



Rear - Elev A 1/8" = 1'-0"

# Elevation A - Sheet List

Sheet Number	Sheet Name		
A-Pg1	Front & Rear Elevations		
A-Pg2	Side Elevations		
A-Pg3	1st Floor Plan		
A-Pg4	2nd Floor Plan		
A-Pg5	Roof Plan		
Pg6	1st Floor Electrical Plan		
Pg7	2nd Floor Electrical Plan		
Pg8	Sections		
Sec-Crawl/Brk	Typical Wall Section		
Structural Pages	by Engineer		

alueBuild

**Elevation A** 

Front & Rear Elevations

GREENE - 1

Job #: 2024-SAN-071 Address: 16 Ithica Ln Bunnlevel, NC 28323

Plan Version Date: 2-2-21

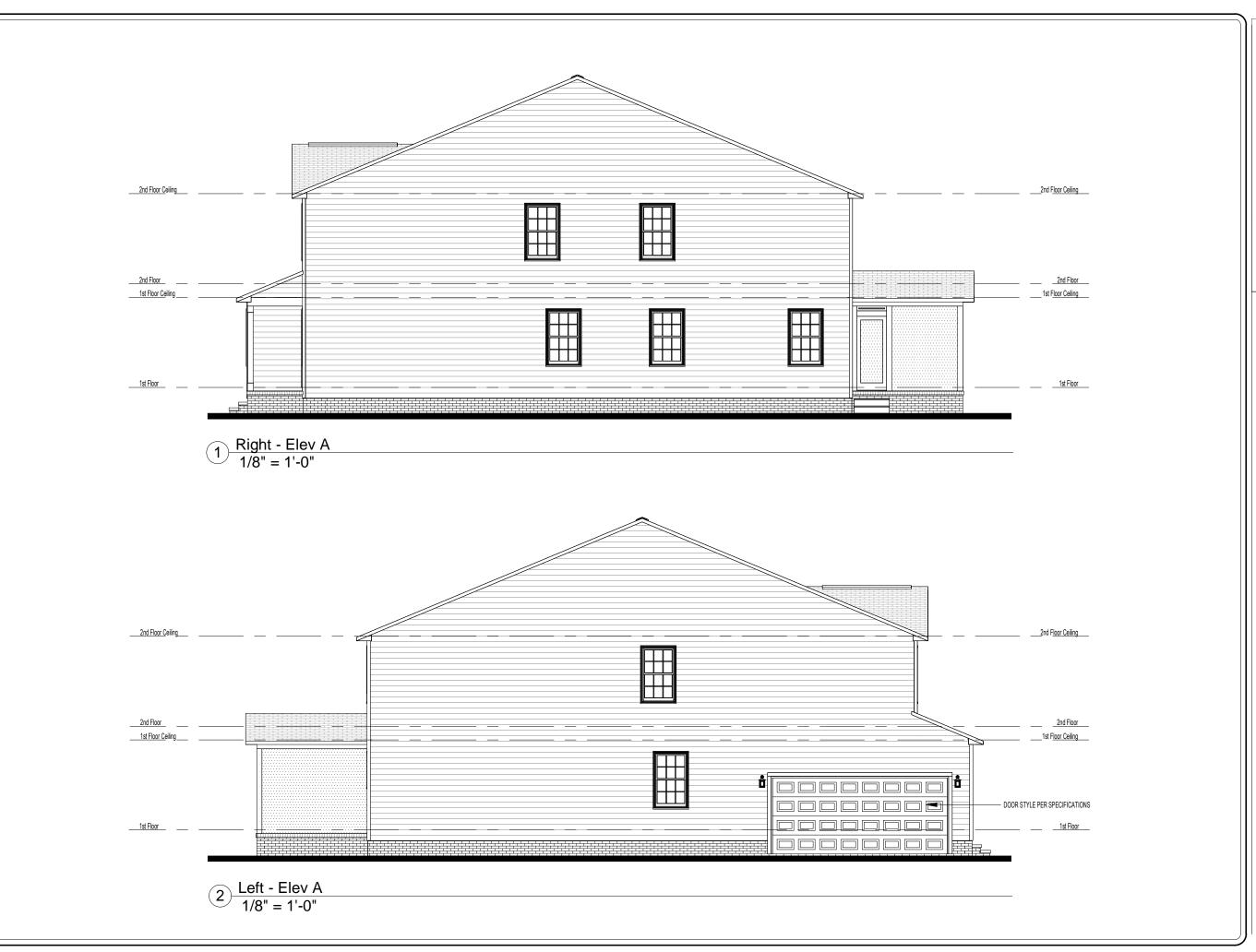
Job Version Date:

3-17-25

Sheet #: A-Pg1

Area Schedule (Elevation A)

Area 1669 SF 1st Floor 2nd Floor 1980 SF 3649 SF Unheated Front Porch 99 SF Garage 412 SF Screened Porch 100 SF 611 SF Under Roof 4260 SF





