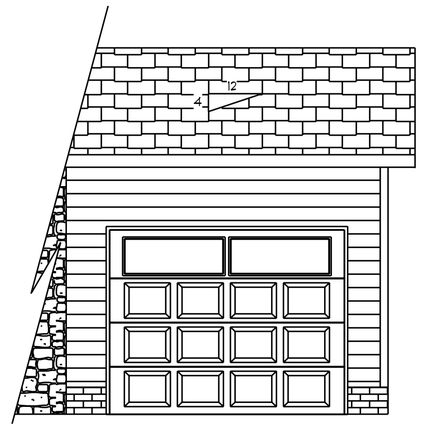
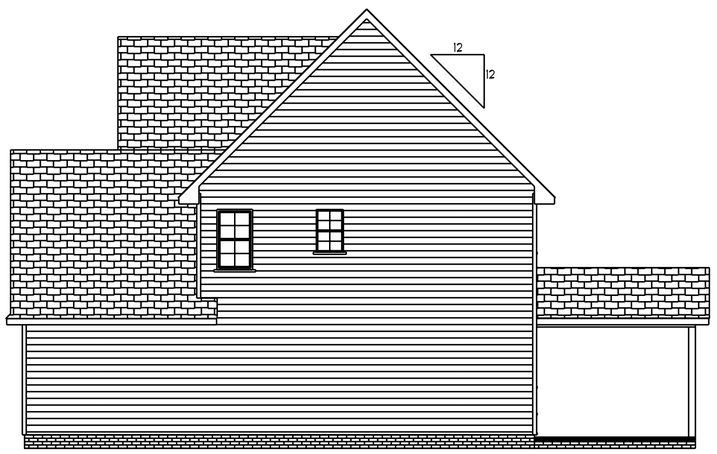
Front Elevation
Scale: 1/4"= 1'0"

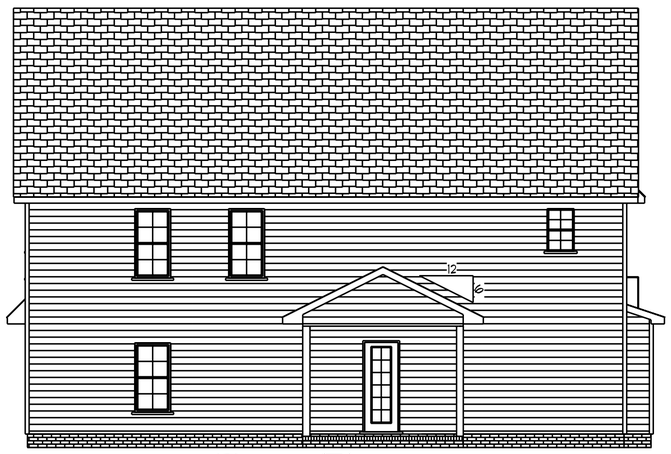
NOTICE TO CONTRACTOR
All construction must comply with current NC Building Codes and is subject to field inspection and verification.
APPROVED
Limited building only review
Permit holder responsible for full compliance with the code
05/23/2022
Harnett COUNTY NORTH CAROLINA



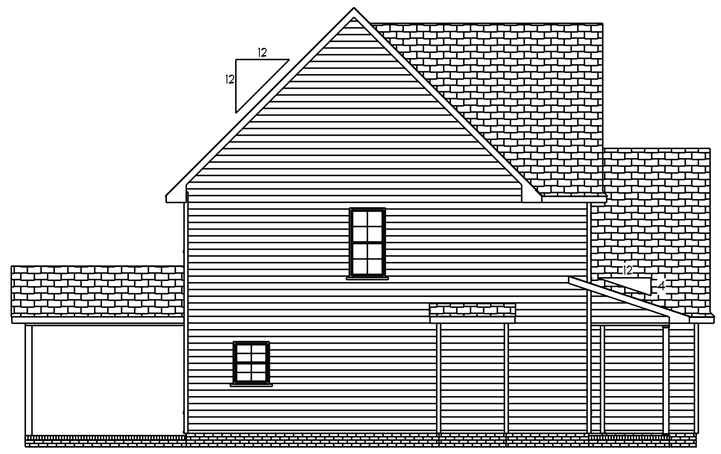
Optional
3rd Garage



Right Elevation
Scale: 1/8"= 1'0"



Rear Elevation
Scale: 1/8"= 1'0"

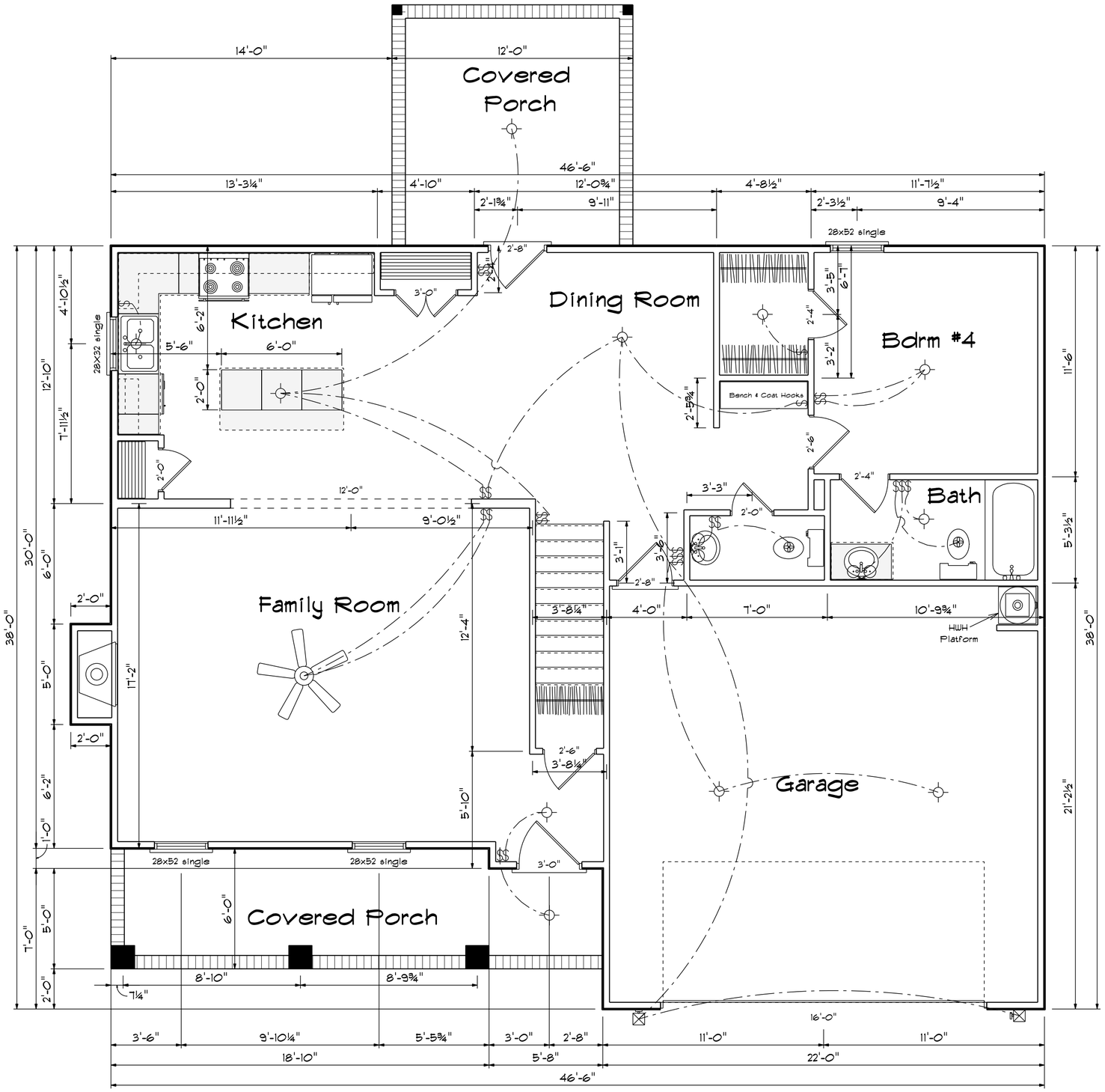


Left Elevation
Scale: 1/8"= 1'0"

