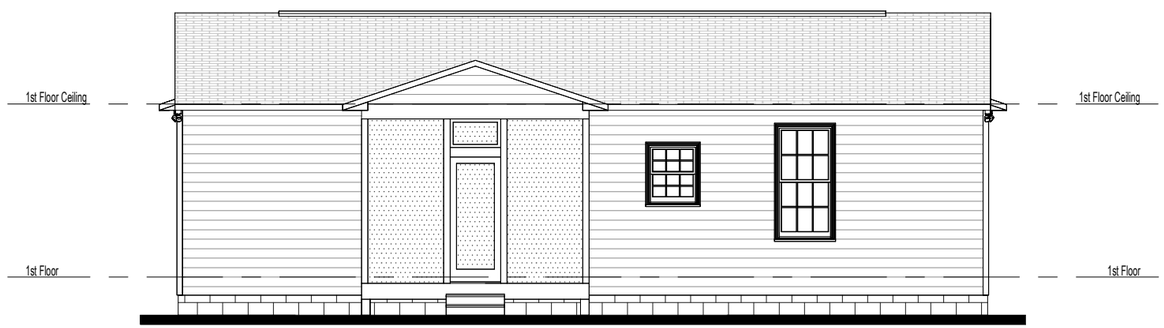
Elevation A - Sheet List	
Sheet Number	Sheet Name
ElevA-Pg1	Front & Rear Elevations
ElevA-Pg2	Side Elevations
ElevA-Pg3	1st Floor Plan
ElevA-Pg4	Roof Plan
Pg5	Sections
Pg6	Electrical Plan
Sec-Crawl/Blk 1flr	Typical Wall Section
Structural Pages	By Engineer

1 Front Elevation A
1/8" = 1'-0"

NOTICE TO CONTRACTOR
All construction must comply with current NC Building Codes and is subject to field inspection and verification.
APPROVED
Limited building only review
Permit holder responsible for full compliance with the code
05/17/2023
Harnett COUNTY NORTH CAROLINA



2 Rear Elevation A
1/8" = 1'-0"

Area Schedule (Elevation A)	
Name	Area
Heated	
1st Floor	1272 SF
	1272 SF
Unheated	
Front Porch	25 SF
Screened Porch	144 SF
	169 SF
Under Roof	1441 SF

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THE LINDA - Elevation A

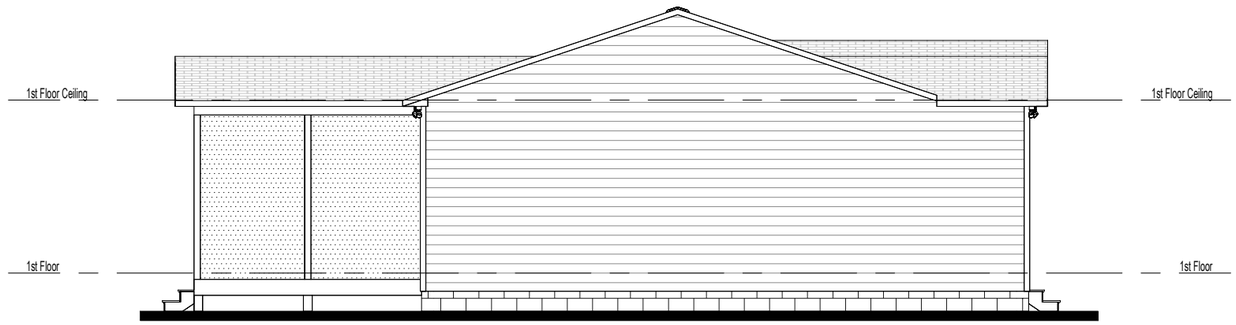
Front & Rear Elevations

Job #: 5-23-103
Address: Raven Rock Rd Lillington, NC 27546
County: Harnett County

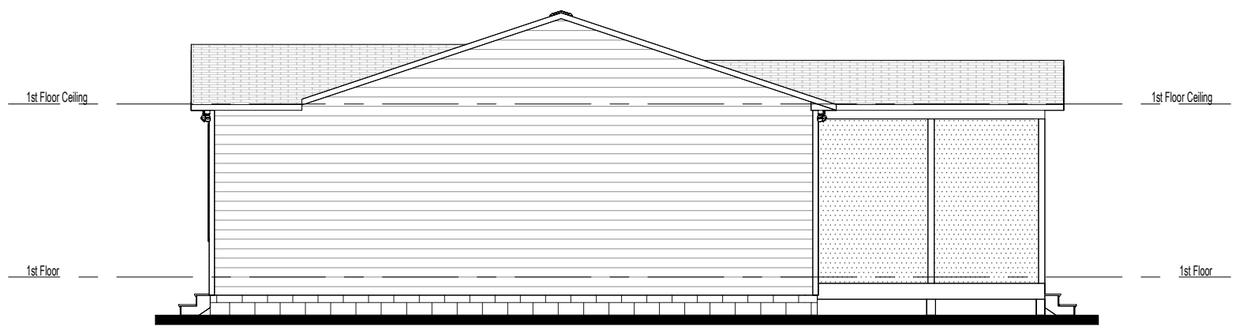
Plan Version Date: 12-8-21

Job Version Date: 3-31-23

Sheet #: ElevA-Pg1



1 Left Elevation A
1/8" = 1'-0"



2 Right Elevation A
1/8" = 1'-0"

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THE LINDA - Elevation A

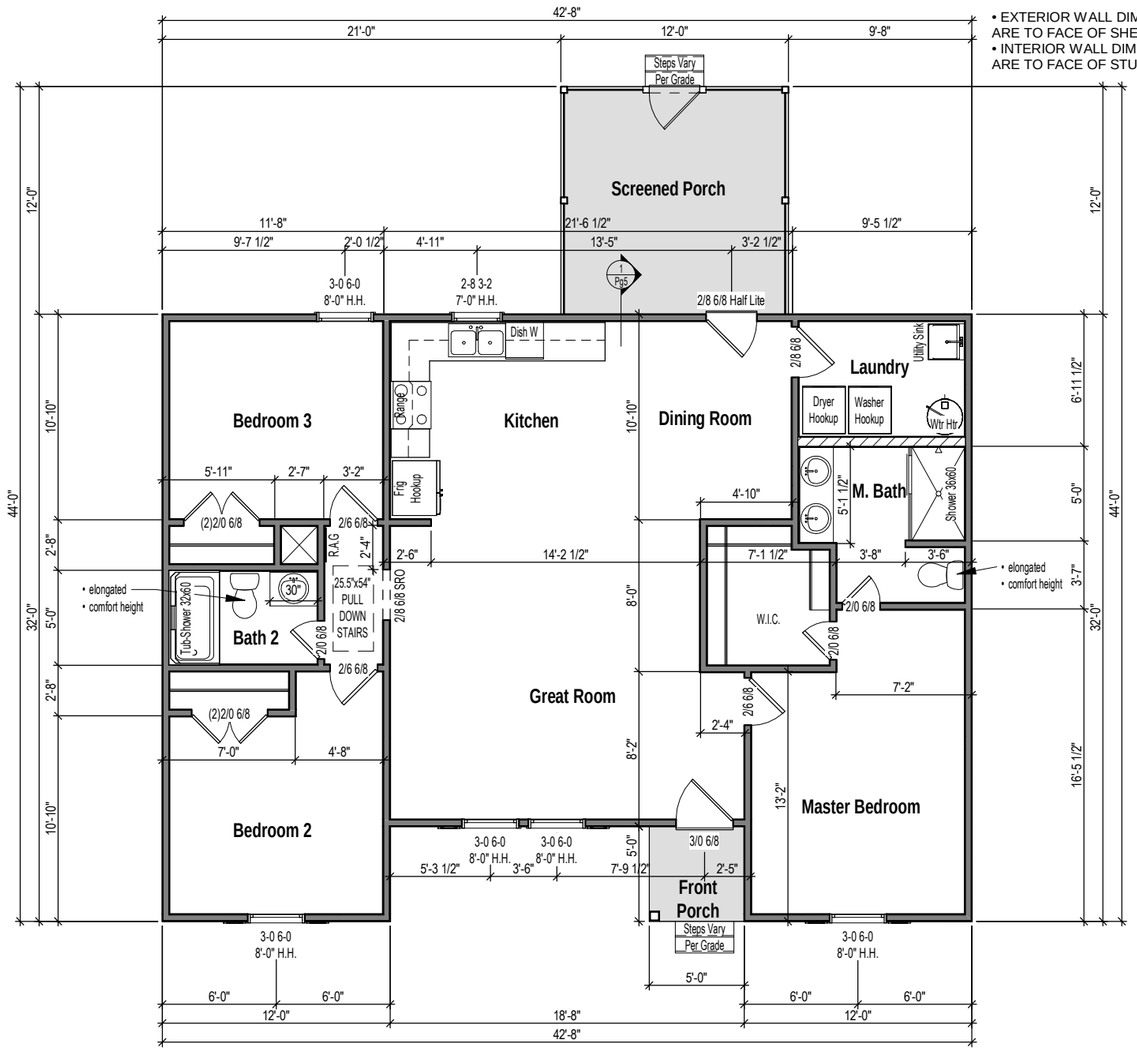
Side Elevations

Job #: 5-23-103
Address: Raven Rock Rd Lillington, NC 27546
County: Harnett County