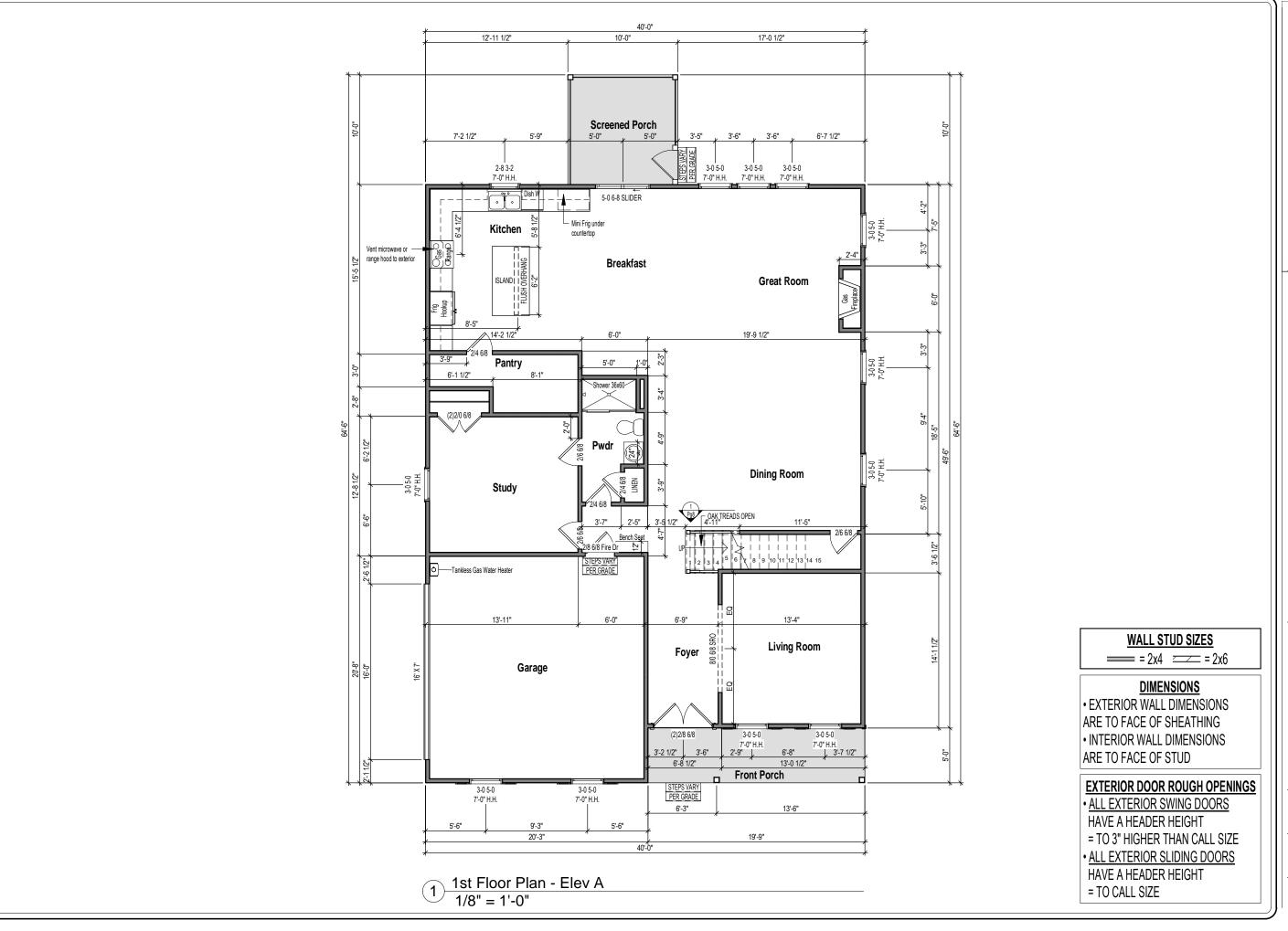
GREENE - Elevation A

Side Elevations

2024-SAN-071
Address:
16 Ithica Ln
Bunnlevel, NC 28323

Plan Version Date: 2-2-21

Job Version Date: 3-17-25





GREENE - Elevation A

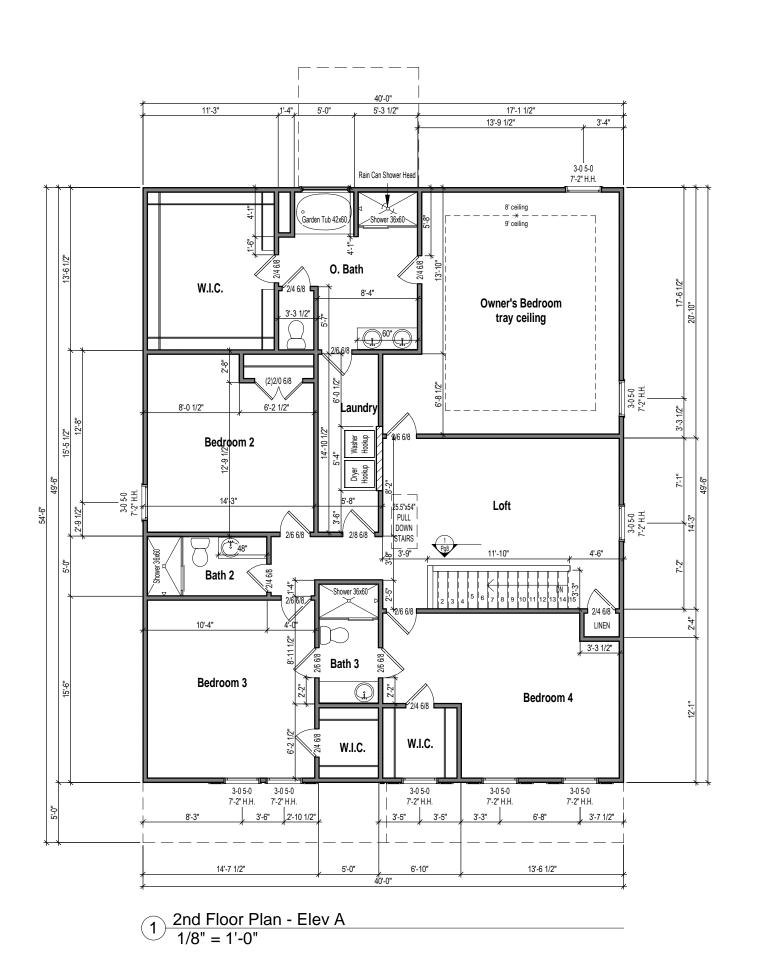
1st Floor Plan

Job#: 2024-SAN-071 Address: 16 Ithica Ln Bunnlevel, NC 28323

Plan Version Date:

2-2-21

Job Version Date: 3-17-25



**WALL STUD SIZES** 

# **DIMENSIONS**

• EXTERIOR WALL DIMENSIONS ARE TO FACE OF SHEATHING • INTERIOR WALL DIMENSIONS ARE TO FACE OF STUD

# **EXTERIOR DOOR ROUGH OPENINGS**

- ALL EXTERIOR SWING DOORS HAVE A HEADER HEIGHT
- = TO 3" HIGHER THAN CALL SIZE
- ALL EXTERIOR SLIDING DOORS HAVE A HEADER HEIGHT
- = TO CALL SIZE

alueBuild

2nd Floor Plan

GREENE - Elevation A

Address: 16 Ithica Ln Bunnlevel, NC 28323

Job#: 2024-SAN-071

Plan Version Date: 2-2-21

Job Version Date: 3-17-25

# Attic Ventilation Calcs 1/300 (sq.in.)

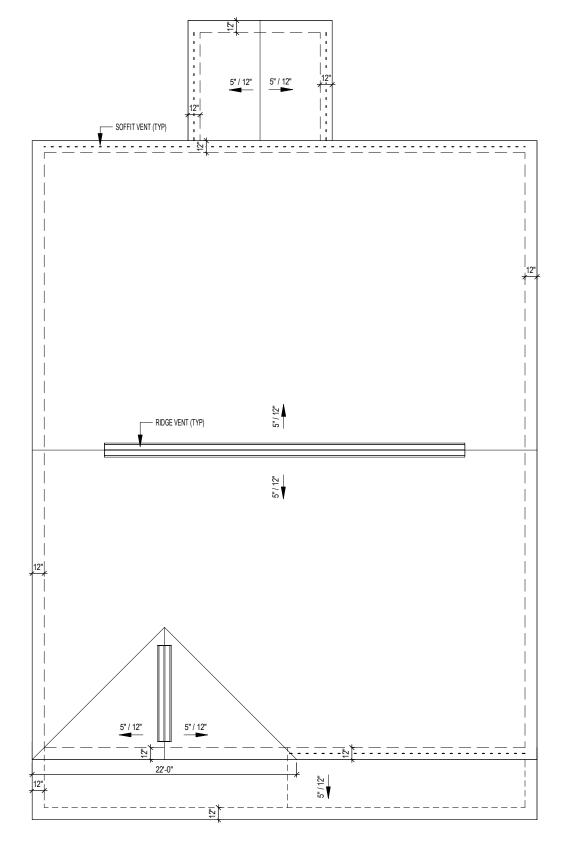
	Ventilation	Max	Min	Upper	Lower	Total	Ridge	Roof	Soffit
	Required	Upper	Upper	Ventilation	Ventilation	Ventilation	Vent	Vents	Vents
Area	(sq.in.)	(sq.in.)	(sq.in.)	(sq.in.)	(sq.in.)	(sq.in.)	(ln.ft.)	(ea)	(sq.ft.
1980 SF	950	760	475	570	708	1278	38	0	118

- CALCS BASED ON THE FOLLOWING VALUES

   Ridge Vents = 15 in² of net free area per linear foot

   Roof Vents = 50 in² of net free area per unit

   Soffit Vents = 6 in² of net free area per square foot



Roof Plan - Elev A 1/8" = 1'-0"



