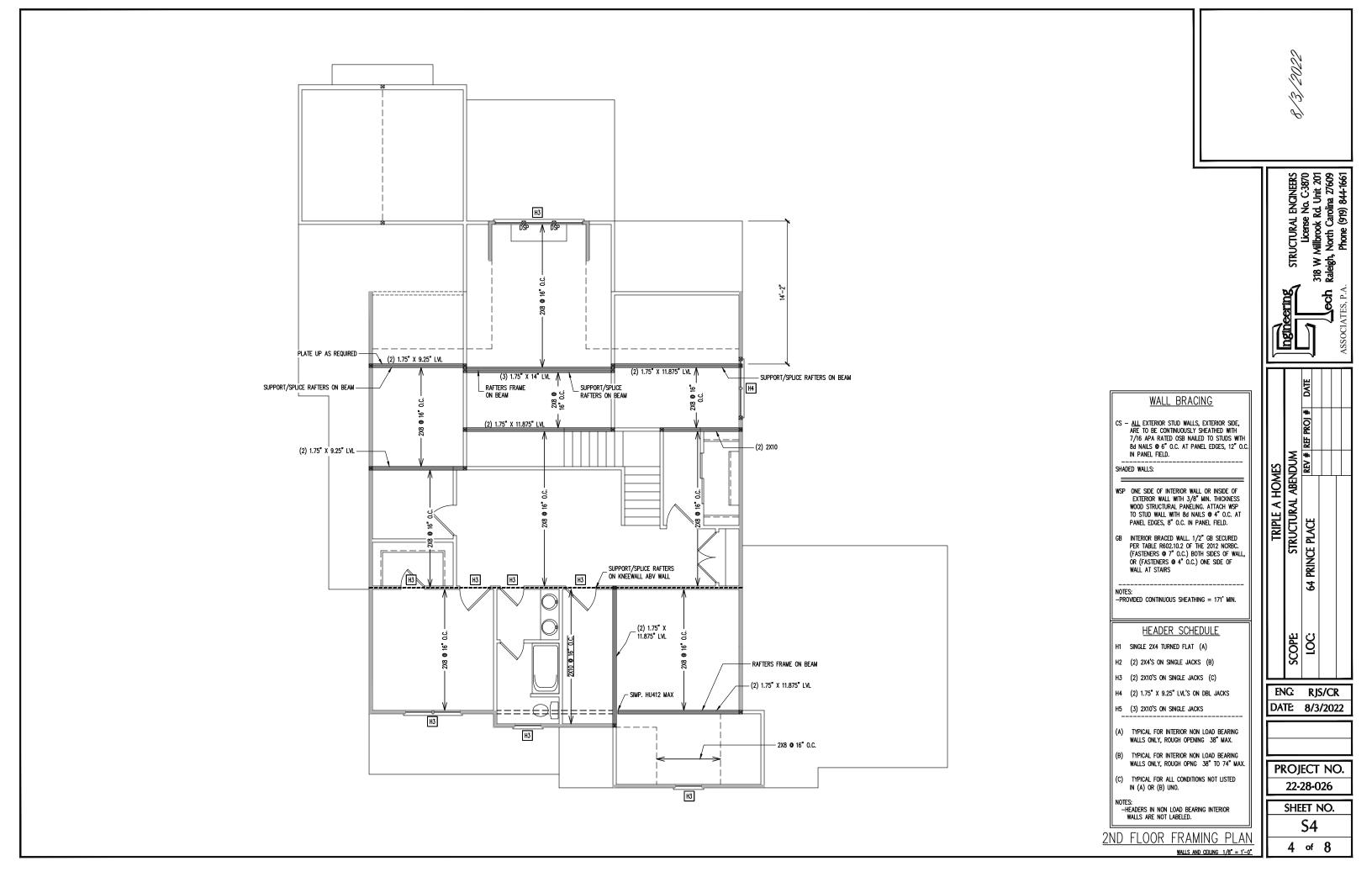
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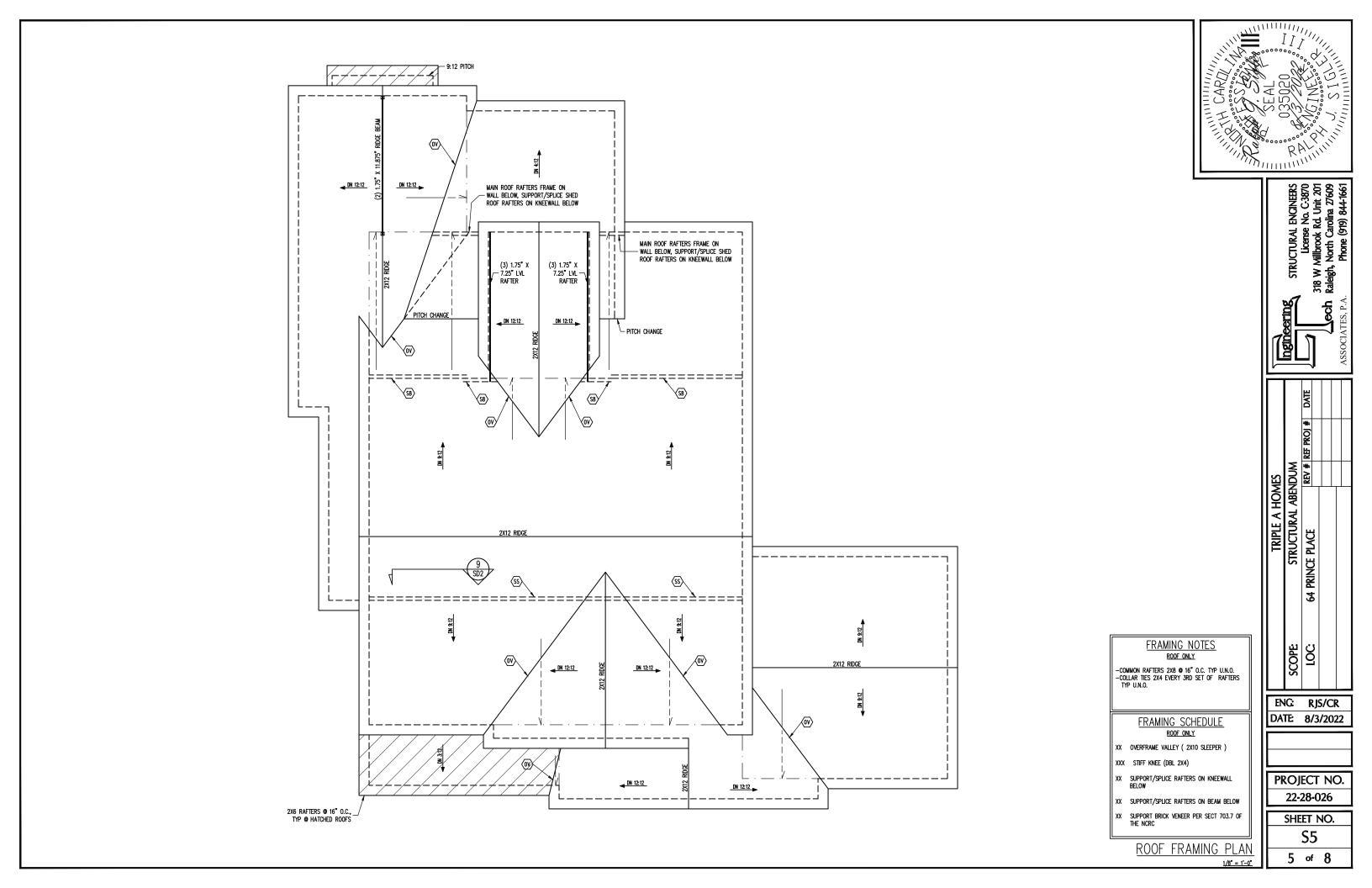