Plan Version Date: 12-8-21

Job Version Date: 3-31-23

Sheet #: ElevA-Pg2



1 1st Floor Plan - Elevation A
1/8" = 1'-0"

WALL STUD SIZES
= 2x4 = 2x6

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

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THE LINDA - Elevation A

1st Floor Plan

Job #: 5-23-103
Address: Raven Rock Rd Lillington, NC 27546
County: Harnett County

Plan Version Date: 12-8-21

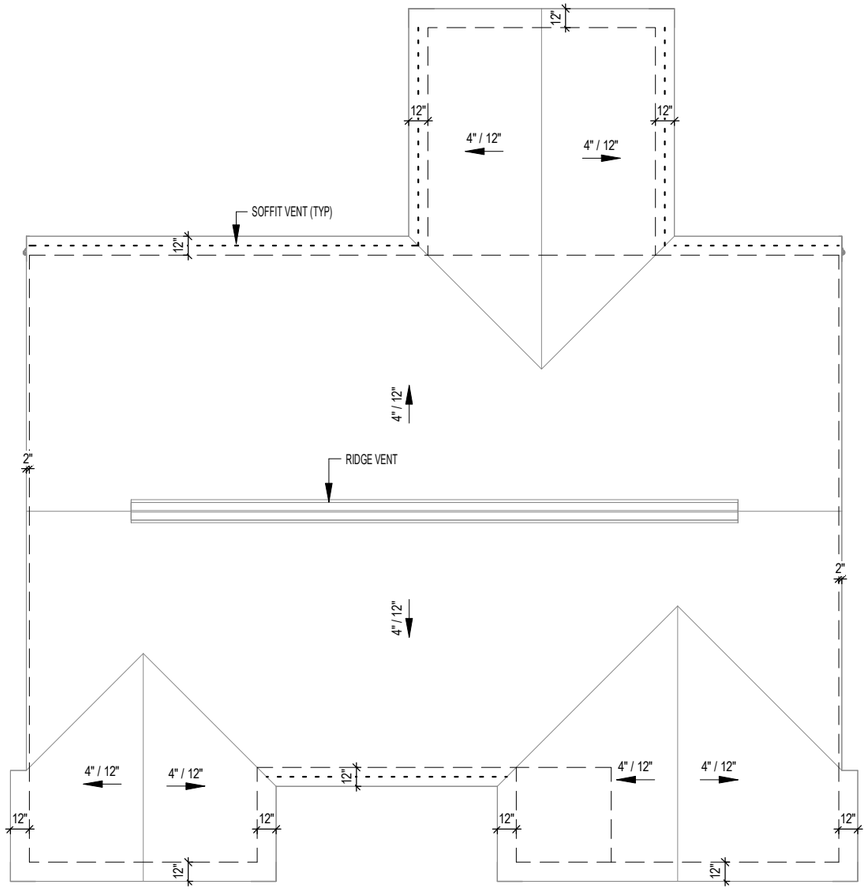
Job Version Date: 3-31-23

Sheet #: ElevA-Pg3

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

Area	Ventilation Required (sq.in.)	Max Upper (sq.in.)	Min Upper (sq.in.)	Upper Ventilation (sq.in.)	Lower Ventilation (sq.in.)	Total Ventilation (sq.in.)	Ridge Vent (ln.ft.)	Roof Vents (ea)	Soffit Vents (sq.ft.)
1275 SF	612	490	306	480	330	810	32	0	55

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



1 Roof Elevation A
1/8" = 1'-0"

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THE LINDA - Elevation A

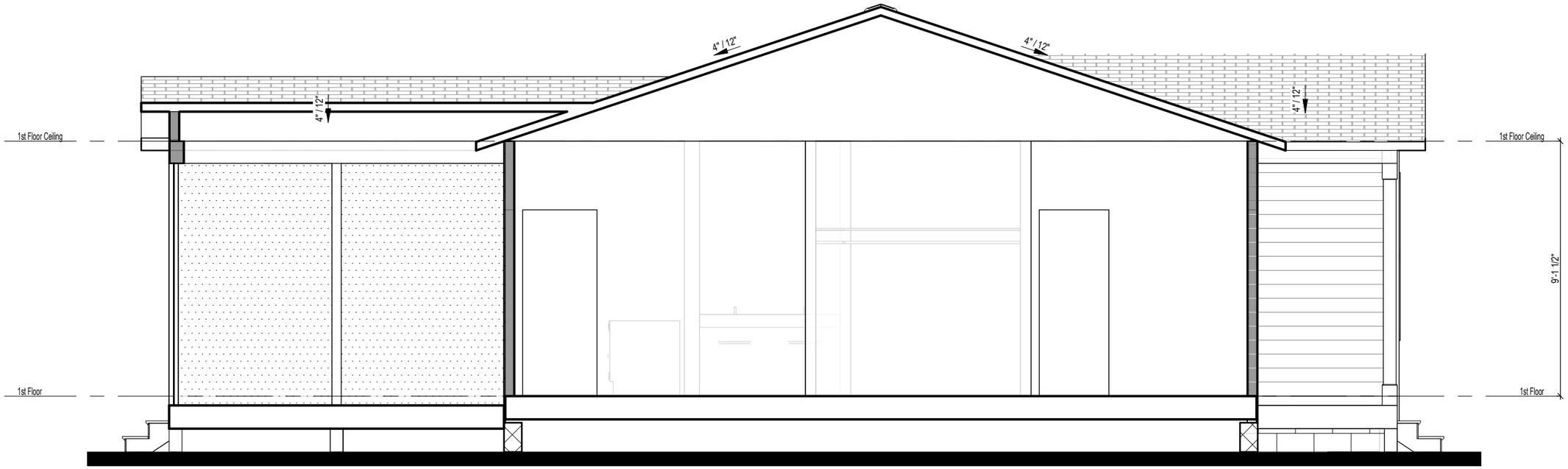
Roof Plan

Job #: 5-23-103
Address: Raven Rock Rd Lillington, NC 27546
County: Harnett County

Plan Version Date: 12-8-21

Job Version Date: 3-31-23

Sheet #: ElevA-Pg4



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

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THE LINDA - Elevation A

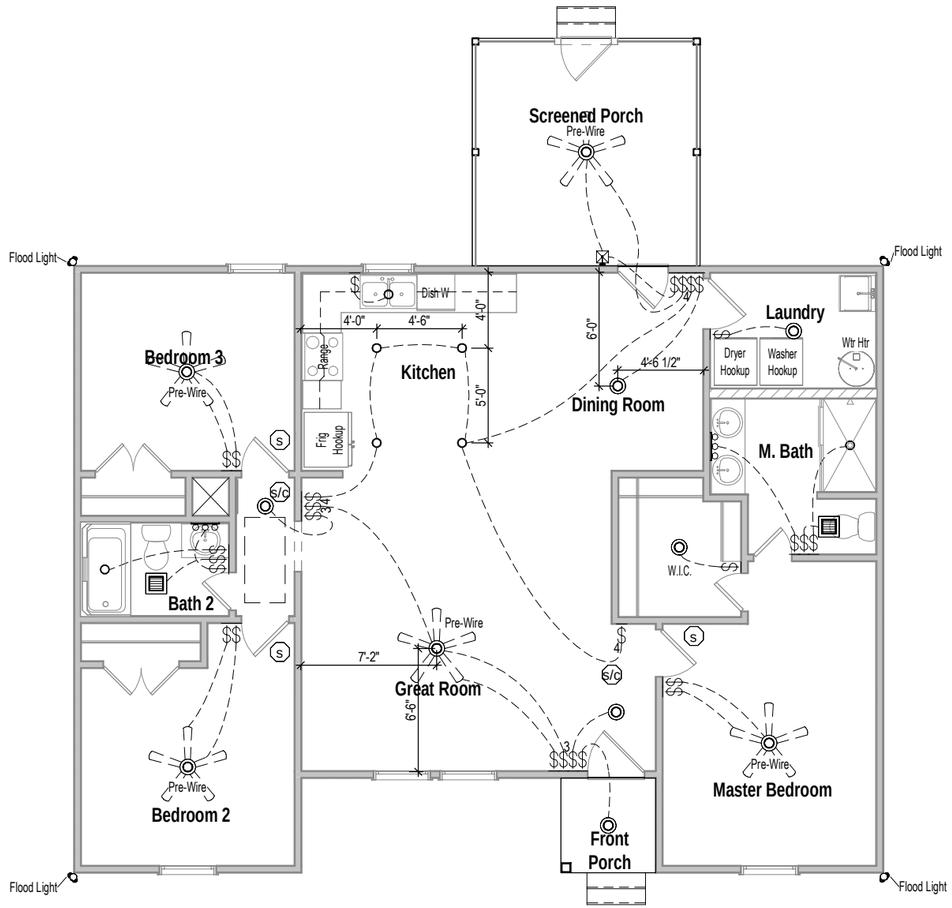
Sections

Job #: 5-23-103
Address: Raven Rock Rd Lillington, NC 27546
County: Harnett County

Plan Version Date: 12-8-21

Job Version Date: 3-31-23

Sheet #: Pg5



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

ELECTRICAL LEGEND

WALL MOUNTED FIXTURES			CEILING MOUNTED FIXTURES	
OUTLET - 110V	OUTLET - TV	WALL LIGHT	GARAGE DOOR OPENER PREWIRE	SMOKE DETECTOR
OUTLET - 110V GROUND FAULT INTERRUPTER	OUTLET - PHONE	18" LIGHT BAR	FLUSH MOUNT	SMOKE DETECTOR/CO2
OUTLET - 110V GROUND FAULT INTERRUPTER WATER PROOF	SWITCH - SINGLE POLE	COACH LIGHT - FRONT DOOR	SURFACE LIGHT	BATHROOM EXHAUST FAN
OUTLET - 220V	SWITCH - 3 WAY	COACH LIGHT - REAR DOOR	FLUSH MOUNT W-FAN PREWIRE	FLUORESCENT 4' - 2 LAMPS
	SWITCH - 4 WAY			FLUORESCENT 2' - 1 LAMP

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.