GREENE - Elevation A

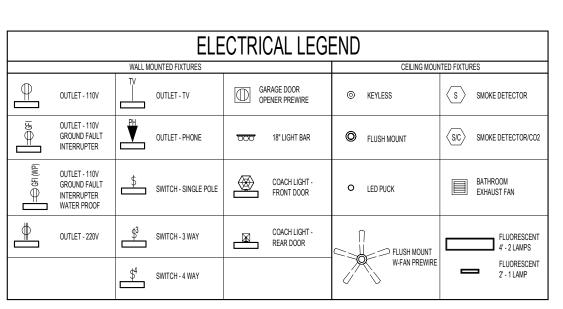
**Roof Plan** 

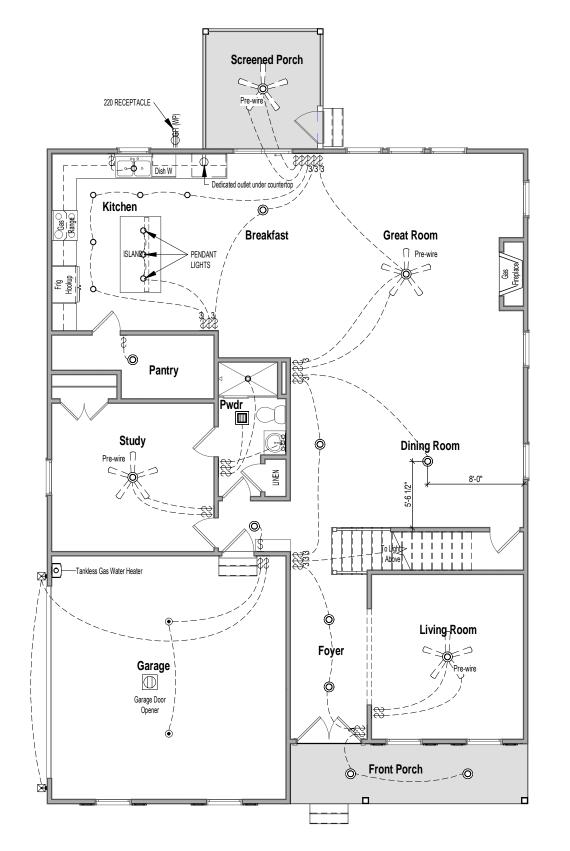
Job #: 2024-SAN-071 Address: 16 Ithica Ln Bunnlevel, NC 28323

Plan Version Date:

2-2-21

Job Version Date: 3-17-25





1st Floor Electrical 1/8" = 1'-0"

Outlets shown on the electrical layout are in addition to the outlets that shall be provided in accordance with International Residential Code Sections E3901.2 through E3901.11.

GREENE - Elevation A

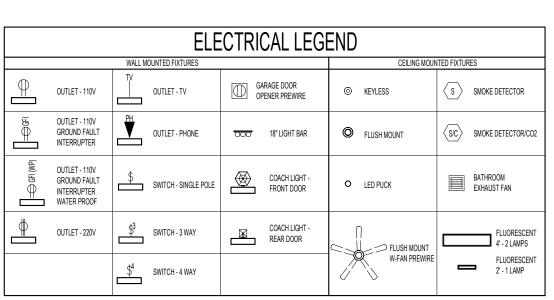
1st Floor Electrical Plan

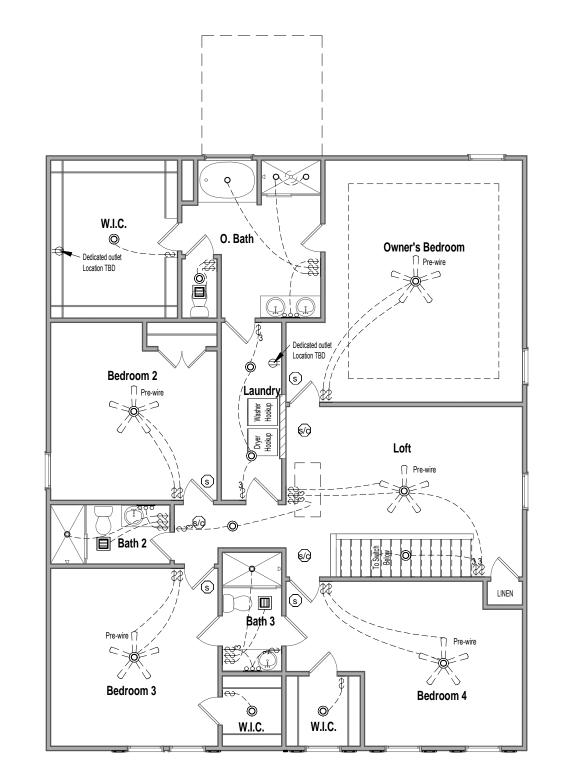
alueBuild

Address: 16 Ithica Ln Bunnlevel, NC 28323 Job#: 2024-SAN-071

Plan Version Date: 2-2-21

Job Version Date: 3-17-25





2nd Floor Electrical 1/8" = 1'-0"

Outlets shown on the electrical layout are in addition to the outlets that shall be provided in accordance with International Residential Code Sections E3901.2 through E3901.11.

GREENE - Elevation A

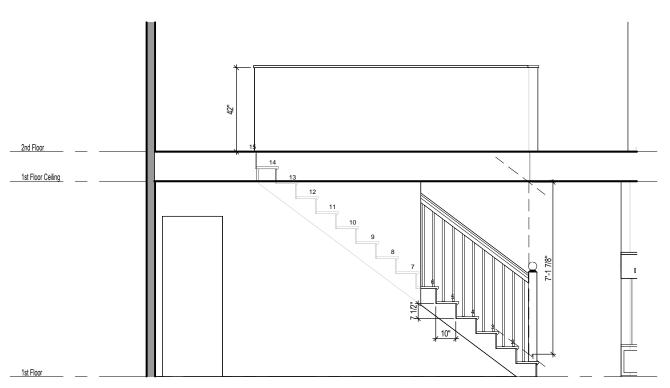
alueBuild

2nd Floor Electrical Plan

Address: 16 Ithica Ln Bunnlevel, NC 28323 Job#: 2024-SAN-071

Plan Version Date: 2-2-21

Job Version Date: 3-17-25



1 Stair Section 1/4" = 1'-0"

Walue Build

GREENE - Elevation A

Sections

JC 28323

2024-3AIV-07 I Address: 16 Ithica Ln Bunnlevel: NC 283

Plan Version Date:

2-2-21

Job Version Date: 3-17-25

Typical Wall Section - Brick Fnd 3/4" = 1'-0"