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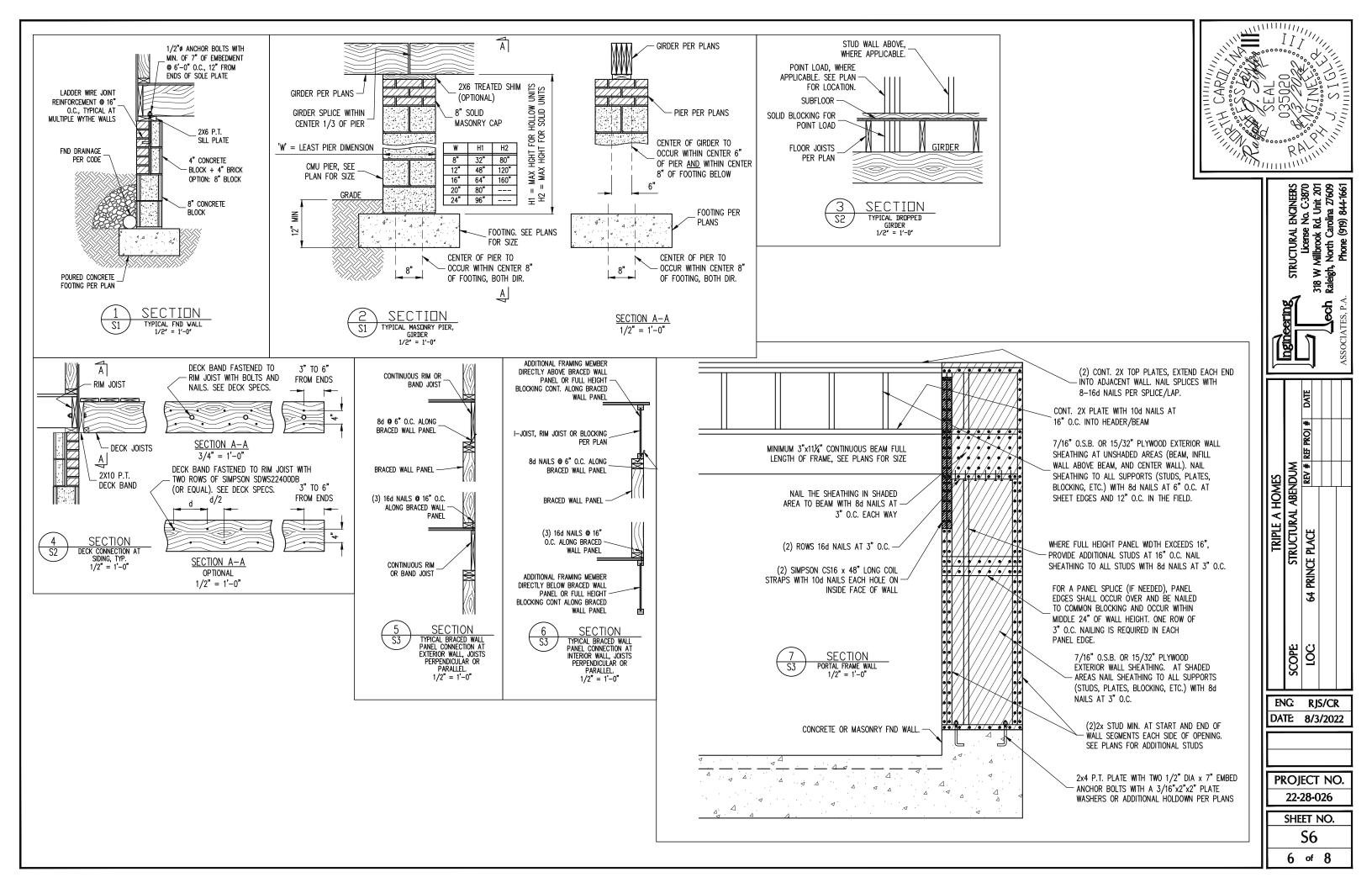












