GENERAL NOTES:

1. IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY THAT ALL DIMENSIONS, ROOF PITCHES, AND SQUARE FOOTAGE IS CORRECT PRIOR TO CONSTRUCTION. K&A HOME DESIGNS, INC. IS NOT RESPONSIBLE FOR ANY DIMENSIONING, ROOF PITCH, OR SQUARE FOOTAGE ERRORS ONCE CONSTRUCTION BEGINS.
2. ALL WALLS SHOWN ON THE FLOOR PLANS ARE DRAWN AT 4" UNLESS NOTED OTHERWISE.
3. ALL ANGLED WALL SHOWN ON THE PLANS ARE 45 DEGREES UNLESS NOTED OTHERWISE.
4. STUD WALL DESIGN SHALL CONFORM TO ALL NORTH CAROLINA STATE BUILDING CODE REQUIREMENTS.
5. DO NOT SCALE PLANS. DRAWING SCALE MAY BE DISTORTED DUE TO COPIER IMPERFECTIONS.
6. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH NORTH CAROLINA STATE BUILDING CODE, 2012 EDITION.

SQUARE FOOTAGE

HEATED SQUARE FOOTAGE		*UNHEATED SQUARE FOOTAGE*	
FIRST FLOOR=	*1710*	*GARAGE=*	*527*
SECOND FLOOR=	*284*	*FRONT PORCH=*	*43*
THIRD FLOOR=	*N/A*	*FUTURE EXP.=*	*802*
BASEMENT=	*N/A*	*DECK=*	*192*
		STORAGE=	*N/A*
TOTAL HEATED=	*1994*	*TOTAL UNHEATED=*	*1564*

CRAWL SPACE VENTILATION CALCULATIONS

-VENT LOCATIONS MAY VARY FROM THOSE SHOWN ON THE PLAN BUT SHOULD BE PLACED TO PROVIDE ADEQUATE VENTILATION AT ALL POINTS TO PREVENT DEAD AIR POCKETS.

-100% VAPOR BARRIER MUST BE PROVIDED WITH 12" MIN. LAP JOINTS.

-THE TOTAL AREA OF VENTILATION OPENINGS MAY BE REDUCED TO 1/1500 AS LONG AS REQUIRED OPENINGS ARE PLACED SO AS TO PROVIDE CROSS-VENTILATION OF THE SPACE. THE INSTALLATION OF OPERABLE LOUVERS SHALL NOT BE PROHIBITED. (COMPLY WITH NC CODE MIN. WITH REGARD TO VENT PLACEMENT FROM CORNERS)

1710 SQ. FT. OF CRAWL SPACE/1500

1.14 SQ. FT. OF REQUIRED VENTILATION

PROVIDED BY: 3 VENTS AT 0.45 SQ. FT. NET FREE

VENTILATION EACH= 1.35 SQ. FT. OF VENTILATION

***FOUNDATION DRAINAGE- WATERPROOFING PER SECTIONS 405 & 406.*

ATTIC VENTILATION CALCULATIONS

- CALCULATIONS SHOWN BELOW ARE BASED ON VENTILATORS USED AT LEAST 3 FT. ABOVE THE CORNICE VENTS WITH THE BALANCE OF VENTIALTION PROVIDED BE EAVE VENTS.

- CATHEDRAL CEILINGS SHALL HAVE A MIN. 1" CLEARANCE BETWEEN THE BOTTOM OF THE ROOF DECK AND THE INSULATION.

2289 SQ. FT. OF ATTIC/300= 7.63

EACH OF INLET AND OUTLET REQUIRED.

WALL AND ROOF CLADDING DESIGN VALUES

- WALL CLADDING IS DESIGNED FOR A 24.1 SQ. FT. OR GREATER POSITIVE AND NEGATIVE PRESSURE.

- ROOF VALUES BOTH POSITVE AND NEGATIVE SHALL BE AS FOLLOWS:

45.5 LBS. PER SQ. FT. FOR ROOF PITCHES OF 0/12 TO 2.25/12

34.8 LBS. PER SQ. FT. FOR ROOF PITCHES OF 2.25/12 TO 7/12

21 LBS. PER SQ. FT. FOR ROOF PITCHES OF 7/12 TO 12/12

*** MEAN ROOF HEIGHT 30' OR LESS*

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

04/14/2021

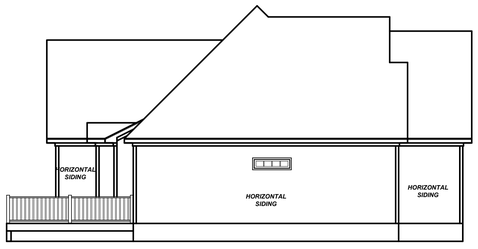
Harnett COUNTY NORTH CAROLINA

Duplicate of original approved paper plan.

FRONT ELEVATION

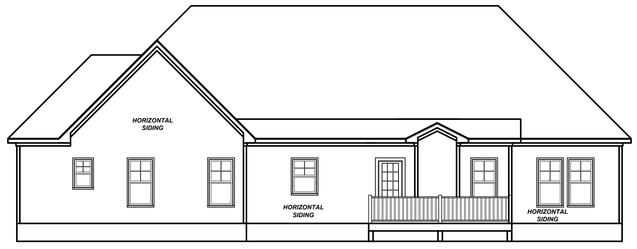
1/4" = 1'-0"

NOTE: ARTIST RENDITION ONLY



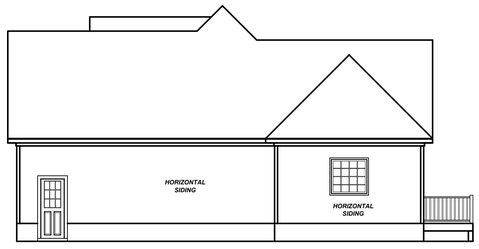
LEFT ELEVATION

1/8" = 1'-0"



REAR ELEVATION

1/8" = 1'-0"



RIGHT ELEVATION

1/8" = 1'-0"

Project #:
18-070
Date:
3-28-18
Drawn/Design By:
KBB
Scale:
REFER TO ELEV.