GREENE - Elevation A

Typical Wall Section

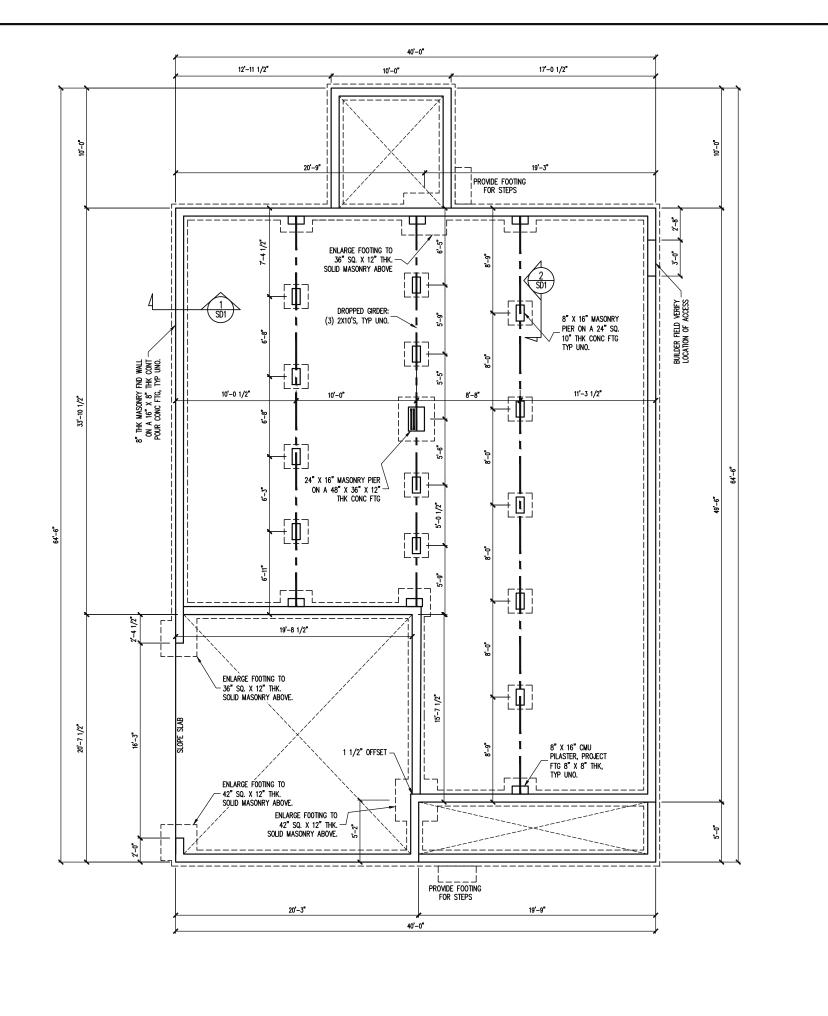
ss: thica Ln nlevel, NC 28323

Plan Version Date:

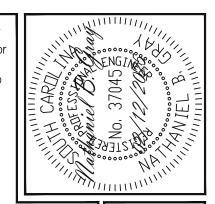
2-2-21

Job Version Date: 3-17-25

Sheet #: Sec-Crawl/Brk



The structural design of this plan is the property of Engineering Tech Associates, P.A. These plans are for the one time use at the location and for the client listed. Engineering Tech Associates, P.A. 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 Engineering Tech Associates, P.A.



318 W A Raleigh, No VALUE BUILD HOMES
STRUCTURAL ADDENDUM
16 ITHACA LN
BUNNIEVEL, NC
# 2024-SAN-071 OLANIYI

20

ENG: PAL/NBG DATE: 02/12/2025

PLAN

**GREENE** 

PROJECT NO.

24-26-018

SHEET NO. **S1** 

NOTES:
-HEIGHT AND BACKFILL LIMITATIONS FOR
FOUNDATION WALLS ARE TO BE GOVERNED
BY THE NCSBC, LATEST EDITION.
REINFORCEMENT AND GROUTING SHALL BE
DETERMINED BY FINAL SITE CONDITIONS.

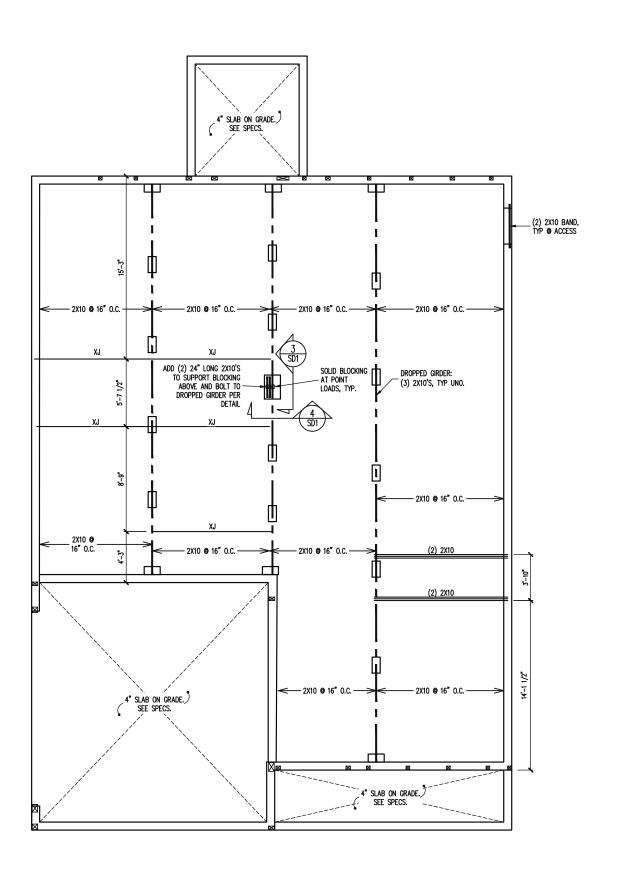
-BUILDER TO FIELD LOCATE CRAWLSPACE ACCESS OPENING WITH MINIMUM DIMENSIONS OF 18X24. DO NOT LOCATE ACCESS OPENING BELOW POINT LOADS FROM ABOVE WITHOUT ENGINEER APPROVAL.

PLAN DESIGNED UNDER 2018 NORTH CAROLINA RESIDENTIAL CODE

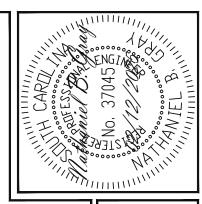
1/8" = 1'-0"

FOUNDATION PLAN

1 of 7



The structural design of this plan is the property of Engineering Tech Associates, P.A. These plans are for the one time use at the location and for the client listed. Engineering Tech Associates, P.A. 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 Engineering Tech Associates, P.A.



	STRUCTURAL EN License No. 318 W Millbrook, 318 W Millbrook, 318 W Arillbrook, 318 W Phone (919)					
		Ţ	 	<u> </u>	ASSOCIATES, P.A.	
) HOMES	NDDENDOM					
VALUE BUILD HOMES	STRUCTURAL ADDENDUM	16 ITHACA LN	PI ININI EVEI NIC	DOINING VILL INC	JOB# 2024-SAN-071 OLANIYI	
	SCOPE	ပ္ပ				