NOTES

THE BUILDER IS RESPONSIBLE FOR REVIEWING PLANS PRIOR TO CONSTRUCTION. THE BUILDER SHALL IMMEDIATELY CONTACT THE ENGINEER OF RECORD (EOR) BEFORE PROCEEDING IF THE FOIL OWING CONDITIONS ARE NOTED BEFORE OR DURING CONSTRUCTION:

- 1) THE WORKING PLANS DO NOT BEAR THE SEAL OF THE EOR
- 2) THE PLANS CONTAIN DISCREPANT OR INCOMPLETE INFORMATION

ANY ERRORS DUE TO A FAILURE TO FOLLOW THE ABOVE PROCEDURES SHALL NOT BE THE RESPONSIBILITY OF THE EOR. FURTHERMORE, IT IS THE RESPONSIBILITY OF THE BUILDER TO ENSURE THAN ANY REVISIONS ISSUED BY THE EOR ARE PROMPLY DISTRIBUTED TO THE SUIPCONTEACTORS

THE EOR DOES NOT PERFORM FENESTRATION OR VENTING CALCULATIONS OR ANY OTHER CALCULATIONS THAT ARE NOT DIRECTLY RELATED TO STRUCTURAL ENGINEERING.

ROOF AND FLOOR TRUSSES TO BE DESIGNED BY AN ENGINEER REGISTERED BY THE STATE. FINAL TRUSS DRAWING SHOULD BE SUBMITTED TO THE EOR FOR REVIEW

FND FOUNDATION FTG FOOTING HDG HOT DIPPED TYP TYPICAL B. BOTH B.E. BOTH ENDS TRPL TRIPLE TSP TRIPLE STUD POCKET UNO UNLESS NOTED TRIPLE BTWN BETWEEN CIP CAST IN PLACE GALVANIZED HGR HANGER LVL LAMINATED VENEER CONC CONCRETE CS CONTINUOUS SHEATHING DIA DIAMETER DBL DOUBLE XJ EXTRA JOIST LUMBER NTS NOT TO SCALE O.C. ON CENTER DJ DOUBLE JOIST PSL PARALLEL STRAND DBL STUD POCKET PT PRESSURE TREATED EQ EQUAL EA EACH QJ QUAD JOIST FLG FLANGE SP SPACE (OR SPACING) SSP SINGLE STUD POCKET SQ SQUARE FL PL FLITCH PLATE FLR FLOOR

DECK SPECIFICATIONS

- A DECK IS AN EXPOSED EXTERIOR WOOD FLOOR STRUCTURE WHICH MAY BE ATTACHED TO A STRUCTURE OR BE FREE STANDING. ROOFED PORCHES, OPEN OR SCREENED IN, MAY BE CONSTRUCTED USING THESE PROVISIONS.
- 2. SUPPORT POSTS SHALL BE SUPPORTED BY A FOOTING.
- 3. WHEN ATTACHED TO A STRUCTURE, THE STRUCTURE TO WHICH ATTACHED SHALL HAVE A TREATED WOOD BAND FOR THE LENGTH OF THE DECK, OR CORROSION RESISTANT FLASHING SHALL BE USED TO PREVENT MOISTURE FROM COMING IN CONTACT WITH THE UNTREATED FRAMING OF THE STRUCTURE. THE DECK BAND AND THE STRUCTURE BAND SHALL BE CONSTRUCTED IN CONTACT WITH EACH OTHER EXCEPT AT BRICK VENEER AND WHERE PLYWOOD SHEATHING IS REQUIRED AND PROPERLY FLASHED. SIDING SHALL NOT BE INSTALLED BETWEEN THE STRUCTURE AND THE DECK BAND. IF ATTACHED TO A BRICK STRUCTURE, NEITHER FLASHING NOR A TREATED BAND FOR THE BRICK STRUCTURE IS REQUIRED. IN ADDITION, THE TREATED DECK BAND SHALL BE CONSTRUCTED IN CONTACT WITH THE BRICK
- 4. WHEN THE DECK IS SUPPORTED AT THE STRUCTURE BY ATTACHING THE DECK TO THE STRUCTURE. THE FOLLOWING ATTACHMENT SCHEDULES SHALL APPLY FOR ATTACHING THE DECK BAND TO THE STRUCTURE.
- A. ALL STRUCTURES EXCEPT BRICK STRUCTURES

	JOIST LENGTH							
	UP TO 8' MAX.	UP TO 8' MAX. UP TO 16' MAX.						
REQUIRED FASTENERS	(2) ROWS OF 12d NAILS @ 8" O.C. OR	ONE- 5/8" Ø BOLT @ 20" O.C. AND (3) ROWS OF 12d NAILS @ 6" O.C. OR TWO ROWS OF SIMPSON SDWS22400DB @ d = 16" O.C. STAGGERED						

A . BRICK VENEER STRUCTURES

	JOIST LENGTH			
	UP TO 8' MAX. UP TO 16' MAX.			
REQUIRED FASTENERS	ONE- 5/8" Ø BOLT @ 28" O.C.	ONE- 5/8" Ø BOLT @ 16" O.C.		

