

DESIGN CRITERIA:
WIND SPEED: 120 MPH
SEISMIC DESIGN: B
SNOW LOAD: 10 PSF
CONCRETE BEARING CAPACITY: 3000 PSI

LIVING AREA: 2,141 S.F.
GARAGE: 423 S.F.
COVERED PORCH: 134 S.F.
TOTAL AREA UNDER COVERED PORCH: 2,698 S.F.
REAR DECK: 120 S.F.
TOTAL AREA: 2,818 S.F.



DRAWING INDEX	
SHEET #	SHEET NAME
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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

03/11/2025





THE SPENCER, J., RESIDENCE
FOR PERMIT

MARCH 7, 2025

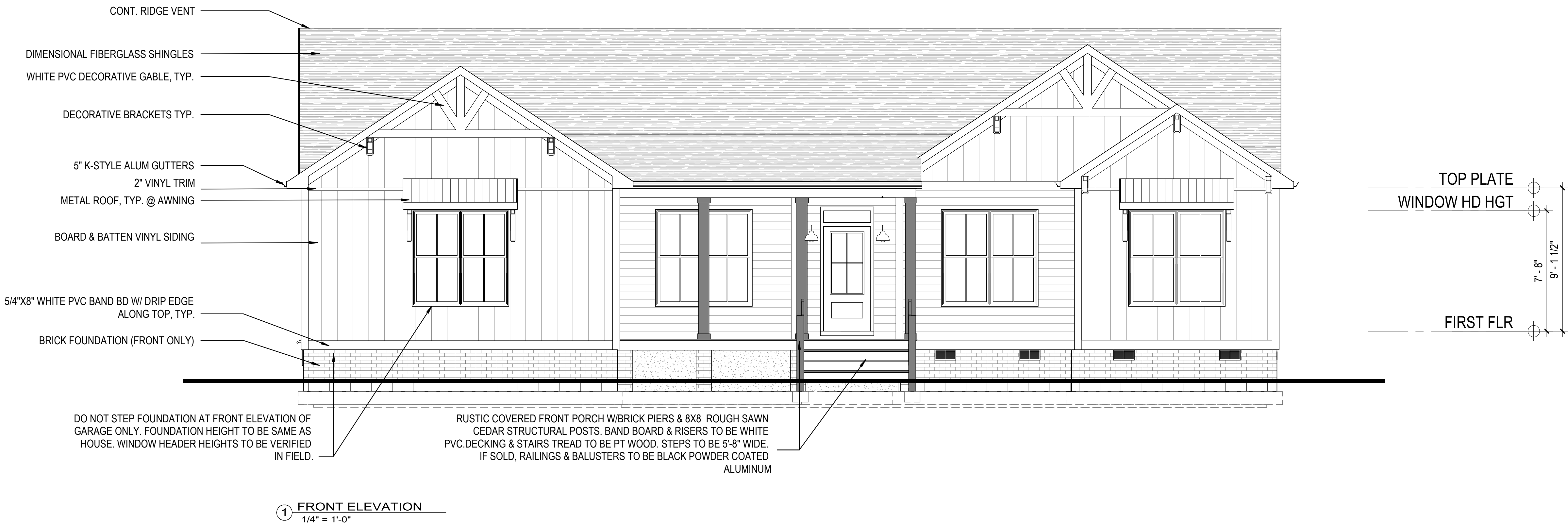
MITCHELL HOMES, INC.
14300 SOMMERVILLE COURT MIDLOTHIAN, VA 23113
PHONE: 804-378-5211 FAX: 804-378-0811
www.MITCHELLHOMESINC.com

ALL WORK SHALL CONFORM WITH ALL GOVERNING LAWS,
CODES AND ORDINANCES INCLUDING, BUT NOT LIMITED
TO, THE NORTH CAROLINA RESIDENTIAL CODE (2018).

<div>DESIGN CRITERIA:</div> <div><div>1. "NATIONAL DESIGN SPECIFICATIONS FOR WOOD CONSTRUCTION" BY NATIONAL FOREST PRODUCTS ASSOCIATION (NFPA).</div><div>2. "SPECIFICATIONS FOR THE DESIGN FABRICATION AND ERECTION OF STRUCTURAL STEEL BUILDINGS" BY AMERICAN INST. OF STEEL CONSTRUCTION (AISC).</div><div>3. "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS" BY AMERICAN CONCRETE INSTITUTE (ACI).</div><div>4. "SPECIFICATIONS FOR CONCRETE MASONRY CONSTRUCTION" BY AMERICAN CONCRETE INSTITUTE (ACI).</div></div> <div><div><div>FLOOR LIVE LOAD:</div><div>FLOOR DEAD LOAD:</div></div><div><div>40 PSF</div><div>10 PSF</div></div></div> <div><div><div>GARAGE LIVE LOAD:</div><div>GARAGE DEAD LOAD:</div></div><div><div>50 PSF</div><div>50 PSF</div></div></div> <div><div><div>DECK LIVE LOAD:</div><div>DECK DEAD LOAD:</div></div><div><div>40 PSF</div><div>20 PSF</div></div></div> <div><div><div>SNOW LOAD:</div></div><div><div>10 PSF</div></div></div> <div><div><div>WIND SPEED:</div></div><div><div>120 MPH</div></div></div> <div><div><div>SEISMIC DESIGN:</div></div><div><div>B</div></div></div> <div>ALLOWABLE DEFLECTION PER TABLE R301.7</div>		<div>FOUNDATION NOTES:</div> <div><div>1. ALL FOOTINGS, INCLUDING SLAB ON GRADE, SHALL BEAR ON UNDISTURBED SOIL OR COMPACTED STRUCTURAL FILL WITH AN ALLOWABLE BEARING CAPACITY OF 2000 PSF, MIN.</div><div>2. ALL FOUNDATION CONCRETE SHALL OBTAIN A 28-DAY COMPRESSIVE STRENGTH OF 3000 PSI. ALL SLAB ON GRADE CONCRETE AND CONCRETE EXPOSED TO WEATHER SHALL OBTAIN A 28-DAY COMPRESSIVE STRENGTH OF 3500 PSI AND BE AIR ENTRAINED.</div><div>3. ALL REINFORCING STEEL SHALL BE IN ACCORDANCE WITH ASTM A615, GRADE 60.</div><div>4. CONCRETE PROTECTION FOR REINFORCING AS WELL AS PLACING AND FABRICATION OF REINFORCING SHALL BE IN ACCORDANCE WITH THE "AMERICAN CONCRETE INSTITUTE BUILDING CODE REQUIREMENTS" (ACI 318).</div><div>5. EARTH FORMED FOOTINGS SHALL CONFORM TO THE SHAPE, LINES, AND DIMENSIONS AS SHOWN ON THE FOUNDATION PLAN. ALL WATER SHALL BE REMOVED PRIOR TO PLACING CONCRETE. FOOTING NOT TO BE PLACED ON FROZEN GROUND.</div><div>6. BEFORE PLACING CONCRETE, ALL EMBEDDED ITEMS SHALL BE PROPERLY LOCATED, ACCURATELY POSITIONED AND MAINTAINED SECURELY IN PLACE.</div><div>7. FOUNDATION FOOTING DEPTH MAY VARY ACCORDING TO LOCAL CODES AND FROST CONDITIONS.</div><div>8. DAMPPROOFING AND WATERPROOFING SHALL BE INSTALLED PER MANUF. SPECIFICATIONS AND LOCAL CODE REQUIREMENTS.</div><div>9. PROVIDE 1/2" DOUBLE GALV. FOUNDATION ANCHOR BOLTS AT 6' O.C. MAX. 1'-0" FROM CORNERS. SECURE TO SILL PLATE OR BOTTOM PLATE WITH 1/2" WASHER & NUT. NO LESS THAN 2 ANCHORS PER SECTION.</div><div>10. SLABS SHALL HAVE CONTROL JOINTS IN PLACE WITHIN 48 HOURS AFTER POUR.</div><div>11. CONT. FOOTINGS @ FOUNDATIONS W/ BRICK & 8" BLOCK SHALL BE 20" WIDE X 10" THICK, U.N.O.</div><div>12. CONT. FOOTINGS @ FOUNDATIONS W/ 8" PARGED BLOCK SHALL BE 16" WIDE X 10" THICK, U.N.O.</div><div>13. ALL CONTINUOUS REINFORCING SHALL LAP 48 BAR DIAMETERS UNLESS OTHERWISE NOTED ON THE DRAWINGS.</div><div>14. FOUNDATION DRAINS SHALL BE LOCATED PER LOCAL CODES.</div></div> <div>FRAMING NOTES:</div> <div><div>1. JOISTS SPANS WERE DETERMINED ON THE BASIS OF THE ALLOWABLE STRESSES PER 2018 IRC.</div><div>2. PROVIDE DOUBLE JOISTS BELOW ALL PARALLEL PARTITIONS, AND ABOVE AND AROUND ALL OPENINGS NOT INDICATED ON DRAWINGS.</div><div>3. PROVIDE SOLID BLOCKING BETWEEN FLOOR JOISTS UNDER WALLS THAT ARE PERPENDICULAR TO THE FLOOR JOISTS.</div><div>4. SHEATH ALL EXTERIOR WALLS WITH NOMINAL 1/2" STRUCTURAL GRADE 2 PLYWOOD OR NOMINAL 1/2" OSB.</div><div>5. PROVIDE MIN. DOUBLE JAMB FOR ALL BEAMS, U.N.O.</div><div>6. PROVIDE MIN. TRIPLE JACK FOR ALL GIRDER TRUSSES, U.N.O.</div><div>7. PROVIDE SOLID BLOCKING BELOW ALL COLUMNS TO TRANSFER LOAD DIRECTLY TO FRAMING AND OR FOUNDATION.</div><div>8. BALLOON FRAME ALL END WALLS WITH CATHEDRAL CEILINGS, U.N.O.</div><div>9. ALL FLUSH FRAMED LVL OR PSL BEAM TO BEAM CONNECTIONS TO BE FASTENED WITH BEAM HANGERS, DESIGNED AND PROVIDED BY LVL OR PSL MANUFACTURER, UNLESS A SPECIFIC HANGER CONNECTOR IS CALLED FOR.</div><div>10. JOIST HANGERS ARE TO BE A MIN. OF 16 GAUGE, SIZE, AND PROFILE TO SUIT APPLICATION, U.N.O., PROVIDE HANGERS FOR ALL FLUSH FRAMED JOISTS.</div><div>11. JOIST HANGERS, HURRICANE CLIPS, POST BASED, POST CAPS, AND OTHER FRAMING SPECIALTIES ARE TO BE AS MANUFACTURED BY USP AND ARE TO BE USED ONLY IN STRICT ACCORDANCE WITH MANUFACTURERS WRITTEN SPECIFICATIONS.</div><div>12. USE "H" CLIPS FOR ALL UNSUPPORTED ROOF SHEATHING BUTT JOISTS.</div><div>13. WOOD EXPOSED THE THE ENVIROMENT, ATTACHED DIRECTLY TO CONCRETE OR DESIGNATED AS "TREATED" SHALL BE #2 SOUTHERN YELLOW PINE OR BETTER AND TREATED IN ACCORDANCE WITH THE AMERICAN WOOD PRESERVERS ASSOCIATION (AWPA) STANDARD C2. FASTENERS FOR PRESSURE TREATED WOOD TO BE GALVINIZED.</div><div>14. ENGINEERED JOISTS/ TRUSSES SHALL BE MANUFACTURED AND INSTALLED PER MANUF. WRITTEN SPECIFICATIONS.</div><div>15. ALL EXTERIOR AND INTERIOR WALLS TO BE CONSTRUCTED OF 2X4 STUDS @ 16" O.C., U.N.O.</div><div>16. ALL OSB SUBFLOOR TO BE GLUED AND NAILED W/ 8d NAILS. ALL OSB SHEATHING TO BE NAILED W/ 8d NAILS.</div><div>17. ICE & WATER SHEILD INSTALLED 8"-12" IN FEILD, 4"-6" EDGE ABOVE LIVING SPACE. ADD DOUBLE LAYER ON ANY ROOF UNDER 3/12.</div><div>18. ALL RAFTERS, GIRDERS, JOISTS, AND HEADERS TO BE #2 SOUTHERN YELLOW PINE OR BETTER, U.N.O.</div><div>19. 2-STORY HOMES TO HAVE 1" "SHEETROCK WINDOW" FOR STOCKING. ONE DRYWALL WINDOW ON EACH FLOOR. LOCATION TO BE DETERMAINED IN FIELD. ALL WINDOWS TO BE DOUBLE-HUNG U.N.O.</div><div>20. CEILINGS IN ATTACHED GARAGES SHALL BE 5/8" TYPE "X" WHEN THERE IS A CONDITIONED SPACE ABOVE.</div><div>21. ALL ROOFS WITH SLOPES LESS THAN 4/12 TO HAVE DOUBLE ICE SHEILD UNDERLAYMENT.</div><div>22. ALL INTERIOR PRE-HUNG DOORS TO HAVE ROUGH OPENING WIDTH OF 1-1/2" GREATER THAN DOOR FRAME SIZE.</div></div> <div>ELECTRICAL NOTES:</div> <div><div>1. ELECTRICAL CONTRACTOR TO DESIGN & INSTALL COMPLETE ELECTRICAL SYSTEM IN ACCORDANCE W/ THE LATEST VERSION OF THE NATIONAL ELECTRICAL CODE, ALL LOCAL ELECTRICAL CODES, AND THE LOCAL UTILITY COMPANY'S REQUIREMENTS.</div><div>2. ALL WORK SHALL BE EXECUTED IN A NEAT AND WORKMANLIKE MANNER. JUNCTION BOXES SHALL BE SECURELY FASTENED, SET TRUE AND PLUMB, AND FLUSH WITH FINISHED SURFACE WHEN WIRING METHOD IS CONCEALED.</div><div>3. SIZE AND PROVIDE ADDITIONAL CIRCUITRY BASED ON DEMAND OF SCHEDULED FIXTURES AND EQUIPMENT. INCLUDE A REASONABLE ALLOWANCE FOR SPACE CIRCUITS AND FUTURE EXPANSION.</div><div>4. THE ELECTRICAL CONTRACTOR SHALL VERIFY LOCATION, HEIGHT, OUTLET AND SWITCH ARRANGEMENTS, AND EQUIPMENT PRIOR TO ROUGH-IN.</div><div>5.THE ELECTRICAL CONTRACTOR SHALL FURNISH ALL WIRING MATERIALS AND MAKE ALL FINAL ELECTRICAL CONNECTIONS FOR ALL PERMANENTLY INSTALLED.</div><div>6. ALL FLUSH SWITCHED SHALL BE MOUNTED 46" TO CENTER ABOVE FINISHED FLOOR U.N.O. RECEPTACLE OUTLETS SHALL BE MOUNTED 12" TO CENTER ABOVE FINISHED FLOOR U.N.O.</div><div>7. FURNISH AND INSTALL WHERE INDICATED, GROUND-FAULT CIRCUIT INTERRUPTER RECEPTACLES (GFI) TO PROVIDE GROUND-FAULT CIRCUIT PROTECTION AS REQUIRED BY THE CURRENT NATIONAL ELECTRICAL CODE.</div><div>8. INSTALL LAMPS FOR ALL FIXTURES, 50% ENERGY EFFICIENT.</div><div>9. PROVIDE AND INSTALL EXHAUST FANS IN ALL BATHROOMS; VENT TO EXTERIOR (REAR OR SIDE). EXHAUST FANS TO BE MOISTURE RATED.</div><div>10. SEAL ALL PENETRATIONS MADE THROUGH FOUNDATIONS, WALLS, AND ROOFS.</div><div>11. ALL SMOKE DETECTORS TO BE INSTALLED AS REQUIRED BY INTERNATIONAL RESIDENTIAL CODE AND ARE TO BE INTERCONNECTED FOR ALARM AT EACH STATION, SUCH THAT ALARM AT ANY ONE STATION WILL RESULT IN ALARM AT ALL STATIONS. SMOKE DETECTORS WILL BE HARDWIRED WITH BATTERY BACKUP.</div><div>12. PROVIDE AT LEAST (2) EXTERIOR WEATHERPROOF RECEPTACLES AS NOTED ON PLANS.</div><div>13. PROVIDE AT LEAST (1) EXTERIOR WEATHERPROOF RECEPTACLE WITHIN 25' OF HVAC EQUIPMENT LOCATED IN ATTICS OR CRAWLSPACES FOR SERVICING EQUIPMENT.</div><div>14. PROVIDE LIGHT FIXTURES AT ALL STAIR LANDINGS W/ SWITCHES AT EACH LEVEL SEPARATED BY 6 STEPS OR MORE.</div><div>15. SWITCHES AND RECEPTACLES TO BE WHITE AND OF STANDARD GRADE WITH PLASTIC COVER PLATES UNLESS NOTED OTHERWISE.</div></div> <div>EXISTING CONDITIONS:</div> <div><div>1. CONTRACTOR TO VERIFY FIELD CONDITIONS AND PLANS PRIOR TO START OF WORK. CONTACT COSTRUCTION SUPERVISOR IMMEDIATELY WITH ANY CONFLICTS BETWEEN THESE PLANS AND EXISTING FIELD CONDITIONS.</div><div>2. GRADING LINE ON PLANS IS NOT AN ACCURATE REPRESENTATION OF THE EXTSITING LOT. GRADE TO BE VERIFIED IN FIELD. HOUSE MAY CHANGE DUE TO EXISTING CONDITIONS.</div></div> <div>HVAC NOTES:</div> <div><div>1. HVAC CONTRACTOR IS RESPONSIBLE FOR ACCURATELY SIZING EQUIPMENT, SUPPLY VENTS & RETURN(S) BASED ON (1) TON PER 650 HEATED SQUARE FEET.</div><div>2. HVAC CONTRACTOR SHALL NOT BLOCK ATTIC ACCESS WITH SUPPLY OR RETURN DUCTWORK.</div><div>3. HVAC SHOULD FOLLOW SIGNED PLANS.</div></div>		<div>MITCHELL HOMES, INC. 14300 SOMMERVILLE COURT MIDLOTHIAN VA 23113 PHONE: 804-378-5211 FAX: 804-378-0811 www.MITCHELLHOMESINC.com</div> <div><div><div><div></div></div><div>Mitchell</div><div>HOMES</div></div></div> <div>#REV. DATEDESCRIPTION</div> <div><div>THE SPENCER, J., RESIDENCE</div><div>GENERAL NOTES</div><div>HARNETT COUNTY, NC</div><div>CONTACT: permits@mitchellhomesinc.com</div></div> <div>THE WINCHESTER PLAN: FARMHOUSE EXTERIOR</div> <div>DATE: 03.07.2025</div> <div>DRAWN BY: HAD</div> <div>JOB #: 50000183</div> <div>SCALE:</div> <div>A1.1</div>	
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ELEVATION NOTES:

1. # OF STEPS DEPENDENT ON GRADE, 3 STEPS INCLUDED, SEE CONTRACT FOR ADDITIONAL FOUNDATION CHARGES.
2. GRADING LINE ON PLANS IS NOT AN ACCURATE REPRESENTATION OF THE EXTSITING LOT. GRADE TO BE VERIFIED IN FIELD. HOUSE MAY CHANGE DUE TO EXISTING CONDITIONS.
3. ALL BRACKETS, ETC. MOUNTED ONTO THE EXTERIOR SHALL BE ATTACHED BY MOUNTING BLOCKS OR PVC.
4. ALL FASCIA AND RAKE BOARD TO BE 2X6, WRAPPED ALUMIN., AND INSTALLED BY FRAMERS.
5. FRAMER TO PROPERLY FLASH AND INSTALL BAND/ LEDGER BOARD FOR ALL DECKS/ STOOPS.
6. RAILS AND BALUSTERS ARE NOT INCLUDED IN THE CONTRACT PRICE UNLESS SOLD AS AN UPGRADE. IF REQUIRED BY CODE, THEN THEY WILL BE CHARGED ON A SEPARATE ADDENDUM WITH EXTRA FOUNDATION.
7. ALL EXTERIOR VENTS TO MATCH.
8. EXTERIOR COACH LIGHT LOCATIONS FOR ENTRY DOORS TO BE INSTALLED @ 80" A.F.F.; SEE DETAILS ON A3.5.
9. REPLACE INCLUDED BRUSHED NICKEL INTERIOR AND EXTERIOR DOOR KNOBS WITH MATTE BLACK DOOR KNOBS; SEE OPTION #41048.
10. 9-FOOT CEILINGS ON FIRST FLOOR ONLY; SEE OPTION #00090.



LIVING AREA: 2,141 S.F.
GARAGE: 423 S.F.
COVERED PORCH: 134 S.F.
TOTAL AREA UNDER COVERED PORCH: 2,698 S.F.
REAR DECK: 120 S.F.
TOTAL AREA: 2,818 S.F.



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REV. DATE DESCRIPTION

THE SPENCER, J., RESIDENCE

FRONT AND REAR ELEVATIONS

HARNETT COUNTY, NC

CONTACT: permits@mitchellhomesinc.com

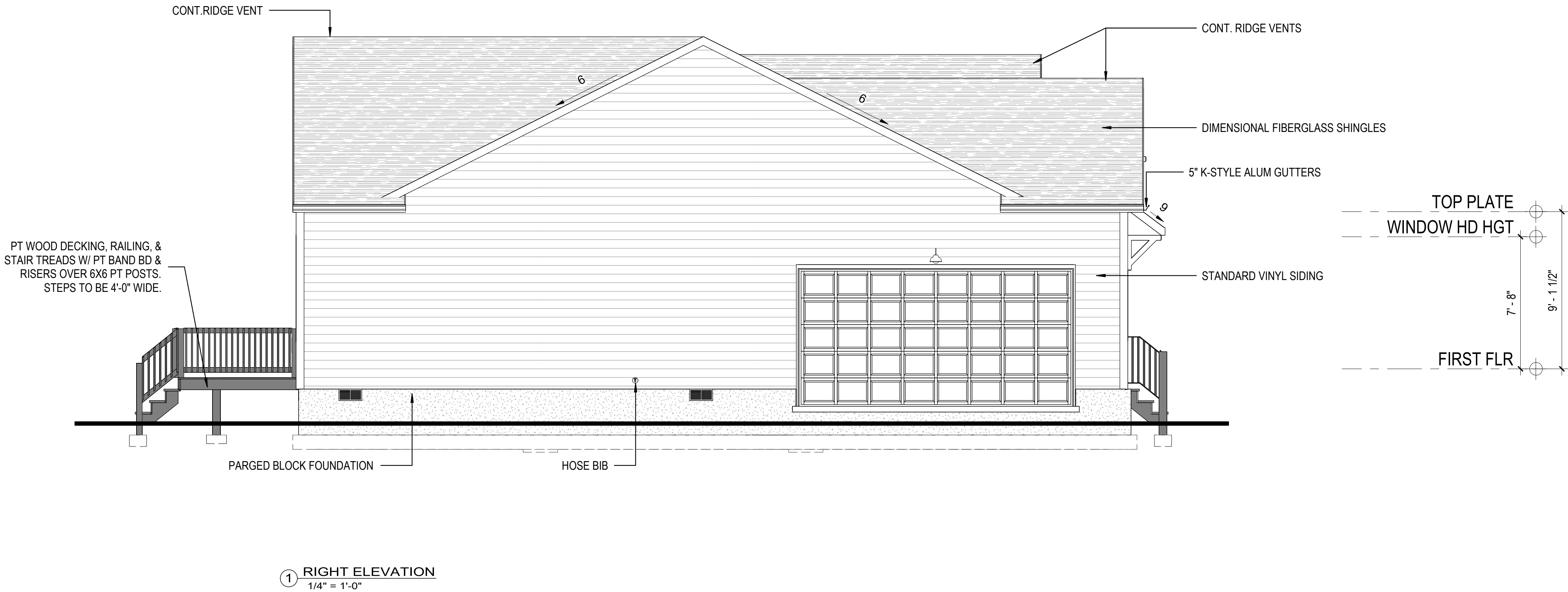
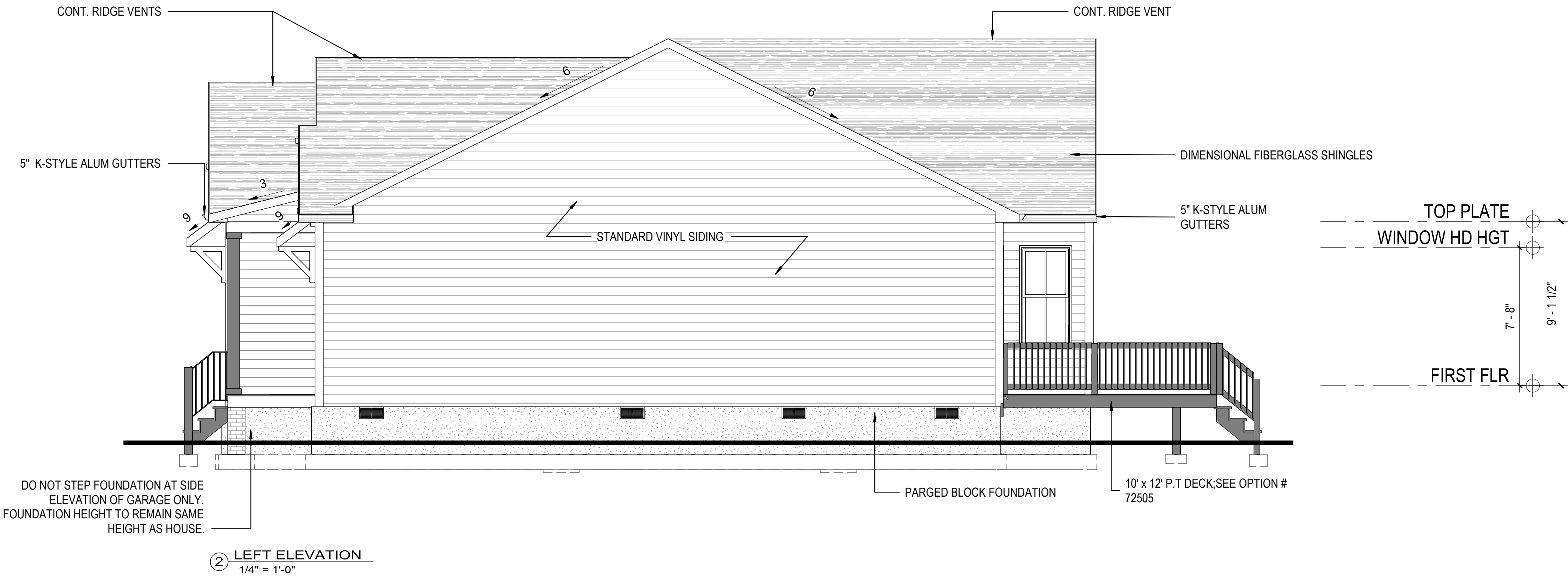
THE WINCHESTER
PLAN:
FARMHOUSE
EXTERIOR

DATE: 03.07.2025
DRAWN BY: HAD
JOB #: 50000183
SCALE: 1/4" = 1'-0"

A2.1

ELEVATION NOTES:

1. # OF STEPS DEPENDENT ON GRADE, 3 STEPS INCLUDED, SEE CONTRACT FOR ADDITIONAL FOUNDATION CHARGES.
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THE SPENCER, J., RESIDENCE

SIDE ELEVATIONS

HARNETT COUNTY, NC
CONTACT: permits@mitchellhomesinc.com

THE WINCHESTER
PLAN:
FARMHOUSE
EXTERIOR

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

A2.2

1. MITCHELL HOMES, INC. PROVIDES 4 COURSE FOUNDATION STANDARD. EXTRA FOUNDATION IS NOT INCLUDED. SEE CONTRACT FOR ADDITIONAL FOUNDATION CHARGES. *IF ADDITIONAL COURSES ARE SOLD ACCESS DOOR TO REMAIN STANDARD SIZE/ MATERIAL W/ (4) BRICK TIES UNLESS AN UPGRADED DOOR IS SOLD.

3. FOOTING CONTRACTOR TO PROVIDE 1 1/2" PVC SLEEVE THROUGH FOOTING.

5. # OF STEPS DEPENDENT ON GRADE, 3 STEPS INCLUDED, SEE CONTRACT FOR ADDITIONAL FOUNDATION CHARGES.

7. PROVIDE 6 MIL POLY VAPOR BARRIER OVER INSIDE GRADE.



CRAWL SPACE: 2,141 S.F.
ACCESS DOOR: 768 S.IN.
FOUNDATION VENT NFA: 45 S.IN.
NEED APPROX: 14
TOTAL # OF VENTS: 14

— — FOOTING BELOW



THE SPENCER, J., RESIDENCE

FOUNDATION PLAN

HARNETT COUNTY, NC

CONTACT: permits@mitchellhomesinc.com

THE WINCHESTER
PLAN:
FARMHOUSE
EXTERIOR

DATE: 03.07.2025

DRAWN BY: HAC

JOB #: 50000183

SCALE: As indicated

A3.1

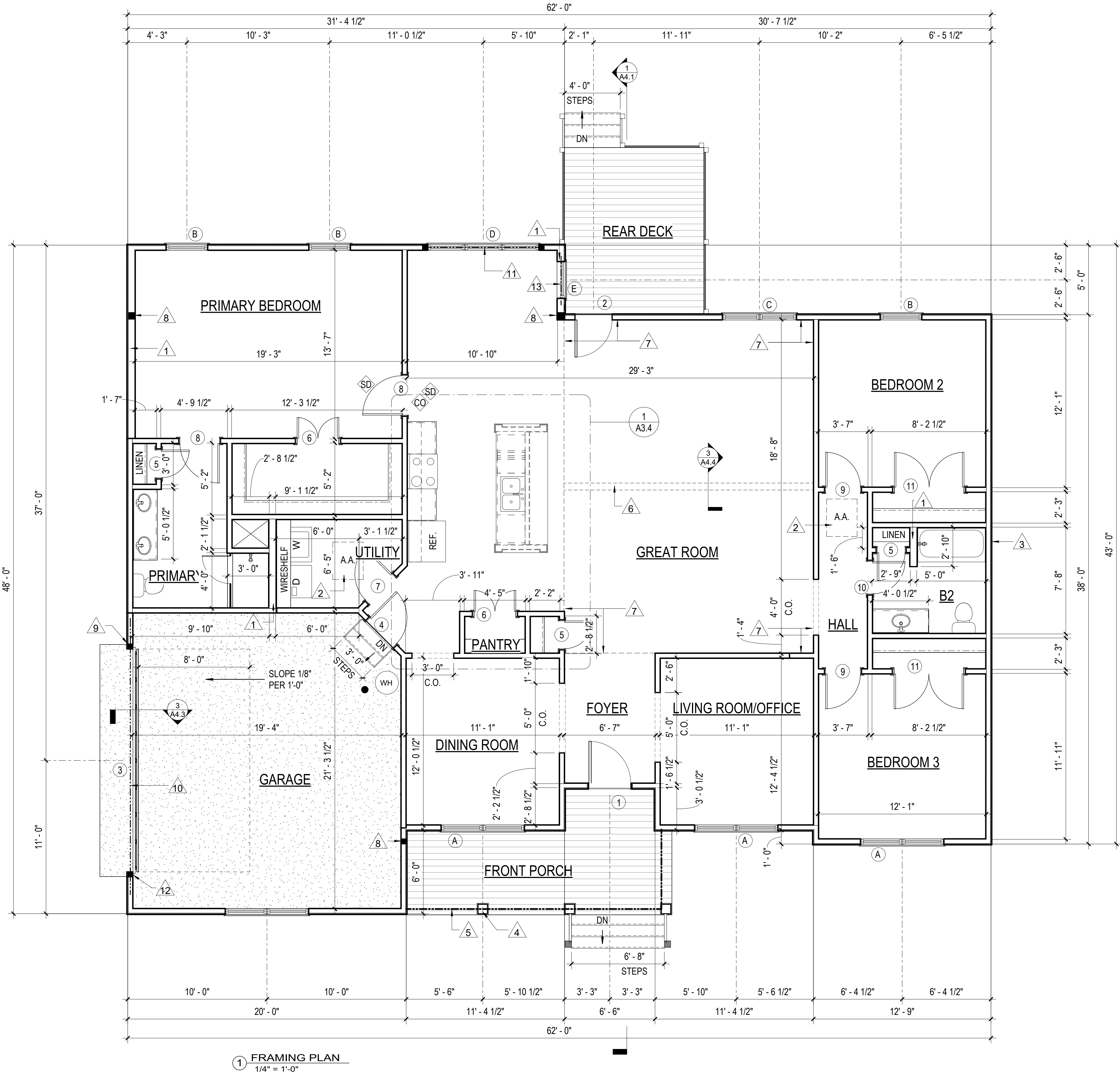
PLAN NOTES	
NUM	NOTE
1	2X6 WALL
2	FRAMER TO INSULATE AND WEATHERSTRIP HATCH TO CODE
3	FRAMER TO PROVIDE R-15 BATT INSULATION & AIR BARRIER TO CODE BEHIND TUB AND SHOWER PRIOR TO INSTALLATION.
4	8X8 ROUGH SAWN CEDAR STRUCTURAL POST
5	10" WRAPPED PORCH BEAM
6	FAUX WOOD BEAM ABOVE; SEE OPTION #00090 & #37013.
7	CATHEDRAL EXTENTS
8	ANTHONY POWER COLUMN UNDER GIRDER TRUSS ABOVE
9	(3) STUD POSTS
10	(2) 14" LVL ABOVE
11	(2) 9-1/4" LVL ABOVE
12	ANTHONY POWER COLUMN UNDER LVL TO SUPPORT WEIGHT OF GIRDER TRUSS
13	(3) 2X10 HDR

FRAMING PLAN NOTES:

- 2X BLOCKING INSTALLED IN ALL KITCHEN CABINET AREAS AT 34", 54" AND 84" ABOVE FINISHED FLOOR.
- 2X BLOCKING ON ALL PORCH CEILINGS FOR VINYL INSTALLATION.
- ALLOW 4" MIN. FOR INTERIOR TRIM ON ALL DOORS AND WINDOW WHERE APPLICABLE. TRIM IS NOT TO BE CUT TO FIT.
- ALL DIMENSIONS ARE FROM OUTSIDE EDGE OF EXTERIOR WALL SHEATHING OR FACE OF STUD OR CENTERLINE OF WALL, U.N.O.
- ALL ACCESS DOORS TO BE INSULATED PER CODE.
- FRAMERS MUST PROPERLY FLASH AND INSTALL THE BAND/LEDGER BOARD FOR ALL EXTERIOR DECKS, STOOPS, AND PORCHES.
- TOP NOTCH 350 WEATHER RESISTANT SUBFLOOR .
- (2) 2X8 HEADER ON ALL SINGLE WINDOWS, (2) 2X10 HEADER ON ALL DOUBLE WINDOWS & EXTERIOR DOORS. (2) 2X12 HEADER ON ALL TRIPLE WINDOWS, U.N.O.
- RAILS AND BALUSTERS ARE NOT INCLUDED IN THE CONTRACT PRICE UNLESS SOLD AS AN UPGRADE. IF REQUIRED BY CODE, THEN THEY WILL BE CHARGED ON A SEPARATE ADDENDUM WITH EXTRA FOUNDATION.

DOOR SCHEDULE					
MARK	SIZE	FINISH	DESCRIPTION	COUNT	USE
1	30/68	FBRGLSS	3/4 GLASS RAISED PANEL W/ DEADBOLT & TRANSOM	1	Exterior
2	28/68	STEEL	STEEL HALF LITE W/ DEADBOLT & TRANSOM	1	Exterior
3	160/68	STEEL	OVERHEAD	1	Exterior
4	28/68	STEEL	RAISED PANEL - FIRERATED	1	Interior
5	20/68	COMP	RAISED PANEL	3	Interior
6	30/68	COMP	RAISED PANEL - DOUBLE	2	Interior
7	28/68	COMP	RAISED PANEL	1	Interior
8	210/68	COMP	RAISED PANEL	2	Interior
9	26/68	COMP	RAISED PANEL	2	Interior
10	24/68	COMP	RAISED PANEL	1	Interior
11	50/68	COMP	RAISED PANEL- DOUBLE	2	Interior

WINDOWS - DOUBLE HUNG W/ LOW E GLASS					
MARK	SIZE	GLAZING	U-VALUE	DESCRIPTION	COUNT
A	30/60 TWIN	STANDARD	0.29	DOUBLE HUNG	4
B	30/60	STANDARD	0.29	DOUBLE HUNG	3
C	28/56TWIN	STANDARD	0.29	DOUBLE HUNG	1
D	28/56 TRIPLE	STANDARD	0.29	DOUBLE HUNG	1
E	28/56	STANDARD	0.29	DOUBLE HUNG	1



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DESCRIPTION

REV. DATE

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THE SPENCER, J., RESIDENCE

FRAMING PLAN
HARNETT COUNTY, NC

CONTACT: permits@mitchellhomesinc.com

THE WINCHESTER
PLAN:
FARMHOUSE
EXTERIOR

DATE: 03.07.2025
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SCALE: 1/4" = 1'-0"

A3.2

- NOTES:**
- 1. DIMS AT KITCHEN ARE FROM FACE OF CABINET TO FACE OF STUD, U.N.O.
 - 2. LEVEL 2 - DELUXE KITCHEN CABINETS - INCLUDES 42 INCH WALL CABINETS WITH CM8 FOR CROWN, ROLL OUT TRAYS; SEE OPTION #15107.

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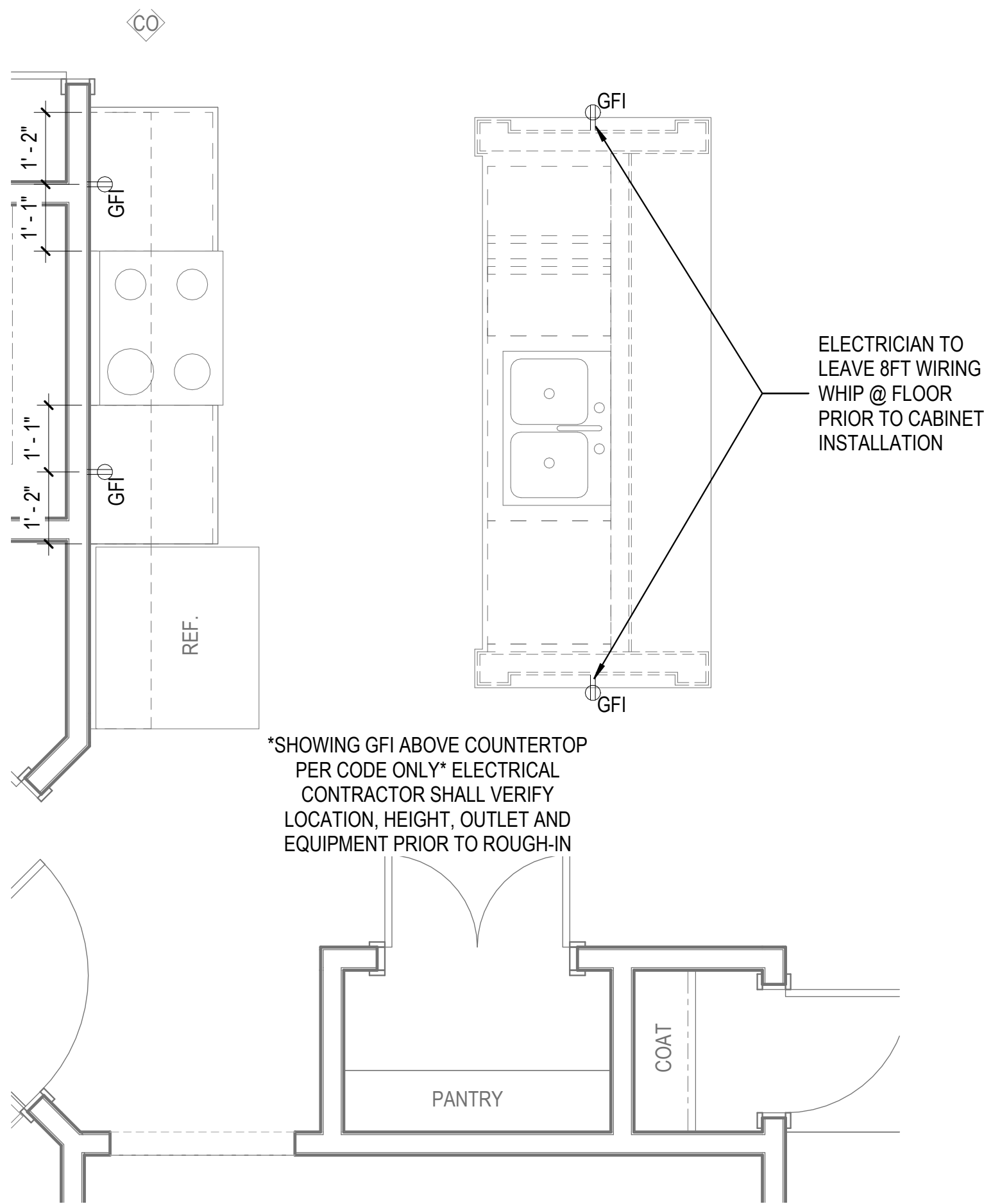
ENLARGED FLOOR PLAN

HARNETT COUNTY, NC
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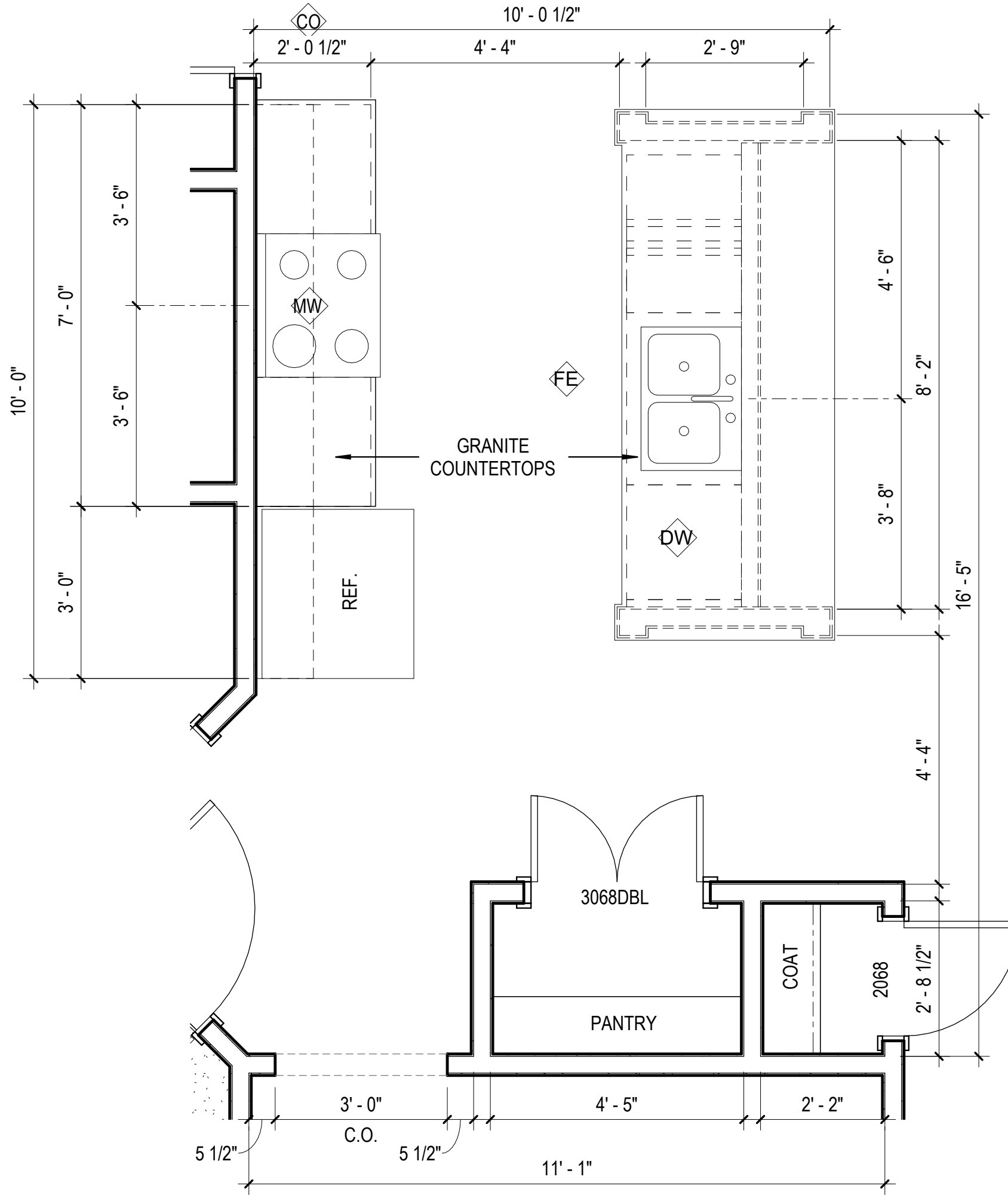
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A3.4



② ENLARGED KITCHEN RECEPTACLE PLAN
1/2" = 1'-0"


























① ENLARGED FLOOR PLAN
1/2" = 1'-0"