DATE: 1/1/2021
REVISED
DRAWING#

SCALE: 1/4"
DRAWN BY
APPROVED

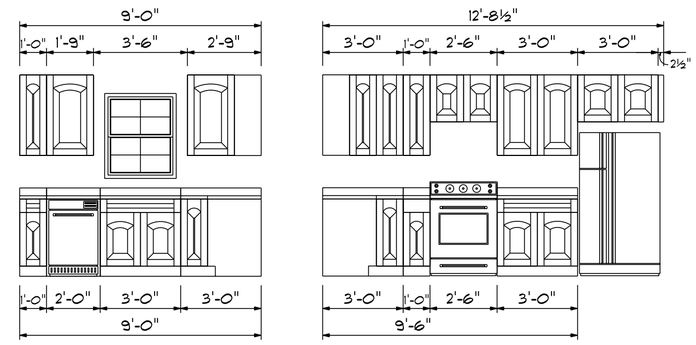
Charlotte

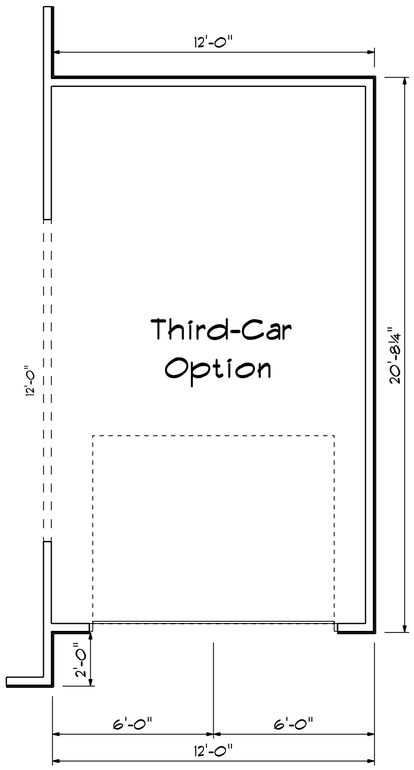


First Floor Plan

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

Kitchen Cabinets





FIRST FLOOR OPENING SCHEDULE			
PRODUCT CODE	SIZE	HINGE	COUNT
36X80 COLONIAL A 1	3'-0"	R	1
60X80 FRENCH A 2	5'-0"	RN	1
192X84 - 8 PANEL - 4 WINDOW	16'-0"	U	1
2-4 Door Unit	2'-4"	R	1
2-4 Door Unit	2'-4"	L	1
2-6 Door Unit	2'-6"	R	2
2-8 Door Unit	2'-8"	L	1
3-0 Doublehung Door Unit	3'-0"	LR	1
20 pocket	2'-0"	N	1
28X32 single	2'-8" x 3'-2"	N	1
28x52 single	2'-8" x 5'-2"	N	1
28x52 triple	8'-0" x 5'-2"	NA	1

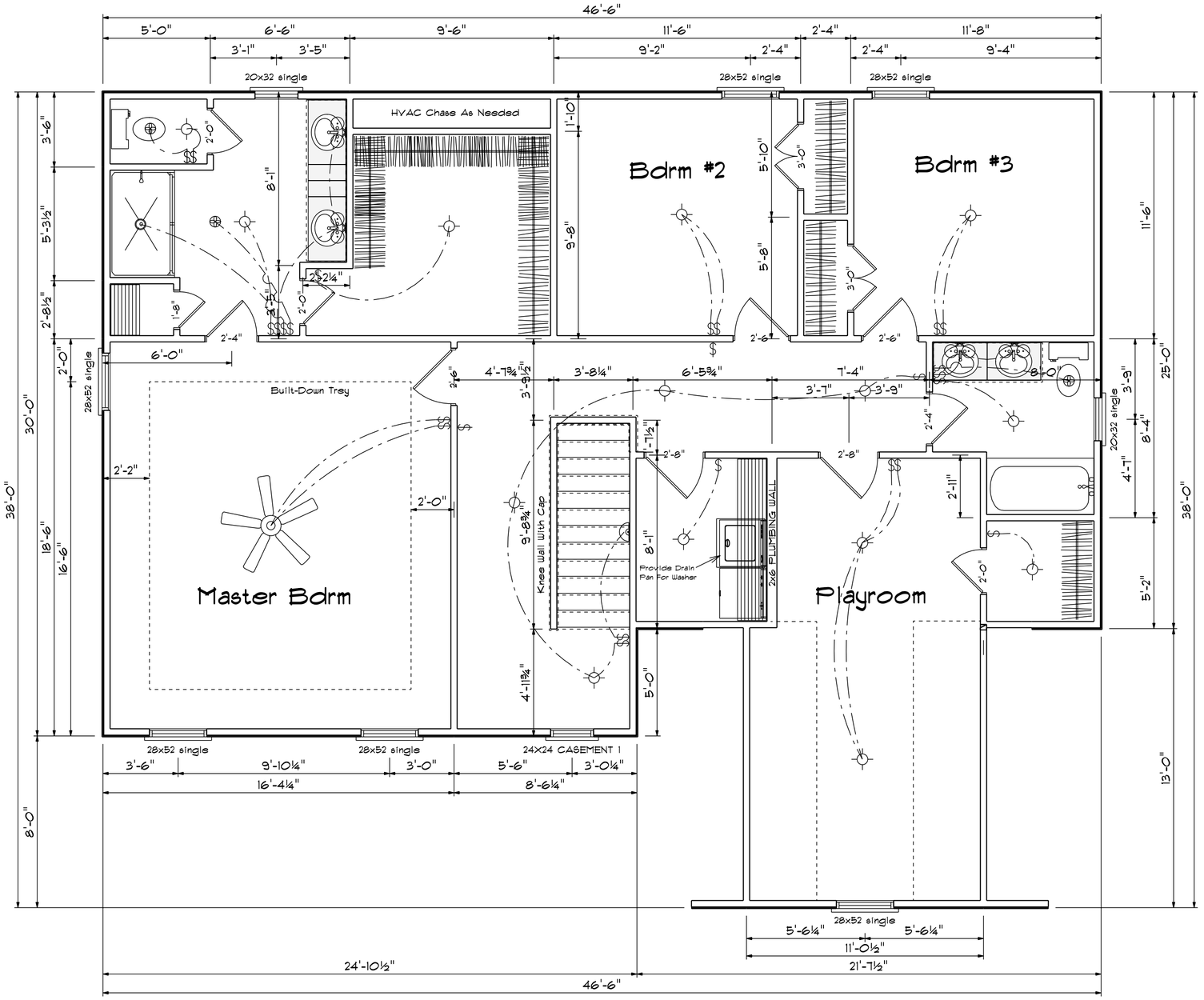
Areas

First Floor	1123
Second Floor	1404
	=========
Total Heated	2527
Garage	461
Front Porch	128
Covered Porch	144
Optionag Garage	257