- IF THE DECK BAND IS SUPPORTED BY A 1/2" MINIMUM MASONRY LEDGE ALONG THE FOUNDATION WALL, 5/8" Ø BOLTS SPACED @ 48" O.C. MAY BE USED FOR SUPPORT.
- 6. OTHER MEANS OF SUPPORT, SUCH AS JOIST HANGERS, MAY BE USED TO CONNECT DECK JOISTS TO A TREATED STRUCTURE BAND
- 7. GIRDERS SHALL BEAR DIRECTLY ON POSTS OR BE BE CONNECTED TO THE SIDES OF POSTS WITH 2-5/8" Ø BOLTS
- 8. FLOOR DECKING SHALL BE NO. 2 GRADE TREATED SOUTHERN PINE OR EQUIVALENT. THE MINIMUM FLOOR DECKING THICKNESS SHALL BE AS FOLLOWS:

JOIST SPAN	DECKING
12" O.C.	1 <u>"</u> S4S
16" O.C.	1" T&G
24" O.C.	1 1/4" S4S
32" O.C.	2" S4S

9. MAXIMUM HEIGHT OF DECK SUPPORT POSTS IS AS FOLLOWS:

POST SIZE	MAX POST HEIGHT
4X4	8'
6X6	20'
ENGINEERED	20' +

- Notes: 1) this table is based on No. 2 treated southern pine posts.

 2) this table is based on a maximum tributary area of 128 sq. ft.

 3) post height is from top of footing to bottom of girder.
- 10. DECKS SHALL BE BRACED TO PROVIDE LATERAL STABILITY BY ONE OF THE FOLLOWING METHODS:
 - A. WHEN THE DECK FLOOR HEIGHT IS LESS THAN 4'-0" AND THE DECK IS ATTACHED TO THE STRUCTURE IN ACCORDANCE WITH SECTION 4, LATERAL BRACING IS NOT REQUIRED.
- B. 4X4 WOOD KNEE BRACES MAY BE PROVIDED ON EACH COLUMN IN BOTH DIRECTIONS. THE KNEE BRACES SHALL ATTACH TO EACH POST AT A POINT NOT LESS THAN 1/3 OF THE POST LENGTH FROM THE TOP OF THE POST, AND THE BRACES SHALL BE ANGLED BETWEEN 45' AND 60' FROM THE HORIZONTAL KNEE BRACES SHALL BE ATTACHED AT THE ENDS TO THE GIRDER AND THE POST WITH ONE — 5/8" BOLT
- C. FOR FREE STANDING DECKS WITHOUT KNEE BRACES OR DIAGONAL BRACING, LATERAL STABILITY MAY BE PROVIDED BY EMBEDDING THE POSTS IN CONCRETE IN ACCORDANCE WITH THE FOLLOWING:

POST SIZE	TRIBUT. AREA	POST HEIGHT	EMB. DEPTH	CONC. DIAM.
4X4	48 SQ. FT.	4'-0"	2'-6"	1'-0"
6X6	120 SQ. FT.	6'-0"	3'-6"	1'-8"

D. 2X6 DIAGONAL VERTICAL CROSS BRACING SHALL BE PROVIDED IN TWO PERPENDICULAR DIRECTIONS FOR FREE STANDING DECKS OR PARALLEL TO THE STRUCTURE AT THE EXTERIOR COLUMN LINE FOR ATTACHED DECKS. THE BRACES SHALL BE ATTACHED TO THE POSTS WITH ONE — 5/8" & BOLT AT EACH END OF THE BRACE.

NOTES: 1) ALL NAILS AND BOLTS ARE TO BE HOT DIPPED GALVANIZED.

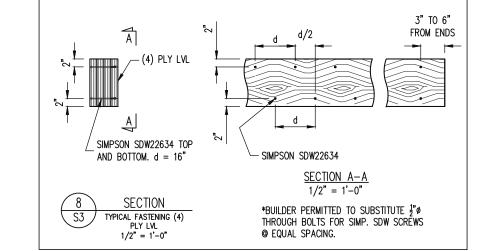
- 2) MINIMUM FDGF DISTANCE FOR BOLTS IS 2 1/2".
 - 3) NAILS MUST PENETRATE THE SUPPORTING STRUCTURE BAND A MINIMUM OF 1 1/2".

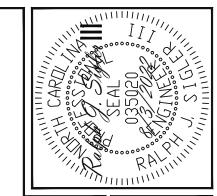
ABBREVIATIONS ALLOWABLE I-JOIST SUBSTITUTION

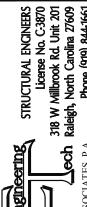
NOTE: MAINTAIN JOIST DEPTH, DIRECTION, AND SPACING SPECIFIED ON PLANS.