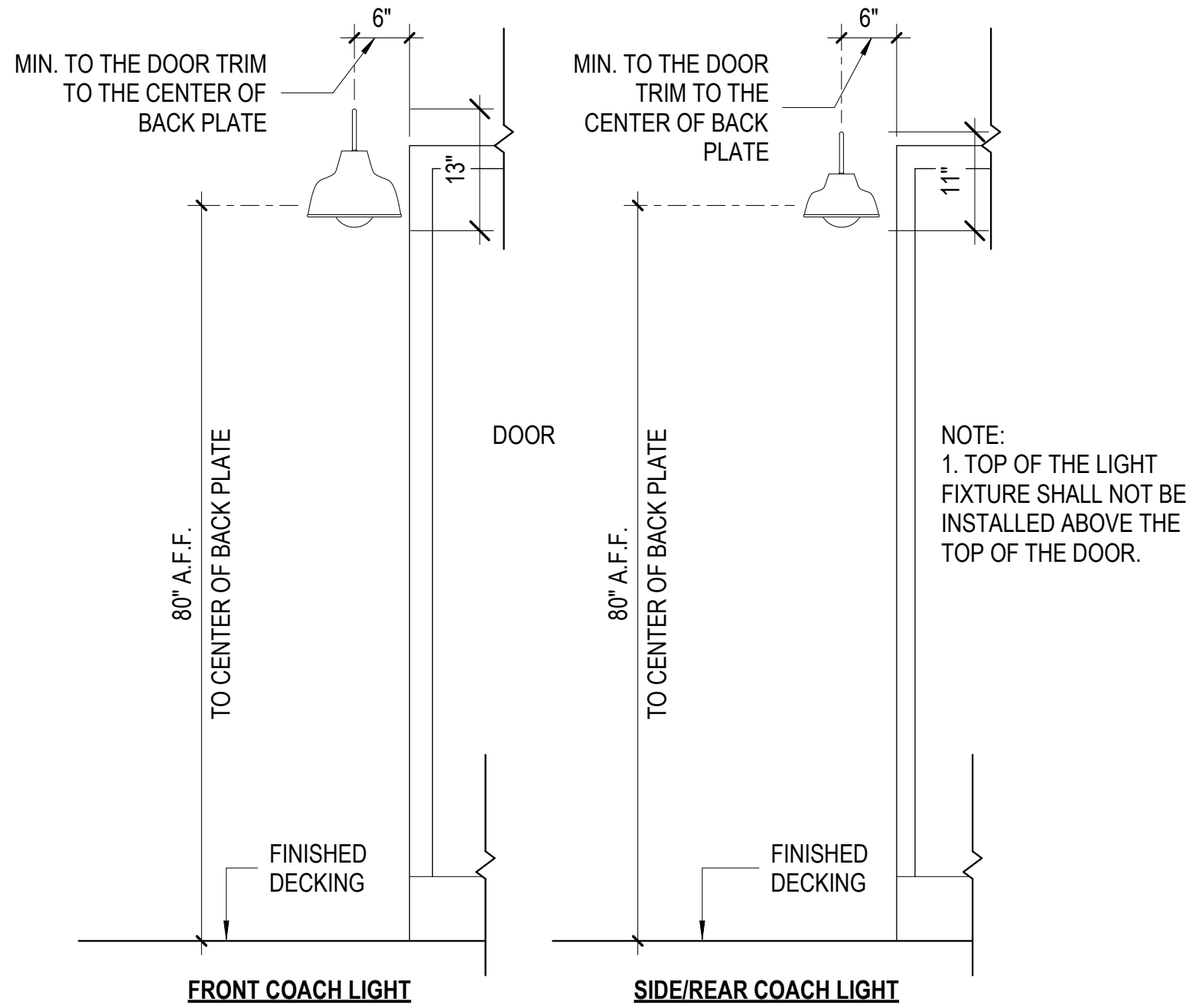
ELECTRICAL FIXTURES		
TYPE	COUNT	COMMENTS
120 OUTLET	3	(1) STD IN MUDROOM; (2) IN GARAGE
CABLE JACK	3	(1) STD IN GREAT ROOM; (1) STD IN PRIMARY ROOM; (1) IN LIVING ROOM/OFFICE
CEILING FAN ROUGH-IN	2	ELECTRICAL ROUGH-IN INCLUDES OVERHEAD WIRING, MOUNTING BOX, AND (2) WALL SWITCHES; FAN NOT INCLUDED.
CEILING LIGHT - 1 BULB KEYLESS	3	(1) STD. IN CRAWL SPACE, (2) IN ATTIC AREA
CEILING RECEPTACLE	1	(1) STD IN GARAGE
DISHWASHER HOOKUP	1	
EXTERIOR GFI OUTLET	5	(3) STD EXTERIOR; (1) STD IN CRAWL SPACE; (1) AT REAR DECK
GFI CEILING OUTLET	1	(1) STD. IN ATTIC AREA WITHIN 6' OF HVAC UNIT
INTERIOR GFI OUTLET	4	ABOVE KITCHEN COUNTERTOP; REQ. BY CODE
LARGE FARMHOUSE COACH LIGHT	2	
LED LIGHT	27	7.5" DIA LED
LED STRIP LIGHT	2	(2) STD IN GARAGE
METER BASE	1	
MICROWAVE OUTLET	1	
POWER PANEL	1	(1) 200 AMP PANEL
SCONCE - 2 BULB	2	
SCONCE - 3 BULB	1	
SMALL FARMHOUSE COACH LIGHT	2	
SMOKE DETECTOR	5	HARDWIRED & INTERCONNECTED

ELECTRICAL PLAN NOTES:

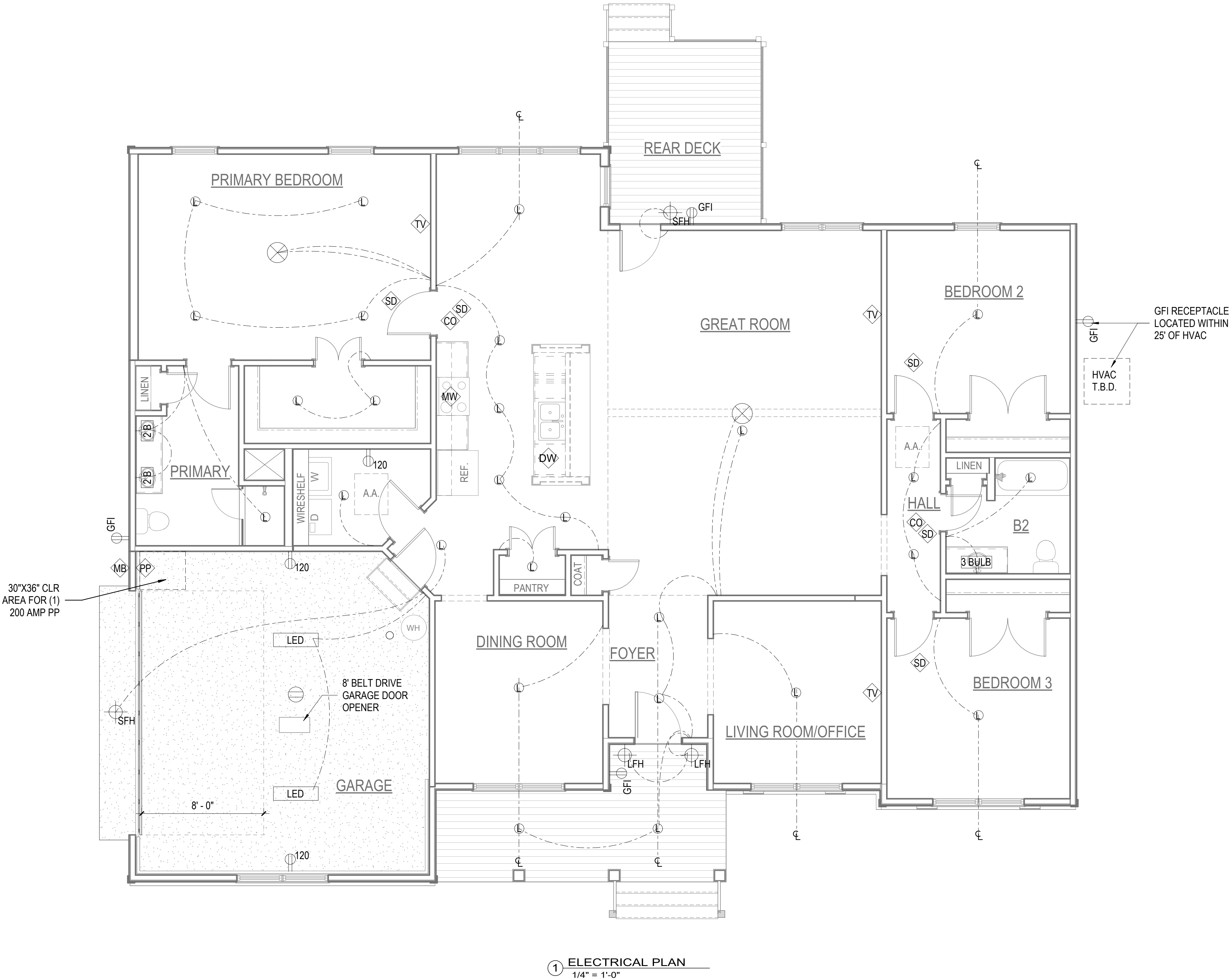
- 1-ZONE, 1 SYSTEM HVAC UNIT.
- (1) 200 AMP POWER PANEL
- CATHEDRAL CEILING PACKAGE WITH FAUX BEAM;SEE OPTION #00047
- 9'-FOOT CEILINGS ON FIRST FLOOR; SEE OPTION #00090
- CEILING FAN ELECTRICAL ROUGH-IN - INCLUDES OVERHEAD WIRING, MOUNTING BOX, AND (2) WALL SWITCHES;SEE OPTION #22545

ELECTRICAL SYMBOL LEGEND

	SMOKE DETECTOR		PENDANT LIGHT ROUGH-IN
	CO DETECTOR		CEILING FAN ROUGH-IN
	CABLE JACK		CEILING LIGHT - 1 BULB KEYLESS
	DISHWASHER HOOKUP		WIRING
	MICROWAVE OUTLET		SPOT LIGHT
	CEILING 120V RECEPTACLE		GFI CEILING OUTLET
	120 OUTLET		EXTERIOR FRONT COACH
	EXTERIOR 110V OUTLET W/ GROUND FAULT INDICATOR		EXTERIOR SIDE COACH
	METER BASE		EXTERIOR REAR COACH
	POWER PANEL		
	SCONCE - 2 BULB		
	SCONCE - 3 BULB		
	LED LIGHT		
	LED STRIP LIGHT		



2 COACH LIGHT DETAIL
3/4" = 1'-0"



1 ELECTRICAL PLAN
1/4" = 1'-0"

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MIDLOTHIAN VA 23113
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REV. DATE DESCRIPTION

THE SPENCER, J., RESIDENCE

ELECTRICAL PLAN

HARNETT COUNTY, NC

CONTACT: permits@mitchellhomesinc.com

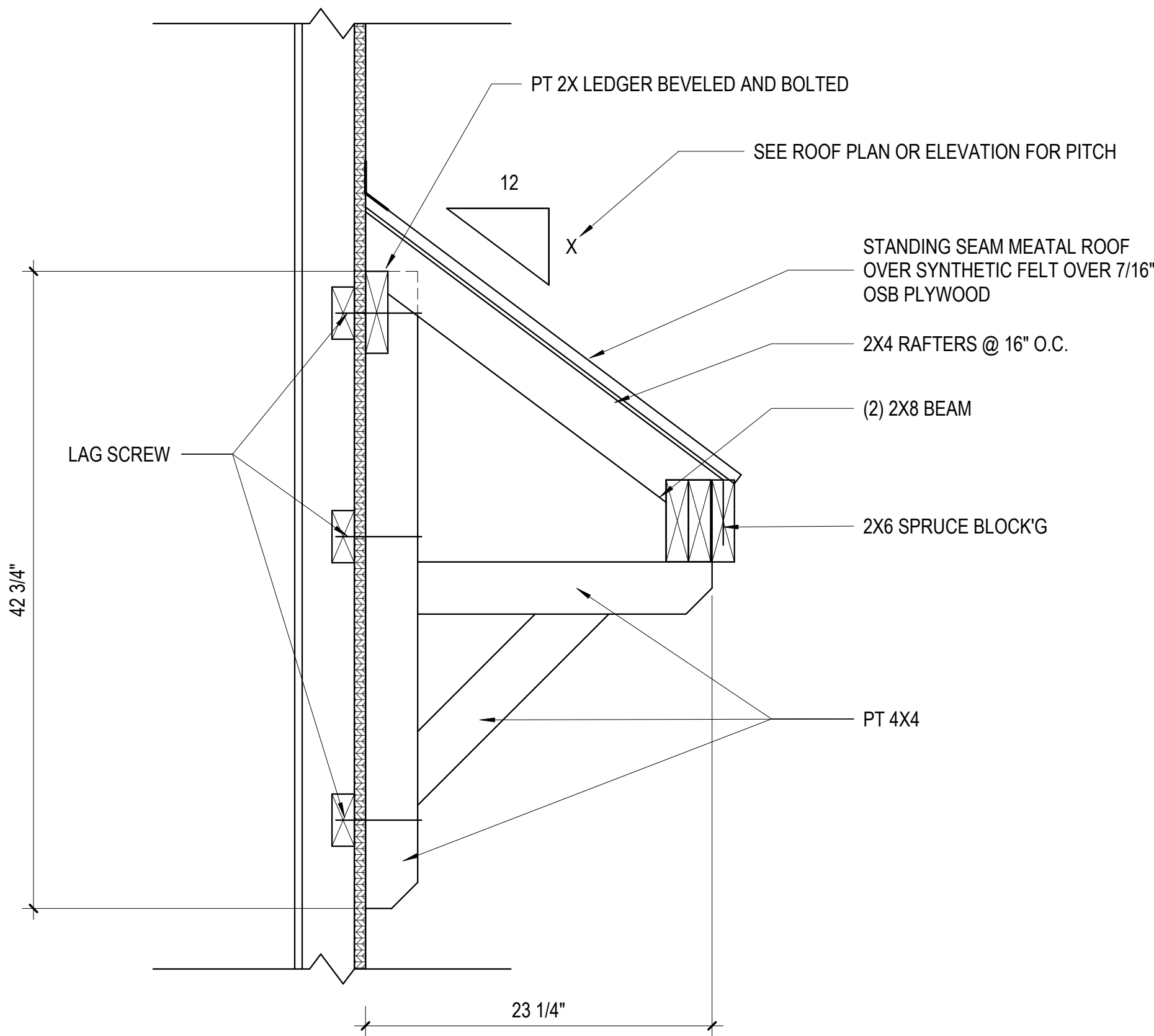
THE WINCHESTER
PLAN:
FARMHOUSE
EXTERIOR

DATE: 03.07.2025
DRAWN BY: HAD
JOB #: 50000183
SCALE: As indicated

A3.5

ROOF PLAN NOTES:

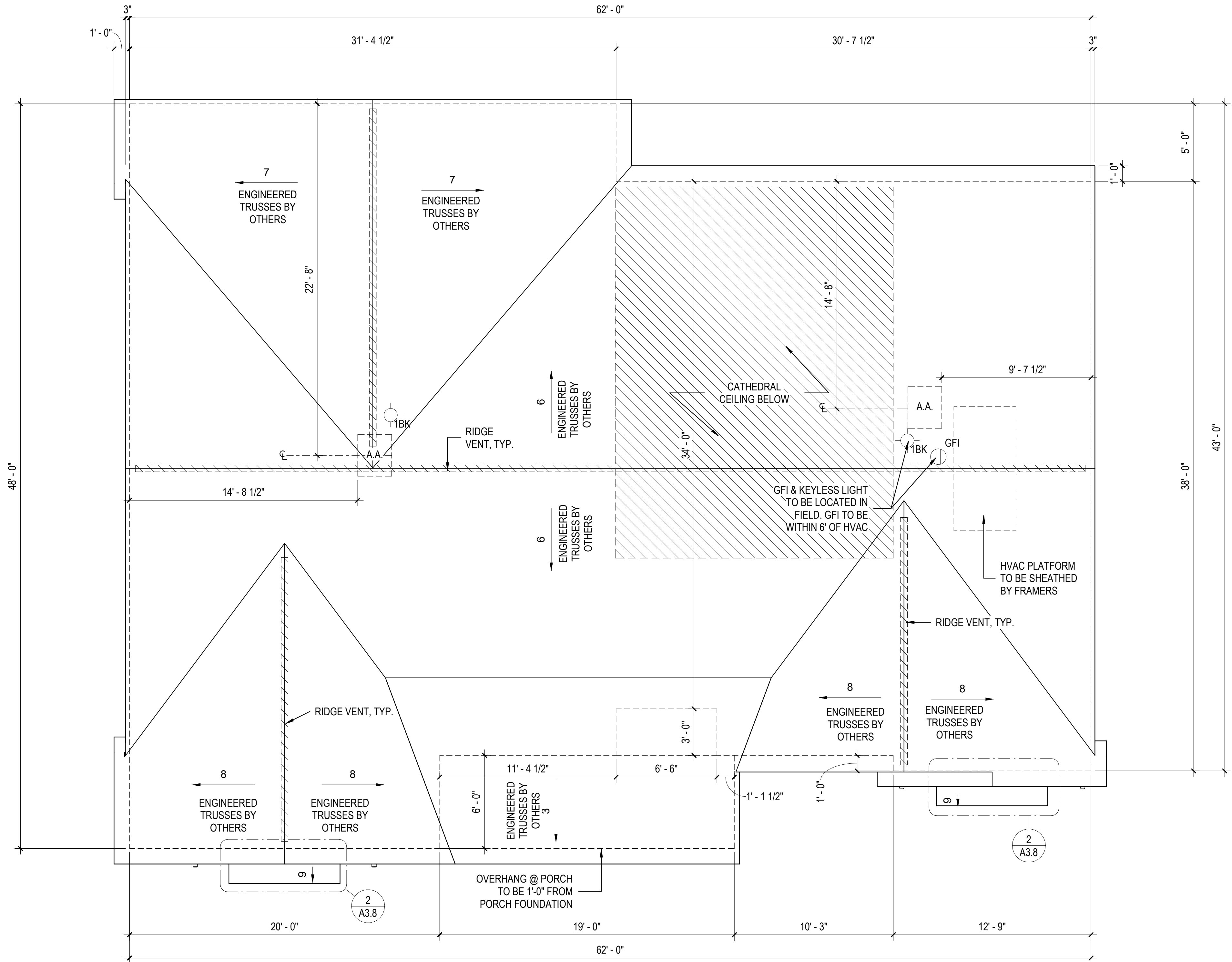
1. HVAC AIR HANDLER LOCATED IN ATTIC.
2. ROOF SLOPES LESS THAN 4/12 TO REQUIRES DOUBLE UNDERLAYMENT.



② R 0.2 - AWNING DETAILS
1 1/2" = 1'-0"

LEGEND

- LINE OF BEARING
- 7 ROOF SLOPE & DIRECTION



① ROOF PLAN
1/4" = 1'-0"

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REV. DATE DESCRIPTION

THE SPENCER, J., RESIDENCE

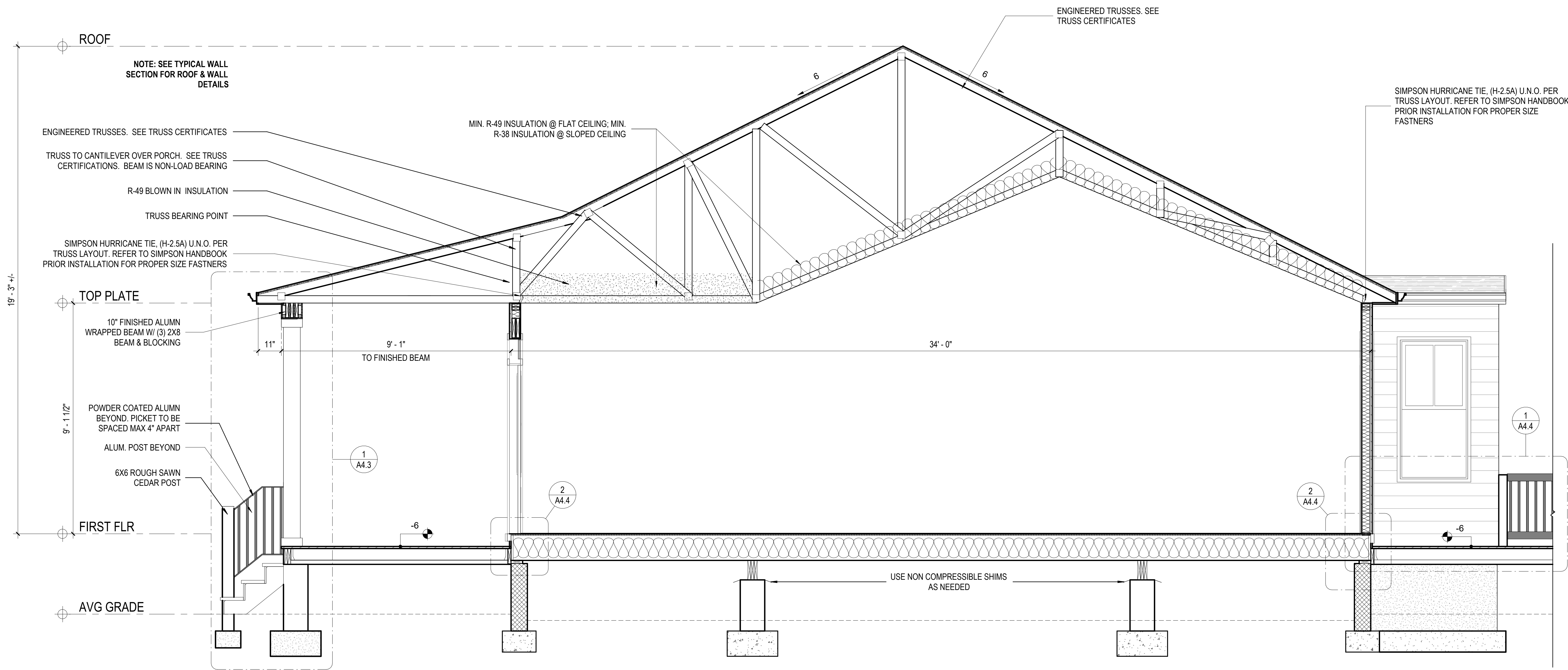
ROOF PLAN
HARNETT COUNTY, NC

CONTACT: permits@mitchellhomesinc.com

THE WINCHESTER
PLAN:
FARMHOUSE
EXTERIOR

DATE: 03.07.2025
DRAWN BY: HAD
JOB #: 50000183
SCALE: As indicated

A3.8



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

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#	REV.	DATE	DESCRIPTION

THE SPENCER, J., RESIDENCE

BUILDING SECTION

HARNETT COUNTY, NC

CONTACT: permits@mitchellhomesinc.com

THE WINCHESTER
PLAN:
FARMHOUSE
EXTERIOR

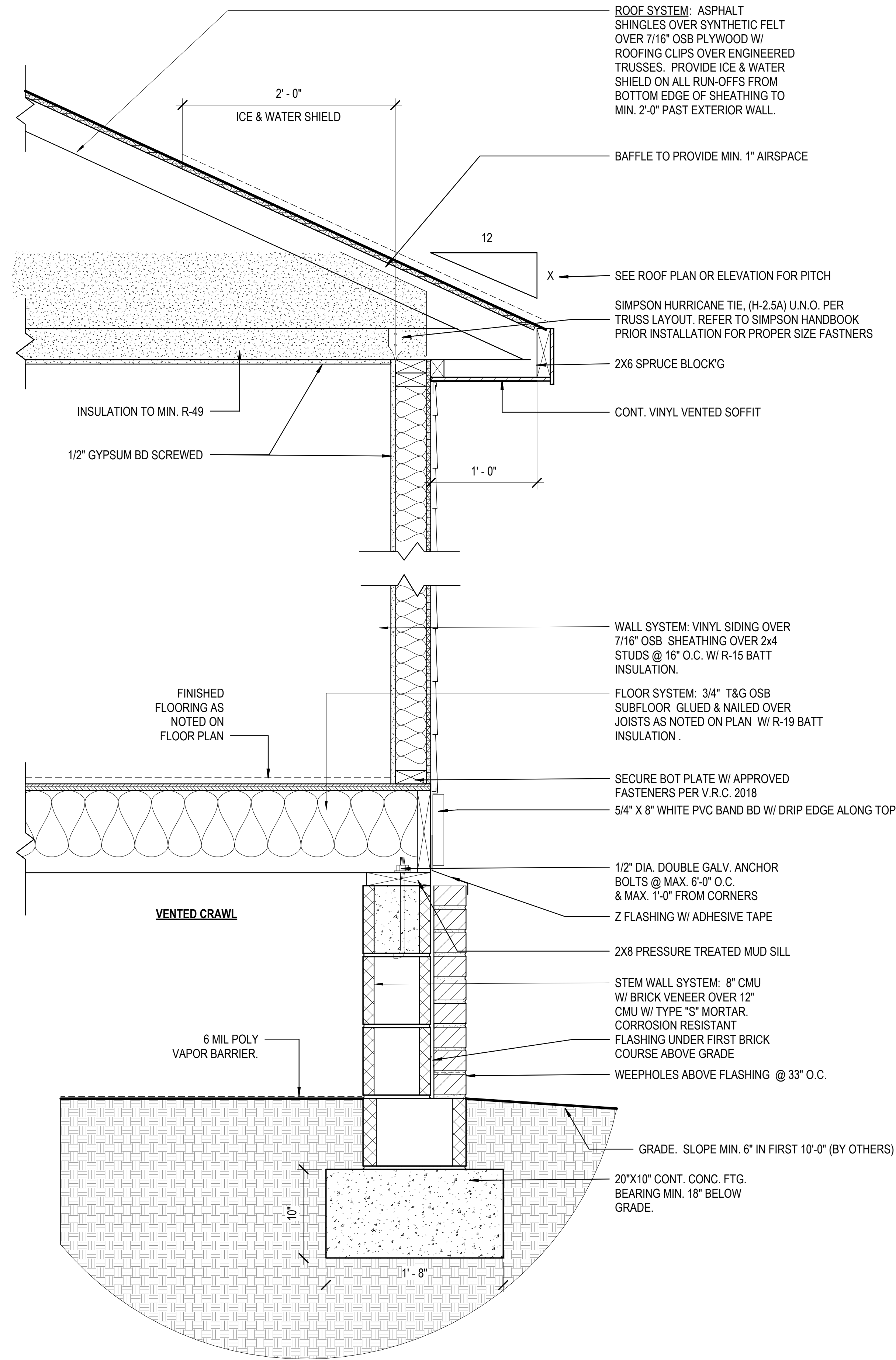
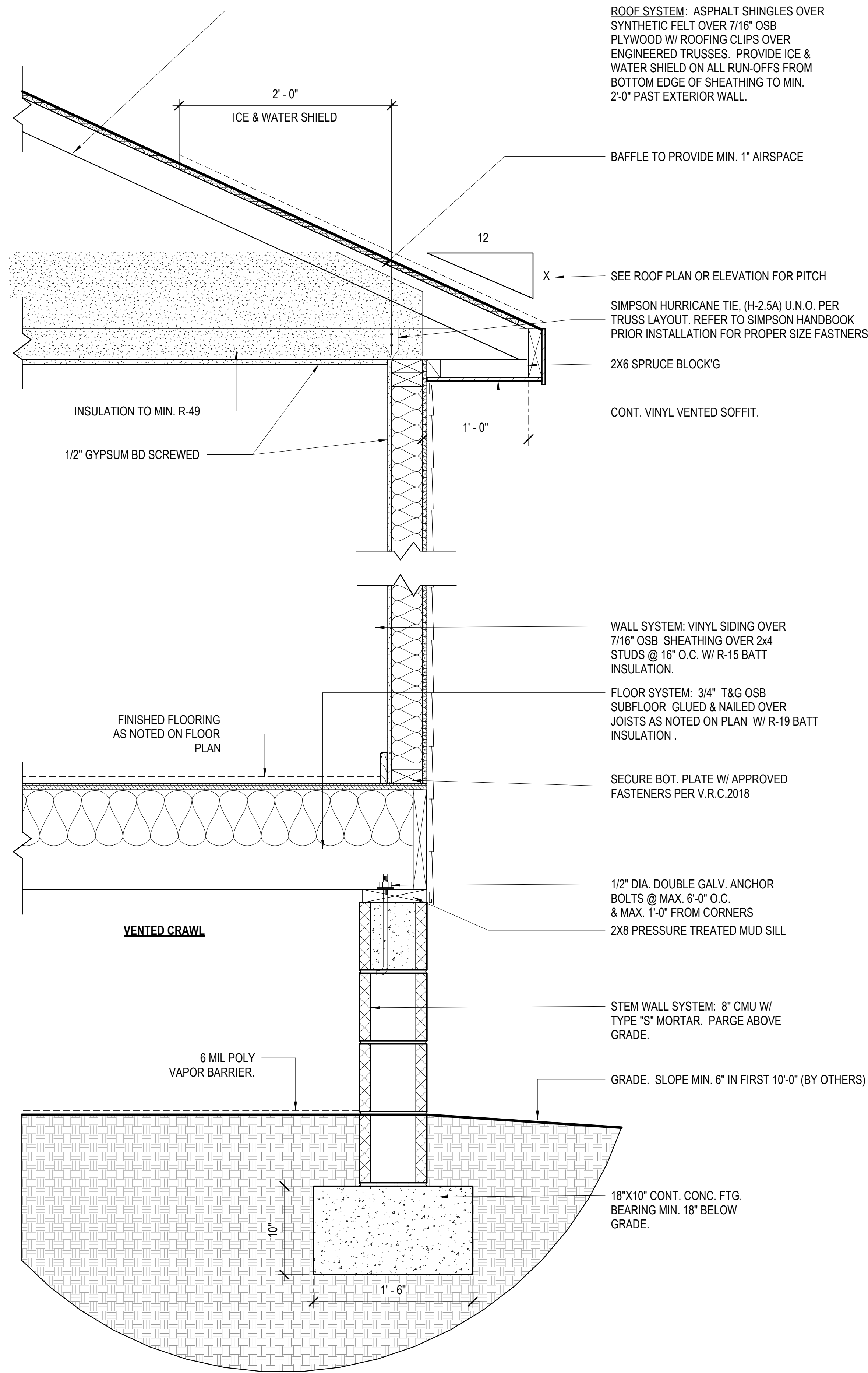
DATE: 03.07.2025

DRAWN BY: HAD

JOB #: 50000183

SCALE: 1/2" = 1'-0"

A4.1



② WALL SECTION- PARGED BLOCK, VENTED CRAWL
1 1/2" = 1'-0"

① TYPICAL WALL SECTION
1 1/2" = 1'-0"

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#	REV.	DATE	DESCRIPTION

THE SPENCER, J., RESIDENCE

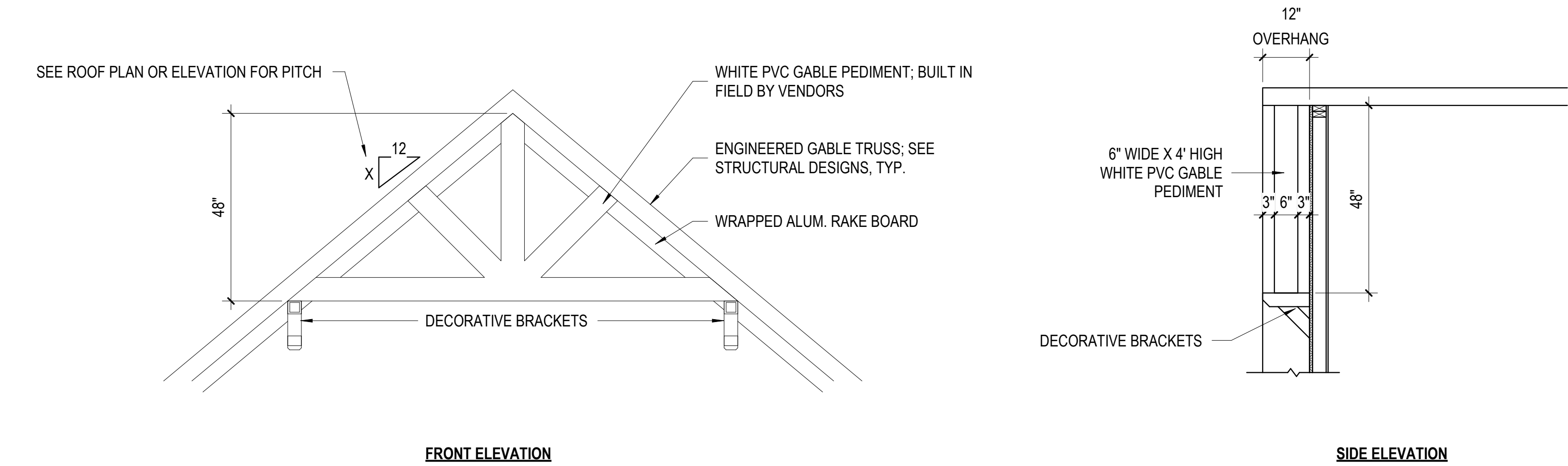
TYPICAL WALL SECTION

HARNETT COUNTY, NC
CONTACT: permits@mitchellhomesinc.com

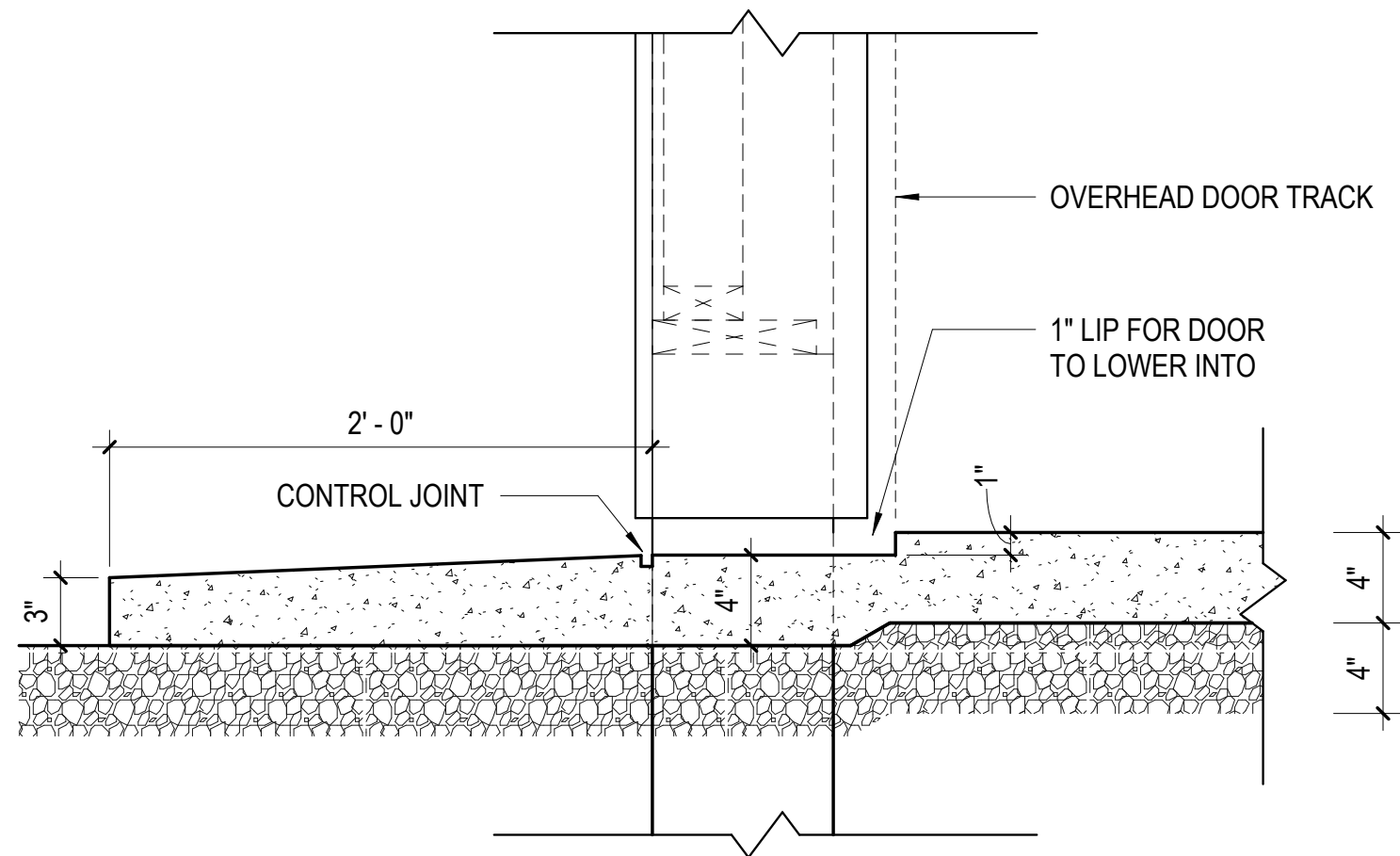
THE WINCHESTER
PLAN:
FARMHOUSE
EXTERIOR

DATE: 03.07.2025
DRAWN BY: HAD
JOB #: 50000183
SCALE: 1 1/2" = 1'-0"

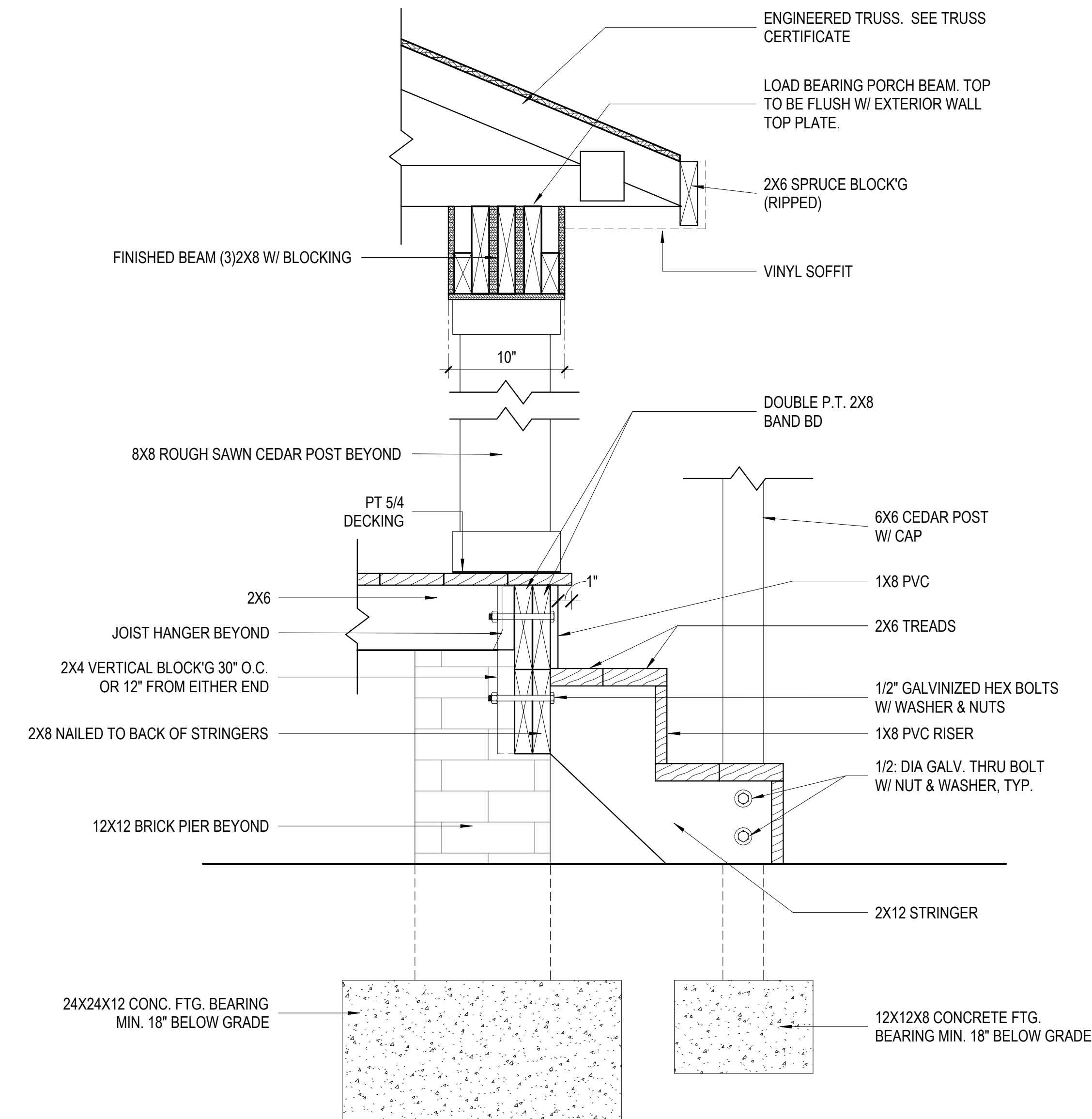
A4.2



④ DECORATIVE GABLE PEDIMENT
1/2" = 1'-0"



③ GARAGE SLAB DETAIL
1 1/2" = 1'-0"



① PORCH DETAIL - RUSTIC
1 1/2" = 1'-0"