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THE LINDA - Elevation A

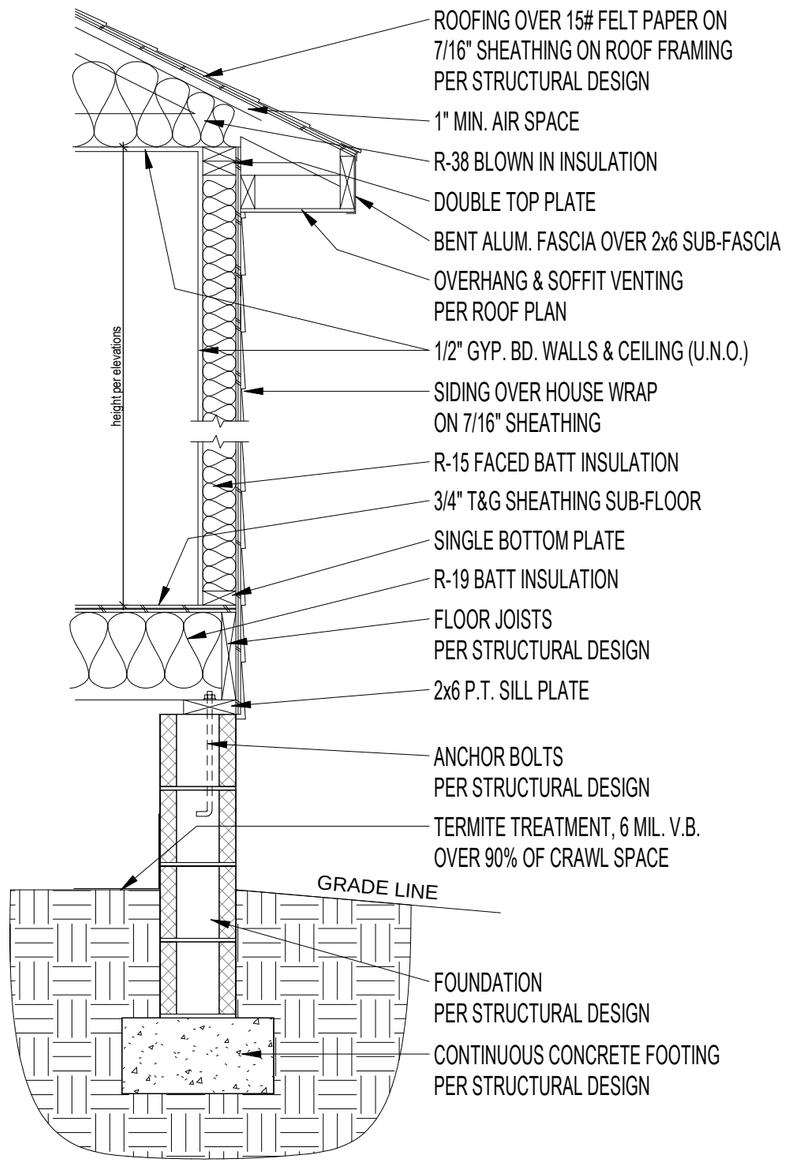
Electrical Plan

Job #: 5-23-103
Address: Raven Rock Rd Lillington, NC 27546
County: Harnett County

Plan Version Date: 12-8-21

Job Version Date: 3-31-23

Sheet #: Pg6



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

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THE LINDA - Elevation A

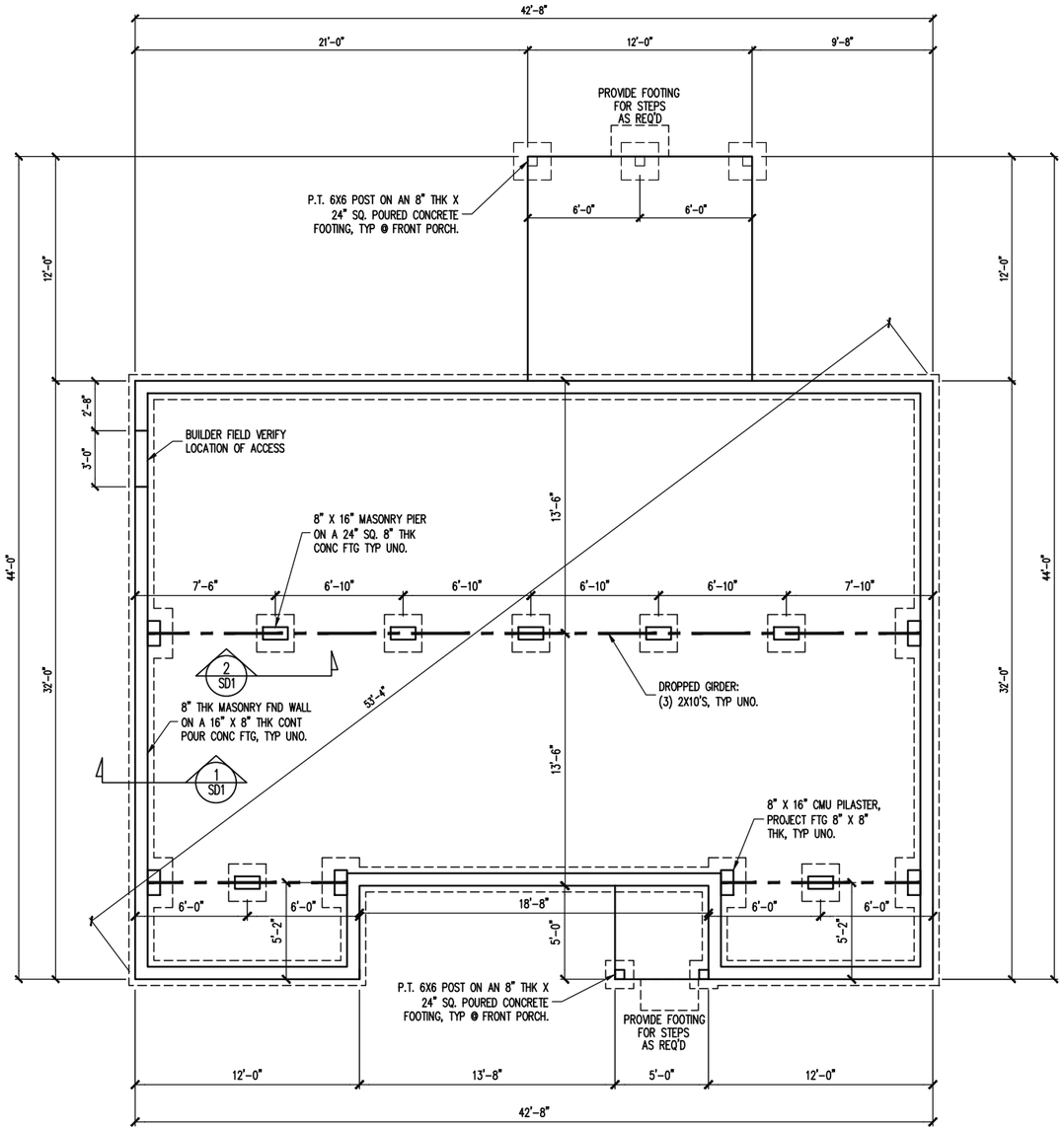
Typical Wall Section

Job #: 5-23-103
Address: Raven Rock Rd
Lillington, NC 27546
County: Harnett County

Plan Version Date: 12-8-21

Job Version Date: 3-31-23

Sheet #: Sec-Crawl/Blk 1flr



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.