DATE: 7/1/2021
REVISED
DRAWING#

SCALE: 1/4"
DRAWN BY
APPROVED

Charlotte



Second Floor Plan

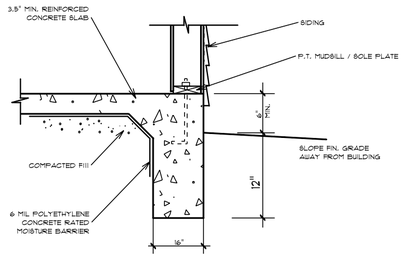
Scale: 1/4"= 1'-0"

SECOND FLOOR OPENING SCHEDULE			
PRODUCT CODE	**SIZE**	**HINGE**	**COUNT**
1-6 Door Unit	1'-4"	R	1
2-0 Door Unit	2'-0"	R	1
2-4 Door Unit	2'-4"	R	1
2-4 Door Unit	2'-4"	L	2
2-6 Door Unit	2'-6"	R	2
2-6 Door Unit	2'-6"	L	1
2-8 Door Unit	2'-8"	R	2
3-0 Doublehung Door Unit	3'-0"	LR	2
20x32 single	2'-0" x 3'-2"	N	2
28x52 single	2'-8" x 5'-2"	N	5
28x52 triple	8'-0" x 5'-2"	NA	1