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DESCRIPTION

REV. DATE

#

THE SPENCER, J., RESIDENCE

MISC. DETAILS

HARNETT COUNTY, NC
CONTACT: permits@mitchellhomesinc.com

THE WINCHESTER
PLAN:
FARMHOUSE
EXTERIOR

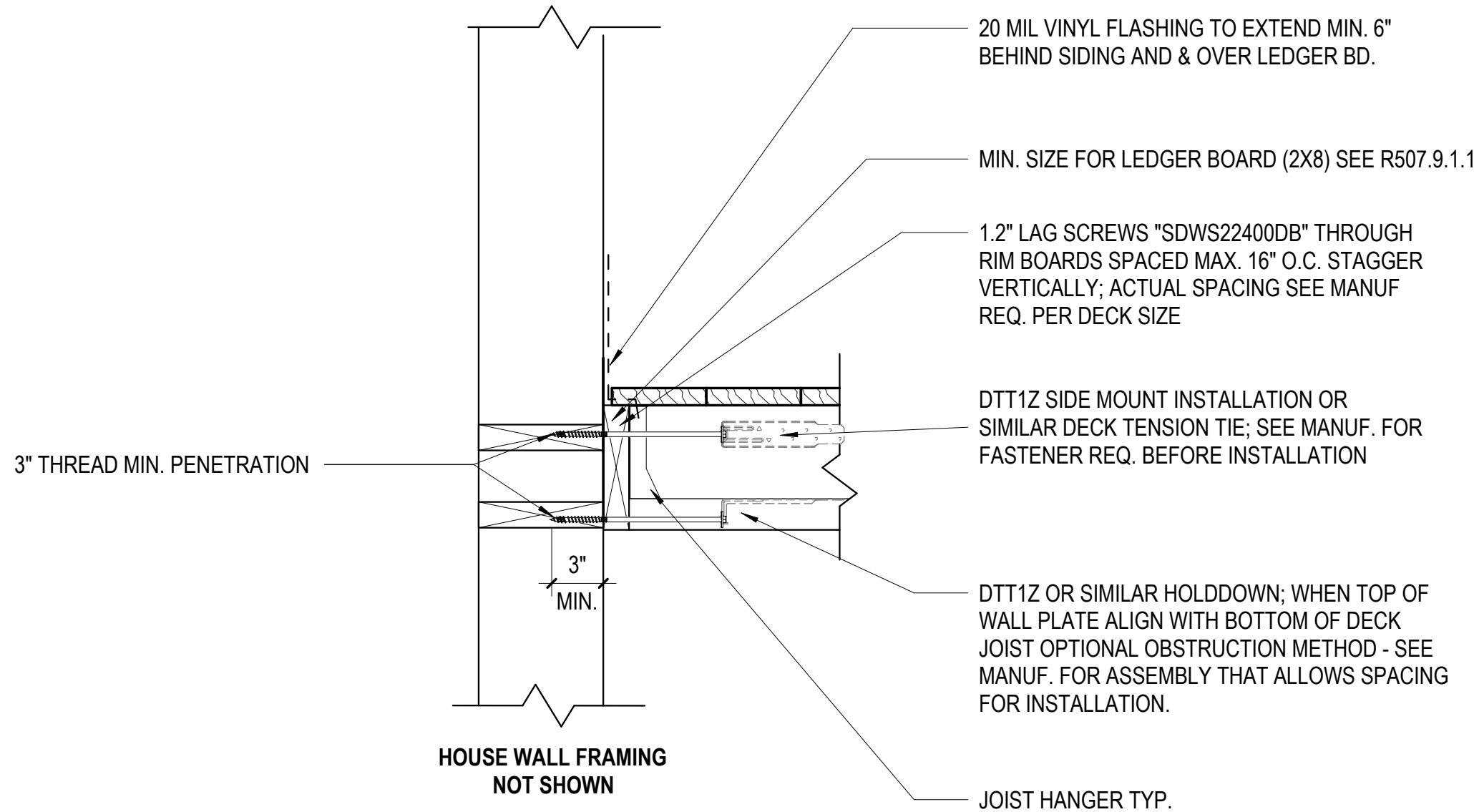
DATE: 03.07.2025

DRAWN BY: HAD

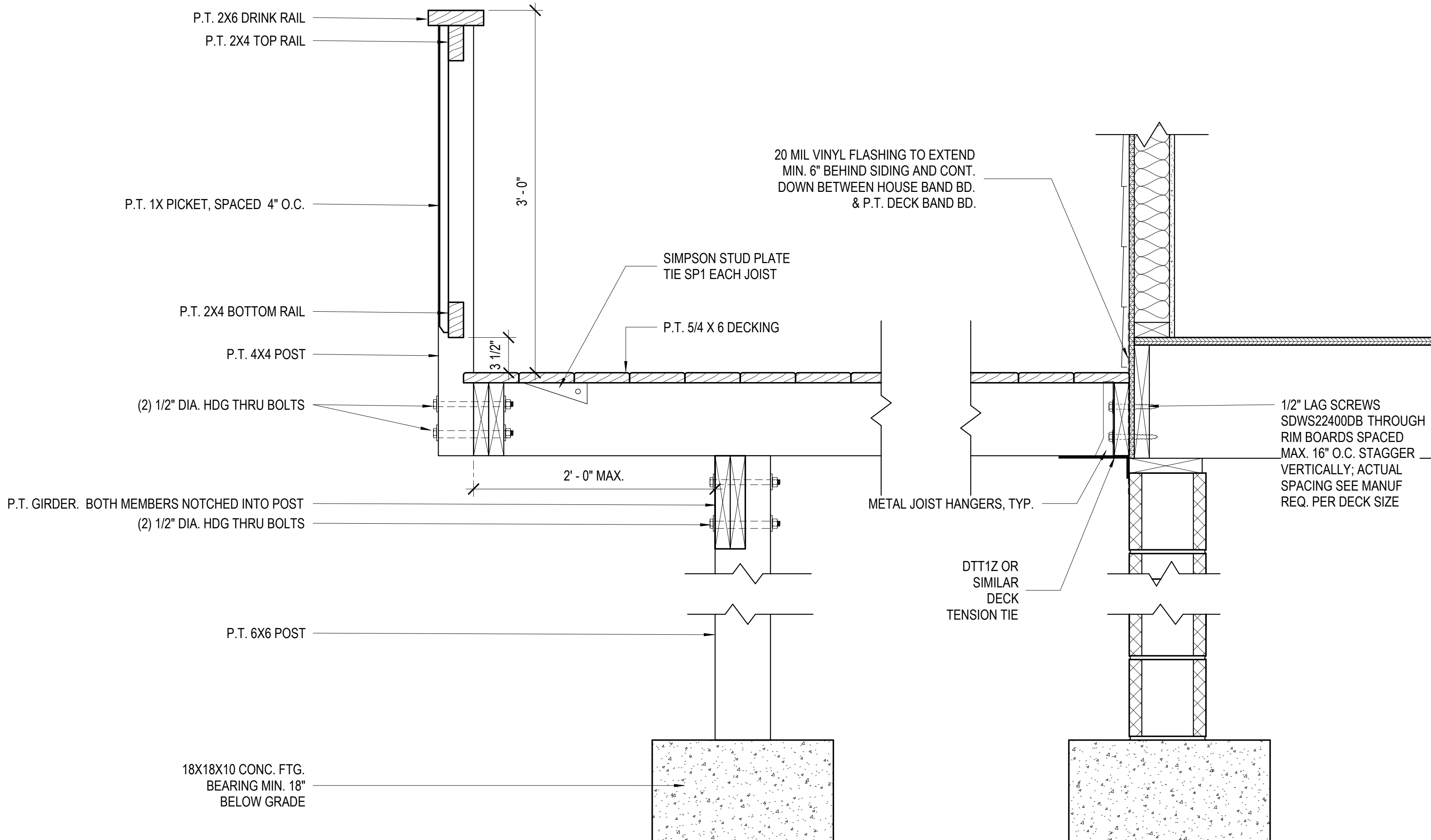
JOB #: 50000183

SCALE: As indicated

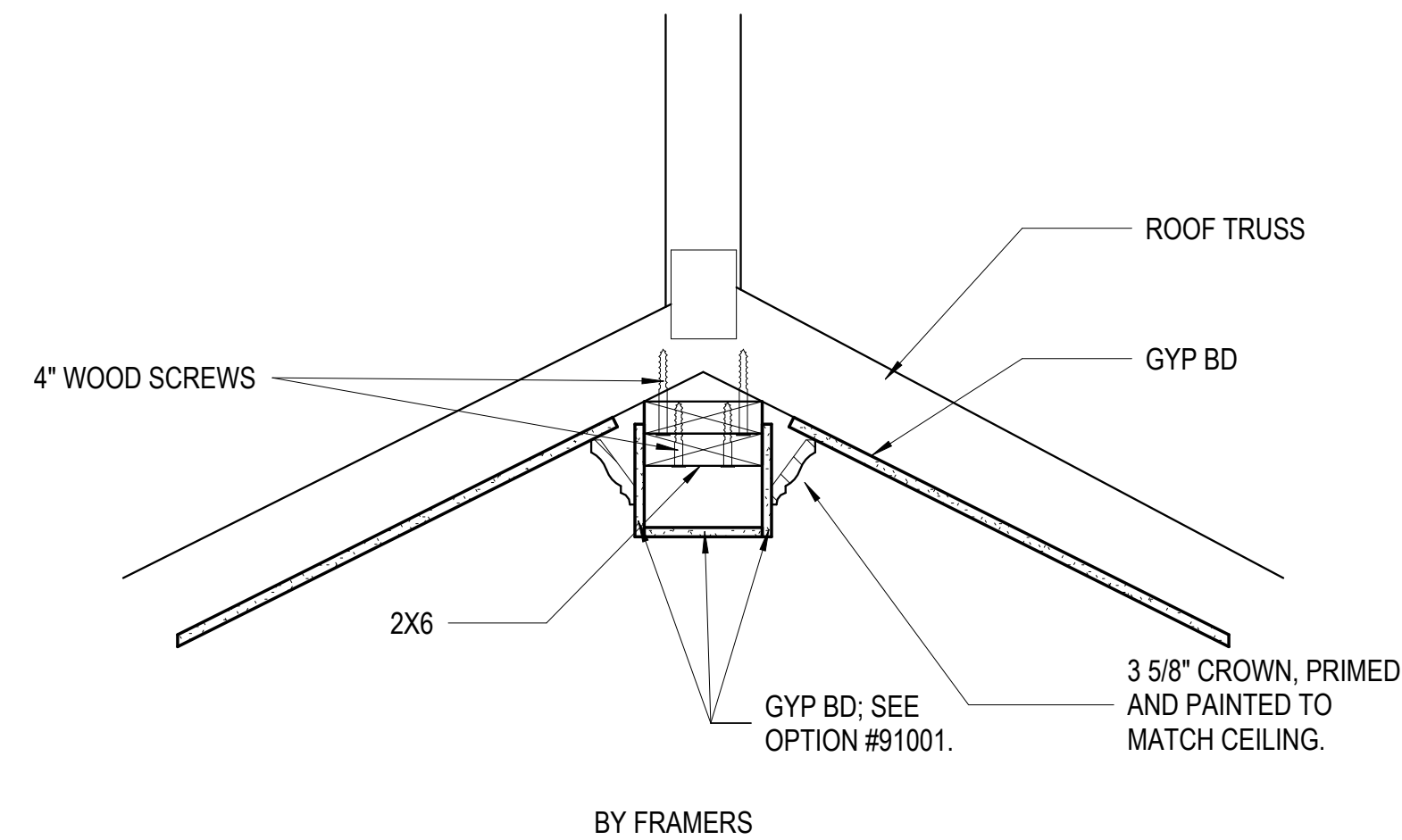
A4.3



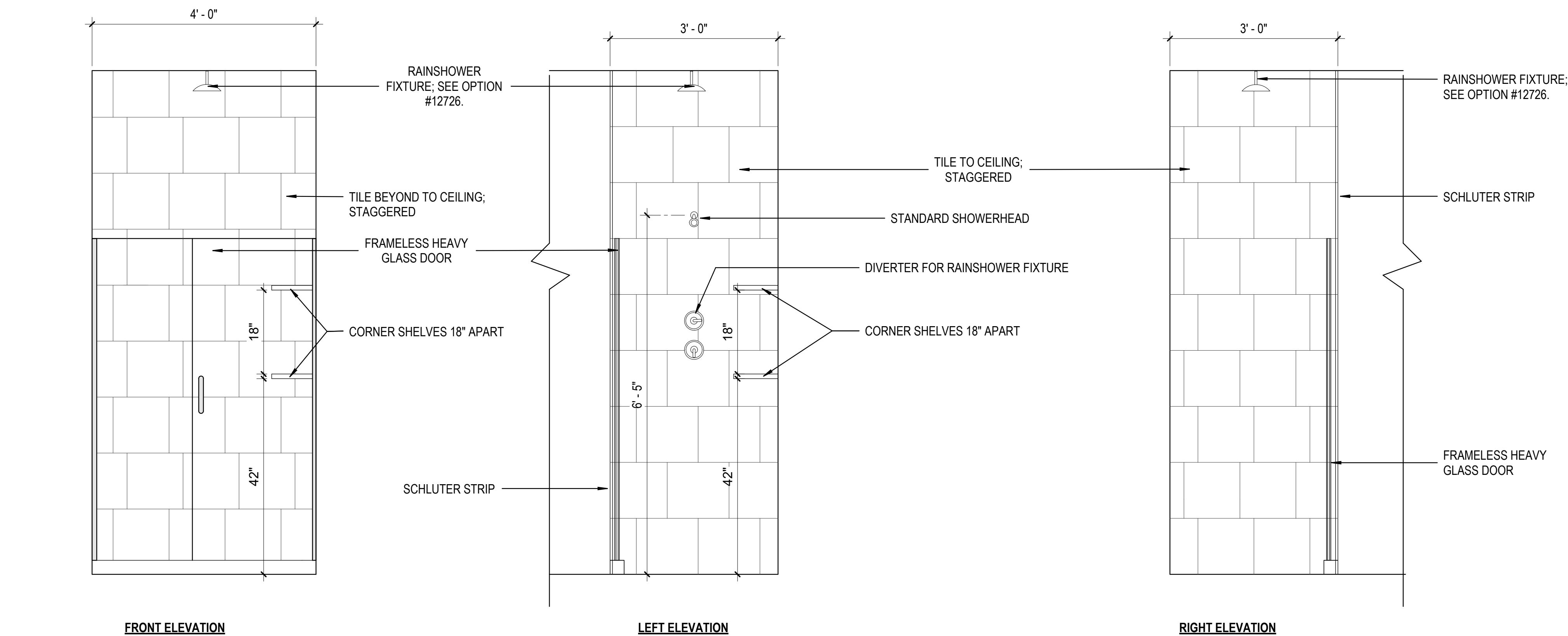
② DECK ATTACHMENT DETAIL
1 1/2" = 1'-0"



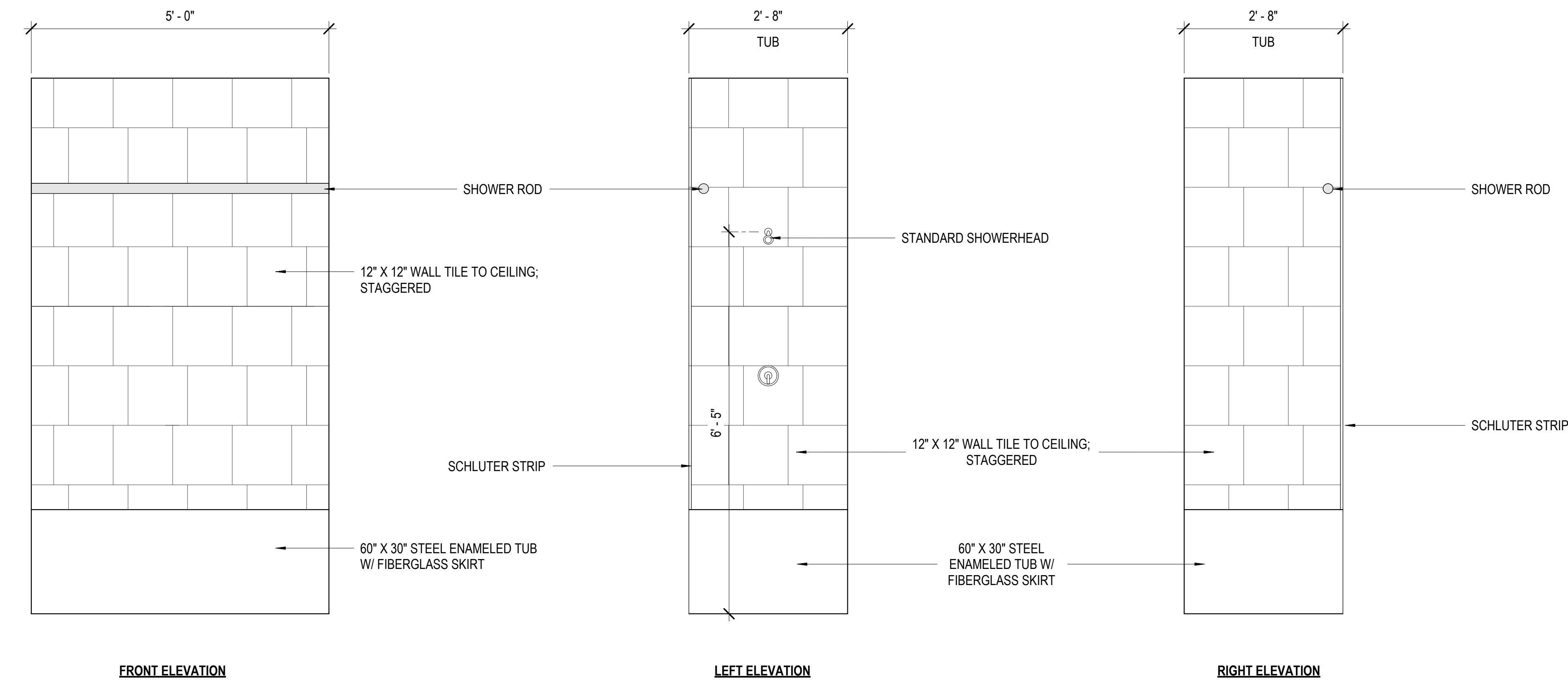
① DECK DETAIL
1 1/2" = 1'-0"



③ FAUX BEAM DETAIL
1 1/2" = 1'-0"



② CERAMIC TILE SHOWER
3/4" = 1'-0"



① STANDARD TUB DETAIL
3/4" = 1'-0"

WALL BRACING NOTES:

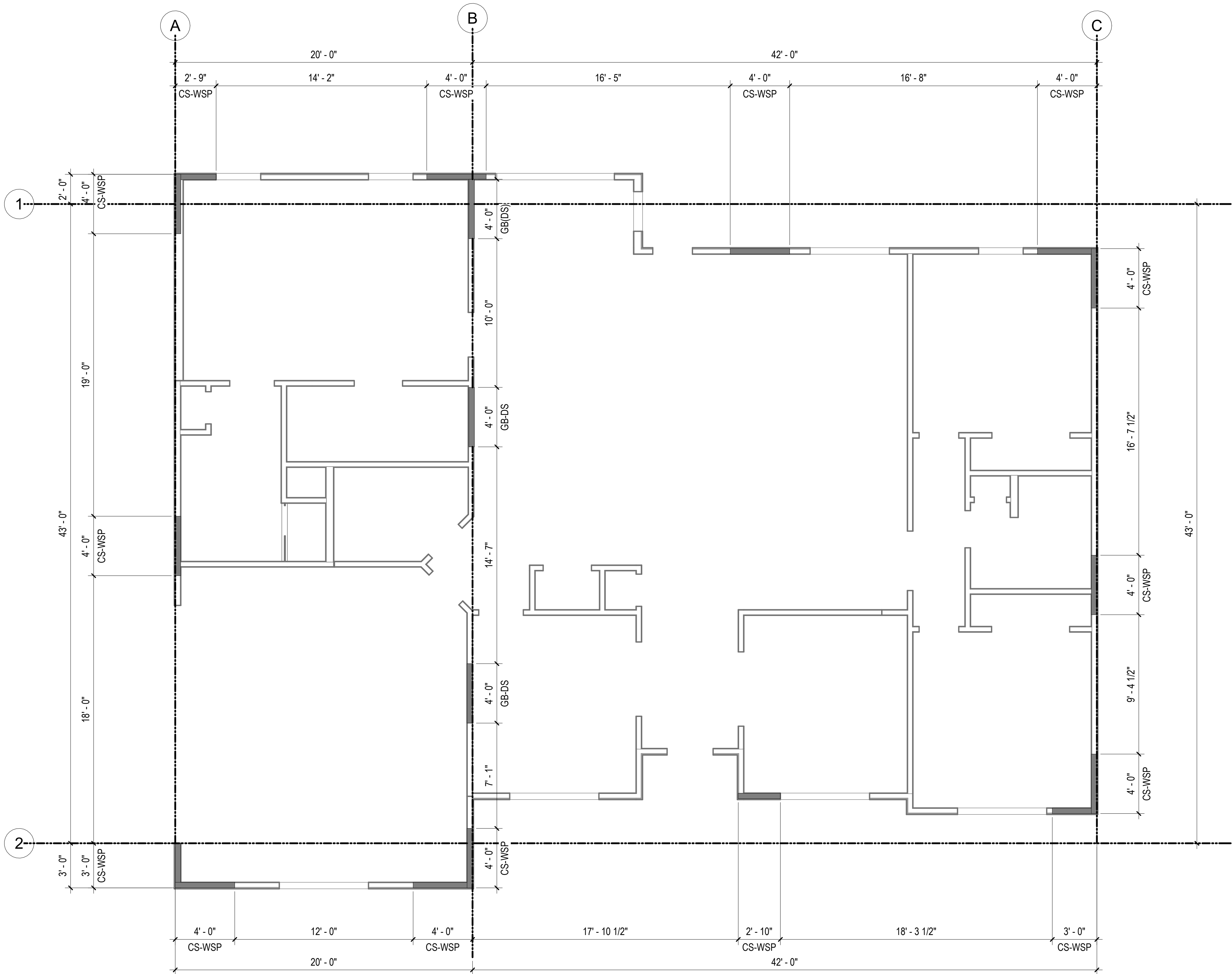
1. THIS MODEL HAS BEEN DESIGNED TO RESIST THE LATERAL FORCES AS STATED IN THE DESIGN CRITERIA ON SHEET A1.1.

2. WALL BRACING METHOD TO BE CONTINUOUS SHEATHING - WOOD STRUCTURAL PANEL (CS-WSP), U.N.O.

3. ALL PANELS TO BE 7/16" OSB SHETHING OVER 2X4 STUDS & 16" O.C. WITH DOUBLE TOP PLATE & SINGLE BOTTOM PLATE. SHEATHING TO EXTEND FROM BOTTOM EDGE OF BOTTOM PLATE TO TOP EDGE OF LOWER DOUBLE PLATE.

4. NAILING PATTERN AND FASTENERS SHALL CONFORM TO IRC 2018 CODE.

SEE ATTACHED WIND CALCULATION SHEET



① BRACED WALL LAYOUT
1/4" = 1'-0"

LEGEND

— BRACED WALL PANEL

- - - - BRACED WALL LINE



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REV. DATE DESCRIPTION

THE SPENCER, J., RESIDENCE

BRACED WALL PANEL LAYOUT

HARNETT COUNTY, NC

CONTACT: permits@mitchellhomesinc.com

THE WINCHESTER
PLAN:
FARMHOUSE
EXTERIOR

DATE: 03.07.2025

DRAWN BY: HAD

JOB #: 50000183

SCALE: As indicated

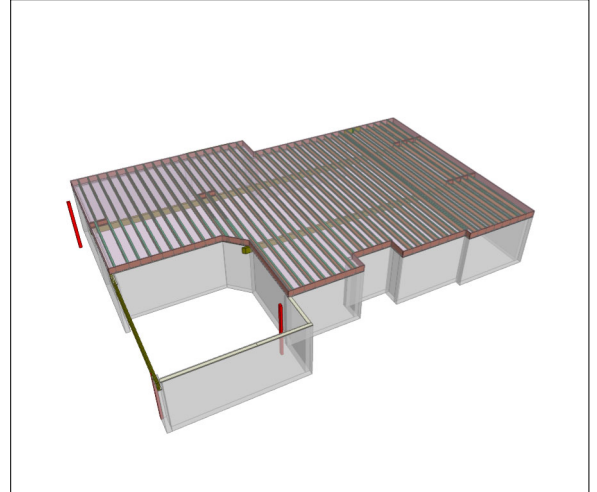
A5.1



Kempsville Chesapeake Component Plant
3300 Business Center Drive
Chesapeake, VA 23323

Phone #: 757-485-8590

Builder: MITCHELL HOMES
Project: WINCHESTER MODEL -
SPENCER

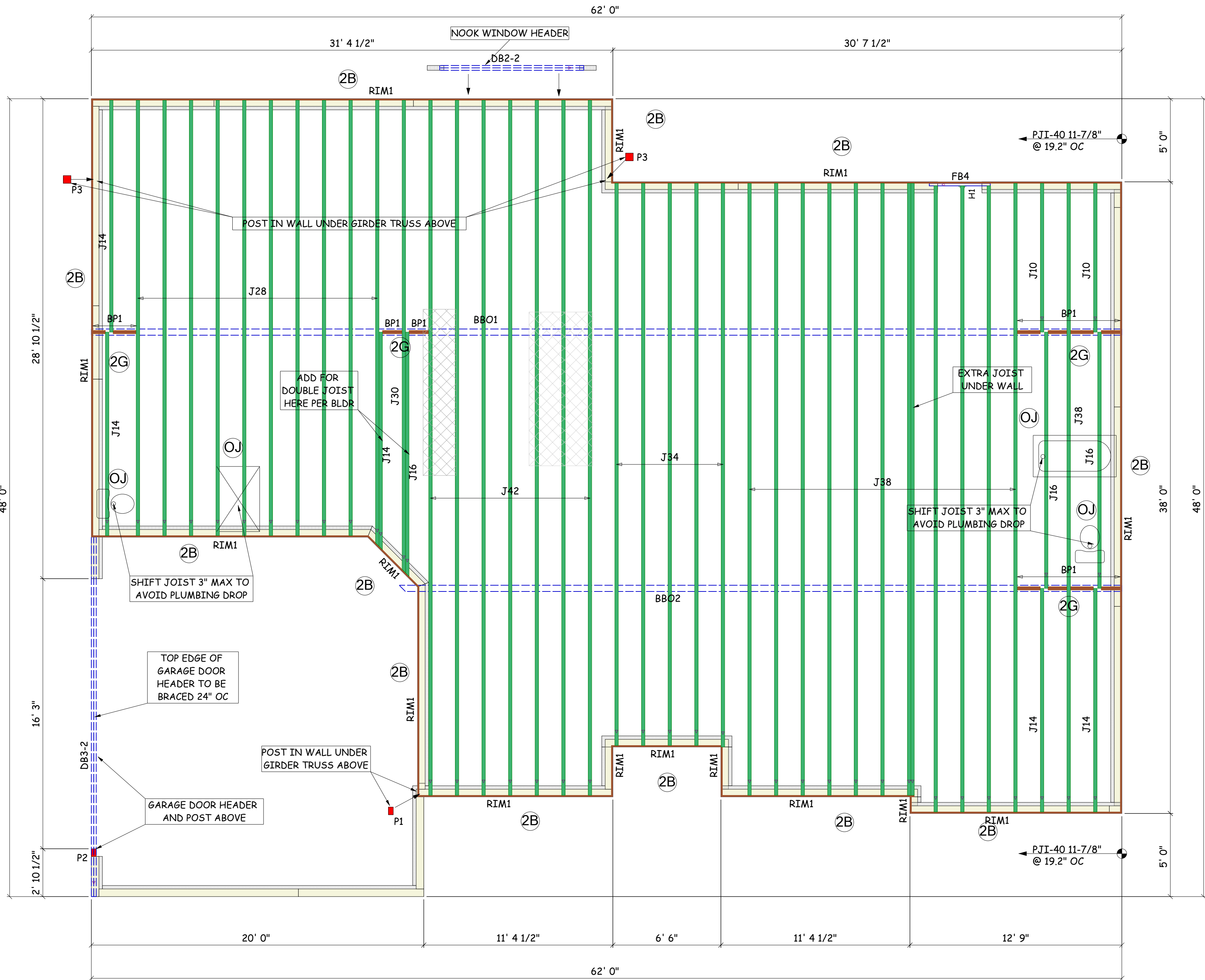


THE PLACEMENT PLAN NOTES:

1. The Placement Plan is a diagram for component installation. It is not an engineered drawing and has not been reviewed by an engineer. The Owner/Building Designer is responsible for obtaining an engineer's review if one is required by the local jurisdiction.
2. The responsibilities of the Owner, Contractor, Building Designer, Component Designer and Component Manufacturer shall be as set forth in ANSI/TPI 1. Capitalized terms shall be as defined in ANSI/TP 1 unless otherwise indicated.
3. Each Component is designed as an individual component utilizing information provided by others. The Owner/Building Designer is responsible for reviewing all Component Submittal Packages and individual Component Design Drawings for compliance with the Construction Documents and compatibility with the overall Building design.
4. Contractor will not proceed with component installation until the Owner/Building Designer has reviewed the Component Submittal Package. Questions on the suitability of any Component will be resolved by the Building Designer.
5. The Building Designer and Contractor are responsible for all temporary and permanent bracing.
6. The Placement Plan assumes the building is dimensionally correct, structurally sound, and in a suitable condition to support each Component during installation and thereafter, including but not limited to installation of all bearing points. Proper design and construction of all structural components, including foundations, headers, beams, walls and columns are the responsibility of the Owner, Building Designer and Contractor.
7. Do not cut, drill, or modify any Component without first consulting the Component Manufacturer or Building Designer. Damaged Components shall not be installed unless directed by the Building Designer or approved by the Component Manufacturer.
8. Components must be handled and installed following all applicable safety standards and best practices, including but not limited to BCSI, OSHA, TPI and local codes. Failure to properly handle, brace or otherwise install Component can result in serious injury or death.

General Notes: ** CUTTING OR DRILLING OF COMPONENTS SHOULD NOT BE DONE WITHOUT CONTACTING COMPONENT SUPPLIER FIRST. CUSTOMER TAKES FULL RESPONSIBILITY FOR COMPONENTS IF CUT BEFORE AUTHORIZATION.

** LVL AND JOISTS MUST BE FULLY CONNECTED TOGETHER PRIOR TO ADDING ANY LOADS.



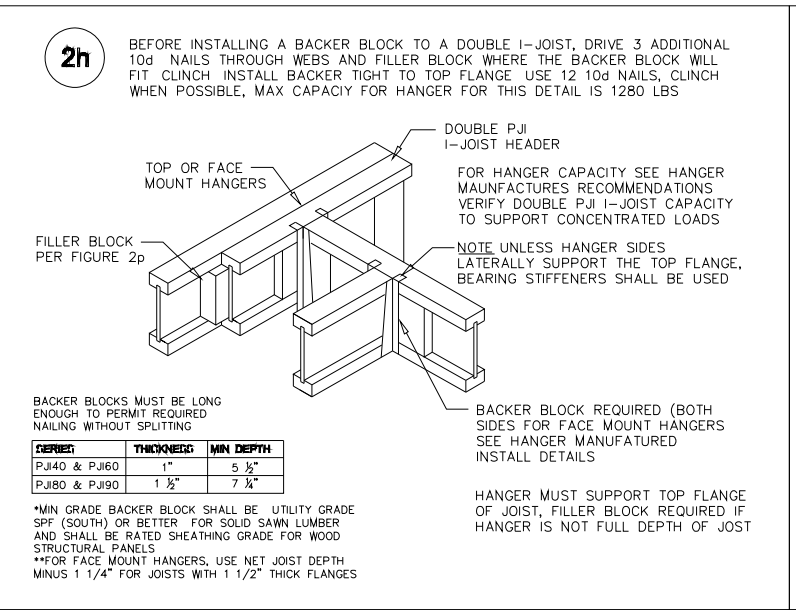
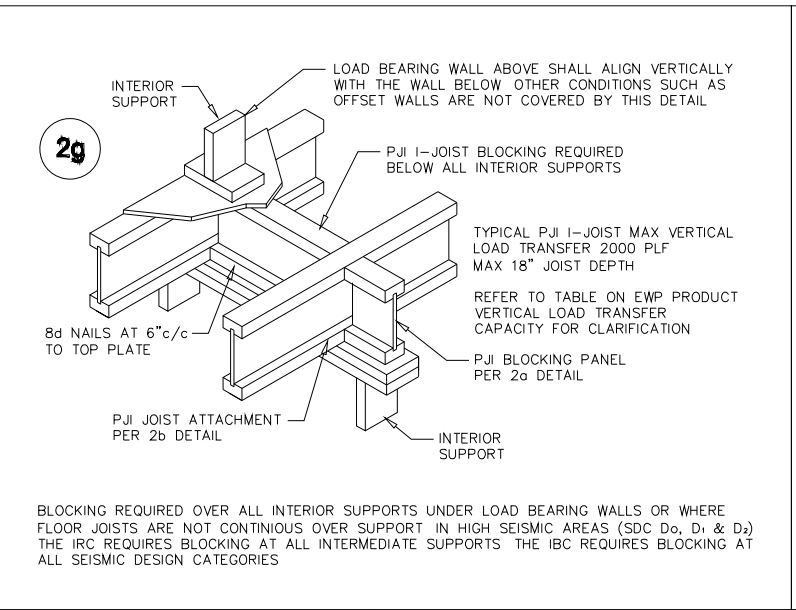
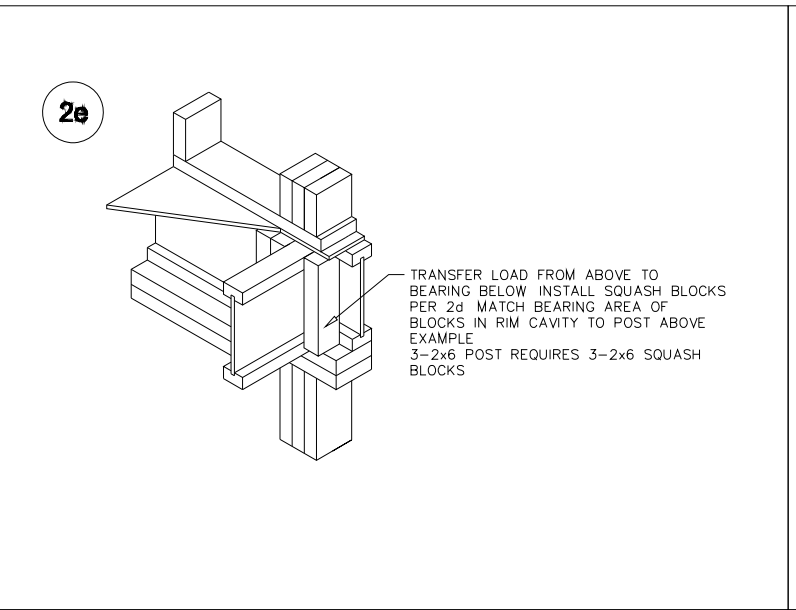
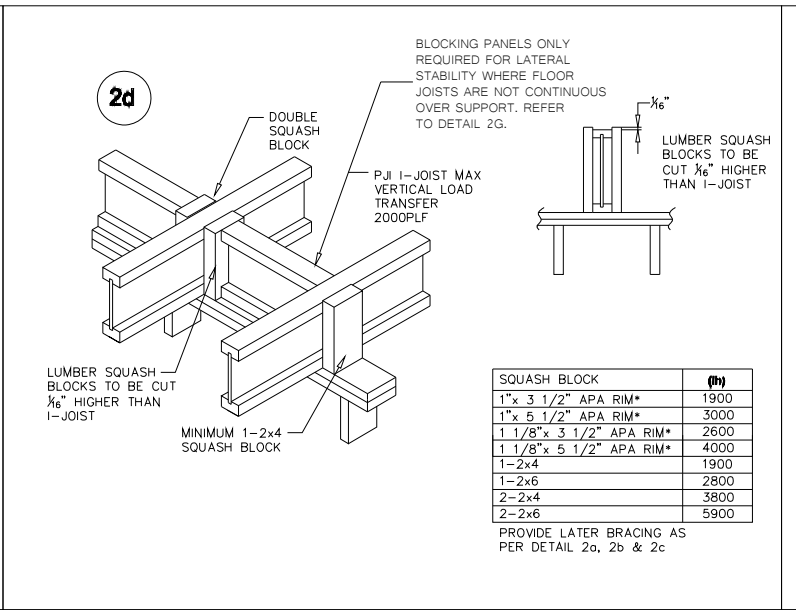
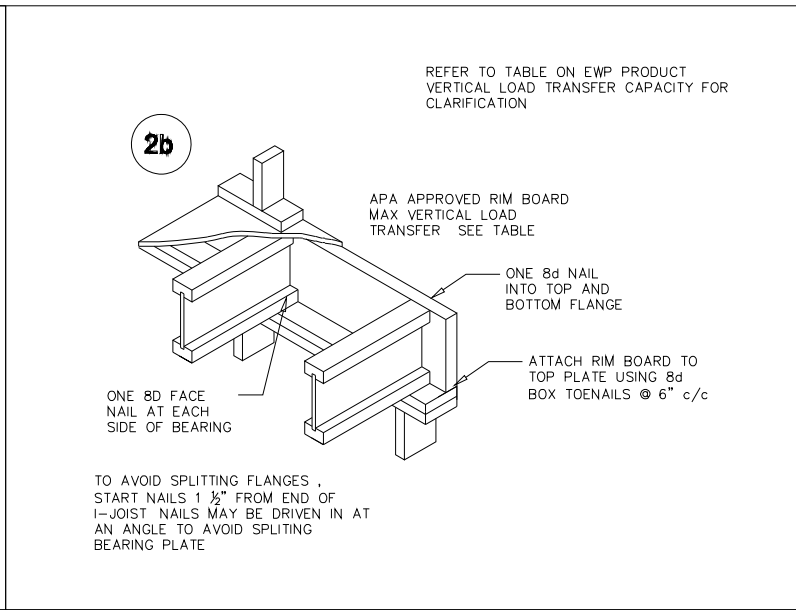
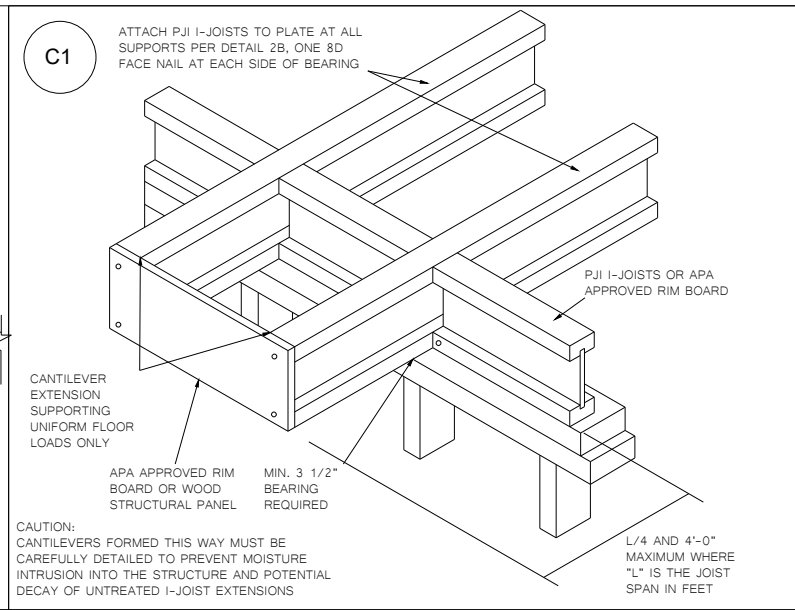
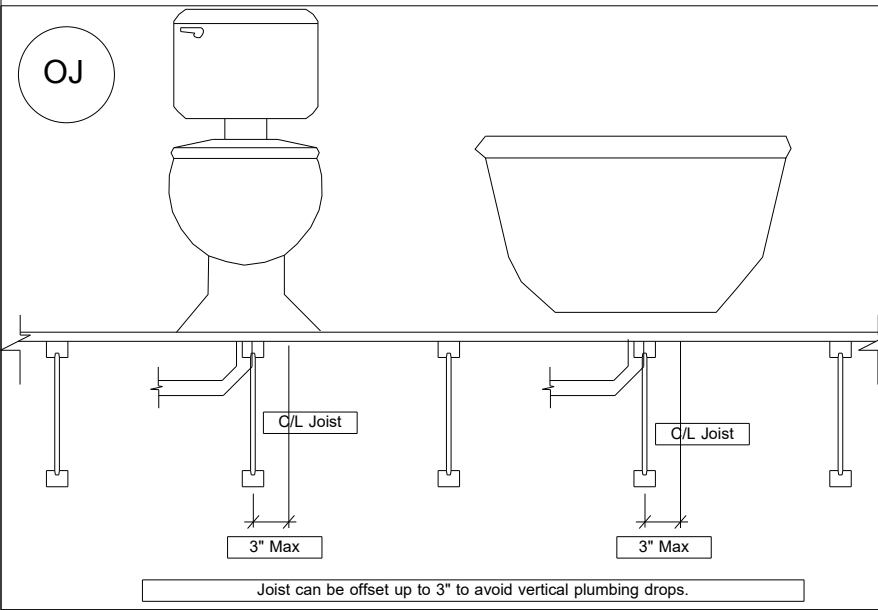
Products				
PlotID	Length	Product	Plies	Net Qty
J42	42' 0"	11 7/8" PJI-40	1	7
J38	38' 0"	11 7/8" PJI-40	1	13
J34	34' 0"	11 7/8" PJI-40	1	5
J30	30' 0"	11 7/8" PJI-40	1	1
J28	28' 0"	11 7/8" PJI-40	1	10
J16	16' 0"	11 7/8" PJI-40	1	3
J14	14' 0"	11 7/8" PJI-40	1	5
J10	10' 0"	11 7/8" PJI-40	1	2
DB2-2	10' 0"	2.1 RigidLam SP LVL 1-3/4 x 9-1/4	2	2
FB4	4' 0"	2.1 RigidLam SP LVL 1-3/4 x 11-7/8	1	1
DB3-2	22' 0"	2.1 RigidLam SP LVL 1-3/4 x 14	2	2
RIM1	12' 0"	1 1/8" x 11 7/8" APA Rim Board	1	18
BP1	2' 0"	11 7/8" PJI-40	1	8
P1	10' 0"	3.5x5.5 AFP Combination 50 Power Col.	1	1
P2	10' 0"	3.5x5.5 AFP Combination 50 Power Col.	1	1
P3	10' 0"	5.5x5.5 AFP Combination 50 Power Col.	1	2

Connector Summary					
PlotID	Qty	Manuf	Product	Backer Blocks	Web Stiff
H1	1	Simpson	ITS2.56/11.88	No	No

BLOCK SOLID UNDER ALL
POST/POINT LOADS FROM ABOVE -
TYPICAL AT ALL LOCATIONS

1ST FLOOR LAYOUT

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



LABEL LEGEND	
BBO = Beam by Others	PBO = Post by Others
GBO = Girder by Others	J = I-Joist
FB = Flush Beam	DB = Dropped Beam
RB = Roof Beam	BP = Blocking Panels
SB = Squash Blocks	

** PLUMBING DROPS NOTED ARE IN APPROXIMATE LOCATIONS PER PLAN. BUILDER MUST VERIFY LOCATIONS BEFORE SETTING JOISTS.

** ALL POINT LOADS FROM ABOVE MUST BE TRANSFERRED TO BEARING FROM UNDER SIDE OF SHEATHING.

** REFER TO INSTALLATION GUIDE FOR PLY TO PLY CONNECTIONS.

** DIMENSIONS ARE READ AS: FOOT-INCH-SIXTEENTH. ** FRAMER MUST REFER TO PLANS WHILE SETTING COMPONENTS. ** DAMAGED FLOOR JOISTS SHOULD NOT BE INSTALLED UNLESS APPROVED BY COMPONENT PLANT.

Revisions	
5/6/24	CDH
00/00/00	Name
00/00/00	Name
00/00/00	Name
00/00/00	Name

This is an L-Joist Placement Plan Only. All designs of L-Joist follow the IBC/IRC Code Requirements along with Manufacturer's guidelines. This is NOT an engineered placement plan. This placement plan is created from plans provided by the customer using Manufacturer's guidelines. It is the responsibility of the EOR or builder to review and approve all bearing conditions, connections, spans, loading, product usage, and quantities. Do not notch or drill holes in beams or flanges on joists without prior approval from the manufacturing Representative unless following hole guidelines in the installation guide of product. Builder takes full responsibility for doing so and NO Back charge will be accepted.



MITCHELL HOMES
WINCHESTER MODEL
SPENCER

Scale: 1/4" = 1'-0"
Date: 3/4/2025
Designer: CDH
Project #: 25020278
Sheet Number:
1 / 1



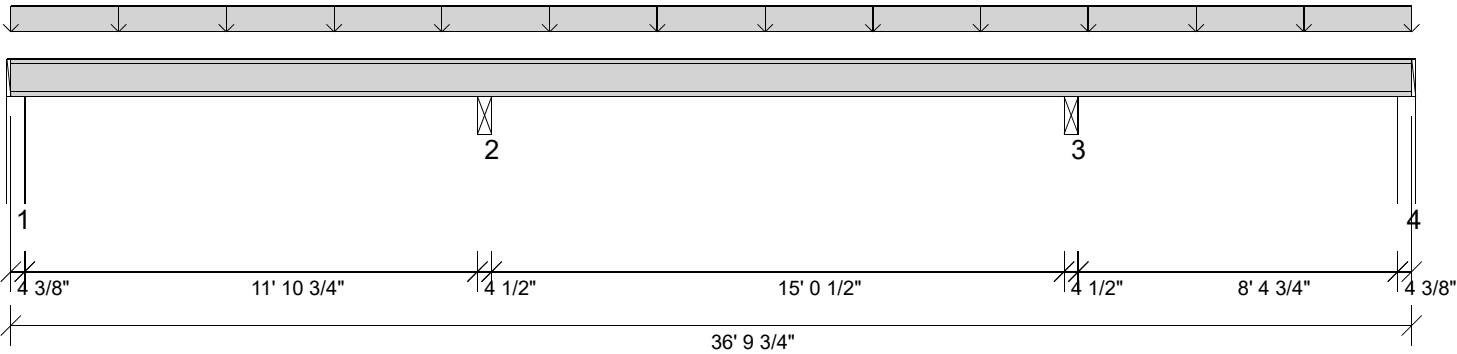
Customer: MITCHELL HOMES
Job Name: WINCHESTER
Address:
City/ State:

Job Name: WINCHESTER
Level: 1ST FLOOR
Label: J38 - i331
Type: FloorJoist

1 Ply Member
11 7/8" PJI-40

Status:
Design
Passed

Illustration Not to Scale. Pitch: 0/12 Designed by Single Member Design Engine in MiTek® Structure Version 8.7.3.303.Update13.26 Report Version: 2023.09.18 03/04/2025 07:53



DESIGN INFORMATION a	
Building Code:	IRC 2018
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
System Live Load:	40.0 psf
System Dead Load:	10.0 psf
System Spacing:	19.2" c.c
LL Deflection Limit:	L/480, 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: 0' Bottom: 15'- 1/2"

- Bearing Stress of Support Material:**
- 425 psi Wall @ 0'- 3 3/8"
 - 565 psi Beam @ 12'- 5 3/8"
 - 565 psi Beam @ 27'- 10 3/8"
 - 425 psi Wall @ 36'- 6 3/8"

ANALYSIS RESULTS							
Design Criteria	Location	Load Combination	LDF	Design	Limit	Result	
Max Pos. Moment:	20'- 15/16"	D + L	1.00	1209 lb ft	3545 lb ft	Passed - 34%	
Max Neg. Moment:	12'- 5 3/8"	D + L	1.00	1691 lb ft	3545 lb ft	Passed - 48%	
Max Shear:	12'- 7 11/16"	D + L	1.00	644 lb	1620 lb	Passed - 40%	
Live Load (LL) Pos. Defl.:	20'- 5/8"	L		0.102"	L/480	Passed - L/999	
Live Load (LL) Neg. Defl.:	7'- 3 11/16"	L		0.031"	L/480	Passed - L/999	
Total Load (TL) Pos. Defl.:	20'- 1 1/4"	D + L		0.118"	L/240	Passed - L/999	
Total Load (TL) Neg. Defl.:	31'- 4 1/4"	D + L		0.020"	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	4 3/8"	D + L	1.00	449 lb		1430 lb	4648 lb	Passed - 31%
2	4 1/2"	D + L	1.00	1259 lb		3000 lb	6356 lb	Passed - 42%
3	4 1/2"	D + L	1.00	1157 lb		3000 lb	6356 lb	Passed - 39%
4	4 3/8"	D + L	1.00	342 lb		1430 lb	4649 lb	Passed - 24%
4	4 3/8"	D + L	1.00		-65 lb	-	-	

LOADING									
Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
Uniform	0'	36'- 9 3/4"	FC1 Floor Decking (Plan View Fill)	Top	16 lb/ft	64 lb/ft	-	-	-

UNFACTORED REACTIONS									
ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)	
1	0'	0'- 4 3/8"	W12(i13)	77 lb	372/-65 lb	-	-	-	
2	12'- 3 1/8"	12'- 7 5/8"	BBO2(i18)	252 lb	1033 lb	-	-	-	
3	27'- 8 1/8"	28'- 5/8"	BBO1(i17)	217 lb	940 lb	-	-	-	
4	36'- 5 3/8"	36'- 9 3/4"	W24(i327)	46 lb	295/-111 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) = 1.00
 - Bearing length at support 1, 4 was calculated based on the actual bearing area divided by the supported member width and may not match expected value when bearing is not rectangular or when the supported member is not supported by its full width.