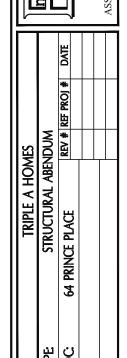
MANUFACTURER	DEPTH	SERIES	SIMPSON FACE MOUNT HGR	SIMPSON TOP FLANGE HGR
BLUELINX	 16"	BLI 40	IUS2.56/16	ITS2.56/16
BLUELINX	16"	BLI 60	IUS2.56/16	ITS2.56/16
BOISE CASCADE	16"	BCI 5000s	IUS2.06/16	ITS2.06/16
BOISE CASCADE	16"	BCI 6000S	IUS2.37/16	ITS2.37 /16
INTERNATIONAL	16"	IB 600	IUS2.56/16	ITS2.56/16
BEAMS			, , , , , ,	, , , , , ,
LP CORP	16"	LPI 20+	IUS2.56/16	ITS2.56/16
NORDIC	16"	NI 40X	IUS2.56/16	ITS2.56/16
ROSEBURG	16"	RFPI 60S	IUS2.56/16	ITS2.56/16
WEYERHAEUSER	16"	TJI 210	IUS2.06/16	ITS2.06/16
BOISE CASCADE	16"	BCI 60s	IUS2.37/16	ITS2.37/16
LP CORP	16"	LP 36	IUS2.37/16	ITS2.37/16
LP CORP	16"	LP 42+	IUS2.56/16	ITS2.56/16
NORDIC	16"	NI 70	IUS2.56/16	ITS2.56/16
ROSEBURG	16"	RFPI 70	IUS2.37/16	ITS2.37/16
WEYERHAEUSER	16"	TJI 360	IUS2.37/16	ITS2.37/16
WEYERHAEUSER	16"	EEI-30	IUS2.37/16	ITS2.73/16

JOISTS NOT LISTED IN THE ABOVE TABLE MAY BE USED PROVIDED THEY MEET OR EXCEED THE PROPERTIES OF THOSE LISTED. SUBSTITUTE USP BRAND HANGERS WITH EQUIVALENT VALUES AS DESIRED.





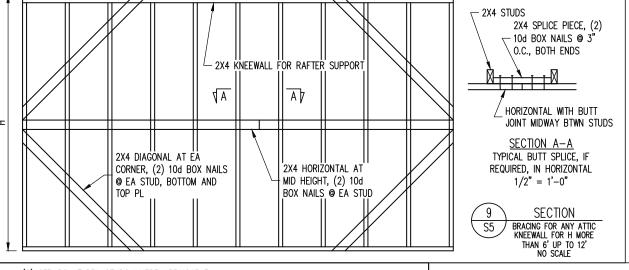


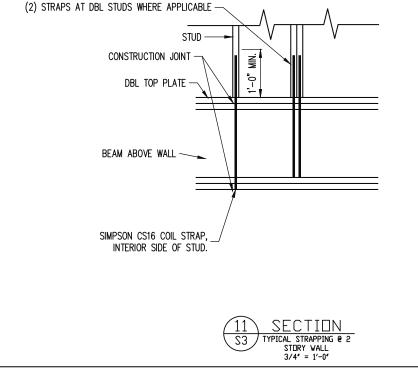


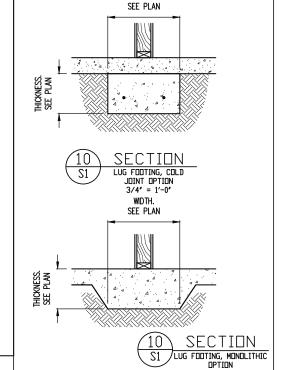
ENG: RJS/CR DATE: 8/3/2022

PROJECT NO. 22-28-026

SHEET NO.
SD2
7 of 8







CONSTRUCTION SPECIFICATIONS

LIVE LOAD (PSF) DEAD LOAD (PSF)

PART 1: GENERAL

- CONSTRUCTION SHALL MEET THE REQUIREMENTS OF THE NORTH CAROLINA RESIDENTIAL CODE, 2018 EDITION. $\,$
- 1.02 DIMENSIONS SHOWN SHALL GOVERN OVER SCALE ON THESE DRAWINGS.
- METHODS, PROCEDURES AND SEQUENCES OF CONSTRUCTION ARE THE RESPONSIBILITY OF THE CONTRACTOR, WHO SHALL TAKE ALL NECESSARY PRECAUTIONS TO MAINTAIN AND INSURE THE INTEGRITY OF THE STRUCTURE AT ALL STAGES OF CONSTRUCTION. 1.05

PART 2: DESIGN LOADS

2.01 DESIGN LOADS SHALL CONFORM WITH THE TABLE BELOW: USF

***		(. 5.)	22.2 20.2 (. 0.)
BALCONIES, DECKS, ATTICS WITH FIXED STAIR ACCESS, DWELLING UNITS INCLUDING ATTICS WITH FIXED STAIR ACCESS, STAIRS, FIRE ESCAPES		40	10
GARAGES (PASSENGER CARS ONLY)	50	
ATTICS (NO STORAGE, LESS THAN 5' HEADROOM)	10	10
ATTICS (WITH STORAGE)	20	10
ROO	F	20	10 (15 FOR VAULTS)

- Notes: individual stair treads are to be designed for the uniformly distributed Live Load of 40 psf or a 300 lb. concentrated Load acting over an area of 4 sq. whichever produces the greater stress.

 Builder to Verify Dead Load Does not exceed 10 psf when heavy floor or FINISHES SUCH AS TILE OR SLATE ARE UTILIZED. NOTIFY ENGINEERING UNDER
- 2.02 INTERIOR WALLS: 5 PSF LATERAL.
- 2.03 BASIC WIND DESIGN VELOCITY OF 120 MPH.
- 2.04 SOIL BEARING CAPACITY 2000 PSF (PRESUMPTIVE).