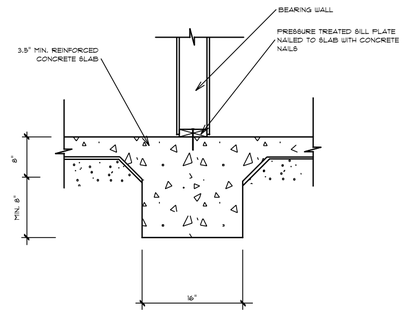
DATE: 7/1/2021
REVISED
DRAWING#

SCALE: 1/4"
DRAWN BY
APPROVED

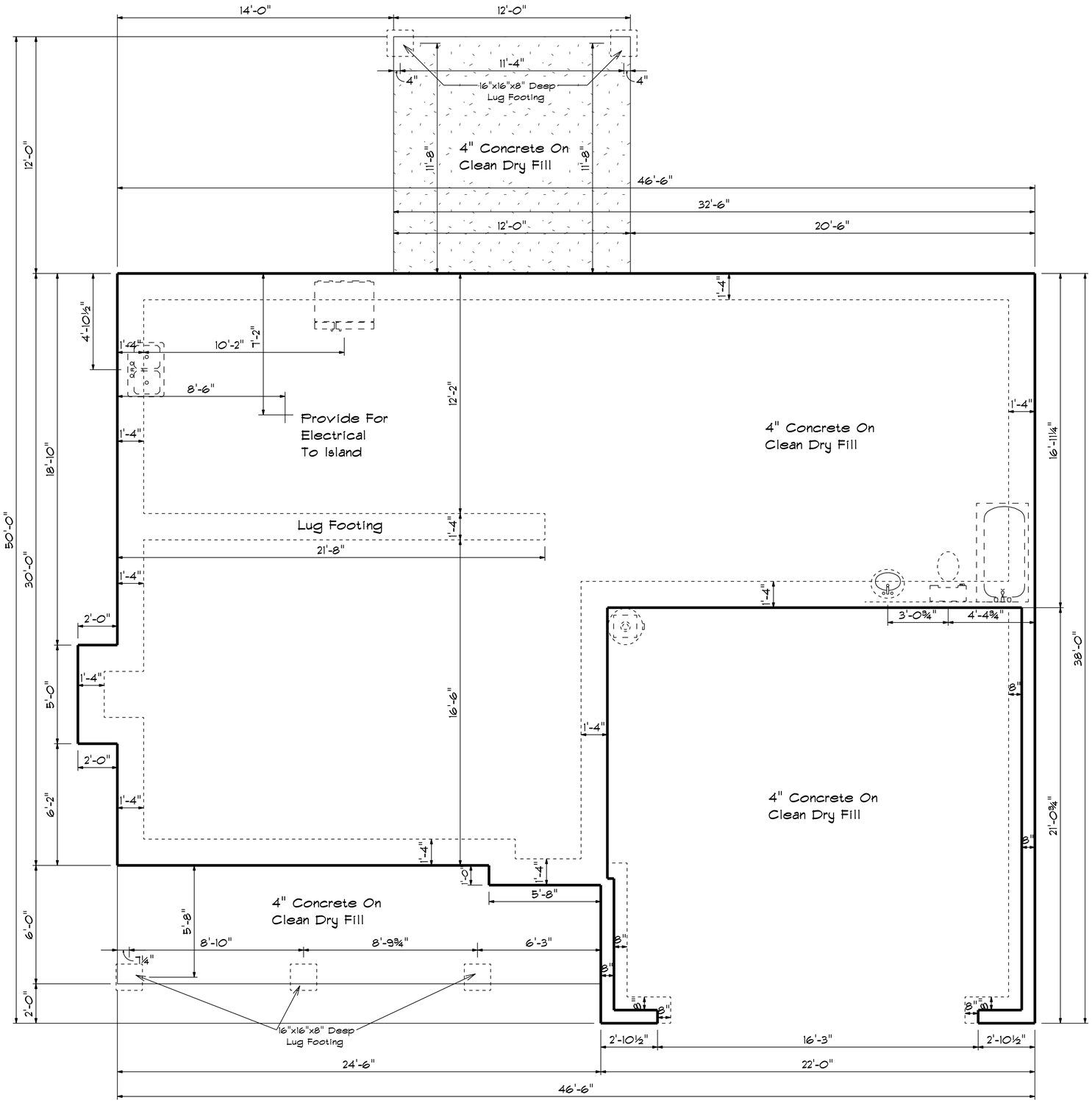
Charlotte



TURN-DOWN
FOOTING DETAIL

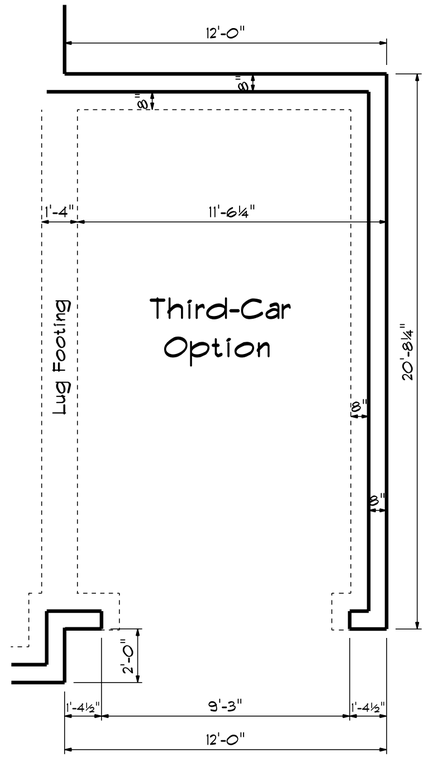


INTEGRAL SLAB FOOTING
DETAIL AT BEARING WALL



Foundation Plan

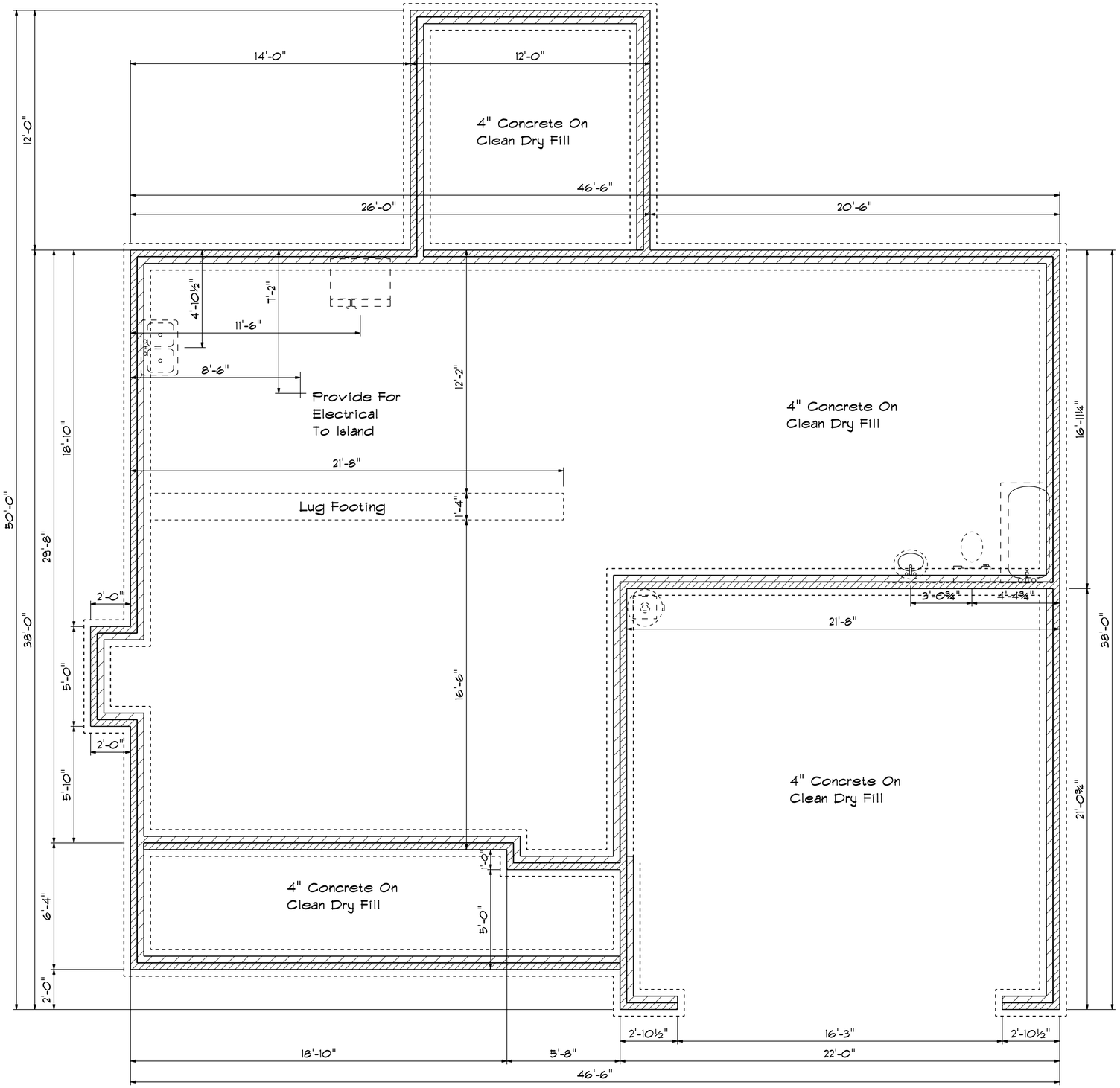
Scale: 1/4"= 1'-0"