REVISIONS

No.	Date:	Remarks
1		
2		
3		
4		

9101 Ten-Ten Rd.
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Website: www.KandAHomeDesigns.com
Email: Kent@KandAHomeDesigns.com

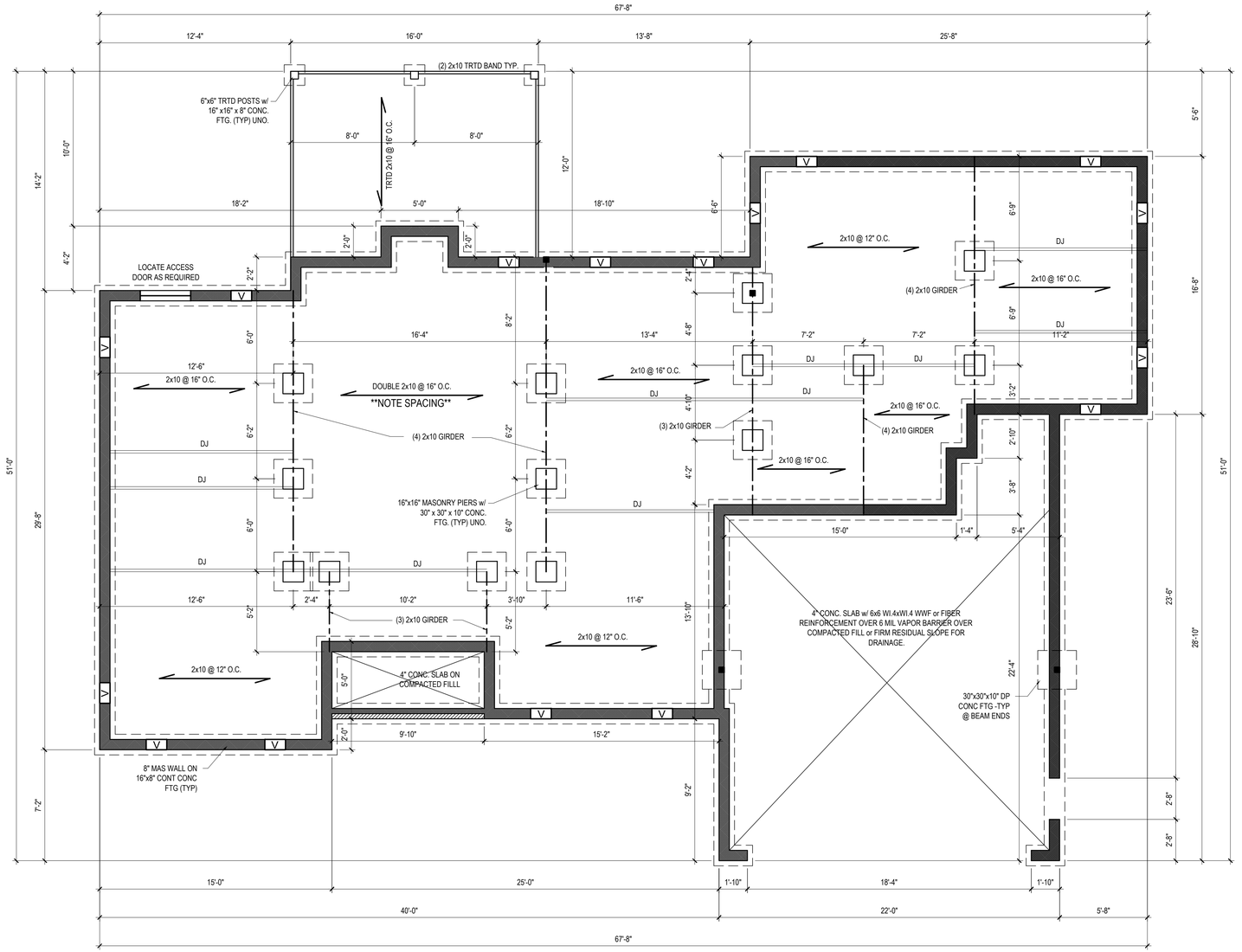
K&A HOME DESIGN Inc.

Project Name:
Todd & Kristen Meadows

Client Name:
Pro Craft Homes
4605 Irene Way
Raleigh, NC 27603

ELEVATIONS

Sheet Number
1
of 9



FOUNDATION PLAN

1/4" = 1'-0"

Project #:
18-070
Date:
3-28-18
Drawn/Design By:
KBB
Scale:
1/4"=1'-0"

REVISIONS

No.	Date:	Remarks
1		
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Raleigh, NC 27603

NORTH CAROLINA PROFESSIONAL 032702 3-26-18 ENGINEER MARK E. JONES

Structural Engineering by:
Mark E. Jones, PE
6425 Glen Dean Court
Raleigh, NC 27603
Phone: (919) 395-5618

*Engineers seal applies only to structural components on this document. Seal does not include construction means, methods, techniques, sequences, procures or safety precautions.
*Any deviations or discrepancies on plans are to be brought to the immediate attention of Mark E. Jones, PE. Failure to do so will void Mark E. Jones, PE liability.
Structural analysis based on 2012 North Carolina Residential Code.