FOUNDATION PLAN

1/8" = 1'-0"

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STRUCTURAL ENGINEERS
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Raleigh, North Carolina 27609
Phone (919) 844-1661

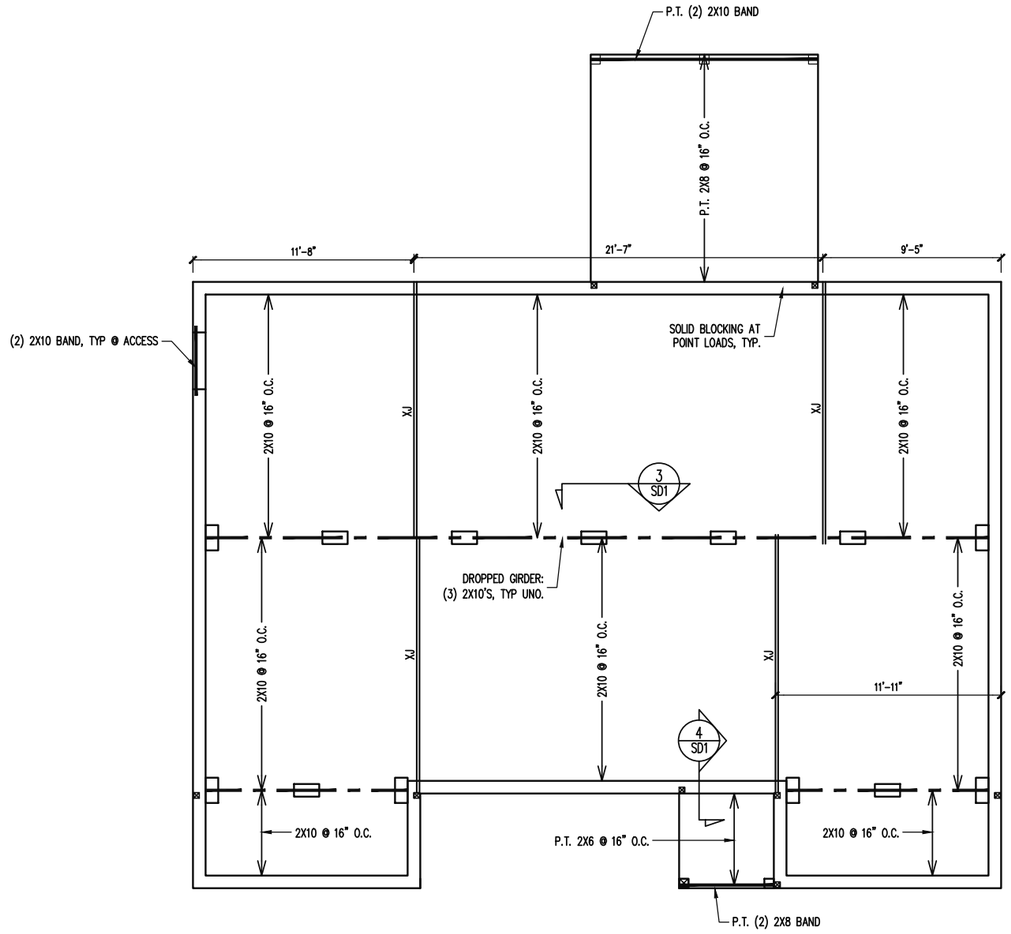
VALUE BUILD HOMES
SCOPE: STRUCTURAL ADDENDUM
LOC: RAVEN ROCK RD
LILLINGTON, NC
JOB# 05-23-103 DICKENS

ENG: NBG
DATE: 4/12/2023

PLAN
LINDA

PROJECT NO.
23-26-046

SHEET NO.
S1
1 of 7



CRAWL SPACE FRAMING PLAN

1/8" = 1'-0"

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4/12/2023
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VALUE BUILD HOMES

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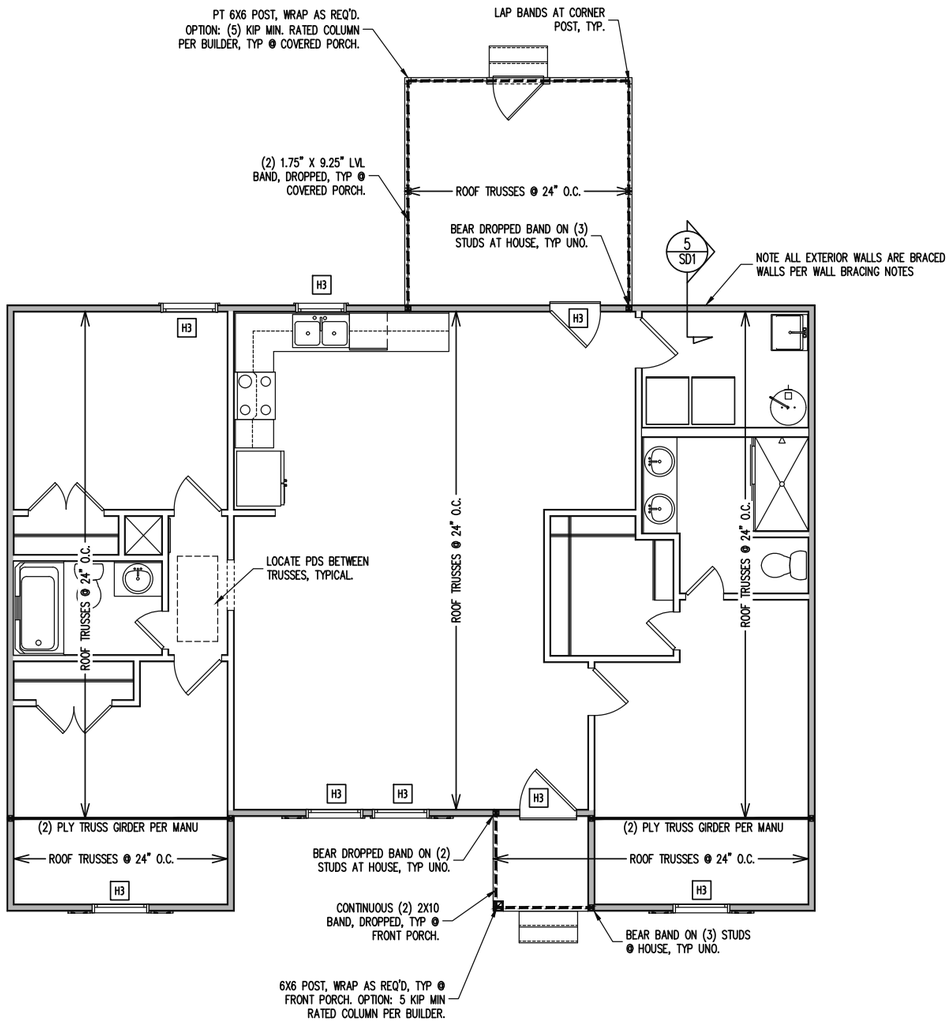
PROJECT NO.
23-26-046

SHEET NO.
S2
2 of 7



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 = 157' 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

(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.

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

1ST FLOOR FRAMING PLAN

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

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VALUE BUILD HOMES
SCOPE: STRUCTURAL ADDENDUM
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PLAN
LINDA

PROJECT NO.
23-26-046

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S3
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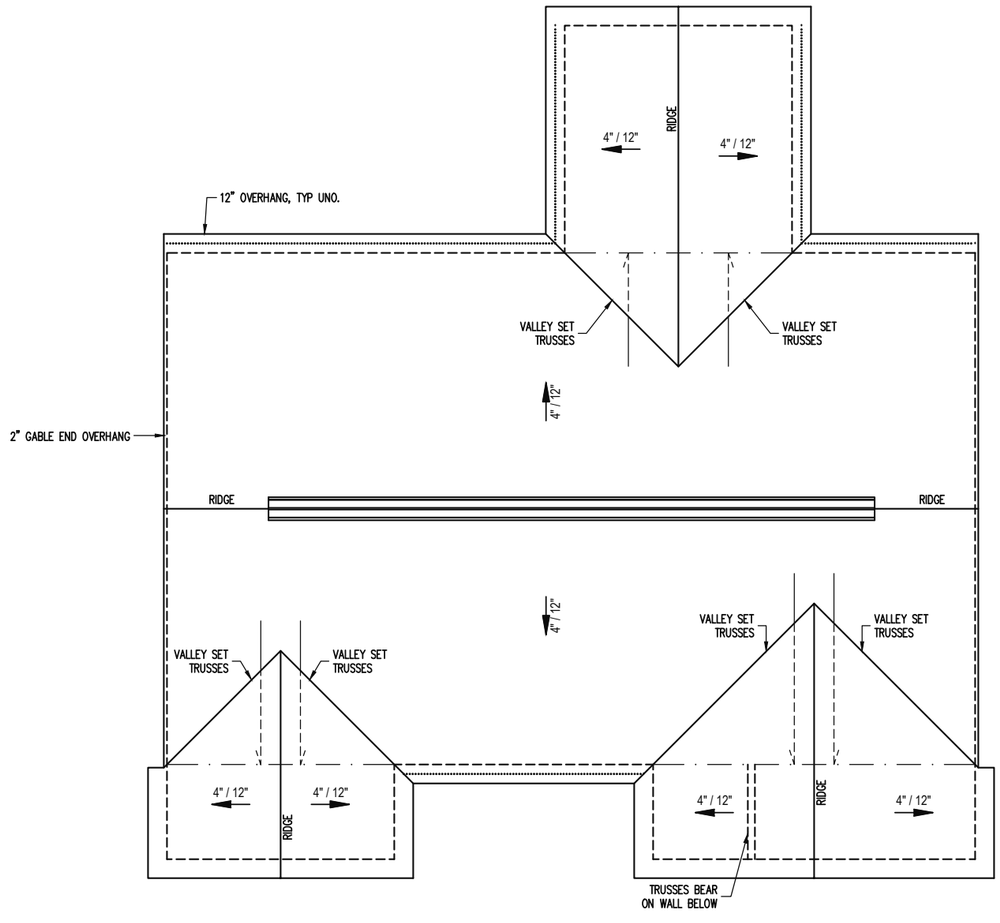

TRUSS UPLIFT CONNECTORS

EXPOSURE B, 120 MPH, ANY PITCH

24" O.C. MAX ROOF TRUSS SPACING

TRUSSES SHALL BE ATTACHED TO SUPPORT WALL FOR UPLIFT RESISTANCE. CONTINUOUS OSB WALL SHEATHING BELOW PROVIDES CONTINUOUS UPLIFT 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 SPAN	CONNECTOR
UP TO 18'	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 KNEEWALL FRAMING HGTS WITH ARCHITECTURAL DRAWINGS, TYPICAL.