Customer: MITCHELL HOMES
Job Name: WINCHESTER
Address:
City/ State:

Job Name: WINCHESTER
Level: 1ST FLOOR
Label: J34 - i347
Type: FloorJoist

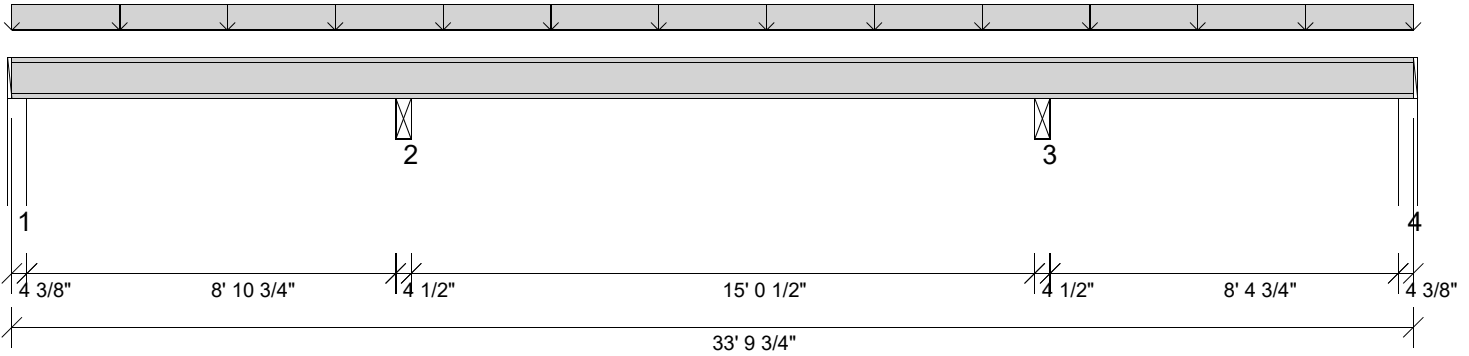
1 Ply Member
11 7/8" PJI-40

Status:
Design Passed

Illustration Not to Scale. Pitch: 0/12

Designed by Single Member Design Engine in MiTek® Structure Version
8.7.3.303.Update13.26

Report Version: 2023.09.18 03/04/2025 07:53



DESIGN INFORMATION a

Building Code: IRC 2018
Design Methodology: ASD
Risk Category: II (General Construction)
Residential
Service Condition: Dry
System Live Load: 40.0 psf
System Dead Load: 10.0 psf
System Spacing: 19.2" c.c
LL Deflection Limit: L/480, 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: 0' Bottom: 15'- 1/2"

Bearing Stress of Support Material:

- 425 psi Wall @ 0'- 3 3/8"
- 565 psi Beam @ 9'- 5 3/8"
- 565 psi Beam @ 24'- 10 3/8"
- 425 psi Wall @ 33'- 6 3/8"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Max Pos. Moment:	17'- 1 11/16"	D + L	1.00	1189 lb ft	3545 lb ft	Passed - 34%
Max Neg. Moment:	9'- 5 3/8"	D + L	1.00	1455 lb ft	3545 lb ft	Passed - 41%
Max Shear:	9'- 7 11/16"	D + L	1.00	624 lb	1620 lb	Passed - 38%
Live Load (LL) Pos. Defl.:	17'- 1 11/16"	L		0.097"	L/480	Passed - L/999
Live Load (LL) Neg. Defl.:	5'- 6 7/8"	L		0.020"	L/480	Passed - L/999
Total Load (TL) Pos. Defl.:	17'- 1 3/4"	D + L		0.116"	L/240	Passed - L/999
Total Load (TL) Neg. Defl.:	5'- 9 9/16"	D + L		0.020"	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	4 3/8"	D + L	1.00	345 lb		1430 lb	4648 lb	Passed - 24%
1	4 3/8"	D + L	1.00		-49 lb	-	-	
2	4 1/2"	D + L	1.00	1135 lb		3000 lb	6357 lb	Passed - 38%
3	4 1/2"	D + L	1.00	1150 lb		3000 lb	6356 lb	Passed - 38%
4	4 3/8"	D + L	1.00	329 lb		1430 lb	4649 lb	Passed - 23%
4	4 3/8"	D + L	1.00		-63 lb	-	-	

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
Uniform	0'	33'- 9 3/4"	FC1 Floor Decking (Plan View Fill)	Top	16 lb/ft	64 lb/ft	-	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
1	0'	0'- 4 3/8"	W10(i7)	49 lb	296/-98 lb	-	-	-
2	9'- 3 1/8"	9'- 7 5/8"	BBO2(i18)	227 lb	937 lb	-	-	-
3	24'- 8 1/8"	25'- 5/8"	BBO1(i17)	223 lb	927 lb	-	-	-
4	33'- 5 3/8"	33'- 9 3/4"	W24(i327)	44 lb	284/-107 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) = 1.00
- Bearing length at support 1, 4 was calculated based on the actual bearing area divided by the supported member width and may not match expected value when bearing is not rectangular or when the supported member is not supported by its full width.



Customer: MITCHELL HOMES
Job Name: WINCHESTER
Address:
City/ State:

Job Name: WINCHESTER
Level: 1ST FLOOR
Label: J42 - i409
Type: FloorJoist

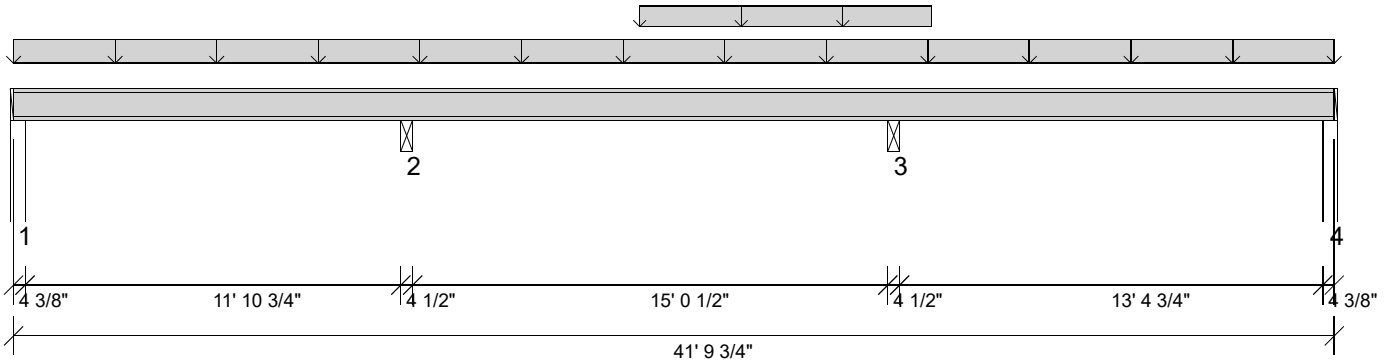
1 Ply Member
11 7/8" PJI-40

Status:
Design
Passed

Illustration Not to Scale. Pitch: 0/12

Designed by Single Member Design Engine in MiTek® Structure Version
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DESIGN INFORMATION a

Building Code: IRC 2018
Design Methodology: ASD
Risk Category: II (General Construction)
Residential
Service Condition: Dry
System Live Load: 40.0 psf
System Dead Load: 10.0 psf
System Spacing: 19.2" c.c
LL Deflection Limit: L/480, 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: 0' Bottom: 15'- 1/2"

Bearing Stress of Support Material:

- 425 psi Wall @ 0'- 3 3/8"
- 565 psi Beam @ 12'- 5 3/8"
- 565 psi Beam @ 27'- 10 3/8"
- 425 psi Wall @ 41'- 6 3/8"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Max Pos. Moment:	20'- 7 3/8"	D + L	1.00	1547 lb ft	3545 lb ft	Passed - 44%
Max Neg. Moment:	27'- 10 3/8"	D + L	1.00	2153 lb ft	3545 lb ft	Passed - 61%
Max Shear:	27'- 8 1/16"	D + L	1.00	853 lb	1620 lb	Passed - 53%
Live Load (LL) Pos. Defl.:	34'- 11 13/16"	L		0.111"	L/480	Passed - L/999
Live Load (LL) Neg. Defl.:	20'- 6"	L		0.059"	L/480	Passed - L/999
Total Load (TL) Pos. Defl.:	20'- 3 7/8"	D + L		0.152"	L/240	Passed - L/999
Total Load (TL) Neg. Defl.:	32'- 9 7/8"	D + L		0.039"	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	4 3/8"	D + L	1.00	449 lb		1430 lb	4648 lb	Passed - 31%
1	4 3/8"	D + L	1.00		-5 lb	-	-	
2	4 1/2"	D + L	1.00	1286 lb		3000 lb	6356 lb	Passed - 43%
3	4 1/2"	D + L	1.00	1615 lb		3000 lb	6356 lb	Passed - 54%
4	4 3/8"	D + L	1.00	490 lb		1430 lb	4648 lb	Passed - 34%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
Uniform	0'	41'- 9 3/4"	FC1 Floor Decking (Plan View Fill)	Top	16 lb/ft	64 lb/ft	-	-	-
Uniform	19'- 9 7/8"	29'- 7/8"	FC1 Floor Decking (Plan View Fill)	Top	32 lb/ft	-	-	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
1	0'	0'- 4 3/8"	W8(i2)	64 lb	385/-69 lb	-	-	-
2	12'- 3 1/8"	12'- 7 5/8"	BBO2(i18)	318 lb	1048 lb	-	-	-
3	27'- 8 1/8"	28'- 5/8"	BBO1(i17)	513 lb	1102 lb	-	-	-
4	41'- 5 3/8"	41'- 9 3/4"	W4(i4)	72 lb	417/-57 lb	-	-	-

DESIGN NOTES

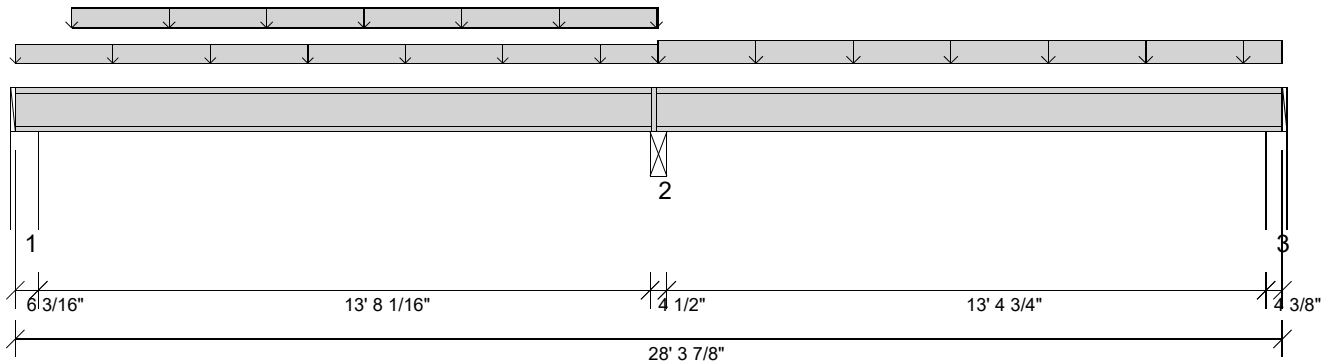
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- Beam Stability Factor used in the calculation for Allowable Max Pos Moment (CL) = 1.00
- Beam Stability Factor used in the calculation for Allowable Max Neg Moment (CL) = 1.00
- Bearing length at support 1, 4 was calculated based on the actual bearing area divided by the supported member width and may not match expected value when bearing is not rectangular or when the supported member is not supported by its full width.

Customer: MITCHELL HOMES	Job Name: WINCHESTER	1 Ply Member 11 7/8" PJI-40	Status:
Job Name: WINCHESTER	Level: 1ST FLOOR		Design Passed
Address:	Label: J30 - i411		
City/ State:	Type: FloorJoist		

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8.7.3.303.Update13.26

Report Version: 2023.09.18

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DESIGN INFORMATION a

Building Code:	IRC 2018
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
System Live Load:	40.0 psf
System Dead Load:	10.0 psf
System Spacing:	19.2" c.c
LL Deflection Limit:	L/480, 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: 0'- 1 1/4" Bottom: 13'- 8 1/16"

Bearing Stress of Support Material:

- 425 psi Wall @ 0'- 5 3/16"
- 565 psi Beam @ 14'- 4 1/2"
- 425 psi Wall @ 28'- 1/2"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Max Pos. Moment:	22'- 1 5/8"	D + L	1.00	1389 lb ft	3545 lb ft	Passed - 39%
Max Neg. Moment:	14'- 4 1/2"	D + L	1.00	1413 lb ft	3545 lb ft	Passed - 40%
Max Shear:	14'- 6 13/16"	D + L	1.00	636 lb	1620 lb	Passed - 39%
Live Load (LL) Pos. Defl.:	21'- 6 15/16"	L		0.102"	L/480	Passed - L/999
Live Load (LL) Neg. Defl.:	8'- 5 13/16"	L		0.038"	L/480	Passed - L/999
Total Load (TL) Pos. Defl.:	21'- 7 9/16"	D + L		0.123"	L/240	Passed - L/999
Total Load (TL) Neg. Defl.:	8'- 11 11/16"	D + L		0.037"	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 3/16"	D + L	1.00	217 lb		1430 lb	6574 lb	Passed - 15%
1	6 3/16"	D + L	1.00		-20 lb	-	-	
2	4 1/2"	D + L	1.00	1031 lb		3000 lb	6356 lb	Passed - 34%
3	4 3/8"	D + L	1.00	502 lb		1430 lb	4648 lb	Passed - 35%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
Uniform	0'	14'- 4 1/2"	FC1 Floor Decking (Plan View Fill)	Top	1 lb/ft	4 lb/ft	-	-	-
Uniform	1'- 3 1/8"	14'- 4 1/2"	FC1 Floor Decking (Plan View Fill)	Top	7 lb/ft	28 lb/ft	-	-	-
Uniform	14'- 4 1/2"	28'- 3 7/8"	FC1 Floor Decking (Plan View Fill)	Top	16 lb/ft	64 lb/ft	-	-	-

UNFACTORED REACTIONS

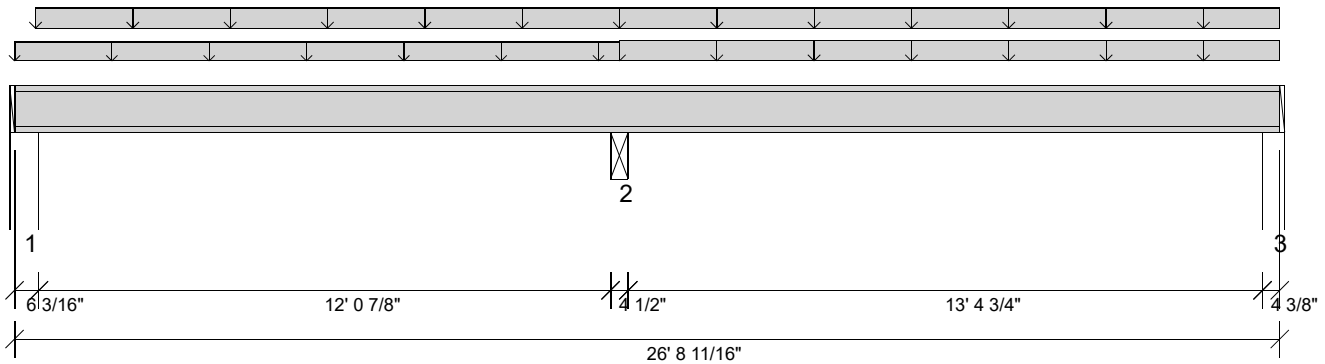
ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
1	0'	0'- 6 3/16"	W18(i20)	33 lb	185/-53 lb	-	-	-
2	14'- 2 1/4"	14'- 6 3/4"	BBO1(i17)	208 lb	823 lb	-	-	-
3	27'- 11 1/2"	28'- 3 7/8"	W4(i4)	95 lb	407/-29 lb	-	-	-

DESIGN NOTES

- The dead loads used in the design of this member were applied to the structure as projected dead loads.
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- Beam Stability Factor used in the calculation for Allowable Max Pos Moment (CL) = 1.00
- Bearing length at support 1, 3 was calculated based on the actual bearing area divided by the supported member width and may not match expected value when bearing is not rectangular or when the supported member is not supported by its full width.

Customer: MITCHELL HOMES	Job Name: WINCHESTER	1 Ply Member 11 7/8" PJI-40	Status:
Job Name: WINCHESTER	Level: 1ST FLOOR		Design Passed
Address:	Label: J28 - i321		
City/ State:	Type: FloorJoist		

Illustration Not to Scale. Pitch: 0/12 Designed by Single Member Design Engine in MiTek® Structure Version 8.7.3.303.Update13.26 Report Version: 2023.09.18 03/04/2025 07:54



DESIGN INFORMATION a

Building Code:	IRC 2018
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
System Live Load:	40.0 psf
System Dead Load:	10.0 psf
System Spacing:	19.2" c.c
LL Deflection Limit:	L/480, 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: 0'- 1 1/4" Bottom: 13'- 4 3/4"

Bearing Stress of Support Material:

- 425 psi Wall @ 0'- 5 3/16"
- 565 psi Beam @ 12'- 9 5/16"
- 425 psi Wall @ 26'- 5 5/16"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Max Pos. Moment:	20'- 6 7/8"	D + L	1.00	1372 lb ft	3545 lb ft	Passed - 39%
Max Neg. Moment:	12'- 9 5/16"	D + L	1.00	1388 lb ft	3545 lb ft	Passed - 39%
Max Shear:	12'- 11 5/8"	D + L	1.00	632 lb	1620 lb	Passed - 39%
Live Load (LL) Pos. Defl.:	20'- 1/8"	L		0.100"	L/480	Passed - L/999
Live Load (LL) Neg. Defl.:	7'- 6 11/16"	L		0.032"	L/480	Passed - L/999
Total Load (TL) Pos. Defl.:	20'- 11/16"	D + L		0.120"	L/240	Passed - L/999
Total Load (TL) Neg. Defl.:	7'- 10 15/16"	D + L		0.032"	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 3/16"	D + L	1.00	234 lb		1430 lb	6574 lb	Passed - 16%
1	6 3/16"	D + L	1.00		-30 lb	-	-	
2	4 1/2"	D + L	1.00	1039 lb		3000 lb	6356 lb	Passed - 35%
3	4 3/8"	D + L	1.00	499 lb		1430 lb	4648 lb	Passed - 35%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
Uniform	0'	12'- 9 5/16"	FC1 Floor Decking (Plan View Fill)	Top	1 lb/ft	4 lb/ft	-	-	-
Uniform	0'- 5 5/16"	26'- 8 11/16"	FC1 Floor Decking (Plan View Fill)	Top	8 lb/ft	32 lb/ft	-	-	-
Uniform	12'- 9 5/16"	26'- 8 11/16"	FC1 Floor Decking (Plan View Fill)	Top	8 lb/ft	32 lb/ft	-	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
1	0'	0'- 6 3/16"	W18(j20)	34 lb	201/-64 lb	-	-	-
2	12'- 7 1/16"	12'- 11 9/16"	BBO1(i17)	208 lb	831 lb	-	-	-
3	26'- 4 5/16"	26'- 8 11/16"	W4(j4)	95 lb	404/-24 lb	-	-	-

DESIGN NOTES

- The dead loads used in the design of this member were applied to the structure as projected dead loads.
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- Beam Stability Factor used in the calculation for Allowable Max Pos Moment (CL) = 1.00
- Bearing length at support 1, 3 was calculated based on the actual bearing area divided by the supported member width and may not match expected value when bearing is not rectangular or when the supported member is not supported by its full width.



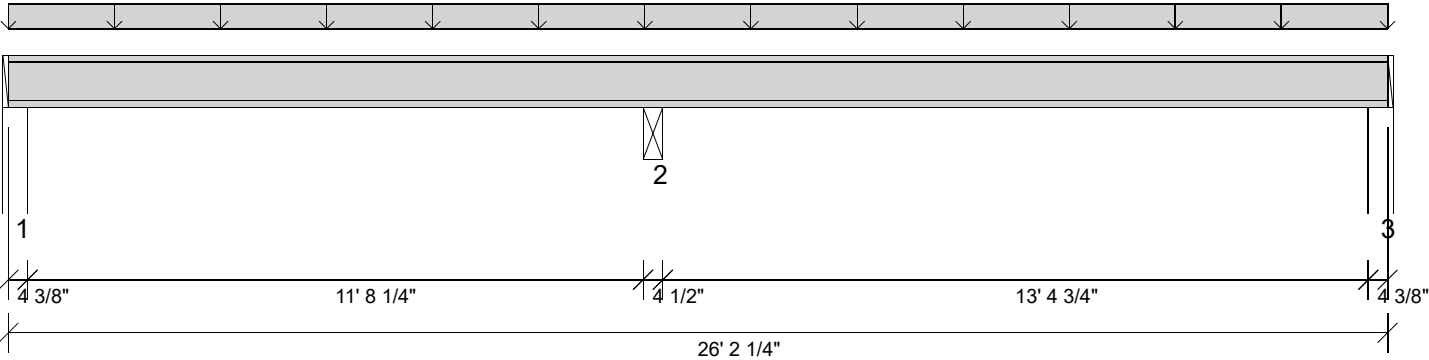
Customer: MITCHELL HOMES
Job Name: WINCHESTER
Address:
City/ State:

Job Name: WINCHESTER
Level: 1ST FLOOR
Label: J28 - i382
Type: FloorJoist

1 Ply Member
11 7/8" PJI-40

Status:
Design
Passed

Illustration Not to Scale. Pitch: 0/12 Designed by Single Member Design Engine in MiTek® Structure Version 8.7.3.303.Update13.26 Report Version: 2023.09.18 03/04/2025 07:54



DESIGN INFORMATION a	
Building Code:	IRC 2018
Design Methodology:	ASD
Risk Category:	II (General Construction) Residential
Service Condition:	Dry
System Live Load:	40.0 psf
System Dead Load:	10.0 psf
System Spacing:	19.2" c.c
LL Deflection Limit:	L/480, 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: 0' Bottom: 13'- 4 3/4"

Bearing Stress of Support Material:

- 425 psi Wall @ 0'- 3 3/8"
- 565 psi Beam @ 12'- 2 7/8"
- 425 psi Wall @ 25'- 10 7/8"

ANALYSIS RESULTS							
Design Criteria	Location	Load Combination	LDF	Design	Limit	Result	
Max Pos. Moment:	20'- 1 3/16"	D + L	1.00	1343 lb ft	3545 lb ft	Passed - 38%	
Max Neg. Moment:	12'- 2 7/8"	D + L	1.00	1661 lb ft	3545 lb ft	Passed - 47%	
Max Shear:	12'- 5 3/16"	D + L	1.00	652 lb	1620 lb	Passed - 40%	
Live Load (LL) Pos. Defl.:	19'- 5 3/4"	L		0.099"	L/480	Passed - L/999	
Live Load (LL) Neg. Defl.:	7'- 2 1/4"	L		0.030"	L/480	Passed - L/999	
Total Load (TL) Pos. Defl.:	19'- 6 11/16"	D + L		0.117"	L/240	Passed - L/999	
Total Load (TL) Neg. Defl.:	7'- 9 7/8"	D + L		0.026"	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	4 3/8"	D + L	1.00	436 lb		1430 lb	4648 lb	Passed - 31%
2	4 1/2"	D + L	1.00	1285 lb		3000 lb	6356 lb	Passed - 43%
3	4 3/8"	D + L	1.00	495 lb		1430 lb	4648 lb	Passed - 35%

LOADING									
Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
Uniform	0'	26'- 2 1/4"	FC1 Floor Decking (Plan View Fill)	Top	16 lb/ft	64 lb/ft	-	-	-

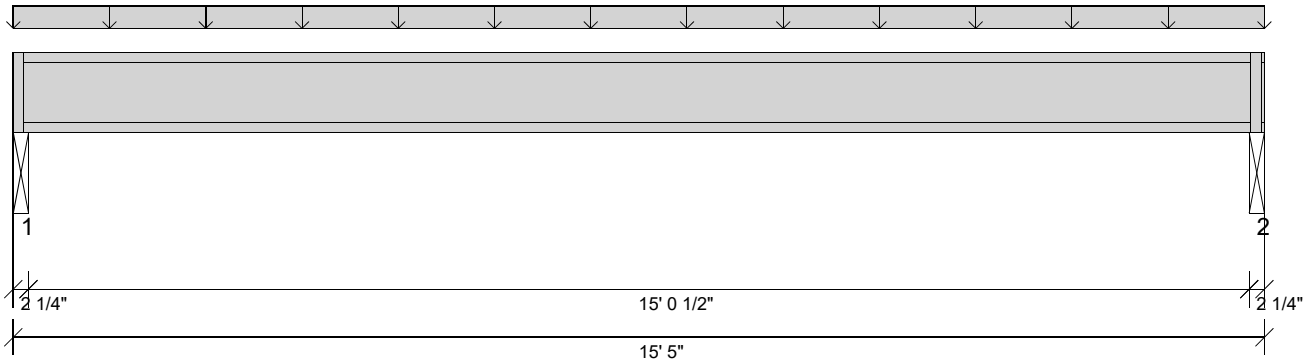
UNFACTORED REACTIONS									
ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)	
1	0'	0'- 4 3/8"	W17(i21)	74 lb	362/-67 lb	-	-	-	
2	12'- 5/8"	12'- 5 1/8"	BBO1(i17)	257 lb	1028 lb	-	-	-	
3	25'- 9 7/8"	26'- 2 1/4"	W4(i4)	91 lb	403/-39 lb	-	-	-	

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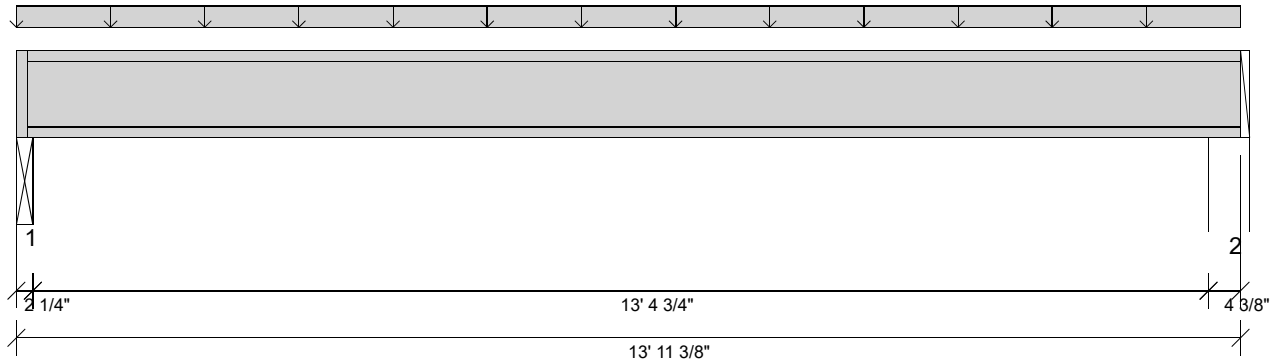
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03/04/2025 07:54



ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Max Pos. Moment:	6'- 10 9/16"	D + L	1.00	1607 lb ft	3545 lb ft	Passed - 45%
Max Shear:	13'- 6 15/16"	D + L	1.00	469 lb	1620 lb	Passed - 29%
Live Load (LL) Pos. Defl.:	6'- 10 5/8"	L		0.122"	L/480	Passed - L/999
Total Load (LL) Pos. Defl.:	6'- 10 5/8"	D + L		0.152"	L/240	Passed - L/999

ID	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
1	2 1/4"	D + L	1.00	482 lb		1251 lb	3178 lb	Passed - 38%
2	4 3/8"	D + L	1.00	501 lb		1430 lb	4648 lb	Passed - 35%

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
Uniform	0'	13'- 11 3/8"	FC1 Floor Decking (Plan View Fill)	Top	14 lb/ft	56 lb/ft	-	-	-

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
1	0'	0'- 2 1/4"	BBO1(i17)	96 lb	385 lb	-	-	-
2	13'- 7"	13'- 11 3/8"	W4(i4)	100 lb	401 lb	-	-	-

- 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) = 1.00
- Bearing length at support 2 was calculated based on the actual bearing area divided by the supported member width and may not match expected value when bearing is not rectangular or when the supported member is not supported by its full width.

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:

Bearing Stress of Support Material:

- 565 psi Beam @ 0'- 1 1/4"
- 425 psi Wall @ 13'- 8"



Customer: MITCHELL HOMES
Job Name: WINCHESTER
Address:
City/ State:

Job Name: WINCHESTER
Level: 1ST FLOOR
Label: J16 - i399
Type: FloorJoist

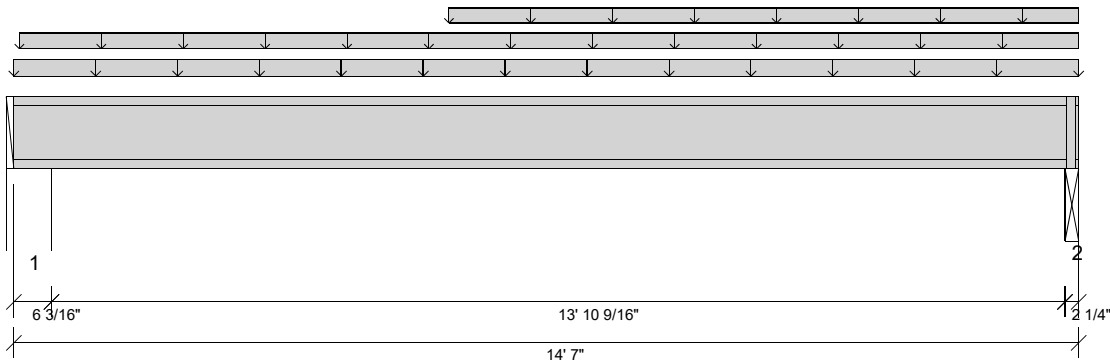
1 Ply Member
11 7/8" PJI-40

Status:
Design
Passed

Illustration Not to Scale. Pitch: 0/12

Designed by Single Member Design Engine in MiTek® Structure Version
8.7.3.303.Update13.26

Report Version: 2023.09.18 03/04/2025 07:54



DESIGN INFORMATION a

Building Code: IRC 2018
Design Methodology: ASD
Risk Category: II (General Construction)
Residential
Service Condition: Dry
System Live Load: 40.0 psf
System Dead Load: 10.0 psf
System Spacing: 19.2" c.c
LL Deflection Limit: L/480, 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: 0'- 1 1/4" Bottom: 13'- 10 9/16"

Bearing Stress of Support Material:

- 425 psi Wall @ 0'- 5 3/16"
- 565 psi Beam @ 14'- 5 3/4"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Max Pos. Moment:	7'- 6"	D + L	1.00	1008 lb ft	3545 lb ft	Passed - 28%
Max Shear:	14'- 4 11/16"	D + L	1.00	285 lb	1620 lb	Passed - 18%
Live Load (LL) Pos. Defl.:	7'- 5 1/2"	L		0.079"	L/480	Passed - L/999
Total Load (TL) Pos. Defl.:	7'- 5 5/8"	D + L		0.101"	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 3/16"	D + L	1.00	306 lb		1430 lb	6574 lb	Passed - 21%
2	2 1/4"	D + L	1.00	293 lb		1251 lb	3178 lb	Passed - 23%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
Uniform	0'	14'- 7"	FC1 Floor Decking (Plan View Fill)	Top	7 lb/ft	28 lb/ft	-	-	-
Uniform	0'- 15/16"	14'- 7"	FC1 Floor Decking (Plan View Fill)	Top	1 lb/ft	4 lb/ft	-	-	-
Uniform	5'- 11 1/2"	14'- 7"	FC1 Floor Decking (Plan View Fill)	Top	1 lb/ft	-	-	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
1	0'	0'- 6 3/16"	W18(i20)	64 lb	242 lb	-	-	-
2	14'- 4 3/4"	14'- 7"	BBO1(i17)	65 lb	228 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) = 1.00
- Bearing length at support 1 was calculated based on the actual bearing area divided by the supported member width and may not match expected value when bearing is not rectangular or when the supported member is not supported by its full width.



Customer: MITCHELL HOMES
Job Name: WINCHESTER
Address:
City/ State:

Job Name: WINCHESTER
Level: 1ST FLOOR
Label: DB2-2 - i278
Type: Beam

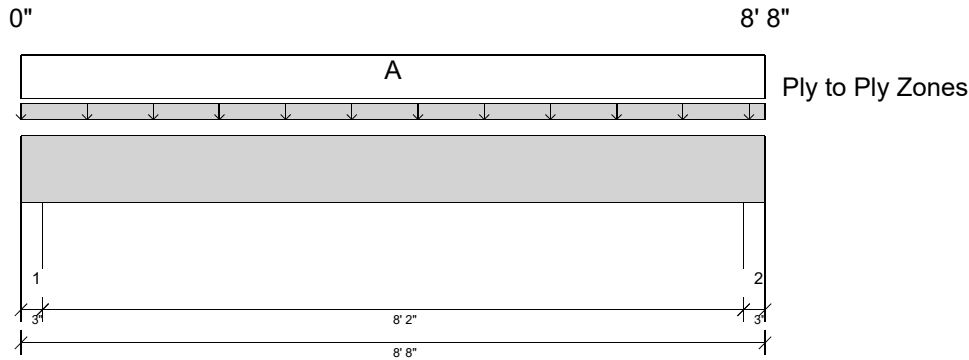
2 Ply Member
2.1 RigidLam SP LVL 1-3/4
x 9-1/4

Status:
Design
Passed

Illustration Not to Scale. Pitch: 0/12

Designed by Single Member Design Engine in MiTek® Structure Version
8.7.3.303.Update13.26

Report Version: 2023.09.18 03/04/2025 07:54



DESIGN INFORMATION a

Building Code: IRC 2018
Design Methodology: ASD
Risk Category: II (General Construction)
Residential
Service Condition: Dry
System Spacing: -
LL Deflection Limit: L/480, 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: 8'- 8" Bottom: 8'- 8"

Bearing Stress of Support Material:

- 725 psi Wall @ 0'- 2"
- 725 psi Wall @ 8'- 6"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Max Pos. Moment:	4'- 4"	D + S	1.15	941 lb ft	8766 lb ft	Passed - 11%
Max Shear:	1'- 1/4"	D + S	1.15	360 lb	7198 lb	Passed - 5%
Live Load (LL) Pos. Defl.:	4'- 4"	S		0.017"	L/480	Passed - L/999
Total Load (TL) Pos. Defl.:	4'- 4"	D + S		0.027"	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	3"	D + S	1.15	470 lb		7875 lb	7613 lb	Passed - 6%
2	3"	D + S	1.15	470 lb		7875 lb	7613 lb	Passed - 6%

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
Self Weight	0'	8'- 8"	Self Weight	Top	9 lb/ft	-	-	-	-
Uniform	-0'	8'- 8"	User Load	Top	40 lb/ft	-	60 lb/ft	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
1	0'	0'- 3"	W21(i160)	211 lb	-	260 lb	-	-
2	8'- 5"	8'- 8"	W22(i161)	210 lb	-	260 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) = 0.56

PLY TO PLY CONNECTION

- Zone A: Factored load = 0 plf. Use 12d (0.131"x3.25") nails. LDF = 1.00. Qty = 18. Row = 2, Spacing = 12"
12d (0.131"x3.25") nails properties: D = 0.131" , L = 3.25". Fastener capacity = 105 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.



Customer: MITCHELL HOMES
Job Name: WINCHESTER
Address:
City/ State:

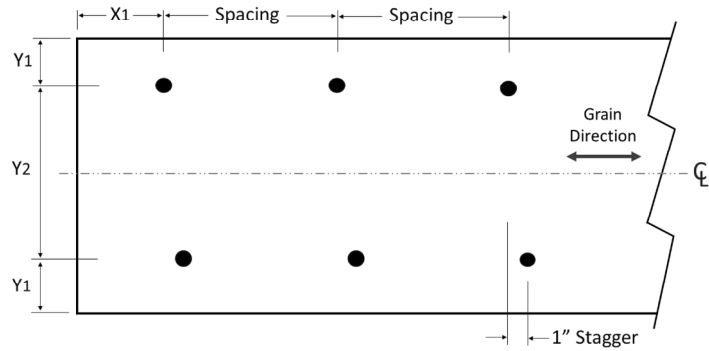
Job Name: WINCHESTER
Level: 1ST FLOOR
Label: DB2-2 - i278
Type: Beam

2 Ply Member
2.1 RigidLam SP LVL 1-3/4
x 9-1/4

Status:
Design
Passed

PLY TO PLY CONNECTION

FASTENER INSTALLATION – 2 ROWS (FROM ONE FACE)





Customer: MITCHELL HOMES
Job Name: WINCHESTER
Address:
City/ State:

Job Name: WINCHESTER
Level: 1ST FLOOR
Label: DB3-2 - i351
Type: Beam

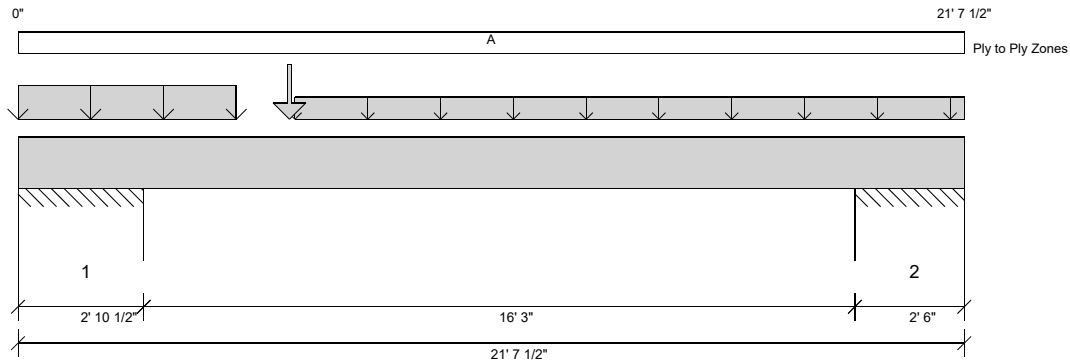
2 Ply Member
2.1 RigidLam SP LVL 1-3/4
x 14

Status:
Design
Passed

Illustration Not to Scale. Pitch: 0/12

Designed by Single Member Design Engine in MiTek® Structure Version
8.7.3.303.Update13.26

Report Version: 2023.09.18 03/04/2025 07:54



DESIGN INFORMATION a

Building Code: IRC 2018
Design Methodology: ASD
Risk Category: II (General Construction)
Residential
Service Condition: Dry
System Spacing: -
LL Deflection Limit: L/450, 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: 0' Bottom: 16'- 3"

Bearing Stress of Support Material:

- 725 psi Wall @ 2'- 9"
- 725 psi Wall @ 19'- 3"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Max Pos. Moment:	6'- 2 7/16"	D + S	1.15	27245 lb ft	32936 lb ft	Passed - 83%
Max Neg. Moment:	2'- 9"	D + S	1.15	1958 lb ft	7248 lb ft	Passed - 27%
Max Shear:	4'- 1/2"	D + S	1.15	8562 lb	10894 lb	Passed - 79%
Live Load (LL) Pos. Defl.:	10'- 1 1/4"	S		0.407"	L/450	Passed - L/479
Total Load (TL) Pos. Defl.:	10'- 2 9/16"	D + S		0.713"	L/240	Passed - L/273

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
1	1 1/2"	D	0.90		-82 lb	-	-	
1	1' 9"	D + S	1.15	10507 lb		55125 lb	53288 lb	Passed - 20%
2	1' 9"	D + S	1.15	3970 lb		55125 lb	53288 lb	Passed - 7%
2	1 1/2"	D	0.90		-105 lb	-	-	

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
Self Weight	0'	21'- 7 1/2"	Self Weight	Top	13 lb/ft	-	-	-	-
Uniform	0'	5'	User Load	Top	179 lb/ft	-	269 lb/ft	-	-
Uniform	6'- 3 15/16"	21'- 7 1/2"	User Load	Top	120 lb/ft	-	60 lb/ft	-	-
Point	6'- 2 7/16"	6'- 2 7/16"	User Load	Top	3607 lb	-	5410 lb	-	-

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
1	0'	2'- 10 1/2"	-	4462 lb	-	5895 lb	-	-
++>	0'	2'- 5"	W15(i15)	-	-	-	-	-
++>	2'- 9"	2'- 9"	P2(i354)	4462 lb	-	5895 lb	-	-
2	19'- 1 1/2"	21'- 7 1/2"	W23(i285)	2155 lb	-	1778 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.
- Design of member is based on a released bearing condition at Support. Ensure that the member is allowed to deflect upward at these supports.
- Beam Stability Factor used in the calculation for Allowable Max Pos Moment (CL) = 1.00
- The unbraced length used in this design was manually input by the user. Install lateral bracing to satisfy the unbraced lengths specified on this report.

PLY TO PLY CONNECTION

- Zone A: Factored load = 0 plf. Use 12d (0.131"x3.25") nails. LDF = 1.00. Qty = 66. Row = 3, Spacing = 12"
12d (0.131"x3.25") nails properties: D = 0.131" , L = 3.25". Fastener capacity = 105 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.



Customer: MITCHELL HOMES
Job Name: WINCHESTER
Address:
City/ State:

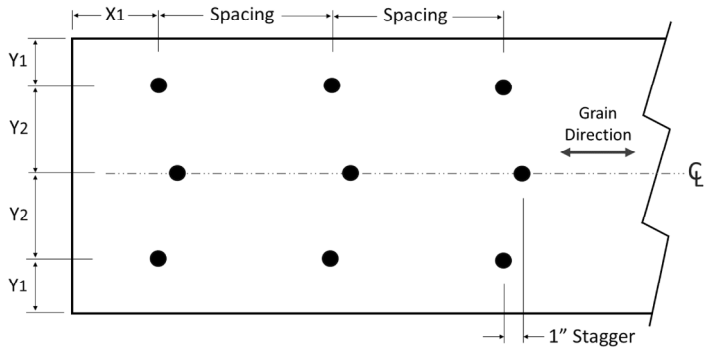
Job Name: WINCHESTER
Level: 1ST FLOOR
Label: DB3-2 - i351
Type: Beam

2 Ply Member
2.1 RigidLam SP LVL 1-3/4
x 14

Status:
Design
Passed

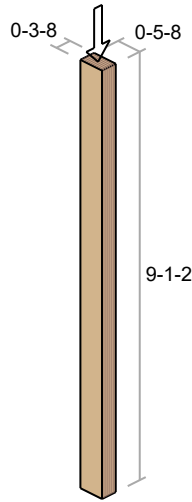
PLY TO PLY CONNECTION

FASTENER INSTALLATION – 3 ROWS (FROM ONE FACE)



P1 Anthony Power Column 3.500" X 5.500" - PASSED

Level: Level



Design Method: ASD
Building Code: IRC 2018
Importance: Normal - II
Application: Column Free Standing
Service Condition: Dry
Load Sharing: No

Design OK.
Design Notes

1. Axial load eccentricity of 1/6 side dimension in both cross-section axes, each axis analyzed separately.
2. Designed in accordance with NDS 2018, ASCE7 and IRC 2018.
3. Top and bottom ends of the member must be supported to prevent lateral movement and rotation.
4. Holes and notches are not allowed in member.

Analysis

Design Properties

	Actual	Allowed	Capacity	Load Combination	E:	1900000	Fc:	2300
Slenderness	31.2	50.0	62%		Ey:	1900000	Fv:	0
Axial (lb.)	8478	14184	60%	D+S	Fb:	2100	Fvy:	0
Axial + Bending	0.80	1	80%	D+S	Fby:	2300		
Bearing SP (lb.)	8525	10876	78%	D+S				
LL Deflection	0.142 (in.) L/767	0.303 (in.) L/360	47%	S				

Applied Loads

ID	Load Type	Location	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
Axial								
1	Point	9-1-2	3391 lb	0 lb	5087 lb	0 lb	0 lb	

Manufacturer Info

Anthony Forest Products Co
309 North Washington
El Dorado, AR 71730
(800) 221-2326
www.anthonystore.com

KEMPSVILLE BUILDING
MATERIALS, VA

This design is valid until 9/3/2027



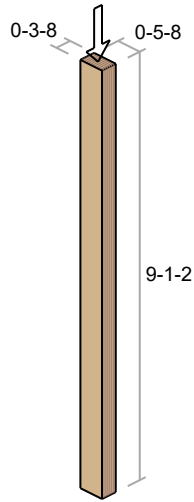
Client: MITCHELL HOMES
Project:
Address:

Date: 3/4/2025
Input by: CDH
Job Name: WINCHESTER MODEL
Project #:

Page 2 of 3

P2 Anthony Power Column 3.500" X 5.500" - PASSED

Level: Level



Design Method: ASD
Building Code: IRC 2018
Importance: Normal - II
Application: Column Free Standing
Service Condition: Dry
Load Sharing: No

Design OK.
Design Notes

1. No axial load eccentricity.
2. Designed in accordance with NDS 2018, ASCE7 and IRC 2018.
3. Top and bottom ends of the member must be supported to prevent lateral movement and rotation.
4. Holes and notches are not allowed in member.