PART 3: STRUCTURAL STEEL

- WIDE FLANGE BEAMS AND TEE SECTIONS SHALL CONFORM TO ASTM A992 MINIMUM
- 3.02 SQUARE AND RECTANGULAR TUBING SHALL CONFORM TO ASTM A500 GRADE B MINIMUM
- 3.03 STEEL PIPE SHALL CONFORM TO ASTM A53 GRADE B, TYPE S, MINIMUM GRADE
- 3.04 ALL OTHER STRUCTURAL STEEL SHALL CONFORM TO ASTM A36 MINIMUM GRADE
- STRUCTURAL STEEL CONSTRUCTION SHALL MEET THE REQUIREMENTS OF THE AISC SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS. 3.05

PART 4: WELDING

4.01 WELDING ELECTRODES SHALL BE E70XX AND ALL WELDING SHALL BE PERFORMED BY AN AWS CERTIFIED WELDER

PART 5: CONCRETE AND SLABS ON GRADE

- CAST IN PLACE CONCRETE SHALL BE OF NORMAL WEICHT, 4-6% AIR ENTRAINMENT, FOR EXTERIOR CONCRETE AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI 5.01 AT 28 DAYS TYP UNO. ALL ITEMS NOTED AS 'CONCRETE' ARE TO BE CAST IN PLACE,
- 5.02 REINFORCED CAST IN PLACE CONCRETE SHALL BE PROPORTIONED, MIXED AND PLACED IN ACCORDANCE WITH THE SPECIFICATIONS OF ACI 318, LATEST EDITION.
- 5.03 SLABS ON GRADE, IF ANY, SHALL BE CAST IN PLACE, CONTAIN SYNTHETIC POLYPROPYLENE FIBRILLATED MICRO FIBERS, FIBER LENGTH 1 1/2", DOSAGE RATE 1 1/2 LBS/CU YD. SLAB TO BE PLACED ON A 6 MIL VAPOR BARRIER ON 4" MIN GRANULAR FILL ON SOIL WITH 90% MIN STANDARD PROCTOR DENSITY. VAPOR BARRIER MAY BE OMITTED FOR SLABS NOT IN ENCLOSED AREAS

PART 6: REBAR AND WIRE REINFORCEMENT

- 6.01 REBAR SHALL BE DEFORMED STEEL CONFORMING TO ASTM A615 GRADE 60 TYP UNO
- 6.02 LAP SPLICES SHALL BE CLASS B AS DEFINED BY ACI 318, TYP UNO
- 6.03 WIRE REINFORCEMENT SHALL BE 9 GA AND SHALL CONFORM TO ASTM A1064.

7.01 CONCRETE MASONRY UNITS SHALL CONFORM TO ASTM C90 AND C55, NORMAL WEIGHT,

fM = 1.500 PSI MIN

- 7.02 CLAY MASONRY UNITS SHALL CONFORM TO ASTM C62-17 GRADE SW
- 7.03 MORTAR SHALL BE TYPE S. MORTAR AND GROUT SHALL CONFORM TO ASTM C476, MIN COMPRESSIVE STRENGTH OF 2000 PSI.
- 7.04 MASONRY CONSTRUCTION SHALL CONFORM TO THE SPECIFICATIONS OF ACI 530
- LADDER WIRE REINFORCEMENT SHALL CONFORM TO ASTM A951. 6" MIN LAPS FOR CONTINUOUS WALL APPLICATIONS

PART 8: BOLTS AND LAG SCREWS

- 8.01 BOLTS SHALL CONFORM TO ASTM A307 MINIMUM GRADE TYP UNO. INSTALL STANDARD STEEL WASHERS (ASTM F844-070) FOR THE NUT / BOLT HEAD WHEN BOLTING WOOD MEMBERS. HOLES FOR BOLTS SHALL BE AISC STANDARD HOLES UNO
- LAG SCREWS SHALL CONFORM TO ANSI/ASME STANDARD B18.2.1-1981. PILOT HOLES SHALL BE USED FOR LAG SCREW INSTALLATION AND SHALL BE BORED ACCORDING TO NOS SPECIFICATIONS. INSTALL STANDARD STEEL WASHERS (ASTM F844-070) FOR
- 8.03 ANCHOR RODS AND BOLTS SHALL CONFORM TO ASTM F1554-15 GRADE 36 UNO. BENT ANCHOR BOLTS SHALL HAVE A 2" MIN HOOK UNO

PART 9: DRIVEN FASTENERS

9.01 NAILS, SPIKES AND STAPLES SHALL CONFORM TO ASTM F 1667– 05. NAILS ARE TO BE COMMON WIRE OR BOX

PART 10: DIMENSIONAL LUMBER

10.01 SOLID SAWN WOOD FRAMING DESIGN IS BASED ON NO. 2 SPRUCE PINE FIR OR SYP #2 FOR JOISTS, RAFIERS, GRDERS, BEAMS, STUDS, ETC. MINIMUM ALLOWABLE DESIGN PROPERTIES ARE AS FOLLOWS: E= 1,400,000 Ps, Fc, perp = 425 Psl, Fv = 285 Psl, SPECIFIC GRAVITY = 0.42 MIN F_b = 875 Psl FOR 2X4, 2X6, 2X8. F_b = 800 Psl FOR 2X10'S, 750 Psl FOR 2X12'S

