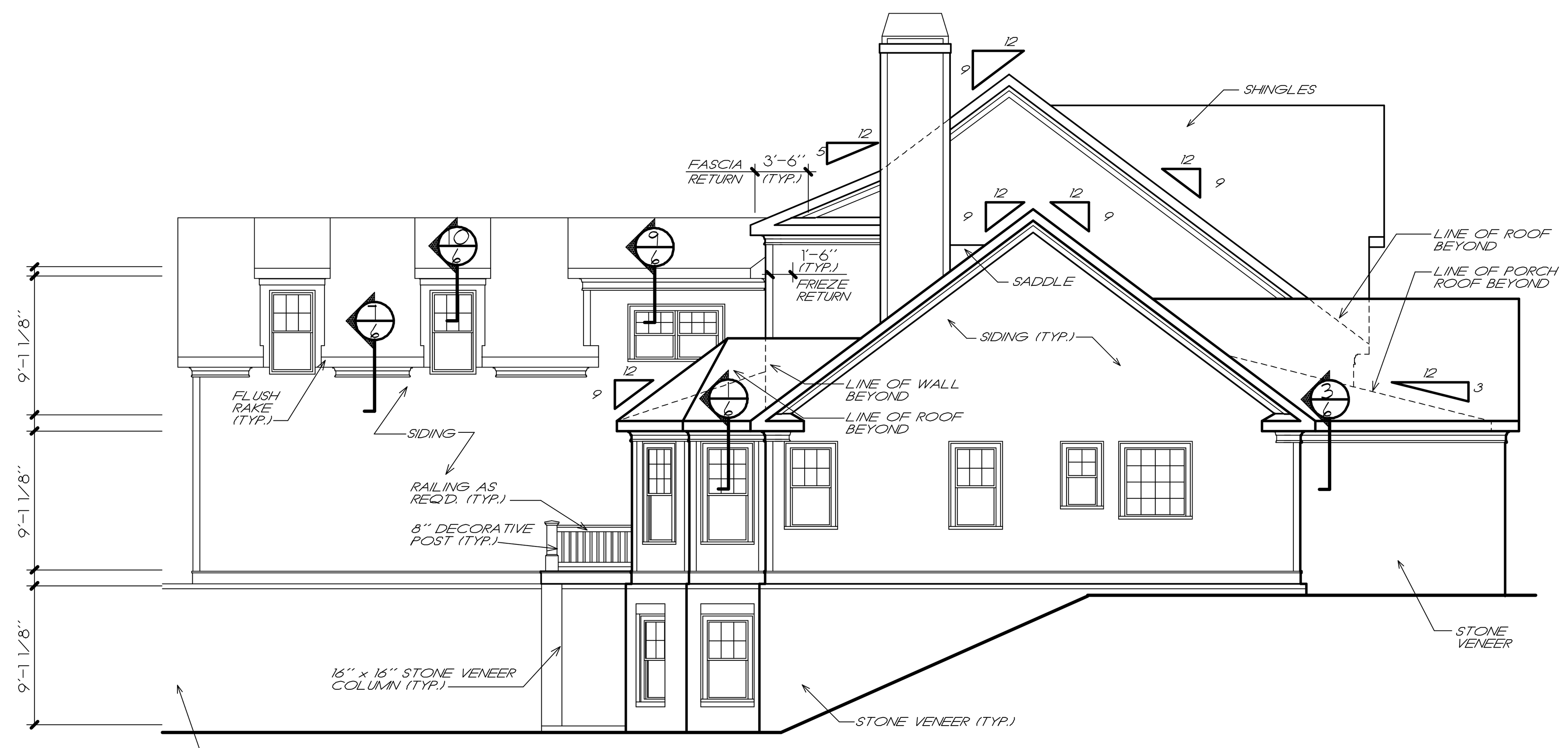
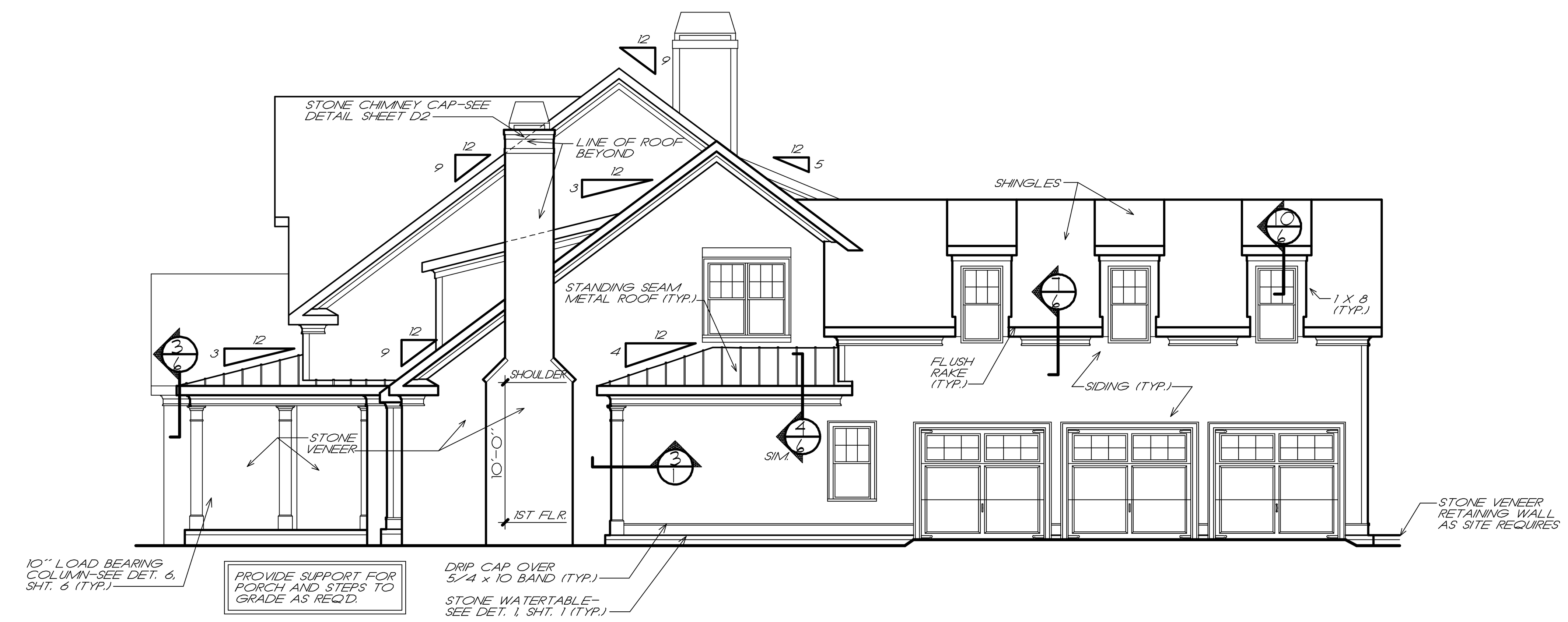


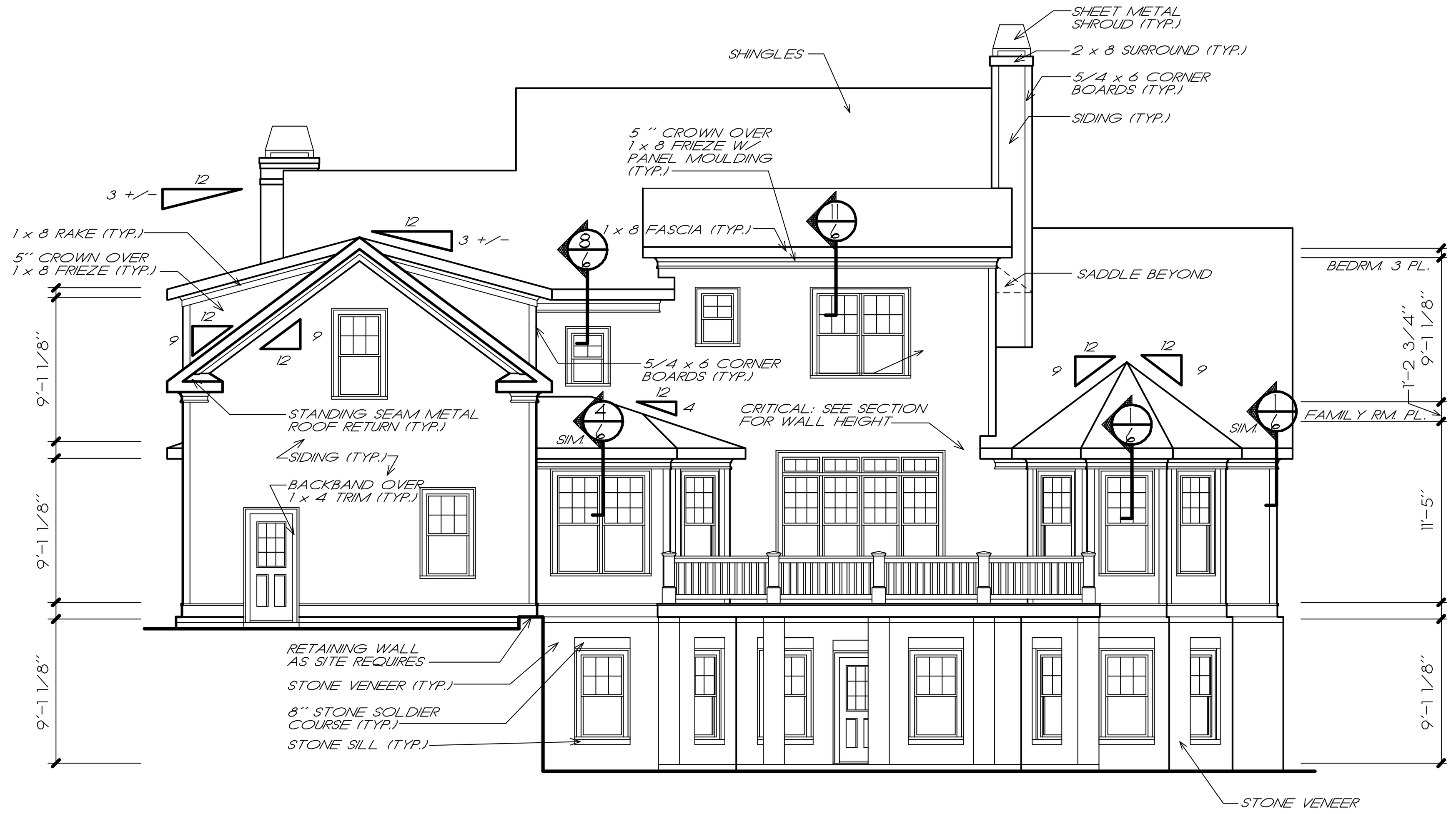
LEFT ELEVATION

1/8" = 1'-0"



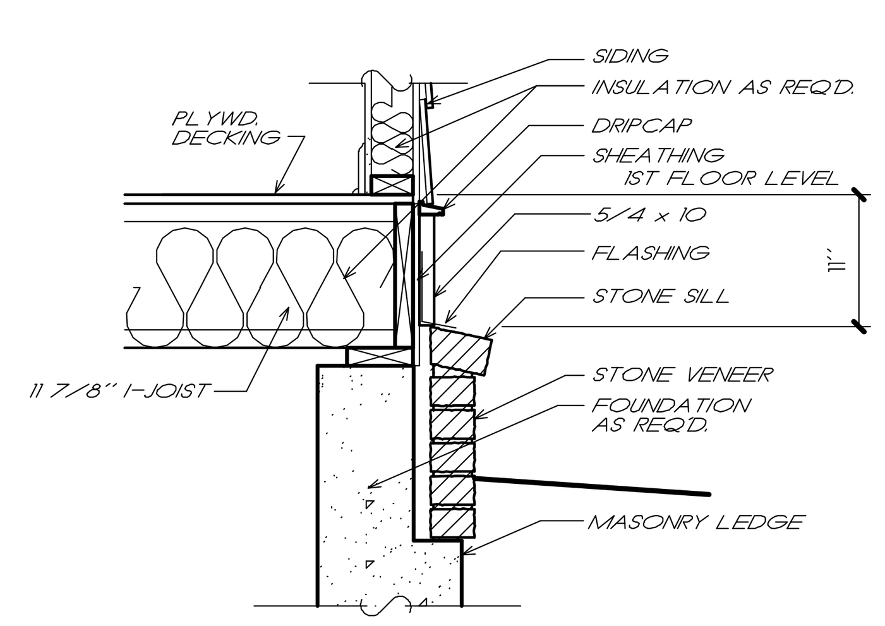
RIGHT ELEVATION

1/8" = 1'-0"



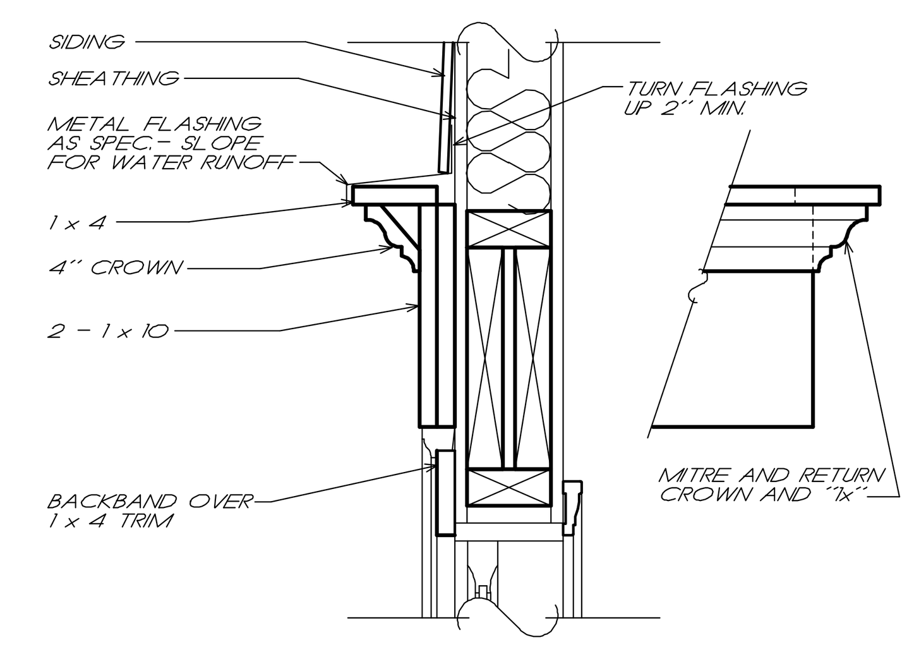
REAR ELEVATION

1/8" = 1'-0"



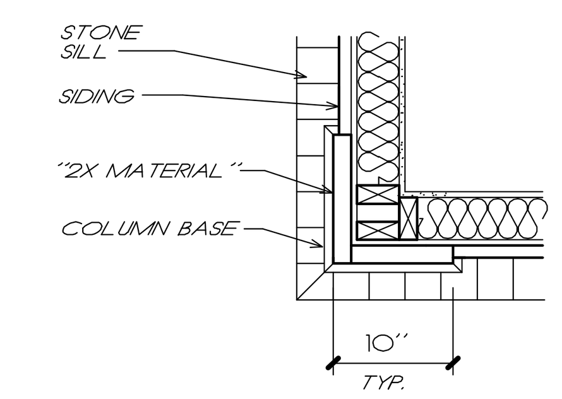
1 WATERTABLE DETAIL

3/4" = 1'-0"



2 TYP. PEDIMENT DETAIL

1 1/2" = 1'-0"



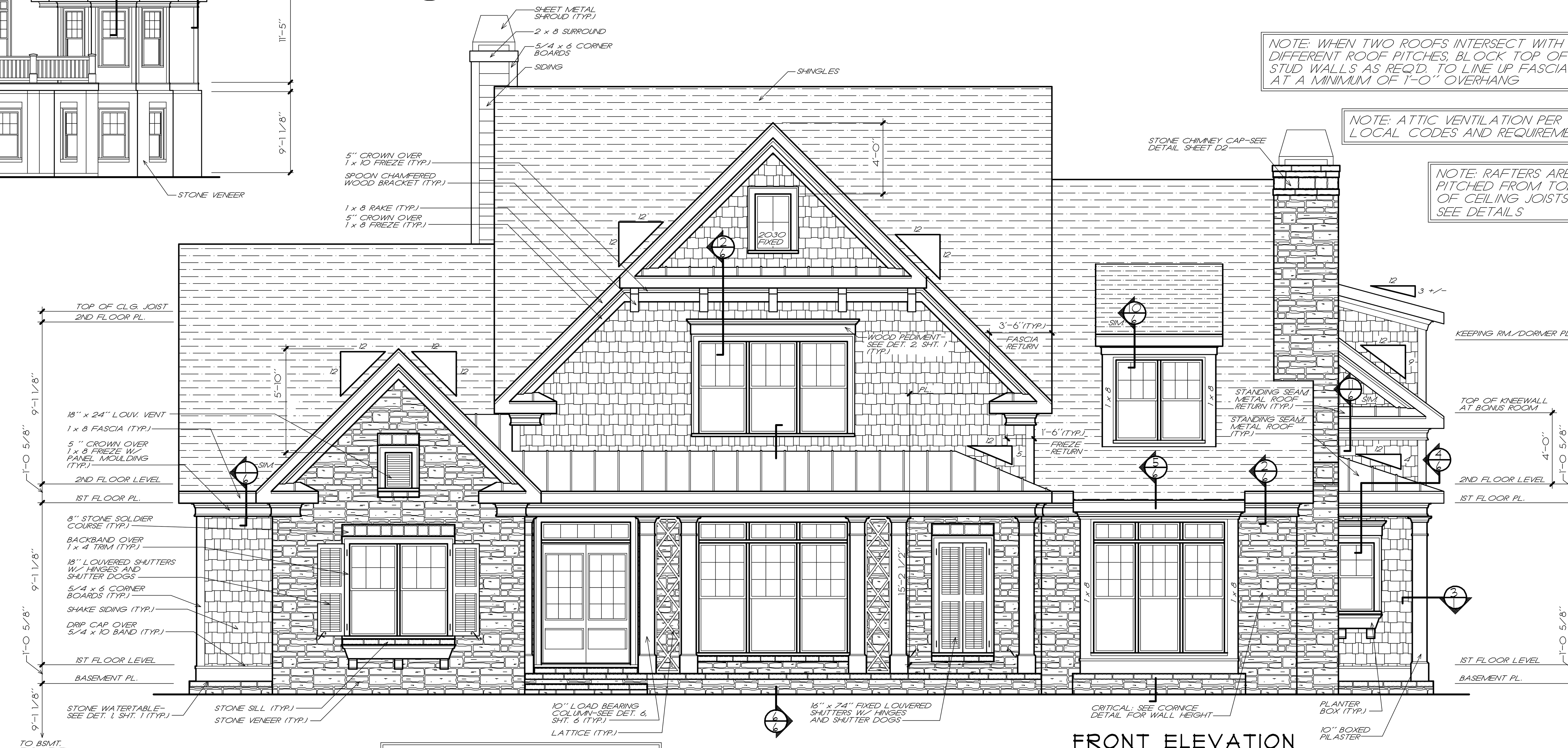
3 PILASTER DETAIL

3/4" = 1'-0"

NOTE: WHEN TWO ROOFS INTERSECT WITH DIFFERENT ROOF PITCHES, BLOCK TOP OF STUD WALLS AS REQ'D. TO LINE UP FASCIAS AT A MINIMUM OF 1'-0" OVERHANG

NOTE: ATTIC VENTILATION PER LOCAL CODES AND REQUIREMENTS

NOTE: RAFTERS ARE PITCHED FROM TOP OF CEILING JOISTS SEE DETAILS



NOTE: ELEVATIONS REFLECT A BASEMENT FOUNDATION. IF ANOTHER FOUNDATION IS USED, BUILDER SHOULD DISREGARD FOUNDATION SHOWN

PROVIDE SUPPORT FOR PORCH AND STEPS TO GRADE AS REQ'D.