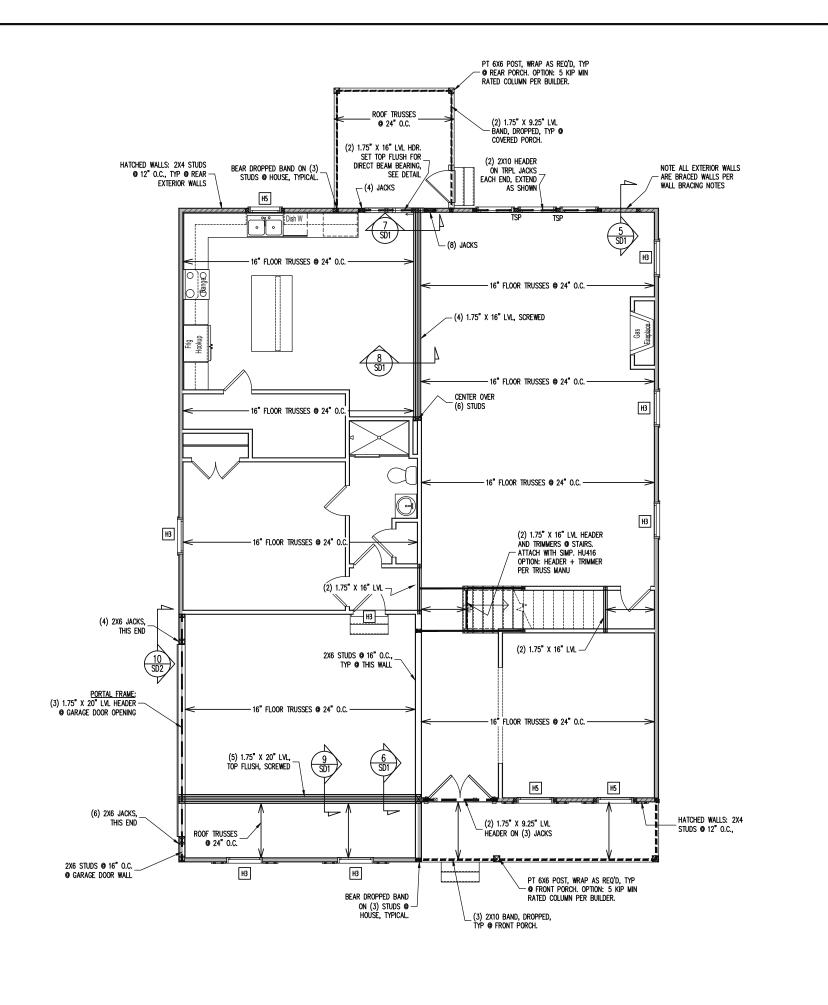
PLAN
GREENE

PROJECT NO.
24-26-018

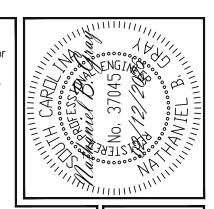
SHEET NO.
S2

2 of 7

CRAWL SPACE FRAMING PLAN



The structural design of this plan is the property of Engineering Tech Associates, P.A. These plans are for the one time use at the location and for the client listed. Engineering Tech Associates, P.A. 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 Engineering Tech Associates, P.A.



## CONSTRUCTION SPECIFICATIONS INSTANT REFERENCES

REFER TO THE CONSTRUCTION SPECIFICATIONS SECTIONS FOR THE FOLLOWING INFORMATION:

PART 1.01: CURRENT GOVERNING CODE

PART 14: STUD SUPPORT FOR BEAMS

PART 17: KING STUDS FOR EXTERIOR WALLS

SEE DETAIL / CONSTRUCTION SPECIFICATIONS SHEETS FOR I-JOISTS ALLOWABLE SUBSTITUTIONS

# WALL BRACING

SHADED WALLS:

ALL EXTERIOR STUD WALLS, EXTERIOR SIDE, ARE TO BE CONTINUOUSLY SHEATHED WITH 7/16 APA RATED OSB NAILED TO STUDS WITH 8d NAILS @ 6" O.C. AT PANEL EDGES, 12" O.C. IN PANEL FIELD.

NOTES: PROVIDED CONTINUOUS SHEATHING = 190' MIN.

REFERENCE PART 16.02 OF CONSTRUCTION SPECIFICATIONS FOR GENERAL WIND BRACING INFORMATION.

# HEADER SCHEDULE

- H1 SINGLE 2X4 TURNED FLAT (A)
- H2 (2) 2X4'S ON SINGLE JACKS (B)
- H3 (2) 2X8'S ON SINGLE JACKS (C)
- H4 (2) 1.75" X 9.25" LVL'S ON DBL JACKS
- H5 (2) 2X8'S ON DBL JACKS
- H6 (2) 2X10'S ON DBL JACKS

(A) TYPICAL FOR INTERIOR NON LOAD BEARING WALLS ONLY, ROUGH OPENING 38" MAX.

- (B) TYPICAL FOR INTERIOR NON LOAD BEARING WALLS ONLY, ROUGH OPNG 38" TO 74" MAX.
- (C) TYPICAL FOR ALL CONDITIONS NOT LISTED IN (A) OR (B) UNO.

-HEADERS IN NON LOAD BEARING INTERIOR

# 1ST FLOOR FRAMING PLAN

WALLS AND CEILING 1/8'' = 1'-0''

3 of 7

VALUE BUILD HOMES
STRUCTURAL ADDENDUM 16 ITHACA LN BUNNIEVEL, NC 2024-SAN-071 OLA

ENG: PAL/NBG

DATE: 02/12/2025

PLAN

**GREENE** 

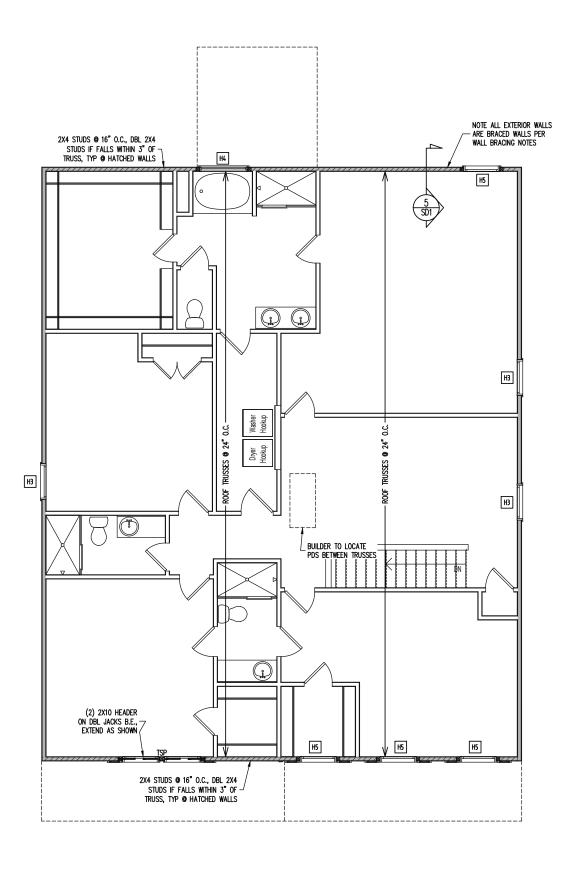
PROJECT NO. 24-26-018

SHEET NO.

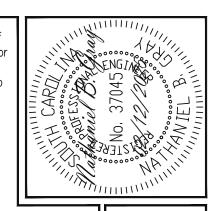
**S**3

≥

318 V Raleigh,



The structural design of this plan is the property of Engineering Tech Associates, P.A. These plans are for the one time use at the location and for the client listed. Engineering Tech Associates, P.A. 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 Engineering Tech Associates, P.A.



318 W

VALUE BUILD HOMES
STRUCTURAL ADDENDUM

16 ITHACA LN BUNNIEVEL, NC 2024-SAN-071 OLA

# INSTANT REFERENCES

SHADED WALLS:

ALL EXTERIOR STUD WALLS, EXTERIOR SIDE, ARE TO BE CONTINUOUSLY SHEATHED WITH 7/16 APA RATED OSB NAILED TO STUDS WITH 8d NAILS @ 6" O.C. AT PANEL EDGES, 12" O.C. IN PANEL FIELD.

NOTES: PROVIDED CONTINUOUS SHEATHING = 180' MIN.

- H2 (2) 2X4'S ON SINGLE JACKS (B)
- H3 (2) 2X8'S ON SINGLE JACKS (C)
- (A) TYPICAL FOR INTERIOR NON LOAD BEARING
- (C) TYPICAL FOR ALL CONDITIONS NOT LISTED

# 2ND FLOOR FRAMING PLAN

WALLS AND CEILING 1/8'' = 1'-0''

4 of 7

ENG: PAL/NBG DATE: 02/12/2025

PLAN

**GREENE** 

PROJECT NO.

24-26-018 SHEET NO.