- 11.01 LVL OR PSL MINIMUM ALLOWABLE DESIGN PROPERTIES ARE AS FOLLOWS: E=1,900,000 PSI, $F_b=2600$ PSI, $F_v=285$ PSI, $F_cpep=750$ PSI LSL MINIMUM ALLOWABLE DESIGN STRESSES ARE AS FOLLOWS: E=1.3 X 10C6 PSI, $F_b=1700$ PSI, $F_v=400$ PSI, $F_cpep=680$ PSI
- 11.02 LVL OR PSL MEMBERS MAY BE RIPPED FROM DEEPER MEMBERS TO MATCH THE MEMBER DEPTH SPECIFIED IN THE PLANS

PART 12: PRESSURE TREATED LUMBER

LUMBER IN CONTACT WITH THE GROUND, CONCRETE OR MASONRY SHALL BE PRESSURE TREATED IN ACCORDANCE WITH AWPA STANDARD C-15. ALL OTHER EXPOSED LUMBER SHALL BE TREATED IN ACCORDANCE WITH AWPA STANDARD C-2 OR BY ANY METHOD GIVING EQUAL PROTECTION. THE BUILDING CODE OFFICE MAY ALSO APPROVE A NATURAL 12.01 DECAY RESISTANT WOOD PER SECTION 19-6(A)

PART 13: STEEL FLITCH PLATE BEAMS

FLITCH PLATE BEAMS SHALL CONSIST OF A CONTINUOUS STEEL PLATE BOLTED BETWEEN TWO PIECES OF CONTINUOUS LUMBER AS SIZED ON THE PLANS. BOLT PIECES TOGETHER USING 1/2" @ BOLTS SPACED AT 16" O.C. STAGGERED TOP TO BOTTOM OF THE BEAM. 13.01 MAINTAIN A 2" EDGE DISTANCE. PLACE TWO BOLTS, ONE ABOVE THE OTHER, 16" MAX FROM EACH END OF THE BEAM, TYP UNO

PART 14: STUD SUPPORTS FOR BEAMS

14.01 STEEL, ENGINEERED LUMBER, AND FLITCH PLATE BEAMS BEARING ON A STUD WALL SHALL BEAR AS FOLLOWS:

1-WHEN THE BEAM IS PERPENDICULAR TO, OR SKEWED RELATIVE TO THE WALL, THE BEAM SHALL BEAR <u>FULL WIDTH</u> ON THE SUPPORTING WALL INDICATED AND SHALL BE SUPPORTED BY A MINIMUM OF THREE GANGED STUDS, OR A GANGED STUD COLUMN WITH A NUMBER OF STUDS SUCH THAT THE STUD COLUMN IS AT LEAST AS WIDE AS THE TRUE WIDTH OF THE BEAM BEING SUPPORTED, WHICHEVER IS GREATER, TYP UND. FOR THE SKEWED CONDITION PARTICULAR CARE SHALL BE TAKEN TO ENSURE STUD COLUMN IS CENTERED ON

2-BEAMS BEARING ONTO THE END OF A STUD WALL PARALLEL TO THE BEAM SHALL BEAR A MINIMUM OF 4 1/2" ONTO THE WALL AND BE SUPPORTED BY A TRPL STUD GANGED

4.02 DIMENSIONAL LUMBER BEAMS BEARING ON A STUD WALL SHALL BEAR AS FOLLOWS:

1-WHEN THE BEAM IS PERPENDICULAR TO, OR SKEWED RELATIVE TO THE WALL, THE BEAM SHALL BEAR <u>FULL WIDTH</u> ON THE SUPPORTING WALL INDICATED (LESS 1 1/2" TO ALLOW FOR A CONTINUOUS RIM JOIST WHERE APPLICABLE) AND SHALL BE SUPPORTED BY A GANGED STUD COLUMN THE SAME WIDTH AS THE BEAM TYP UNO. (E.G. A TRIPLE 2X10 IS TO BE SUPPORTED BY (3) STUDS). FOR THE SKEWED CONDITION PARTICULAR CARE SHALL BE TAKEN TO ENSURE STUD COLUMN IS CENTERED ON THE BEAM

- 2-BEAMS BEARING ONTO THE END OF A STUD WALL PARALLEL TO THE BEAM SHALL BEAR A MINIMUM OF 3" ONTO THE WALL AND BE SUPPORTED BY A DBL STUD GANGED COLUMN TYP UNO.
- EXTRA JOISTS BEARING ON A STUD WALL PERPENDICULAR TO OR SKEWED RELATIVE TO THE BEAM SHALL BE SUPPORTED BY ONE ADDITIONAL STUD. 14.03
- STUDS THAT ARE GANGED TO FORM A COLUMN SHALL HAVE ADJACENT STUDS WITHIN THE COLUMN NAILED TOGETHER WITH ONE ROW OF 10d NAILS AT 8" O.C. (TWO ROWS OF 10d NAILS & 8" O.C., 3" APART, FOR 2X8 OR 2X10 STUDS) ALL COLUMNS SHALL OF IOR NAILS & 8 O.C., 3 APAYI, FOR ZAO OR ZAID SIDUS) ALL OLUMING SHALL BE CONTINUOUS DOWN TO THE FOUNDATION OR OTHER PROPERLY DESIGNED STRUCTURAL ELEMENT SUCH AS A BEAM. COLUMNS TRANSFERRING LOADS THROUGH FLOOR LEVELS SHALL BE SOUDLY BLOCKED <u>FOR THE FULL WIDTH</u> OF THE STUD COLUMN WITHIN THE CAVITY FORMED BY THE