Analysis

Design Properties

	Actual	Allowed	Capacity	Load Combination	E:	1900000	Fc:	2300
Slenderness	31.2	50.0	62%		Ey:	1900000	Fv:	0
Axial (lb.)	10357	14184	73%	D+S	Fb:	2100	Fvy:	0
Bearing SP (lb.)	10404	10876	96%	D+S	Fby:	2300		
LL Deflection	0.000 (in.) L/O	0.000 (in.) L/O	0%	??				

Applied Loads

ID	Load Type	Location	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
Axial								
1	Point	9-1-2	4462 lb	0 lb	5895 lb	0 lb	0 lb	

Manufacturer Info

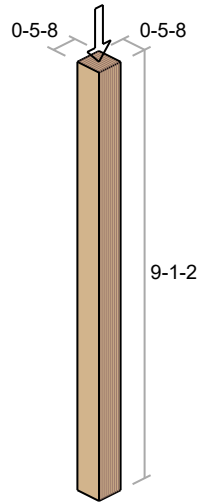
Anthony Forest Products Co
309 North Washington
El Dorado, AR 71730
(800) 221-2326
www.anthonyforest.com

KEMPSVILLE BUILDING
MATERIALS, VA

This design is valid until 9/3/2027

P3 Anthony Power Column 5.500" X 5.500" - PASSED

Level: Level



Design Method: ASD
Building Code: IRC 2018
Importance: Normal - II
Application: Column Free Standing
Service Condition: Dry
Load Sharing: No

Design OK.
Design Notes

1. Axial load eccentricity of 1/6 side dimension in both cross-section axes, each axis analyzed separately.
2. Designed in accordance with NDS 2018, ASCE7 and IRC 2018.
3. Top and bottom ends of the member must be supported to prevent lateral movement and rotation.
4. Holes and notches are not allowed in member.

Analysis

Design Properties

	Actual	Allowed	Capacity	Load Combination	E:	1900000	Fc:	2300
Slenderness	19.8	50.0	40%		Ey:	1900000	Fv:	0
Axial (lb.)	14038	49268	28%	D+S	Fb:	2100	Fvy:	0
Axial + Bending	0.35	1	35%	D+S	Fby:	2300		
Bearing SP (lb.)	14113	17091	83%	D+S				
LL Deflection	0.085 (in.) L/1277	0.303 (in.) L/360	28%	S				

Applied Loads

ID	Load Type	Location	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
Axial								
1	Point	9-1-2	5615 lb	0 lb	8423 lb	0 lb	0 lb	

Manufacturer Info

Anthony Forest Products Co
309 North Washington
El Dorado, AR 71730
(800) 221-2326
www.anthonystorm.com

KEMPSVILLE BUILDING
MATERIALS, VA

This design is valid until 9/3/2027

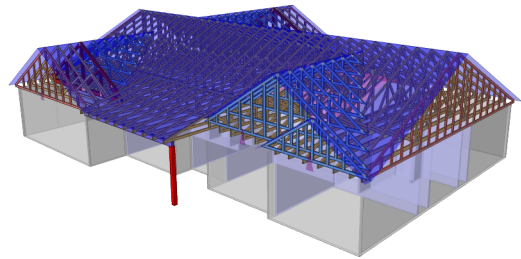


Kempsville Chesapeake Component Plant
3300 Bus Center Dr
Chesapeake, VA 23323

Phone #:757-485-8590

**Builder: Mitchell Homes,
Inc.**

Model: SPENCER



THE PLACEMENT PLAN NOTES:

1. The Placement Plan is a diagram for truss installation. It is not an engineered drawing and has not been reviewed by an engineer. The Owner/Building Designer is responsible for obtaining an engineer's review if one is required by the local jurisdiction.
2. The responsibilities of the Owner, Contractor, Building Designer, Component Designer and Component Manufacturer shall be as set forth in ANSI/TPI 1. Capitalized terms shall be as defined in ANSI/TP 1 unless otherwise indicated.
3. Each Component is designed as an individual component utilizing information provided by others. The Owner/Building Designer is responsible for reviewing all Component Submittal Packages and individual Component Design Drawings for compliance with the Construction Documents and compatibility with the overall Building design.
4. Contractor will not proceed with component installation until the Owner/Building Designer has reviewed the Component Submittal Package. Questions on the suitability of any Component will be resolved by the Building Designer.
5. The Building Designer and Contractor are responsible for all temporary and permanent bracing.
6. The Placement Plan assumes the building is dimensionally correct, structurally sound, and in a suitable condition to support each Component during installation and thereafter, including but not limited to installation of all bearing points. Proper design and construction of all structural components, including foundations, headers, beams, walls and columns are the responsibility of the Owner, Building Designer and Contractor.
7. Do not cut, drill, or modify any Component without first consulting the Component Manufacturer or Building Designer. Damaged Components shall not be installed unless directed by the Building Designer or approved by the Component Manufacturer.
8. Components must be handled and installed following all applicable safety standards and best practices, including but not limited to BCSI, OSHA, TPI and local codes. Failure to properly handle, brace or otherwise install Component can result in serious injury or death.
9. All uplift connectors shown within these documents are recommendations only. Per ANSI/TPI 1, all uplift connectors are the responsibility of the building designer and or contractor.

Approved By: _____

Date: _____

General Notes:

** CUTTING OR DRILLING OF COMPONENTS SHOULD NOT BE DONE WITHOUT CONTACTING COMPONENT SUPPLIER FIRST. CUSTOMER TAKES FULL RESPONSIBILITY FOR COMPONENTS IF CUT BEFORE AUTHORIZATION.

** ALL BEARING POINTS MUST BE INSTALLED PRIOR TO SETTING ANY COMPONENTS.

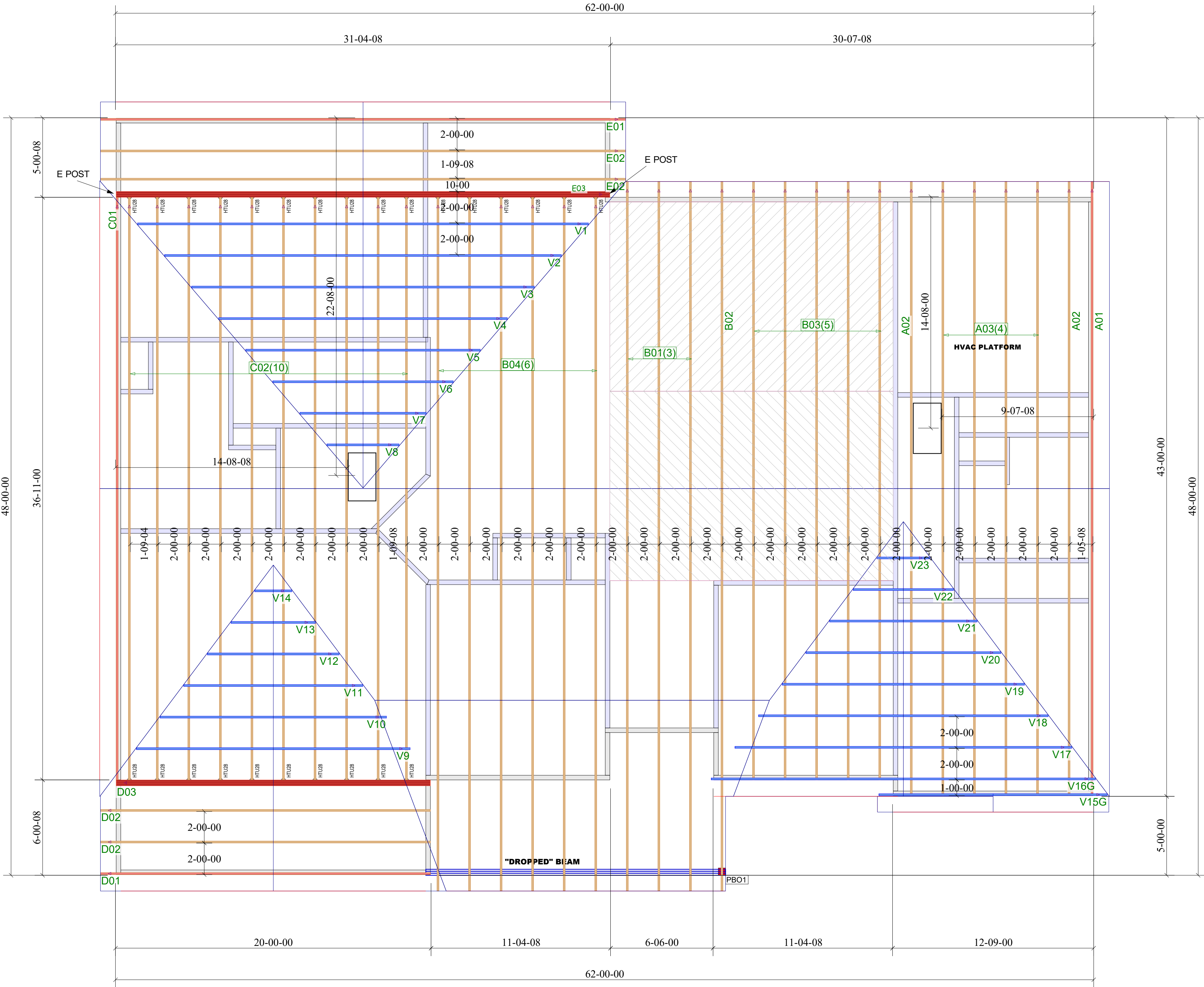
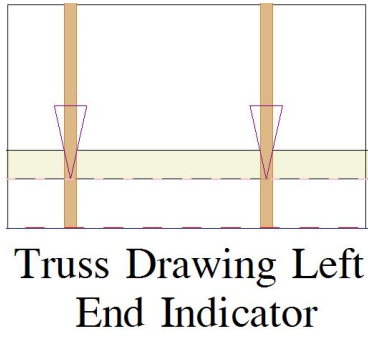
** FRAMER MUST REFER TO PLANS WHILE SETTING COMPONENTS.

** TRUSSES TO TRUSS CONNECTIONS ARE TOE-NAILED, UNLESS NOTED OTHERWISE.

** TRIANGULAR SYMBOL NEAR END OF TRUSS INDICATES LEFT END OF TRUSS AS SHOWN ON INDIVIDUAL TRUSS DRAWINGS.

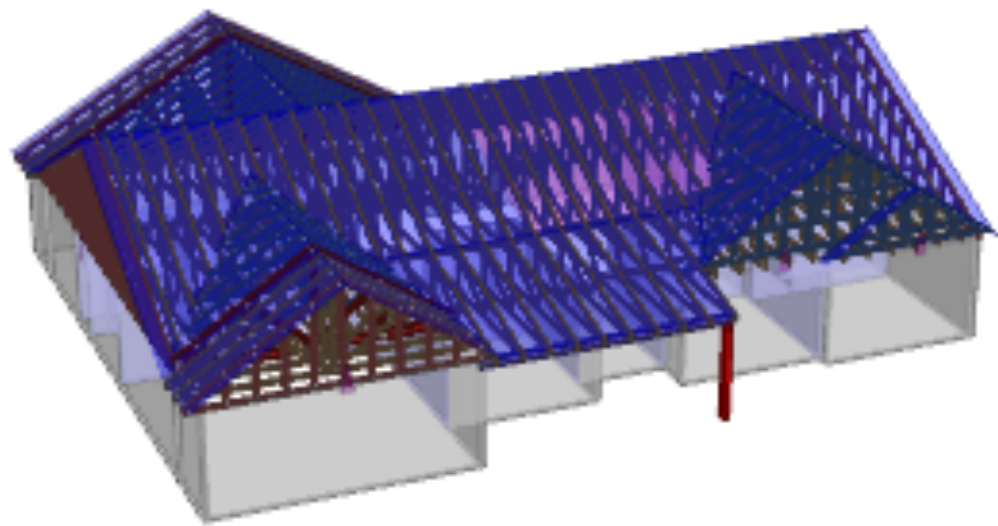
** PLUMBING DROPS NOTED ARE IN THE APPROXIMATE LOCATIONS PER PLAN. BUILDER TO VERIFY LOCATIONS BEFORE SETTING TRUSSES.

** REFER TO FINAL TRUSS ENGINEERING SHEETS FOR PLY TO PLY CONNECTIONS.



Hatch Legend	
	4/12 VAULT

Truss Connector Total List		
Manuf	Product	Qty
Simpson	HTU28	26



APPROX. ROOF AREA. (DOES NOT INCLUDE AREA UNDER VALLEYS)
3298.11

FB# - Flush Beam
DB# - Dropped Beam
BBO - Beam that is not supplied by the component plant

** GIRDERS MUST BE FULLY CONNECTED TOGETHER PRIOR TO ADDING ANY LOADS.

** DIMENSIONS ARE READ AS: FOOT-INCH-SIXTEENTH.

** All uplift connectors shown within these documents are recommendations only. Per ANS/ITPI 1, all uplift connectors are the responsibility of the bldg designer and or contractor.

Revisions	
00/00/00	Name
00/00/00	Name
00/00/00	Name
00/00/00	Name
00/00/00	Name

THIS IS A TRUSS PLACEMENT DIAGRAM ONLY. These trusses are designed as individual 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 systems 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 the bracing, consult "Bracing of Wood Truss" available from the Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53179.

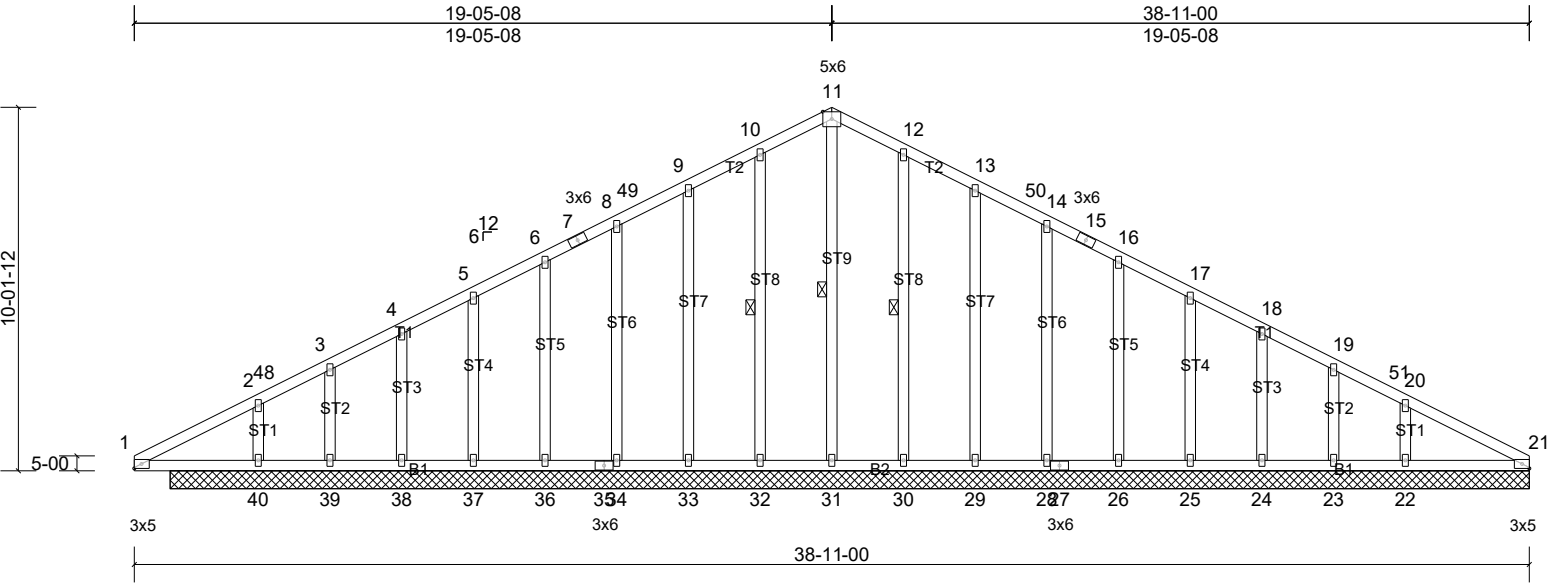


Mitchell Homes, Inc.
SPENCER
Roof PLACEMENT PLAN

Scale:	NTS
Date:	3/3/2025
Designer:	Jon Rife
Project Number:	25020278-B
Sheet Number:	

1/1

Job 25020278-B	Truss A01	Truss Type Common Supported Gable	Qty 1	Ply 1	SPENCER-Roof Job Reference (optional)
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Scale = 1:64.6

Loading	(psf)	Spacing	2-00-00	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.29	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	20.8/30.0	Lumber DOL	1.15	BC	0.26	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.23	Horiz(TL)	0.02	21	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 258 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

BRACING
TOP CHORD
BOT CHORD
WEBS
Structural wood sheathing directly applied or 10-0-0 oc purlins.
Rigid ceiling directly applied or 6-0-0 oc bracing.
1 Row at midpt 11-31, 10-32, 12-30

REACTIONS All bearings 37-11-00.
(lb) - Max Horiz 40=219 (LC 15)
Max Uplift All uplift 100 (lb) or less at joint(s) 21, 24, 25, 26, 28, 29, 30, 32, 33, 34, 36, 37, 38, 44 except 22=152 (LC 15), 23=161 (LC 16), 39=171 (LC 15), 40=157 (LC 16)
Max Grav All reactions 250 (lb) or less at joint(s) 21, 23, 24, 25, 26, 28, 29, 33, 34, 36, 37, 38, 39, 44 except 22=411 (LC 39), 30=258 (LC 22), 31=360 (LC 28), 32=258 (LC 21), 40=407 (LC 38)

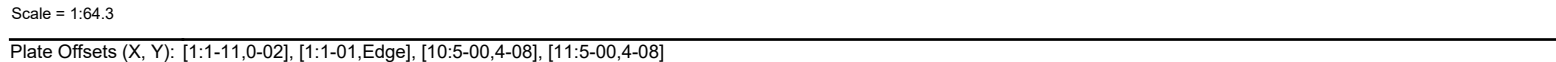
FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-156/271, 3-48=-94/257, 3-4=-23/267, 4-5=0/280, 5-6=0/292, 6-7=0/280, 7-8=0/305, 8-49=-15/298, 9-49=-10/316, 9-10=-34/376, 10-11=-53/433, 11-12=-53/433, 12-13=-34/376, 13-50=-10/316, 14-50=-15/298, 14-15=0/305, 15-16=0/280, 16-17=0/292, 17-18=0/280, 18-19=-24/268, 19-51=-92/256, 20-21=-156/271, 11-31=-319/0, 2-40=-248/270, 20-22=-249/273

WEBS

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) 0-0-0 to 3-10-13, Exterior(2N) 3-10-13 to 19-5-8, Corner(3R) 19-5-8 to 23-5-8, Exterior(2N) 23-5-8 to 38-11-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TC LL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) All plates are 2x4 MT20 unless otherwise indicated.
7) Gable studs spaced at 2-0-0 oc.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 32, 33, 34, 36, 37, 38, 30, 29, 28, 26, 25, 24 except (jt=lb) 39=171, 40=157, 23=161, 22=152.
10) Non Standard bearing condition. Review required.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Carter Components, jon.rife Run: 8.73 S Jul 11 2024 Print: 8.730 S Jul 11 2024 MiTek Industries, Inc. Mon Mar 03 10:04:05 Page: 1
ID:bLGxm6WoUEd?J6NsHb?wOVzrtGN-f71A6GXmDB?IToMddxYhKumTQYplf57kuevRwpzegk0



LUMBER		BRACING	
TOP CHORD	2x4 SP No.1 *Except* T1:2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	2x6 SP 2400F 2.0E *Except* B2:2x6 SP No.2	BOT CHORD	Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS	2x4 SP No.3 *Except* W3:2x4 SP No.2	WEBS	1 Row at midpt 5-10
WEDGE	Left: 2x8 SP 2400F 2.0E		
REACTIONS	(lb/size) 1=1629/3-08, (min. 1-08), 9=1546/3-08, (min. 1-08)		
	Max Horiz 1=219 (LC 15)		
	Max Uplift 1=-421 (LC 15), 9=-404 (LC 16)		
	Max Grav 1=1778 (LC 4), 9=1687 (LC 4)		

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 1-20=-3304/690, 2-20=-3259/712, 2-3=-2997/592, 3-4=-2863/611, 4-21=-3075/743, 21-22=-3019/753, 5-22=-2994/774, 5-23=-3162/811, 23-24=-3184/790, 6-24=-3240/780, 6-7=-3047/645, 7-8=-3181/627, 8-25=-3557/791, 9-25=-3616/775

BOT CHORD 1-11=-731/2853, 11-26=-230/1855, 26-27=-230/1855, 10-27=-230/1855, 9-10=-600/3175

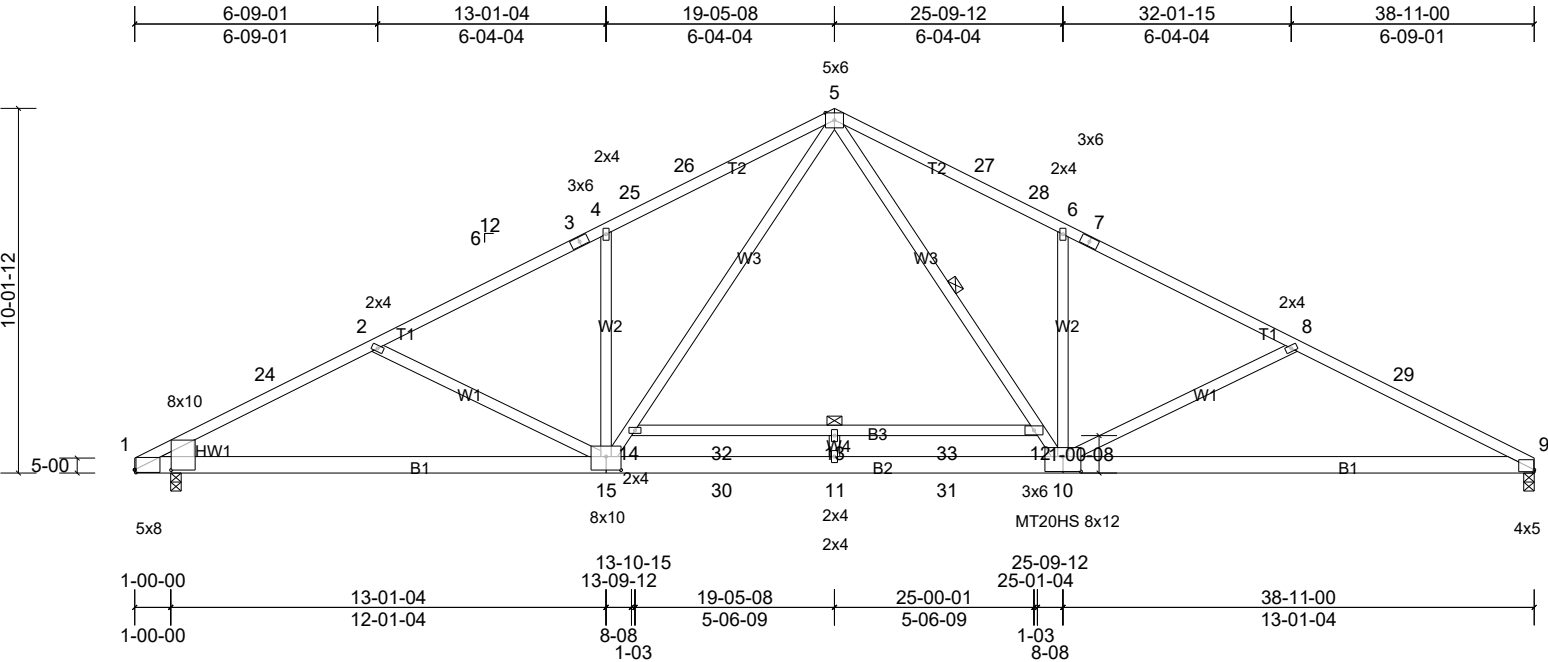
WEBS 4-11=-556/385, 5-11=-423/1278, 2-11=-337/302, 5-10=-468/1555, 6-10=-524/372, 8-10=-529/363

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDD=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-0 to 3-10-13, Interior (1) 3-10-13 to 19-5-8, Exterior(2R) 19-5-8 to 23-4-5, Interior (1) 23-4-5 to 38-11-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 3) TCDL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf, Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 404 lb uplift at joint 9 and 421 lb uplift at joint 1.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job 25020278-B	Truss A03	Truss Type Common	Qty 4	Ply 1	SPENCER-Roof Job Reference (optional)
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Scale = 1:64.3
Plate Offsets (X, Y): [1:0-07,0-14], [1:0-01,1-00-03], [9:0-03,0-10], [10:6-00,5-00], [15:5-00,4-08]

Loading	(psf)	Spacing	2-00-00	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.98	Vert(LL)	-0.50	11	>943	240	MT20	244/190
Snow (Pf/Pg)	20.8/30.0	Lumber DOL	1.15	BC	0.67	Vert(CT)	-0.84	11-15	>557	180	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.94	Horz(CT)	0.07	9	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 249 lb	FT = 20%

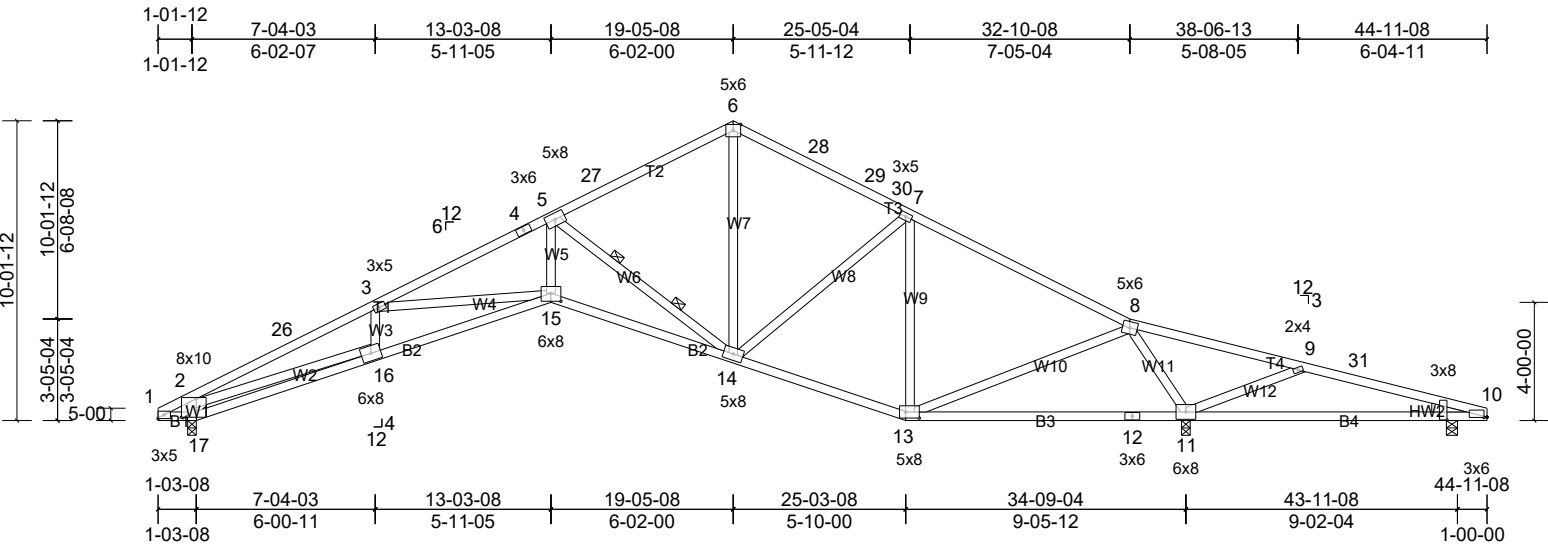
LUMBER	BRACING
TOP CHORD	TOP CHORD
BOT CHORD	BOT CHORD
WEBS	WEBS
WEDGE	
REACTIONS (lb/size)	Structural wood sheathing directly applied.
Max Horiz	Rigid ceiling directly applied or 6-0-0 oc bracing.
Max Uplift	1 Row at midpt 5-10
Max Grav	MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

FORCES	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	1-24=-3816/542, 2-24=-3765/566, 2-3=-3509/435, 3-4=-3390/454, 4-25=-3607/586, 25-26=-3585/595, 5-26=-3525/616, 5-27=-3723/651, 27-28=-3746/630, 6-28=-3802/620, 6-7=-3606/485, 7-8=-3740/467, 8-29=-4107/633, 9-29=-4179/616
BOT CHORD	1-15=-605/3296, 15-30=-112/2238, 11-30=-112/2238, 11-31=-112/2238, 10-31=-112/2238, 9-10=-460/3663
WEBS	4-15=-560/383, 14-15=-380/1419, 5-14=-342/1545, 2-15=-302/320, 6-10=-524/373, 5-12=-382/1872, 10-12=-420/1747, 8-10=-513/367, 11-13=-318/0

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-0 to 3-10-13, Interior (1) 3-10-13 to 19-5-8, Exterior(2R) 19-5-8 to 23-4-5, Interior (1) 23-4-5 to 38-11-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
 - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
 - Unbalanced snow loads have been considered for this design.
 - All plates are MT20 plates unless otherwise indicated.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 337 lb uplift at joint 9 and 351 lb uplift at joint 1.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	SPENCER-Roof
25020278-B	B01	Roof Special	3	1	Job Reference (optional)



Scale = 1:78.3

Plate Offsets (X, Y): [2:6-00,7-08], [10:1-03,0-02], [10:1-02,1-04-04], [13:5-08,2-08], [15:4-00,3-04]

Loading	(psf)	Spacing	2-00-00	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.92	Vert(LL)	0.40	15-16	>999	240	MT20	244/190
Snow (Pf/Pg)	20.8/30.0	Lumber DOL	1.15	BC	0.77	Vert(CT)	-0.74	15-16	>545	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.88	Horz(CT)	0.44	11	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 235 lb	FT = 20%

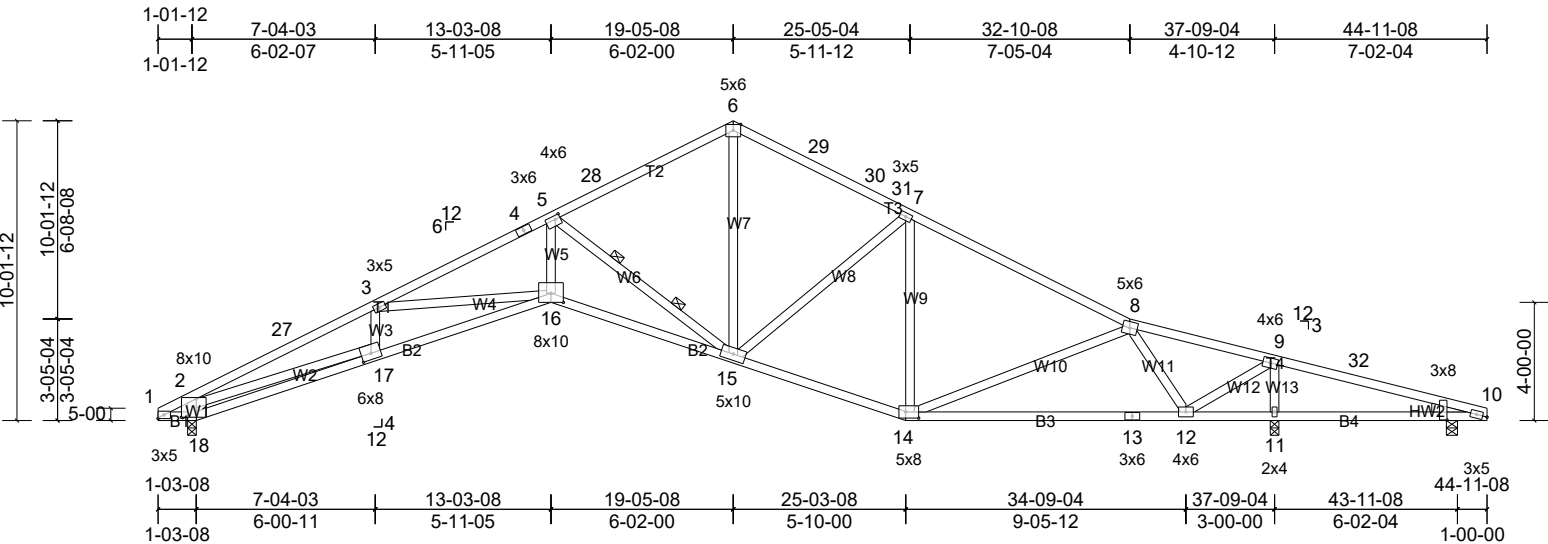
LUMBER		BRACING	
TOP CHORD	2x4 SP No.1 *Except* T3,T1:2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	2x4 SP No.2 *Except* B2:2x4 SP No.1	BOT CHORD	Rigid ceiling directly applied or 4-11-5 oc bracing.
WEBS	2x4 SP No.3 *Except* W2,W5:2x4 SP No.2	WEBS	2 Rows at 1/3 pts 5-14
WEDGE	Right: 2x4 SP No.3		
REACTIONS (lb/size)	10=-43/4-08, (min. 1-08), 11=2382/3-08, (min. 2-13), 17=1329/3-08, (min. 1-08)		
Max Horiz	17=220 (LC 15)		
Max Uplift	10=-195 (LC 21), 11=-552 (LC 16), 17=-356 (LC 15)		
Max Grav	10=239 (LC 45), 11=2382 (LC 1), 17=1375 (LC 21)		

FORCES	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	1-2=-525/190, 2-26=-4216/1220, 3-26=-4133/1236, 3-4=-4047/1157, 4-5=-3900/1162, 5-27=-1477/569, 6-27=-1401/599, 6-28=-1404/607, 28-29=-1408/593, 29-30=-1472/578, 7-30=-1485/575, 7-8=-1205/467, 8-9=-604/1820, 9-31=-350/1194, 10-31=-360/1163
BOT CHORD	1-17=-252/607, 16-17=-405/453, 15-16=-1210/3864, 14-15=-906/3765, 13-14=-179/1049, 12-13=-656/274, 11-12=-656/274, 10-11=-1110/368
WEBS	2-17=-1459/674, 2-16=-874/3372, 6-14=-289/905, 7-14=-67/496, 7-13=-809/311, 8-13=-444/1649, 8-11=-2280/868, 9-11=-993/420, 3-16=-264/185, 3-15=-268/286, 5-15=-588/2508, 5-14=-3047/929

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-0 to 4-6-0, Interior (1) 4-6-0 to 19-5-8, Exterior(2R) 19-5-8 to 23-11-8, Interior (1) 23-11-8 to 44-11-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
 - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
 - Unbalanced snow loads have been considered for this design.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
 - Bearing at joint(s) 17 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 552 lb uplift at joint 11, 356 lb uplift at joint 17 and 195 lb uplift at joint 10.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	SPENCER-Roof
25020278-B	B02	Roof Special	1	1	Job Reference (optional)



Scale = 1:78.3

Plate Offsets (X, Y): [2:6-00,7-08], [5:2-00,1-08], [10:1-14,1-08], [10:1-02,1-04-04], [14:5-04,2-08], [16:5-00,3-11], [17:4-00,2-08]

Loading	(psf)	Spacing	2-00-00	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.97	Vert(LL)	0.47	16-17	>935	240	MT20	244/190
Snow (Pf/Pg)	20.8/30.0	Lumber DOL	1.15	BC	0.87	Vert(CT)	-0.86	16-17	>511	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.99	Horz(CT)	0.51	11	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 236 lb	FT = 20%

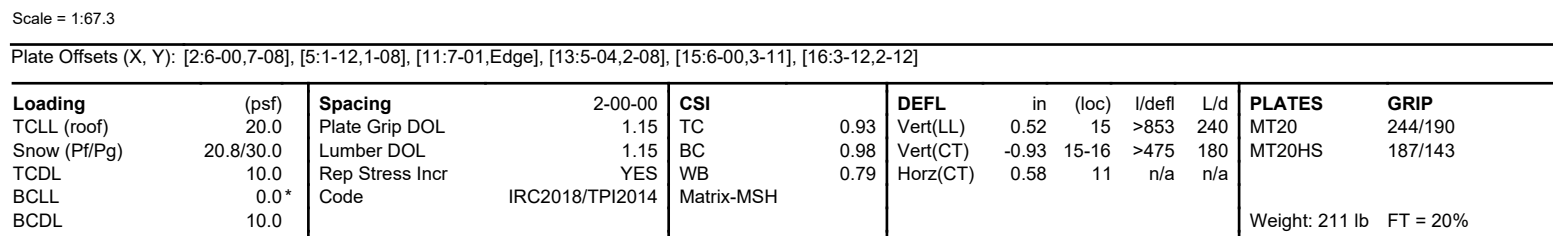
LUMBER			BRACING		
TOP CHORD	2x4 SP No.1 *Except* T4:2x4 SP No.2		TOP CHORD	TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	2x4 SP No.2 *Except* B2:2x4 SP No.1		BOT CHORD	BOT CHORD	Rigid ceiling directly applied or 2-4-13 oc bracing.
WEBS	2x4 SP No.3 *Except* W2,W5:2x4 SP No.2		WEBS	WEBS	2 Rows at 1/3 pts 5-15
WEDGE	Right: 2x4 SP No.3				
REACTIONS (lb/size)			MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.		
10=-160/4-08, (min. 1-08), 11=2323/3-08, (min. 2-12), 18=1504/3-08, (min. 1-08)					
Max Horiz 18=220 (LC 15)					
Max Uplift 10=-277 (LC 21), 11=-535 (LC 16), 18=-393 (LC 15)					
Max Grav 10=136 (LC 45), 11=2323 (LC 1), 18=1525 (LC 21)					

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD	1-2=-600/205, 2-27=-4933/1458, 3-27=-4847/1473, 3-4=-4864/1445, 4-5=-4742/1463, 5-28=-1957/725, 6-28=-1882/755, 6-29=-1886/767, 29-30=-1889/753, 30-31=-1954/738, 7-31=-1967/735, 7-8=-1919/706, 8-9=-693/293, 9-32=-398/1490, 10-32=-404/1439
BOT CHORD	1-18=-267/681, 17-18=-412/489, 16-17=-1342/4533, 15-16=-1137/4463, 14-15=-403/1675, 13-14=-356/1253, 12-13=-356/1253, 11-12=-1408/436, 10-11=-1408/436
WEBS	3-17=-332/208, 6-15=-431/1333, 7-15=-143/316, 7-14=-522/220, 8-14=-115/528, 2-18=-1640/729, 8-12=-1353/542, 2-17=-1076/3962, 5-16=-690/2946, 3-16=-155/251, 5-15=-3442/1036, 9-11=-2212/701, 9-12=-603/2306

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-0 to 4-6-0, Interior (1) 4-6-0 to 19-5-8, Exterior(2R) 19-5-8 to 23-11-8, Interior (1) 23-11-8 to 44-11-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
 - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
 - Unbalanced snow loads have been considered for this design.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
 - Bearing at joint(s) 18 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 535 lb uplift at joint 11, 393 lb uplift at joint 18 and 277 lb uplift at joint 10.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Carter Components, jon.rife Run: 8.73 S Jul 11 2024 Print: 8.730 S Jul 11 2024 MiTek Industries, Inc. Mon Mar 03 10:04:07 Page: 1
ID: bLGxm6WoUEd?J6Nshb?wOVzrtGN-bV9xxZ0loF?i5W?kMa9PJm7LUR72u1lVQX?izeckM



FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 1-2=-590/204, 2-25=-5317/1406, 3-25=-5232/1426, 3-4=-5340/1316, 4-5=-5218/1333, 5-26=-2207/590, 26-27=-2152/599, 6-27=-2132/620, 6-28=-2134/630, 28-29=-2198/601, 7-29=-2211/598, 7-8=-2135/616, 8-9=-2245/599, 9-30=-2506/624, 10-30=-2549/610

BOT CHORD 1-17=-263/670, 16-17=-421/458, 15-16=-1460/4901, 14-15=-1220/4915, 13-14=-354/2020, 12-13=-449/2172, 11-12=-449/2172

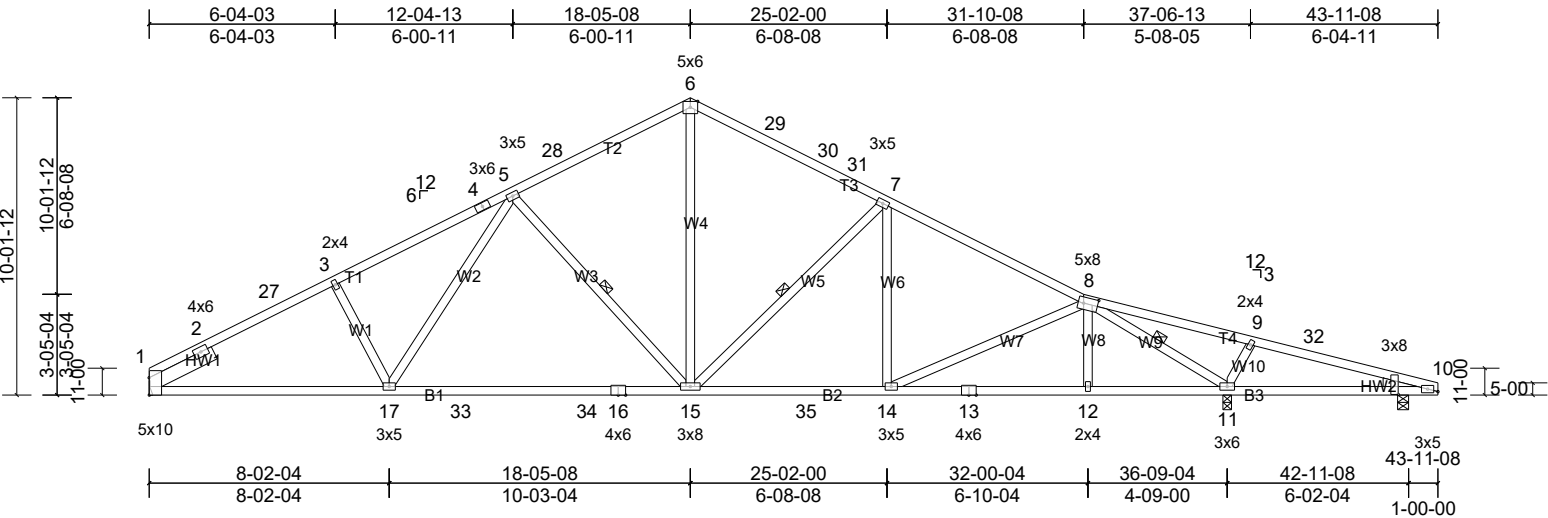
WEBS 2-17=-1729/675, 2-16=-1011/4340, 3-16=-372/201, 5-15=-769/3207, 5-14=-3627/1106, 6-14=-333/1540, 7-14=-211/312, 7-13=-343/137, 9-13=-317/224

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCGLD=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-0 to 3-9-9, Interior (1) 3-9-9 to 19-5-8, Exterior(2R) 19-5-8 to 23-3-1, Interior (1) 23-3-1 to 37-11-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 5) All plates are MT20 plates unless otherwise indicated.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 7) Bearing at joint(s) 17 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 385 lb uplift at joint 11 and 416 lb uplift at joint 17.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	SPENCER-Roof
25020278-B	B04	Roof Special	6	1	Job Reference (optional)



Scale = 1:78.9

Plate Offsets (X, Y): [1:7-01,Edge], [8:5-12,2-08], [10:1-11,0-07], [10:1-02,1-04-04]