ROOF FRAMING PLAN

1/8" = 1'-0"

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4/12/2023
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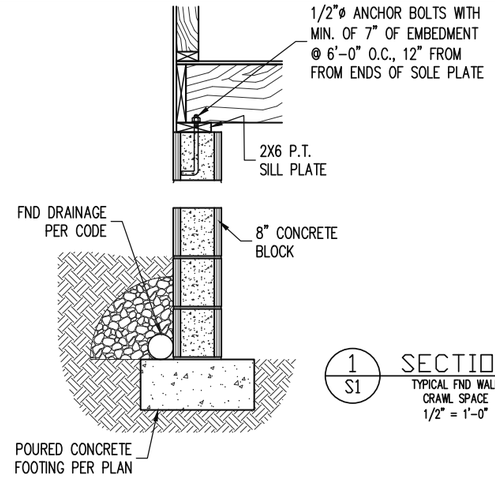
VALUE BUILD HOMES
SCOPE: STRUCTURAL ADDENDUM
LOC: RAVEN ROCK RD
LILLINGTON, NC
JOB# 05-23-103 DICKENS

ENG: NBG
DATE: 4/12/2023

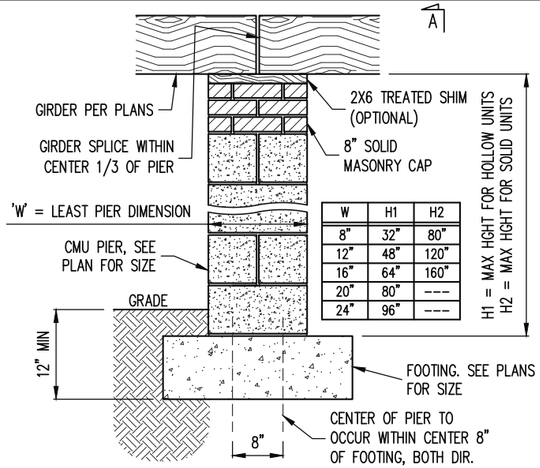
PLAN
LINDA

PROJECT NO.
23-26-046

SHEET NO.
S4
4 of 7

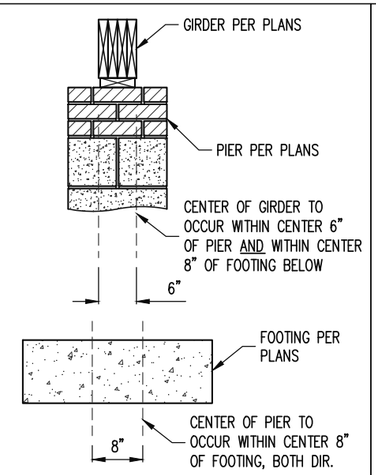


1/S1 SECTION
TYPICAL FND WALL CRAWL SPACE
1/2" = 1'-0"

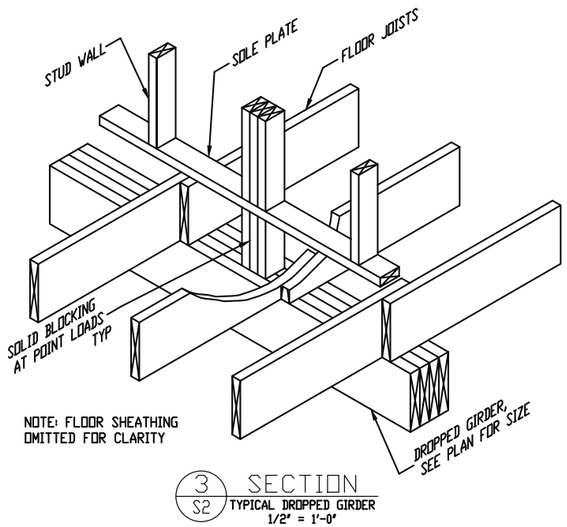


W	H1	H2
8"	32"	80"
12"	48"	120"
16"	64"	160"
20"	80"	---
24"	96"	---

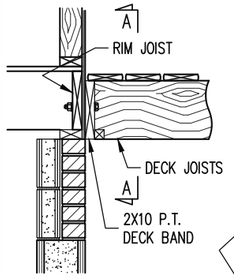
2/S1 SECTION
TYPICAL MASONRY PIER, GIRDER
1/2" = 1'-0"

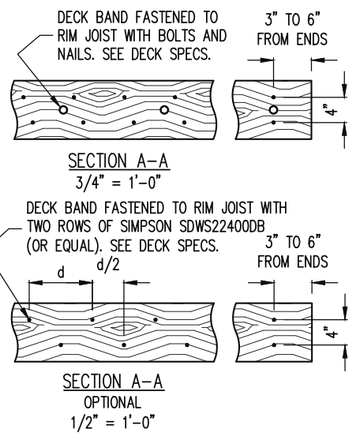


SECTION A-A
1/2" = 1'-0"

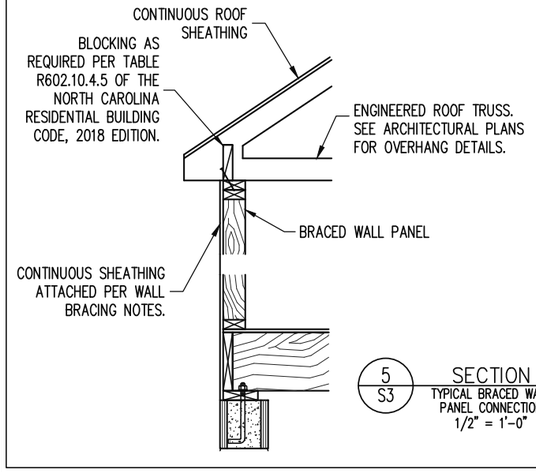


3/S2 SECTION
TYPICAL DROPPED GIRDER
1/2" = 1'-0"

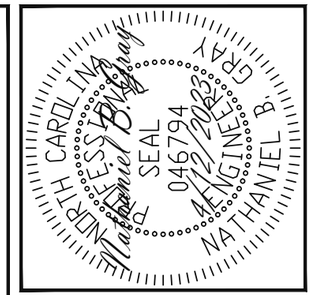




4/S2 SECTION
DECK CONNECTION AT SIDING, TYP.
1/2" = 1'-0"



5/S3 SECTION
TYPICAL BRACED WALL PANEL CONNECTION
1/2" = 1'-0"



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VALUE BUILD HOMES
SCOPE: STRUCTURAL ADDENDUM
LOC: RAVEN ROCK RD
LILLINGTON, NC
JOB# 05-23-103 DICKENS

ENG: NBG
DATE: 4/12/2023

PLAN
LINDA

PROJECT NO.
23-26-046

SHEET NO.
SD1
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CONSTRUCTION SPECIFICATIONS

PART 1: GENERAL

1.01 CONSTRUCTION SHALL MEET THE REQUIREMENTS OF THE NORTH CAROLINA RESIDENTIAL CODE, 2018 EDITION.

1.02 DIMENSIONS SHOWN SHALL GOVERN OVER SCALE ON THESE DRAWINGS.

1.05 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.

PART 2: DESIGN LOADS

2.01 DESIGN LOADS SHALL CONFORM WITH THE TABLE BELOW:

USE	LIVE LOAD (PSF)	DEAD LOAD (PSF)
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
ROOF	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 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).

PART 3: STRUCTURAL STEEL

3.01 WIDE FLANGE BEAMS AND TEE SECTIONS SHALL CONFORM TO ASTM A992 MINIMUM GRADE

3.02 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

3.05 STRUCTURAL STEEL CONSTRUCTION SHALL MEET THE REQUIREMENTS OF THE AISC SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS.

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

5.01 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.

PART 7: MASONRY

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 ACI 530

7.05 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 F844-07a) FOR SCREW HEAD

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, RAFTERS, GIRDERS, BEAMS, STUDS, ETC.

PART 11: ENGINEERED LUMBER

11.01 LVL OR PSL MINIMUM ALLOWABLE DESIGN STRESSES ARE AS FOLLOWS:
E= 1.9 X 10E6 PSI, Fb = 2600 PSI, Fv = 285 PSI, Fc = 750 PSI
LSL MINIMUM ALLOWABLE DESIGN STRESSES ARE AS FOLLOWS:
E= 1.3 X 10E6 PSI, Fb = 1700 PSI, Fv = 400 PSI, Fc = 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

12.01 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 DECAY RESISTANT WOOD PER SECTION 19-6(A)

PART 13: STEEL FLITCH PLATE BEAMS

13.01 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" ø BOLTS SPACED AT 24" O.C. STAGGERED TOP TO BOTTOM OF THE BEAM. MAINTAIN A 2" EDGE DISTANCE. PLACE TWO BOLTS, ONE ABOVE THE OTHER, 6" ± 2" FROM EACH END OF THE BEAM.