PART 15: NAILING OF MULTI PLY WOOD BEAMS

- SOLID SAWN LUMBER JOISTS THAT ARE GANGED TO FORM A BEAM SHALL HAVE ADJACENT MEMBERS IN THE BEAM NAILED TOGETHER WITH THREE ROWS OF 10d NAILS @ 16" O.C. FOR 2X10 OR LARGER, TWO ROWS OF 10d NAILS @ 16" O.C. FOR 2X8, ONE ROW OF 10d NAILS @ 16" O.C. FOR 2X6 OR SMALLER. STAGGER ROWS 5" MIN.
- _VL MEMBERS THAT ARE GANGED TO FORM A BEAM SHALL HAVE ADJACENT MEMBERS IN THE BEAM FASTENED TOGETHER PER MANUFACTURERS RECOMMENDATIONS, TYP

PART 16: WALL FRAMING AND BRACING

STUD WALLS SHALL CONSIST OF 2X4 STUDS SPACED AT 16" O.C. UNO. STUDS SHALL BE CONTINUOUS FROM SOLE PLATE AT FLOOR TO DOUBLE TOP PLATE AT THE CEILING OR ROOF. NO INTERMEDIATE BANDS OR PLATES SHALL CAUSE DISCONTINUINES IN A STUD WALL EXCEPT AS REQUIRED FOR DOOR OR WINDOW OPENINGS. THE KING STUDS FOR SUCH OPENINGS SHALL BE CONTINUOUS, TYP UNO.

MAX ALLOWABLE WALL HEIGHTS FOR EXTERIOR STUD WALLS, INCLUSIVE OF SOLE PLATE AND DBL TOP PLATE AND 7/16" OSB EXTERIOR BRACING AND ROW OF 2X4 2X6 PURLINS AT 8" HEIGHT (AND AT 16" HEIGHT FOR TALL WALLS), TYP UNO: 16.01

2X4 @ 16" 0.C.: 11'-1 1/2" 2X6 @ 16" 0.C.: 17'-0" 2X4 @ 12" 0.C.: 12'-1 1/2" 2X6 @ 16" 0.C.: 18'-8" DBL 2X4 @ 16" 0.C.: 13'-4" DBL 2X6 @ 16" 0.C.: 21'-0"

- 16.02 FOR WALL BRACING THE FOLLOWING SHALL APPLY:

 -BLOCKING AT UNSUPPORTED PANEL EDGES IS REQUIRED TYP UNO.

 -WALL BRACING IS BY ENGINEERED DESIGN AND NOT PRESCRIPTIVE PER SECTION
 602.10 OF THE 2018 NORC. CONTINUOUS SHEATHING HAS BEEN PROVIDED, ALONG
 WITH ALTERNATIVE METHODS TO INSURE THE MINIMUM INTENT OF SECTION 602.10
 OF THE 2018 NORC HAS BEEN MET AND EXCEDED.

 -BRACED WALL PANELS SHALL BE FASTENED IN ACCORDANCE WITH TABLE 602.3(1) TO
 PROVIDE CONTINUOUS PANEL UPLIET RESISTANCE AND COMPULANCE WITH NORBC
 R602.3.5 AND R802.11 UNLESS NOTED OTHERWISE ON STRUCTURAL PLANS.

 -MAY SUBSTITUTE WEP FOR GB

 -SINGLE JOIST, CONTINUOUS RIM JOIST, OR BLOCKING OF EQUAL DEPTH IS REQUIRED
 ABOVE AND BELOW ALL BRACED WALLS. NAIL BLOCKING ABOVE WALL TO TOP PLATE
 WITH 16d TOE NAILS @ 6° O.C. NAIL SOLE PLATE OF BRACED WALL TO TOP PLATE
 BETOW WITH 2.3 16d NAILS @ 16° O.C. BIOCKING AT HORIZONTAL JOINTS IN RRACED

 - BELOW WITH (3) 16d NAILS @ 16" O.C. BLOCKING AT HORIZONTAL JOINTS IN BRACED WALL LINES ONLY REQUIRED AT SHADED WALLS, UNO.

PART 17: KING STUDS

17.01 KING STUDS FOR OPENINGS IN EXTERIOR WALLS SHALL BE AS FOLLOWS:

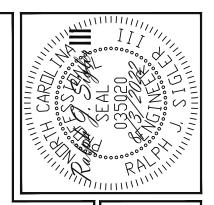
NUMBER OF KING STUDS MAX OPENING WIDTH 5'-0" 9'-0" 13'-0" 17'-0" 21'-0" STUD SIZE 2X4 2X6 2X8

PART 18: SUBSTITUTIONS

MATERIAL OR MEMBER SIZE SUBSTITUTIONS OR PLAN DEVIATIONS REQUIRE THE WRITTEN AUTHORIZATION OF THE DESIGNERS. UNAUTHORIZED DEVIATIONS ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

PART 19: OWNERSHIP OF STRUCTURAL DESIGN

THE STRUCTURAL DESIGN OF THIS PLAN IS THE PROPERTY OF ENGINEERING TECH ASSOCIATES (ETA). THESE PLANS ARE FOR THE ONE TIME USE AT THE LOCATION INDICATED AND FOR THE CLIENT LISTED. ETA ASSUMES NO LIABILITY FOR THESE PLANS IF THEY ARE REPRODUCED, IN WHOLE OR IN PART, FOR CONSTRUCTION AT ANY OTHER LOCATION WITHOUT WRITTEN PERMISSION FROM ETA 9.01



STRUCTURAL ENGINEERS	License No. C-3870	318 W Millbrook Rd. Unit 201	Raleigh, North Carolina 27609	Phone (919) 844-1661
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PROJECT NO. 22-28-026

> SHEET NO. **SPECS**

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