FRONT ELEVATION

1/4" = 1'-0"

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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

06/04/2021

Harnett COUNTY NORTH CAROLINA

See Notes

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REVISIONS	DATE	BY

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ELEVATIONS / DETAILS

THE NORTHFIELD MANOR

FRANK BETZ ASSOCIATES, INC.
DESIGNERS OF CUSTOM AND STOCK HOMEPLANS
3550 GEORGE BUSBEE PARKWAY
SUITE 190
KENNESAW, GEORGIA 30144
770-431-0888 888-717-3003

BY: PLD CK: KKW

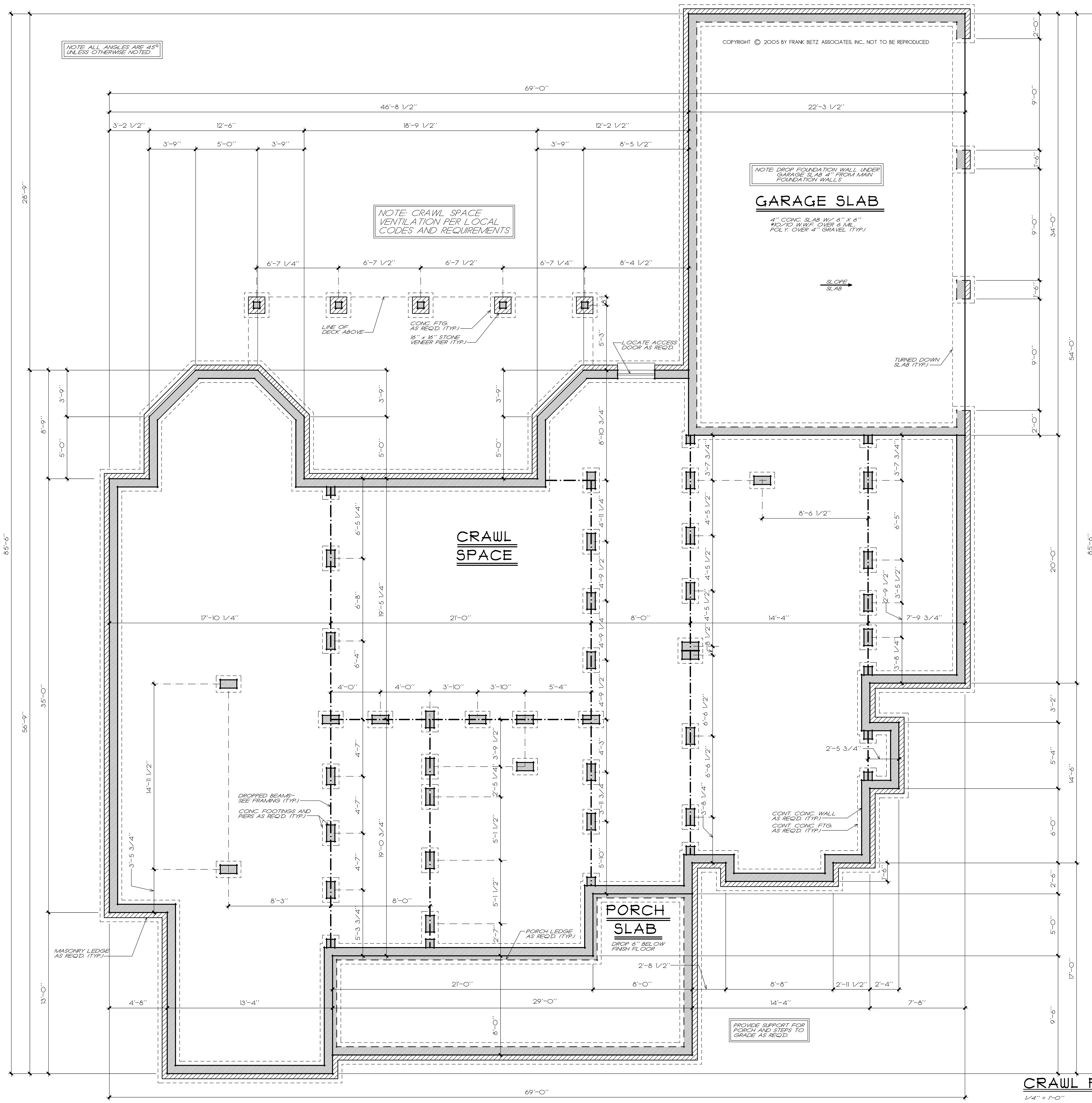
DATE: 6-29-05

SHEET: 1

OF: 6

NOTE: LOCATE BEAMS UNDER ALL LOAD BEARING WALLS

NOTE: ALL ANGLES ARE 45° UNLESS OTHERWISE NOTED



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CRAWL FOUNDATION PLAN

1/4" = 1'-0"

REVISIONS	DATE	BY

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CRAWL FOUND. PLAN

THE NORTHFIELD MANOR

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KENNESAW, GEORGIA 30144
770-431-0888 888-717-3003

BY: PLD CK: KKW

DATE: 6-29-05

SHEET: 2

OF: 6

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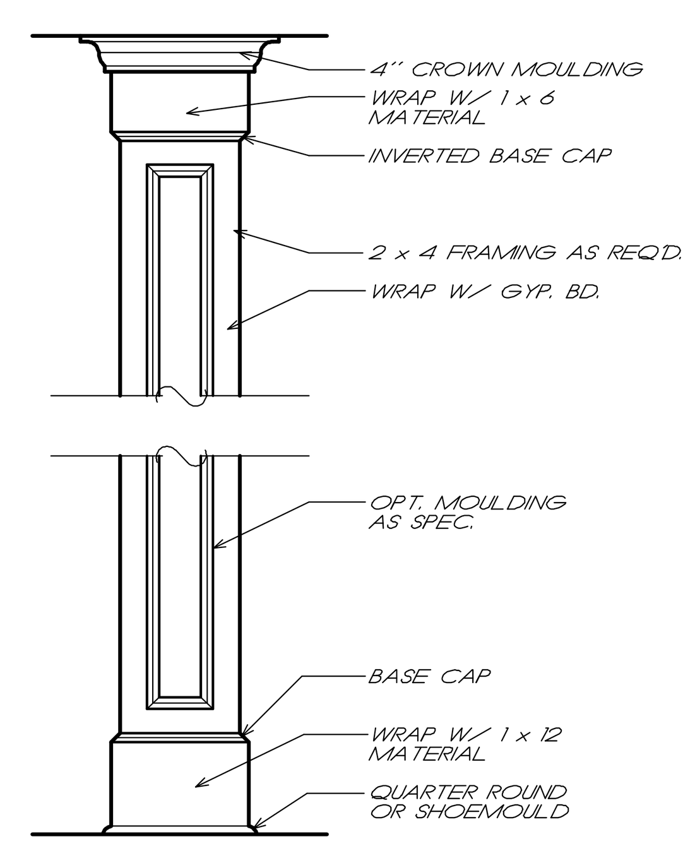
GENERAL NOTES

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE NATIONAL, STATE, AND LOCAL CODES, REGULATIONS, AND H.U.D. M.P.S.
2. CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AT SITE BEFORE BEGINING CONSTRUCTION. ANY DISCREPANCIES SHALL BE REPORTED TO FRANK BETZ ASSOCIATES, INC. FOR JUSTIFICATION AND/OR CORRECTION BEFORE PROCEEDING WITH WORK. CONTRACTORS SHALL ASSUME RESPONSIBILITY FOR ERRORS THAT ARE NOT REPORTED.
3. ALL DIMENSIONS SHOULD BE READ OR CALCULATED AND NEVER SCALED.
4. ALL FOOTINGS TO BE BELOW FROST LINE (SEE LOCAL CODE) AND MUST REST ON UNDISTURBED SOIL CAPABLE OF HANDLING THE BUILDING. CONSULT LOCAL ENGINEER FOR PROPER FOOTING AND REINFORCING SIZES.
5. CONTRACTOR SHALL INSURE COMPATIBILITY OF THE BUILDING WITH ALL SITE REQUIREMENTS.
6. IF BACKFILL EXCEEDS 4' AGAINST ANY FOUNDATION WALL, REINFORCE AS PER CODE.
7. ALL FOUNDATION AND STRUCTURAL MEMBERS SHOULD BE VERIFIED AND STAMPED BY AN ENGINEER IN THE STATE WHERE CONSTRUCTION IS OCCURING DUE TO A WIDE VARIANCE IN LOCAL CODES, SOIL BEARING CONDITIONS, FROST LINE DEPTHS, GEOLOGICAL AND WEATHER CONDITIONS, ETC. THE CONTRACTOR IS RESPONSIBLE FOR ADJUSTING AND VERIFYING ALL STRUCTURAL DETAILS AND CONDITIONS TO MEET ALL LOCAL CODES AND TO INSURE A QUALITY AND SAFE STRUCTURE.
8. ALL WOOD, CONCRETE, AND STEEL STRUCTURAL MEMBERS SHALL BE OF A GOOD GRADE AND QUALITY AND MEET ALL NATIONAL, STATE, AND LOCAL BUILDING CODES WHERE APPLICABLE.
9. ALL COLUMNS OR SOLID FRAMING SHOULD BE DESIGNED TO CARRY LOADS AND SHOULD EXTEND DOWN THRU THE LEVELS BELOW AND TERMINATE AT THE BASEMENT FLOOR OR AT OTHER BEARING POINTS DESIGNED TO CARRY THE LOAD.

GENERAL FRAMING NOTES

THE FOLLOWING NOTES ARE SUGGESTED MINIMUM REQUIREMENTS ONLY. DUE TO A VARIANCE OF CODES PER REGION, PLEASE REFER AND COMPLY WITH ALL YOUR LOCAL CODES. CONSULT WITH LOCAL ENGINEERS FOR ALL STRUCTURAL REQUIREMENTS.

1. ALL FRAMED WALL DIMENSIONS ARE BASED ON 2 x 4 STUDS UNLESS NOTED OTHERWISE. PROVIDE PURLINS AT MID HEIGHT OF ALL WALLS.
2. ALL JOISTS AND RAFTERS SHALL BE ALIGNED OVER STUDS BELOW.
3. ALL HEADERS SHALL BE 2–2x10 #2 SYP. WITH 1/2" PLYWOOD PLATE BETWEEN UNLESS NOTED OTHERWISE.
4. FRAMER TO INSTALL DOUBLE FLOOR JOISTS UNDER PARTITION WALL PARALLEL TO JOIST DIRECTION.
5. PROVIDE CROSS BRIDGING AT MID POINT OF SPAN OR 8'–0" O.C. MAXIMUM IN ALL FLOORS.
6. FLOOR DECKING TO BE APA 24 RATED 23/32" T&G PLYWOOD EXPOSURE 1 GLUED AND NAILED PER MANUFACTURERS SPECIFICATIONS.
7. EXTERIOR SHEATHING TO BE CONTINUOUS APA RATED 32/16 7/16" OSB EXPOSURE 1. NAILING SCHEDULE TO BE 8d COMMONS AT 6" O.C. AT ALL EDGES AND 8d COMMONS AT 12" O.C. AT ALL INTERMEDIATE STUDS.
8. PROVIDE DOUBLE 2x8 STRONGBACK AT MID SPAN FOR CEILING JOISTS WITH SPAN GREATER THAN 10'–0".
9. PROVIDE COLLAR TIES AT UPPER 1/3 OF VERTICAL DISTANCE BETWEEN RIDGE BOARD AND CEILING JOISTS AT 4'–0" O.C. MAXIMUM.
10. HIP, VALLEY RAFTERS, AND RIDGE BOARDS SHALL BE ONE "2x" SIZE LARGER THAN RAFTERS.
11. ROOF SHEATHING TO BE APA 16 RATED 1/2" PLYWOOD CDX EXPOSURE 1 INSTALLED PER MANUFACTURERS SPECIFICATIONS. NAILING SCHEDULE TO BE 8d COMMONS AT 6" O.C. AT ALL EDGES AND 8d COMMONS AT 12" O.C. AT ALL INTERMEDIATE STUDS. INSTALL PANEL SPACER TYPE EDGE CLIPS PER MANUFACTURER SPECIFICATIONS.
12. WHERE PRE ENGINEERED FLOOR AND ROOF TRUSSES ARE USED, TRUSS MANUFACTURER MUST PROVIDE SHOP DRAWINGS WHICH BEAR SEAL OF REGISTERED ENGINEER IN STATE IN WHICH WORK IS TO BE PERFORMED.
13. ALL CEILING JOISTS AND RAFTER BRACING TO BEAR ON LOAD BEARING WALLS DESIGNED TO CARRY LOAD THRU ALL LEVELS AND TERMINATE AT BASEMENT FLOOR AND BE SUPPORTED BY THICKENED SLAB GRADE BEAM OR FOOTING DESIGNED TO CARRY LOAD.
14. ALL BASEMENT WALLS, BEAMS, AND COLUMNS TO BE DESIGNED BY LOCAL STRUCTURAL ENGINEER AND MEET ALL LOCAL CODES.
15. ALL SOLID FRAMING, COLUMNS, BEAMS, ETC., TO BE DESIGNED BY LOCAL STRUCTURAL ENGINEER AND MEET ALL LOCAL CODES.



1/3 INT. COLUMN DETAIL
3/4" = 1'–0"

This door may not have a fixed mullion between the leaves unless each leaf is 3/0 minimum. Door may not require special tools or knowledge to open both leaves at shown size.

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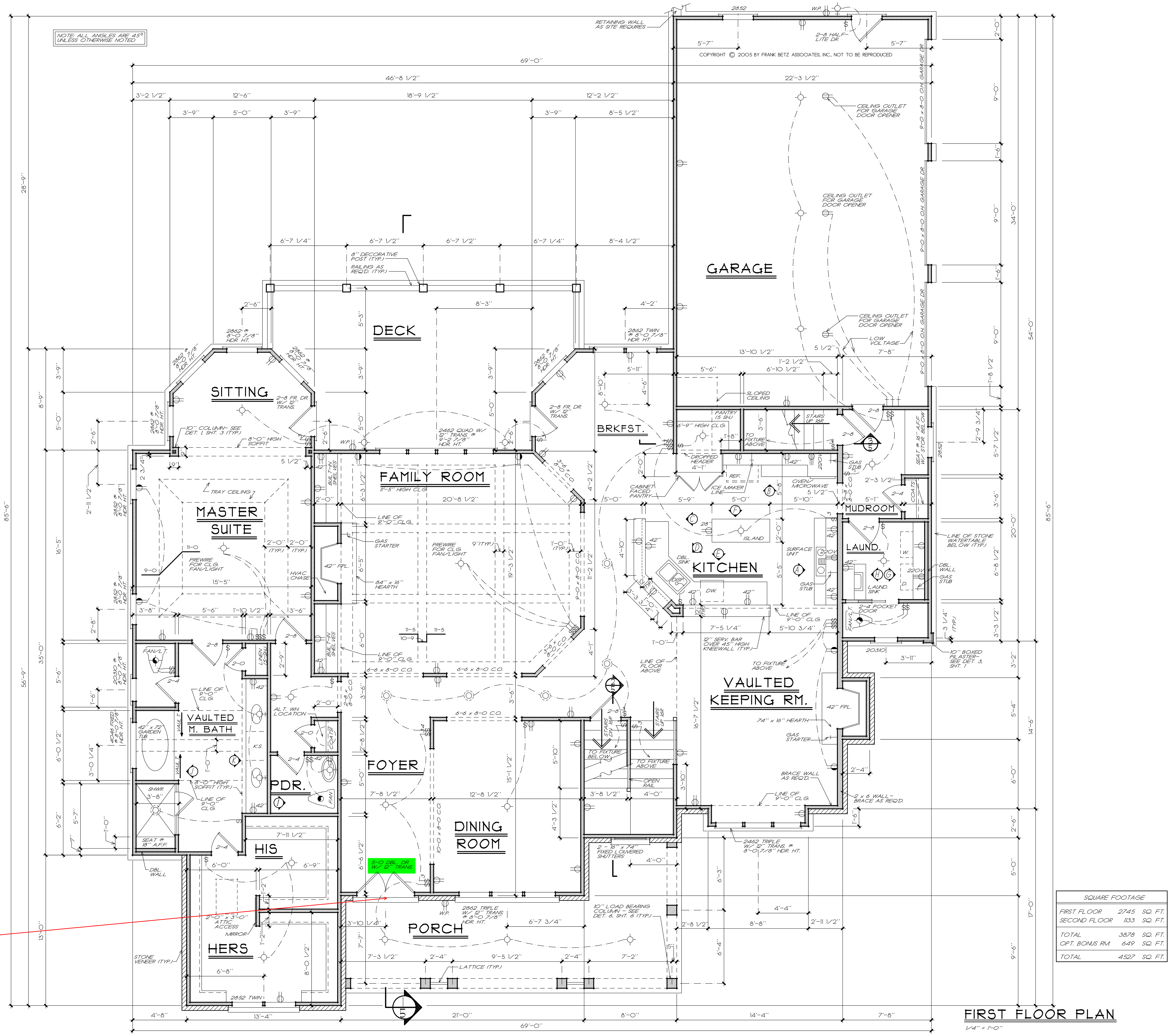

FIRST FLOOR PLAN
1/4" = 1'–0"

SQUARE FOOTAGE		
FIRST FLOOR	2745	SQ. FT.
SECOND FLOOR	1133	SQ. FT.
TOTAL	3878	SQ. FT.
OPT. BONUS RM.	649	SQ. FT.
TOTAL	4527	SQ. FT.