**S4** 

CONSTRUCTION SPECIFICATIONS

REFER TO THE CONSTRUCTION SPECIFICATIONS SECTIONS FOR THE FOLLOWING INFORMATION:

PART 1.01: CURRENT GOVERNING CODE

PART 14: STUD SUPPORT FOR BEAMS

PART 17: KING STUDS FOR EXTERIOR WALLS

SEE DETAIL / CONSTRUCTION SPECIFICATIONS SHEETS FOR I-JOISTS ALLOWABLE SUBSTITUTIONS

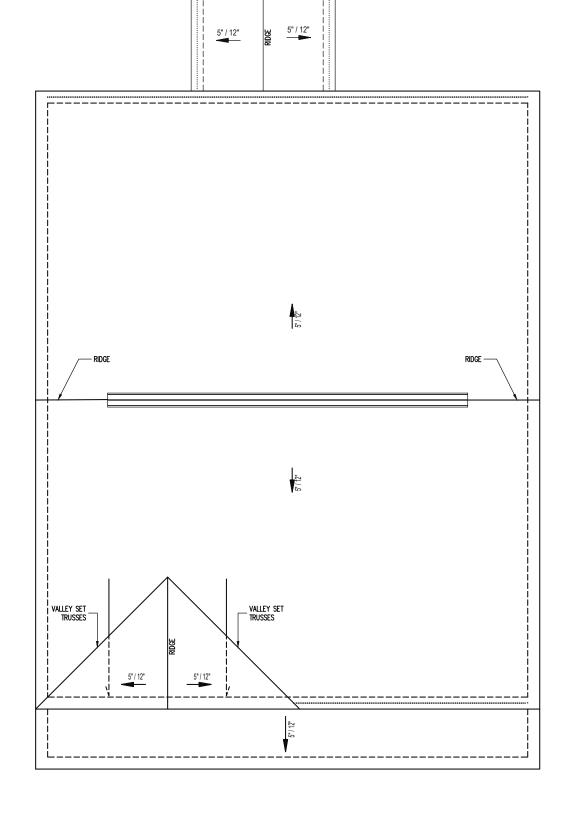
# WALL BRACING

REFERENCE PART 16.02 OF CONSTRUCTION SPECIFICATIONS FOR GENERAL WIND BRACING INFORMATION.

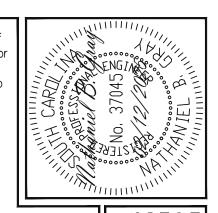
# HEADER SCHEDULE

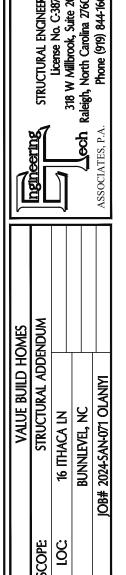
- H1 SINGLE 2X4 TURNED FLAT (A)
- H4 (2) 1.75" X 9.25" LVL'S ON DBL JACKS
- H5 (2) 2X8'S ON DBL JACKS
- WALLS ONLY, ROUGH OPENING 38" MAX.
- (B) TYPICAL FOR INTERIOR NON LOAD BEARING WALLS ONLY, ROUGH OPNG 38" TO 74" MAX.
- IN (A) OR (B) UNO.

NOTES:
-HEADERS IN NON LOAD BEARING INTERIOR
WALLS ARE NOT LABELED.



The structural design of this plan is the property of Engineering Tech Associates, P.A. These plans are for the one time use at the location and for the client listed. Engineering Tech Associates, P.A. 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 Engineering Tech Associates, P.A.





# TRUSS UPLIFT CONNECTORS

EXPOSURE B. 120 MPH, ANY PITCH 24" O.C. MAX ROOF TRUSS SPACING

TRUSSES SHALL BE ATTACHED TO SUPPORT WALL FOR UPUFT RESISTANCE. CONTINUOUS OSB WALL SHEATHING BELOW PROVIDES CONTINUOUS UPUFT RESISTANCE TO FOUNDATION. ALL TRUSSES SUPPORTED BY INTERMEDIATE SUPPORT WALLS, KNEEWALLS OR BEAMS SHALL BE ATTACHED TO SUPPORTING MEMBER PER SCHEDULE BELOW.

ROOF SPAN IS MEASURED HORIZONTALLY BETWEEN FURTHEST SUPPORT POINTS.

ROOF SPAI UP TO 18' CONNECTOR
NAILING PER TABLE 602.3(1)
NCRBC 2018 EDITION

OVER 18'

(1) SIMPSON H2.5A HURRICANE CLIP TO DBL TOP PLATE OR BEAM

# FRAMING NOTES

ROOF ONLY

-ROOF TRUSSES PER MANUFACTURER, TYP U.N.O. -VERIFY ROOF PITCHES, OVERHANG LENGTHS, AND CNEEWALL FRAMING HGTS WITH ARCHITECTURAL DRAWNGS, TYPICAL

ROOF FRAMING PLAN

1/8" = 1'-0"