Project No. 16-175

FOUNDATION

Sheet Number

2

of 9

FIRST FLOOR PLAN

1/4" = 1'-0" *CEILING HT. = 9'-0"*

Project #:
18-070

Date:
3-28-18

Drawn/Design By:
KBB

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

REVISIONS

No.	Date:	Remarks
1		
2		
3		
4		

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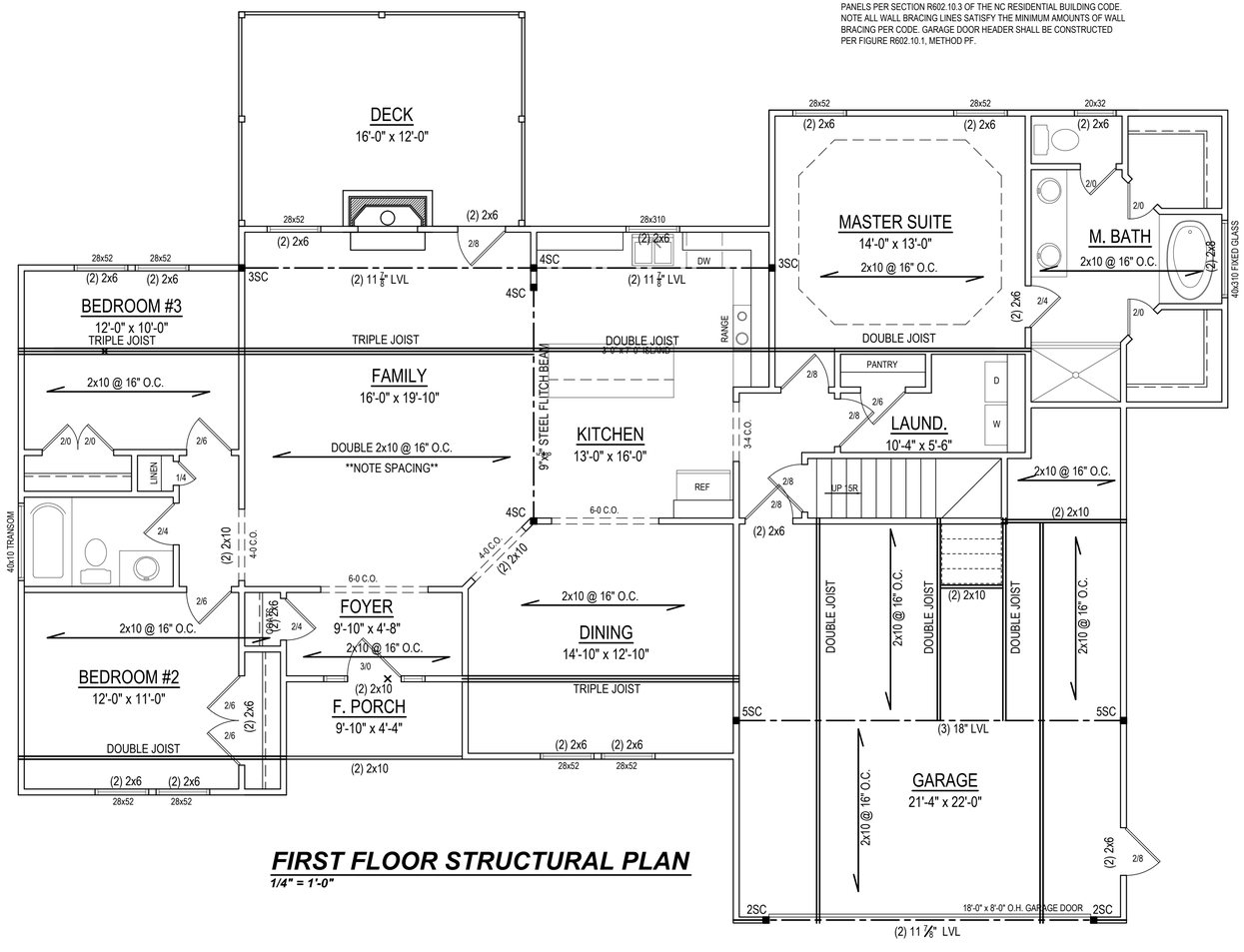
Raleigh, NC 27603

FIRST FLOOR

Sheet Number
3
of 9

BRACED WALL NOTES

THIS PLAN SHALL BE CONTINUOUSLY BRACED WITH WOOD STRUCTURAL PANELS PER SECTION R602.10.3 OF THE NC RESIDENTIAL BUILDING CODE. NOTE ALL WALL BRACING LINES SATISFY THE MINIMUM AMOUNTS OF WALL BRACING PER CODE. GARAGE DOOR HEADER SHALL BE CONSTRUCTED PER FIGURE R602.10.1, METHOD PF.



FIRST FLOOR STRUCTURAL PLAN

1/4" = 1'-0"

Structural Engineering by:
Mark E. Jones, PE
6425 Glen Dean Court
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Phone: (919) 395-5618

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Structural analysis based on 2012 North Carolina Residential Code.

Project No. 16-175

Project #:
18-070
Date:
3-28-18
Drawn/Design By:
KBB
Scale:
1/4"=1'-0"