REVISIONS	DATE	BY

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FIRST FLOOR PLAN / DETAIL

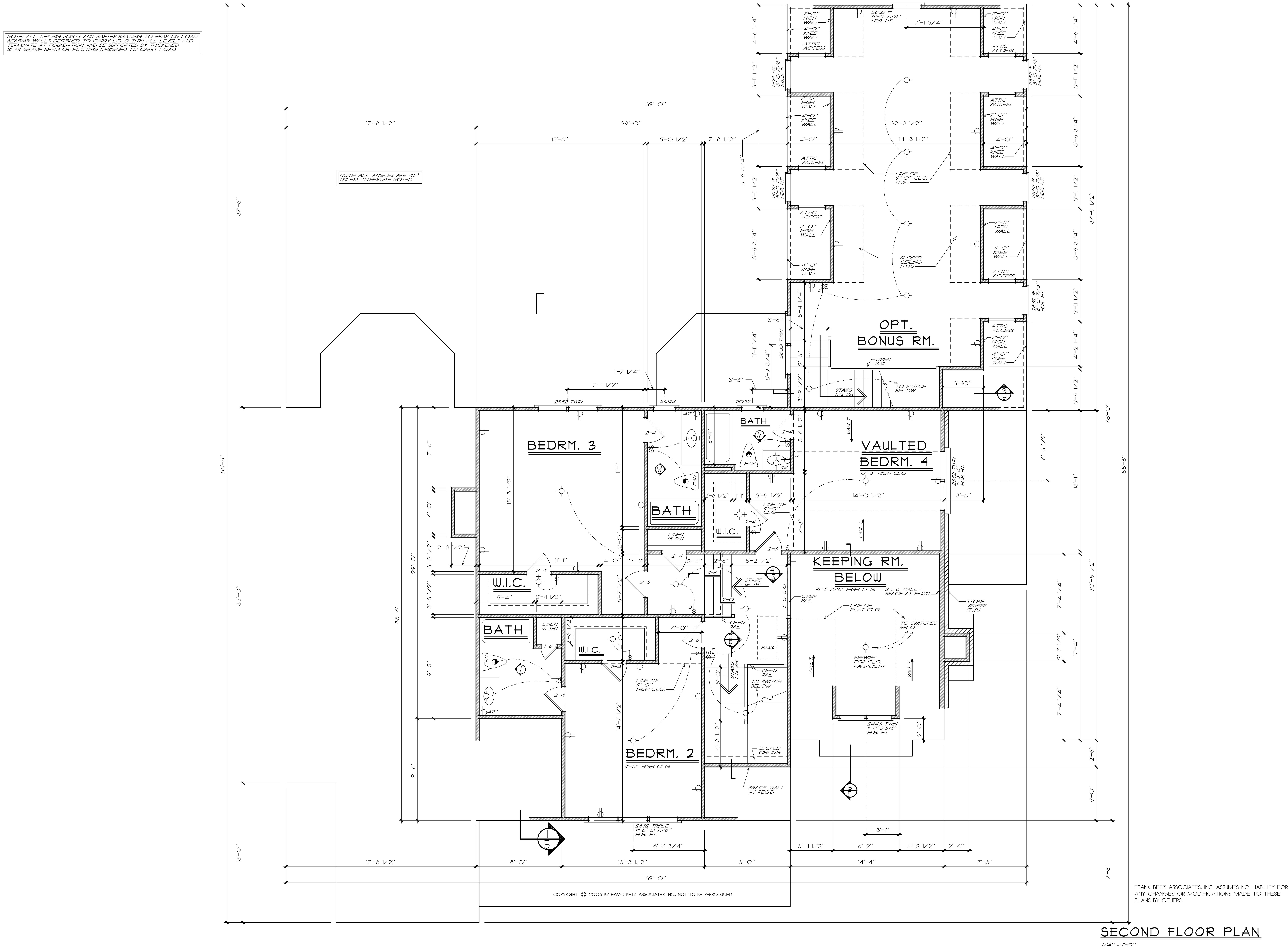
THE NORTHFIELD MANOR

FRANK BETZ ASSOCIATES, INC.
DESIGNERS OF CUSTOM AND STOCK HOMEPLANS
3550 GEORGE BUSBEE PARKWAY
SUITE 190
KENNESAW, GEORGIA 30144
770-431-0888 888-717-3003

BY: PLD CK: KKW

DATE: 6-29-05

SHEET: 3 OF: 6



SECOND FLOOR PLAN

1/4" = 1'-0"

REVISIONS	DATE	BY
CLAR 38-56	9/26/9	JCH

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SECOND FLOOR PLAN

THE NORTHFIELD MANOR

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3550 GEORGE BUSBEE PARKWAY
SUITE 190
KENNESAW, GEORGIA 30144
770-431-0888
888-717-3003

BY: PLD CK: KKW

DATE: 6-29-05

SHEET: 4

OF: 6

FRAMING PLAN NOTES

1. THESE FRAMING PLANS WERE DESIGNED USING STANDARD CONSTRUCTION PRACTICES IN ATLANTA, GEORGIA. THEY CONFORM TO THE INTERNATIONAL BUILDING CODE AND INTERNATIONAL RESIDENTIAL CODE FOR ONE AND TWO FAMILY DWELLINGS. DUE TO VARIATIONS IN LOCAL CODES & GEOLOGICAL CONDITIONS, REVISIONS MAY BE REQUIRED TO THESE PLANS.
2. ALL WORK SHOULD BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE LOCAL CODES, REGULATIONS, AND HUD MPS. THE BUILDER SHOULD VERIFY ALL CONDITIONS BEFORE BEGINNING CONSTRUCTION. CONSULT WITH LOCAL STRUCTURAL ENGINEERS AND CODE OFFICIALS PRIOR TO USING THE FRAMING MATERIALS PROVIDED TO INSURE COMPLIANCE WITH CODES AND STRUCTURAL INTEGRITY.
3. DESIGN LOADS:
   FLOOR: 40LBS LIVE LOAD, 10LBS DEAD LOAD
   BEDROOM: 30LBS LIVE LOAD, 10LBS DEAD LOAD
   CEILING: 20LBS LIVE LOAD, 10LBS DEAD LOAD
   ROOF: 20LBS LIVE LOAD, 10LBS DEAD LOAD
4. THE FOLLOWING GUIDELINES ARE PROVIDED TO EXPLAIN HOW THE QUANITIES LISTED ON THE FRAMING PLANS AND MATERIAL LIST WHERE DETERMINED. FAILURE TO COMPLY WITH THESE GUIDELINES WILL RESULT IN A FRAMING PLAN AND MATERIAL LIST THAT DO NOT MATCH.
5. ALL PIECES ARE LABELED AS TO THEIR ROUGH CUT LENGTH. MATERIAL IS TAKEN OFF AS INDICATED ON FRAMING PLANS.
6. ANY LABELED PIECE LESS THAN 10' IN LENGTH IS COUNTED AS BEING CUT FROM A 16' PIECE.
7. ALL BEAMS ARE 2X10 #1 SYP, 2X12 #1 SYP, LAMINATED VENEER LUMBER (LVL), OR GLU-LAMINATED BEAMS (GLB) AS INDICATED ON PLANS.
   ALL HEADERS AND GIRDERS ARE 2 X 10 #1 SYP EXCEPT AS NOTED ON PLANS.
8. GLU-LAMINATED BEAMS SHOULD HAVE A MINIMUM ALLOWABLE BENDING STRESS OF 2400 PSI.
9. LAMINATED VENEER LUMBER BEAMS SHOULD HAVE A MINIMUM ALLOWABLE BENDING STRESS OF 2700 PSI.
10. ALL FLOOR JOIST ARE 2X10 #2 SYP AT 16"O.C. EXCEPT AS NOTED ON PLAN. ALL 2 X 10 X 16' AND 2 X 10 X 18' FLOOR JOIST TO BE # 1 SYP.
11. ALL BAND MATERIAL IS 2X10 #2 SYP.
12. 1X4 CROSS-BRIDGING SHOULD BE USED AT MID POINT OF SPAN OR 8'-0" O.C. MAXIMUM IN ALL FLOORS.
13. ALL CEILING JOISTS ARE 2X8'S #2 SPF AT 16" O.C. EXCEPT AS NOTED ON PLANS. ALL TRAY CEILING JOISTS ARE RAFTER TO KNEEWALL IN LENGTH. SEE TRAY DETAIL SHOWN ON PLANS.
14. ALL RAFTERS ARE 2X8'S #3 SPF AT 16" O.C. EXCEPT AS NOTED ON PLANS.
15. ALL HIP, VALLEY AND RIDGE RAFTERS ARE 2X10'S #1 SYP EXCEPT AS NOTED ON PLANS.
16. ALL RAFTERS SHOULD BE BRACED AS CLOSE TO MID-SPAN AS POSSIBLE WITH NO SPAN EXCEEDING 13'-0".
17. ALL RAFTERS OVER A VAULTED ROOM ARE 2 x 10'S #2 SPF AT 16" O.C. EXCEPT AS NOTED ON PLANS.
18. ALL CEILING JOISTS AND RAFTER BRACING TO BEAR ON LOAD BEARING WALLS DESIGNED TO CARRY LOAD THRU ALL LEVELS AND TERMINATE AT FOUNDATION AND BE SUPPORTED BY THICKENED SLAB GRADE BEAM OR FOOTING DESIGNED TO CARRY LOAD.

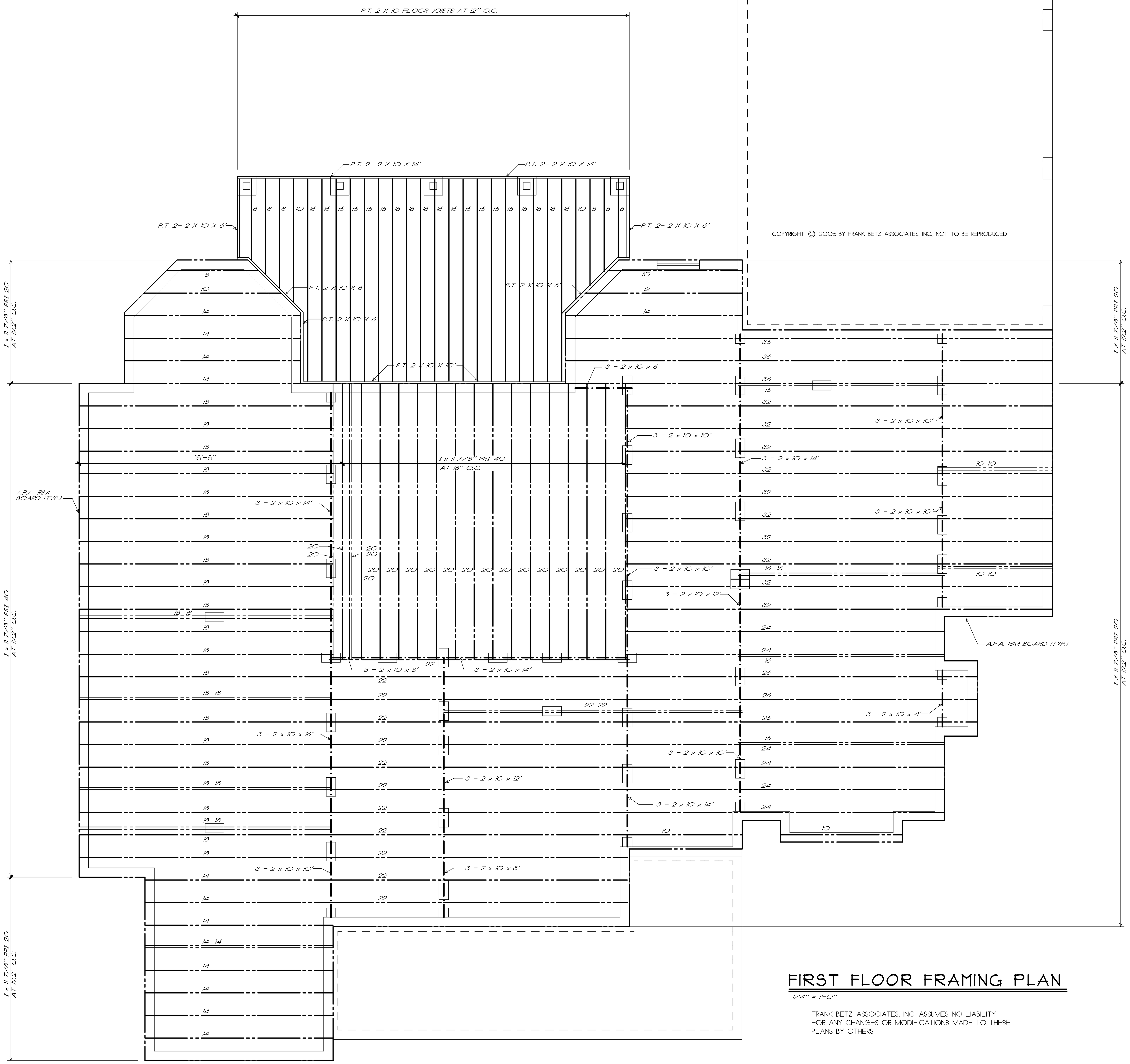
I - JOIST NOTES

1. THE I - JOIST ARE SPECIFIED USING THE APA STANDARD PRI - 400, PERFORMANCE STANDARD FOR APA EWS I - JOIST. FOLLOW MANUFACTURERS GUIDELINES FOR THE PROPER INSTALLATION OF JOIST, HANGERS, SQUASH BLOCKS AND DECKING.
2. ALL RIM BOARD TO BE APA RIM BOARD - VERTICAL LOAD TRANSFER = 4400 PLF MAX. AMOUNT REQUIRED IS LISTED AS TOTAL LINEAR FOOTAGE.
3. THIS I - JOIST LAYOUT MUST BE REVIEWED BY A TECHNICAL REPRESENTATIVE OF THE ACTUAL JOIST MANUFACTURER SUPPLYING THE CONSTRUCTION MATERIALS. SOME ADJUSTMENTS MAY BE REQUIRED DUE TO VARIATIONS IN PRODUCTS.
4. BUILDER MUST CHECK, VERIFY, AND APPROVE ALL DIMENSIONS, LENGTHS, FRAMING CONDITIONS, AND LOADING METHODS BEFORE STARTING CONSTRUCTION.
5. ROOF BRACING METHODS MUST BE DISCUSSED WITH A TECHNICAL REPRESENTATIVE OF JOIST MANUFACTURER TO INSURE ADEQUATE MATERIAL IS PROVIDED.
6. FILL AND CONNECT DOUBLE JOISTS.
7. INTERIOR BEARINGS MUST BE LEVEL WITH EXTERIOR BEARINGS.
8. 8d NAILS ARE REQUIRED FOR PROPER JOIST ATTACH-MENT. DO NOT USE 16d NAILS. TAKE CARE NOT TO SPLIT FLANGES.
9. LOCATE PROBABLE PLUMBING DROPS BEFORE CONSTRUCTION BEGINS. SHIFT JOISTS TO ALLOW DROP OR BUILD PLUMBING WALL ABOVE.
10. REVIEW OF THIS LAYOUT BY A PROFESSIONAL ENGINEER TO INSURE STRUCTURAL INTEGRITY IS STRONGLY ENCOURAGED.