S5 5 of 7

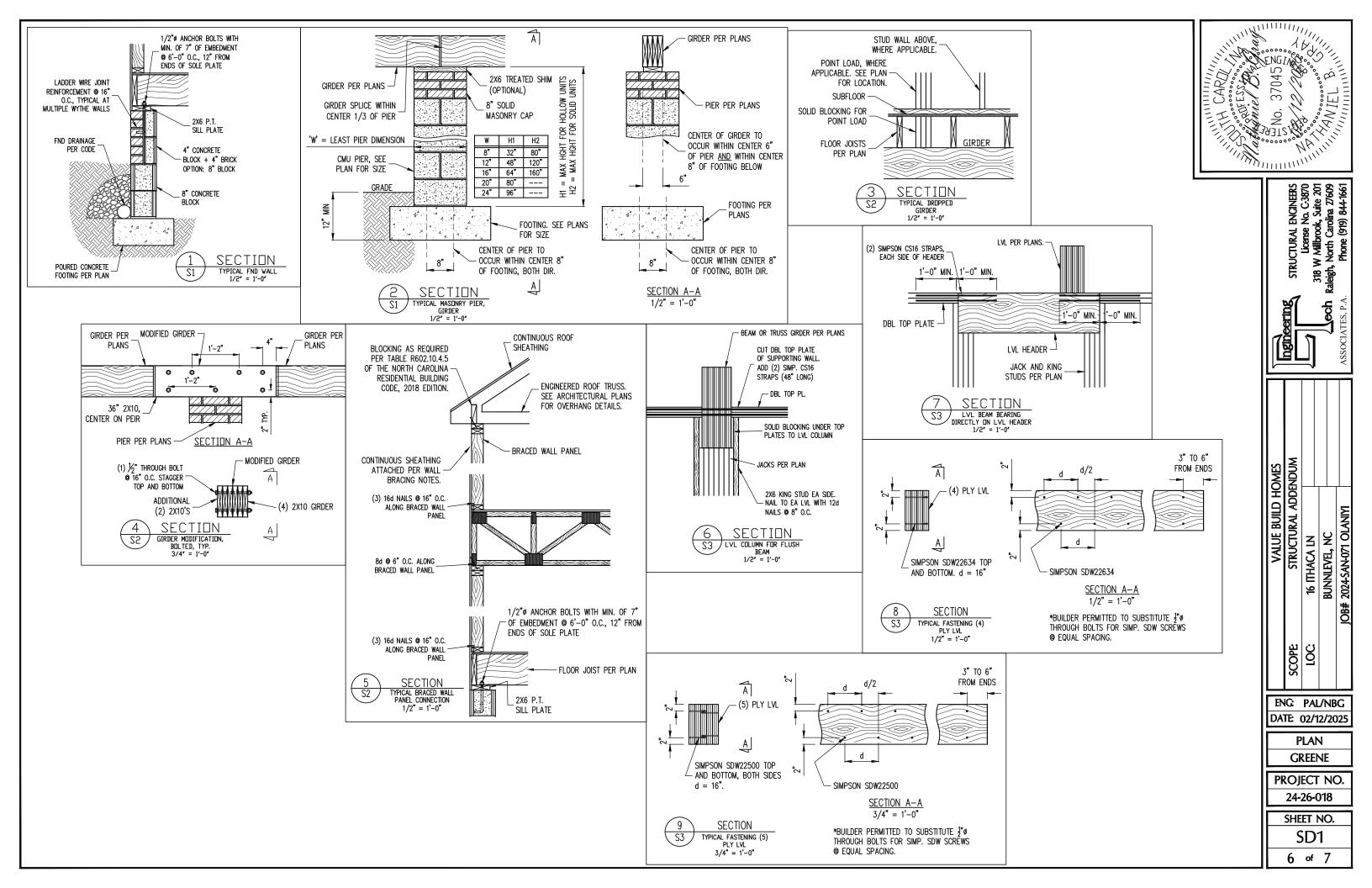
ENG: PAL/NBG

DATE: 02/12/2025

PLAN GREENE

PROJECT NO.

24-26-018 SHEET NO.



(2) CONT. 2X TOP PLATES, EXTEND EACH END INTO ADJACENT WALL, NAIL SPLICES WITH-8-16d NAILS PER SPLICE/LAP.

> CONT. 2X PLATE WITH 10d NAILS AT 16" O.C. INTO HEADER/BEAM

7/16" O.S.B. OR 15/32" PLYWOOD EXTERIOR WALL SHEATHING AT UNSHADED AREAS (BEAM, INFILL WALL ABOVE BEAM, AND CENTER WALL). NAIL SHEATHING TO ALL SUPPORTS (STUDS, PLATES, BLOCKING, ETC.) WITH 8d NAILS AT 6" O.C. AT SHEET EDGES AND 12" O.C. IN THE FIELD.

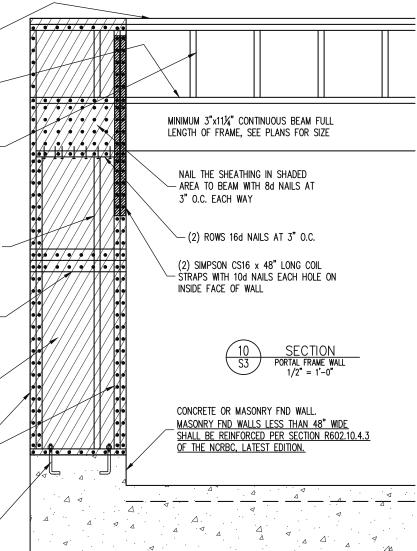
WHERE FULL HEIGHT PANEL WIDTH EXCEEDS 16". PROVIDE ADDITIONAL STUDS AT 16" O.C. NAIL SHEATHING TO ALL STUDS WITH 8d NAILS AT 3" O.C.

> FOR A PANEL SPLICE (IF NEEDED), PANEL EDGES SHALL OCCUR OVER AND BE NAILED TO COMMON BLOCKING AND OCCUR WITHIN MIDDLE 24" OF WALL HEIGHT. ONE ROW OF 3" O.C. NAILING IS REQUIRED IN EACH PANEL EDGE.

7/16" O.S.B. OR 15/32" PLYWOOD EXTERIOR WALL SHEATHING. AT SHADED AREAS NAIL SHEATHING TO ALL SUPPORTS -(STUDS, PLATES, BLOCKING, ETC.) WITH 8d NAILS AT 3" O.C.

(2)2x STUD MIN. AT START AND END OF WALL SEGMENTS EACH SIDE OF OPENING. SEE PLANS FOR ADDITIONAL STUDS

2x4 P.T. PLATE WITH TWO 1/2" DIA x 7" EMBED ANCHOR BOLTS WITH A 3/16"x2"x2" PLATE WASHERS OR ADDITIONAL HOLDOWN PER PLANS. OPTION: (2) 5/8" DIA. THREADED RODS INSTALLED PER SECTION R602.10.4.3 OF THE NCRBC, LATEST EDITION.



NOTES **ABBREVIATIONS** THE BUILDER IS RESPONSIBLE FOR REVIEWING PLANS PRIOR TO CONSTRUCTION. THE BUILDER ABV ABOVE
B. BOTH
B.E. BOTH ENDS
BTWN BETWEEN FND FOUNDATION TJ TRIPLE JOIST FOOTING HOT DIPPED GALVANIZED TYP TYPICAL
TRPL TRIPLE
TSP TRIPLE STUD POCKET SHALL IMMEDIATELY CONTACT THE ENGINEER OF RECORD (EOR) BEFORE PROCEEDING IF THE FOLLOWING CONDITIONS ARE NOTED BEFORE OR DURING CONSTRUCTION: ) THE WORKING PLANS DO NOT BEAR THE SEAL OF THE FOR HGR HANGER CIP CAST IN PLACE UNO UNLESS NOTED THE PLANS CONTAIN DISCREPANT OR INCOMPLETE INFORMATIO CONC CONCRETE
CS CONTINUOUS SHEA LAMINATED VENEER CS CONTINUOUS SH DIA DIAMETER DBL DOUBLE DJ DOUBLE JOIST 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 NTS NOT TO SCALE O.C. ON CENTER PARALLEL STRAND LUMBER PRESSURE TREATED THE EOR DOES NOT PERFORM FENESTRATION OR VENTING CALCULATIONS OR ANY OTHER CALCULATIONS THAT ARE NOT DIRECTLY RELATED TO STRUCTURAL ENGINEERING.

DSP DBL STUD POCKET
EQ EQUAL
EA EACH
FLG FLANGE QJ QUAD JOIST SP STUD POCKET SQ SQUARE ROOF AND FLOOR TRUSSES TO BE DESIGNED BY AN ENGINEER REGISTERED BY THE STATE. FINAL FLOOR TRUSSES TO BE DESIGNED BY AN ENGINEER REGISTERED BY THE STATE. FINAL FLOOR FOR PEVIFW

# 37045WINITED BY TELL BY THE BY A STEEL ON CONTRACT OF THE STEEL ON CONTRACT ON CONTRACT OF THE STEEL ON CONTRACT ON CONTRACT OF THE STEEL ON CONTRACT ON CONTRACT ON CONTRACT OF THE STEEL ON CONTRACT ON CONTRACT

# CONSTRUCTION SPECIFICATIONS

## 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.

2.01 DESIGN LOADS SHALL CONFORM WITH THE TABLE BELOW:

USE	LIVE LOAD (FSF)	DEAD LOAD (FSF)
BALCONIES, DECKS, ATTICS WITH FIXED STAIR ACCESS, DWELLING UNITS INCLUDING ATTICS WI FIXED STAIR ACCESS, STAIRS, FIRE ESCAPES	Ή 40	10
GARAGES (PASSENGER CARS ON	LY) 50	
ATTICS (NO STORAGE, LESS THAN 5' HEADROO	DM) 10	10
ATTICS (WITH STORAG	Œ) 20	10
00	OF 20	10 (15 FOD VALUETO)

LIVE LOAD (PSE) DEAD LOAD (PSE)

- NOTES: INDIVIDUAL STAIR TREADS ARE TO BE DESIGNED FOR THE UNIFORMLY DISTRIBUTED LIVE LOAD OF 40 PS\* 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 TO PSF WHEN HEAVY FLOOR OR ROOF FINISHES SUCH AS TILE OR SLATE ARE UTILIZED. NOTIFY ENGINEERING UNDER THESE CONDITIONS
- 2.02 INTERIOR WALLS: 5 PSF LATERAL
- 2.03 BASIC WIND DESIGN VELOCITY OF 120 MPH.
- 2.04 SOIL BEARING CAPACITY 2000 PSF (PRESUMPTIVE).