DATE: 7/1/2021
REVISED
DRAWING#

SCALE: 1/4"
DRAWN BY
APPROVED

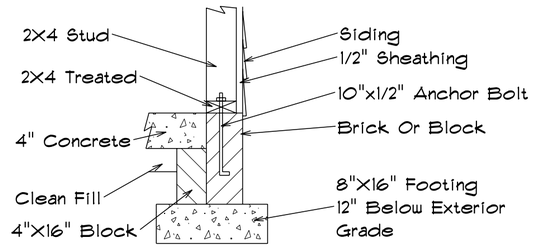
Charlotte



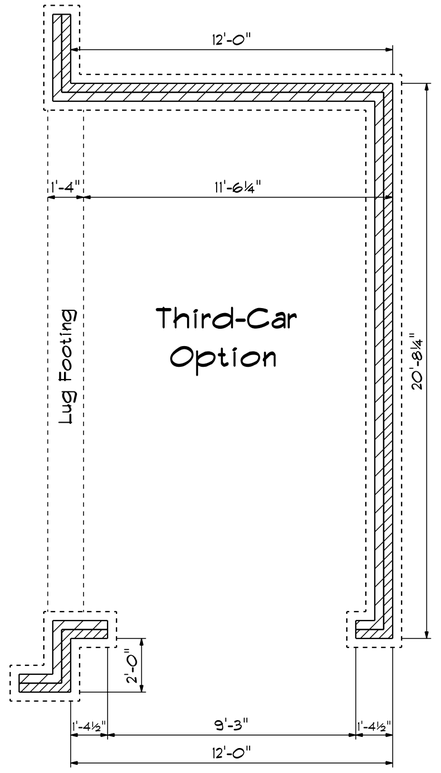
Foundation Plan

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

Foundation Detail
Siding



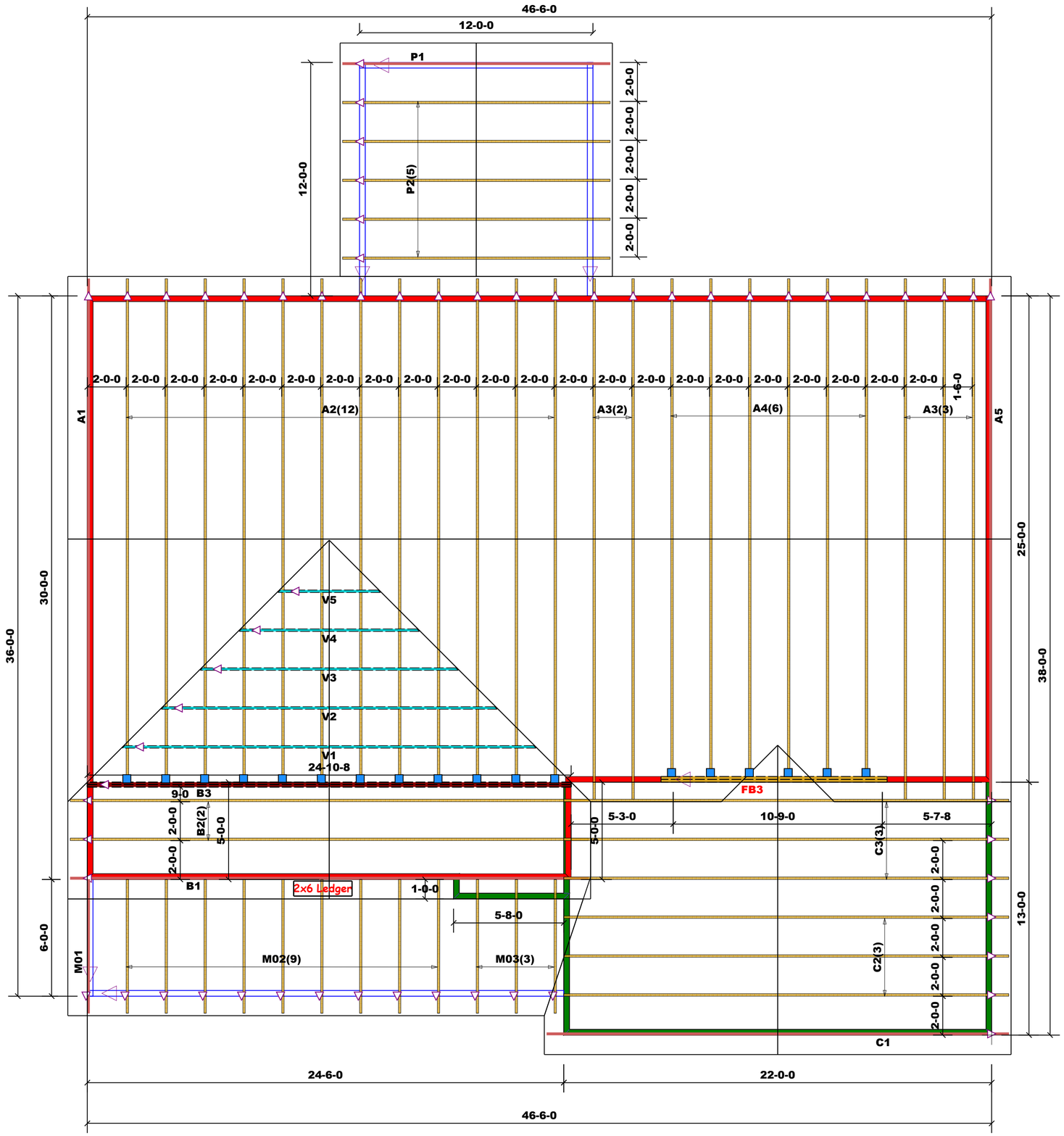
Lug Footing Detail



DATE: 7/1/2021
REVISED
DRAWING#

SCALE: 1/4"
DRAWN BY
APPROVED

Charlotte



	HUS26	USP	18	NA	16d/3-1/2"	16d/3-1/2"

= 1st Level Wall

= 2nd Level Wall

Products				
PlotID	Length	Product	Plies	Net Qty
FB3	12-0-0	1-3/4"x 11-7/8" LVL Kerto-S	2	2

Truss Placement Plan
SCALE: 1/4"=1'

= Indicates Left End of Truss
(Reference Engineered Truss Drawing)
Do NOT Erect Truss Backwards

COMTECH
ROOF & FLOOR TRUSSES & BEAMS
Reilly Road Industrial Park
Fayetteville, N.C. 28309
Phone: (910) 864-8787
Fax: (910) 864-4444

Bearing reactions less than or equal to 3000# are deemed to comply with the prescriptive Code requirements. The contractor shall refer to the attached Tables (derived from the prescriptive Code requirements) to determine the minimum foundation size and number of wood studs required to support reactions greater than 3000# but not greater than 15000#. A registered design professional shall be retained to design the support system for any reaction that exceeds those specified in the attached Tables. A registered design professional shall be retained to design the support system for all reactions that exceed 15000#.

Signature Marshall Naylor

Marshall Naylor

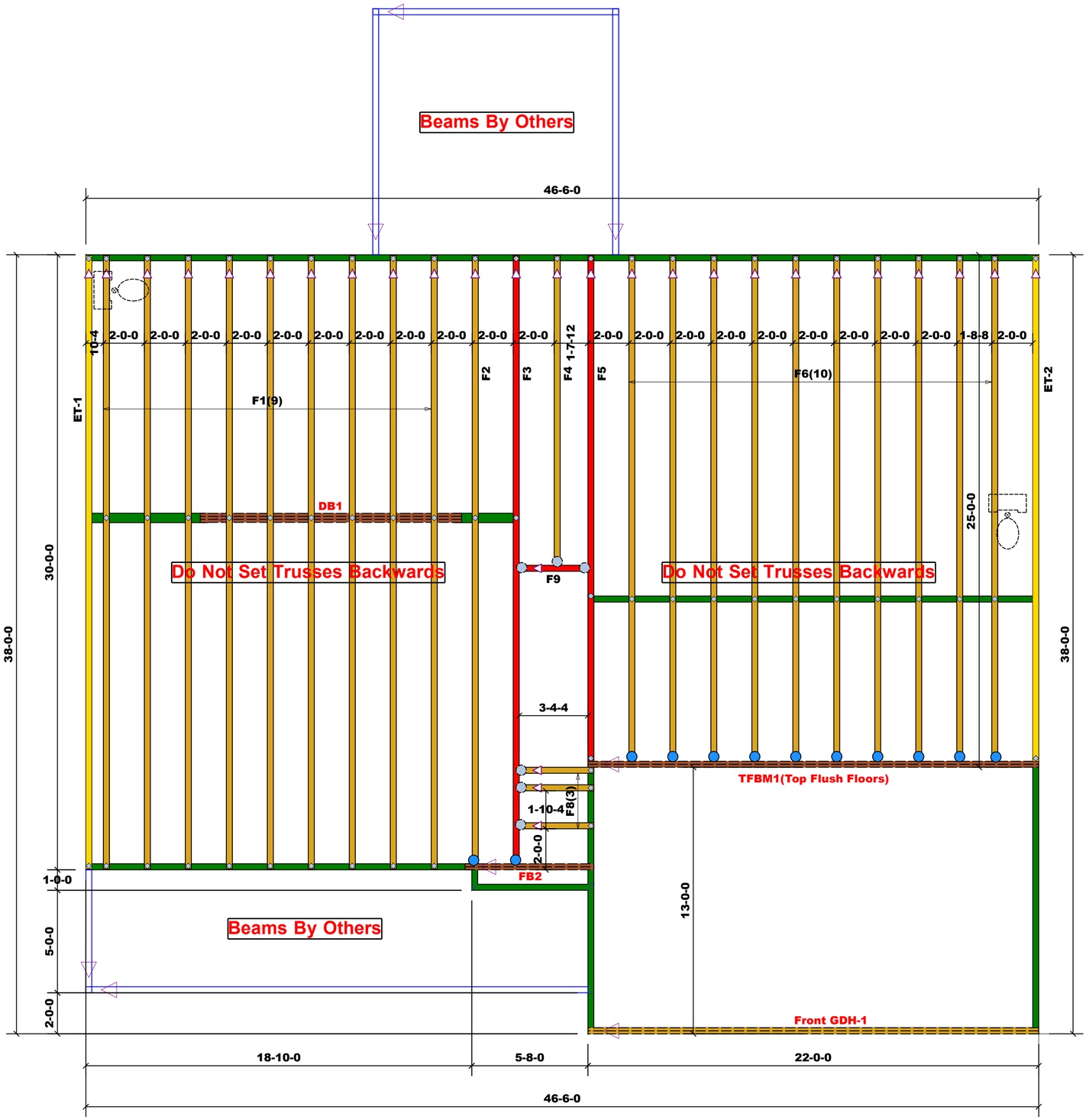
LOAD CHART FOR JACK STUDS

(BASED ON TABLES R502.5(1) & (b))
NUMBER OF JACK STUDS REQUIRED @ EA END OF HEADER/GIRDER

END REACTION (UP TO)	REQ'D STUDS FOR (2) PLY HEADER	END REACTION (UP TO)	REQ'D STUDS FOR (3) PLY HEADER	END REACTION (UP TO)	REQ'D STUDS FOR (4) PLY HEADER
1700	1	2550	1	3400	1
3400	2	5100	2	6800	2
5100	3	7650	3	10200	3
6800	4	10200	4	13600	4
8500	5	12750	5	17000	5
10200	6	15300	6		
11900	7				
13600	8				
15300	9				

BUILDER	Benjamin Stout
JOB NAME	Lot 3 Cypress Road
PLAN	Charlotte
SEAL DATE	N/A
QUOTE #	Quote #
JOB #	J0322-1272
CITY / CO.	Harnett / Harnett
ADDRESS	Lot 3 Cypress Road
MODEL	Roof
DATE REV.	03/28/22
DRAWN BY	Marshall Naylor
SALES REP.	Marshall Naylor