BEAM SCHEDULE	
A	NOT USED
B	NOT USED
C	NOT USED
D	NOT USED

LEGEND

Symbol	Description
solid line	"2X" JOIST, RAFTER, HIP, OR VALLEY
double line	DOUBLE JOIST
dashed line	I - JOIST
dash-dot line	BEAM
hatched band	INTERIOR LOAD BEARING WALL



FIRST FLOOR FRAMING PLAN

1/4" = 1'-0"

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DECK QUANTITIES	
2 x 10 x 10 P.T.	04
2 x 10 x 14 P.T.	04
2 x 10 x 16 P.T.	26

QUANTITIES	
2 x 10 x 10	18
2 x 10 x 12	06
2 x 10 x 14	12
2 x 10 x 16	09
I x 11 7/8" PRI-20 x 10'	08
I x 11 7/8" PRI-20 x 12'	01
I x 11 7/8" PRI-20 x 14'	14
I x 11 7/8" PRI-20 x 16'	06
I x 11 7/8" PRI-20 x 22'	14
I x 11 7/8" PRI-20 x 24'	06
I x 11 7/8" PRI-20 x 26'	03
I x 11 7/8" PRI-20 x 32'	10
I x 11 7/8" PRI-20 x 36'	03
I x 11 7/8" PRI-40 x 18'	27
I x 11 7/8" PRI-40 x 20'	19
RIM BOARD - L.F.	270

REVISIONS	DATE	BY
SPANS	8/22/16	JCH

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CRAWL
1ST. FLOOR FRAMING PLAN

THE NORTHFIELD MANOR

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3550 GEORGE BUSBEE PARKWAY
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KENNESAW, GEORGIA 30144
770-431-0888
888-717-3003

BY: XLS CK: DCF

DATE: 6-29-05

SHEET: F1

OF: 4

FRAMING PLAN NOTES

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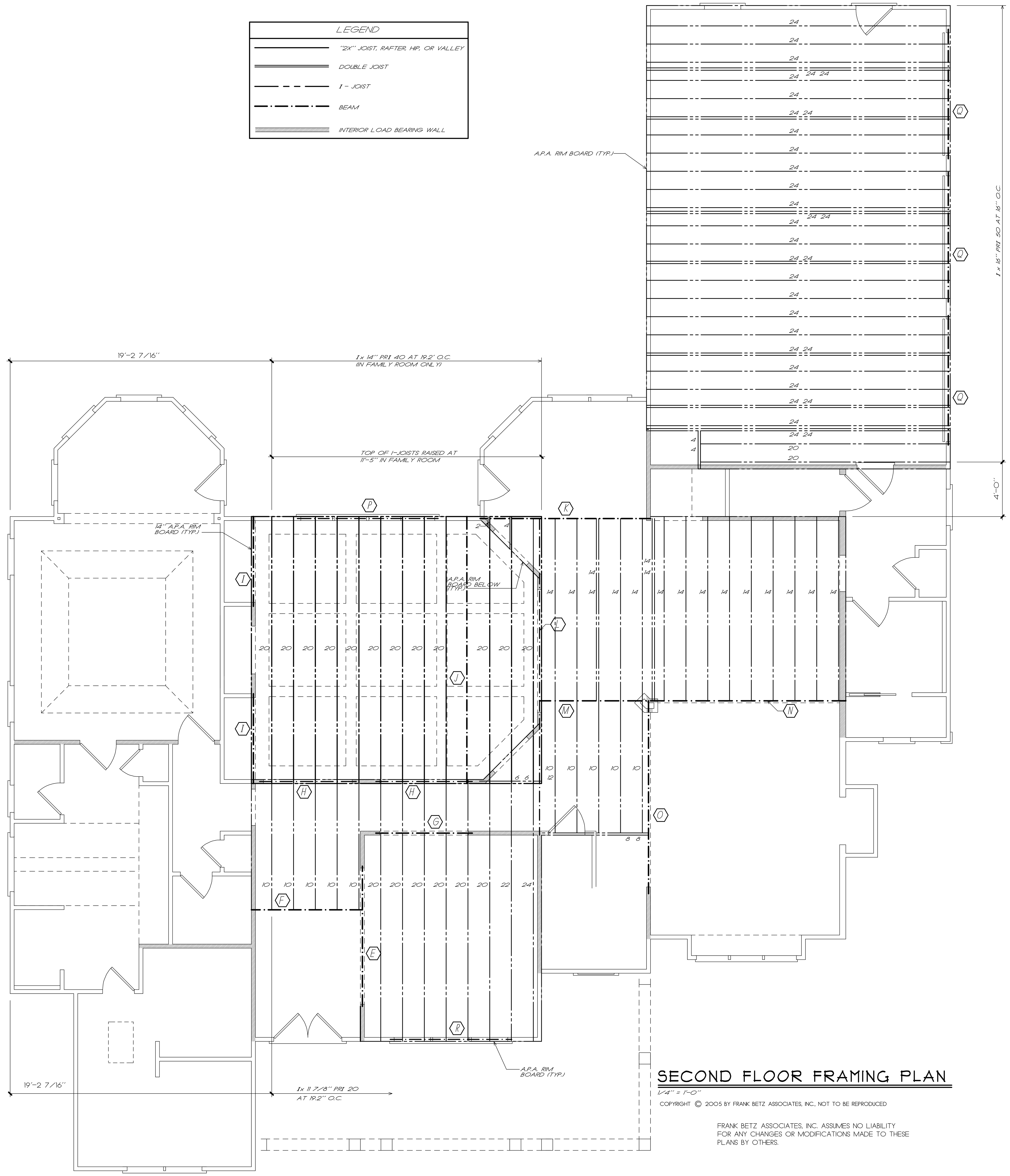
8. 8d NAILS ARE REQUIRED FOR PROPER JOIST ATTACH-MENT. DO NOT USE 16d NAILS. TAKE CARE NOT TO SPLIT FLANGES.
9. LOCATE PROBABLE PLUMBING DROPS BEFORE CONSTRUCTION BEGINS. SHIFT JOISTS TO ALLOW DROP OR BUILD PLUMBING WALL ABOVE.
10. REVIEW OF THIS LAYOUT BY A PROFESSIONAL ENGINEER TO INSURE STRUCTURAL INTEGRITY IS STRONGLY ENCOURAGED.

LEGEND

- "2X" JOIST, RAFTER, HIP, OR VALLEY
- DOUBLE JOIST
- I - JOIST
- BEAM
- INTERIOR LOAD BEARING WALL

BEAM SCHEDULE	
E	2 - 1 3/4" x 11 7/8" x 12' LVL. - FLUSH
F	2 - 1 3/4" x 11 7/8" x 10' LVL. - FLUSH
G	2 - 2 x 10 x 8' - DROPPED
H	2 - 1 3/4" x 9 1/4" x 8' LVL. - DROPPED
I	2 - 1 3/4" x 9 1/4" x 8' LVL. - FLUSH AT 9'-0" A.F.F.
J	3 - 1 3/4" x 14" x 20' LVL. - FLUSH
K	2 - 1 3/4" x 11 7/8" x 14' LVL. - FLUSH
L	2 - 1 3/4" x 11 7/8" x 24' LVL. - FLUSH
M	2 - 1 3/4" x 11 7/8" x 8' LVL. - FLUSH
N	2 - 1 3/4" x 16" x 16' LVL. - FLUSH - EXTEND INTO WALL ABOVE
O	2 - 1 3/4" x 11 7/8" x 14' LVL. - FLUSH
P	2 - 1 3/4" x 11 7/8" x 12' LVL. - HEADER AT 9'-2 7/8" A.F.F.
Q	2 - 1 3/4" x 11 7/8" x 10' LVL. - DROPPED
R	2 - 1 3/4" x 9 1/4" x 10' LVL. - HEADER AT 8'-0 7/8" A.F.F.



SECOND FLOOR FRAMING PLAN
1/4" = 1'-0"

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QUANTITIES	
I x 11 7/8" PRI-20 x 2'	01
I x 11 7/8" PRI-20 x 4'	01
I x 11 7/8" PRI-20 x 6'	02
I x 11 7/8" PRI-20 x 8'	02
I x 11 7/8" PRI-20 x 10'	10
I x 11 7/8" PRI-20 x 12'	01
I x 11 7/8" PRI-20 x 14'	17
I x 11 7/8" PRI-20 x 16'	01
I x 11 7/8" PRI-20 x 20'	06
I x 11 7/8" PRI-20 x 22'	01
I x 11 7/8" PRI-20 x 24'	01
I x 14" PRI-40 x 16'	01
I x 14" PRI-40 x 20'	12
I x 16" PRI-50 x 4'	02
I x 16" PRI-50 x 20'	02
I x 16" PRI-50 x 24'	33
11 7/8" RIM BD. - L.F.	100
14" RIM BD. - L.F.	80
16" RIM BD. - L.F.	92

REVISIONS	DATE	BY
SPANS	8/22/16	JCH

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2ND. FLOOR FRAMING PLAN

THE NORTHFIELD MANOR

FRANK BETZ ASSOCIATES, INC.
DESIGNERS OF CUSTOM AND STOCK HOMEPLANS
3550 GEORGE BUSBEE PARKWAY
SUITE 190
KENNESAW, GEORGIA 30144
770-431-0888 888-717-3003

BY: XLS CK: DCF

DATE: 6-29-05

SHEET: F2

OF: 4

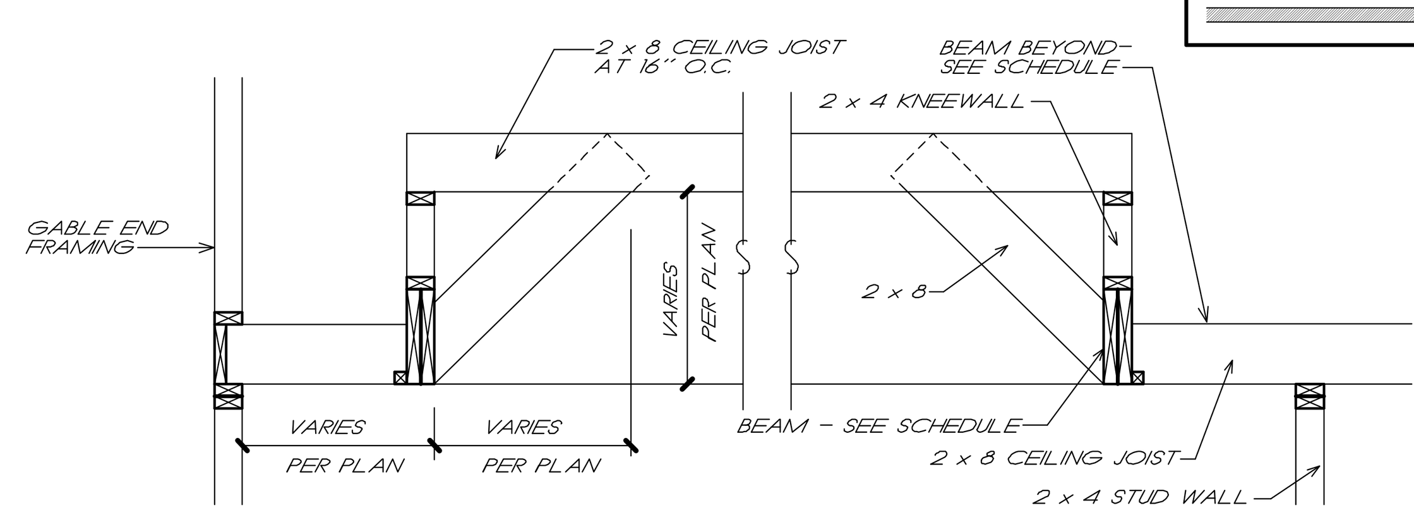
8/23/2016 4:22 PM

FRAMING PLAN NOTES

1. THESE FRAMING PLANS WERE DESIGNED USING STANDARD CONSTRUCTION PRACTICES IN ATLANTA, GEORGIA. THEY CONFORM TO THE INTERNATIONAL BUILDING CODE AND INTERNATIONAL RESIDENTIAL CODE FOR ONE AND TWO FAMILY DWELLINGS. DUE TO VARIATIONS IN LOCAL CODES & GEOLOGICAL CONDITIONS, REVISIONS MAY BE REQUIRED TO THESE PLANS.
2. ALL WORK SHOULD BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE LOCAL CODES, REGULATIONS, AND HUD MPS. THE BUILDER SHOULD VERIFY ALL CONDITIONS BEFORE BEGINNING CONSTRUCTION. CONSULT WITH LOCAL STRUCTURAL ENGINEERS AND CODE OFFICIALS PRIOR TO USING THE FRAMING MATERIALS PROVIDED TO INSURE COMPLIANCE WITH CODES AND STRUCTURAL INTEGRITY.
3. DESIGN LOADS:
   - FLOOR: 40LBS LIVE LOAD, 10LBS DEAD LOAD
   - BEDROOM: 30LBS LIVE LOAD, 10LBS DEAD LOAD
   - CEILING: 20LBS LIVE LOAD, 10LBS DEAD LOAD
   - ROOF: 20LBS LIVE LOAD, 10LBS DEAD LOAD
4. THE FOLLOWING GUIDELINES ARE PROVIDED TO EXPLAIN HOW THE QUANITIES LISTED ON THE FRAMING PLANS AND MATERIAL LIST WHERE DETERMINED. FAILURE TO COMPLY WITH THESE GUIDELINES WILL RESULT IN A FRAMING PLAN AND MATERIAL LIST THAT DO NOT MATCH.
5. ALL PIECES ARE LABELED AS TO THEIR ROUGH CUT LENGTH. MATERIAL IS TAKEN OFF AS INDICATED ON FRAMING PLANS.
6. ANY LABELED PIECE LESS THAN 10' IN LENGTH IS COUNTED AS BEING CUT FROM A 16' PIECE.
7. ALL BEAMS ARE 2X10 #1 SYP, 2X12 #1 SYP, LAMINATED VENEER LUMBER (LVL), OR GLU-LAMINATED BEAMS (GLB) AS INDICATED ON PLANS. ALL HEADERS AND GIRDERS ARE 2 X 10 #1 SYP EXCEPT AS NOTED ON PLANS.
8. GLU-LAMINATED BEAMS SHOULD HAVE A MINIMUM ALLOWABLE BENDING STRESS OF 2400 PSI.
9. LAMINATED VENEER LUMBER BEAMS SHOULD HAVE A MINIMUM ALLOWABLE BENDING STRESS OF 2700 PSI.
10. ALL FLOOR JOIST ARE 2X10 #2 SYP AT 16"O.C. EXCEPT AS NOTED ON PLAN. ALL 2 X 10 X 16' AND 2 X 10 X 18' FLOOR JOIST TO BE # 1 SYP.
11. ALL BAND MATERIAL IS 2X10 #2 SYP.
12. 1X4 CROSS-BRIDGING SHOULD BE USED AT MID POINT OF SPAN OR 8'-0" O.C. MAXIMUM IN ALL FLOORS.
13. ALL CEILING JOISTS ARE 2X8'S #2 SPF AT 16" O.C. EXCEPT AS NOTED ON PLANS. ALL TRAY CEILING JOISTS ARE RAFTER TO KNEEWALL IN LENGTH. SEE TRAY DETAIL SHOWN ON PLANS.
14. ALL RAFTERS ARE 2X8'S #3 SPF AT 16" O.C. EXCEPT AS NOTED ON PLANS.
15. ALL HIP, VALLEY AND RIDGE RAFTERS ARE 2X10'S #1 SYP EXCEPT AS NOTED ON PLANS.
16. ALL RAFTERS SHOULD BE BRACED AS CLOSE TO MID-SPAN AS POSSIBLE WITH NO SPAN EXCEEDING 13'-0".
17. ALL RAFTERS OVER A VAULTED ROOM ARE 2 x 10'S #2 SPF AT 16" O.C. EXCEPT AS NOTED ON PLANS.
18. ALL CEILING JOISTS AND RAFTER BRACING TO BEAR ON LOAD BEARING WALLS DESIGNED TO CARRY LOAD THRU ALL LEVELS AND TERMINATE AT FOUNDATION AND BE SUPPORTED BY THICKENED SLAB GRADE BEAM OR FOOTING DESIGNED TO CARRY LOAD.

LEGEND

(single line)	"2X" JOIST, RAFTER, HIP, OR VALLEY
(double line)	DOUBLE JOIST
(dashed line)	I - JOIST
(dash-dot line)	BEAM
(hatched double line)	INTERIOR LOAD BEARING WALL



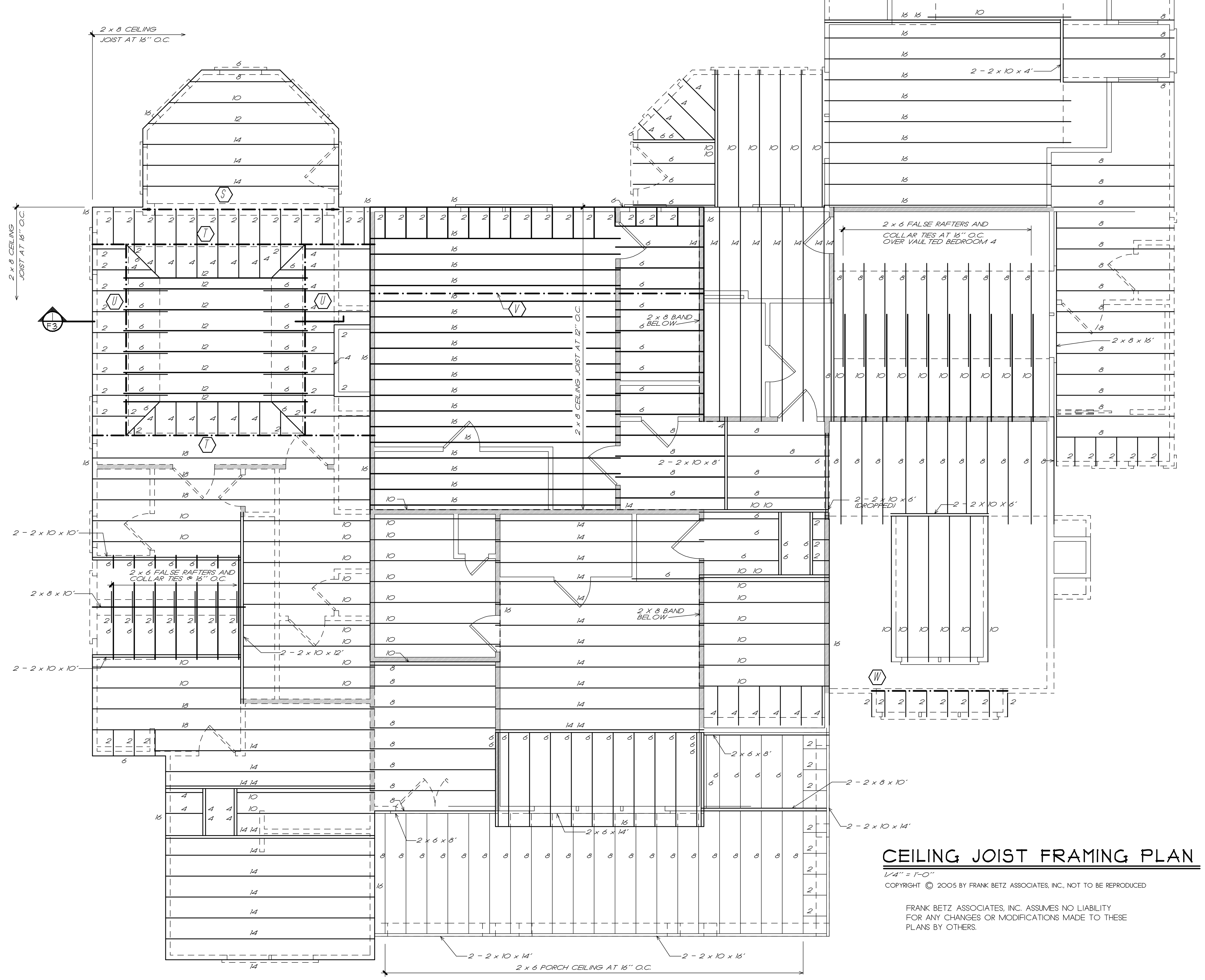
1/F3 TRAY CEILING DETAIL

1/2" = 1'-0"

NOTE: ALL CEILING JOISTS AND RAFTER BRACING TO BEAR ON LOAD BEARING WALLS DESIGNED TO CARRY LOAD THRU ALL LEVELS AND TERMINATE AT FOUNDATION AND BE SUPPORTED BY THICKENED SLAB GRADE BEAM OR FOOTING DESIGNED TO CARRY LOAD.