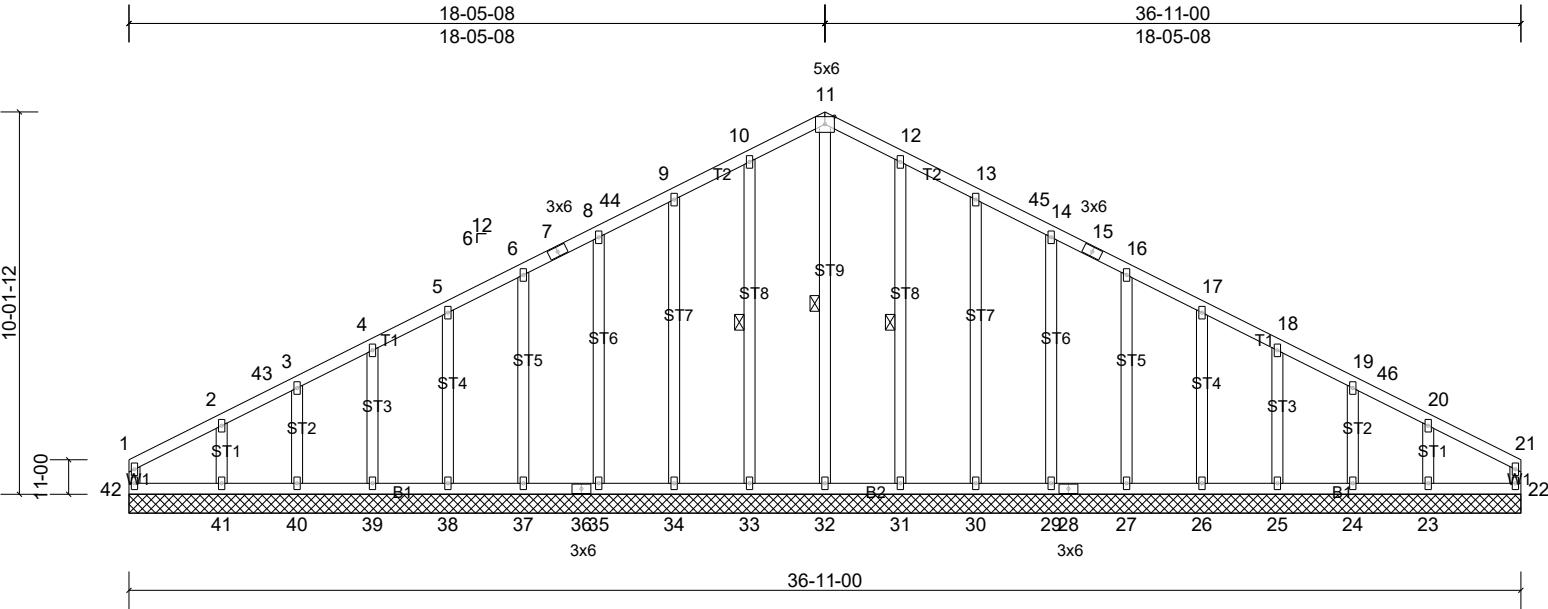
Loading	(psf)	Spacing	2-00-00	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.95	Vert(LL)	-0.45	15-17	>985	240	MT20	244/190
Snow (Pf/Pg)	20.8/30.0	Lumber DOL	1.15	BC	0.96	Vert(CT)	-0.79	15-17	>562	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.74	Horz(CT)	0.10	11	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 237 lb	FT = 20%

LUMBER	BRACING
TOP CHORD	TOP CHORD
BOT CHORD	BOT CHORD
WEBS	WEBS
WEDGE	
SLIDER	
REACTIONS (lb/size)	
1=1461/ Mechanical, (min. 1-08), 10=111/4-08, (min. 1-08), 11=2014/3-08, (min. 2-09)	
Max Horiz 1=-233 (LC 16)	
Max Uplift 1=-376 (LC 15), 10=-104 (LC 12), 11=-539 (LC 16)	
Max Grav 1=1616 (LC 5), 10=280 (LC 45), 11=2183 (LC 4)	
FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD	
BOT CHORD	
WEBS	
NOTES	

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-0 to 4-4-12, Interior (1) 4-4-12 to 18-5-8, Exterior(2R) 18-5-8 to 22-10-4, Interior (1) 22-10-4 to 43-11-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 376 lb uplift at joint 1, 539 lb uplift at joint 11 and 104 lb uplift at joint 10.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job 25020278-B	Truss C01	Truss Type Common Supported Gable	Qty 1	Ply 1	SPENCER-Roof Job Reference (optional)
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Scale = 1:61.4

Loading	(psf)	Spacing	2-00-00	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.17	Vert(LL)	n/a	-	n/a	999	MT20
Snow (Pf/Pg)	20.8/30.0	Lumber DOL	1.15	BC	0.11	Vert(TL)	n/a	-	n/a	999	244/190
TCDL	10.0	Rep Stress Incr	YES	WB	0.23	Horiz(TL)	0.01	22	n/a	n/a	
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MR							
BCDL	10.0										
Weight: 254 lb FT = 20%											

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
OTHERS 2x4 SP No.3

BRACING
TOP CHORD
BOT CHORD
WEBS

Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
Rigid ceiling directly applied or 10-0-0 oc bracing.
1 Row at midpt 11-32, 10-33, 12-31

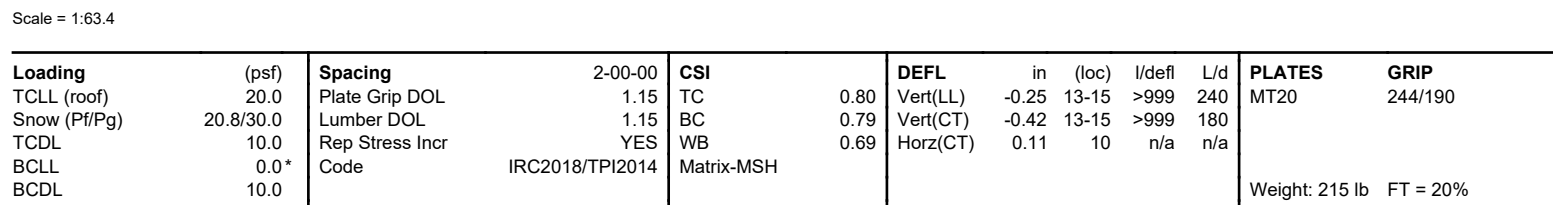
REACTIONS All bearings 36-11-00.
(lb) - Max Horiz 42=-184 (LC 11)
Max Uplift All uplift 100 (lb) or less at joint(s) 22, 24, 25, 26, 27, 29, 30, 31, 33, 34, 35, 37, 38, 39, 40, 42 except 23=-171 (LC 16), 41=-186 (LC 15)
Max Grav All reactions 250 (lb) or less at joint(s) 22, 23, 24, 25, 26, 27, 29, 30, 31, 33, 34, 35, 37, 38, 39, 40, 41, 42 except 32=265 (LC 16)

FORCES (lb) - Max. Comp/Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 6-7=-123/306, 7-8=-114/312, 8-44=-145/366, 9-44=-129/375, 9-10=-169/444, 10-11=-189/500, 11-12=-189/500, 12-13=-169/444, 13-45=-129/375, 14-45=-145/366, 14-15=-114/312, 15-16=-123/306
WEBS 11-32=-333/78

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BC DL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) 0-1-12 to 3-9-11, Exterior(2N) 3-9-11 to 18-5-8, Corner(3R) 18-5-8 to 22-1-7, Exterior(2N) 22-1-7 to 36-9-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TC LL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) All plates are 2x4 MT20 unless otherwise indicated.
7) Gable requires continuous bottom chord bearing.
8) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
9) Gable studs spaced at 2-0-0 oc.
10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 42, 22, 33, 34, 35, 37, 38, 39, 40, 31, 30, 29, 27, 26, 25, 24 except (jt=lb) 41=186, 23=170.
12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Carter Components, jon.rife Run: 8.73 S Jul 11 2024 Print: 8.730 S Jul 11 2024 MiTek Industries, Inc. Mon Mar 03 10:04:08 Page: 1
ID: bL Gxm6WoUEd7J6NsHb7wOVzrtGN-YuHhvdahHPVivPgOsnddUkx9f9Dtb zKpGte4azeqKk



FORCES	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	1-17=-610/160, 2-17=-527/177, 2-3=-2924/597, 3-4=-2797/627, 4-18=-2176/541, 18-19=-2121/551, 5-19=-2100/571, 5-20=-2100/571, 20-21=-2121/551, 6-21=-2176/541, 6-7=-2797/627, 7-8=-2924/597, 8-22=-526/177, 9-22=-610/160, 1-16=-437/182, 9-10=-437/182
BOT CHORD	15-16=-655/2608, 15-23=-449/2292, 14-23=-449/2292, 14-24=-449/2292, 13-24=-449/2292, 13-25=-356/2291, 12-25=-356/2291, 12-26=-356/2291, 11-26=-356/2291, 10-11=-494/2605
WEBS	5-13=-284/1513, 6-13=-766/381, 6-11=-90/528, 8-11=-185/264, 4-13=-766/381, 4-15=-90/528, 2-15=-185/263, 2-16=-2519/485, 8-10=-2519/484

- ### NOTES
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-2-12 to 3-10-11, Interior (1) 3-10-11 to 18-5-8, Exterior(2R) 18-5-8 to 22-1-7, Interior (1) 22-1-7 to 36-8-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
 - 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
 - 4) Unbalanced snow loads have been considered for this design.
 - 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - 6) Refer to girder(s) for truss to truss connections.
 - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 381 lb uplift at joint 16 and 381 lb uplift at joint 10.
 - 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

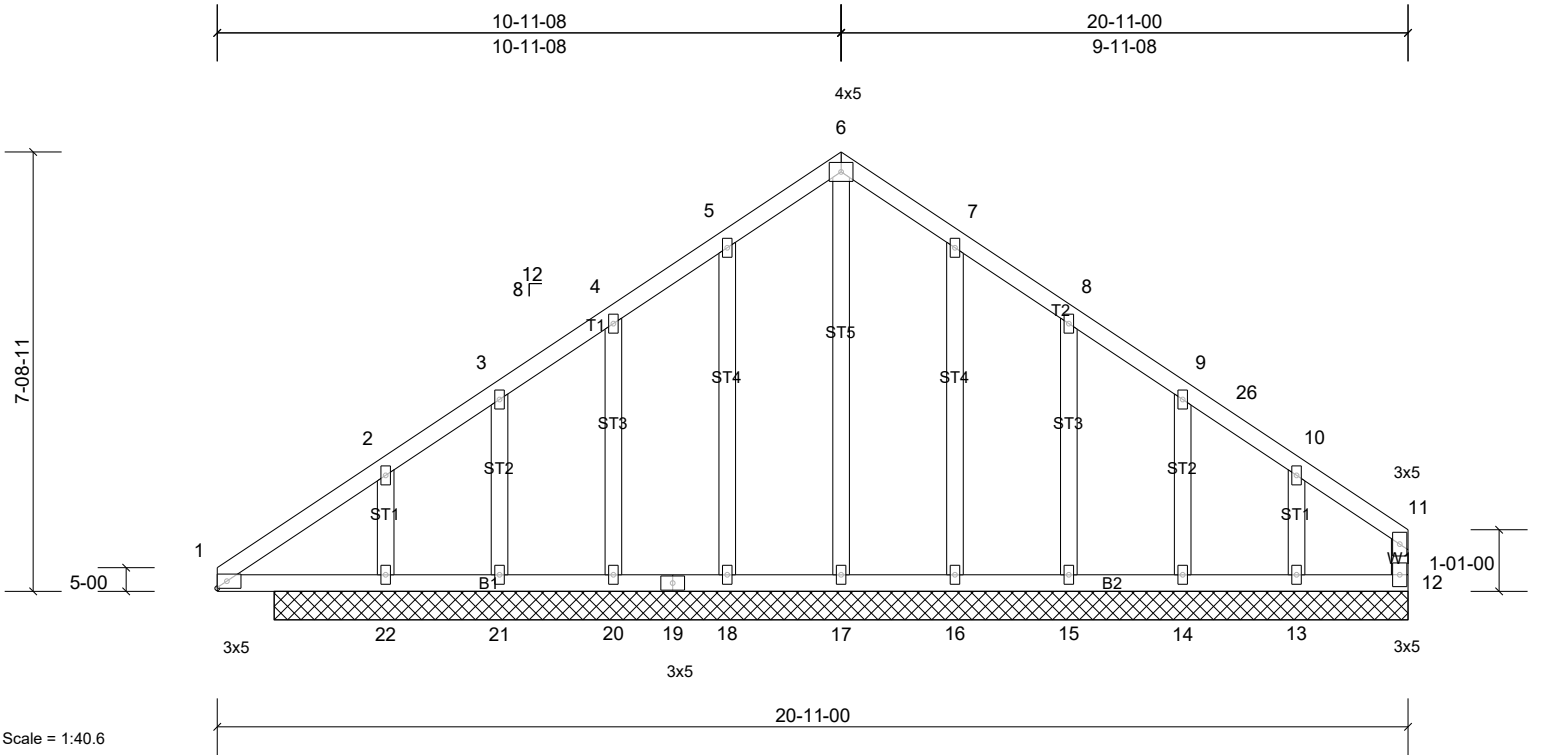
LOAD CASE(S) Standard

Job 25020278-B	Truss D01	Truss Type Common Supported Gable	Qty 1	Ply 1	SPENCER-Roof Job Reference (optional)
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Carter Components, jon.rife

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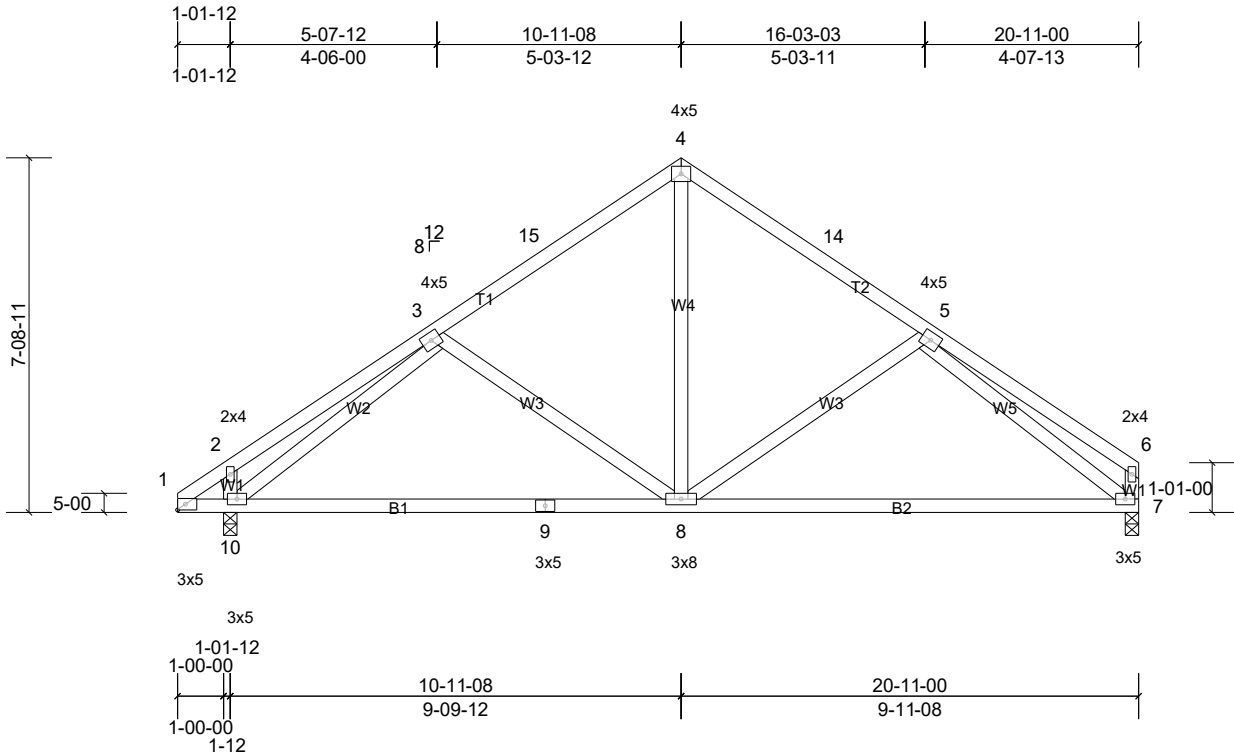
Page: 1



Loading	(psf)	Spacing	2-00-00	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.32	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	20.8/30.0	Lumber DOL	1.15	BC	0.17	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.33	Horiz(TL)	-0.01	12	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 126 lb	FT = 20%

LUMBER	BRACING
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 10-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.3	
OTHERS 2x4 SP No.3	
REACTIONS All bearings 19-11-00.	
(lb) - Max Horiz 22=261 (LC 12)	
Max Uplift All uplift 100 (lb) or less at joint(s) 14, 16, 18 except 12=227 (LC 12), 13=205 (LC 14), 15=112 (LC 14), 20=103 (LC 13), 21=120 (LC 13), 22=116 (LC 13)	
Max Grav All reactions 250 (lb) or less at joint(s) 12, 14, 15, 16, 18, 20, 21 except 13=356 (LC 23), 17=355 (LC 24), 22=323 (LC 1)	
FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD 6-7=-102/322, 7-8=-55/262, 10-11=-185/309, 5-6=-102/322	
WEBS 6-17=-313/7, 2-22=-258/198	
NOTES	
1) Unbalanced roof live loads have been considered for this design.	
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) 0-0-0 to 2-11-8, Exterior(2N) 2-11-8 to 10-11-8, Corner(3R) 10-11-8 to 13-11-8, Exterior(2N) 13-11-8 to 20-9-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33	
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.	
4) TCCL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.;	
Ce=0.9; Cs=1.00; Ct=1.10	
5) All plates are 2x4 MT20 unless otherwise indicated.	
6) Gable studs spaced at 2-0-0 oc.	
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.	
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 18, 16, 14 except (jt=lb) 12=226, 20=103, 21=119, 22=115, 15=112, 13=205.	
9) Non Standard bearing condition. Review required.	
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.	
LOAD CASE(S) Standard	

Job 25020278-B	Truss D02	Truss Type Common	Qty 2	Ply 1	SPENCER-Roof Job Reference (optional)
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Scale = 1:50.4

Loading	(psf)	Spacing	2-00-00	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.37	Vert(LL)	0.02	8	>999	240	MT20	244/190
Snow (Pf/Pg)	20.8/30.0	Lumber DOL	1.15	BC	0.64	Vert(CT)	-0.21	7-8	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.56	Horz(CT)	0.02	7	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
Weight: 117 lb FT = 20%												

LUMBER		BRACING	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 5-8-12 oc purlins, except end verticals. Rigid ceiling directly applied or 10-0-0 oc bracing.
BOT CHORD	2x4 SP No.2	BOT CHORD	
WEBS	2x4 SP No.3		<div>MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.</div>
REACTIONS (lb/size) 7=798/3-08, (min. 1-08), 10=897/3-08, (min. 1-08)			
Max Horiz 10=261 (LC 12)			
Max Uplift 7=-191 (LC 14), 10=-223 (LC 13)			
FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.			
TOP CHORD	4-14=-819/261, 5-14=-901/241, 5-6=-308/75, 2-3=-364/81, 3-15=-901/243, 4-15=-819/262, 6-7=-274/97		
BOT CHORD	9-10=-271/839, 8-9=-271/839, 7-8=-195/836		
WEBS	5-8=-290/292, 4-8=-101/541, 3-8=-289/284, 5-7=-859/259, 3-10=-773/269, 2-10=-251/265		

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 10-11-8, Exterior(2R) 10-11-8 to 13-11-8, Interior (1) 13-11-8 to 20-9-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
 - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 191 lb uplift at joint 7 and 223 lb uplift at joint 10.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Carter Components, jon.rife Run: 8.73 S Jul 11 2024 Print: 8.730 S Jul 11 2024 MiTek Industries, Inc. Mon Mar 03 10:04:10 Page: 1
ID: bL Gxm6WoUEd?J6NsHb?wOVzrtGN-04r39zbv2jdaZZFaQU8s1xTKEZfgKRgT1wcBc1zegkJ



UNITED STATES DEPARTMENT OF AGRICULTURE

REACTIONS (lb/size) 1=8395/3-08, (min. 2-08), 7=7903/3-08, (min. 2-05)
 Max Horiz 1=222 (LC 31)
 Max Uplift 1=-2224 (LC 9), 7=-2094 (LC 10)
 Max Grav 1=9017 (LC 4), 7=8478 (LC 4)

NOTES

- 1) 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 9-00 oc.
Bottom chords connected as follows: 2x8 - 2 rows staggered at 5-00 oc.
Web connected as follows: 2x4 - 1 row at 4-00 oc.
- 2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- 3) Unbalanced roof live loads have been considered for this design.
- 4) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BC DL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33
- 5) TC LL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 2094 lb uplift at joint 7 and 2224 lb uplift at joint 1.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1609 lb down and 392 lb up at 0-10-0, 1608 lb down and 393 lb up at 2-7-4, 1608 lb down and 393 lb up at 4-7-4, 1608 lb down and 393 lb up at 6-7-4, 1608 lb down and 393 lb up at 8-7-4, 1608 lb down and 393 lb up at 10-7-4, 1608 lb down and 393 lb up at 12-7-4, 1608 lb down and 393 lb up at 14-7-4, and 1608 lb down and 393 lb up at 16-7-4, and 1608 lb down and 393 lb up at 18-4-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

Job	Truss	Truss Type	Qty	Ply	SPENCER-Roof
25020278-B	D03	Common Girder	1	3	Job Reference (optional)

Uniform Loads (lb/ft)

Vert: 4-7=-62, 1-4=-62, 12-16=-20

Concentrated Loads (lb)

Vert: 8=-1467, 20=-1469, 21=-1467, 22=-1467, 23=-1467, 24=-1467, 25=-1467, 26=-1467, 27=-1467, 28=-1467

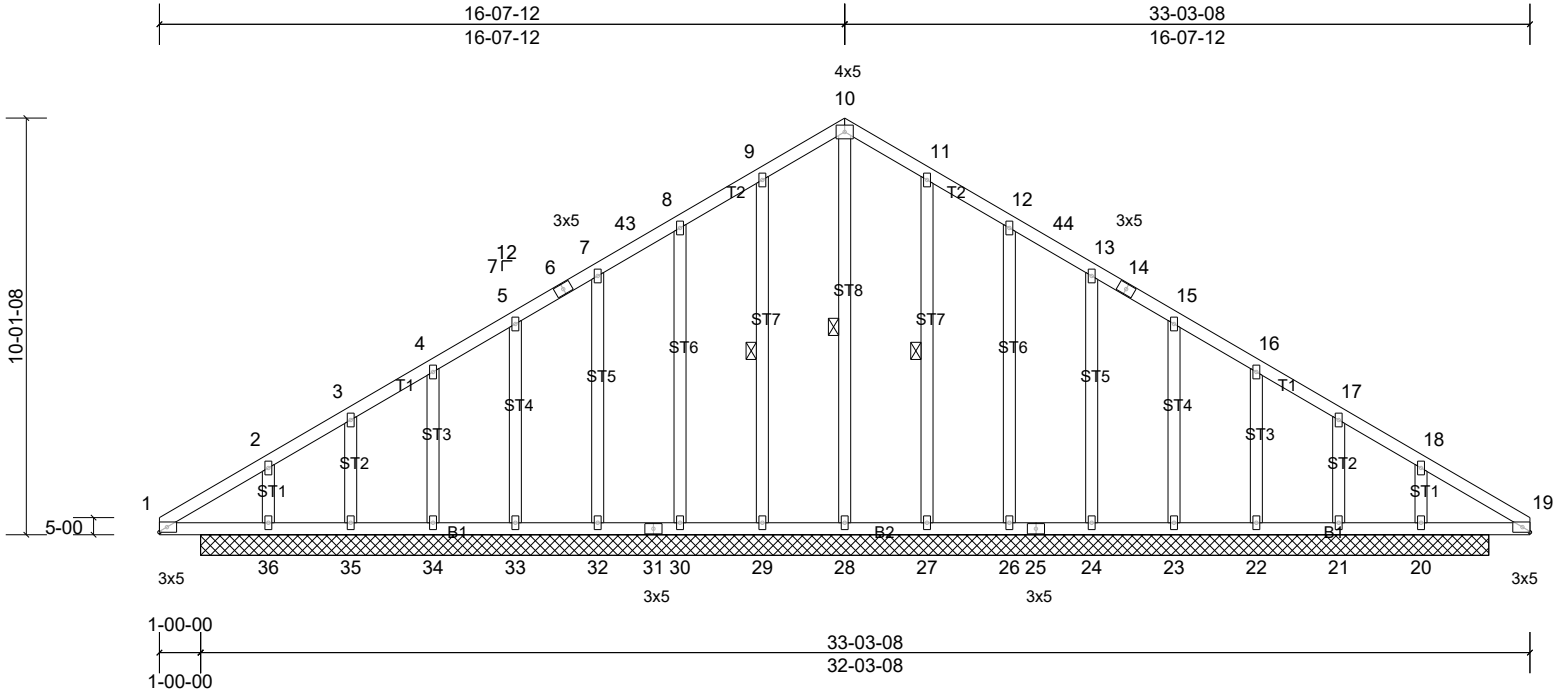
Job 25020278-B	Truss E01	Truss Type Common Supported Gable	Qty 1	Ply 1	SPENCER-Roof Job Reference (optional)
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Carter Components, jon.rife

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Scale = 1:56.2

Loading	(psf)	Spacing	2-00-00	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	20.8/30.0	Lumber DOL	1.15	BC	0.25	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.21	Horiz(TL)	-0.01	20	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 224 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

BRACING

TOP CHORD
BOT CHORD
WEBS

Structural wood sheathing directly applied or 10-0-0 oc purlins.
Rigid ceiling directly applied or 6-0-0 oc bracing.
1 Row at midpt 10-28, 9-29, 11-27

REACTIONS

All bearings 31-03-08.
(lb) - Max Horiz 36=-324 (LC 11)
Max Uplift All uplift 100 (lb) or less at joint(s) 22, 23, 24, 26, 27, 29, 30, 32, 33, 34 except 20=-153 (LC 15), 21=-199 (LC 16), 35=-210 (LC 15), 36=-167 (LC 16)
Max Grav All reactions 250 (lb) or less at joint(s) 22, 23, 24, 26, 30, 32, 33, 34 except 20=336 (LC 26), 21=252 (LC 14), 27=263 (LC 22), 28=355 (LC 29), 29=263 (LC 21), 35=268 (LC 13), 36=351 (LC 27)

FORCES

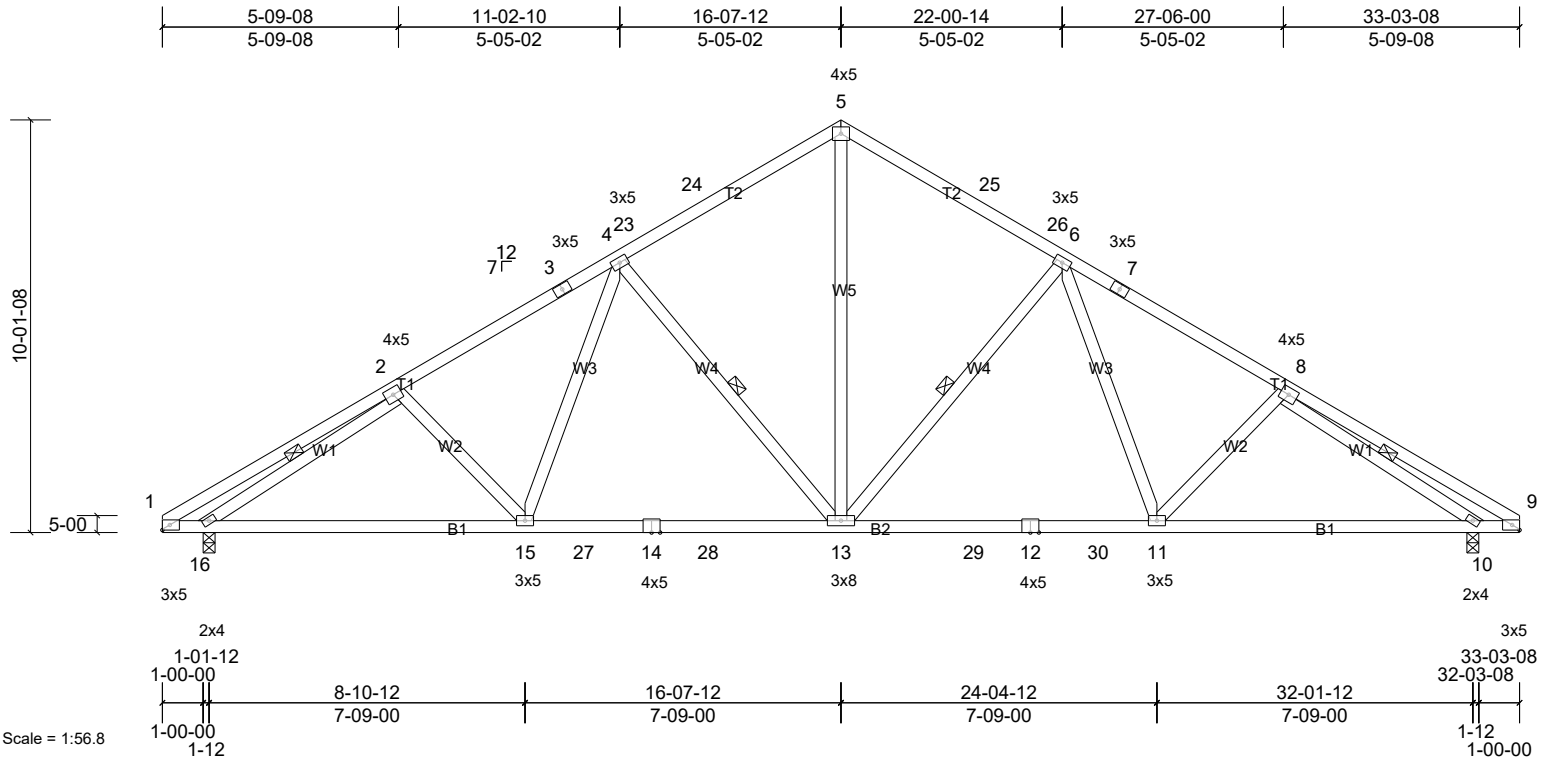
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-151/278, 2-3=-156/274, 6-7=-36/259, 7-43=-86/287, 8-43=-68/294, 8-9=-125/364, 9-10=-162/422, 10-11=-162/422, 11-12=-125/364, 12-44=-68/293, 13-44=-86/287, 13-14=-36/252, 17-18=-139/261, 18-19=-142/268
WEBS 10-28=-329/56

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) 0-0-0 to 3-4-1, Exterior(2N) 3-4-1 to 16-7-12, Corner(3R) 16-7-12 to 19-11-13, Exterior(2N) 19-11-13 to 33-3-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCCL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable studs spaced at 2-0-0 oc.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 29, 30, 32, 33, 34, 27, 26, 24, 23, 22 except (jt=lb) 35=210, 36=167, 21=199, 20=153.
- Non Standard bearing condition. Review required.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job 25020278-B	Truss E02	Truss Type Common	Qty 2	Ply 1	SPENCER-Roof Job Reference (optional)
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Loading	(psf)	Spacing	2-00-00	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.58	Vert(LL)	-0.16	13-15	>999	240	MT20	244/190
Snow (Pf/Pg)	20.8/30.0	Lumber DOL	1.15	BC	0.82	Vert(CT)	-0.27	13-15	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.51	Horz(CT)	0.08	10	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 196 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

BRACING
TOP CHORD
BOT CHORD
WEBS
Structural wood sheathing directly applied or 3-6-9 oc purlins.
Rigid ceiling directly applied or 8-0-0 oc bracing.
1 Row at midpt 6-13, 4-13, 2-16, 8-10

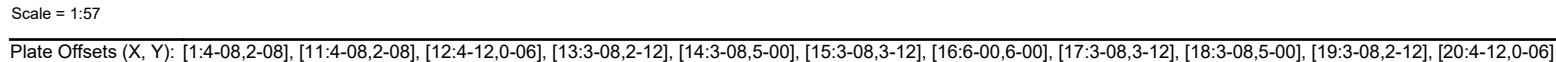
REACTIONS (lb/size) 10=1358/3-08, (min. 1-13), 16=1358/3-08, (min. 1-13)
Max Horiz 16=-324 (LC 11)
Max Uplift 10=-346 (LC 16), 16=-346 (LC 15)
Max Grav 10=1561 (LC 27), 16=1561 (LC 26)

NOTES
MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

- FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
- TOP CHORD** 1-2=-670/122, 2-3=-2414/470, 3-4=-2286/487, 4-23=-1825/422, 23-24=-1814/425, 5-24=-1748/455, 5-25=-1748/455, 25-26=-1814/425, 6-26=-1825/422, 6-7=-2286/488, 7-8=-2414/470, 8-9=-670/121
- BOT CHORD** 1-16=-53/475, 15-16=-533/2043, 15-27=-346/1777, 14-27=-346/1777, 14-28=-346/1777, 13-28=-346/1777, 13-29=-199/1777, 12-29=-199/1777, 12-30=-199/1777, 11-30=-199/1777, 10-11=-314/2043, 9-10=0/475
- WEBS** 5-13=-276/1405, 6-13=-701/350, 6-11=-75/444, 4-13=-701/350, 4-15=-74/444, 2-16=-1929/414, 8-10=-1929/414
- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-0 to 3-4-1, Interior (1) 3-4-1 to 16-7-12, Exterior(2R) 16-7-12 to 19-11-13, Interior (1) 19-11-13 to 33-3-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
 - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
 - Unbalanced snow loads have been considered for this design.
 - All plates are 3x5 MT20 unless otherwise indicated.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 346 lb uplift at joint 16 and 346 lb uplift at joint 10.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

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LUMBER		BRACING	
TOP CHORD	2x4 SP No.2	TOP CHORD	Sheathed or 4-6-6 oc purlins.
BOT CHORD	2x8 SP 2400F 2.0E *Except* B1:2x10 SP 2400F 2.0E	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SP No.2 *Except* W8:2x4 SP No.1		

FORCES	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	1-2=-17052/4217, 2-3=-17266/4311, 3-4=-15044/3775, 4-21=-14983/3785, 5-21=-14977/3796, 5-6=-12613/3264, 6-7=-12613/3264, 7-22=-14958/3794, 8-22=-14963/3782, 8-9=-15024/3773, 9-10=-17292/4323, 10-11=-17145/4247
BOT CHORD	20-23=-1223/4218, 23-24=-1223/4218, 19-24=-1223/4218, 19-25=-3771/14654, 25-26=-3771/14654, 18-26=-3771/14654, 18-27=-3742/14896, 27-28=-3742/14896, 17-28=-3742/14896, 17-29=-3177/12942, 29-30=-3177/12942, 16-30=-3177/12942, 16-31=-3078/12925, 31-32=-3078/12925, 15-32=-3078/12925, 15-33=-3565/14918, 33-34=-3565/14918, 14-34=-3565/14918, 14-35=-3596/14733, 35-36=-3596/14733, 13-36=-3596/14733, 13-37=-1056/4241, 37-38=-1056/4241, 12-38=-1056/4241, 1-20=-10788/2705, 11-12=-10836/2718
WEBS	1-19=-2596/10689, 11-13=-2588/10694, 2-19=-441/167, 2-18=-124/360, 3-18=-869/3544, 3-17=-3303/956, 5-17=-1305/5153, 5-16=-4645/1315, 6-16=-3146/12398, 7-16=-4607/1310, 7-15=-1299/5109, 9-15=-3370/977, 9-14=-892/3621, 10-14=-104/286, 10-13=-371/146

- 1) 3-ply truss to be connected together with Simpson SDS 1/4 x 4-1/2 screws as follows:
Top chords connected as follows: 2x4 - 1 row at 9-00 oc.
Bottom chords connected as follows: 2x8 - 2 rows staggered at 6-00 oc, 2x10 - 2 rows staggered at 9-00 oc.
Web connected as follows: 2x4 - 1 row at 9-00 oc.
- 2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- 3) Unbalanced roof live loads have been considered for this design.
- 4) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCdL=6.0psf; BCdL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33
- 5) TCdL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 6) Unbalanced snow loads have been considered for this design.
- 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 8) Bearing at joint(s) 20, 12 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 3405 lb uplift at joint 20 and 3471 lb uplift at joint 12.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

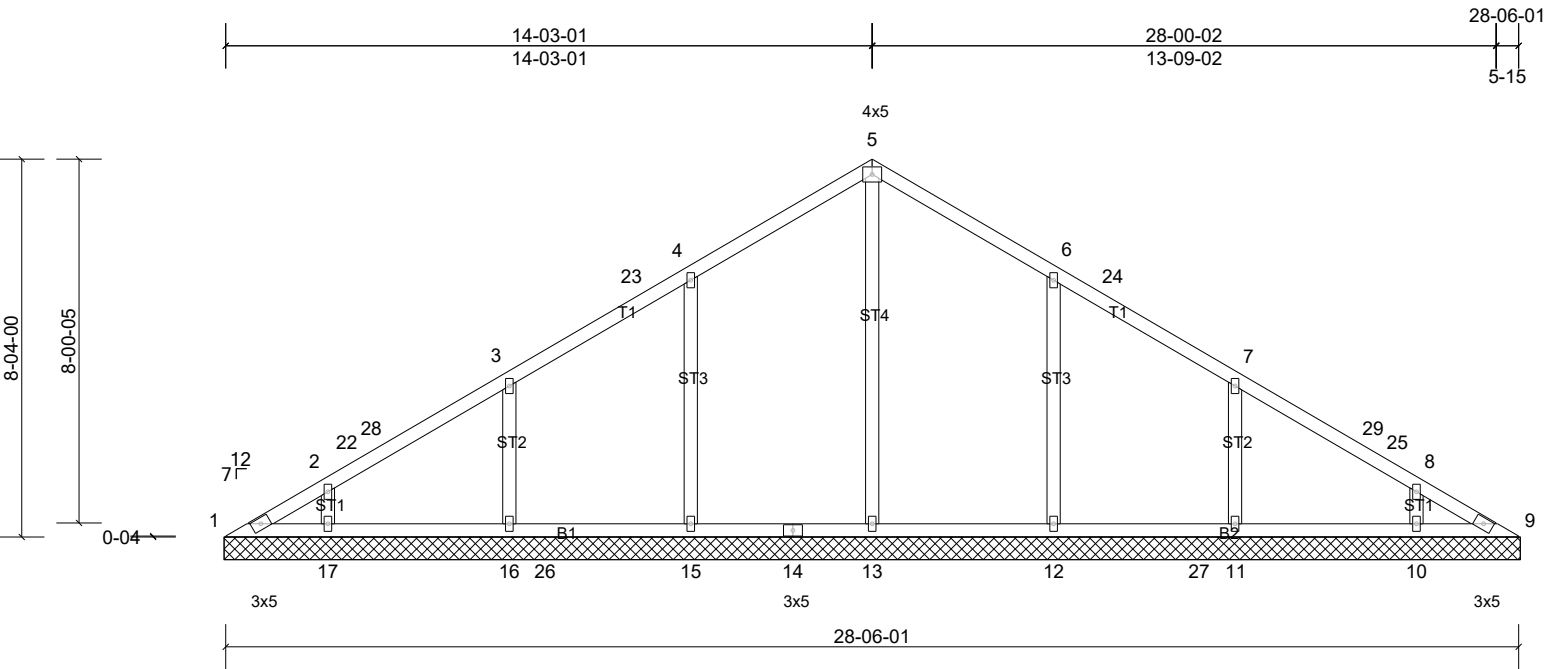
Job	Truss	Truss Type	Qty	Ply	SPENCER-Roof
25020278-B	E03	Common Girder	1	3	Job Reference (optional)

11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1597 lb down and 388 lb up at 0-10-12, 1596 lb down and 388 lb up at 2-10-12, 1596 lb down and 388 lb up at 4-10-12, 1596 lb down and 388 lb up at 6-10-12, 1596 lb down and 388 lb up at 8-10-12, 1596 lb down and 388 lb up at 10-10-12, 1608 lb down and 393 lb up at 12-10-12, 1608 lb down and 393 lb up at 14-8-4, 1608 lb down and 393 lb up at 16-8-4, 1608 lb down and 393 lb up at 18-8-4, 1608 lb down and 393 lb up at 20-8-4, 1608 lb down and 393 lb up at 22-8-4, 1608 lb down and 393 lb up at 24-8-4, 1608 lb down and 393 lb up at 26-8-4, and 1608 lb down and 393 lb up at 28-8-4, and 1609 lb down and 392 lb up at 30-5-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (lb/ft)
- Vert: 1-6=-62, 6-11=-62, 12-20=-20
- Concentrated Loads (lb)
- Vert: 23=-1464, 24=-1463, 25=-1463, 26=-1463, 27=-1463, 28=-1463, 29=-1467, 30=-1467, 31=-1467, 32=-1467, 33=-1467, 34=-1467, 35=-1467, 36=-1467, 37=-1467, 38=-1469

Job 25020278-B	Truss V1	Truss Type Valley	Qty 1	Ply 1	SPENCER-Roof Job Reference (optional)
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Scale = 1:51

Loading	(psf)	Spacing	2-00-00	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.30	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	20.8/30.0	Lumber DOL	1.15	BC	0.16	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.27	Horiz(TL)	0.01	9	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 129 lb FT = 20%	

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

BRACING
TOP CHORD
BOT CHORD

Structural wood sheathing directly applied or 6'-0" oc purlins.
Rigid ceiling directly applied or 10'-0" oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

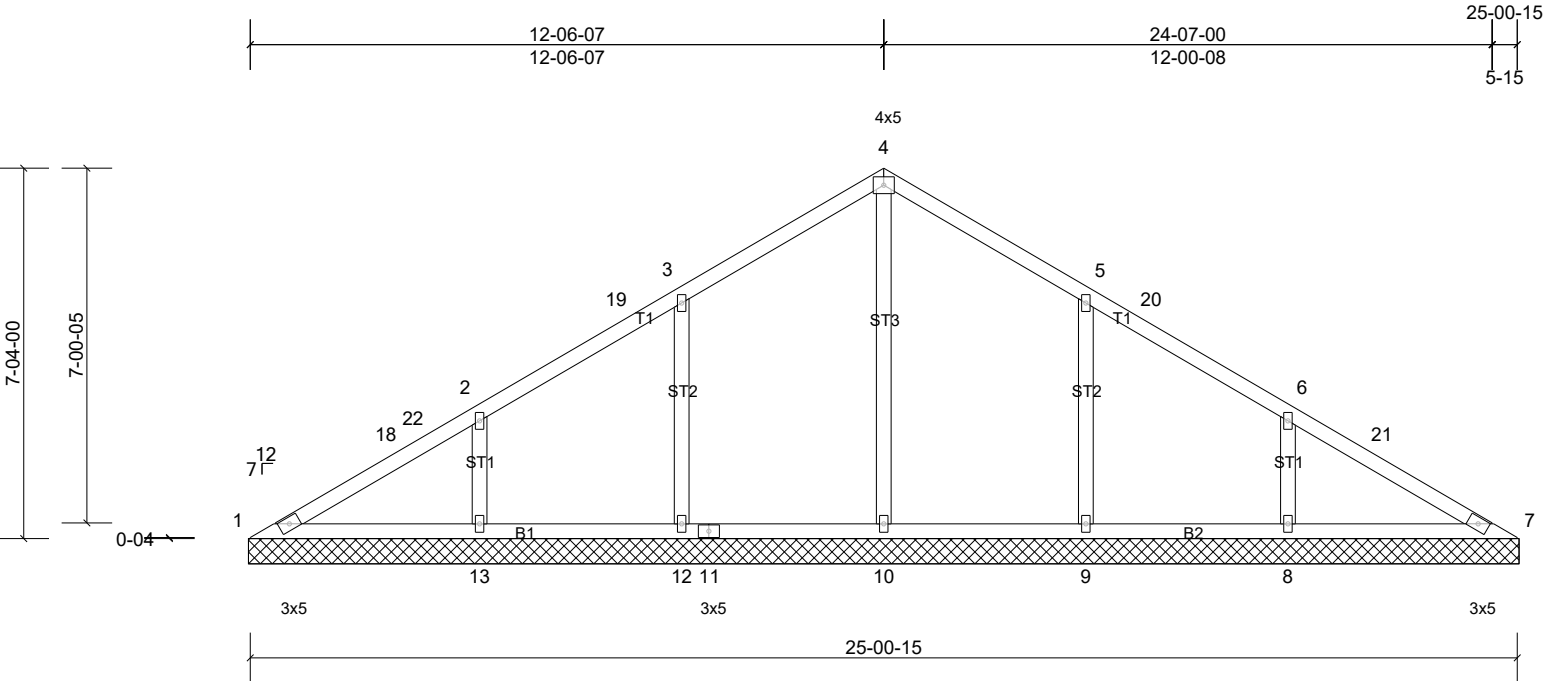
REACTIONS All bearings 28-06-15.
(lb) - Max Horiz 1=-273 (LC 11)
Max Uplift All uplift 100 (lb) or less at joint(s) 1, 9 except 10=-132 (LC 16), 11=-189 (LC 16), 12=-198 (LC 16), 15=-199 (LC 15), 16=-188 (LC 15), 17=-136 (LC 15)
Max Grav All reactions 250 (lb) or less at joint(s) 1, 9 except 10=354 (LC 27), 11=447 (LC 27), 12=520 (LC 6), 13=418 (LC 29), 15=520 (LC 5), 16=446 (LC 26), 17=358 (LC 26)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-252/219, 4-5=-191/266, 5-6=-191/262
WEBS 4-15=-396/246, 3-16=-323/235, 2-17=-279/195, 6-12=-396/246, 7-11=-323/236, 8-10=-279/193

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) 0-0-0 to 3-0-0, Exterior(2N) 3-0-0 to 14-3-7, Corner(3R) 14-3-7 to 17-3-7, Exterior(2N) 17-3-7 to 28-6-15 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
 - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
 - Unbalanced snow loads have been considered for this design.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3'-06"-00" tall by 2'-00"-00" wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 9 except (jt=lb) 15=198, 16=188, 17=136, 12=198, 11=189, 10=131.
 - Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 9.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job 25020278-B	Truss V2	Truss Type Valley	Qty 1	Ply 1	SPENCER-Roof Job Reference (optional)
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Scale = 1:45.8