THIS IS A TRUSS PLACEMENT DIAGRAM ONLY.
These trusses are designed as individual building components to be incorporated into the building design at the specification of the building designer. See individual design sheets for each truss design identified on the placement drawing. The building designer is responsible for temporary and permanent bracing of the roof and floor system and for the overall structure. The design of the truss support structure including headers, beams, walls, and columns is the responsibility of the building designer. For general guidance regarding bracing, consult BCSI-B1 and BCSI-B3 provided with the truss delivery package or online @ sbcindustry.com



= 1st Level Wall

= 2nd Level Wall

	HUS410	USP	12	NA	16d/3-1/2"	16d/3-1/2"
	MSH422	USP	6	Varies	10d/3"	10d/3"

Products

PlotID	Length	Product	Plies	Net Qty
Front GDH-1	22-0-0	1-3/4"x 11-7/8" LVL Kerto-S	2	2
DB1	13-0-0	1-3/4"x 11-7/8" LVL Kerto-S	3	3
FB2	7-0-0	1-3/4"x 14" LVL Kerto-S	2	2
TFBM1(Top Flush Floors)	22-0-0	1-3/4"x 23-7/8" LVL Kerto-S	2	2

Truss Placement Plan
SCALE: 1/4"=1'

= Indicates Left End of Truss
(Reference Engineered Truss Drawing)
Do NOT Erect Truss Backwards

COMTECH
ROOF & FLOOR TRUSSES & BEAMS
Reilly Road Industrial Park
Fayetteville, N.C. 28309
Phone: (910) 864-8787
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Signature Marshall Naylor
Marshall Naylor

LOAD CHART FOR JACK STUDS
(BASED ON TABLES R502.5(1) & (b))
NUMBER OF JACK STUDS REQUIRED @ EA END OF HEADER/GIRDER

END REACTION (UP TO)	REQ'D STUDS FOR (2) PLY HEADER	END REACTION (UP TO)	REQ'D STUDS FOR (3) PLY HEADER	END REACTION (UP TO)	REQ'D STUDS FOR (4) PLY HEADER
1700	1	2550	1	3400	1
3400	2	5100	2	6800	2
5100	3	7650	3	10200	3
6800	4	10200	4	13600	4
8500	5	12750	5	17000	5
10200	6	15300	6		
11900	7				
13600	8				
15300	9				

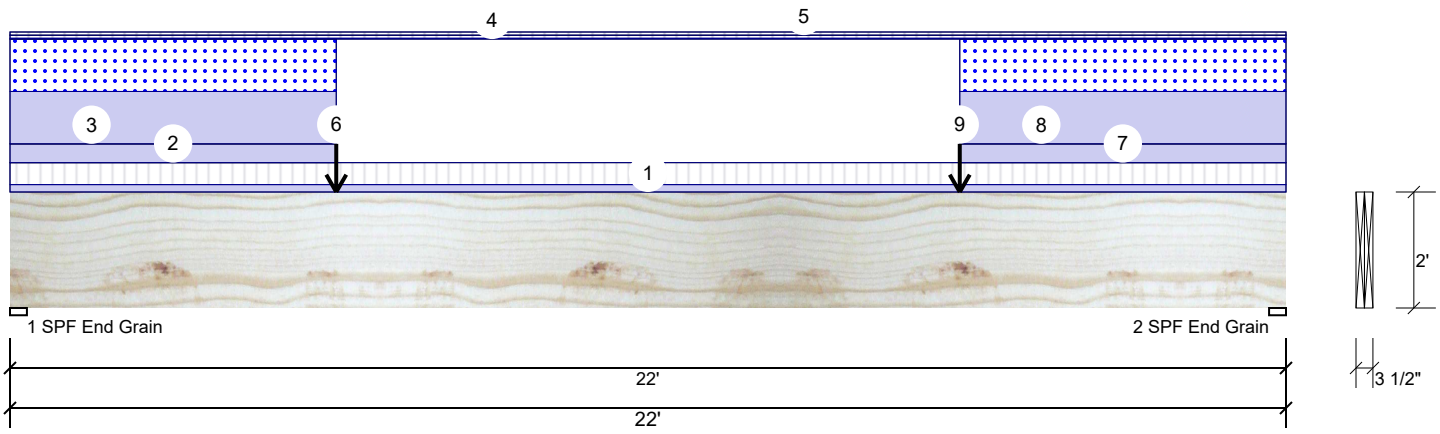
BUILDER	Benjamin Stout
JOB NAME	Lot 3 Cypress Road
PLAN	Charlotte
SEAL DATE	N/A
QUOTE #	Quote #
JOB #	J0322-1273
CITY / CO.	Harnett County / Harnett
ADDRESS	Lot 3 - Cypress Road
MODEL	Floor
DATE REV.	03/28/22
DRAWN BY	Marshall Naylor
SALES REP.	Marshall Naylor

THIS IS A TRUSS PLACEMENT DIAGRAM ONLY. These trusses are designed as individual building components to be incorporated into the building design at the specification of the building designer. See individual design sheets for each truss design identified on the placement drawing. The building designer is responsible for temporary and permanent bracing of the roof and floor system and for the overall structure. The design of the truss support structure including headers, beams, walls, and columns is the responsibility of the building designer. For general guidance regarding bracing, consult BCSI-B1 and BCSI-B3 provided with the truss delivery package or online @ sbcindustry.com

Client:	Benjamin Stout	Date:	5/18/2022
Project:		Input by:	Marshall Naylor
Address:		Job Name:	Charlotte
		Project #:	

TFBM1 Kerto-S LVL 1.750" X 24.000" 2-Ply - PASSED

Level: Level



Member Information

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	No
Deflection TL:	360	Deck:	Not Checked
Importance:	Normal - II		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	1980	5161	3709	0	0
2	Vertical	1980	5161	3709	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	Vert	92%	5161 / 4267	9428	L	D+0.75(L+S)
2 - SPF End Grain	3.500"	Vert	92%	5161 / 4267	9428	L	D+0.75(L+S)

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	39562 ft-lb	11'	84163 ft-lb	0.470 (47%)	D+0.75(L+S)	L
Unbraced	39562 ft-lb	11'	39573 ft-lb	1.000 (100%)	D+0.75(L+S)	L
Shear	7753 lb	2'3 1/2"	20608 lb	0.376 (38%)	D+0.75(L+S)	L
LL Defl inch	0.236 (L/1098)	11' 1/16"	0.539 (L/480)	0.437 (44%)	0.75(L+S)	L
TL Defl inch	0.499 (L/519)	11' 1/16"	0.719 (L/360)	0.694 (69%)	D+0.75(L+S)	L

Design Notes

1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
2 Girders are designed to be supported on the bottom edge only.
3 Multiple plies must be fastened together as per manufacturer's details.
4 Top loads must be supported equally by all plies.
5 Top must be laterally braced at a maximum of 4'5 9/16" o.c.
6 Bottom must be laterally braced at end bearings.
7 Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Far Face	47 PLF	140 PLF	0 PLF	0 PLF	0 PLF	F6
2	Part. Uniform	0-0-0 to 5-7-8		Top	120 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Wall
3	Part. Uniform	0-0-0 to 5-7-8		Top	334 PLF	0 PLF	334 PLF	0 PLF	0 PLF	A3
4	Tie-In	0-0-0 to 22-0-0	0-6-0	Far Face	10 PSF	40 PSF	0 PSF	0 PSF	0 PSF	1' Floor
5	Tie-In	0-0-0 to 22-0-0	0-6-0	Near Face	0 PSF	40 PSF	0 PSF	0 PSF	0 PSF	1' Floor
6	Point	5-7-8		Top	1830 lb	0 lb	1830 lb	0 lb	0 lb	FB3

Continued on page 2...