QUANTITIES	
2 x 6 x 10	10
2 x 6 x 14	01
2 x 6 x 16	26
2 x 8 x 10	69
2 x 8 x 12	09
2 x 8 x 14	37
2 x 8 x 16	110
2 x 8 x 18	05
2 x 10 x 10	06
2 x 10 x 12	02
2 x 10 x 14	07
2 x 10 x 16	07

BEAM SCHEDULE	
S	3 - 2 x 10 x 14' - FLUSH
T	3 - 1 3/4" x 11 7/8" x 18' LVL. - FLUSH
U	2 - 1 3/4" x 11 7/8" x 14' LVL. - FLUSH
V	3 - 1 3/4" x 16" x 22' LVL. - FLUSH
W	2 - 2 x 10 x 10' - FLUSH



CEILING JOIST FRAMING PLAN

1/4" = 1'-0"

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SPANS	8/22/16	JCH

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CLG. JOIST FRAMING PLAN

THE NORTHFIELD MANOR

FRANK BETZ ASSOCIATES, INC.
DESIGNERS OF CUSTOM AND STOCK HOMEPLANS
3550 GEORGE BUSBEE PARKWAY
SUITE 190
KENNESAW, GEORGIA 30144
770-431-0888 888-717-3003

BY: XLS CK: DCF

DATE: 6-29-05

SHEET: F3

OF: 4

FRAMING PLAN NOTES

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3. DESIGN LOADS:
   FLOOR: 40LBS LIVE LOAD
   10LBS DEAD LOAD
   BEDROOM: 30LBS LIVE LOAD
   10LBS DEAD LOAD
   CEILING: 20LBS LIVE LOAD
   10LBS DEAD LOAD
   ROOF: 20LBS LIVE LOAD
   10LBS DEAD LOAD
4. THE FOLLOWING GUIDELINES ARE PROVIDED TO EXPLAIN HOW THE QUANITIES LISTED ON THE FRAMING PLANS AND MATERIAL LIST WHERE DETERMINED. FAILURE TO COMPLY WITH THESE GUIDELINES WILL RESULT IN A FRAMING PLAN AND MATERIAL LIST THAT DO NOT MATCH.
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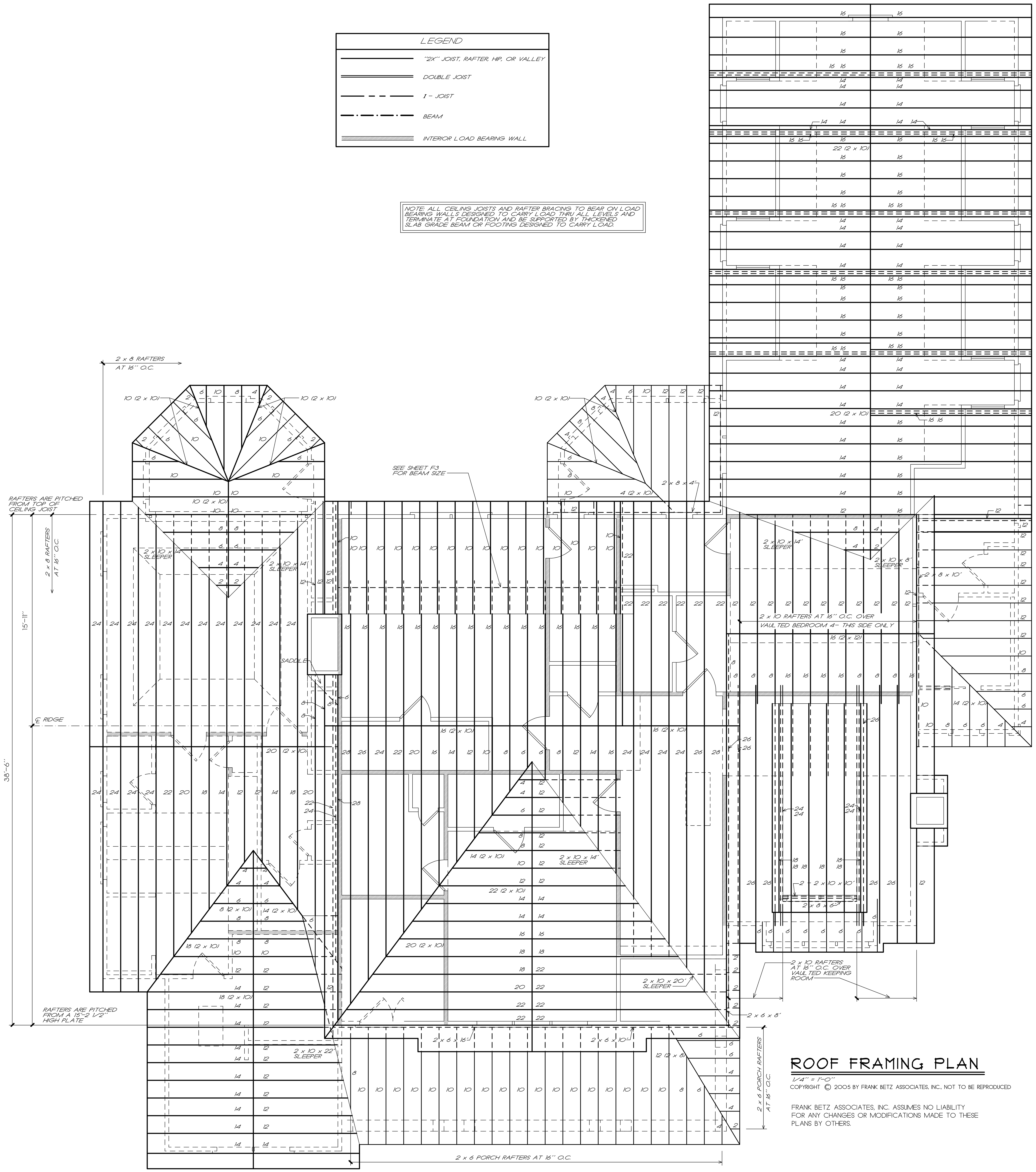
16. ALL RAFTERS SHOULD BE BRACED AS CLOSE TO MID-SPAN AS POSSIBLE WITH NO SPAN EXCEEDING 13'-0".
17. ALL RAFTERS OVER A VAULTED ROOM ARE 2 x 10'S #2 SPF AT 16" O.C. EXCEPT AS NOTED ON PLANS.
18. ALL CEILING JOISTS AND RAFTER BRACING TO BEAR ON LOAD BEARING WALLS DESIGNED TO CARRY LOAD THRU ALL LEVELS AND TERMINATE AT FOUNDATION AND BE SUPPORTED BY THICKENED SLAB GRADE BEAM OR FOOTING DESIGNED TO CARRY LOAD.

LEGEND

- "2X" JOIST, RAFTER, HIP, OR VALLEY
- DOUBLE JOIST
- I - JOIST
- BEAM
- INTERIOR LOAD BEARING WALL

NOTE: ALL CEILING JOISTS AND RAFTER BRACING TO BEAR ON LOAD BEARING WALLS DESIGNED TO CARRY LOAD THRU ALL LEVELS AND TERMINATE AT FOUNDATION AND BE SUPPORTED BY THICKENED SLAB GRADE BEAM OR FOOTING DESIGNED TO CARRY LOAD.

QUANTITIES	
2 x 6 x 10	19
2 x 6 x 16	06
2 x 8 x 10	37
2 x 8 x 12	44
2 x 8 x 14	50
2 x 8 x 16	97
2 x 8 x 18	11
2 x 8 x 20	04
2 x 8 x 22	16
2 x 8 x 24	26
2 x 8 x 26	05
2 x 8 x 28	03
2 x 10 x 10	07
2 x 10 x 12	12
2 x 10 x 14	07
2 x 10 x 16	11
2 x 10 x 18	04
2 x 10 x 20	03
2 x 10 x 22	03
2 x 10 x 26	04
2 x 12 x 16	01



ROOF FRAMING PLAN

1/4" = 1'-0"

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SPANS	8/22/16	JCH

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ROOF FRAMING PLAN

THE NORTHFIELD MANOR

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DESIGNERS OF CUSTOM AND STOCK HOMEPLANS
3550 GEORGE BUSBEE PARKWAY
SUITE 190
KENNESAW, GEORGIA 30144
770-431-0888 888-717-3003

BY: XLS CK: DCF

DATE: 6-29-05

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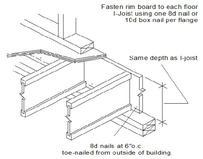
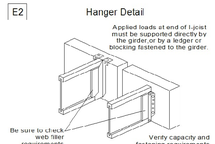
A1 RIM BOARD

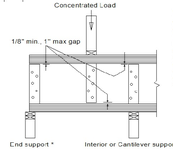


E2 Hanger Detail



Use of flat bearings or non-sloped hangers with sloped members is acceptable provided that the member pitch is less then or equal to 1/2" rise for 12" of run (0.5:12) or 2.39° degrees. Hanger design is the responsibility of the design

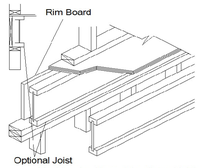
W1 WEB STIFFENER REQUIREMENTS



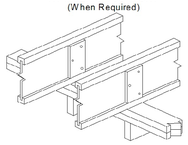
NOTES:
1. Web stiffeners, when required, must be installed in pairs , one to each side of the web
Web stiffeners are always required for the "Bird's Mouth" roof bearing detail
2. Web stiffeners should be cut to fit between the flanges of the I-joist leaving a minimal 1/8" (1" max) gap. At bearing locations, the stiffeners should be installed tight to bottom flange with the gap to the top flange. At locations of concentrated loads, the stiffeners should be installed tight to the top flange with the gap to the bottom flange.
3. Web stiffeners should be cut from APA-rated OSB or equal, or from 2x lumber. Do NOT use 1x lumber as it tends to split.
4. Web stiffeners should be true same width as the bearing surface, with a minimal 3.1/2".
5. See product specific technical guide for minimum stiffener thickness, maximum stiffner height and required nailing.

* Refer to framing plan for specific conditions

A7i SOLID RIM AS START JOIST w/ Additional I-Joist

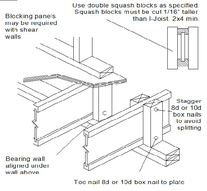


B1 WEB STIFFENERS AT INTERIOR SUPPORT (When Required)



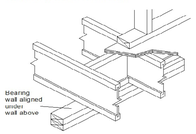
Verify stiffener requirements

B2 SQUASH BLOCKS

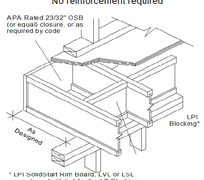


B3 BLOCKING AT INTERIOR SUPPORT

Blocking is not required if no wall above unless I-Joists end at support. Blocking may be required at interior supports by project designer or by code for seismic design

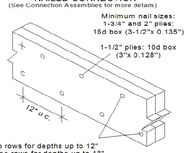


C1 CANTILEVER DETAIL No reinforcement required



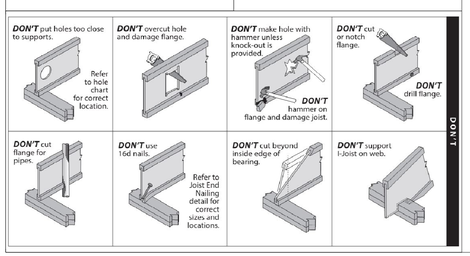
* LPI SolidStart Rim Board, LVL or LSL may be substituted for the LP Blocking

P1 TOP LOADED BEAM-NAILED CONNECTION
(See Connection Assemblies for more details)



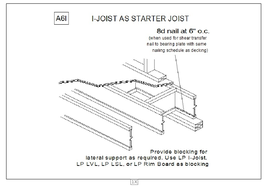
Two rows for depths up to 12"
Three rows for depths up to 18"

Framing is applied to top of the beam so that each ply carries an equal load

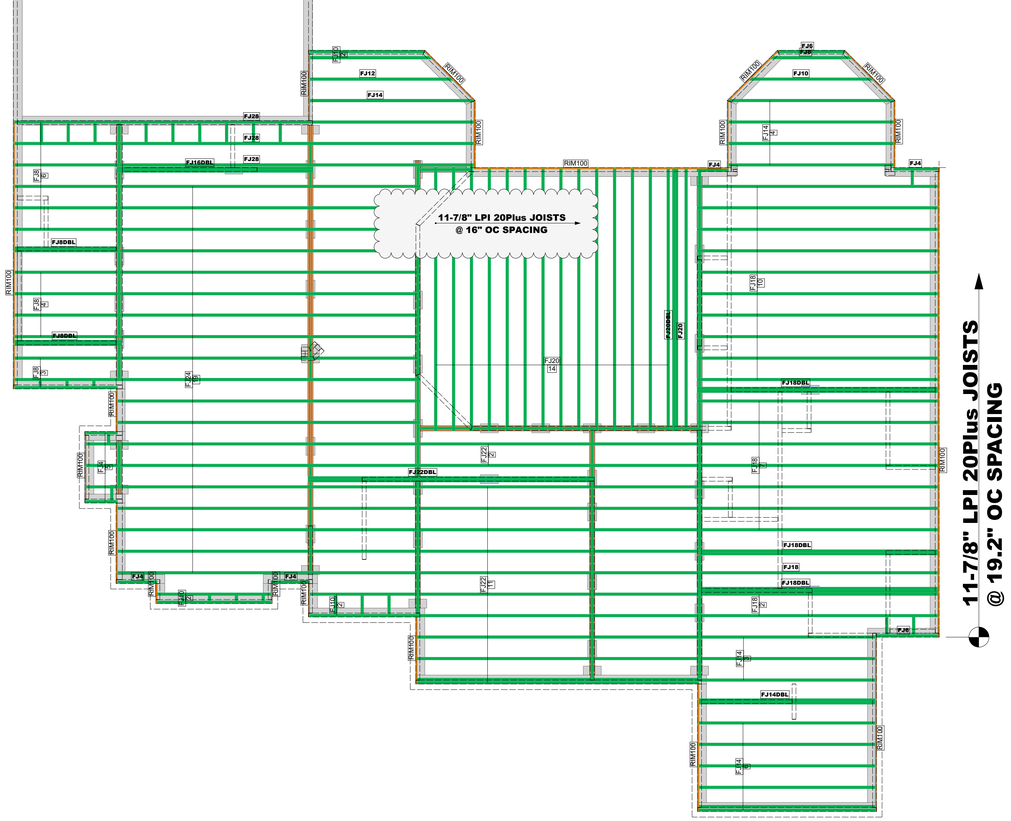


CRAWL SPACE ARE ASSUMED TO BE PER PLAN

A6i I-JOIST AS STARTER JOIST



Products				
PlotID	Length	Product	Plies	Net Qty
BLK100	154-00-00	11-7/8" LPI 20Plus	1	1
FJ28	28-00-00	11-7/8" LPI 20Plus	1	3
FJ24	24-00-00	11-7/8" LPI 20Plus	1	19
FJ22	22-00-00	11-7/8" LPI 20Plus	1	13
FJ22DBL	22-00-00	11-7/8" LPI 20Plus	2	2
FJ20	20-00-00	11-7/8" LPI 20Plus	1	15
FJ20DBL	20-00-00	11-7/8" LPI 20Plus	2	2
FJ18	18-00-00	11-7/8" LPI 20Plus	1	20
FJ18DBL	18-00-00	11-7/8" LPI 20Plus	2	6
FJ16DBL	16-00-00	11-7/8" LPI 20Plus	2	2
FJ14	14-00-00	11-7/8" LPI 20Plus	1	14
FJ14DBL	14-00-00	11-7/8" LPI 20Plus	2	2
FJ12	12-00-00	11-7/8" LPI 20Plus	1	1
FJ10	10-00-00	11-7/8" LPI 20Plus	1	7
FJ8	8-00-00	11-7/8" LPI 20Plus	1	14
FJ8DBL	8-00-00	11-7/8" LPI 20Plus	2	4
FJ6	6-00-00	11-7/8" LPI 20Plus	1	2
FJ4	4-00-00	11-7/8" LPI 20Plus	1	9
RIM100	12-00-00	1-1/8X11-7/8 LP-OSB Plus	1	14



First Floor System Layout
Scale: 3/16" = 1'-0"

Wall Legend
Bearing Wall
Non-Load Bearing Wall

SALES PRESENTATION DRAWING
This layout and associated materials list has been prepared based on project plans and/or information provided to BMC by the builder. It remains the responsibility of the builder, architect, engineer of record, or other responsible persons to review this information to assure that it is appropriate, accurate,complete and complies with applicable building codes.