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 FULL WIDTH 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 UNO. 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 4 1/2" ONTO THE WALL AND BE SUPPORTED BY A TRPL STUD GANGED COLUMN TYP UNO.

14.02 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 FULL 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
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.

14.03 EXTRA JOISTS BEARING ON A STUD WALL PERPENDICULAR TO OR SKEWED RELATIVE TO THE BEAM SHALL BE SUPPORTED BY ONE ADDITIONAL STUD.

14.04 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 BE CONTINUOUS DOWN TO THE FOUNDATION OR OTHER PROPERLY DESIGNED STRUCTURAL ELEMENT SUCH AS A BEAM. COLUMNS TRANSFERRING LOADS THROUGH FLOOR LEVELS SHALL BE SOLIDLY BLOCKED FOR THE FULL WIDTH OF THE STUD COLUMN WITHIN THE CAVITY FORMED BY THE FLOOR JOISTS.

PART 15: NAILING OF MULTI PLY WOOD BEAMS

15.01 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.

15.02 LVL MEMBERS THAT ARE GANGED TO FORM A BEAM SHALL HAVE ADJACENT MEMBERS IN THE BEAM FASTENED TOGETHER PER MANUFACTURERS RECOMMENDATIONS, TYP UNO

PART 16: WALL FRAMING AND BRACING

16.01 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 DISCONTINUITIES 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, WITH 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:
2X4 @ 16" O.C.: 11'-1 1/2" 2X6 @ 16" O.C.: 17'-0"
2X4 @ 12" O.C.: 12'-1 1/2" 2X6 @ 12" O.C.: 18'-8"
DBL 2X4 @ 16" O.C.: 13'-4" DBL 2X6 @ 16" O.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 NCRC. CONTINUOUS SHEATHING HAS BEEN PROVIDED, ALONG WITH ALTERNATIVE METHODS TO INSURE THE MINIMUM INTENT OF SECTION 602.10 OF THE 2018 NCRC HAS BEEN MET AND EXCEEDED.
-BRACED WALL PANELS SHALL BE FASTENED IN ACCORDANCE WITH TABLE 602.3(1) TO PROVIDE CONTINUOUS PANEL UPLIFT RESISTANCE AND COMPLIANCE WITH NCRBC R602.3.5 AND R802.11 UNLESS NOTED OTHERWISE ON STRUCTURAL PLANS.
-MAY SUBSTITUTE WSP 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 BLOCKING 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	1	2	3	4	5
	2X6	1	1	2	2	2
	2X8	1	1	1	1	2

PART 18: SUBSTITUTIONS

18.01 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

19.01 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

ABBREVIATIONS

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

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 FOLLOWING 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 SUBCONTRACTORS

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

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 046794 NATHANIEL B. MAY 4/12/2023 REGISTERED ENGINEER

Engineering Tech ASSOCIATES, P.A.
STRUCTURAL ENGINEERS
License No. C-3870
318 W MILLBROOK RD, SUITE 201
Raleigh, North Carolina 27609
Phone (919) 844-1661

VALUE BUILD HOMES
SCOPE: STRUCTURAL ADDENDUM
LOC: RAVEN ROCK RD
LILLINGTON, NC
JOB# 05-23-103 DICKENS

ENG: NBG
DATE: 4/12/2023

PLAN
LINDA

PROJECT NO.
23-26-046

SHEET NO.
SPECS1
6 of 7

DECK SPECIFICATIONS

1. 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 16' MAX.
REQUIRED FASTENERS	ONE– 5/8" ø BOLT @ 42" O.C. AND (2) ROWS OF 12d NAILS @ 8" O.C. OR TWO ROWS OF SIMPSON SDWS22400DB @ d = 32" O.C. STAGGERED	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.

5. 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" 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"ø 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" ø BOLT AT EACH END OF THE BRACE.

NOTES: 1) ALL NAILS AND BOLTS ARE TO BE HOT DIPPED GALVANIZED.
2) MINIMUM EDGE DISTANCE FOR BOLTS IS 2 1/2".
3) NAILS MUST PENETRATE THE SUPPORTING STRUCTURE BAND A MINIMUM OF 1 1/2".

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 046794 4/12/2023 NATHANIEL B. GRAY

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318 W MILLBROOK RD, SUITE 201
Raleigh, North Carolina 27609
Phone (919) 844-1661

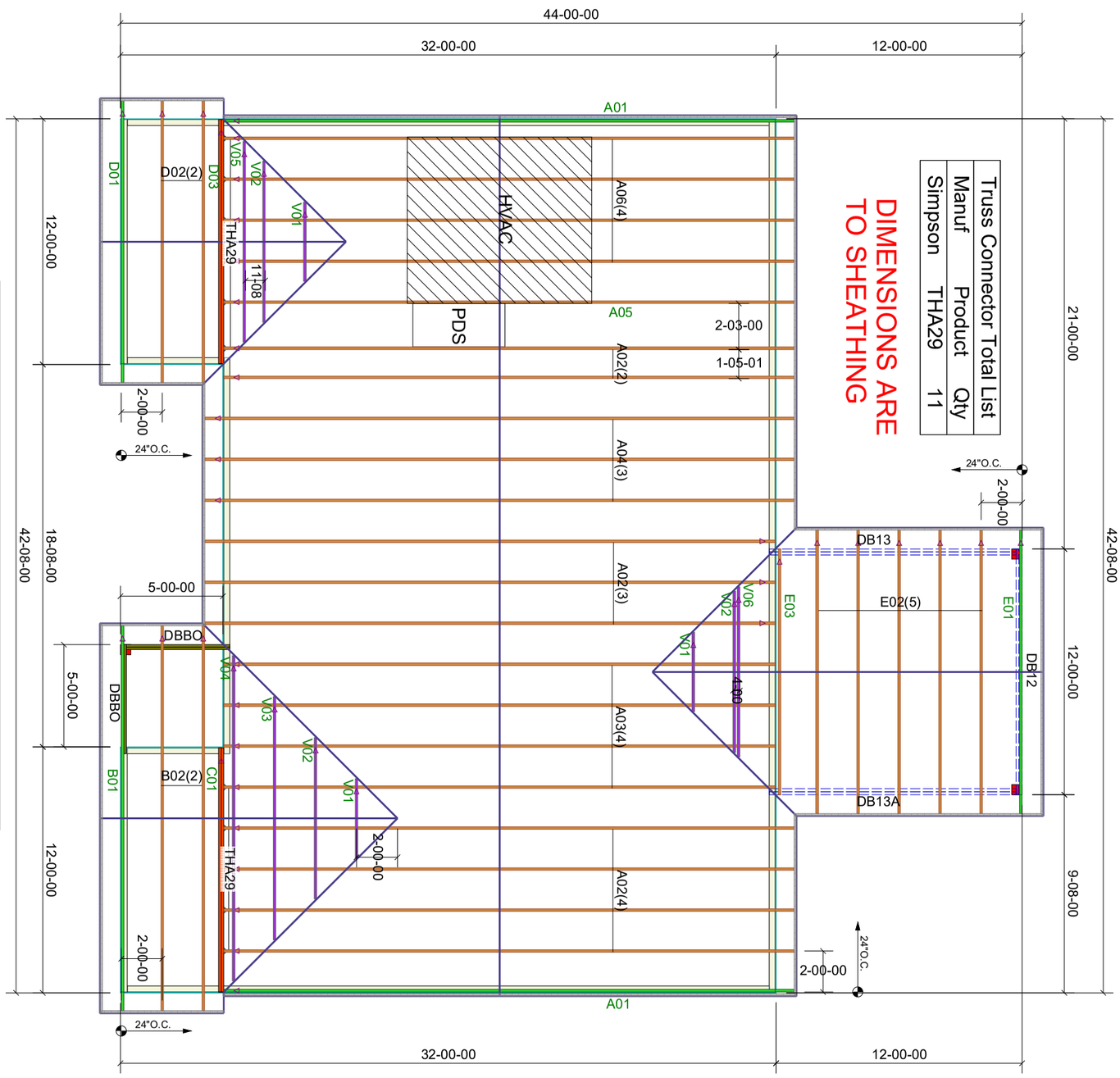
VALUE BUILD HOMES
SCOPE: STRUCTURAL ADDENDUM
LOC: RAVEN ROCK RD
LILLINGTON, NC
JOB# 05-23-103 DICKENS

ENG: NBG
DATE: 4/12/2023

PLAN
LINDA

PROJECT NO.
23-26-046

SHEET NO.
SPECS2
7 of 7



Products

PlotID	Length	Product	Plies	Net Qty
DB13	13-00-00	1-3/4X9-1/4 LP-LVL	2	2
DB13A	13-00-00	1-3/4X9-1/4 LP-LVL	2	2
DB12	12-00-00	1-3/4X9-1/4 LP-LVL	2	2

THIS IS A TRUSS PLACEMENT DIAGRAM ONLY

These trusses are designed as individual building components to be incorporated into the building design at the specification of the building designer. See individual design sheets for each truss design identified on the placement drawing. The building designer is responsible for temporary and permanent bracing of the roof and floor system and for the overall structure. The design of the truss support structure including headers, beams, walls, and columns is the responsibility of the building designer. For general guidance regarding bracing, consult "Bracing of Wood Trusses" available from the Truss Plate Institute, 583 D'Onifrio Drive; Madison, WI 53179.