Notes

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

Manufacturer Info

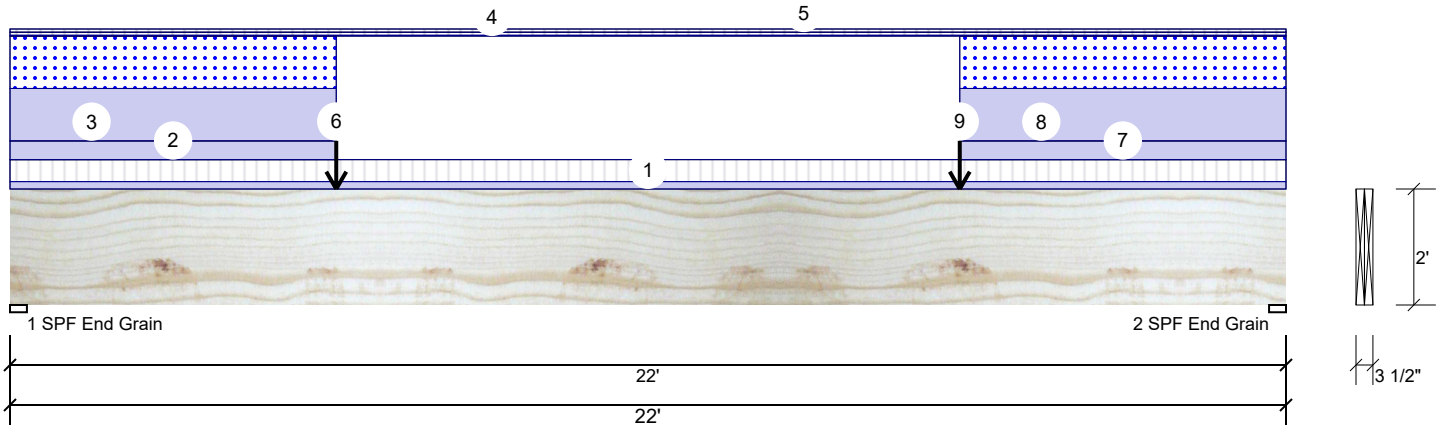
Metsä Wood
301 Merritt 7 Building, 2nd Floor
Norwalk, CT 06851
(800) 622-5850
www.metsawood.com/us

Comtech, Inc.
1001 S. Reilly Road, Suite #639
Fayetteville, NC
USA
28314
910-864-TRUS

Client:	Benjamin Stout	Date:	5/18/2022
Project:		Input by:	Marshall Naylor
Address:		Job Name:	Charlotte
		Project #:	

TFBM1 Kerto-S LVL 1.750" X 24.000" 2-Ply - PASSED

Level: Level



...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
	Bearing Length	0-3-8								
7	Part. Uniform	16-4-8 to 22-0-0		Top	120 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Wall
8	Part. Uniform	16-4-8 to 22-0-0		Top	334 PLF	0 PLF	334 PLF	0 PLF	0 PLF	A3
9	Point	16-4-8		Top	1830 lb	0 lb	1830 lb	0 lb	0 lb	FB3
	Bearing Length	0-3-8								
	Self Weight				19 PLF					

Notes

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber

1. Dry service conditions, unless noted otherwise
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Handling & Installation

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Manufacturer Info

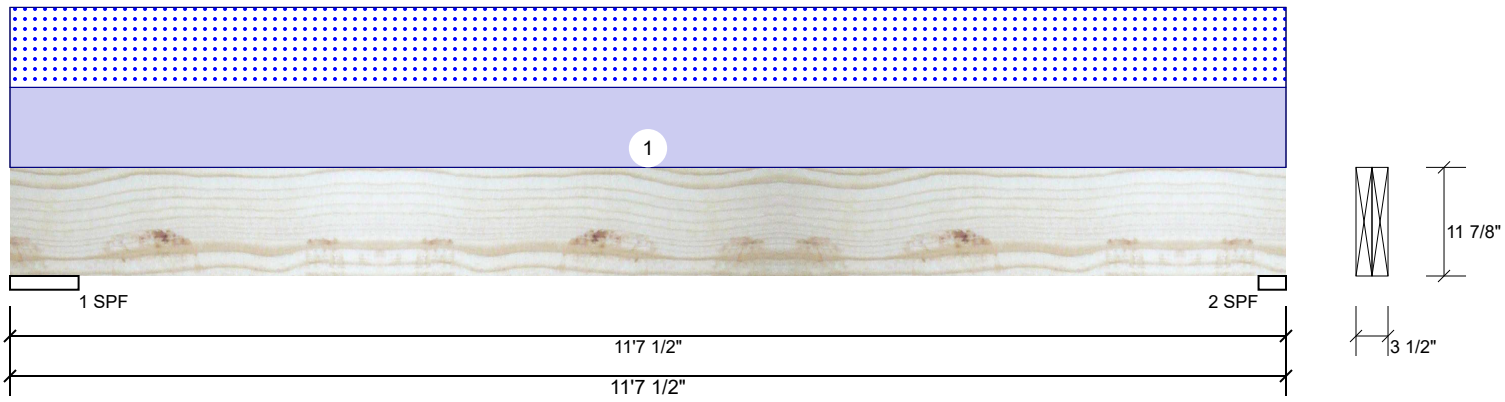
Metsä Wood
301 Merritt 7 Building, 2nd Floor
Norwalk, CT 06851
(800) 622-5850
www.metsawood.com/us

Comtech, Inc.
1001 S. Reilly Road, Suite #639
Fayetteville, NC
USA
28314
910-864-TRUS

Client:	Benjamin Stout	Date:	5/18/2022
Project:		Input by:	Marshall Naylor
Address:		Job Name:	Charlotte
		Project #:	

FB3 Kerto-S LVL 1.750" X 11.875" 2-Ply - PASSED

Level: Level



Member Information

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	No
Deflection TL:	360	Deck:	Not Checked
Importance:	Normal - II		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	0	1855	1800	0	0
2	Vertical	0	1739	1688	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	7.500"	Vert	33%	1855 / 1800	3655	L	D+S
2 - SPF	3.000"	Vert	77%	1739 / 1688	3427	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	9006 ft-lb	6'	22897 ft-lb	0.393 (39%)	D+S	L
Unbraced	9006 ft-lb	6'	9009 ft-lb	1.000 (100%)	D+S	L
Shear	3275 lb	10'4 5/8"	10197 lb	0.321 (32%)	D+S	L
LL Defl inch	0.109 (L/1198)	6'	0.272 (L/480)	0.401 (40%)	S	L
TL Defl inch	0.221 (L/590)	6'	0.362 (L/360)	0.610 (61%)	D+S	L

Design Notes

1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
2 Girders are designed to be supported on the bottom edge only.
3 Multiple plies must be fastened together as per manufacturer's details.
4 Top must be laterally braced at a maximum of 10'5 15/16" o.c.
5 Bottom must be laterally braced at end bearings.
6 Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Far Face	300 PLF	0 PLF	300 PLF	0 PLF	0 PLF	A4
	Self Weight				9 PLF					

Notes

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Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