SolidStart® ENGINEERED WOOD

BMC®

Architectural Drawings Prepared By:
Enter Architect Info (or erase this text)

Original Plan Date: Enter Original Plan Date

Latest Revision: Enter Latest Revision Date

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Columbia, SC - (803)-788-8850
Locust, NC - (704) 888-4411
Monroe, NC - (704) 289-8441

BRAD CUMMINGS

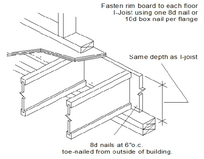
DEVANE RESIDENCE

BCC #	
MyBMC #	
Release Date	5/6/2021
Drawn By	

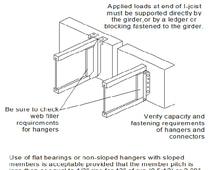
REV.	BY	DATE	COMMENTS
-	XXX	##/##/###	Original System Layout

Sheet 1 of 2

A1 RIM BOARD

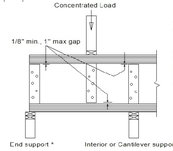


E2 Hanger Detail



Use of flat bearings or non-sloped hangers with sloped members is acceptable provided that the member pitch is less then or equal to 1/2" rise for 12" of run (0.5:12) or 2.39° degrees. Hanger design is the responsibility of the designer.

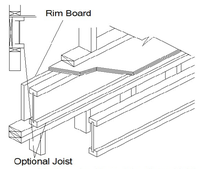
W1 WEB STIFFENER REQUIREMENTS



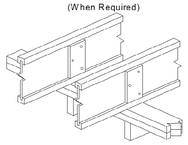
NOTES:
1. Web stiffeners, when required, must be installed in pairs , one to each side of the web
Web stiffeners are always required for the "Bird's Mouth" roof bearing detail
2. Web stiffeners should be cut to fit between the flanges of the I-joist leaving a minimal 1/8" (1" max) gap. At bearing locations, the stiffeners should be installed tight to bottom flange with the gap to the top flange. At locations of concentrated loads, the stiffeners should be installed tight to the top flange with the gap to the bottom flange.
3. Web stiffeners should be cut from APA-rated OSB or equal, or from 2x lumber. Do NOT use 1x lumber as it tends to split.
4. Web stiffeners should be the same width as the bearing surface, with a minimal 3.1/2".
5. See product specific technical guide for minimum stiffener thickness, maximum stiffener height and required nailing.

* Refer to framing plan for specific conditions

A7l SOLID RIM AS START JOIST w/ Additional I-Joist

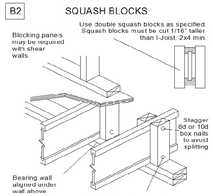


B1 WEB STIFFENERS AT INTERIOR SUPPORT (When Required)



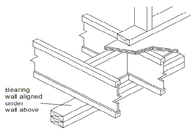
Verify stiffener requirements

B2 SQUASH BLOCKS

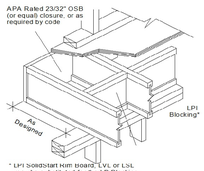


B3 BLOCKING AT INTERIOR SUPPORT

Blocking is not required if no wall above unless I-Joists end at support. Blocking may be required at interior supports by project designer or by code for seismic design



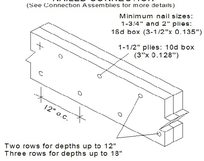
C1 CANTILEVER DETAIL No reinforcement required



* LPI Solidstart Rim Board, LVL or LSL may be substituted for the LP Blocking

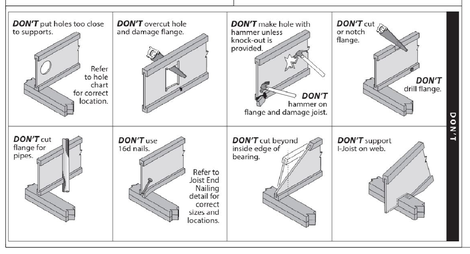
P1 TOP LOADED BEAM-NAILED CONNECTION

(See Connection Assemblies for more details)

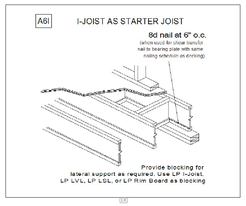


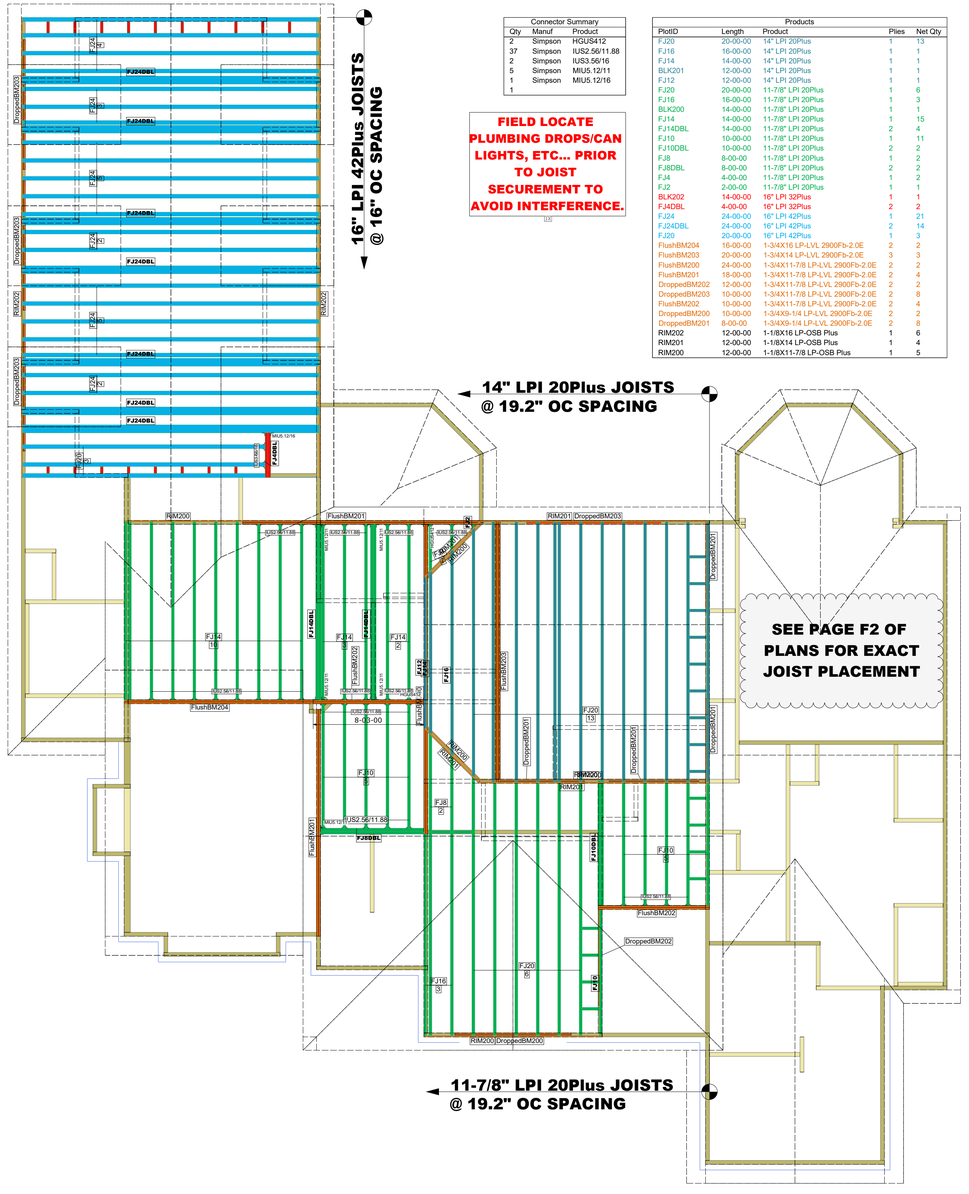
Two rows for depths up to 12"
Three rows for depths up to 18"

Framing is applied to top of the beam so that each ply carries an equal load



A6l I-JOIST AS STARTER JOIST





Connector Summary		
Qty	Manuf	Product
2	Simpson	HGUS412
37	Simpson	IUS2.56/11.88
2	Simpson	IUS3.56/16
5	Simpson	MIU5.12/11
1	Simpson	MIU5.12/16
1		

FIELD LOCATE PLUMBING DROPS/CAN LIGHTS, ETC... PRIOR TO JOIST SECUREMENT TO AVOID INTERFERENCE.

Products				
PlotID	Length	Product	Plies	Net Qty
FJ20	20-00-00	14" LPI 20Plus	1	13
FJ16	16-00-00	14" LPI 20Plus	1	1
FJ14	14-00-00	14" LPI 20Plus	1	1
BLK201	12-00-00	14" LPI 20Plus	1	1
FJ12	12-00-00	14" LPI 20Plus	1	1
FJ20	20-00-00	11-7/8" LPI 20Plus	1	6
FJ16	16-00-00	11-7/8" LPI 20Plus	1	3
BLK200	14-00-00	11-7/8" LPI 20Plus	1	1
FJ14	14-00-00	11-7/8" LPI 20Plus	1	15
FJ14DBL	14-00-00	11-7/8" LPI 20Plus	2	4
FJ10	10-00-00	11-7/8" LPI 20Plus	1	11
FJ10DBL	10-00-00	11-7/8" LPI 20Plus	2	2
FJ8	8-00-00	11-7/8" LPI 20Plus	1	2
FJ8DBL	8-00-00	11-7/8" LPI 20Plus	2	2
FJ4	4-00-00	11-7/8" LPI 20Plus	1	2
FJ2	2-00-00	11-7/8" LPI 20Plus	1	1
BLK202	14-00-00	16" LPI 32Plus	1	1
FJ4DBL	4-00-00	16" LPI 32Plus	2	2
FJ24	24-00-00	16" LPI 42Plus	1	21
FJ24DBL	24-00-00	16" LPI 42Plus	2	14
FJ20	20-00-00	16" LPI 42Plus	1	3
FlushBM204	16-00-00	1-3/4X16 LP-LVL 2900Fb-2.0E	2	2
FlushBM203	20-00-00	1-3/4X14 LP-LVL 2900Fb-2.0E	3	3
FlushBM200	24-00-00	1-3/4X11-7/8 LP-LVL 2900Fb-2.0E	2	2
FlushBM201	18-00-00	1-3/4X11-7/8 LP-LVL 2900Fb-2.0E	2	4
DroppedBM202	12-00-00	1-3/4X11-7/8 LP-LVL 2900Fb-2.0E	2	2
DroppedBM203	10-00-00	1-3/4X11-7/8 LP-LVL 2900Fb-2.0E	2	8
FlushBM202	10-00-00	1-3/4X11-7/8 LP-LVL 2900Fb-2.0E	2	4
DroppedBM200	10-00-00	1-3/4X9-1/4 LP-LVL 2900Fb-2.0E	2	2
DroppedBM201	8-00-00	1-3/4X9-1/4 LP-LVL 2900Fb-2.0E	2	8
RIM202	12-00-00	1-1/8X16 LP-OSB Plus	1	6
RIM201	12-00-00	1-1/8X14 LP-OSB Plus	1	4
RIM200	12-00-00	1-1/8X11-7/8 LP-OSB Plus	1	5

Second Floor System Layout
Scale: 3/16" = 1'-0"

Wall Legend
Bearing Wall
Non-Load Bearing Wall

SALES PRESENTATION DRAWING
This layout and associated materials list has been prepared based on project plans and/or information provided to BMC by the builder. It remains the responsibility of the builder, architect, engineer of record, or other responsible persons to review this information to assure that it is appropriate, accurate,complete and complies with applicable building codes.

SolidStart® ENGINEERED WOOD

LP

BMC®

Architectural Drawings Prepared By:
Enter Architect Info (or erase this text)

Original Plan Date: Enter Original Plan Date

Latest Revision: Enter Latest Revision Date

TECHNICAL SUPPORT
Rock Hill, SC - (803) 323-1650
Columbia, SC - (803)-788-8950
Locust, NC - (704) 888-4411
Monroe, NC - (704) 289-9441

BRAD CUMMINGS

DEVANE RESIDENCE

Drawn By | Release Date 5/6/2021 | BCC # | MyBMC #

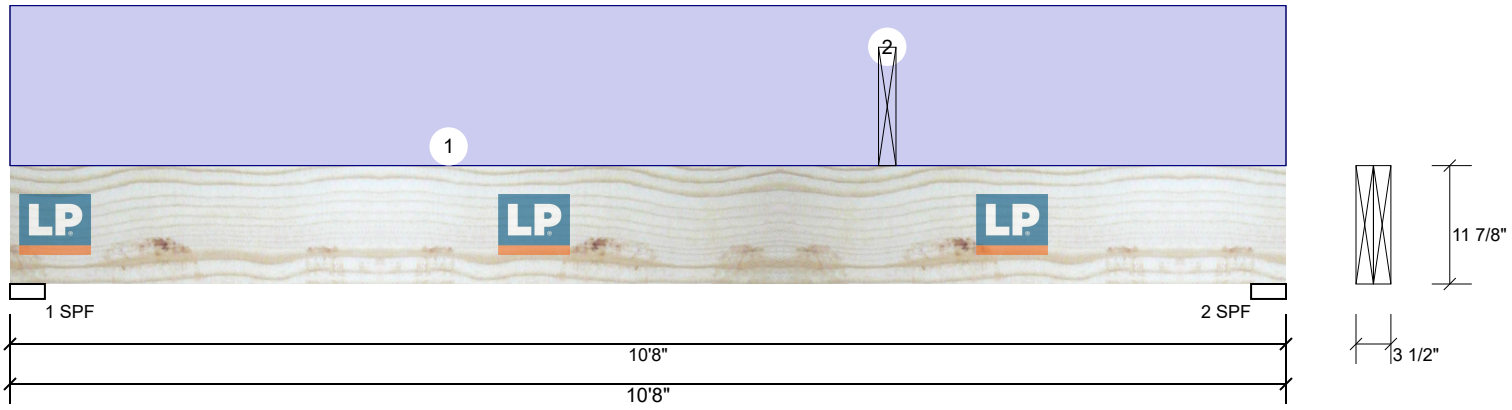
COMMENTS	DATE	BY	REV.
Original System Layout	##/##/##	XXX	-
,	,	,	,
,	,	,	,
,	,	,	,
,	,	,	,
,	,	,	,

Sheet 1 of 2

Client:		Date:	5/5/2021
Project:		Input by:	
Address:		Job Name:	Devane
		Project #:	

Beam E LP-LVL 2900Fb-2.0E 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:	240	Deck:	Not Checked
Importance:	Normal		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind	Const
1	454	768	0	0	0
2	1039	989	0	0	0

Bearings

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	23%	768 / 454	1222	L	D+L
2 - SPF	3.500"	39%	989 / 1039	2028	L	D+L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	5675 ft-lb	7'4"	19902 ft-lb	0.285 (29%)	D+L	L
Shear	1891 lb	9'5 3/8"	7897 lb	0.239 (24%)	D+L	L
LL Defl inch	0.055 (L/2243)	6'1 3/8"	0.255 (L/480)	0.210 (21%)	L	L
TL Defl inch	0.107 (L/1149)	5'10 1/2"	0.510 (L/240)	0.210 (21%)	D+L	L

Design Notes

1. Provide lateral support to prevent rotation at end bearings and at interior bearings when required by code for seismic design.
2. Dead Load Deflection: Instant = 0.052", Long Term = 0.078"
3. Girders are designed to be supported on the bottom edge only.
4. Multiple plies must be fastened together as per manufacturer's details.
5. Top loads must be supported equally by all plies.
6. Top braced at bearings.
7. Bottom braced at bearings.

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	100 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Ceiling Joists
2	Point	7-4-0		Top	564 lb	1493 lb	0 lb	0 lb	0 lb	Beam F Brg 2
	Bearing Length	0-3-8								
	Self Weight				12 PLF					

Notes

This component analysis is based on the loads, geometry and other conditions as entered by the user and listed in this report. The user is responsible to ensure the accuracy of the input and the applicability to the actual conditions of the structure for which this component is intended. This analysis is valid only for the product listed.