SHOP DRAWING APPROVAL

THIS LAYOUT IS THE SOLE SOURCE FOR FABRICATION OF TRUSSES AND VOIDS ALL PREVIOUS ARCHITECTURAL OR OTHER TRUSS LAYOUTS. REVIEW AND APPROVAL OF THIS LAYOUT MUST BE RECEIVED BEFORE ANY TRUSSES WILL BE BUILT. VERIFY ALL CONDITIONS TO INSURE AGAINST CHANGES THAT WILL RESULT IN EXTRA CHARGES TO YOU.

REVIEWED BY: APPROVED BY: DATE:

Job #: Q2300665	Plan: Dickens 02-23-103 (Judy A)	
Customer: Value Build Homes	Date: 4/23/2023	
Site Address:	Sales Rep: Scott Lail	ROOF DATA
City, ST, ZIP:	Designer: JSH	Roof Area: 1669.19 SF

QUALITY AUDITED by:
IBC 1704.2 IBC 2303.4
ANSI/TPI 1-2002 ANSI/TPI 1-2007 ANSI/TPI 1-2014
CAROLINA STRUCTURAL SYSTEMS, LLC
Star, NC - Plant E30-437
910-491-9004

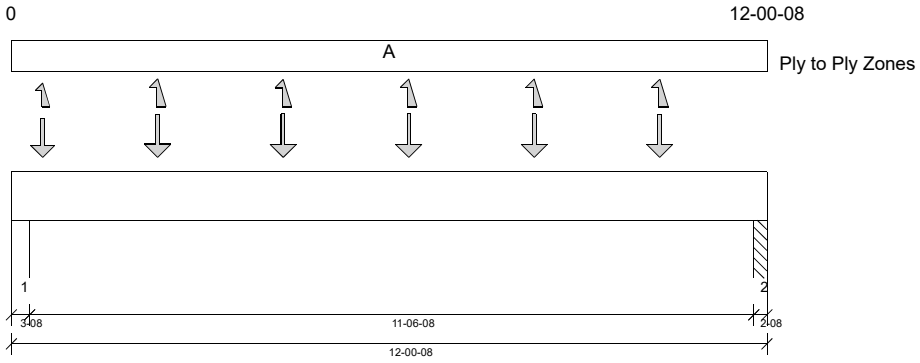
Carolina Structural Systems
Roof Trusses • Floor Trusses • EWP
Carolina Structural Systems
P.O. Box 157, Ether, NC 27247
225 Frame Shop Rd., Star, NC 27356
910-491-9004

MiTek	Customer: Street 1: City: Customer Ph...	Job Name: **Q2300665** Level: **1st Floor** Label: **DB13 - i12** Type: **Beam**	**2 Ply Member** **1-3/4X9-1/4 LP-LVL** **2900Fb-2.0E**	Status: **Design Passed**

Illustration Not to Scale. Pitch: 0/12

Designed by Single Member Design Engine in MiTek® Structure Version 8.6.2.271.Update3.S.22

Report Version: 2021.03.26 04/20/2023 14:55



DESIGN INFORMATION

Building Code:	IRC2015
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
LL Deflection Limit:	L/360, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 1'- 10 1/2" Bottom: 11'- 9"

Bearing Stress of Support Material:

- 1323 psi Wall @ 0'- 2 1/2"
- 725 psi Column @ 11'- 11"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Max Pos. Moment:	6'- 4"	D + Lr	1.15	4807 lb ft	13843 lb ft	Passed - 35%
Max Neg. Moment:	6'- 4"	0.6D + 0.6W	1.60	475 lb ft	6267 lb ft	Passed - 8%
Max Shear:	11'- 3/4"	D + Lr	1.15	1448 lb	7074 lb	Passed - 20%
Live Load (LL) Pos. Defl.:	6'- 13/16"	Lr		0.131"	L/360	Passed - L/999
Total Load (TL) Pos. Defl.:	6'- 3/4"	D + Lr		0.260"	L/240	Passed - L/532

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
1	3-08	D + Lr	1.15	1783 lb		9187 lb	16207 lb	Passed - 19%
1	3-08	0.6D + 0.6W	1.60		-93 lb	-	-	
2	2-08	D + Lr	1.15	1457 lb		6563 lb	6344 lb	Passed - 23%
2	2-08	0.6D + 0.6W	1.60		-148 lb	-	-	

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
Self Weight	0'	12'- 1/2"	Self Weight	Top	9 lb/ft	-	-	-	-
Point	0'- 6"	0'- 6"	E03(c01)	Top	235 lb	-	-	235 lb	64/-238 lb
Point	2'- 4"	2'- 4"	E02(c03)	Top	254 lb	-	-	275 lb	79/-316 lb
Point	4'- 4"	4'- 4"	E02(c04)	Top	255 lb	-	-	279 lb	80/-305 lb
Point	6'- 4"	6'- 4"	E02(c02)	Top	255 lb	-	-	279 lb	80/-314 lb
Point	8'- 4"	8'- 4"	E02(c01)	Top	255 lb	-	-	279 lb	80/-314 lb
Point	10'- 4"	10'- 4"	E02(c05)	Top	253 lb	-	-	274 lb	78/-309 lb

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
1	0'	0'- 3 1/2"	E2(i4)	898 lb	-	-	896 lb	466 lb/ -1055 lb
2	11'- 10"	12'- 1/2"	PBO2(i10)	720 lb	-	-	725 lb	466 lb/ -1055 lb

DESIGN NOTES

- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.
- This report is based on modeled conditions input by the user. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- Beam Stability Factor used in the calculation for Allowable Max Pos Moment (CL) = 0.95

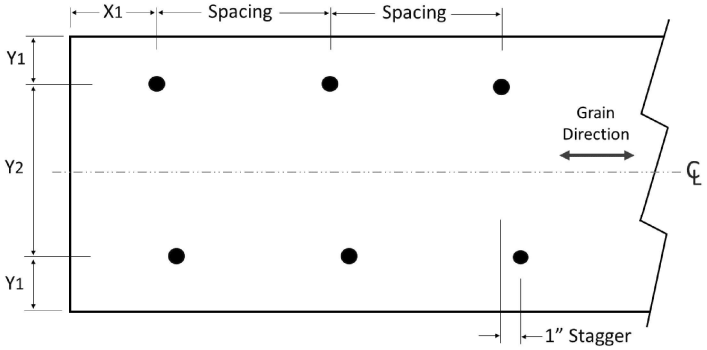
PLY TO PLY CONNECTION

- Zone A: Factored load = 0 plf. Use 12d (0.131"x3.25") nails. LDF = 1.00. Qty = 26. Row = 2, Spacing = 12"
  12d (0.131"x3.25") nails properties: D = 0.131" , L = 3.25". Fastener capacity = 96 lbs. X1 = 2" , Y1 = 0.75", Y2 = 1.5"
  Install fasteners from one face.
  X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.

MiTek	Customer: Street 1: City: Customer Ph...	Job Name: **Q2300665** Level: **1st Floor** Label: **DB13 - i12** Type: **Beam**	**2 Ply Member** **1-3/4X9-1/4 LP-LVL** **2900Fb-2.0E**	Status: **Design Passed**

PLY TO PLY CONNECTION

FASTENER INSTALLATION – 2 ROWS (FROM ONE FACE)

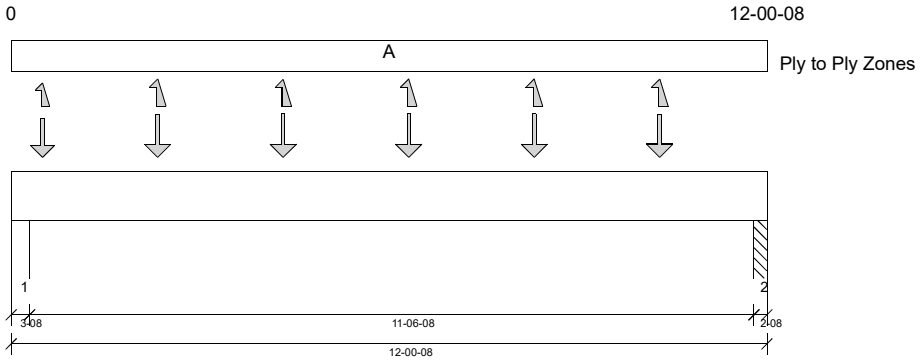


MiTek	Customer: Street 1: City: Customer Ph...	Job Name: **Q2300665** Level: **1st Floor** Label: **DB13A - i13** Type: **Beam**	**2 Ply Member** **1-3/4X9-1/4 LP-LVL** **2900Fb-2.0E**	Status: **Design Passed**