Manufacturer Info

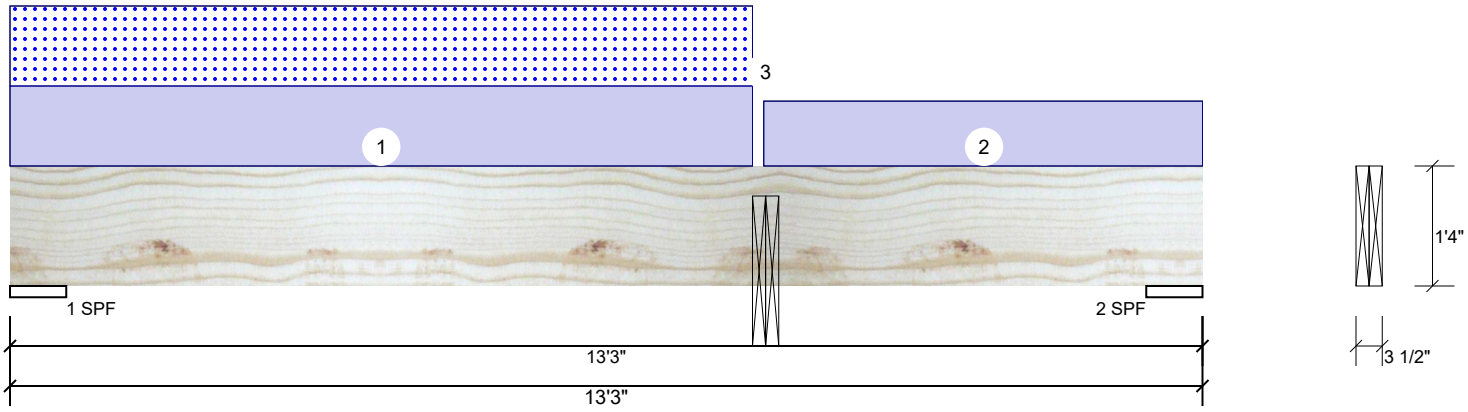
Metsä Wood
301 Merritt 7 Building, 2nd Floor
Norwalk, CT 06851
(800) 622-5850
www.metsawood.com/us

Comtech, Inc.
1001 S. Reilly Road, Suite #639
Fayetteville, NC
USA
28314
910-864-TRUS

Client:	Benjamin Stout	Date:	5/18/2022
Project:		Input by:	Marshall Naylor
Address:		Job Name:	Charlotte
		Project #:	

FB1-3 Kerto-S LVL 1.750" X 16.000" 2-Ply - PASSED

Level: Level



Member Information

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal - II		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	701	4291	3464	0	0
2	Vertical	1279	5550	3298	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	7.500"	Vert	70%	4291 / 3464	7755	L	D+S
2 - SPF	7.500"	Vert	81%	5550 / 3432	8982	L	D+0.75(L+S)

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	35008 ft-lb	8'4 3/4"	39750 ft-lb	0.881 (88%)	D+0.75(L+S)	L
Unbraced	35008 ft-lb	8'4 3/4"	35112 ft-lb	0.997 (100%)	D+0.75(L+S)	L
Shear	9250 lb	11'3 1/2"	13739 lb	0.673 (67%)	D+0.75(L+S)	L
LL Defl inch	0.170 (L/857)	7'1 3/4"	0.405 (L/360)	0.420 (42%)	0.75(L+S)	L
TL Defl inch	0.405 (L/360)	7'1 7/8"	0.607 (L/240)	0.667 (67%)	D+0.75(L+S)	L

Design Notes

1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
2 Girders are designed to be supported on the bottom edge only.
3 Multiple plies must be fastened together as per manufacturer's details.
4 Top loads must be supported equally by all plies.
5 Top must be laterally braced at a maximum of 2'8 3/4" o.c.
6 Bottom must be laterally braced at end bearings.
7 Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Part. Uniform	0-0-0 to 8-3-0		Far Face	370 PLF	0 PLF	370 PLF	0 PLF	0 PLF	C2
2	Part. Uniform	8-4-8 to 13-3-0		Top	300 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Wall/Gable
3	Point	8-4-12		Far Face	5161 lb	1980 lb	3709 lb	0 lb	0 lb	TFBM1 Brg 2
	Self Weight				12 PLF					

Notes

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Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
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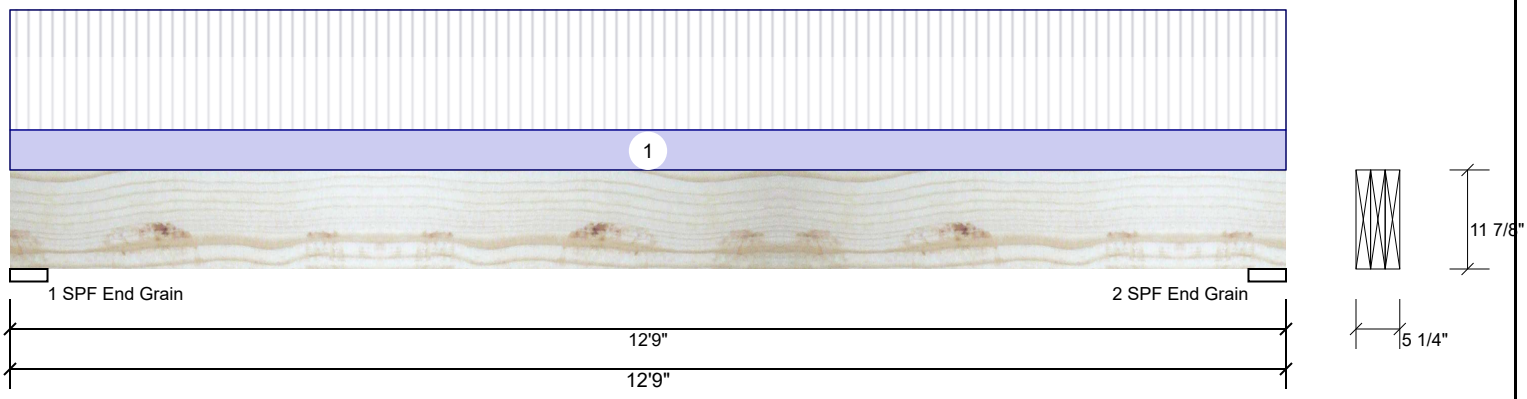
Client:	Benjamin Stout	Date:	5/18/2022
Project:		Input by:	Marshall Naylor
Address:		Job Name:	Charlotte
		Project #:	

DB1 Kerto-S LVL 1.750" X 11.875" 3-Ply - PASSED

Level: Level



Member Information

Type:	Girder	Application:	Floor
Plies:	3	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	Yes
Deflection TL:	360	Deck:	Not Checked
Importance:	Normal - II		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	4781	1682	0	0	0
2	Vertical	4781	1682	0	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	4.500"	Vert	33%	1682 / 4781	6463	L	D+L
2 - SPF End Grain	4.500"	Vert	33%	1682 / 4781	6463	L	D+L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	18632 ft-lb	6'4 1/2"	31060 ft-lb	0.600 (60%)	D+L	L
Unbraced	18632 ft-lb	6'4 1/2"	18665 ft-lb	0.998 (100%)	D+L	L
Shear	5094 lb	1'4 3/8"	13300 lb	0.383 (38%)	D+L	L
LL Defl inch	0.274 (L/530)	6'4 1/2"	0.303 (L/480)	0.905 (91%)	L	L
TL Defl inch	0.371 (L/392)	6'4 1/2"	0.404 (L/360)	0.918 (92%)	D+L	L

Design Notes

1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
2 Girders are designed to be supported on the bottom edge only.
3 Multiple plies must be fastened together as per manufacturer's details.
4 Top loads must be supported equally by all plies.
5 Top must be laterally braced at a maximum of 6'9 1/4" o.c.
6 Bottom must be laterally braced at end bearings.
7 Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Top	250 PLF	750 PLF	0 PLF	0 PLF	0 PLF	F1
	Self Weight				14 PLF					

Notes

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