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This design is valid until 10/31/2021

Manufacturer Info

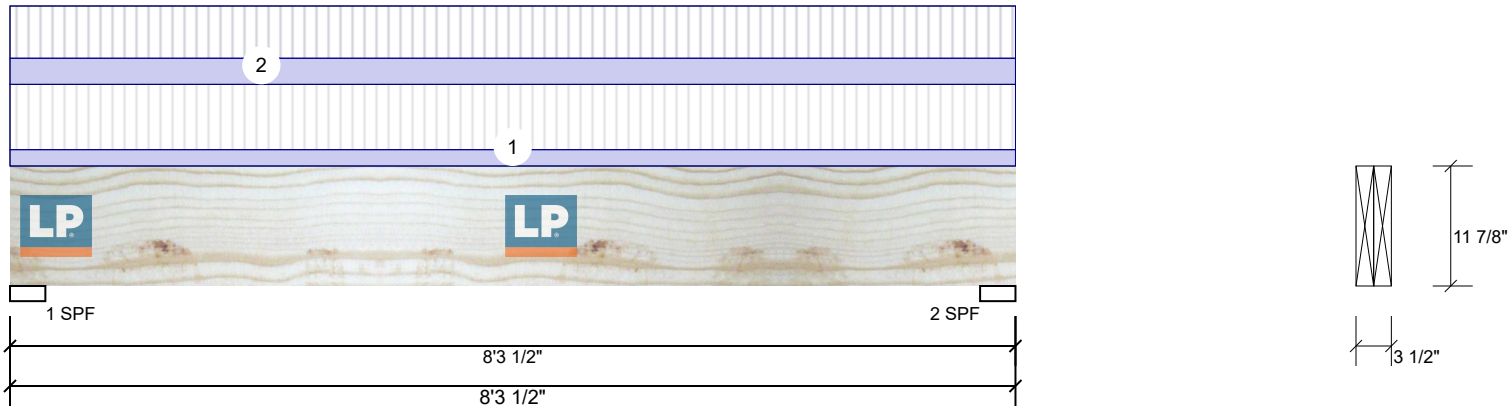
Louisiana-Pacific Corp
414 Union Street, Suite 2000
Nashville, TN 37219
(888) 820-0325
www.lpcorp.com
APA: PR-L280, ICC-ES: ESR-2403, LADBS: RR-25783, Florida: FL15228

BMC/Locust Lumber Company
312 E. Main Street, North Carolina 28127
704-888-4411

Client:		Date:	5/5/2021
Project:		Input by:	
Address:		Job Name:	Devane
		Project #:	

Beam F LP-LVL 2900Fb-2.0E 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:	240	Deck:	Not Checked
Importance:	Normal		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind	Const
1	1493	588	0	0	0
2	1493	588	0	0	0

Bearings

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	40%	588 / 1493	2081	L	D+L
2 - SPF	3.500"	40%	588 / 1493	2081	L	D+L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3850 ft-lb	4'1 3/4"	19902 ft-lb	0.193 (19%)	D+L	L
Shear	1469 lb	1'2 5/8"	7897 lb	0.186 (19%)	D+L	L
LL Defl inch	0.039 (L/2418)	4'1 13/16"	0.196 (L/480)	0.200 (20%)	L	L
TL Defl inch	0.054 (L/1734)	4'1 13/16"	0.392 (L/240)	0.140 (14%)	D+L	L

Design Notes

1. Provide lateral support to prevent rotation at end bearings and at interior bearings when required by code for seismic design.
2. Dead Load Deflection: Instant = 0.015", Long Term = 0.023"
3. Girders are designed to be supported on the bottom edge only.
4. Multiple plies must be fastened together as per manufacturer's details.
5. Top loads must be supported equally by all plies.
6. Top braced at bearings.
7. Bottom braced at bearings.

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	50 PLF	200 PLF	0 PLF	0 PLF	0 PLF	Floor Load
2	Uniform			Top	80 PLF	160 PLF	0 PLF	0 PLF	0 PLF	Roof Load
	Self Weight				12 PLF					

Notes

This component analysis is based on the loads, geometry and other conditions as entered by the user and listed in this report. The user is responsible to ensure the accuracy of the input and the applicability to the actual conditions of the structure for which this component is intended. This analysis is valid only for the product listed.

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Manufacturer Info

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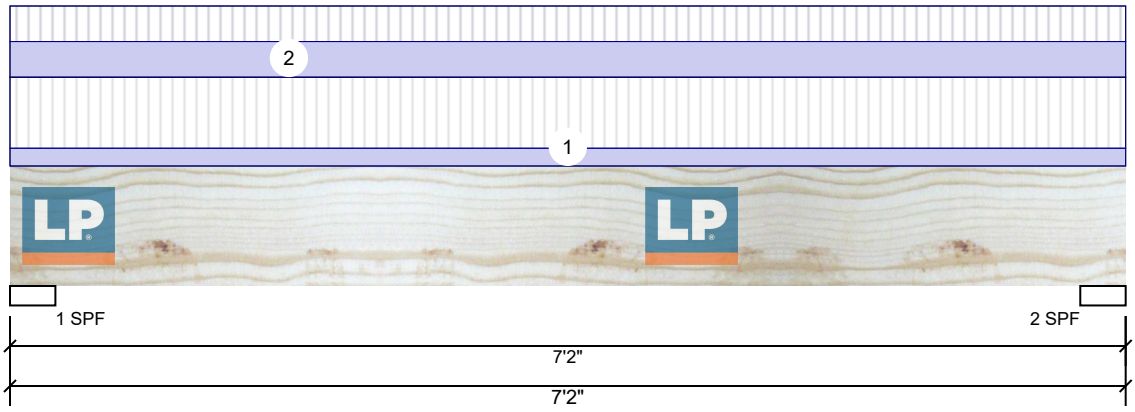
www.lpcorp.com
APA: PR-L280, ICC-ES: ESR-2403, LADBS: RR-25783, Florida: FL15228

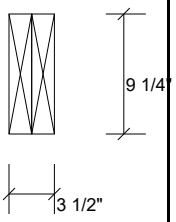
BMC/Locust Lumber Company
312 E. Main Street, North Carolina 28127
704-888-4411

Client:		Date:	5/5/2021
Project:		Input by:	
Address:		Job Name:	Devane
		Project #:	

Beam H LP-LVL 2900Fb-2.0E 1.750" X 9.250" 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:	240	Deck:	Not Checked
Importance:	Normal		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind	Const
1	3225	1646	0	0	0
2	3225	1646	0	0	0

Bearings

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	94%	1646 / 3225	4871	L	D+L
2 - SPF	3.500"	94%	1646 / 3225	4871	L	D+L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	7646 ft-lb	3'7"	12416 ft-lb	0.616 (62%)	D+L	L
Shear	3511 lb	1'	6151 lb	0.571 (57%)	D+L	L
LL Defl inch	0.107 (L/753)	3'7 1/16"	0.168 (L/480)	0.640 (64%)	L	L
TL Defl inch	0.161 (L/499)	3'7 1/16"	0.335 (L/240)	0.480 (48%)	D+L	L

Design Notes

1. Provide lateral support to prevent rotation at end bearings and at interior bearings when required by code for seismic design.
2. Dead Load Deflection: Instant = 0.055", Long Term = 0.082"
3. Girders are designed to be supported on the bottom edge only.
4. Multiple plies must be fastened together as per manufacturer's details.
5. Top loads must be supported equally by all plies.
6. Top braced at bearings.
7. Bottom braced at bearings.

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	150 PLF	600 PLF	0 PLF	0 PLF	0 PLF	Floor Load
2	Uniform			Top	300 PLF	300 PLF	0 PLF	0 PLF	0 PLF	Roof/Ceiling Load
	Self Weight				9 PLF					

Notes

This component analysis is based on the loads, geometry and other conditions as entered by the user and listed in this report. The user is responsible to ensure the accuracy of the input and the applicability to the actual conditions of the structure for which this component is intended. This analysis is valid only for the product listed.

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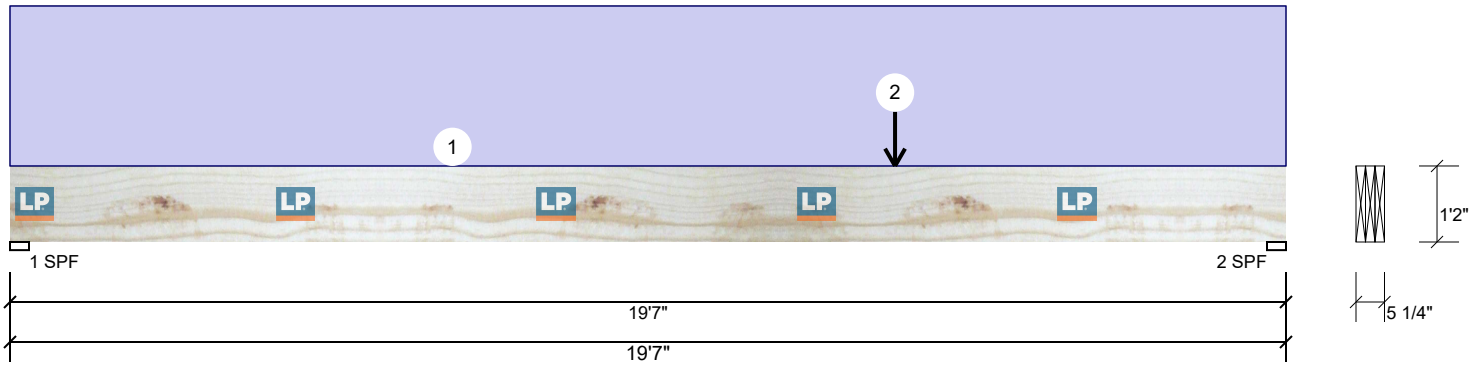
BMC/Locust Lumber Company
312 E. Main Street, North Carolina 28127
704-888-4411

Client:		Date:	5/5/2021
Project:		Input by:	
Address:		Job Name:	Devane
		Project #:	

Beam J LP-LVL 2900Fb-2.0E 1.750" X 14.000" 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:	240	Deck:	Not Checked
Importance:	Normal		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind	Const
1	797	1828	0	0	0
2	1843	2352	0	0	0

Bearings

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	34%	1828 / 797	2625	L	D+L
2 - SPF	3.500"	54%	2352 / 1843	4195	L	D+L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	21584 ft-lb	13'7"	42165 ft-lb	0.512 (51%)	D+L	L
Shear	3991 lb	18'2 1/4"	13965 lb	0.286 (29%)	D+L	L
LL Defl inch	0.236 (L/972)	10'11 1/2"	0.478 (L/480)	0.490 (49%)	L	L
TL Defl inch	0.546 (L/421)	10'6 1/2"	0.956 (L/240)	0.570 (57%)	D+L	L

Design Notes

1 Provide lateral support to prevent rotation at end bearings and at interior bearings when required by code for seismic design.
2 Dead Load Deflection: Instant = 0.309", Long Term = 0.464"
3 Girders are designed to be supported on the bottom edge only.
4 Multiple plies must be fastened together as per manufacturer's details.
5 Top loads must be supported equally by all plies.
6 Top must be laterally braced at a maximum of 8'10 7/8" o.c.
7 Bottom braced at bearings.

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	125 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Ceiling Joists above
2	Point	13-7-0		Top	1320 lb	2640 lb	0 lb	0 lb	0 lb	Point Load from Above
	Bearing Length	0-3-8								
	Self Weight				21 PLF					

Notes

This component analysis is based on the loads, geometry and other conditions as entered by the user and listed in this report. The user is responsible to ensure the accuracy of the input and the applicability to the actual conditions of the structure for which this component is intended. This analysis is valid only for the product listed.

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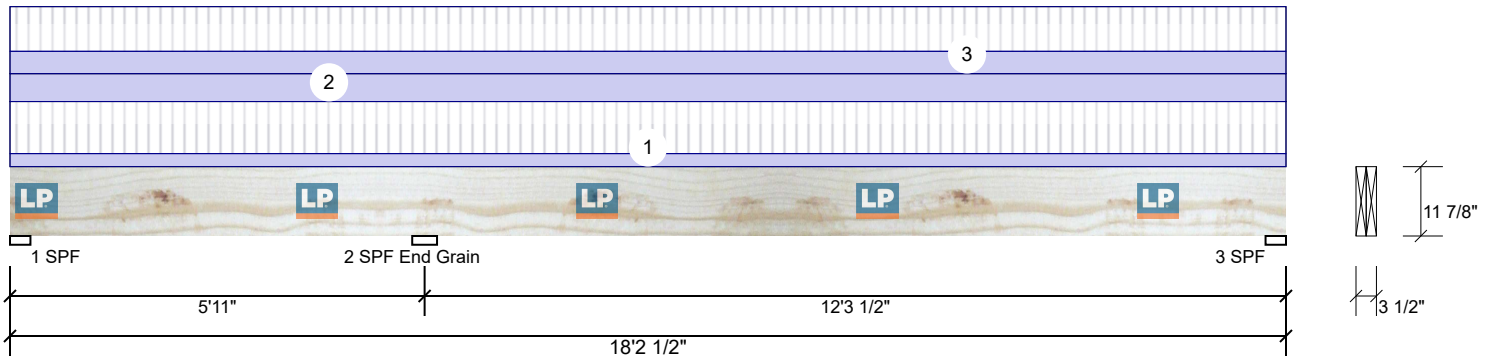
BMC/Locust Lumber Company
312 E. Main Street, North Carolina 28127
704-888-4411

Client:		Date:	5/5/2021
Project:		Input by:	
Address:		Job Name:	Devane
		Project #:	

Beam K LP-LVL 2900Fb-2.0E 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:	240	Deck:	Not Checked
Importance:	Normal		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind	Const
1	429	291	0	0	0
2	6334	4287	0	0	0
3	2704	1830	0	0	0

Bearings

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	33%	236 / 1479	1716 (-774)	L_	D+L(D+L)
2 - SPF End Grain	4.250"	97%	4366 / 6452	10819	LL	D+L
3 - SPF	3.500"	87%	1805 / 2723	4527	_L	D+L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Neg Moment	-11906 ft-lb	5'11"	19902 ft-lb	0.598 (60%)	D+L	LL
Pos Moment	10739 ft-lb	13' 3/16"	19902 ft-lb	0.540 (54%)	D+L	_L
Shear	5383 lb	6'10 7/8"	7897 lb	0.682 (68%)	D+L	LL
LL Defl inch	0.184 (L/786)	12'4 5/16"	0.302 (L/480)	0.610 (61%)	L	_L
TL Defl inch	0.302 (L/479)	12'4 5/8"	0.603 (L/240)	0.500 (50%)	D+L	_L

Design Notes

1. Provide lateral support to prevent rotation at end bearings and at interior bearings when required by code for seismic design.
2. Dead Load Deflection: Instant = 0.118", Long Term = 0.177"
3. Girders are designed to be supported on the bottom edge only.
4. Multiple plies must be fastened together as per manufacturer's details.
5. Top loads must be supported equally by all plies.
6. Tie-down connection required at bearing 1 for uplift 774 lb (Combination D+L, Load Case _L).
7. Top must be laterally braced at a maximum of 10'8 1/4" o.c.
8. Bottom must be laterally braced at a maximum of 9'3 5/8" o.c.

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	70 PLF	280 PLF	0 PLF	0 PLF	0 PLF	Floor Load
2	Uniform			Top	150 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Ceiling Joists
3	Uniform			Top	120 PLF	240 PLF	0 PLF	0 PLF	0 PLF	Roof Load
	Self Weight				12 PLF					

Notes

This component analysis is based on the loads, geometry and other conditions as entered by the user and listed in this report. The user is responsible to ensure the accuracy of the input and the applicability to the actual conditions of the structure for which this component is intended. This analysis is valid only for the product listed.

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This design is valid until 10/31/2021

Manufacturer Info

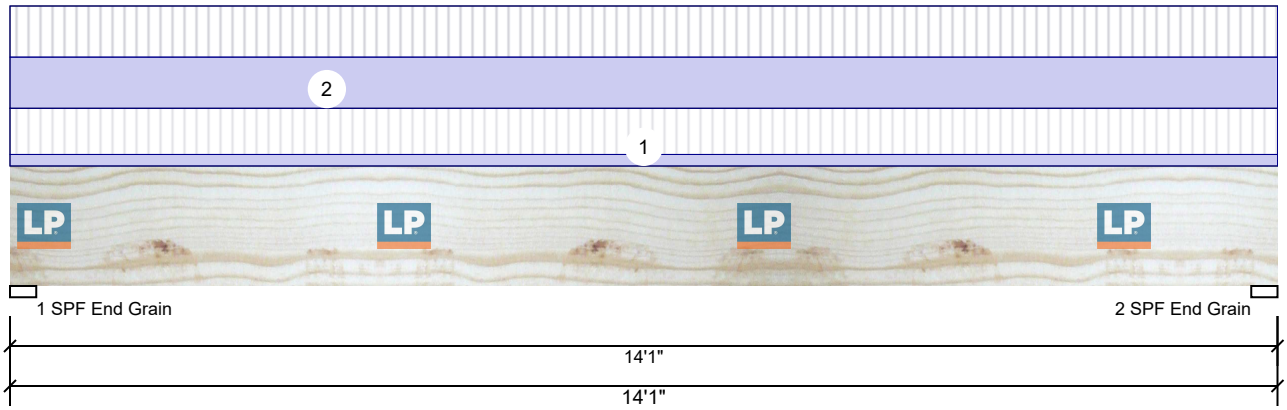
Louisiana-Pacific Corp
414 Union Street, Suite 2000
Nashville, TN 37219
(888) 820-0325
www.lpcorp.com
APA: PR-L280, ICC-ES: ESR-2403, LADBS: RR-25783, Florida: FL15228

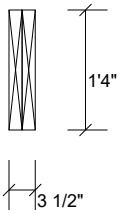
BMC/Locust Lumber Company
312 E. Main Street, North Carolina 28127
704-888-4411

Client:		Date:	5/5/2021
Project:		Input by:	
Address:		Job Name:	Devane
		Project #:	

Beam N LP-LVL 2900Fb-2.0E 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:	480	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind	Const
1	4155	2789	0	0	0
2	4155	2789	0	0	0

Bearings

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	76%	2789 / 4155	6943	L	D+L
2 - SPF End Grain	3.500"	76%	2789 / 4155	6943	L	D+L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	22951 ft-lb	7' 1/2"	34636 ft-lb	0.663 (66%)	D+L	L
Shear	5413 lb	12'6 3/8"	10640 lb	0.509 (51%)	D+L	L
LL Defl inch	0.221 (L/741)	7' 9/16"	0.341 (L/480)	0.650 (65%)	L	L
TL Defl inch	0.369 (L/444)	7' 9/16"	0.682 (L/240)	0.540 (54%)	D+L	L

Design Notes

1. Provide lateral support to prevent rotation at end bearings and at interior bearings when required by code for seismic design.
2. Dead Load Deflection: Instant = 0.148", Long Term = 0.222"
3. Girders are designed to be supported on the bottom edge only.
4. Multiple plies must be fastened together as per manufacturer's details.
5. Top loads must be supported equally by all plies.
6. Top must be laterally braced at a maximum of 6' o.c.
7. Bottom braced at bearings.