REVISIONS

No.	Date:	Remarks
1		
2		
3		
4		

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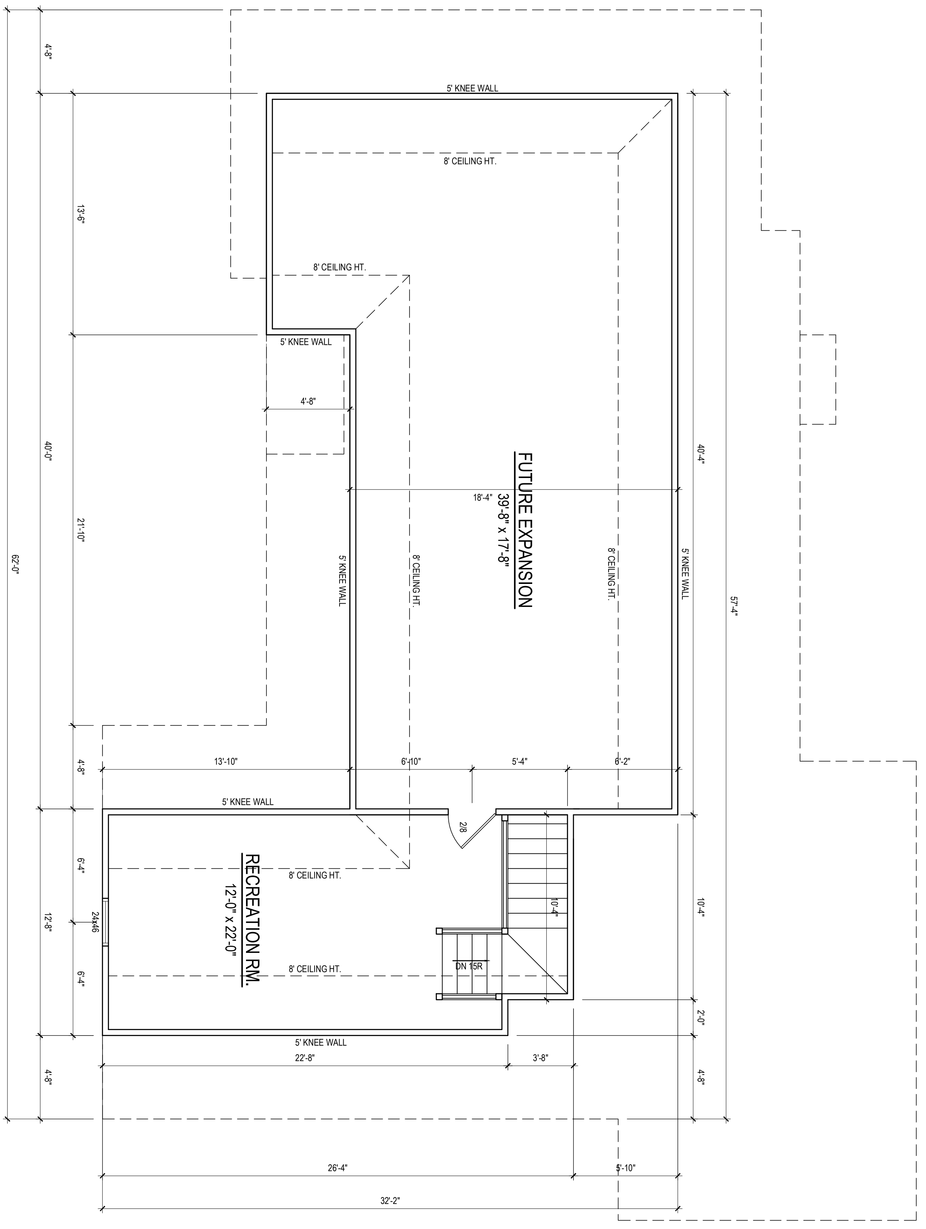
FIRST FLOOR STRUCTURAL

Sheet Number
4
of 9



SECOND FLOOR PLAN

1/4" = 1'-0"

CEILING HT. = 8'-0"

Client Name:

Pro Craft Homes
4605 Irene Way
Raleigh, NC 27603

Project Name:

Todd & Kristen Meadows

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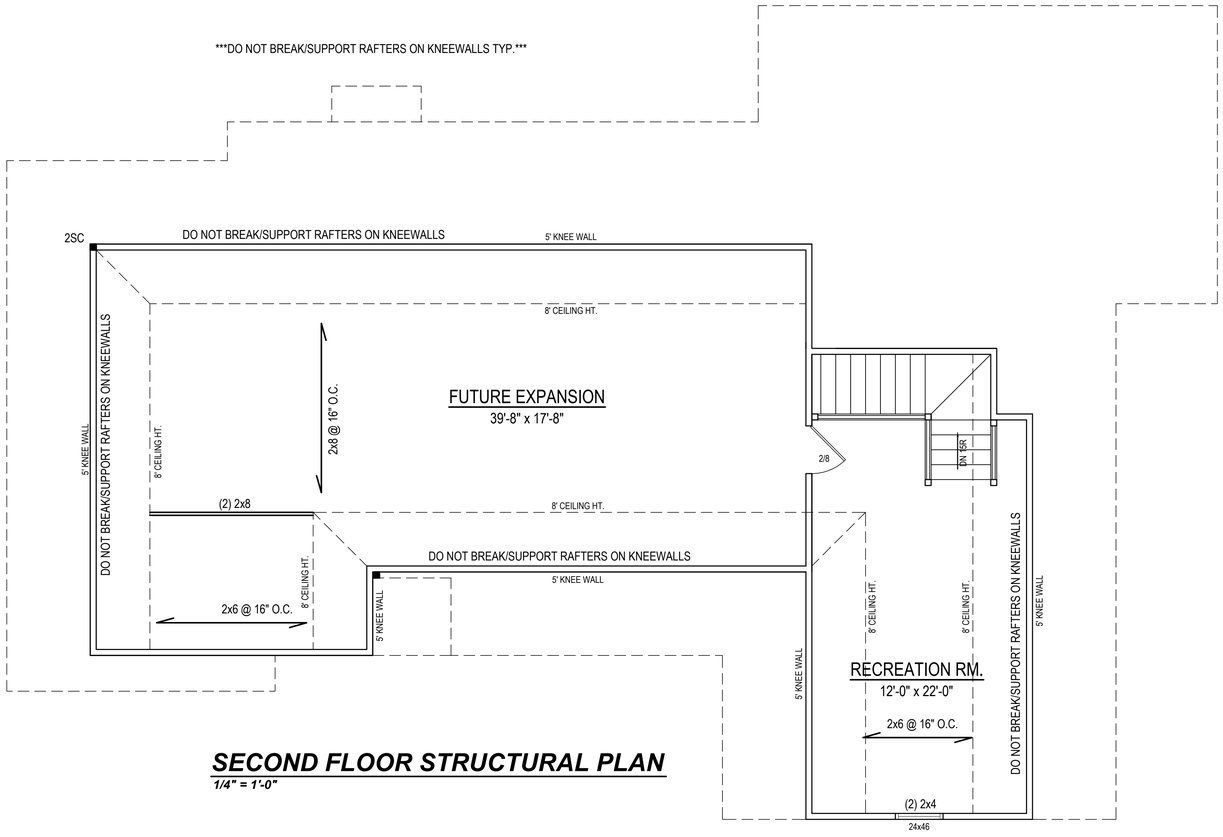
Email: Kent@KandAHomeDesigns.com Website: www.KandAHomeDesigns.com

No.	Date	Remarks
1		
2		
3		
4		
5		

REVISIONS

Project #: 18-070
Date: 3-28-18
Drawn By: KGB
Scale: 1/4"=1'-0"



SECOND FLOOR STRUCTURAL PLAN

1/4" = 1'-0"

NORTH CAROLINA PROFESSIONAL 032702 3-26-18 ENGINEER MARK E. JONES

Structural Engineering by:
Mark E. Jones, PE
6425 Glen Dean Court
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Structural analysis based on 2012 North Carolina Residential Code.

Project No. 16-175

Project #:
18-070
Date:
3-28-18
Drawn/Design By:
KBB
Scale:
1/4"=1'-0"

REVISIONS

No.	Date:	Remarks
1		
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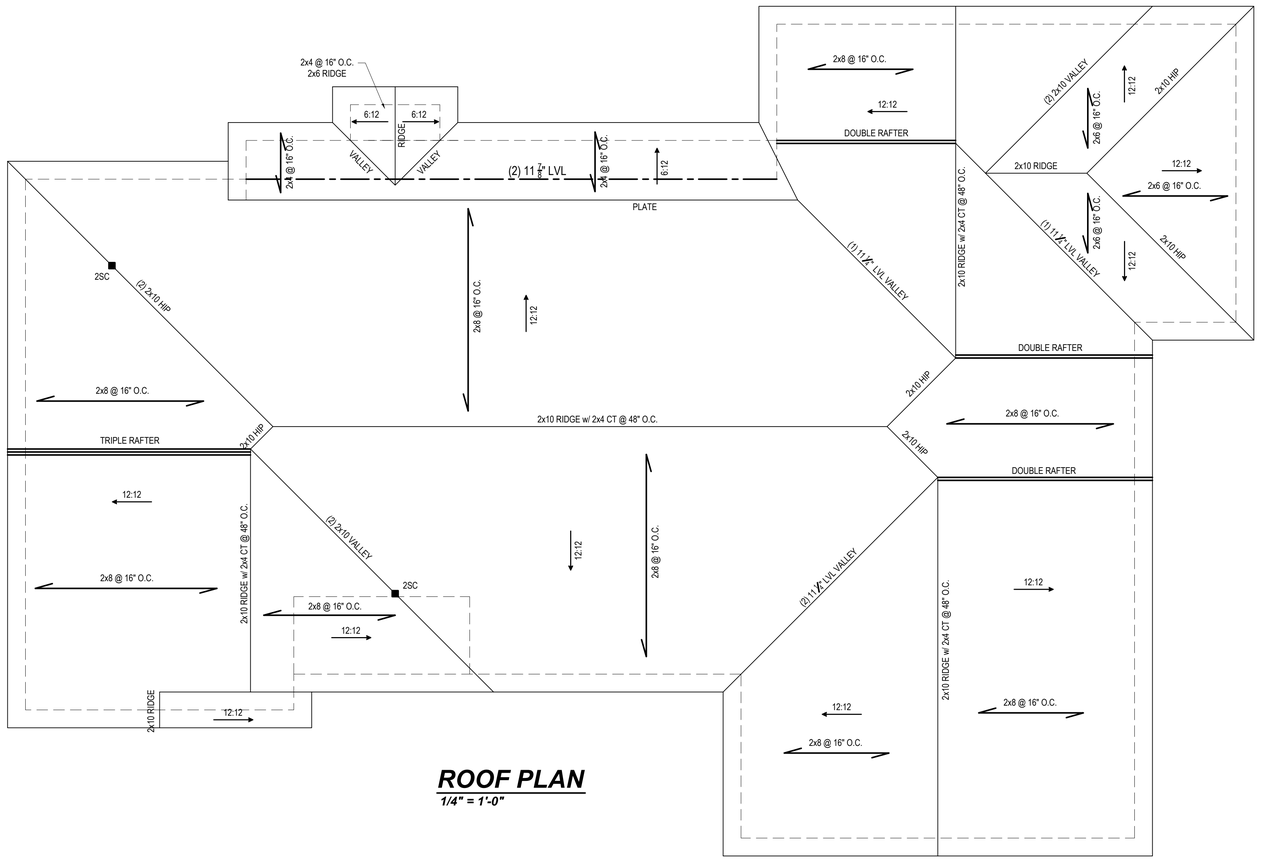
SECOND FLOOR STRUCTURAL

Sheet Number
6
of 9



ROOF PLAN

1/4" = 1'-0"

Structural Engineering by:
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Raleigh, NC 27603
Phone: (919) 395-5618

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Structural analysis based on 2012 North Carolina Residential Code.

Project No. 16-175

Project #:
18-070
Date:
3-28-18
Drawn/Design By:
KBB
Scale:
1/4"=1'-0"

REVISIONS

No.	Date:	Remarks
1		
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ROOF LAYOUT

Sheet Number
7
of 9

STRUCTURAL NOTES

1) ALL CONSTRUCTION SHALL CONFORM TO THE LATEST REQUIREMENTS OF "NORTH CAROLINA STATE 2012 RESIDENTIAL BUILDING CODE", IN ADDITION TO ALL LOCAL CODES AND REGULATIONS.

2) DESIGN LOADS:

	LIVE LOAD (PSF)	DEAD LOAD (PSF)	DEFLECTION (DL & LL)
ALL FLOORS	40	10	L/360
ATTIC (pull down access)	20	10	L/240
ATTIC (no access)	10	5	L/240
EXTERNAL BALCONY	60	10	L/360
ROOF	20	10	L/180
ROOF TRUSS	20	20	L/240
WIND LOAD	[BASED ON 100 MPH (3-second gusts)]		

3) MINIMUM ALLOWABLE SOIL BEARING PRESSURE = 2000 PSF

4) CONCRETE SHALL HAVE A MINIMUM 28 DAY STRENGTH OF 3000 PSI AND A MAXIMUM SLUMP OF FIVE INCHES UNLESS NOTED OTHERWISE (UNO).

5) MAXIMUM DEPTH OF UNBALANCED FILL AGAINST FOUNDATION WALLS TO BE LESS THAN 4'-0" WITHOUT USING SUFFICIENT WALL BRACING. REFER TO SECTION R404 OF 2012 NC BUILDING CODE FOR BACKFILL LIMITATIONS BASED ON WALL HEIGHT, WALL THICKNESS, SOIL TYPE, AND UNBALANCED BACKFILL HEIGHT

6) ALL FRAMING LUMBER SHALL BE SYP #2 UNO.
ALL FRAMING LUMBER EXPOSED TO THE ELEMENTS SHALL BE TREATED MATERIAL.

7) ALL LOAD BEARING HEADERS SHALL BE (2)2x10 (UNO). ALL WINDOW AND DOOR HEADERS SHALL BE SUPPORTED BY (1) JACK STUD AND (1) KING STUD AT EACH END UNLESS NOTED. ALL OTHER BEAMS SHALL BE SUPPORTED BY 2 STUDS OR THE AMOUNT OF STUDS REQUIRED FOR FULL BEARING AT EACH END UNLESS NOTED. POINT LOADS (STIFF KNEES, ETC.) SHALL CONSIST OF 2 STUDS UNLESS NOTED. ALL SUPPORTS OF 2 STUDS OR MORE SHALL BE TRANSFERRED THROUGH EACH FLOOR TO THE FOUNDATION.

8) ALL EXTERIOR WALLS TO BE SHEATHED WITH MIN. 7/16" WOOD STRUCTURAL PANELS FASTNED WITH 8D NAILS 6" O.C. AT EDGES AND 12" O.C. AT INT. SUPPORTS. BLOCKING SHALL BE INSTALLED IF LESS THAN 50 PERCENT OF THE WALL LENGTH IS SHEATHED. WHERE BLOCKING IS REQ'D, ALL PANELS SHALL BE FASTENED AT 3" O.C AT EDGES AND 6" O.C. AT INT. SUPPORTS.

9) ALL STRUCTURAL STEEL SHALL ASTM A-36. STEEL BEAMS SHALL BE SUPPORTED AT EACH END WITH A MINIMUM BEARING LENGTH OF 3-1/2" INCHES AND FULL FLANGE WIDTH. PROVIDE SOLID BEARING FROM BEAM SUPPORT TO FOUNDATION. BEAMS SHALL BE ATTACHED TO EACH SUPPORT WITH TWO LAG SCREWS (1/2 DIAMETER AND 4" LONG). LATERAL SUPPORT IS CONSIDERED ADEQUATE PROVIDING THE JOISTS ARE TOE NAILED TO THE SOLE PLATES, AND THE SOLE PLATES ARE NAILED OR BOLTED TO THE BEAM FLANGES @ 48" O.C.

10) ANCHOR BOLT PLACEMENT PER SECTION R403.1.6. 1/2" DIAMETER ANCHOR BOLTS SPACED AT 6'-0" O/C AND PLACED 12" FROM THE END OF EACH PLATE SECTION

11) FOUNDATION DRAINAGE-DAMP PROOFING OR WATERPROOFING PER SECTION 405 AND 406 OF 2012 NC BUILDING CODE

12) WALL AND ROOF CLADDING VALUES:
WALL CLADDING SHALL BE DESIGNED FOR A 24.1 SQ.FT. OR GREATER POSITIVE AND NEGATIVE PRESSURE
ROOF VALUES BOTH POSITIVE AND NEGATIVE SHALL BE AS FOLLOWS:
45.5 LBS/SQFT FOR ROOF PITCHES OF 0/12 TO 2.25/12
34.8 LBS/SQFT FOR ROOF PITCHES OF 2.25/12 TO 7/12
21.0 LBS/SQFT FOR ROOF PITCHES OF 7/12 TO 12/12
** MEAN ROOF HEIGHT 30' OR LESS

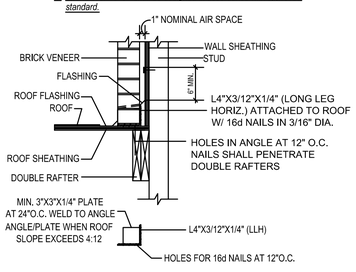
13) FOR ROOF SLOPES FROM 2:12 THROUGH 4:12, BUILDER TO INSTALL 2 LAYERS OF 15# FELT PAPER

14) IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND SQ. FTG. ARE CORRECT PRIOR TO CONSTRUCTION. DESIGNER IS NOT RESPONSIBLE FOR DIMENSIONING OR SQ. FTG. ERRORS ONCE CONSTRUCTION BEGINS

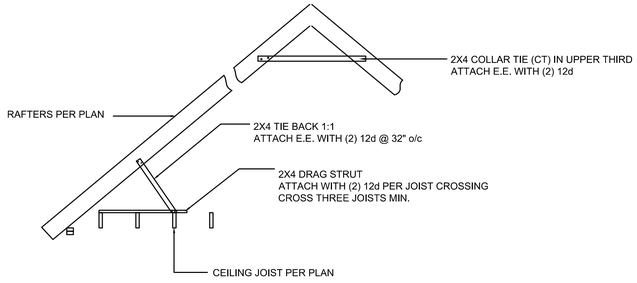
ALLOWABLE SPANS FOR LINTELS
SUPPORTING MASONRY VENEER

(1,3) Size of Angles	(2,4) Maximum Span
3-1/2" x 3-1/2" x 1/4"	6'-0"
5" x 3-1/2" x 5/16"	10'-0"

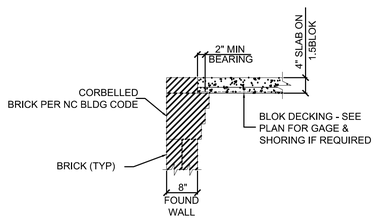
1. Long leg of the angle shall be placed in a vertical position.
2. Spans over 4' shall be shored up until cured.
3. Steel members indicated are adequate typical examples; other steel members including light guage steel meeting structural design requirements may be used.
4. Spans over 10'-0" shall be designed in accordance with approved standard.

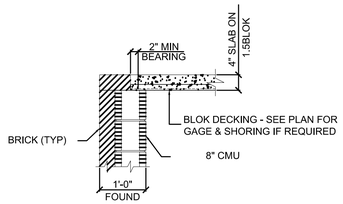


MASONRY VENEER DETAIL (FIG. 703.3(A)



RAFTER TIE BACK DETAIL

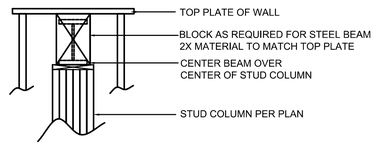




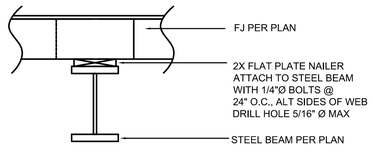
CONCRETE SLAB ON METAL DECKING DETAIL

CLIMATE ZONE	MAXIMUM GLAZING U-FACTOR	MINIMUM INSULATION R-VALUE					
		CEILINGS	WALLS	FLOORS	BASEMENT WALLS	SLAB PERIMETER	CRAWL SPACE WALLS
3	.35	R-30	R-13	R-19	R-0	R-0	R-5/13
4	.35	R-38 or R-30	R-15	R-19	R-10/13	R-10	R-10/13

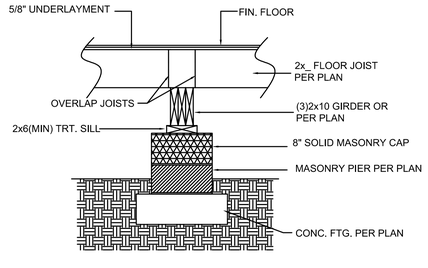
TABLE N1102.1 INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT



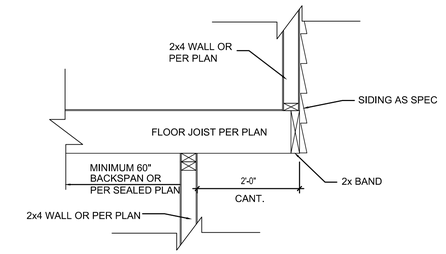
GARAGE BEAM STUD COLUMN DETAIL



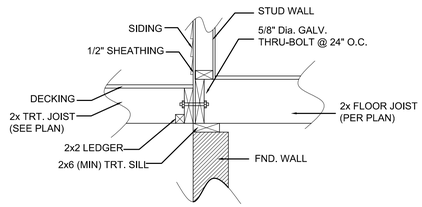
GARAGE BEAM LATERAL BRACING DETAIL



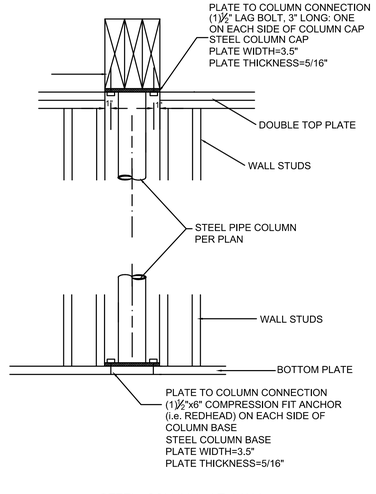
DROPPED GIRDER DETAIL



CANTILEVER FLOOR JOIST DETAIL



DECK ATTACHMENT



STEEL COLUMN AT WALL

1. MAXIMUM HEIGHT OF DECK SUPPORT POSTS AS FOLLOWS:

POST SIZE *	MAX POST HEIGHT **
4 X 4	8'-0"
6 X 6	20'-0"
***	OVER 20'-0"

* THIS TABLE IS BASED ON NO. 2 TREATED SOUTHERN PINE POSTS.
** FROM TOP OF FOOTING TO BOTTOM OF GIRDER
*** DECKS WITH POST HEIGHTS OVER 20'-0" SHALL BE DESIGNED AND SEALED BY A PROFESSIONAL ENGINEER OR REGISTERED ARCHITECT.

2. DECKS SHALL BE BRACED TO PROVIDE LATERAL STABILITY BY ONE OF THE METHODS:

A.WHEN THE DECK FLOOR HEIGHT IS LESS THAN 4' AND THE DECK IS ATTACHED TO THE STRUCTURE IN ACCORDANCE WITH SECTION AM104, LATERAL BRACING IS NOT REQUIRED.

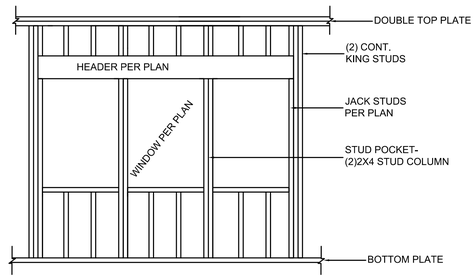
B. 4X4 WOOD KNEE BRACES MAY BE PROVIDED ON EACH COLUMN IN BOTH DIRECTIONS. THE KNEE BRACES SHALL ATTACH TO EACH POST AT A POINT NOT LESS THAN ⅓ OF THE POST LENGTH FROM THE TOP OF THE POST, AND THE BRACES SHALL BE ANGLED BETWEEN 45° AND 60° FROM THE HORIZONTAL. KNEE BRACES SHALL BE NAILED TO THE POST AND THE GIRDER OR BOLTED WITH ONE 5/8" HOT DIPPED GALVANIZED BOLT AT EACH END OF THE BRACE.

C. FOR FREESTANDING DECKS WITHOUT KNEE BRACES OR DIAGONAL BRACING, LATERAL STABILITY MAY BE PROVIDED BY EMBEDDING THE POSTS IN ACCORDANCE WITH THE FOLLOWING:

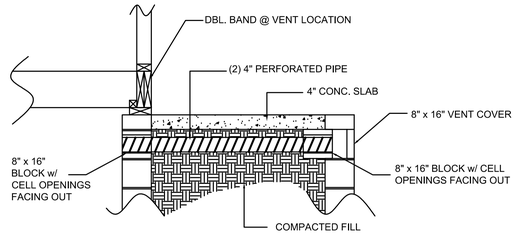
POST SIZE	MAX TRIBUTARY AREA	MAX POST HEIGHT	EMBEDMENT DEPTH	CONCRETE DIAMETER
4 X 4	48 SF	4'-0"	2'-6"	1'-0"
6 X 6	120 SF	6'-0"	3'-6"	1'-8"

D. 2x6 DIAGONAL VERTICAL ROSS-BRACING MAY BE PROVIDED IN TWO PERPIINDICULAR DIRECTIONS FOR FREESTANDING DECKS OR PARALLEL TO THE STRUCTURE AT THE EXTERIOR COLUMN LINE FOR ATTACHED DECKS.

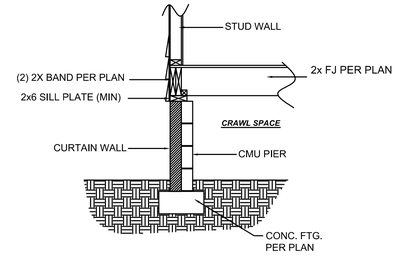
DECK POST DETAILS



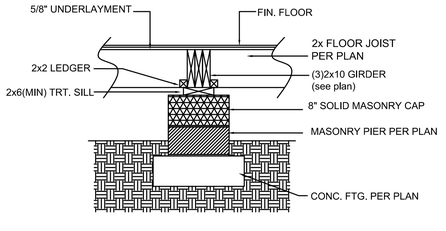
TYPICAL WINDOW STUD POCKET DETAIL



FOUNDATION VENT DETAIL AT COMPACTED FILL



CURTAIN WALL DETAIL



FLUSH GIRDER DETAIL

Project #:
18-070
Date:
3-28-18
Drawn/Design By:
KBB
Scale:
NTS

REVISIONS

No.	Date:	Remarks
1		
2		
3		
4		

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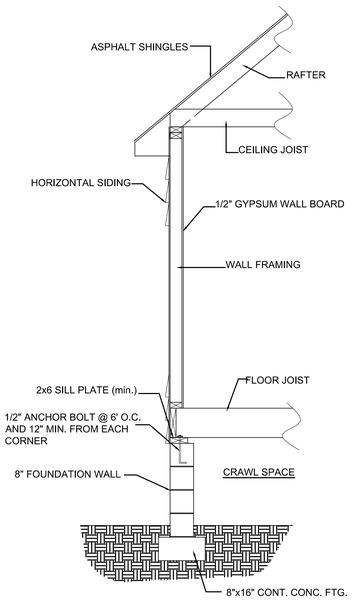
K&A HOME DESIGN Inc.

Project Name:
Todd & Kristen Meadows

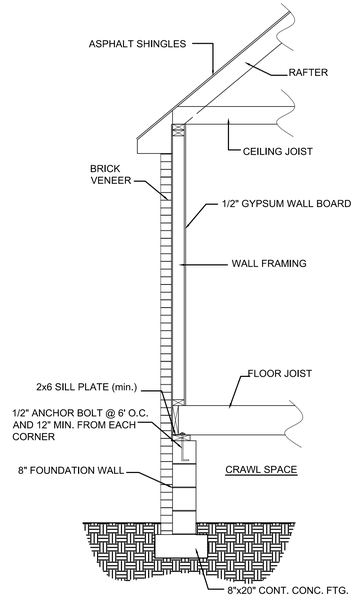
Client Name:
Pro Craft Homes
4605 Irene Way
Raleigh, NC 27603

DETAILS

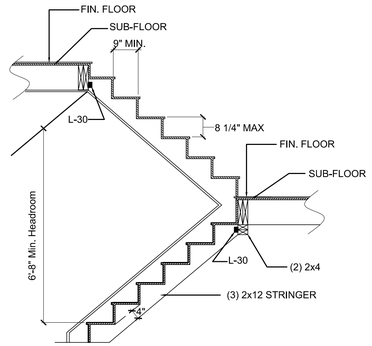
Sheet Number
8
of 9



TYPICAL WALL DETAIL

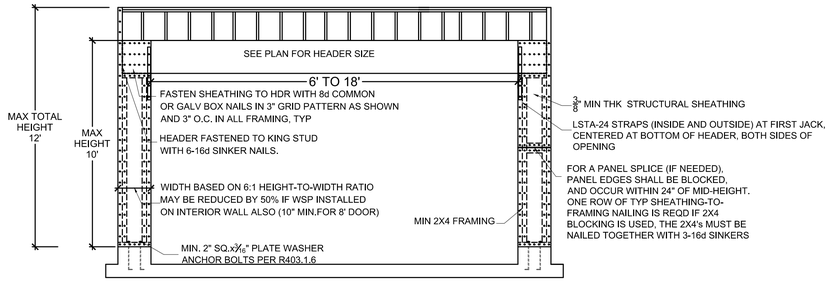


TYPICAL WALL DETAIL-BRICK VENEER

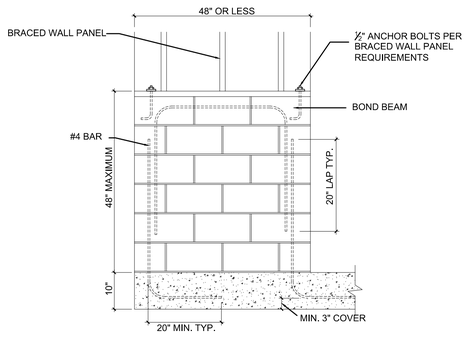


-BALCONY HANDRAIL HT. 36" MIN.
-STAIR HANDRAIL HT. 30" MIN., 34" MAX FROM NOSE OF STEP TREAD

TYPICAL STAIRWAY DETAIL



METHOD CS-PF PORTAL FRAME



BRACED WALL LINE STEMWALL DETAIL

Project #:
18-070
Date:
3-28-18
Drawn/Design By:
KBB
Scale:
NTS

REVISIONS

No.	Date:	Remarks
1		
2		
3		
4		

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