Illustration Not to Scale. Pitch: 0/12

Designed by Single Member Design Engine in MiTek® Structure Version 8.6.2.271.Update3.S.22

Report Version: 2021.03.26 04/20/2023 14:55



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Service Condition:	Dry
LL Deflection Limit:	L/360, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 1'- 10 1/2" Bottom: 11'- 9"

Bearing Stress of Support Material:

- 1323 psi Wall @ 0'- 2 1/2"
- 725 psi Column @ 11'- 11"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Max Pos. Moment:	6'- 4"	D + Lr	1.15	4873 lb ft	13843 lb ft	Passed - 35%
Max Neg. Moment:	6'- 4"	0.6D + 0.6W	1.60	494 lb ft	6267 lb ft	Passed - 8%
Max Shear:	11'- 3/4"	D + Lr	1.15	1468 lb	7074 lb	Passed - 21%
Live Load (LL) Pos. Defl.:	6'- 13/16"	Lr		0.133"	L/360	Passed - L/999
Total Load (TL) Pos. Defl.:	6'- 13/16"	D + Lr		0.264"	L/240	Passed - L/525

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
1	3-08	D + Lr	1.15	1802 lb		9187 lb	16207 lb	Passed - 20%
1	3-08	0.6D + 0.6W	1.60		-99 lb	-	-	
2	2-08	D + Lr	1.15	1477 lb		6563 lb	6344 lb	Passed - 23%
2	2-08	0.6D + 0.6W	1.60		-153 lb	-	-	

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
Self Weight	0'	12'- 1/2"	Self Weight	Top	9 lb/ft	-	-	-	-
Point	0'- 6"	0'- 6"	E03(c01)	Top	236 lb	-	-	238 lb	65/-242 lb
Point	2'- 4"	2'- 4"	E02(c03)	Top	255 lb	-	-	278 lb	80/-318 lb
Point	4'- 4"	4'- 4"	E02(c04)	Top	258 lb	-	-	284 lb	81/-310 lb
Point	6'- 4"	6'- 4"	E02(c02)	Top	258 lb	-	-	284 lb	81/-319 lb
Point	8'- 4"	8'- 4"	E02(c01)	Top	258 lb	-	-	284 lb	81/-319 lb
Point	10'- 4"	10'- 4"	E02(c05)	Top	256 lb	-	-	279 lb	80/-314 lb

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
1	0'	0'- 3 1/2"	E2(i4)	905 lb	-	-	910 lb	474 lb/ -1071 lb
2	11'- 10"	12'- 1/2"	PBO3(i11)	728 lb	-	-	737 lb	474 lb/ -1071 lb

DESIGN NOTES

- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.
- This report is based on modeled conditions input by the user. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- Beam Stability Factor used in the calculation for Allowable Max Pos Moment (CL) = 0.95

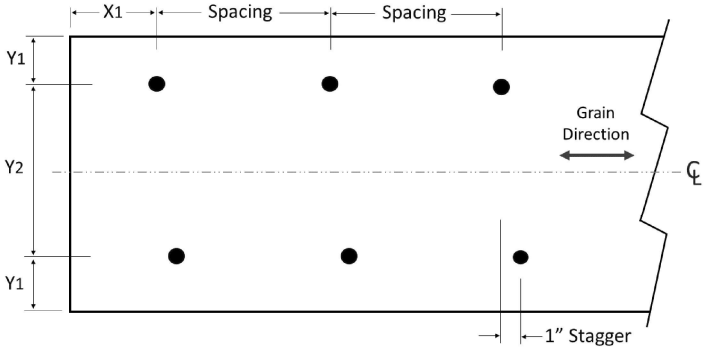
PLY TO PLY CONNECTION

- Zone A: Factored load = 0 plf. Use 12d (0.131"x3.25") nails. LDF = 1.00. Qty = 26. Row = 2, Spacing = 12"
  12d (0.131"x3.25") nails properties: D = 0.131" , L = 3.25". Fastener capacity = 96 lbs. X1 = 2" , Y1 = 0.75", Y2 = 1.5"
  Install fasteners from one face.
  X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.

MiTek	Customer: Street 1: City: Customer Ph...	Job Name: **Q2300665** Level: **1st Floor** Label: **DB13A - i13** Type: **Beam**	**2 Ply Member** **1-3/4X9-1/4 LP-LVL** **2900Fb-2.0E**	Status: **Design Passed**

PLY TO PLY CONNECTION

FASTENER INSTALLATION – 2 ROWS (FROM ONE FACE)

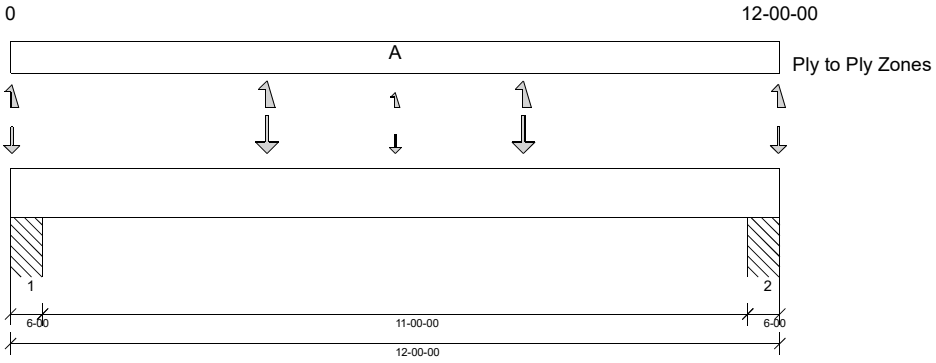


MiTek	Customer: Street 1: City: Customer Ph...	Job Name: **Q2300665** Level: **1st Floor** Label: **DB12 - i14** Type: **Beam**	**2 Ply Member** **1-3/4X9-1/4 LP-LVL** **2900Fb-2.0E**	Status: **Design Passed**

Illustration Not to Scale. Pitch: 0/12

Designed by Single Member Design Engine in MiTek® Structure Version 8.6.2.271.Update3.S.22

Report Version: 2021.03.26 04/20/2023 14:55



DESIGN INFORMATION

Building Code:	IRC2015
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
LL Deflection Limit:	L/360, 0.75" (absolute)
TL Deflection Limit:	L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 11'- 5" Bottom: 11'- 5"

Bearing Stress of Support Material:

- 725 psi Column @ 0'- 5"
- 725 psi Column @ 11'- 7"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Max Pos. Moment:	6'	D + Lr	1.15	1637 lb ft	6345 lb ft	Passed - 26%
Max Neg. Moment:	6'	0.6D + 0.6W	1.60	167 lb ft	6444 lb ft	Passed - 3%
Max Shear:	1'- 3 1/4"	D + Lr	1.15	450 lb	7074 lb	Passed - 6%
Live Load (LL) Pos. Defl.:	6'	Lr		0.043"	L/360	Passed - L/999
Total Load (TL) Pos. Defl.:	6'	D + Lr		0.080"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
1	6-00	D + Lr	1.15	660 lb		15750 lb	15225 lb	Passed - 4%
1	6-00	0.6D + 0.6W	1.60		-115 lb	-	-	
2	6-00	D + Lr	1.15	664 lb		15750 lb	15225 lb	Passed - 4%
2	6-00	0.6D + 0.6W	1.60		-118 lb	-	-	

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
Self Weight	0'	12'	Self Weight	Top	9 lb/ft	-	-	-	-
Point	0'- 1/4"	0'- 1/4"	E01(c01)	Top	87 lb	-	-	111 lb	40/-183 lb
Point	4'	4'	E01(c01)	Top	167 lb	-	-	182 lb	60/-241 lb
Point	6'	6'	E01(c01)	Top	13 lb	-	-	103/-33 lb	4/-32 lb
Point	8'	8'	E01(c01)	Top	166 lb	-	-	182 lb	59/-239 lb
Point	11'- 11 3/4"	11'- 11 3/4"	E01(c01)	Top	88 lb	-	-	114 lb	41/-189 lb

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
1	0'	0'- 6"	PBO2(i10)	316 lb	-	-	344/-16 lb	153 lb/ -508 lb
2	11'- 6"	12'	PBO3(i11)	316 lb	-	-	348/-17 lb	153 lb/ -508 lb

DESIGN NOTES

- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.
- This report is based on modeled conditions input by the user. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- Beam Stability Factor used in the calculation for Allowable Max Pos Moment (CL) = 0.32

PLY TO PLY CONNECTION

- Zone A: Factored load = 0 plf. Use 12d (0.131"x3.25") nails. LDF = 1.00. Qty = 24. Row = 2, Spacing = 12"
  12d (0.131"x3.25") nails properties: D = 0.131" , L = 3.25". Fastener capacity = 96 lbs. X1 = 2" , Y1 = 0.75", Y2 = 1.5"
  Install fasteners from one face.
  X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.

MiTek	Customer: Street 1: City: Customer Ph...	Job Name: **Q2300665** Level: **1st Floor** Label: **DB12 - i14** Type: **Beam**	**2 Ply Member** **1-3/4X9-1/4 LP-LVL** **2900Fb-2.0E**	Status: **Design Passed**

PLY TO PLY CONNECTION

FASTENER INSTALLATION – 2 ROWS (FROM ONE FACE)