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	70 PLF	280 PLF	0 PLF	0 PLF	0 PLF	Floor Load
2	Uniform			Top	310 PLF	310 PLF	0 PLF	0 PLF	0 PLF	Roof Load
	Self Weight				16 PLF					

Notes

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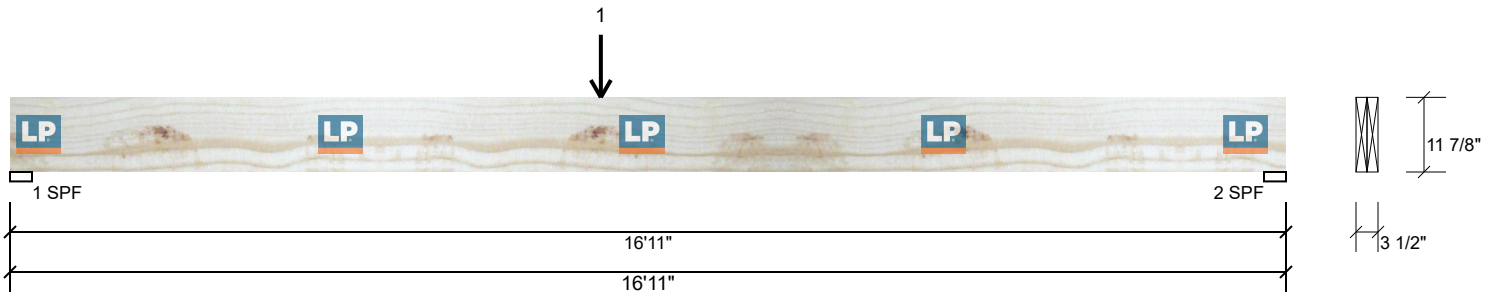
APA: PR-L280, ICC-ES: ESR-2403, LADBS: RR-25783, Florida: FL15228

BMC/Locust Lumber Company
312 E. Main Street, North Carolina 28127
704-888-4411

Client:		Date:	5/5/2021
Project:		Input by:	
Address:		Job Name:	Devane
		Project #:	

Beam O LP-LVL 2900Fb-2.0E 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:	240	Deck:	Not Checked
Importance:	Normal		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind	Const
1	430	208	0	0	0
2	370	193	0	0	0

Bearings

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	12%	208 / 430	639	L	D+L
2 - SPF	3.500"	11%	193 / 370	563	L	D+L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	4491 ft-lb	7'10"	19902 ft-lb	0.226 (23%)	D+L	L
Shear	624 lb	1'2 5/8"	7897 lb	0.079 (8%)	D+L	L
LL Defl inch	0.139 (L/1419)	8' 15/16"	0.411 (L/480)	0.340 (34%)	L	L
TL Defl inch	0.195 (L/1012)	8'1 3/8"	0.823 (L/240)	0.240 (24%)	D+L	L

Design Notes

1. Provide lateral support to prevent rotation at end bearings and at interior bearings when required by code for seismic design.
2. Dead Load Deflection: Instant = 0.056", Long Term = 0.084"
3. Girders are designed to be supported on the bottom edge only.
4. Multiple plies must be fastened together as per manufacturer's details.
5. Top loads must be supported equally by all plies.
6. Top braced at bearings.
7. Bottom braced at bearings.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Point	7-10-0		Top	200 lb	800 lb	0 lb	0 lb	0 lb	Stair Header
	Bearing Length	0-3-8								
	Self Weight				12 PLF					

Notes

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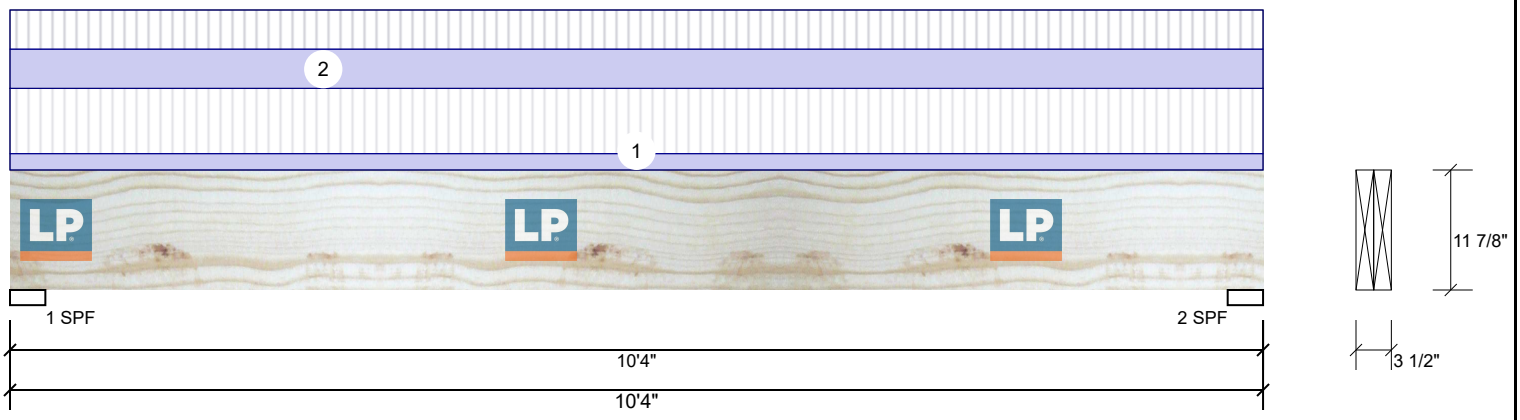
(888) 820-0325
www.lpcorp.com
APA: PR-L280, ICC-ES: ESR-2403, LADBS: RR-25783, Florida: FL15228

BMC/Locust Lumber Company
312 E. Main Street, North Carolina
28127
704-888-4411

Client:		Date:	5/5/2021
Project:		Input by:	
Address:		Job Name:	Devane
		Project #:	

Beam P LP-LVL 2900Fb-2.0E 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:	240	Deck:	Not Checked
Importance:	Normal		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind	Const
1	3307	1818	0	0	0
2	3307	1818	0	0	0

Bearings

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	98%	1818 / 3307	5125	L	D+L
2 - SPF	3.500"	98%	1818 / 3307	5125	L	D+L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	12091 ft-lb	5'2"	19902 ft-lb	0.607 (61%)	D+L	L
Shear	3916 lb	1'2 5/8"	7897 lb	0.496 (50%)	D+L	L
LL Defl inch	0.162 (L/732)	5'2"	0.247 (L/480)	0.660 (66%)	L	L
TL Defl inch	0.251 (L/473)	5'2"	0.494 (L/240)	0.510 (51%)	D+L	L

Design Notes

1. Provide lateral support to prevent rotation at end bearings and at interior bearings when required by code for seismic design.
2. Dead Load Deflection: Instant = 0.089", Long Term = 0.133"
3. Girders are designed to be supported on the bottom edge only.
4. Multiple plies must be fastened together as per manufacturer's details.
5. Top loads must be supported equally by all plies.
6. Top must be continuously braced.
7. Bottom braced at bearings.

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	100 PLF	400 PLF	0 PLF	0 PLF	0 PLF	Floor Load
2	Uniform			Top	240 PLF	240 PLF	0 PLF	0 PLF	0 PLF	Roof/Ceiling Load
	Self Weight				12 PLF					

Notes

This component analysis is based on the loads, geometry and other conditions as entered by the user and listed in this report. The user is responsible to ensure the accuracy of the input and the applicability to the actual conditions of the structure for which this component is intended. This analysis is valid only for the product listed.

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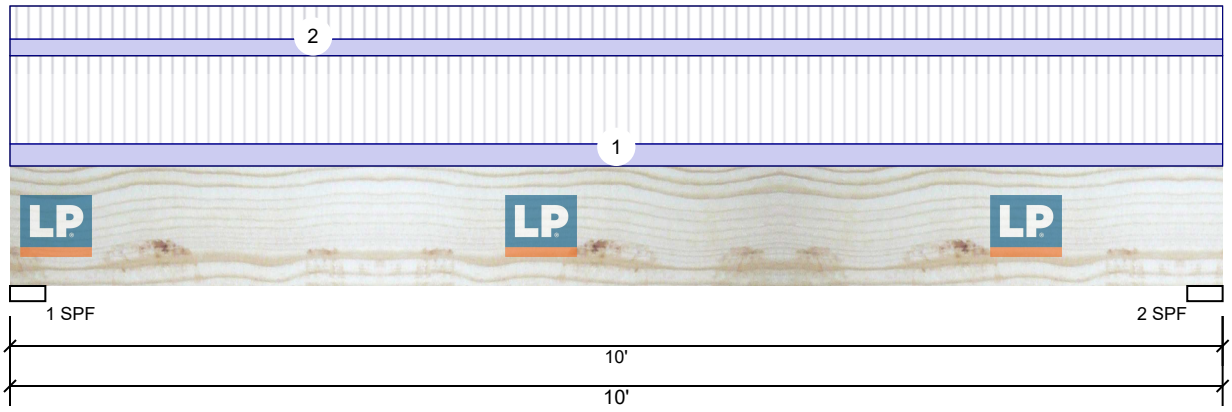
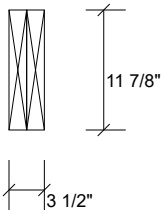
BMC/Locust Lumber Company
312 E. Main Street, North Carolina 28127
704-888-4411

Client:		Date:	5/5/2021
Project:		Input by:	
Address:		Job Name:	Devane
		Project #:	

Beam Q LP-LVL 2900Fb-2.0E 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:	240	Deck:	Not Checked
Importance:	Normal		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind	Const
1	3300	1109	0	0	0
2	3300	1109	0	0	0

Bearings

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	85%	1109 / 3300	4409	L	D+L
2 - SPF	3.500"	85%	1109 / 3300	4409	L	D+L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	10036 ft-lb	5'	19902 ft-lb	0.504 (50%)	D+L	L
Shear	3335 lb	1'2 5/8"	7897 lb	0.422 (42%)	D+L	L
LL Defl inch	0.147 (L/780)	5'	0.239 (L/480)	0.620 (62%)	L	L
TL Defl inch	0.196 (L/584)	5'	0.477 (L/240)	0.410 (41%)	D+L	L

Design Notes

1. Provide lateral support to prevent rotation at end bearings and at interior bearings when required by code for seismic design.
2. Dead Load Deflection: Instant = 0.049", Long Term = 0.074"
3. Girders are designed to be supported on the bottom edge only.
4. Multiple plies must be fastened together as per manufacturer's details.
5. Top loads must be supported equally by all plies.
6. Top must be continuously braced.
7. Bottom braced at bearings.

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	120 PLF	480 PLF	0 PLF	0 PLF	0 PLF	Floor Load
2	Uniform			Top	90 PLF	180 PLF	0 PLF	0 PLF	0 PLF	Roof Load
	Self Weight				12 PLF					

Notes

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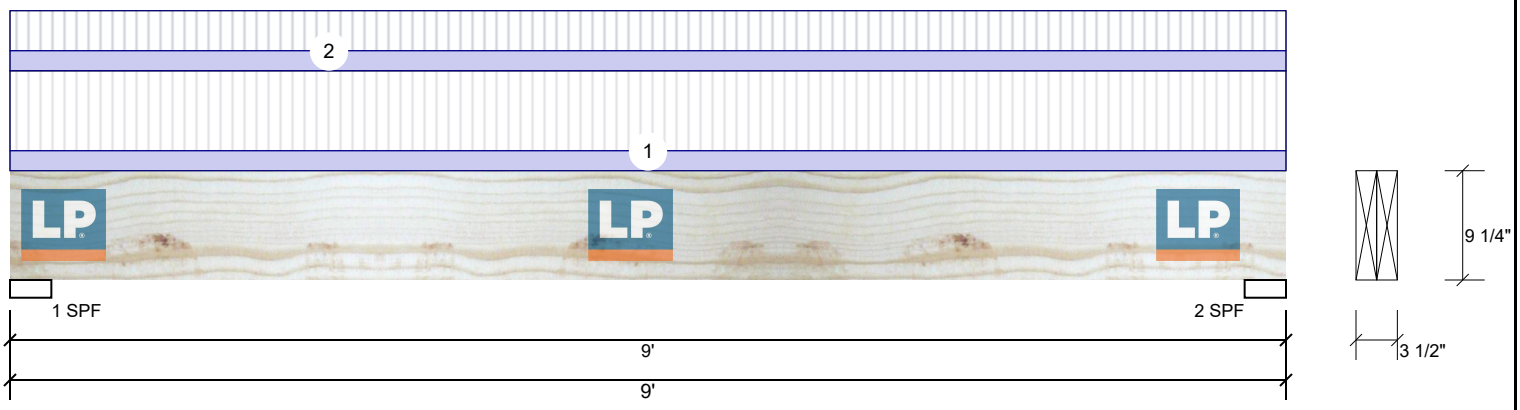
APA: PR-L280, ICC-ES: ESR-2403, LADBS: RR-25783, Florida: FL15228

BMC/Locust Lumber Company
312 E. Main Street, North Carolina 28127
704-888-4411

Client:		Date:	5/5/2021
Project:		Input by:	
Address:		Job Name:	Devane
		Project #:	

Beam R LP-LVL 2900Fb-2.0E 1.750" X 9.250" 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:	240	Deck:	Not Checked
Importance:	Normal		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind	Const
1	2160	762	0	0	0
2	2160	762	0	0	0

Bearings

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	56%	762 / 2160	2922	L	D+L
2 - SPF	3.500"	56%	762 / 2160	2922	L	D+L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	5921 ft-lb	4'6"	12416 ft-lb	0.477 (48%)	D+L	L
Shear	2272 lb	8'	6151 lb	0.369 (37%)	D+L	L
LL Defl inch	0.140 (L/732)	4'6"	0.214 (L/480)	0.660 (66%)	L	L
TL Defl inch	0.190 (L/541)	4'6"	0.427 (L/240)	0.440 (44%)	D+L	L

Design Notes

1 Provide lateral support to prevent rotation at end bearings and at interior bearings when required by code for seismic design.
2 Dead Load Deflection: Instant = 0.049", Long Term = 0.074"
3 Girders are designed to be supported on the bottom edge only.
4 Multiple plies must be fastened together as per manufacturer's details.
5 Top loads must be supported equally by all plies.
6 Top must be continuously braced.
7 Bottom braced at bearings.

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	80 PLF	320 PLF	0 PLF	0 PLF	0 PLF	Floor Load
2	Uniform			Top	80 PLF	160 PLF	0 PLF	0 PLF	0 PLF	Roof Load
	Self Weight				9 PLF					

Notes

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BRAD CUMMINGS
DEVANE RESIDENCE

BFS/BMC/LOCUST LUMBER
SALESMAN:EDDIE BAUER

Designer: Tony Huneycutt--ADH

FIRST FLOOR FRAMING

2362	LF	LPI201178	11-7/8" LPI 20Plus JOISTS			3/28' 19/24' 15/22' 17/20'	3	7086
						26/18' 2/16' 16/14' 1/12'		
						7/10' 18/8' 2/6' 9/4' + 154' BK		
14	PCS	LPRB118117812	1-1/8" x 11-7/8" x 12' RIM BOARD				43.2	604.8

7690.8

BRAD CUMMINGS
DEVANE RESIDENCE

BFS/BMC/LOCUST LUMBER
SALESMAN:EDDIE BAUER

SECOND FLOOR FRAMING

620	LF	LPI201178	11-7/8" LPI 20Plus JOISTS			6/20' 3/16' 19/14' 13/10'			3	1860
						4/8' 2/4' 1/2' + 14' BLKG				
5	PCS	LPRB118117812	1-1/8" x 11-7/8" x 12' RIM BOARD						43.2	216
314	LF	LPI2014	14" LPI 20Plus JOISTS			13/20' 1/16' 1/14' 1/12' +			3.3	1036.2
						12' BLKG				
4	PCS	LPRB1181412	1-1/8" x 14" x 12' RIM BOARD						51.6	206.4
24	LF	LPI3216	16" LPI 32Plus JOISTS			2/4' + 16' BLKG			3.5	84
900	LF	LPI4216	16" LPI 42Plus JOISTS			38/24'			4.5	4050
6	PCS	LPRB1181612	1-1/8" x 16" x 12' RIM BOARD						58.8	352.8
32	LF	LPLVL16	1-3/4" x 16" LVL			2/16'			7.3	233.6
60	LF	LPLVL14	1-3/4" x 14" LVL			3/20'			6.4	384
264	LF	LPLVL1178	1-3/4" x 11-7/8" LVL			2/24' 4/18' 2/12' 12/10'			5.4	1425.6
84	LF	LPLVL914	1-3/4" x 9-1/4" LVL			2/10' 8/8'			4.2	352.8
38	PCS	IUS2.56/11.88	FACE MOUNT SINGLE JOIST HANGERS							
1	PCS	MIU5.12/11	FACE MOUNT DOUBLE JOISTS HANGERS							
5	PCS	IUS3.56/16	FACE MOUNT SINGLE JOIST HANGERS							
1	PCS	MIU5.12/16	FACE MOUNT DOUBLE JOIST HANGERS							
2	PCS	152-999	HGUS412 FACE MOUNT DOUBLE LVL HANGERS							

10201.4