Loading	(psf)	Spacing	2-00-00	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.31	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	20.8/30.0	Lumber DOL	1.15	BC	0.20	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.30	Horiz(TL)	0.01	7	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
Weight: 108 lb FT = 20%												

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

BRACING
TOP CHORD
BOT CHORD

REACTIONS All bearings 25-01-13.
(lb) - Max Horiz 1=-239 (LC 11)
Max Uplift All uplift 100 (lb) or less at joint(s) 1 except 8=-204 (LC 16), 9=-194 (LC 16), 12=-194 (LC 15), 13=-206 (LC 15)
Max Grav All reactions 250 (lb) or less at joint(s) 1, 7 except 8=493 (LC 27), 9=468 (LC 6), 10=538 (LC 26), 12=468 (LC 5), 13=495 (LC 26)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-22=-181/286
WEBS 4-10=-323/0, 3-12=-390/247, 2-13=-349/232, 5-9=-390/247, 6-8=-349/231

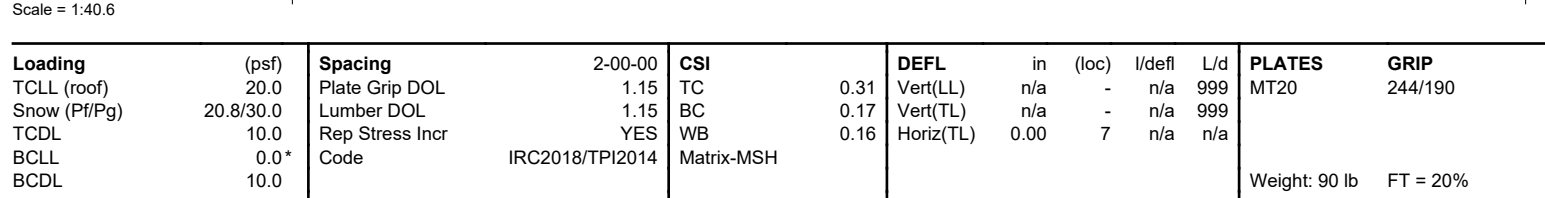
NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) 0-0-0 to 3-0-0, Exterior(2N) 3-0-0 to 12-6-14, Corner(3R) 12-6-14 to 15-6-14, Exterior(2N) 15-6-14 to 25-1-13 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) All plates are 2x4 MT20 unless otherwise indicated.
6) Gable requires continuous bottom chord bearing.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 12=193, 13=205, 9=193, 8=203.
9) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 7.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Structural wood sheathing directly applied or 10-0-0 oc purlins.
Rigid ceiling directly applied or 6-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

Carter Components, jon.rife Run: 8.73 S Jul 11 2024 Print: 8.730 S Jul 11 2024 MiTek Industries, Inc. Mon Mar 03 10:04:14 Page: ID: bLGxm6WoUEd?J6NsHb?wQVzrtGN-us4a?KeP6v702AYLfKC0Bne82A4kGMU3vYaPl0zeok



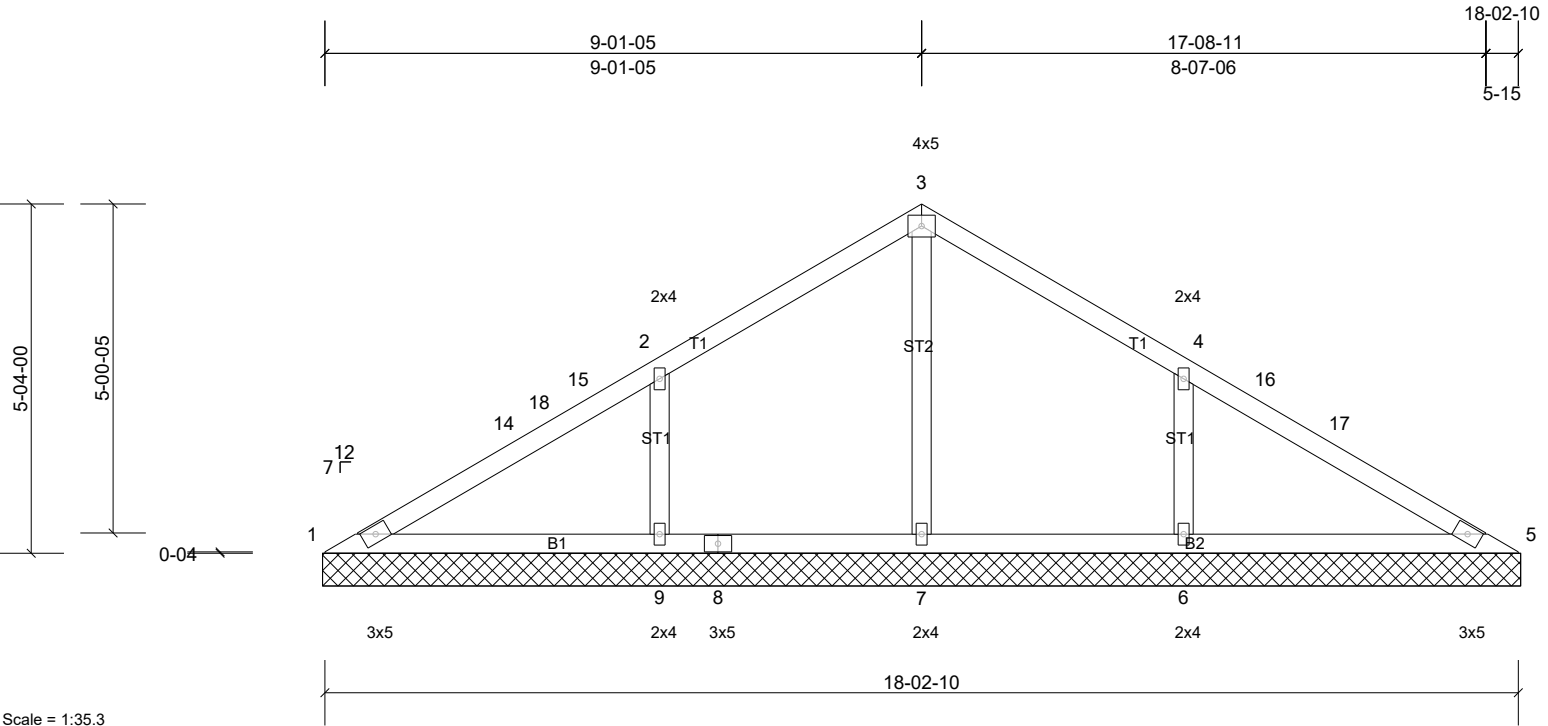
<p>REACTIONS All bearings 21-08-10.</p> <p>(lb) - Max Horiz 1=206 (LC 12)</p> <p>Max Uplift All uplift 100 (lb) or less at joint(s) 1 except 8=150 (LC 16), 9=207 (LC 16), 11=207 (LC 15), 13=152 (LC 15)</p> <p>Max Grav All reactions 250 (lb) or less at joint(s) 1, 7 except 8=377 (LC 27), 9=496 (LC 6), 10=418 (LC 26), 11=496 (LC 5), 13=379 (LC 26)</p> <p>FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.</p> <p>WEBS 3-11=-404/257, 2-13=-281/209, 5-9=-404/256, 6-8=-281/209</p>	<p>For recommendations that stabilizers and requirements for bracing be installed during truss erection, in accordance with Stabilizer Installation guide.</p>
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NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCdL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) 0-0-0 to 2-10-5, Exterior(2N) 2-10-5 to 10-10-5, Corner(3R) 10-10-5 to 13-10-5, Exterior(2N) 13-10-5 to 21-8-10 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 5) All plates are 2x4 MT20 unless otherwise indicated.
- 6) Gable requires continuous bottom chord bearing.
- 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 11=207, 13=152, 9=207, 8=149.
- 9) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 7.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job 25020278-B	Truss V4	Truss Type Valley	Qty 1	Ply 1	SPENCER-Roof Job Reference (optional)
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Loading	(psf)	Spacing	2-00-00	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.42	Vert(LL)	n/a	-	n/a	999	MT20
Snow (Pf/Pg)	20.8/30.0	Lumber DOL	1.15	BC	0.22	Vert(TL)	n/a	-	n/a	999	244/190
TCDL	10.0	Rep Stress Incr	YES	WB	0.20	Horiz(TL)	0.00	5	n/a	n/a	
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH							
BCDL	10.0										
										Weight: 71 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

BRACING
TOP CHORD
BOT CHORD

REACTIONS All bearings 18-03-08.
(lb) - Max Horiz 1=-172 (LC 11)
Max Uplift All uplift 100 (lb) or less at joint(s) 1, 5, 7 except 6=-247 (LC 16), 9=-249 (LC 15)
Max Grav All reactions 250 (lb) or less at joint(s) 1, 5 except 6=576 (LC 22), 7=438 (LC 1), 9=576 (LC 21)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-14=-156/256, 14-18=-144/268, 15-18=-141/282, 2-15=-134/323, 4-16=-127/305
WEBS 3-7=-404/110, 2-9=-445/313, 4-6=-445/313

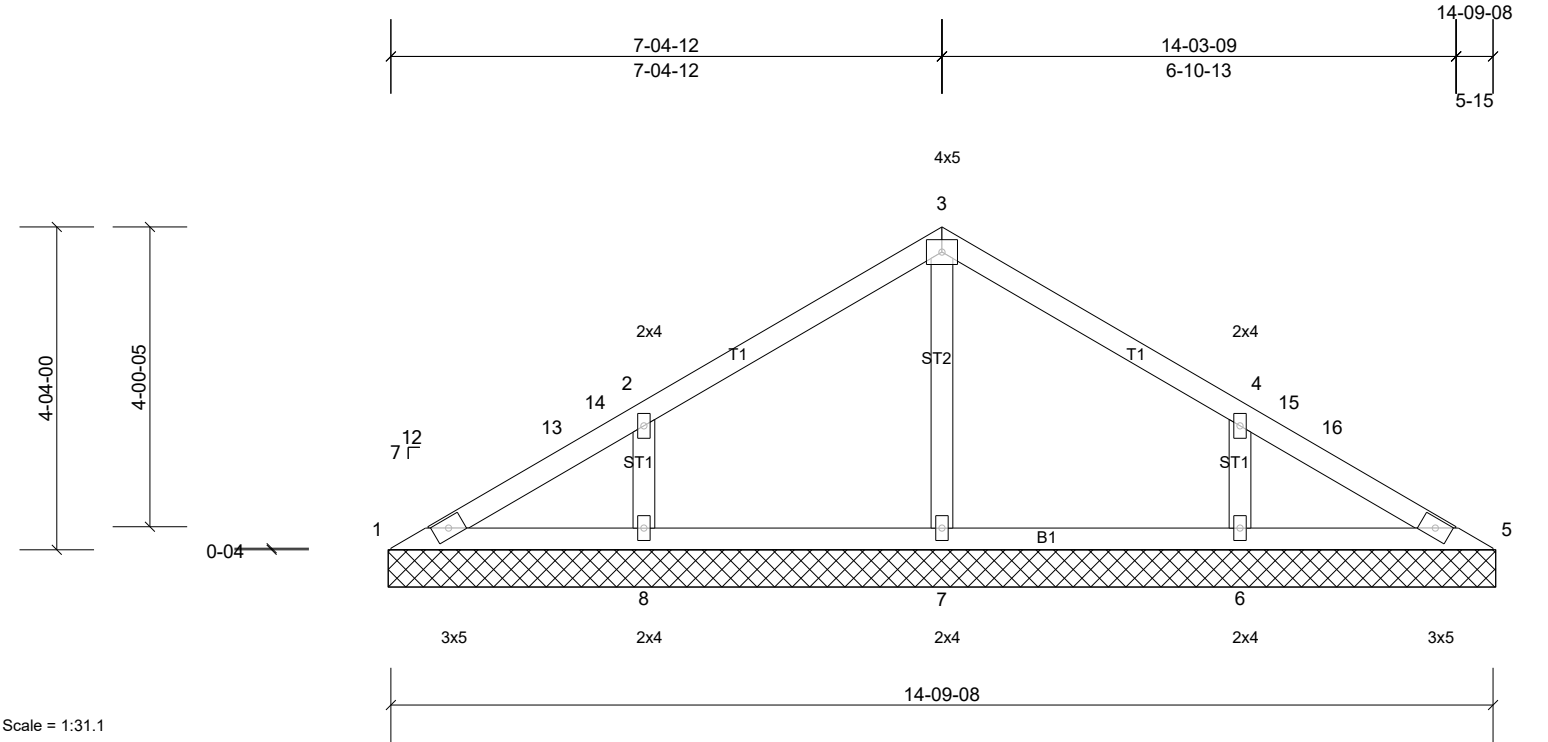
NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) 0-0-0 to 3-0-0, Exterior(2N) 3-0-0 to 9-1-12, Corner(3R) 9-1-12 to 12-1-12, Exterior(2N) 12-1-12 to 18-3-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) TC LL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) Gable requires continuous bottom chord bearing.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5, 7 except (it=lb) 9=248, 6=247.
8) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 5.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

Structural wood sheathing directly applied or 10-0-0 oc purlins.
Rigid ceiling directly applied or 6-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

LOAD CASE(S) Standard

Job 25020278-B	Truss V5	Truss Type Valley	Qty 1	Ply 1	SPENCER-Roof Job Reference (optional)
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Loading	(psf)	Spacing	2-00-00	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.32	Vert(LL)	n/a	-	n/a	999	244/190
Snow (Pf/Pg)	20.8/30.0	Lumber DOL	1.15	BC	0.08	Vert(TL)	n/a	-	n/a	999	
TCDL	10.0	Rep Stress Incr	YES	WB	0.09	Horiz(TL)	0.00	5	n/a	n/a	
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH							
BCDL	10.0										
										Weight: 56 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

BRACING
TOP CHORD
BOT CHORD

Structural wood sheathing directly applied or 10-0-0 oc purlins.
Rigid ceiling directly applied or 6-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

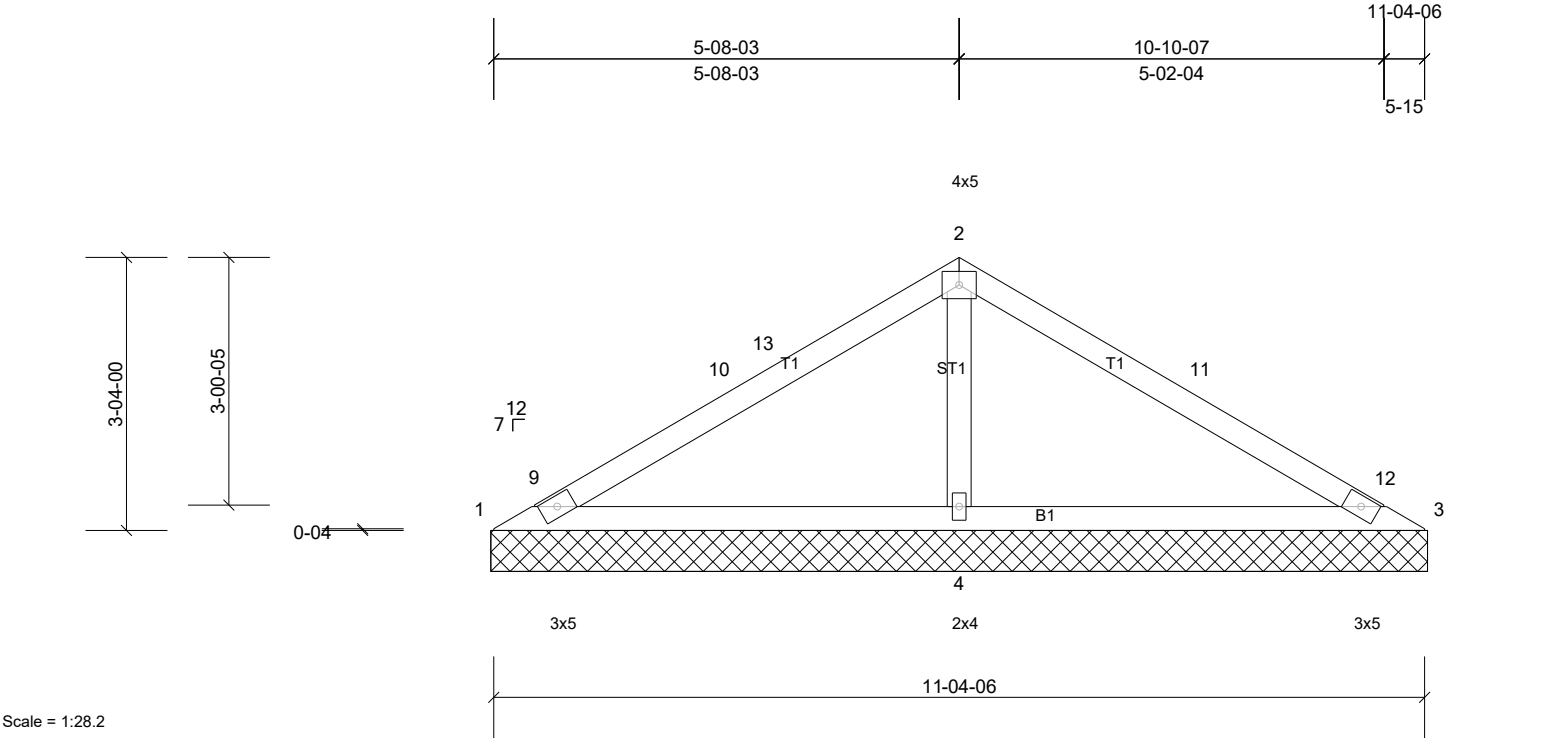
REACTIONS All bearings 14-10-06.
(lb) - Max Horiz 1=-139 (LC 13)
Max Uplift All uplift 100 (lb) or less at joint(s) 1, 5 except 6=-196 (LC 16), 8=-198 (LC 15)
Max Grav All reactions 250 (lb) or less at joint(s) 1, 5 except 6=488 (LC 22), 7=338 (LC 22), 8=488 (LC 21)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-7=-266/85, 2-8=-400/301, 4-6=-400/301

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) 0-0-0 to 3-0-0, Exterior(2N) 3-0-0 to 7-5-3, Corner(3R) 7-5-3 to 10-5-3, Exterior(2N) 10-5-3 to 14-10-6 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
 - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
 - Unbalanced snow loads have been considered for this design.
 - Gable requires continuous bottom chord bearing.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 8=197, 6=196.
 - Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 5.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job 25020278-B	Truss V6	Truss Type Valley	Qty 1	Ply 1	SPENCER-Roof Job Reference (optional)
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Loading	(psf)	Spacing	2-00-00	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.62	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	20.8/30.0	Lumber DOL	1.15	BC	0.55	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.19	Horiz(TL)	0.01	4	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH							Weight: 39 lb	FT = 20%
BCDL	10.0											

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

BRACING
TOP CHORD
BOT CHORD

Structural wood sheathing directly applied or 9-4-6 oc purlins.
Rigid ceiling directly applied or 6-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

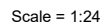
REACTIONS (lb/size) 1=14/11-05-03, (min. 1-08), 3=14/11-05-03, (min. 1-08), 4=905/11-05-03, (min. 1-08)
Max Horiz 1=106 (LC 14)
Max Uplift 1=-80 (LC 22), 3=-80 (LC 21), 4=-243 (LC 15)
Max Grav 1=89 (LC 21), 3=90 (LC 22), 4=953 (LC 22)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-10=-323/485, 10-13=-310/490, 2-13=-308/555, 2-11=-305/555, 3-11=-319/485
BOT CHORD 1-4=-468/403, 3-4=-468/403
WEBS 2-4=-880/594

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) 0-0-0 to 3-0-0, Exterior(2N) 3-0-0 to 5-8-10, Corner(3R) 5-8-10 to 8-8-10, Exterior(2N) 8-8-10 to 11-5-3 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
 - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
 - Unbalanced snow loads have been considered for this design.
 - Gable requires continuous bottom chord bearing.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 80 lb uplift at joint 1, 80 lb uplift at joint 3 and 243 lb uplift at joint 4.
 - Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 3.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

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<p>LUMBER</p> <p>TOP CHORD 2x4 SP No.2</p> <p>BOT CHORD 2x4 SP No.2</p> <p>OTHERS 2x4 SP No.3</p> <p>REACTIONS (lb/size) 1=43/8-00-01, (min. 1-08), 3=43/8-00-01, (min. 1-08), 4=567/8-00-01, (min. 1-08)</p> <p>Max Horiz 1=-72 (LC 11)</p> <p>Max Uplift 1=-20 (LC 22), 3=-23 (LC 11), 4=-147 (LC 15)</p> <p>Max Grav 1=109 (LC 21), 3=109 (LC 22), 4=589 (LC 21)</p> <p>FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.</p> <p>TOP CHORD 1-9=-222/293, 9-11=-210/303, 2-11=-207/321, 2-10=-202/321, 3-10=-214/293</p> <p>BOT CHORD 1-4=-294/307, 3-4=-294/307</p> <p>WEBS 2-4=-518/399</p>	<p>BRACING</p> <p>TOP CHORD Structural wood sheathing directly applied or 7-11-3 oc purlins.</p> <p>BOT CHORD <u>Rigid ceiling directly applied or 6-0-0 oc bracing.</u></p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.</p> </div>
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Structural wood sheathing directly applied or 7-11-3 oc purlins.
Rigid ceiling directly applied or 6-0-0 oc bracing.

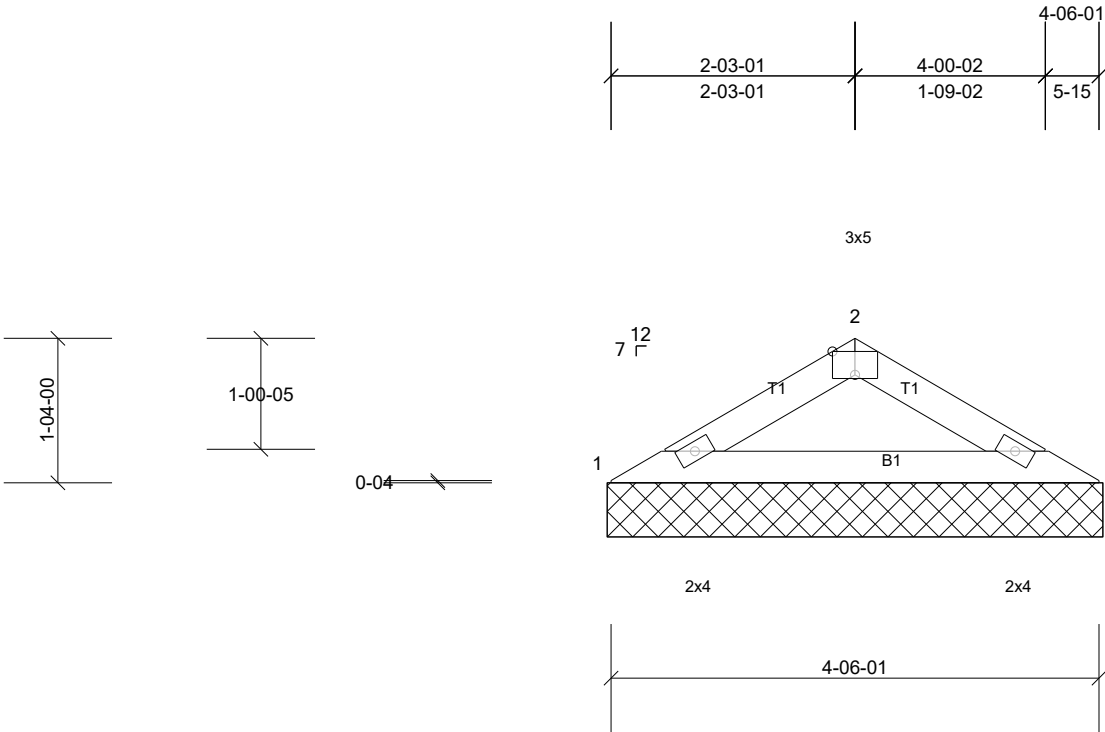
MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.
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- NOTES**

 - 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDD=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) 0-0-0 to 3-0-0, Exterior(2N) 3-0-0 to 4-0-1, Corner(3R) 4-0-1 to 6-11-2, Exterior(2N) 6-11-2 to 8-0-1 zone; cantilever left and right exposed ; end vertical left and right exposed; C/C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
 - 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
 - 4) Unbalanced snow loads have been considered for this design.
 - 5) Gable requires continuous bottom chord bearing.
 - 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
 - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 20 lb uplift at joint 1, 23 lb uplift at joint 3 and 147 lb uplift at joint 4.
 - 8) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 3.
 - 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	SPENCER-Roof
25020278-B	V8	Valley	1	1	Job Reference (optional)



Scale = 1:21.4

Plate Offsets (X, Y): [2:2-08,Edge]

Loading	(psf)	Spacing	2-00-00	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.17	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	20.8/30.0	Lumber DOL	1.15	BC	0.15	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.01	3	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-MP							Weight: 13 lb	FT = 20%
BCDL	10.0											

LUMBER		BRACING	
TOP CHORD	2x4 SP No.2	TOP CHORD	
BOT CHORD	2x4 SP No.2	BOT CHORD	

REACTIONS	(lb/size)	1=187/4-06-15, (min. 1-08), 3=187/4-06-15, (min. 1-08)
	Max Horiz	1=39 (LC 14)
	Max Uplift	1=48 (LC 15), 3=48 (LC 16)
	Max Grav	1=216 (LC 21), 3=216 (LC 22)

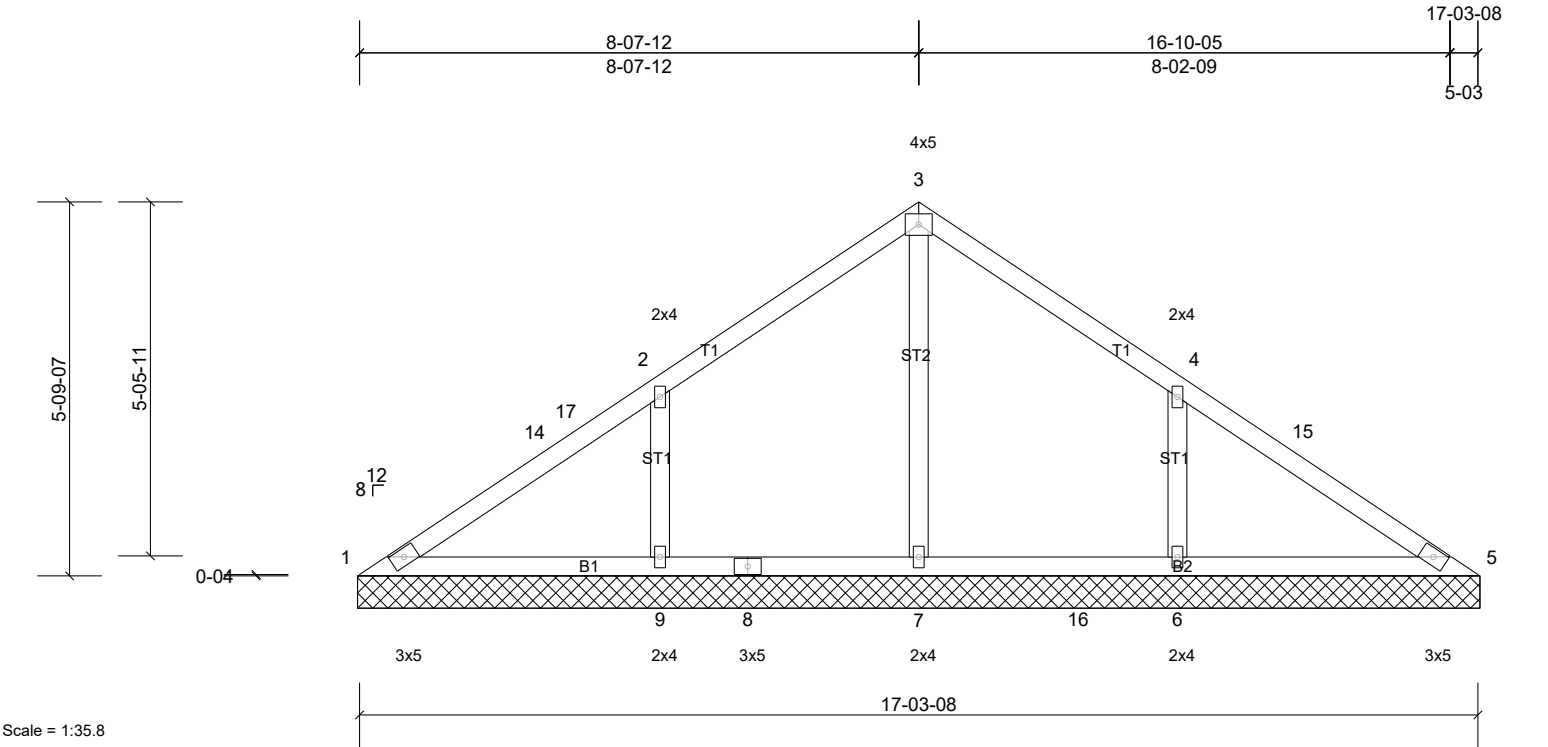
FORCES	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	1-2=-397/332
BOT CHORD	1-3=-265/332

- NOTES**
 - Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
 - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.;; Ce=0.9; Cs=1.00; Ct=1.10
 - Unbalanced snow loads have been considered for this design.
 - Gable requires continuous bottom chord bearing.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 48 lb uplift at joint 1 and 48 lb uplift at joint 3.
 - Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 3.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)**
Standard

Structural wood sheathing directly applied or 4-6-1 oc purlins.
Rigid ceiling directly applied or 10-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

Job 25020278-B	Truss V9	Truss Type Valley	Qty 1	Ply 1	SPENCER-Roof Job Reference (optional)
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Loading	(psf)	Spacing	2-00-00	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.29	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	20.8/30.0	Lumber DOL	1.15	BC	0.18	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.21	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH							Weight: 70 lb	FT = 20%
BCDL	10.0											

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

BRACING
TOP CHORD
BOT CHORD

Structural wood sheathing directly applied or 10-0-0 oc purlins.
Rigid ceiling directly applied or 6-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

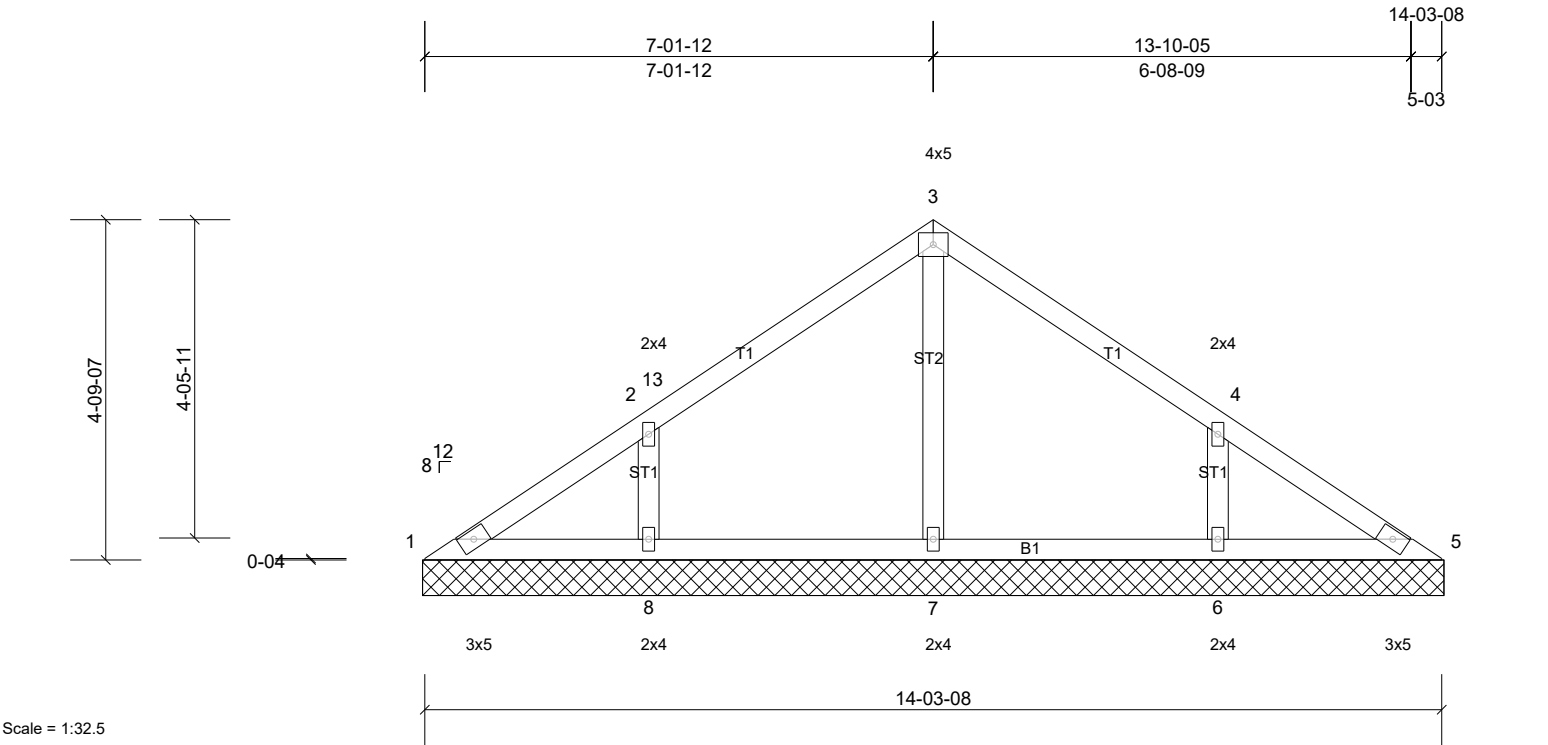
REACTIONS All bearings 17-04-04.
(lb) - Max Horiz 1=187 (LC 10)
Max Uplift All uplift 100 (lb) or less at joint(s) 1 except 6=257 (LC 14), 9=260 (LC 13)
Max Grav All reactions 250 (lb) or less at joint(s) 1, 5 except 6=546 (LC 23), 7=531 (LC 22), 9=551 (LC 22)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 14-17=-149/258, 2-17=-140/305, 4-15=-121/269
WEBS 3-7=-377/79, 2-9=-388/336, 4-6=-388/336

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) 0-0-0 to 3-0-0, Exterior(2N) 3-0-0 to 8-8-2, Corner(3R) 8-8-2 to 11-8-2, Exterior(2N) 11-8-2 to 17-4-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
 - TCCL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
 - Gable requires continuous bottom chord bearing.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (it=lb) 9=259, 6=257.
 - Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 5.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job 25020278-B	Truss V10	Truss Type Valley	Qty 1	Ply 1	SPENCER-Roof Job Reference (optional)
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Loading	(psf)	Spacing	2-00-00	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	20.8/30.0	Lumber DOL	1.15	BC	0.08	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.10	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH							Weight: 56 lb	FT = 20%
BCDL	10.0											

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

BRACING
TOP CHORD
BOT CHORD

Structural wood sheathing directly applied or 6-0-0 oc purlins.
Rigid ceiling directly applied or 6-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

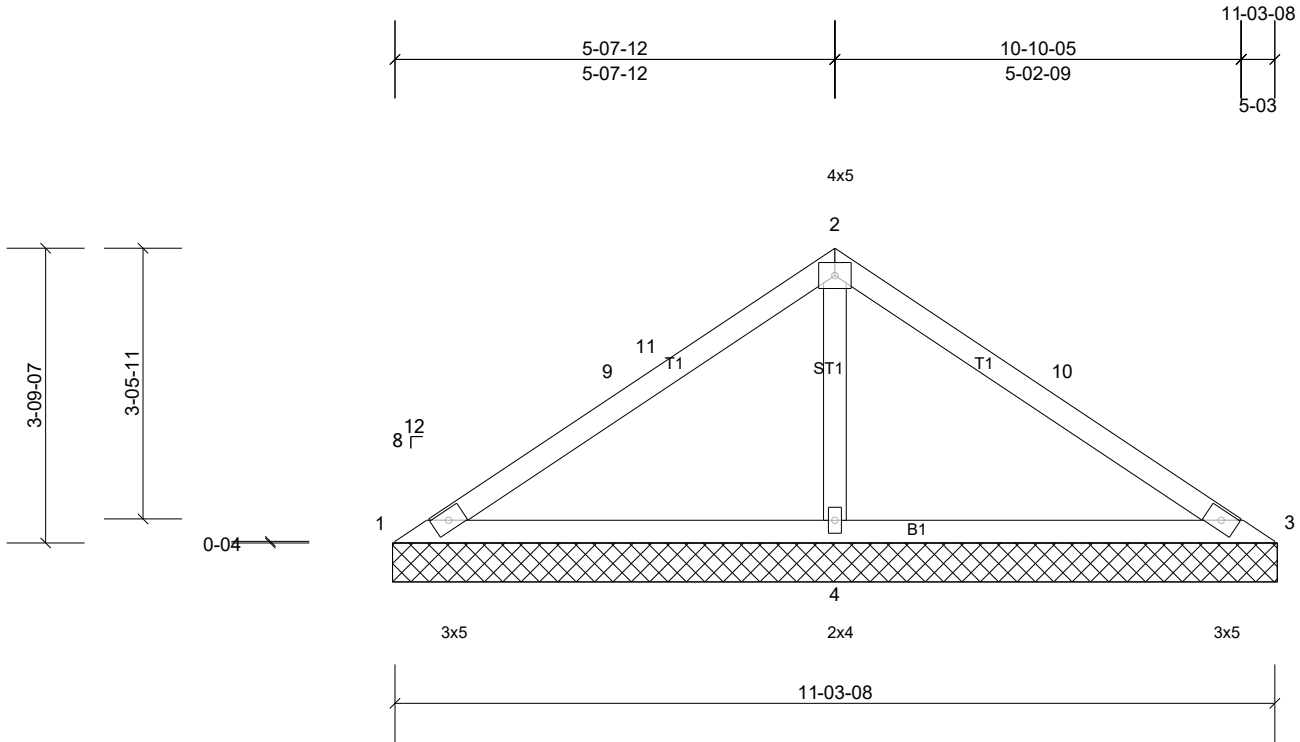
REACTIONS All bearings 14-04-04.
(lb) - Max Horiz 1=-154 (LC 9)
Max Uplift All uplift 100 (lb) or less at joint(s) 1, 5 except 6=-210 (LC 14), 8=-213 (LC 13)
Max Grav All reactions 250 (lb) or less at joint(s) 1, 5 except 6=381 (LC 23), 7=314 (LC 1), 8=383 (LC 22)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-8=-339/333, 4-6=-339/333

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) 0-0-0 to 3-2-2, Exterior(2N) 3-2-2 to 7-2-2, Corner(3R) 7-2-2 to 10-2-2, Exterior(2N) 10-2-2 to 14-4-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
 - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
 - Gable requires continuous bottom chord bearing.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 8=212, 6=210.
 - Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 5.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job 25020278-B	Truss V11	Truss Type Valley	Qty 1	Ply 1	SPENCER-Roof Job Reference (optional)
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Loading	(psf)	Spacing	2-00-00	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.38	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	20.8/30.0	Lumber DOL	1.15	BC	0.41	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.23	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH							Weight: 40 lb	FT = 20%
BCDL	10.0											

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

BRACING
TOP CHORD
BOT CHORD

Structural wood sheathing directly applied or 9-0-9 oc purlins.
Rigid ceiling directly applied or 6-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

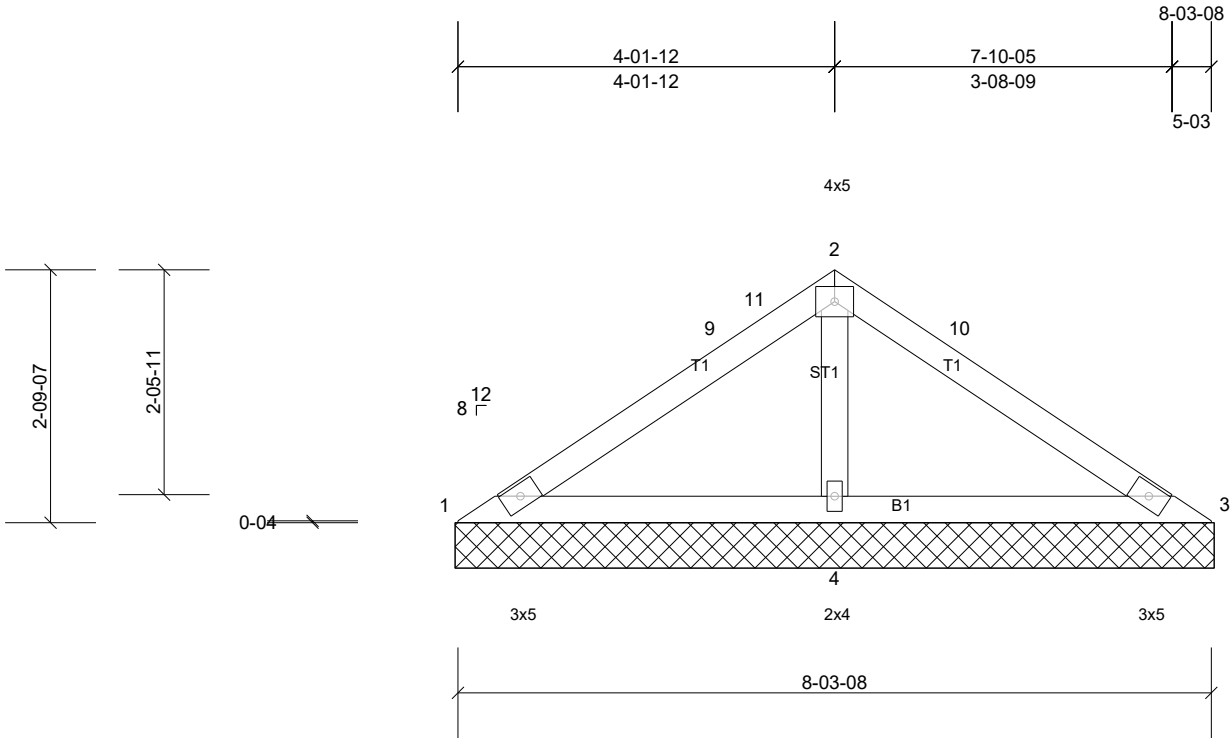
REACTIONS (lb/size) 1=5/11-04-04, (min. 1-08), 3=5/11-04-04, (min. 1-08), 4=917/11-04-04, (min. 1-08)
Max Horiz 1=-120 (LC 9)
Max Uplift 1=-53 (LC 35), 3=-53 (LC 34), 4=-269 (LC 13)
Max Grav 1=60 (LC 34), 3=60 (LC 35), 4=917 (LC 1)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-9=-334/464, 9-11=-320/469, 2-11=-318/540, 2-10=-314/540, 3-10=-329/464
BOT CHORD 1-4=-441/421, 3-4=-441/421
WEBS 2-4=-907/638

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BC DL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) 0-0-0 to 3-0-0, Exterior(2N) 3-0-0 to 5-8-2, Corner(3R) 5-8-2 to 8-8-2, Exterior(2N) 8-8-2 to 11-4-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
 - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
 - Gable requires continuous bottom chord bearing.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 53 lb uplift at joint 1, 53 lb uplift at joint 3 and 269 lb uplift at joint 4.
 - Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 3.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job 25020278-B	Truss V12	Truss Type Valley	Qty 1	Ply 1	SPENCER-Roof Job Reference (optional)
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Scale = 1:25.5

Loading	(psf)	Spacing	2-00-00	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.23	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	20.8/30.0	Lumber DOL	1.15	BC	0.31	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.14	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP							Weight: 29 lb	FT = 20%
BCDL	10.0											

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
OTHERS	2x4 SP No.3

BRACING

TOP CHORD
BOT CHORD

Structural wood sheathing directly applied or 8-3-8 oc purlins.
Rigid ceiling directly applied or 6-0-0 oc bracing.
MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS (lb/size)	1=32/8-04-04, (min. 1-08), 3=32/8-04-04, (min. 1-08), 4=618/8-04-04, (min. 1-08)
Max Horiz	1=-87 (LC 9)
Max Uplift	1=-18 (LC 35), 3=-22 (LC 9), 4=-176 (LC 13)
Max Grav	1=66 (LC 34), 3=66 (LC 35), 4=618 (LC 1)

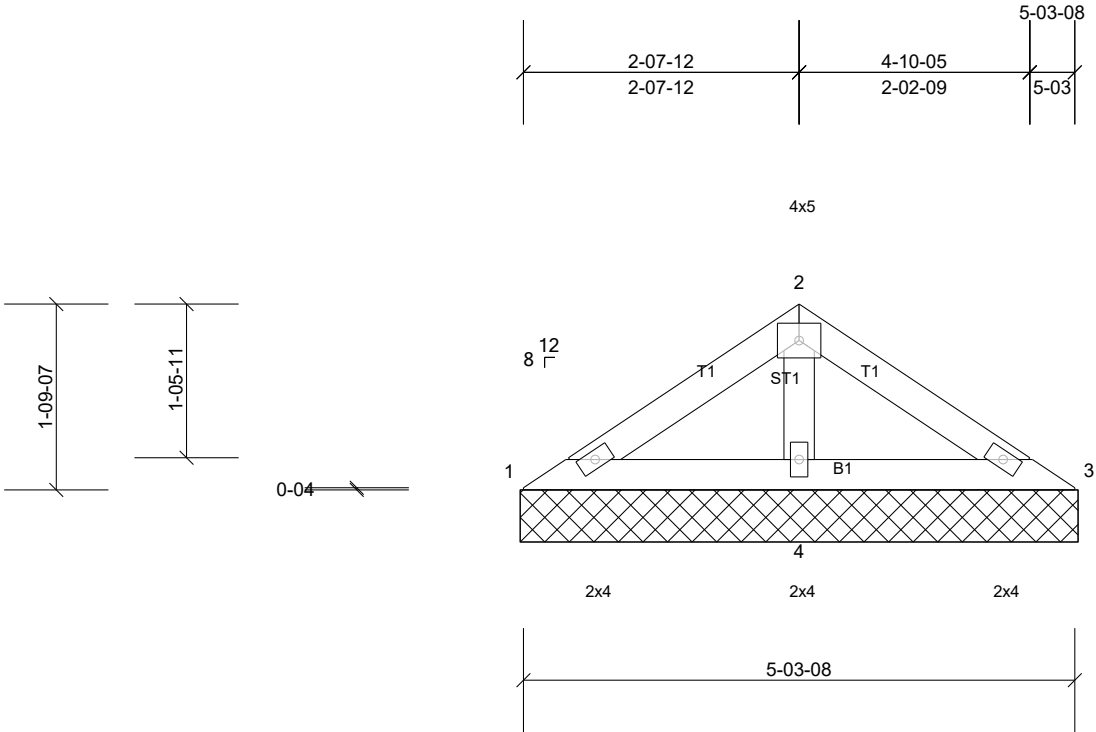
FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD	1-9=-251/312, 9-11=-237/320, 2-11=-234/344, 2-10=-228/344, 3-10=-242/312
BOT CHORD	1-4=-307/344, 3-4=-307/344
WEBS	2-4=-583/460

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) 0-0-0 to 3-0-0, Exterior(2N) 3-0-0 to 4-2-2, Corner(3R) 4-2-2 to 7-4-11, Exterior(2N) 7-4-11 to 8-4-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 4) Gable requires continuous bottom chord bearing.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 18 lb uplift at joint 1, 22 lb uplift at joint 3 and 176 lb uplift at joint 4.
- 7) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 3.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S)	Standard
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Job 25020278-B	Truss V13	Truss Type Valley	Qty 1	Ply 1	SPENCER-Roof Job Reference (optional)
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Scale = 1:22.2

Loading	(psf)	Spacing	2-00-00	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	n/a	-	n/a	999	244/190
Snow (Pf/Pg)	20.8/30.0	Lumber DOL	1.15	BC	0.14	Vert(TL)	n/a	-	n/a	999	
TCDL	10.0	Rep Stress Incr	YES	WB	0.08	Horiz(TL)	n/a	-	n/a	n/a	
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP							
BCDL	10.0										
										Weight: 17 lb	FT = 20%

LUMBER		BRACING	
TOP CHORD	2x4 SP No.2	TOP CHORD	
BOT CHORD	2x4 SP No.2	BOT CHORD	
OTHERS	2x4 SP No.3		

Structural wood sheathing directly applied or 5-3-8 oc purlins.
Rigid ceiling directly applied or 6-0-0 oc bracing.