- WIDE FLANGE BEAMS AND TEE SECTIONS SHALL CONFORM TO ASTM A992 MINIMUM GRADE
- SQUARE AND RECTANGULAR TUBING SHALL CONFORM TO ASTM A500 GRADE B MINIMUM GRADE.
- 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 ASC SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS.

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 WEIGHT, 6% AIR ENTRAINMENT, AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS TYP UNO. ALL CONCRETE, INCLUDING CONCRETE FOR FOOTINGS, IS TO BE CAST IN PLACE, TYP UNO.
- 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 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 2" 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, f'M = 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 ACL 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 F844-07a) FOR THE NUT / BOLT HEAD WHEN BOLTING WOOD MEMBERS.
- 8.02 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 NDS SPECIFICATIONS. INSTALL STANDARD STEEL WASHERS (ASTM F844-070) FOR SCREW HEAD
- 20 10 (15 FOR VAULTS) 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

NAILS, SPIKES AND STAPLES SHALL CONFORM TO ASTM F 1667-05. NAILS ARE TO BE

## PART 10: DIMENSIONAL LUMBER

SOLID SAWN WOOD FRAMING DESIGN IS BASED ON NO. 2 SPRUCE PINE FIR  $\underline{OR}$  SYP #2 FOR JOISTS, RAFTERS, GIRDERS, BEAMS, STUDS, ETC.

- 11.01 LVL OR PSL MINIMUM ALLOWABLE DESIGN STRESSES ARE AS FOLLOWS: E= 1.9 X 10C6 PSI, Fb = 2600 PSI, Fv = 285 PSI, Fc = 750 PSI LSL MINIMUM ALLOWABLE DESIGN STRESSES ARE AS FOLLOWS: E= 1.3 X 10C6 PSI, Fb = 1700 PSI, Fv = 400 PSI, Fc = 860 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 GWING EQUAL PROTECTION. THE BUILDING CODE OFFICE MAY ALSO APPROVE A NATURAL 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 TOCETHER USING  $1/2^{\circ}$  9 BOLTS SPACED AT  $24^{\circ}$  O.C. STAGEGERD TOP TO BOTTION OF THE BEAM. MAINTAIN A  $2^{\circ}$  EDGE DISTANCE. PLACE TWO BOLTS, ONE ABOVE THE OTHER,  $6^{\circ}$   $\pm$   $2^{\circ}$  EDGE LEDGE THE CONTINUOUS STATES OF THE PLANS FINE OF THE P

## PART 14: STUD SUPPORTS FOR BEAMS

- STEEL, ENGINEERED LUMBER, AND FLITCH PLATE BEAMS BEARING ON A STUD WALL SHALL BEAR AS FOLLOWS:
- I—WHEN THE BEAM IS PERPENDICULAR TO, OR SKEWED RELATIVE TO THE WALL, THE BEAM SHALL BEAR PULL WOTH ON THE SUPPORTING WALL INDICATED AND SHALL BE SUPPORTED BY A MINIMUM OF THREE CAMEGO STUDS, OR A GANGED STUD COLUMN WITH A NUMBER OF STUDS SUCH THAT THE STUD COLUMN IS AT LEAST AS WIDE AS THE TRUE WOTH OF THE BEAM BEING SUPPORTED, WHICHEVER IS GREATER, TYP UND. FOR THE SKEWID COLUMN IS CRITERED ON THE STUD COLUMN IS CRITERED ON THE STUD COLUMN IS CRITERED ON
- THE BEAM SHALL BEAR A MINIMUM OF 4 1/2" ONTO THE WALL AND BE SUPPORTED BY A TRPL STUD GANGED 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  $\frac{1}{2}$  width 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 SHALL BEA
- 14.03 EXTRA JOISTS BEARING ON A STUD WALL PERPENDICULAR TO OR SKEWED RELATIVE TO THE BEAM SHALL BE SUPPORTED BY ONE ADDITIONAL STUD.
- 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 40 8" O.C., 3" APACTAT, FOR 2X8 OR 2X10 STUDS) ALL COLUMNS 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 SOLULY BLOCKED FOR THE FULL WIDTH OF THE STUD COLUMN WITHIN THE CANTY 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 MAILED TOGETHER WITH THREE ROWS OF 10 ANLS 9 16" O.C. FOR 2X10 OR LARGER, TWO ROWS OF 100 ANLS 90 16" O.C. FOR 2X8, ONE ROW OF 101 ANLS 90 16" O.C. FOR 2X8 OR SMALLER. STAGGER ROWS 5" MIN.
- LVL MEMBERS THAT ARE GANGED TO FORM A BEAM SHALL HAVE ADJACENT MEMBERS IN THE BEAM FASTENED TOGETHER PER MANUFACTURERS RECOMMENDATIONS, TYP

I 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 CELING OR ROOF, NO INTERMEDIATE BANDS OR PLATES SHALL CAUSE DISCONTINUITIES IN A STUDY WALL EXCEPT IS REQUIRED FOR DOOR OR WADOW OPENINGS. THE KING STUDS FOR SIGH OPENINGS SHALL BE CONTINUOUS, TYP UNO.

MAX ALLOWABLE WALL HEICHTS FOR EXTERIOR STUD WALLS, WITH SOLE PLATE AND DIE. 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:

2X4 9 16" O.C.: 11"—1 1/2" 2X6 9 16" O.C.: 17"—0"

DBL 2X4 9 16" O.C.: 12"—1 1/2" 2X6 9 16" O.C.: 12"—0"

16.02 FOR WALL BRACING THE FOLLOWING SHALL APPLY:

-BLOCKING AT UNSUPPORTED PAMEL EDGES IS REQUIRED TYP UNO.

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

-BRACED WALL PANELS SHALL BE FASTENED IN ACCORDANCE WITH TABLE 602.3(1) TO
PROVIDE CONTINUOUS PANEL UPLIET RESISTANCE AND COMPLIANCE WITH NORBC
RROCJ.3.5 AND ROD211 UNLESS NOTED OTHERWISE ON STRUCTURAL PLANS.

-MAY SUBSTITUTE WSP FOR G8
-SINGLE JOST, 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 TOR NAILS 06 6" OLC. NAIL SOLE PLATE OF BRACED WALLT TO BLOCKING
BELOW WITH (3) 16d NAILS 0 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"

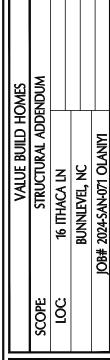
MATERIAL OR MEMBER SIZE SUBSTITUTIONS OR PLAN DEVIATIONS REQUIRE THE WRITTEN AUTHORIZATION OF THE DESIGNERS. UNAUTHORIZED DEVIATIONS ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

## 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

STRUCTURAL ENGINERS
License No. C:3870
318 W Millbrook, Suite 201
leigh, North Carolina 27609
Phone (919) 844-1661





ENG: PAL/NBG DATE: 02/12/2025

> **PLAN GREENE**

PROJECT NO. 24-26-018

> SHEET NO. SD2

7 of 7