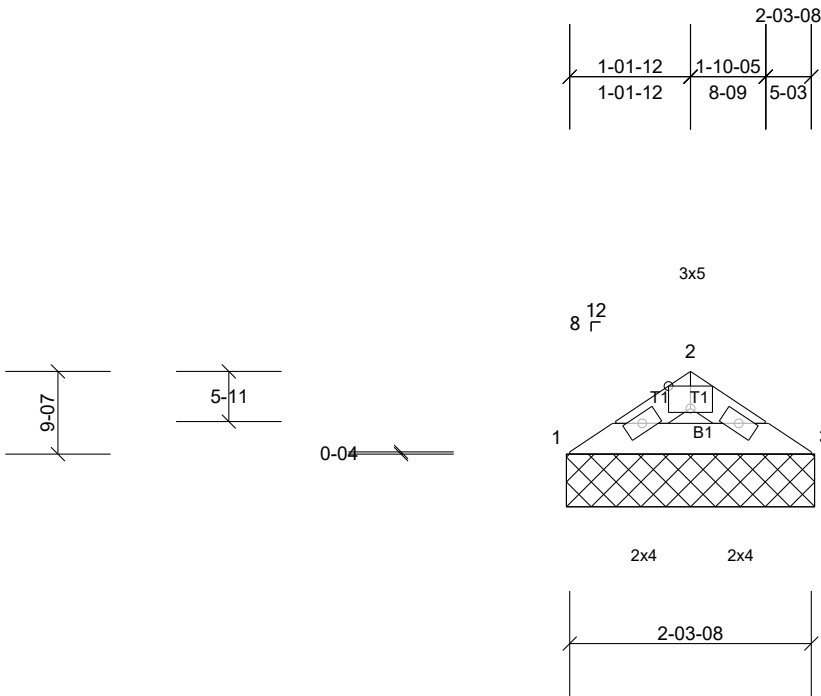
MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS	(lb/size)	1=52/5-04-04, (min. 1-08), 3=52/5-04-04, (min. 1-08), 4=333/5-04-04, (min. 1-08)
	Max Horiz	1=-54 (LC 9)
	Max Uplift	1=-13 (LC 13), 3=-22 (LC 14), 4=-83 (LC 13)
	Max Grav	1=65 (LC 34), 3=65 (LC 35), 4=333 (LC 1)
FORCES	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
WEBS	2-4=-274/255	

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
 - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.;
 - Ce=0.9; Cs=1.00; Ct=1.10
 - Gable requires continuous bottom chord bearing.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 13 lb uplift at joint 1, 22 lb uplift at joint 3 and 83 lb uplift at joint 4.
 - Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 3.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job 25020278-B	Truss V14	Truss Type Valley	Qty 1	Ply 1	SPENCER-Roof Job Reference (optional)
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Scale = 1:21.9

Plate Offsets (X, Y): [2:2-08,Edge]

Loading	(psf)	Spacing	2-00-00	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	20.8/30.0	Lumber DOL	1.15	BC	0.05	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP							Weight: 6 lb	FT = 20%
BCDL	10.0											

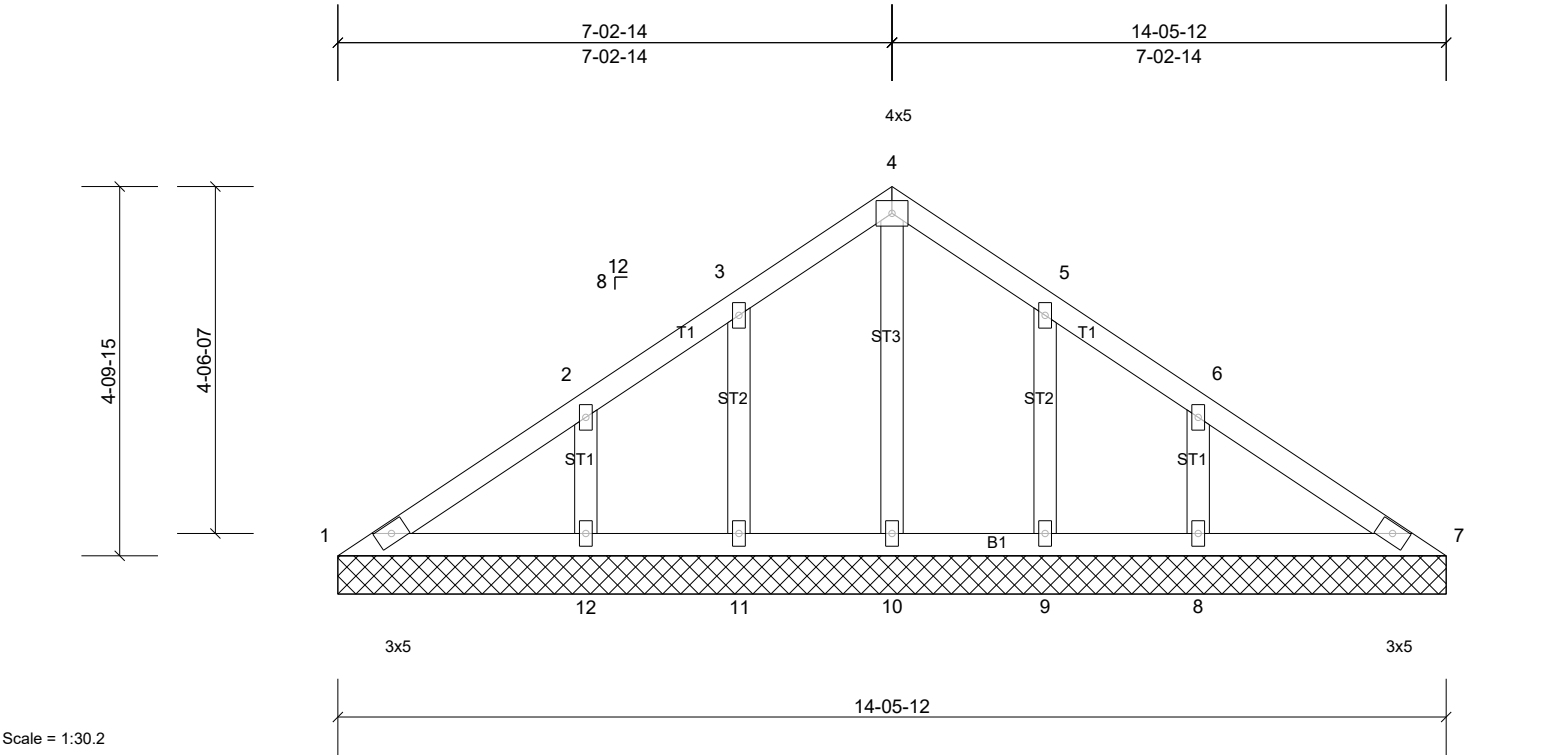
LUMBER	BRACING	
TOP CHORD 2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 2-3-8 oc purlins.
BOT CHORD 2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
REACTIONS (lb/size) 1=96/2-04-04, (min. 1-08), 3=96/2-04-04, (min. 1-08)		MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.
Max Horiz 1=-20 (LC 11)		
Max Uplift 1=-25 (LC 13), 3=-25 (LC 14)		

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
 - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.;
 - Ce=0.9; Cs=1.00; Ct=1.10
 - Gable requires continuous bottom chord bearing.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 25 lb uplift at joint 1 and 25 lb uplift at joint 3.
 - Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 3.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job 25020278-B	Truss V15G	Truss Type Valley	Qty 1	Ply 1	SPENCER-Roof Job Reference (optional)
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Scale = 1:30.2

Loading	(psf)	Spacing	2-00-00	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.11	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	20.8/30.0	Lumber DOL	1.15	BC	0.11	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.07	Horiz(TL)	0.00	7	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH							Weight: 66 lb	FT = 20%
BCDL	10.0											

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

BRACING
TOP CHORD
BOT CHORD

Structural wood sheathing directly applied or 10-0-0 oc purlins.
Rigid ceiling directly applied or 6-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS All bearings 14-05-12.
(lb) - Max Horiz 1=155 (LC 10)
Max Uplift All uplift 100 (lb) or less at joint(s) 1, 9, 11 except 8=145 (LC 14), 12=147 (LC 13)
Max Grav All reactions 250 (lb) or less at joint(s) 1, 7, 9, 10, 11 except 8=284 (LC 23), 12=286 (LC 22)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) 0-0-0 to 3-2-14, Exterior(2N) 3-2-14 to 7-2-14, Corner(3R) 7-2-14 to 10-2-14, Exterior(2N) 10-2-14 to 14-5-12 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
 - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - Gable studs spaced at 2-0-0 oc.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 11, 9 except (jt=lb) 12=147, 8=145.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job 25020278-B	Truss V16G	Truss Type Valley	Qty 1	Ply 1	SPENCER-Roof Job Reference (optional)
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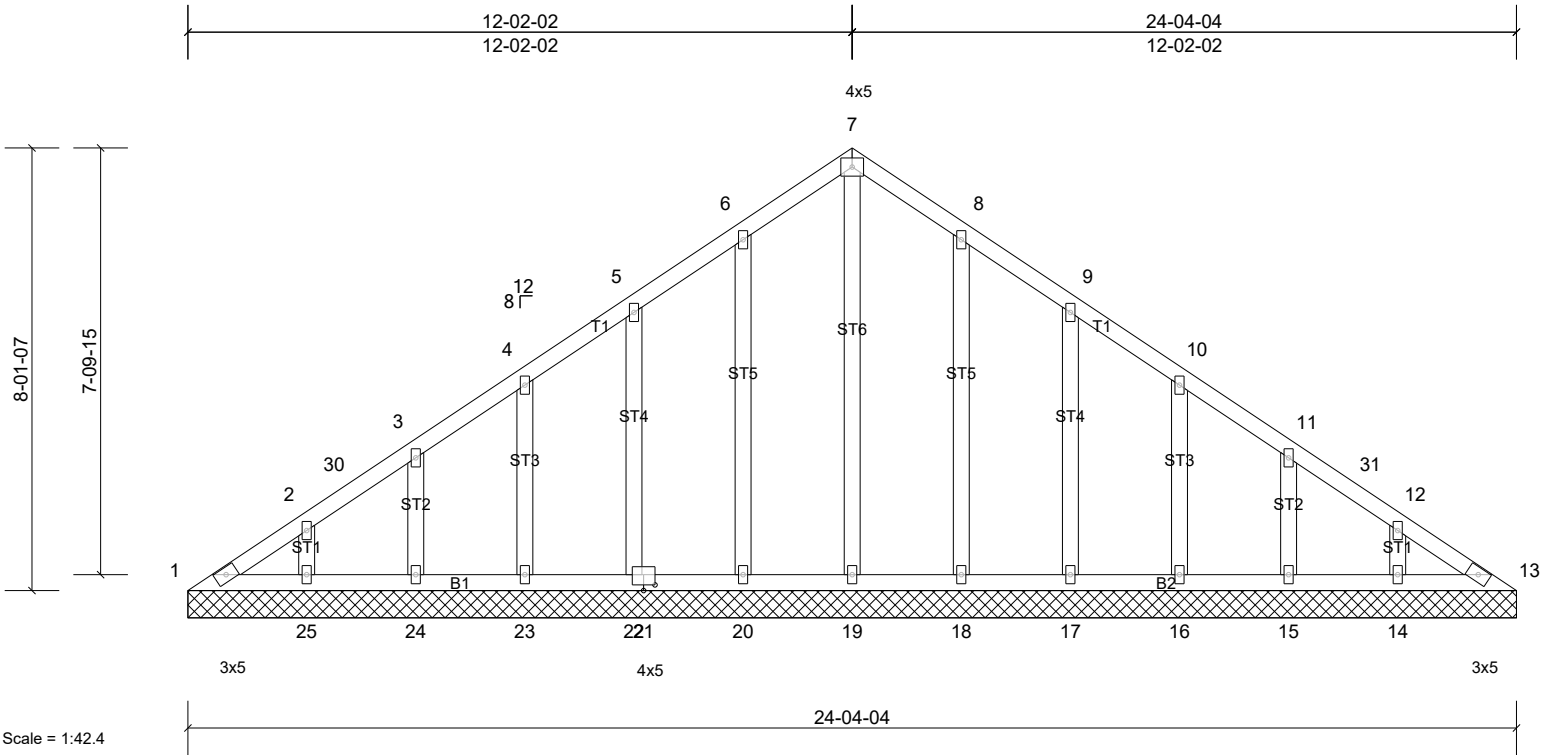


Plate Offsets (X, Y): [21:2-08,1-04]

Loading	(psf)	Spacing	2-00-00	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	20.8/30.0	Lumber DOL	1.15	BC	0.04	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.23	Horiz(TL)	0.01	13	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 142 lb FT = 20%	

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

BRACING
TOP CHORD
BOT CHORD

Structural wood sheathing directly applied or 6'-0-0 oc purlins.
Rigid ceiling directly applied or 10'-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

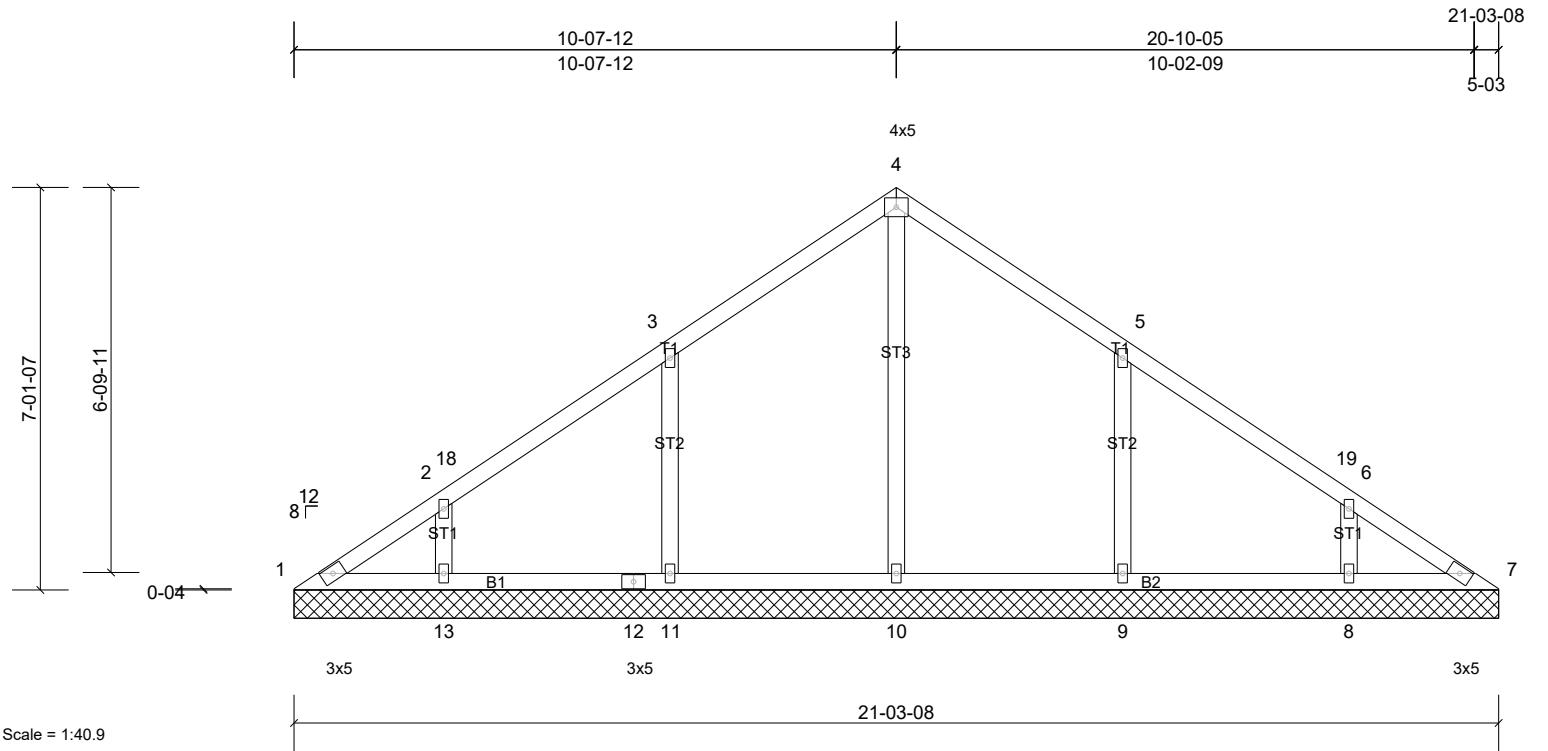
REACTIONS All bearings 24-04-04.
(lb) - Max Horiz 1=-265 (LC 9)
Max Uplift All uplift 100 (lb) or less at joint(s) 1, 14, 18, 25 except 15=-110 (LC 14), 16=-101 (LC 14), 17=-107 (LC 14), 20=-102 (LC 13), 22=-106 (LC 13), 23=-101 (LC 13), 24=-109 (LC 13)
Max Grav All reactions 250 (lb) or less at joint(s) 1, 13, 14, 15, 16, 17, 18, 19, 20, 22, 23, 24, 25

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-250/213, 6-7=-152/253, 7-8=-152/253

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) 0-0-0 to 3-0-0, Exterior(2N) 3-0-0 to 12-2-2, Corner(3R) 12-2-2 to 15-2-2, Exterior(2N) 15-2-2 to 24-4-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
 - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - Gable studs spaced at 2'-0-0 oc.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3'-06-00 tall by 2'-00-00 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 25, 18, 14 except (jt=lb) 20=102, 22=105, 23=101, 24=108, 17=107, 16=100, 15=110.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job 25020278-B	Truss V17	Truss Type Valley	Qty 1	Ply 1	SPENCER-Roof Job Reference (optional)
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Loading	(psf)	Spacing	2-00-00	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	n/a	-	n/a	999	244/190
Snow (Pf/Pg)	20.8/30.0	Lumber DOL	1.15	BC	0.17	Vert(TL)	n/a	-	n/a	999	
TCDL	10.0	Rep Stress Incr	YES	WB	0.18	Horiz(TL)	0.01	7	n/a	n/a	
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH							
BCDL	10.0										
										Weight: 93 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

BRACING
TOP CHORD
BOT CHORD

Structural wood sheathing directly applied or 6'-0" oc purlins.
Rigid ceiling directly applied or 10'-0" oc bracing.
MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

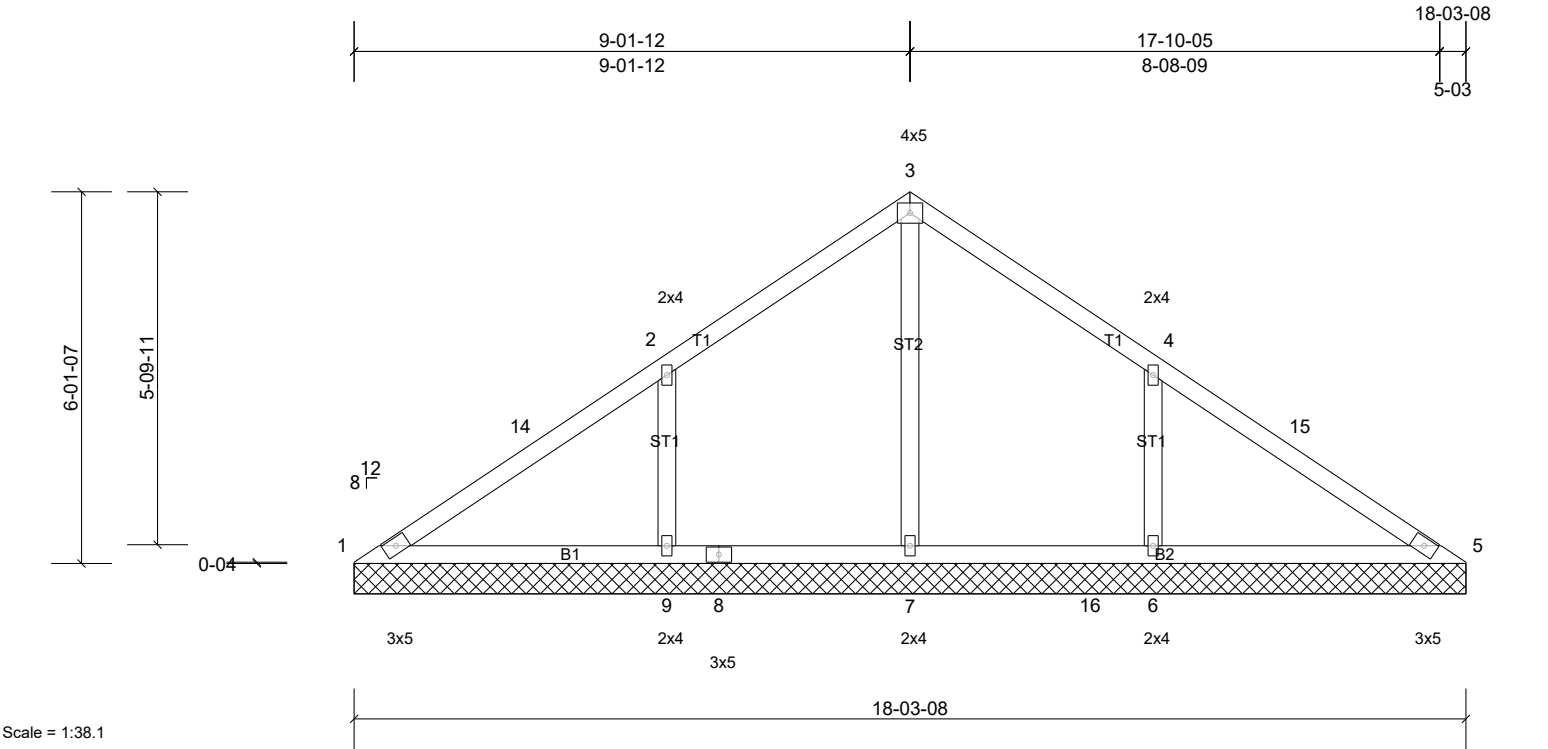
REACTIONS All bearings 21-03-08.
(lb) - Max Horiz 1=232 (LC 10)
Max Uplift All uplift 100 (lb) or less at joint(s) 1 except 8=-160 (LC 14), 9=-232 (LC 14), 11=-232 (LC 13), 13=-164 (LC 13)
Max Grav All reactions 250 (lb) or less at joint(s) 1, 7 except 8=371 (LC 23), 9=489 (LC 23), 10=413 (LC 25), 11=489 (LC 22), 13=376 (LC 22)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-11=-356/282, 2-13=-283/231, 5-9=-356/282, 6-8=-283/231

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) 0-0-6 to 3-0-6, Exterior(2N) 3-0-6 to 10-8-2, Corner(3R) 10-8-2 to 13-8-2, Exterior(2N) 13-8-2 to 21-3-14 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
 - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3'-06" tall by 2'-00" wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 11=231, 13=164, 9=232, 8=160.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job 25020278-B	Truss V18	Truss Type Valley	Qty 1	Ply 1	SPENCER-Roof Job Reference (optional)
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Loading	(psf)	Spacing	2-00-00	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.33	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	20.8/30.0	Lumber DOL	1.15	BC	0.22	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.27	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 75 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

BRACING
TOP CHORD
BOT CHORD

Structural wood sheathing directly applied or 10-0-0 oc purlins.
Rigid ceiling directly applied or 6-0-0 oc bracing.
MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

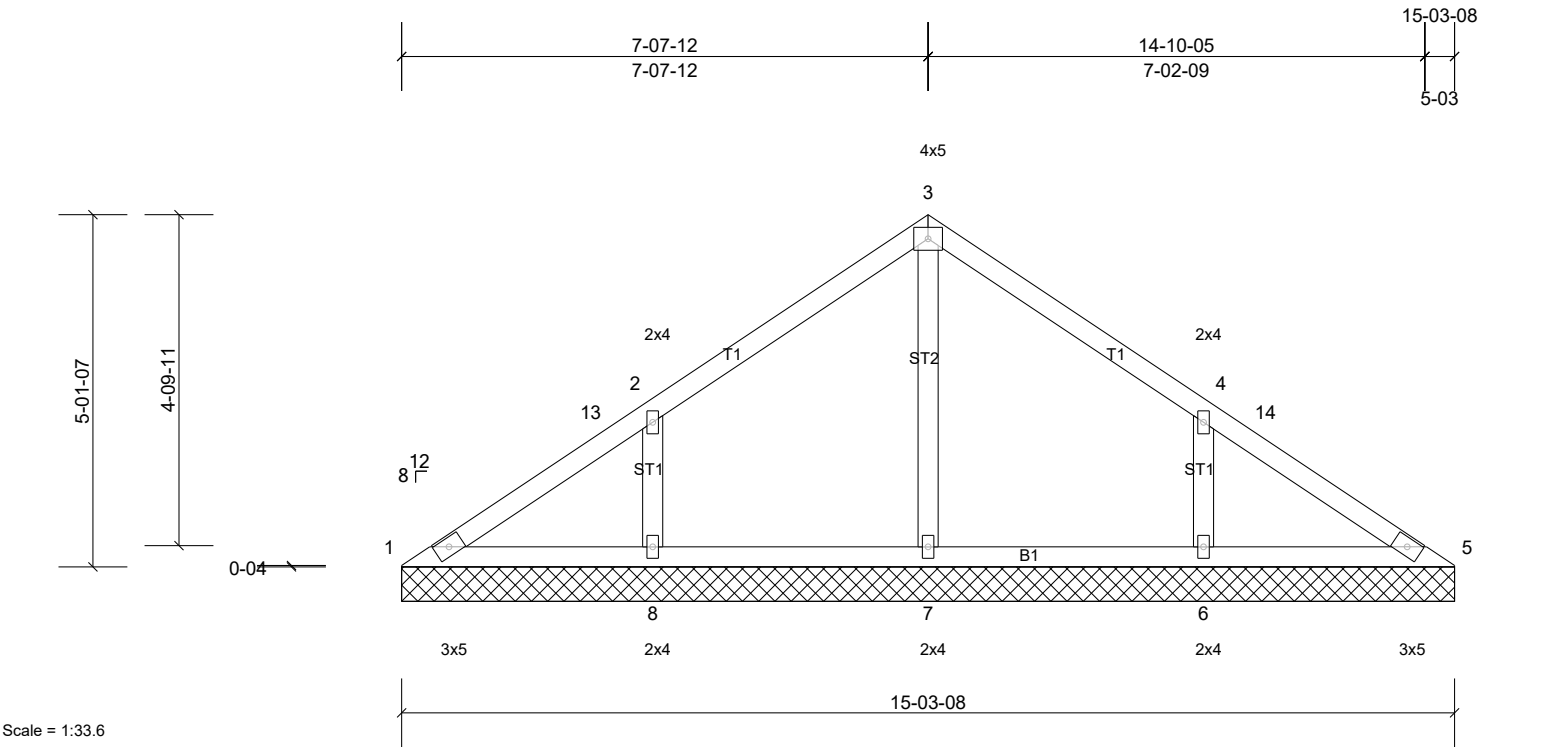
REACTIONS All bearings 18-03-08.
(lb) - Max Horiz 1=-198 (LC 11)
Max Uplift All uplift 100 (lb) or less at joint(s) 1 except 6=-276 (LC 14), 9=-279 (LC 13)
Max Grav All reactions 250 (lb) or less at joint(s) 1, 5 except 6=591 (LC 23), 7=564 (LC 22), 9=596 (LC 22)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-14=-183/282, 2-14=-169/359, 2-3=-17/268, 4-15=-154/331, 5-15=-167/256
WEBS 3-7=-420/84, 2-9=-413/344, 4-6=-413/344

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) 0-0-6 to 3-0-6, Exterior(2N) 3-0-6 to 9-2-2, Corner(3R) 9-2-2 to 12-2-2, Exterior(2N) 12-2-2 to 18-3-14 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
 - TCCL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
 - Gable requires continuous bottom chord bearing.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 9=278, 6=276.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job 25020278-B	Truss V19	Truss Type Valley	Qty 1	Ply 1	SPENCER-Roof Job Reference (optional)
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Scale = 1:33.6

Loading	(psf)	Spacing	2-00-00	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.22	Vert(LL)	n/a	-	n/a	999	244/190
Snow (Pf/Pg)	20.8/30.0	Lumber DOL	1.15	BC	0.10	Vert(TL)	n/a	-	n/a	999	
TCDL	10.0	Rep Stress Incr	YES	WB	0.12	Horiz(TL)	0.00	5	n/a	n/a	
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH							
BCDL	10.0										
										Weight: 61 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

BRACING
TOP CHORD
BOT CHORD

Structural wood sheathing directly applied or 10-0-0 oc purlins.
Rigid ceiling directly applied or 6-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

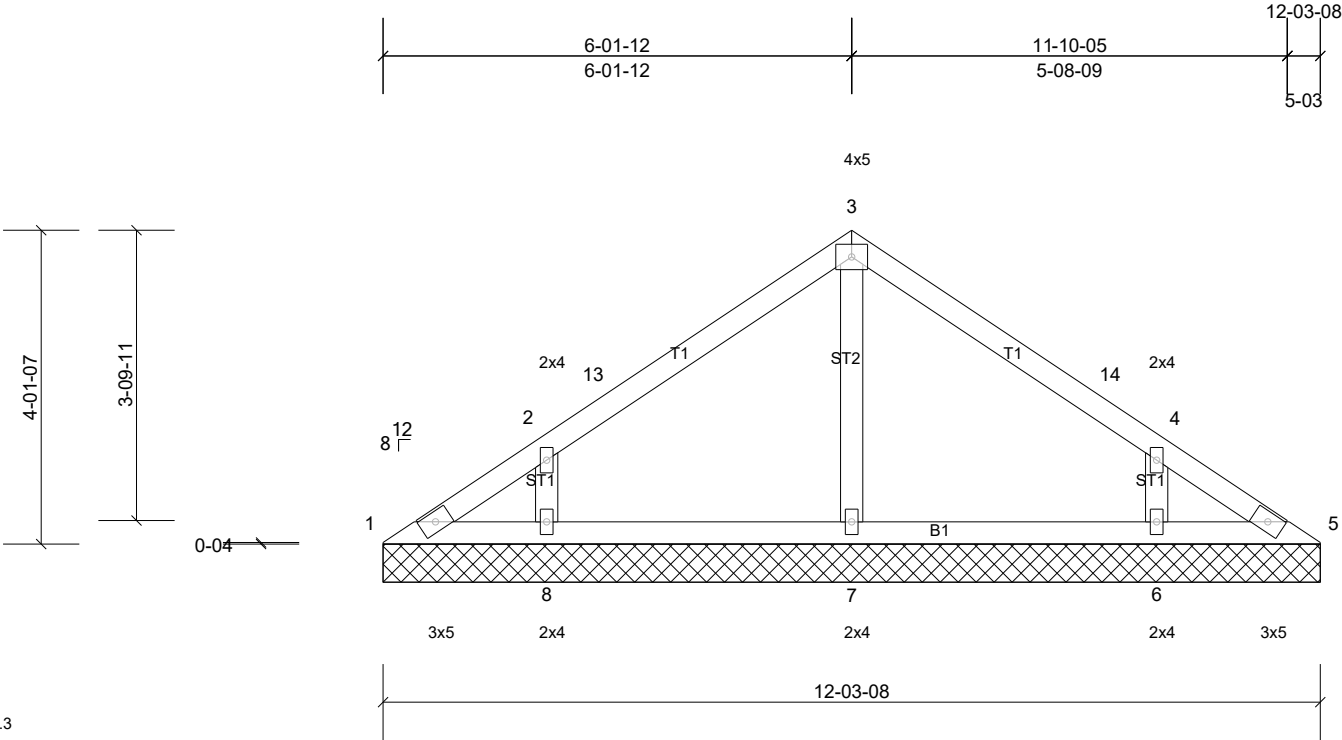
REACTIONS All bearings 15-03-08.
(lb) - Max Horiz 1=-165 (LC 9)
Max Uplift All uplift 100 (lb) or less at joint(s) 1 except 6=-225 (LC 14), 8=-227 (LC 13)
Max Grav All reactions 250 (lb) or less at joint(s) 1, 5 except 6=406 (LC 23), 7=336 (LC 1), 8=408 (LC 22)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-7=-264/57, 2-8=-350/328, 4-6=-350/328

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) 0-0-6 to 3-0-6, Exterior(2N) 3-0-6 to 7-8-2, Corner(3R) 7-8-2 to 10-8-2, Exterior(2N) 10-8-2 to 15-3-14 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
 - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
 - Gable requires continuous bottom chord bearing.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 8=227, 6=224.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job 25020278-B	Truss V20	Truss Type Valley	Qty 1	Ply 1	SPENCER-Roof
Job Reference (optional)					



Loading	(psf)	Spacing	2-00-00	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	20.8/30.0	Lumber DOL	1.15	BC	0.09	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.11	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH							Weight: 47 lb	FT = 20%
BCDL	10.0											

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

BRACING
TOP CHORD
BOT CHORD

Structural wood sheathing directly applied or 6'-0-0 oc purlins.
Rigid ceiling directly applied or 10'-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

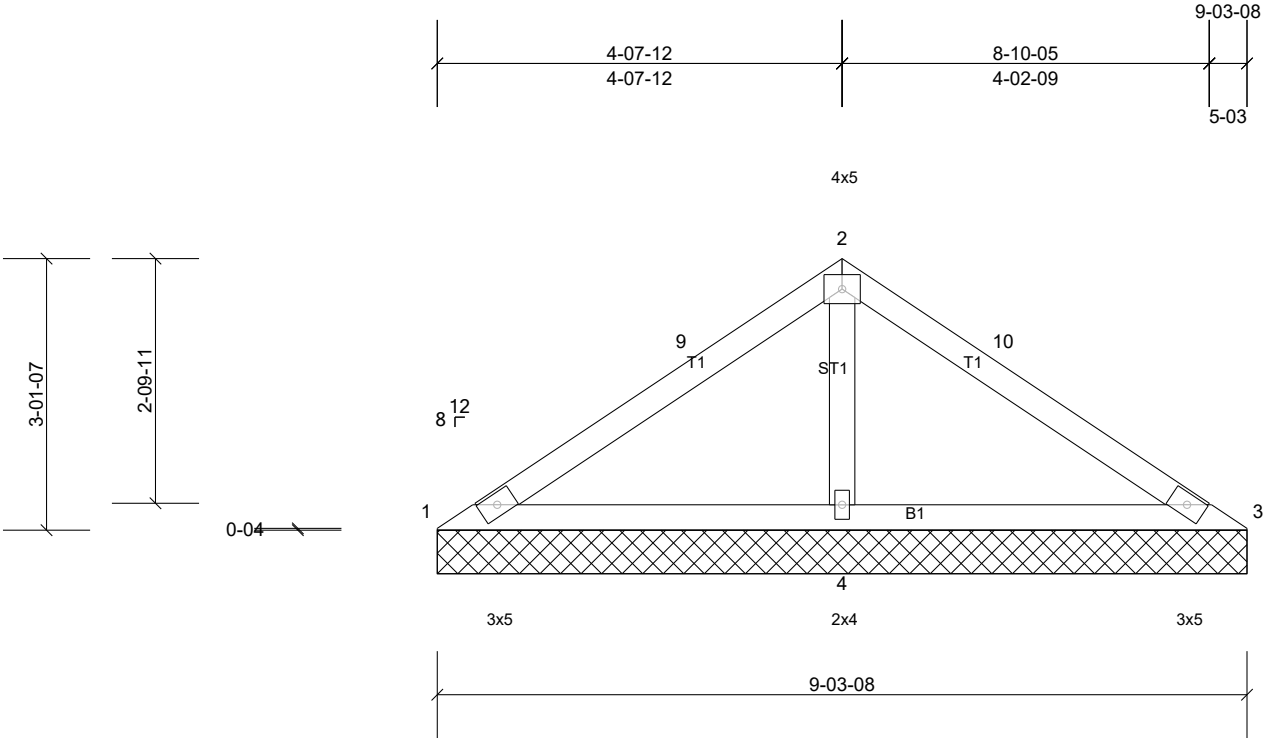
REACTIONS All bearings 12-03-08.
(lb) - Max Horiz 1=-132 (LC 11)
Max Uplift All uplift 100 (lb) or less at joint(s) 1, 5 except 6=-190 (LC 14), 8=-193 (LC 13)
Max Grav All reactions 250 (lb) or less at joint(s) 1, 5 except 6=344 (LC 23), 7=270 (LC 1), 8=347 (LC 22)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-8=-343/370, 4-6=-343/370

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) 0-0-6 to 3-0-6, Exterior(2N) 3-0-6 to 6-2-2, Corner(3R) 6-2-2 to 9-2-2, Exterior(2N) 9-2-2 to 12-3-14 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Gable requires continuous bottom chord bearing.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3'-06"-00 tall by 2'-00"-00 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 8=192, 6=189.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job 25020278-B	Truss V21	Truss Type Valley	Qty 1	Ply 1	SPENCER-Roof Job Reference (optional)
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Scale = 1:26.6

Loading	(psf)	Spacing	2-00-00	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.24	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	20.8/30.0	Lumber DOL	1.15	BC	0.31	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.15	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH							Weight: 33 lb	FT = 20%
BCDL	10.0											

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
OTHERS	2x4 SP No.3

BRACING

TOP CHORD
BOT CHORD

Structural wood sheathing directly applied or 9-3-8 oc purlins.
Rigid ceiling directly applied or 6-0-0 oc bracing.
MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

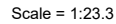
REACTIONS (lb/size)	1=39/9-03-08, (min. 1-08), 3=39/9-03-08, (min. 1-08), 4=680/9-03-08, (min. 1-08)
Max Horiz	1=-98 (LC 9)
Max Uplift	1=-18 (LC 35), 3=-25 (LC 9), 4=-189 (LC 13)
Max Grav	1=75 (LC 34), 3=75 (LC 35), 4=680 (LC 1)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD	1-9=-229/301, 2-9=-215/359, 2-10=-207/359, 3-10=-221/301
BOT CHORD	1-4=-295/319, 3-4=-295/319
WEBS	2-4=-655/493

- NOTES
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) 0-0-6 to 3-0-6, Exterior(2N) 3-0-6 to 4-8-2, Corner(3R) 4-8-2 to 7-8-2, Exterior(2N) 7-8-2 to 9-3-14 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
 - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
 - Gable requires continuous bottom chord bearing.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 18 lb uplift at joint 1, 25 lb uplift at joint 3 and 189 lb uplift at joint 4.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S)	Standard
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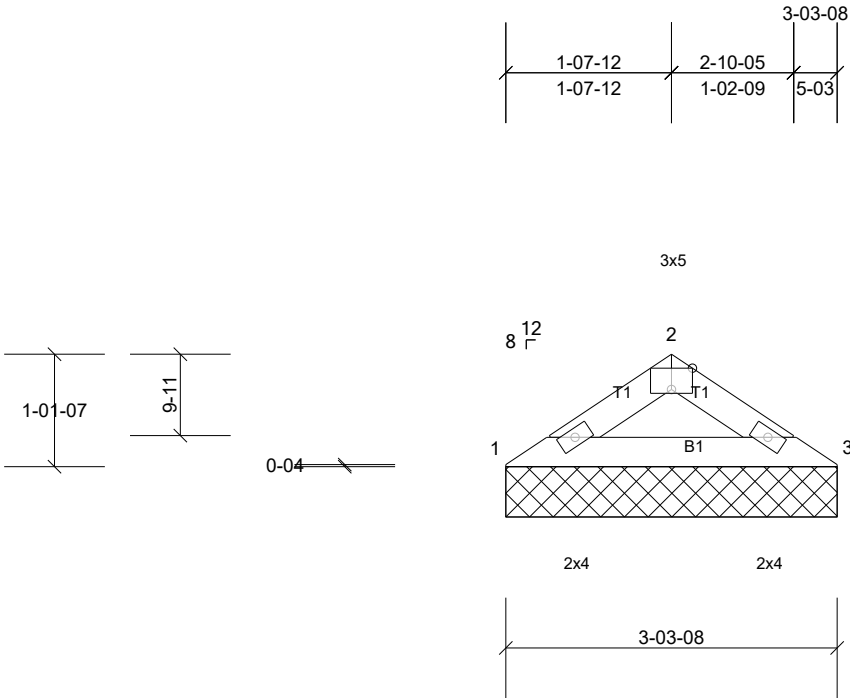
LUMBER		BRACING	Structural wood sheathing directly applied or 6-3-8 oc purlins.
TOP CHORD	2x4 SP No.2	TOP CHORD	<u>Rigid ceiling directly applied or 6-0-0 oc bracing.</u> MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.
BOT CHORD	2x4 SP No.2	BOT CHORD	
OTHERS	2x4 SP No.3		
REACTIONS (lb/size)	1=51/6-03-08, (min. 1-08), 3=51/6-03-08, (min. 1-08), 4=411/6-03-08, (min. 1-08)		

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BC DL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 3) TC LL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 4) Gable requires continuous bottom chord bearing.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 10 lb uplift at joint 1, 21 lb uplift at joint 3 and 108 lb uplift at joint 4.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job 25020278-B	Truss V23	Truss Type Valley	Qty 1	Ply 1	SPENCER-Roof Job Reference (optional)
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Scale = 1:23

Plate Offsets (X, Y): [2:2-08,Edge]

Loading	(psf)	Spacing	2-00-00	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	20.8/30.0	Lumber DOL	1.15	BC	0.08	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP							Weight: 9 lb	FT = 20%
BCDL	10.0											

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2

BRACING

TOP CHORD
BOT CHORD

Structural wood sheathing directly applied or 3-3-8 oc purlins.
Rigid ceiling directly applied or 10-0-0 oc bracing.
MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS (lb/size) 1=134/3-03-08, (min. 1-08), 3=134/3-03-08, (min. 1-08)
Max Horiz 1=-31 (LC 9)
Max Uplift 1=-34 (LC 13), 3=-34 (LC 14)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Gable requires continuous bottom chord bearing.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 34 lb uplift at joint 1 and 34 lb uplift at joint 3.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard