GAVIN

ELEVATION B

WELLERS KNOLL LOT 12

INCLUDED OPTIONS:
1st FLOOR
GOURMET KITCHEN
FIXED WINDOWS @ BREAKFAST ROOM
2nd FLOOR
2ND SINK @ BATH 2
BEDROOM 4 W/BATH

SQUARE FOOTAGE

	ELEVATION 'B'	
	UNHEATED	HEATED
FIRST FLOOR	0	964
SECOND FLOOR	0	1314
FRONT PORCH	42	0
2-CAR GARAGE	415	0
SUBTOTALS	457	2278
TOTAL UNDER ROOF	2735	
STANDARD DECK	120	0

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REV. #	DESCRIPTION	DATE
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---- - THE GAVIN - LH
SINGLE FAMILY
Cover Sheet 'B'

DRAWN BY:
South Designs

ISSUE DATE:
8/30/2019

CURRENT REVISION DATE:

SCALE:
1/8" = 1'-0"

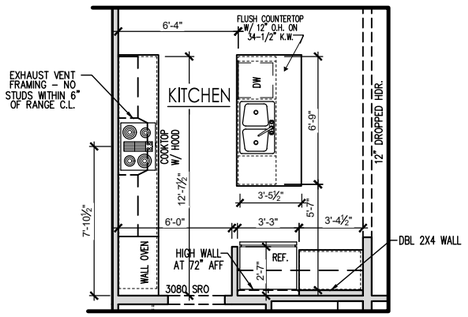
SHEET
0.0b

WELLERS KNOLL LOT 12

General Floor Plan Notes

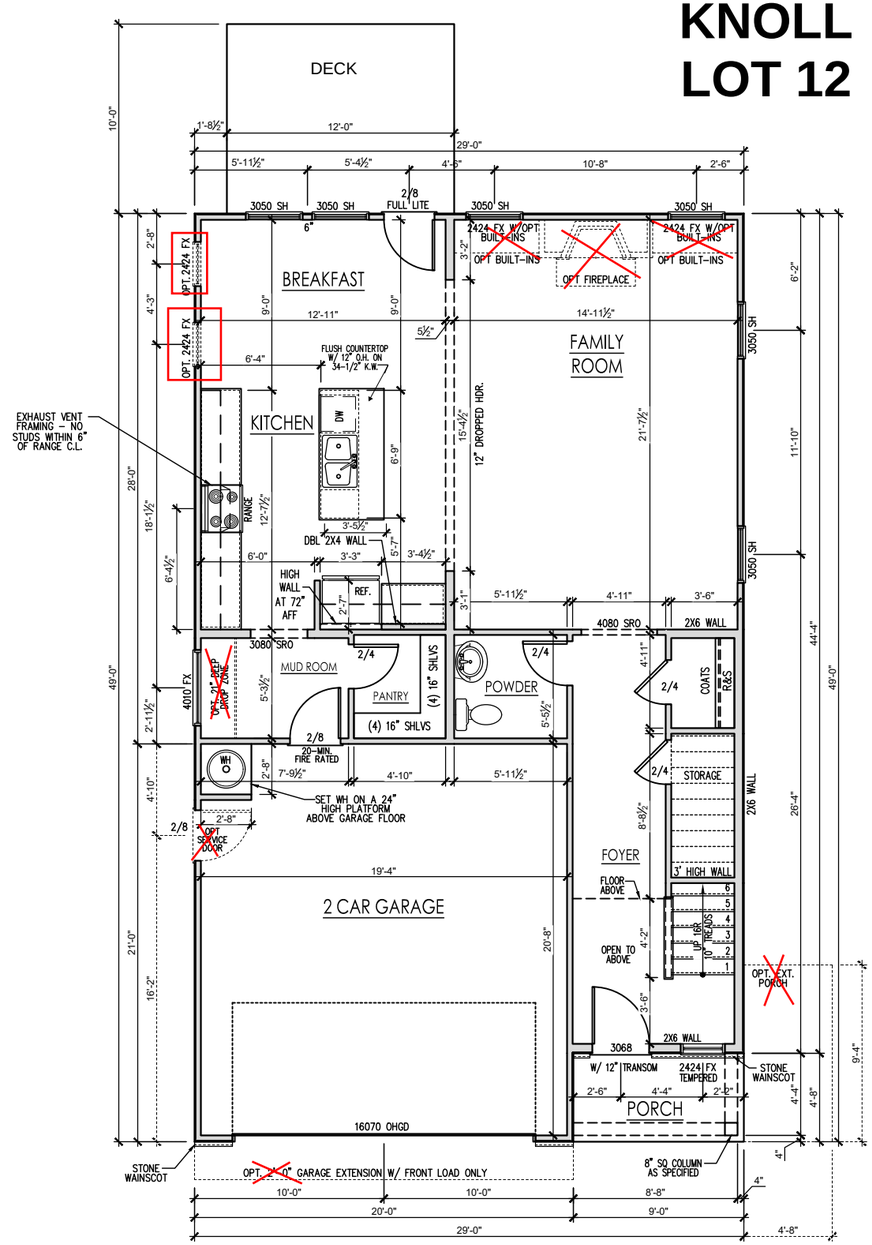
General Floor Plan Notes shall apply unless noted otherwise on plan.

1. Wall Heights: Typically 9'-1 1/2" at first floor and second floor, and 8'-1 1/2" at attics U.N.O. All walls are constructed using a double top plate. Splices at Double Top Plate do not need to occur at Vertical Studs but must be at least 24" apart from Joint in other Top Plate layer. Special wall heights are noted on plans where they occur.
2. Wall Thickness is typically 4" at exterior walls, 3 1/2" at interior. 2x6 frame shall be used at walls that back up to plumbing fixtures. Walls greater than 10' high shall be framed with 2x6 framing or greater and will be noted as a special condition where it occurs on plan.
3. Typical header height shall be 8'-0" AFF at First Floor, and 7'-1" AFF at Second Floor U.N.O.
4. Jacks: Openings up to 3'-4" wide shall have (1) 2x4 jack stud SPF on each side. Openings greater than 3'-4" wide shall have (2) 2x4 jack studs SPF on each side.
5. Soffits, Coffered Ceilings, Trey Ceilings and other significant ceiling plan elements are shown on the floor plans and are denoted as single dashed lines. Unless specifically call out as included, Kitchens do not include soffits over wall cabinetry.
6. Door & Window Frames, where occurring near corners, shall be a minimum of 4 1/2" from corner. Except for walk-in closets with doors near a corner, doors at closets shall be centered on closet.
7. Windows: Shall have at least (1) window in each sleeping room, that meets egress. Shall be provided with tempered glass at hazardous glazing areas. False windows shall be installed with obscure glazing.
8. Closets for clothing or coat storage shall be equipped with 1 rod/shelf. Closets for linen shall have 5 open equal shelves. Closets for pantries shall have 5 equal wood shelves, painted.
9. Stair treads shall be a min of 9" deep, risers shall be a maximum of 8 1/4", unless noted otherwise, per the current North Carolina Residential Code
10. Handrails and Guards at stairs shall be 34" above the finished surface of the ramp surface of the stair. Handrails at landings and overlooks of multilevel spaces shall be 36" above finished floor. Guards (pickets or balisters) shall be spaced with no more than 4" between guards.
11. Attic Access shall be provided at all attic area with a height greater than 30". Minimum clear attic access shall be 20" x 30". Pull down stairs and access doors in knee walls meeting minimum criteria are also acceptable.
12. Garage Door to Living Space shall be 2'-8" x 6'-8" minimum size and shall be 20 minute fire rated and weather sealed.
13. Garage Walls, as a minimum, shall be separated from living space by installing 1/2" gypsum board on the garage side of the wall. With habitable space above, the inside of all garage walls require 1/2" GWB supporting 5/8" type X GWB on ceiling.



OPT. GOURMET KITCHEN

SCALE: 1/8"=1'-0" ON 11x17, 1/4"=1'-0" ON 22x34



FIRST FLOOR PLAN 'B'

SCALE: 1/8"=1'-0" ON 11x17, 1/4"=1'-0" ON 22x34

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---- - THE GAVIN - LH

SINGLE FAMILY

First Floor Plan 'B'

DRAWN BY: South Designs

ISSUE DATE: 8/30/2019

CURRENT REVISION DATE: ----

SCALE: 1/8" = 1'-0"

SHEET 2.1b

WELLERS KNOLL LOT 12

General Floor Plan Notes

General Floor Plan Notes shall apply unless noted otherwise on plan.

1. Wall Heights: Typically 9'-1 1/2" at first floor and second floor, and 8'-1 1/2" at attics U.N.O. All walls are constructed using a double top plate. Splices at Double Top Plate do not need to occur at Vertical Studs but must be at least 24" apart from Joint in other Top Plate layer. Special wall heights are noted on plans where they occur.
2. Wall Thickness is typically 4" at exterior walls, 3 1/2" at interior. 2x6 frame shall be used at walls that back up to plumbing fixtures. Walls greater than 10' high shall be framed with 2x6 framing or greater and will be noted as a special condition where it occurs on plan.
3. Typical header height shall be 8'-0" AFF at First Floor, and 7'-1" AFF at Second Floor U.N.O.
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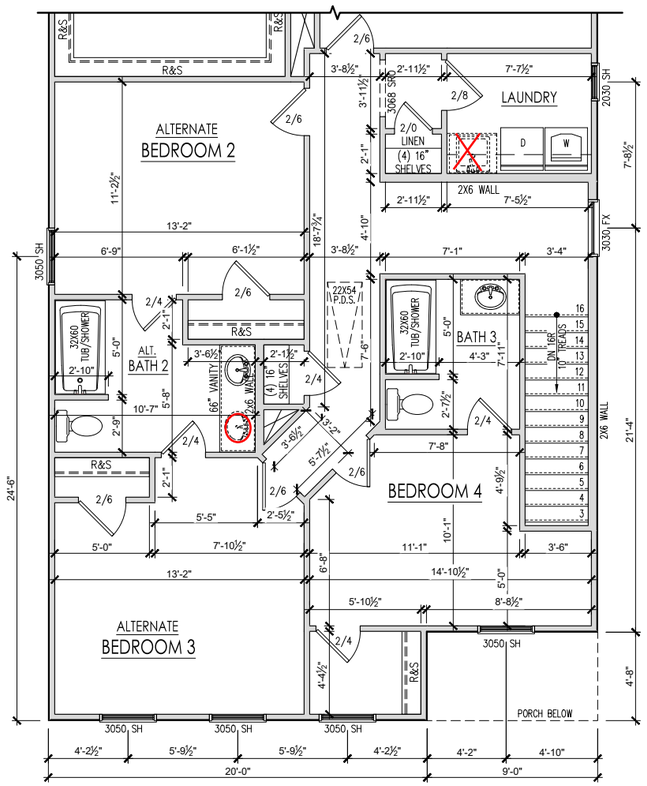
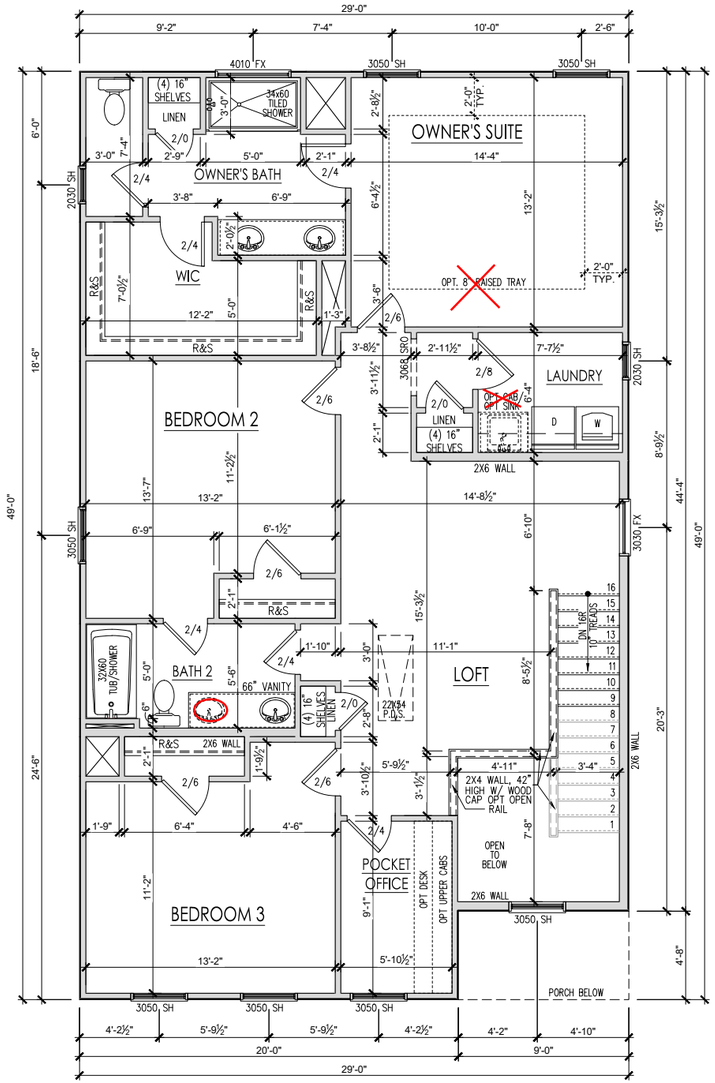
11. Attic Access shall be provided at all attic area with a height greater than 30". Minimum clear attic access shall be 20" x 30". Pull down stairs and access doors in knee walls meeting minimum criteria are also acceptable.
12. Garage Door to Living Space shall be 2'-8" x 6'-8" minimum size and shall be 20 minute fire rated and weather sealed.
13. Garage Walls, as a minimum, shall be separated from living space by installing 1/2" gypsum board on the garage side of the wall. With habitable space above, the inside of all garage walls require 1/2" GWB supporting 5/8" type X GWB on ceiling.



OPT. BEDROOM 4 / BATH 3
SCALE: 1/8"=1'-0" ON 11x17, 1/4"=1'-0" ON 22x34



SECOND FLOOR PLAN 'B'
SCALE: 1/8"=1'-0" ON 11x17, 1/4"=1'-0" ON 22x34

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---- - THE GAVIN - LH
SINGLE FAMILY

Second Floor Plan 'B'

DRAWN BY: South Designs
ISSUE DATE: 8/30/2019
CURRENT REVISION DATE: ----
SCALE: 1/8" = 1'-0"
SHEET 2.2b

General Elevation Notes

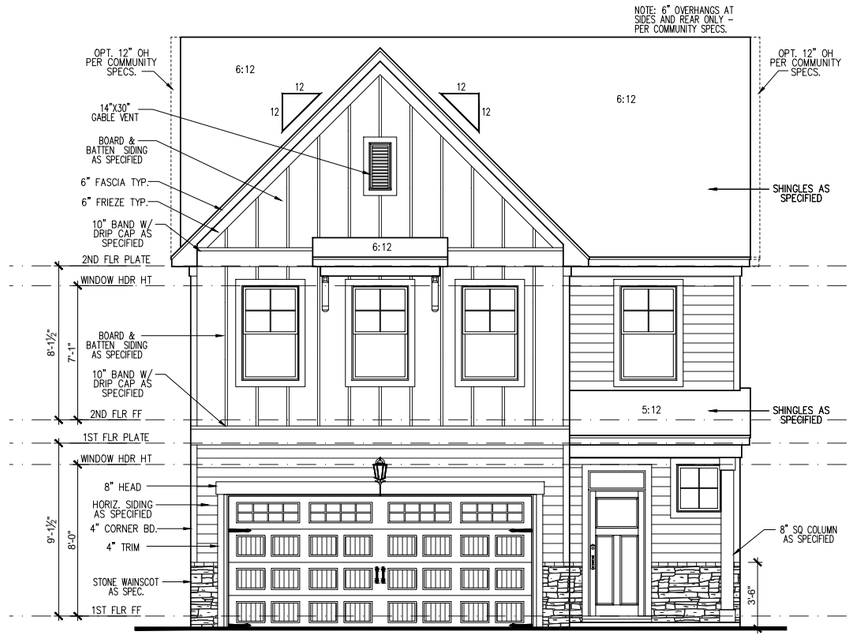
General Elevation Notes shall apply unless noted otherwise on plan.

1. Roof shall be finished with architectural composition shingles with slopes as noted on plan.
2. Ridge Vent shall be provided and installed on all ridges greater than 6' in length per manufacturer's specifications.
3. Soffit Vent shall be continuous soffit vent
4. House Wrap, "tyvek" or approved equal shall be installed over entire exterior wall per manufacturer's specifications and recommendations.
5. Flashing shall be provided above all door and window openings, above finish wall material changes and at wall surfaces where lower roof areas abut vertical wall surfaces.
6. Porch Railings shall be provided at all porch walking surfaces greater than 30" above adjacent finished grade. It shall be 36" high with guards spaced no more than 4" apart. Consult community specifications for material.
7. Finish Wall Material shall be as noted on elevation drawings.
8. Brick Veneer, if included on elevation shall be tied to wall surface with galvanized corrugated metal ties at a rate of 24" oc horizontally and 16" oc vertically so that no more than 2.67sf of brick is supported by (1) tie. Space between face of wall and back face of brick shall be limited to a maximum of 1". Flashing shall be provided behind brick above all wall openings and at base of brick wall. Flashing shall be a minimum of 6-mil poly or other corrosion resistant material and shall be installed so that it laps under the house wrap material a minimum of 2". Weepholes shall be provided at a rate of 48" oc and shall not be less than 3/16" in diameter and shall be located immediately above flashing.
9. Brick Veneer Support Lintels shall be provided if brick veneer is included on elevation. Lintels shall be provided as listed in the following schedule and shall have a minimum bearing length of 6". Masonry Lintels shall be provided so that deflection is limited to L/600.

Masonry Opening Lintel Schedule

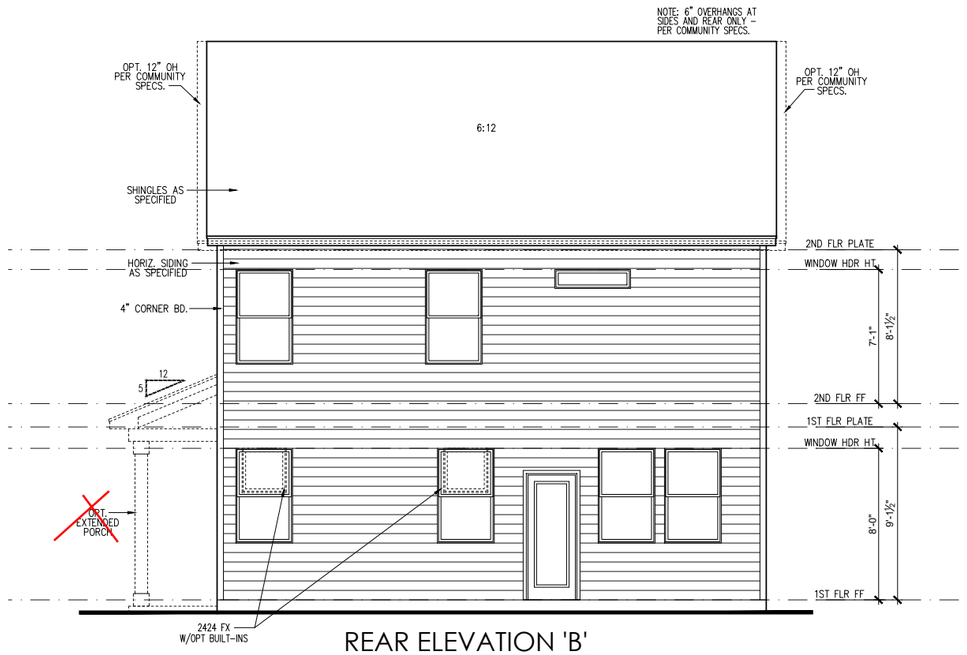
Opening Size	Angle
up to 4'-0"	3-1/2" x 3-1/2" x 5/16"
4'-1" to 5'-6"	4" x 3-1/2" x 5/16" LLV
5'-7" to 6'-6"	5" x 3-1/2" x 5/16" LLV
6'-7" to 8'-4"	6" x 3-1/2" x 5/16" LLV
8'-5" to 16'-4"	7" x 4" x 3/8" LLV

WELLERS KNOLL LOT 12



FRONT ELEVATION 'B'

SCALE: 1/4" = 1'-0" ON 22x34, 1/8" = 1'-0" ON 11x17



REAR ELEVATION 'B'

SCALE: 1/4" = 1'-0" ON 22x34, 1/8" = 1'-0" ON 11x17

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---- - THE GAVIN - LH

SINGLE FAMILY

Front & Rear Elevations 'B'

DRAWN BY: South Designs

ISSUE DATE: 8/30/2019

CURRENT REVISION DATE: ----

SCALE: 1/8" = 1'-0"

SHEET 3.1b

WELLERS KNOLL LOT 12

General Elevation Notes

General Elevation Notes shall apply unless noted otherwise on plan.

1. Roof shall be finished with architectural composition shingles with slopes as noted on plan.
2. Ridge Vent shall be provided and installed on all ridges greater than 6' in length per manufacturer's specifications.
3. Soffit Vent shall be continuous soffit vent
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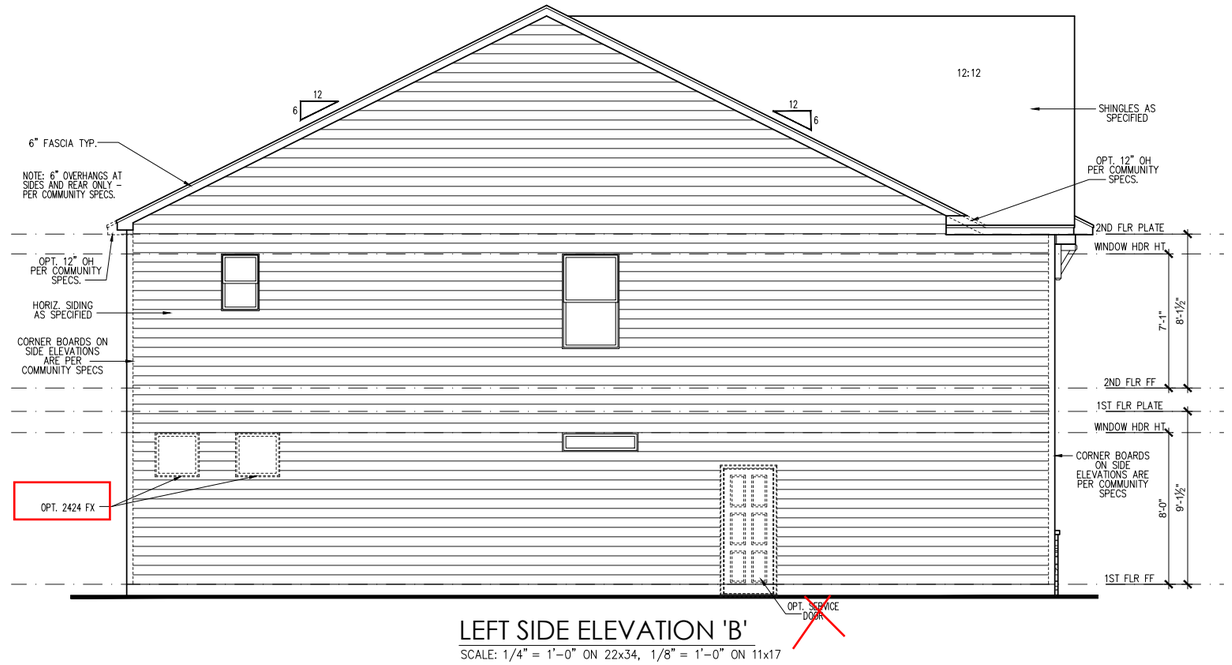
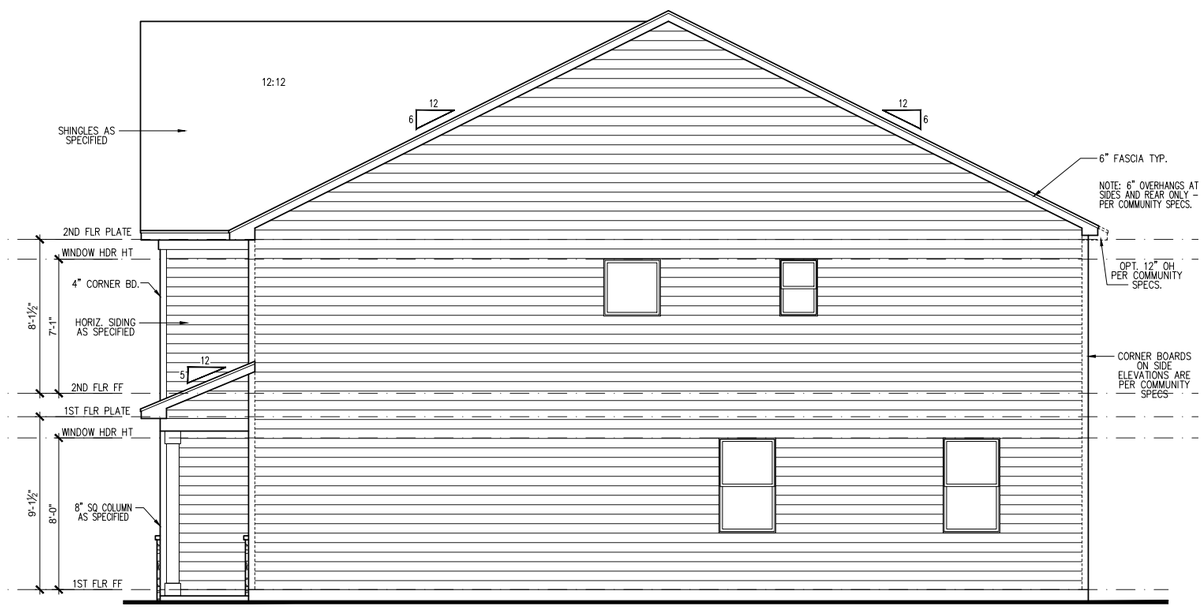
Masonry Opening Lintel Schedule

Opening Size	Angle
up to 4'-0"	3-1/2" x 3-1/2" x 5/16"
4'-1" to 5'-6"	4" x 3-1/2" x 5/16" LLV
5'-7" to 6'-6"	5" x 3-1/2" x 5/16" LLV
6'-7" to 8'-4"	6" x 3-1/2" x 5/16" LLV
8'-5" to 16'-4"	7" x 4" x 3/8" LLV



LEFT SIDE ELEVATION 'B'

SCALE: 1/4" = 1'-0" ON 22x34, 1/8" = 1'-0" ON 11x17



RIGHT SIDE ELEVATION 'B'

SCALE: 1/4" = 1'-0" ON 22x34, 1/8" = 1'-0" ON 11x17

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---- - THE GAVIN - LH

SINGLE FAMILY

Side Elevations 'B'

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ISSUE DATE: 8/30/2019

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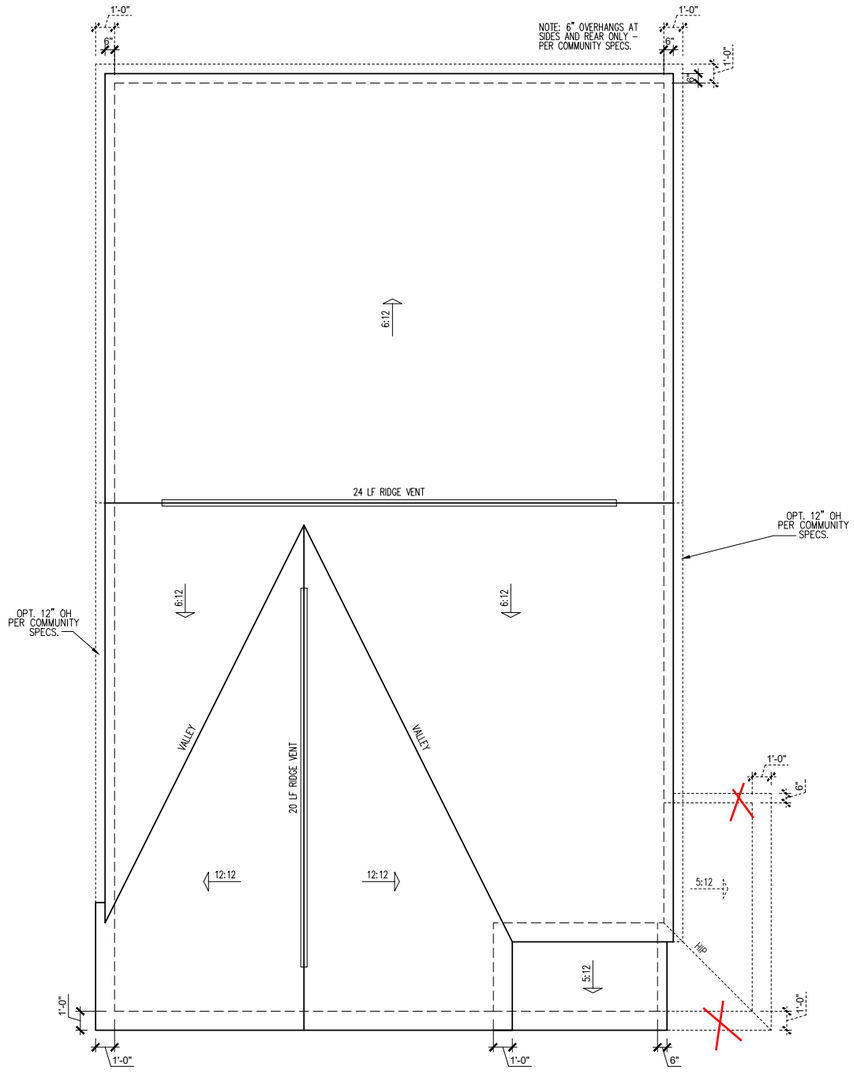
SCALE: 1/8" = 1'-0"

SHEET 3.2b

WELLERS KNOLL LOT 12

ATTIC VENT SCHEDULE									
ELEVATION 'B'									
MAIN HOUSE			SQ FTG	1379	AT / NEAR RIDGE			AT / NEAR EAVE	
VENT TYPE	SQ. FT. REQUIRED RANGE		SQ. FT. SUPPLIED	PERCENT OF TOTAL SUPPLIED	POT LARGE (SQ. FT. EACH)	POT SMALL (SQ. FT. EACH)	RIDGE VENT (SQ. FT. PER LF)	EAVE VENT (SQ. IN. EACH)	CONT. VENT (SQ. IN. PER LF)
					0.4236	0.2778	0.125	0.1944	0.0625
RIDGE VENT	1.84	2.30	5.50	42.31	0	0	44.00		
SOFFIT VENTS	2.76	2.30	7.50	57.69				0	120.00
TOTAL (MIN)	4.60	4.60	13.00	100.00	POT VENTS MAY BE REQUIRED IF THERE IS INSUFFICIENT RIDGE AVAILABLE				

* SCHEDULE HAS BEEN CALCULATED ASSUMING EAVE VENTILATION AT 50-60% OF TOTAL AND RIDGE AT 40-50% OF TOTAL REQUIRED VENTILATION



ELEVATION 'B' ROOF PLAN

SCALE: 1/4" = 1'-0" ON 22x34, 1/8" = 1'-0" ON 11x17

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--- - THE GAVIN - LH
SINGLE FAMILY
Roof Plan 'B'

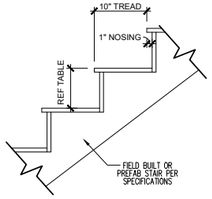
DRAWN BY:
South Designs

ISSUE DATE:
8/30/2019

CURRENT REVISION DATE:

SCALE:
1/8" = 1'-0"

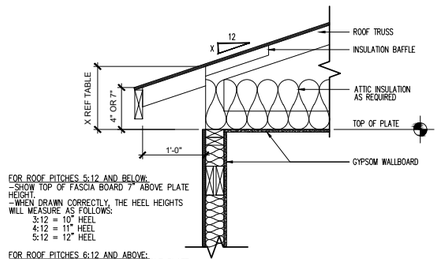
SHEET
3.3b



RISER HEIGHTS PER STAIR CONFIGURATION			
PLATE HEIGHT	10" FLOOR SYSTEM	14" FLOOR SYSTEM	16" FLOOR SYSTEM
8'-1 1/2"	14 RISERS @ 7 11/16"	15 RISERS @ 7 1/2"	15 RISERS @ 7 5/8"
9'-1 1/2"	16 RISERS @ 7 1/2"	16 RISERS @ 7 3/4"	17 RISERS @ 7 7/16"
10'-1 1/2"	17 RISERS @ 7 3/4"	18 RISERS @ 7 9/16"	18 RISERS @ 7 11/16"

TYPICAL STAIR DETAIL

SCALE: 1" = 1'-0" ON 22x34, 1/2" = 1'-0" ON 11x17



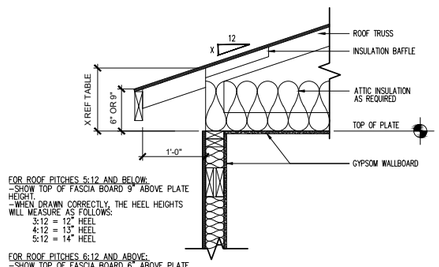
FOR ROOF PITCHES 5:12 AND BELOW:
-SHOW TOP OF FASCIA BOARD 7" ABOVE PLATE HEIGHT.
-WHEN DRAWN CORRECTLY, THE HEEL HEIGHTS WILL MEASURE AS FOLLOWS:
3:12 = 10" HEEL
4:12 = 11" HEEL
5:12 = 12" HEEL

FOR ROOF PITCHES 6:12 AND ABOVE:
-SHOW TOP OF FASCIA BOARD 4" ABOVE PLATE HEIGHT.
-WHEN DRAWN CORRECTLY, THE HEEL HEIGHTS WILL MEASURE AS FOLLOWS:
6:12 = 10" HEEL
7:12 = 11" HEEL
8:12 = 12" HEEL
9:12 = 13" HEEL
10:12 = 14" HEEL

IMPORTANT REMINDER: THE LOWEST PITCH ROOF ALWAYS MANDATES THE CONDITION. FOR EXAMPLE , A ROOF WITH A 4:12 PITCH AND A 6:12 PITCH, WOULD FOLLOW THE 7" ABOVE PLATE HEIGHT RULE. THE HEEL FOR THE 6:12 ROOF IN THIS CONDITION WILL DIFFER FROM WHAT IS LISTED HERE.

ENERGY HEEL DETAIL: CZ 2 & 3

SCALE: 1" = 1'-0" ON 22x34, 1/2" = 1'-0" ON 11x17



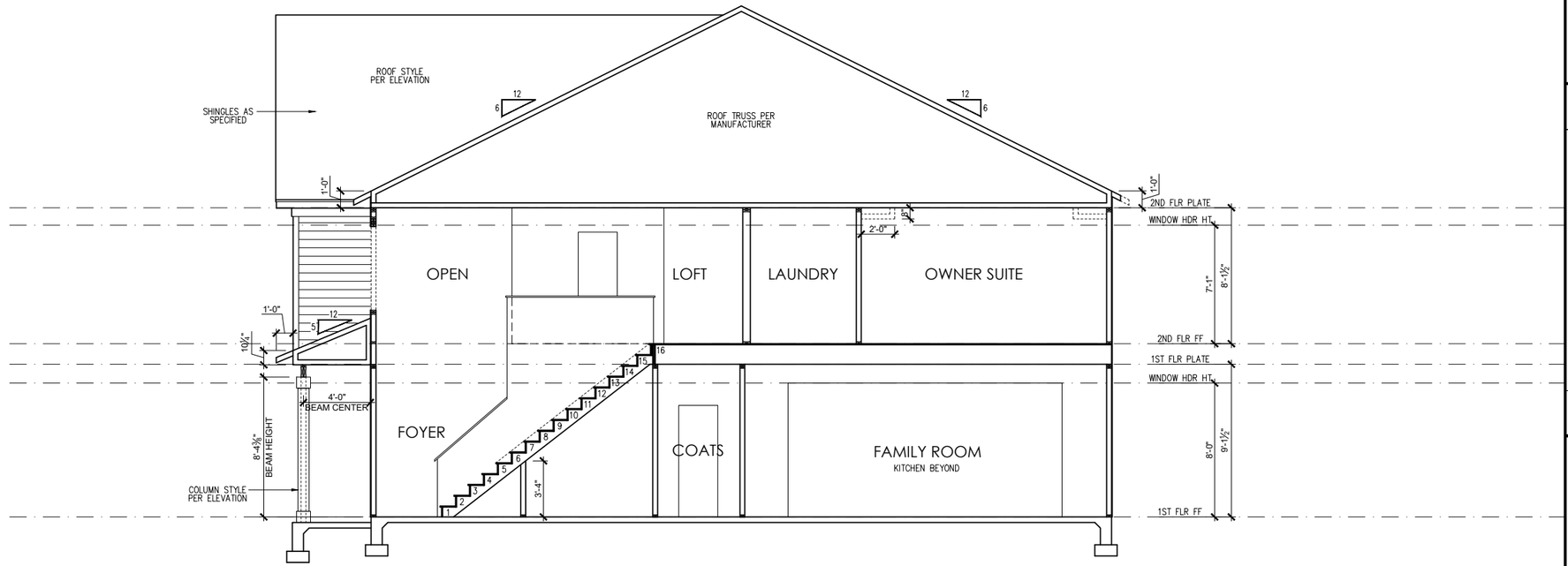
FOR ROOF PITCHES 5:12 AND BELOW:
-SHOW TOP OF FASCIA BOARD 9" ABOVE PLATE HEIGHT.
-WHEN DRAWN CORRECTLY, THE HEEL HEIGHTS WILL MEASURE AS FOLLOWS:
3:12 = 12" HEEL
4:12 = 13" HEEL
5:12 = 14" HEEL

FOR ROOF PITCHES 6:12 AND ABOVE:
-SHOW TOP OF FASCIA BOARD 6" ABOVE PLATE HEIGHT.
-WHEN DRAWN CORRECTLY, THE HEEL HEIGHTS WILL MEASURE AS FOLLOWS:
6:12 = 12" HEEL
7:12 = 13" HEEL
8:12 = 14" HEEL
9:12 = 15" HEEL
10:12 = 16" HEEL

IMPORTANT REMINDER: THE LOWEST PITCH ROOF ALWAYS MANDATES THE CONDITION. FOR EXAMPLE , A ROOF WITH A 4:12 PITCH AND A 6:12 PITCH, WOULD FOLLOW THE 9" ABOVE PLATE HEIGHT RULE. THE HEEL FOR THE 6:12 ROOF IN THIS CONDITION WILL DIFFER FROM WHAT IS LISTED HERE.

ENERGY HEEL DETAIL: CZ 4 & 5

SCALE: 1" = 1'-0" ON 22x34, 1/2" = 1'-0" ON 11x17



BUILDING SECTION 1

SCALE: 1/4" = 1'-0" ON 22x34, 1/8" = 1'-0" ON 11x17

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--- - THE GAVIN - LH

SINGLE FAMILY

Building Sections 'B'

DRAWN BY: South Designs

ISSUE DATE: 8/30/2019

CURRENT REVISION DATE: ----

SCALE: 1/8" = 1'-0"

SHEET 4.0b

WELLERS KNOLL LOT 12

ELECTRICAL SYMBOL KEY

LIGHT FIXTURES	
	CEILING SURFACE MOUNT LIGHT
	RECESSED CAN LIGHT
WP	RECESSED CAN LIGHT WATERPROOF
	RECESSED CAN – EYEBALL
	PENDANT LIGHTING
	WALL SCONCE
	WALL MOUNT LIGHT
	FLOOD LIGHT
OUTLETS	
	DUPLEX OUTLET
GFI	GFI OUTLET
GFI–WP	WATERPROOF GFI OUTLET
	SWITCHED 1/2 HOT DUPLEX OUTLET
220v	220V OUTLET
	TELEPHONE OUTLET
	CATV (TELEVISION) OUTLET
	UNDER–COUNTER OR CONCEALED OUTLETS
	CEILING MOUNTED DUP. OUTLET
FLOOR	FLOOR MOUNTED DUP. OUTLET
SWITCHES	
$	SINGLE POLE SWITCH
$3	THREE–WAY SWITCH
$4	FOUR–WAY SWITCH
DIS	ELECTRICAL DISCONNECT
MISC FIXTURES	
	EXHAUST FAN
	JUNCTION BOX
220V	JUNCTION BOX 220V
CM SD	CARBON MONOXIDE DETECTOR OR SMOKE DETECTOR
CO.SD	CARBON MONOXIDE DETECTOR AND SMOKE DETECTOR
	ELECTRIC METER
Elec Panel	ELECTRICAL PANEL
	DOOR BELL CHIME
	DOOR BELL PUSH BUTTON
FAN PREWIRE	CEILING FAN PREWIRE
	FLUORESCENT LIGHT

General Power and Lighting:

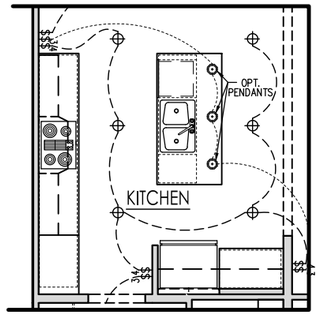
General Power and Lighting Notes shall apply unless noted otherwise on plans.

All work shall be installed per the current NC Residential Building Code, and the National Electric Code. Alarm devices shall meet NFPA 72.

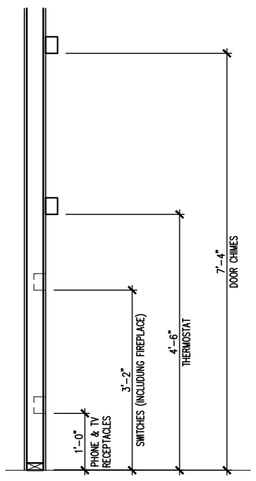
1. **Smoke Alarms - Shall be provided as a minimum of (1) per floor, including basements (if applicable), (1) in each sleep room, and (1) outside each sleeping area, within the immediate vicinity of sleeping rooms. When more than one alarm is required, the alarm devices shall be interconnected in such a manner that the activation of one alarm will activate all of the alarms. Smoke alarms shall be hard wired to permanent power and shall have batter back-ups.**

2. **Switches - For lighting, fans, etc. shall be installed at heights illustrated on this page and shall be located a minimum of 4 1/2" from door openings to allow for the proper installation of door casings. Switches, thermostats, security pads, and other similar devices shall be grouped together and installed thoughtfully for convenience of use and to avoid placement within centers of wall areas.**

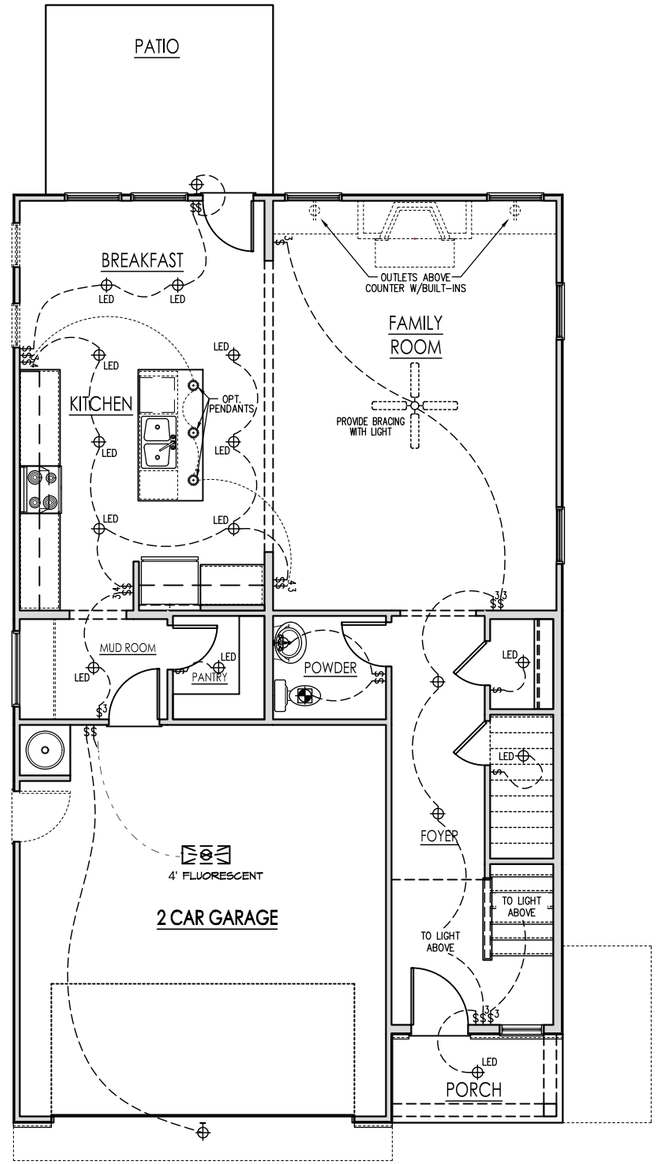
Note:
This plan is a diagram showing approximate locations of convenience outlets based on requirements found in the NC Residential Code and N.E.C. Actual positions may vary from what is shown on plan.



OPT. GOURMET KITCHEN
SCALE: 1/8"=1'–0" ON 11x17, 1/4"=1'–0" ON 22x34



ELECTRICAL BOX HEIGHTS



FIRST FLOOR ELECTRICAL PLAN 'B'
SCALE: 1/8"=1'–0" ON 11x17, 1/4"=1'–0" ON 22x34

SOUTH DESIGNS
(O) 919-556-2226
(F) 919-556-2228
www.southdesigns.com

DAVIDSON HOMES

REV. #	DESCRIPTION	DATE
1	---	---
2	---	---
3	---	---
4	---	---
5	---	---
6	---	---
7	---	---
8	---	---

---- THE GAVIN - LH
SINGLE FAMILY
First Floor Electrical 'B'

DRAWN BY:
South Designs

ISSUE DATE:
8/30/2019

CURRENT REVISION DATE:

SCALE:
1/8" = 1'-0"

SHEET
5.1b

WELLERS KNOLL LOT 12

ELECTRICAL SYMBOL KEY

LIGHT FIXTURES	
	CEILING SURFACE MOUNT LIGHT
	RECESSED CAN LIGHT
WP	RECESSED CAN LIGHT WATERPROOF
	RECESSED CAN – EYEBALL
	PENDANT LIGHTING
	WALL SCONCE
	WALL MOUNT LIGHT
	FLOOD LIGHT
OUTLETS	
	DUPLEX OUTLET
GFI	GFI OUTLET
GFI–WP	WATERPROOF GFI OUTLET
	SWITCHED 1/2 HOT DUPLEX OUTLET
220V	220V OUTLET
	TELEPHONE OUTLET
	CATV (TELEVISION) OUTLET
	UNDER–COUNTER OR CONCEALED OUTLETS
	CEILING MOUNTED DUP. OUTLET
FLOOR	FLOOR MOUNTED DUP. OUTLET
SWITCHES	
$	SINGLE POLE SWITCH
$3	THREE–WAY SWITCH
$4	FOUR–WAY SWITCH
DIS	ELECTRICAL DISCONNECT
MISC FIXTURES	
	EXHAUST FAN
	JUNCTION BOX
220V	JUNCTION BOX 220V
CM SD	CARBON MONOXIDE DETECTOR OR SMOKE DETECTOR
CO.SD	CARBON MONOXIDE DETECTOR AND SMOKE DETECTOR
	ELECTRIC METER
Elec Panel	ELECTRICAL PANEL
	DOOR BELL CHIME
	DOOR BELL PUSH BUTTON
FAN PREWIRE	CEILING FAN PREWIRE
	FLUORESCENT LIGHT

General Power and Lighting:

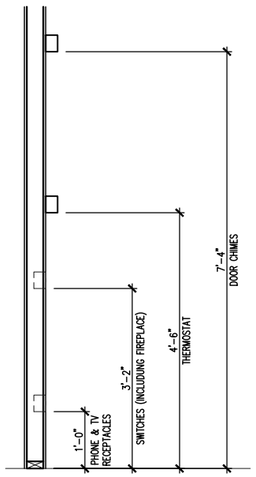
General Power and Lighting Notes shall apply unless noted otherwise on plans.

All work shall be installed per the current NC Residential Building Code, and the National Electric Code. Alarm devices shall meet NFPA 72.

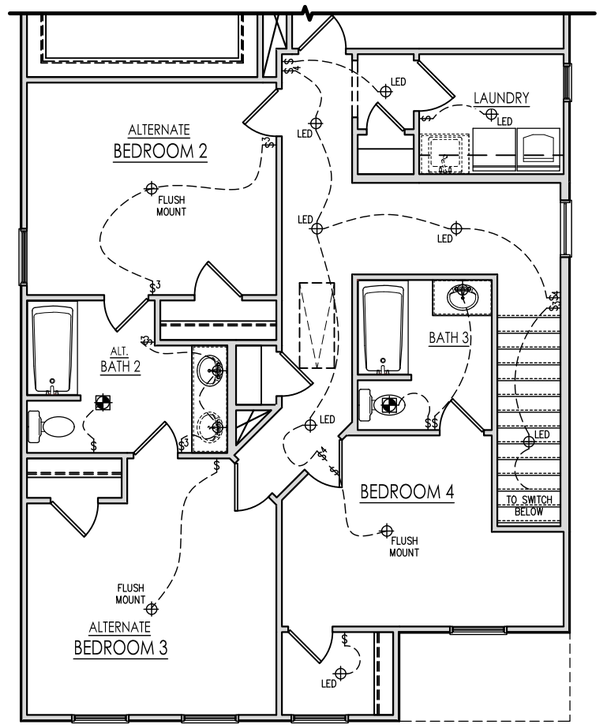
1. **Smoke Alarms - Shall be provided as a minimum of (1) per floor, including basements (if applicable), (1) in each sleep room, and (1) outside each sleeping area, within the immediate vicinity of sleeping rooms. When more than one alarm is required, the alarm devices shall be interconnected in such a manner that the activation of one alarm will activate all of the alarms. Smoke alarms shall be hard wired to permanent power and shall have batter back-ups.**

2. **Switches - For lighting, fans, etc. shall be installed at heights illustrated on this page and shall be located a minimum of 4 1/2" from door openings to allow for the proper installation of door casings. Switches, thermostats, security pads, and other similar devices shall be grouped together and installed thoughtfully for convenience of use and to avoid placement within centers of wall areas.**

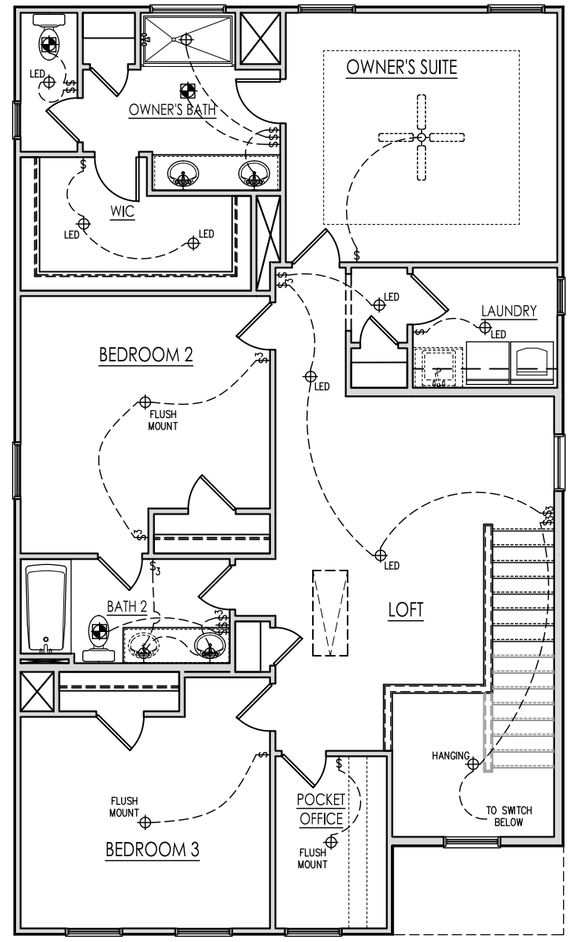
Note:
This plan is a diagram showing approximate locations of convenience outlets based on requirements found in the NC Residential Code and N.E.C. Actual positions may vary from what is shown on plan.



ELECTRICAL BOX HEIGHTS



OPT. BEDROOM 4 / BATH 3
SCALE: 1/8"=1'–0" ON 11x17, 1/4"=1'–0" ON 22x34



SECOND FLOOR ELECTRICAL PLAN 'B'
SCALE: 1/8"=1'–0" ON 11x17, 1/4"=1'–0" ON 22x34

SOUTH DESIGNS
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(F) 919-556-2228
www.southdesigns.com

DAVIDSON HOMES

REV. #	DESCRIPTION	DATE
1		----
2		----
3		----
4		----
5		----
6		----
7		----
8		----

---- - THE GAVIN - LH
SINGLE FAMILY
Second Floor Electrical 'B'

DRAWN BY: South Designs
ISSUE DATE: 8/30/2019
CURRENT REVISION DATE: ----
SCALE: 1/8" = 1'-0"
SHEET 5.2b

WELLERS
KNOLL
LOT 12

KSE ENGINEERING
1900 AM DRIVE, SUITE 201, QUAKERTOWN, PA 18951
www.kse-eng.com (215) 804-4449

2204 THE GAVIN

LH

RALEIGH, NORTH CAROLINA

DESIGN SPECIFICATIONS:

DESIGN BUILDING CODE (REFERRED TO HEREIN AS 'THE BUILDING CODE'):
- 2018 NORTH CAROLINA RESIDENTIAL CODE. WALL BRACING PER INTERNATIONAL RESIDENTIAL CODE 2015 EDITION.

DESIGN LIVE LOADS:
- ROOF = 20 PSF (LOAD DURATION FACTOR=1.25)
- UNINHABITABLE ATTICS WITH LIMITED STORAGE = 20 PSF (WHERE SPECIFIED ON PLANS)
- HABITABLE ATTICS AND ATTICS SERVED WITH FIXED STAIRS = 30 PSF
- FLOOR = 40 PSF
- FLOOR (SLEEPING AREAS) = 30 PSF
- DECK/BALCONY = 40 PSF
- STAIRS = 40 PSF

DESIGN DEAD LOADS:
- ROOF TRUSS = 17 PSF (TC=7, BC=10)
- FLOOR TRUSS = 15 PSF (TC=10, BC=5)
- FLOOR JOIST = 10 PSF
- STANDARD BRICK = 40 PSF
- QUEEN ANNE BRICK = 25 PSF

NOTE: STRUCTURAL FRAMING HAS NOT BEEN DESIGNED FOR TILE, GRANITE, MARBLE OR OTHER MATERIALS HEAVIER THAN THE ABOVE LOADING UNLESS SPECIFICALLY NOTED ON PLANS..

DESIGN WIND LOADS:
- ULTIMATE WIND SPEED = 120 MPH
- EXPOSURE CATEGORY = B

ASSUMED SOIL BEARING CAPACITY = 2000 PSF

ASSUMED LATERAL SOIL PRESSURE = 45 PCF

FROST DEPTH = 12" MINIMUM

SEISMIC DESIGN CATEGORY = B

ENGINEERED LUMBER SHALL HAVE THE FOLLOWING MINIMUM DESIGN VALUES:
- TJI 210 SERIES (SERIES AND SPACING PER PLANS)
- LSL: E=1,550,000 PSI, F_B=2,325 PSI, F_V=310 PSI, F_C=900 PSI
- LVL: E=2,000,000 PSI, F_B=2,600 PSI, F_V=285 PSI, F_C=750 PSI
- PSL: E=2,100,000 PSI, F_B=2,900 PSI, F_V=290 PSI, F_C=625 PSI

THIS PLAN HAS BEEN DESIGNED PER THE 2018 EDITION OF THE NC RESIDENTIAL CODE. WHERE FRAMING, FOUNDATION, OR OTHER STRUCTURAL ITEMS DO NOT COMPLY WITH THE PRESCRIPTIVE METHODS OF THE CODE, THOSE ITEMS HAVE BEEN DESIGNED IN ACCORDANCE WITH ACCEPTED ENGINEERING PRACTICE PER NCRC R301.1.3.

NC Firm #C-2101
NORTH CAROLINA PROFESSIONAL SEAL 046096 ENGINEER ANDREW A. MOORE
3/9/23

KSE ENGINEERING
1900 AM DRIVE, SUITE 201, QUAKERTOWN, PA 18951
www.kse-eng.com (215) 804-4449

DAVIDSON HOMES

Cover Sheet
2204 The Gavin Model - LH
Up to 120 M.P.H.
Raleigh, North Carolina

Project #:	214-22004
Designed By:	AAM
Checked By:	KRK
Issue Date:	4/29/22
Re-Issue:	3/9/23
Scale:	1/8"=1'-0" @ 11x17 1/4"=1'-0" @ 22x34

S-0

GENERAL STRUCTURAL NOTES:

1. THE DESIGN PROFESSIONAL WHOSE SEAL APPEARS ON THESE DRAWINGS IS THE STRUCTURAL ENGINEER OF RECORD (SER) FOR THIS PROJECT. THE SER BEARS THE RESPONSIBILITY OF THE PRIMARY STRUCTURAL ELEMENTS AND THE PERFORMANCE OF THIS STRUCTURE. NO OTHER PARTY MAY REVISE, ALTER, OR DELETE ANY STRUCTURAL ASPECTS OF THESE CONSTRUCTION DOCUMENTS WITHOUT WRITTEN CONSENT OF KSE ENGINEERING, P.C. OR THE SER. FOR THE PURPOSES OF THESE CONSTRUCTION DOCUMENTS, THE SER AND KSE ENGINEERING SHALL BE CONSIDERED THE SAME ENTITY.
2. THE STRUCTURE IS ONLY STABLE IN ITS COMPLETED FORM. THE CONTRACTOR SHALL PROVIDE ALL REQUIRED TEMPORARY BRACING DURING CONSTRUCTION TO STABILIZE THE STRUCTURE.
3. THE SER IS NOT RESPONSIBLE FOR CONSTRUCTION SEQUENCES, METHODS, OR TECHNIQUES IN CONNECTION WITH THE CONSTRUCTION OF THIS STRUCTURE. THE SER WILL NOT BE HELD RESPONSIBLE FOR THE CONTRACTOR'S FAILURE TO CONFORM TO THE CONTRACT DOCUMENTS, SHOULD ANY NON-CONFORMITIES OCCUR.
4. THE SER DOES NOT CERTIFY DIMENSIONAL ACCURACY OR ARCHITECTURAL LAYOUT INCLUDING ROOF GEOMETRY. THE SER ASSUMES NO LIABILITY FOR CHANGES MADE TO THESE PLANS BY OTHERS, OR FOR CONSTRUCTION METHODS, OR FOR ANY DEVIATION FROM THE PLANS. THE SER SHALL BE NOTIFIED PRIOR TO CONSTRUCTION IF ANY DISCREPANCIES ARE NOTED ON THE PLANS.
5. ANY STRUCTURAL ELEMENTS OR DETAILS NOT FULLY DEVELOPED ON THE CONSTRUCTION DRAWINGS SHALL BE COMPLETED UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER. THESE SHOP DRAWINGS SHALL BE SUBMITTED TO KSE ENGINEERING FOR REVIEW BEFORE ANY CONSTRUCTION BEGINS. THE SHOP DRAWINGS WILL BE REVIEWED FOR OVERALL COMPLIANCE AS IT RELATES TO THE STRUCTURAL DESIGN OF THIS PROJECT. VERIFICATION OF THE SHOP DRAWINGS FOR DIMENSIONS, OR FOR ACTUAL FIELD CONDITIONS, IS NOT THE RESPONSIBILITY OF THE SER OR KSE ENGINEERING, P.C.
6. VERIFICATION OF ASSUMED FIELD CONDITIONS IS NOT THE RESPONSIBILITY OF THE SER. THE CONTRACTOR SHALL VERIFY THE FIELD CONDITIONS FOR ACCURACY AND REPORT ANY DISCREPANCIES TO KSE ENGINEERING, P.C. BEFORE CONSTRUCTION BEGINS.
7. THE SER IS NOT RESPONSIBLE FOR ANY SECONDARY STRUCTURAL ELEMENTS OR NON-STRUCTURAL ELEMENTS, EXCEPT FOR THE ELEMENTS SPECIFICALLY NOTED ON THE STRUCTURAL DRAWINGS.
8. THIS STRUCTURE AND ALL CONSTRUCTION SHALL CONFORM TO ALL APPLICABLE SECTIONS OF THE BUILDING CODE AND ANY LOCAL CODES OR RESTRICTIONS.
9. DO NOT SCALE DRAWINGS. WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS. ALL DIMENSIONS ARE TO FACE OF STUD OR TO FACE OF FRAMING UNLESS OTHERWISE NOTED.
10. PROVIDE MOISTURE PROTECTION AND FLASHING PER ARCHITECTURAL DETAILS.

FOUNDATIONS:

1. FOUNDATIONS SHALL BE CONSTRUCTED IN ACCORDANCE WITH CHAPTER 4 OF THE BUILDING CODE.
2. CONTRACTOR IS SOLELY RESPONSIBLE FOR VERIFYING THE SUITABILITY OF THE SITE SOIL CONDITIONS AT THE TIME OF CONSTRUCTION. THE BUILDER SHALL FURNISH ANY AND ALL REPORTS RECEIVED FROM THE GEOTECHNICAL ENGINEER ON THE STUDY OF THE PROPOSED SITE TO THE DESIGNER, STRUCTURAL ENGINEER, AND GENERAL CONTRACTOR.
3. MAXIMUM DEPTH OF UNBALANCED FILL AGAINST MASONRY WALLS TO BE AS SPECIFIED IN THE BUILDING CODE.
4. THE SER HAS NOT PERFORMED A SUBSURFACE INVESTIGATION. VERIFICATION OF THE ASSUMED VALUE IS THE RESPONSIBILITY OF THE OWNER OR THE CONTRACTOR. SHOULD ANY ADVERSE SOIL CONDITION BE ENCOUNTERED, THE SER MUST BE CONTACTED BEFORE PROCEEDING.
5. THE BOTTOM OF ALL FOOTINGS SHALL EXTEND BELOW THE FROST LINE FOR THE REGION IN WHICH THE STRUCTURE IS TO BE CONSTRUCTED, BUT NOT LESS THAN A MINIMUM OF 12" BELOW GRADE. ALL FOOTINGS TO HAVE A MINIMUM PROJECTION OF 2" ON EACH SIDE OF FOUNDATION WALLS. MAXIMUM FOOTING PROJECTION SHALL NOT EXCEED THE THICKNESS OF THE FOOTING.
6. WOOD SILL PLATES SHALL BE ANCHORED TO THE FOUNDATION WITH ½" ANCHOR BOLTS WITH MINIMUM 7" EMBEDMENT, SPACED A MAXIMUM OF 6'-0" O.C. INSTALL MINIMUM 2 ANCHOR BOLTS PER SECTION, 12" MAXIMUM FROM CORNERS. ½" DIAMETER x 8" LONG SIMPSON TITEN HD OR USP SCREW-BOLT+ SCREWS MAY BE SUBSTITUTED ON A 1 FOR 1 BASIS.
7. ANY FILL SHALL BE PLACED UNDER THE DIRECTION OR RECOMMENDATION OF A LICENSED PROFESSIONAL ENGINEER. THE RESULTING SOIL SHALL BE COMPACTED TO A MINIMUM OF 95% MAXIMUM DRY DENSITY.
8. EXCAVATIONS OF FOOTINGS SHALL BE LINED TEMPORARILY WITH A 6 MIL POLYETHYLENE MEMBRANE IF PLACEMENT OF CONCRETE DOES NOT OCCUR WITHIN 24 HOURS OF EXCAVATION.
9. NO CONCRETE SHALL BE PLACED AGAINST ANY SUBGRADE CONTAINING WATER, ICE, FROST, OR LOOSE MATERIAL.
10. PROVIDE FOUNDATION WATERPROOFING AND DRAIN WITH POSITIVE SLOPE TO OUTLET AS REQUIRED BY SITE CONDITIONS (SEE ARCHITECTURAL PLANS AND DETAILS).
11. NONE OF THE FOUNDATION DESIGNS IN THESE DOCUMENTS ARE SUITABLE FOR INSTALLATION IN SHRINK/SWELL CONDITIONS. REFER TO GEOTECHNICAL ENGINEER FOR APPROPRIATE DESIGN.
12. LOTS SHALL BE GRADED TO DRAIN SURFACE WATER AWAY FROM FOUNDATION WALLS. THE GRADE SHALL FALL A MINIMUM OF 6 INCHES WITHIN THE FIRST TEN FEET.
13. CRAWL SPACE TO BE GRADED LEVEL AND CLEAR OF ALL DEBRIS.
14. PROVIDE MINIMUM 6 MIL APPROVED VAPOR BARRIER. ALL JOINTS TO BE LAPPED MINIMUM 12" AND SEALED.

CONCRETE & REINFORCING

1. CONCRETE DESIGN BASED ON ACI 318 AND ACI 318.1 OR ACI 332. CONCRETE SHALL HAVE A NORMAL WEIGHT AGGREGATE AND A MINIMUM COMPRESSIVE STRENGTH (f'c) = 3,000 PSI MINIMUM AT 28 DAYS PER CODE (VARIES W/ WEATHER), UNLESS OTHERWISE NOTED ON THE PLAN.
2. CONCRETE SHALL BE PROPORTIONED, MIXED, AND PLACED IN ACCORDANCE WITH THE LATEST EDITIONS OF ACI 318: "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" AND ACI 301: "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS".
3. AIR ENTRAINED CONCRETE MUST BE USED FOR ALL STRUCTURAL ELEMENTS EXPOSED TO FREEZE/THAW CYCLES AND DEICING CHEMICALS. AIR ENTRAINMENT AMOUNTS (IN PERCENT) SHALL BE WITHIN -1% TO +2% OF 5% FOR FOOTINGS AND EXTERIOR SLABS.
4. NO ADMIXTURES SHALL BE ADDED TO ANY STRUCTURAL CONCRETE WITHOUT WRITTEN PERMISSION OF THE SER. WATER ADDED TO CONCRETE ON SITE SHALL NOT EXCEED THAT ALLOWED BY THE MIX DESIGN.
5. CONCRETE SLABS-ON-GRADE SHALL BE CONSTRUCTED IN ACCORDANCE WITH ACI 302.1R: "GUIDE FOR CONCRETE SLAB AND SLAB CONSTRUCTION".
6. CONTROL OR SAW CUT JOINTS (CUT OR TOOLED) SHALL BE SPACED IN INTERIOR SLABS-ON-GRADE AT A MAXIMUM OF 15'-0" O.C. AND IN EXTERIOR SLABS-ON-GRADE AT A MAXIMUM OF 10'-0" UNLESS OTHERWISE NOTED. CARE SHALL BE TAKEN TO AVOID RE-ENTRANT CORNERS.
7. CONTROL OR SAW CUT JOINTS SHALL BE PRODUCED USING CONVENTIONAL CUT OR TOOLED PROCESSES WITHIN 4 TO 12 HOURS AFTER THE SLAB HAS BEEN FINISHED.
8. ALL WELDED WIRE FABRIC (W.W.F.) FOR CONCRETE SLABS-ON-GRADE SHALL BE PLACED AT MID-DEPTH OF SLAB. THE W.W.F. SHALL BE SECURELY SUPPORTED DURING THE CONCRETE POUR. FIBROUS CONCRETE REINFORCEMENT, OR POLYPROPYLENE FIBERS MAY BE USED IN LIEU OF W.W.F. APPLICATION OF POLYPROPYLENE FIBERS PER CUBIC YARD OF CONCRETE SHALL BE PER MANUFACTURER AND COMPLY WITH ASTM C1116, ANY LOCAL BUILDING CODE REQUIREMENTS AND SHALL MEET OR EXCEED CURRENT INDUSTRY STANDARD.
9. POLYPROPYLENE REINFORCING TO BE 100% VIRGIN, CONTAINING NO REPROCESSED OLEFIN MATERIALS AND SPECIFICALLY MANUFACTURED FOR USE AS CONCRETE SECONDARY REINFORCEMENT.
10. STEEL REINFORCING BARS SHALL BE NEW BILLET STEEL CONFORMING TO ASTM A615, GRADE 60.
11. DETAILING, FABRICATION, AND PLACEMENT OF REINFORCING STEEL SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF ACI 315: "MANUAL OF STANDARD PRACTICE FOR DETAILING CONCRETE STRUCTURES".
12. HORIZONTAL FOOTING AND WALL REINFORCEMENT SHALL BE CONTINUOUS AND SHALL HAVE 90° BENDS, OR CORNER BARS WITH THE SAME SIZE/SPACING AS THE HORIZONTAL REINFORCEMENT.
13. PROVIDE REINFORCEMENT LAP AS NOTED BELOW, UNLESS NOTED OTHERWISE:
    #4 BARS - 30" LENGTH
    #5 BARS - 38" LENGTH
    #6 BARS - 45" LENGTH
14. WHERE REINFORCING DOWELS ARE REQUIRED, THEY SHALL BE EQUIVALENT IN SIZE AND SPACING TO THE VERTICAL REINFORCEMENT. THE DOWEL SHALL EXTEND 48 BAR DIAMETERS VERTICALLY AND 20 BAR DIAMETERS INTO THE FOOTING. SEE KSE FOUNDATION DETAILS.
15. WHERE FOOTING BOTTOMS ARE TO BE STEPPED AT SLOPING GRADE CONDITIONS, PROVIDE CONTINUOUS REINFORCING WITH Z BARS (TO MATCH FOOTING REINFORCING) AS REQUIRED.
16. BAR SUPPORT ACCESSORIES SHALL BE PROVIDED IN ACCORDANCE WITH THE LATEST ACI MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES, EXCEPT THAT REINFORCING SHALL BE CHAIRED ON THE BOTTOM AND/OR THE SIDES ON BOLSTERS SPACED NOT MORE THAN 4 FEET ON CENTER. NO ROCKS, CMU, CLAY TILE, OR BRICK SHALL BE USED TO SUPPORT REINFORCING.
17. FOR GRADE SUPPORTED SLABS, SLAB REINFORCING SHALL BE HELD IN PLACE BY BAR SUPPORTS AND ACCESSORIES AS DESCRIBED IN THE CRSI MANUAL OF STANDARD PRACTICE. BAR SUPPORTS SHALL BE SPACED A MAXIMUM OF 4'-0" O.C. BOTH WAYS IN STRAIGHT LINES ON THE MESH GRID.

MASONRY

1. ALL MASONRY SHALL CONFORM TO ASTM C-90, F'_m=1500 PSI. ALL BRICK SHALL CONFORM TO ASTM C-216, F'_m=1500 PSI. ALL MORTAR SHALL BE TYPE 'S' (TYPE 'M' BELOW GRADE) AND CONFORM TO ASTM C-270. COARSE GROUT SHALL CONFORM TO ASTM C-476 WITH A MAXIMUM AGGREGATE SIZE OF ⅜" AND A MINIMUM COMPRESSIVE STRENGTH OF 2,000 PSI.
2. ALL MASONRY WORK SHALL BE IN ACCORDANCE WITH "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES" ACI 530/ASCE 5/TMS 402 AND "SPECIFICATIONS FOR MASONRY STRUCTURES" ACI 530.1/ ASCE 6/TMS 602.
3. THE UNSUPPORTED HEIGHT OF SOLID MASONRY PIERS SHALL NOT EXCEED TEN TIMES THEIR LEAST DIMENSION. UNFILLED HOLLOW PIERS MAY BE USED IF THE UNSUPPORTED HEIGHT IS NOT MORE THAN FOUR TIMES THEIR LEAST DIMENSION.
4. EACH CRAWL SPACE PIER SHALL BEAR IN THE MIDDLE THIRD OF ITS RESPECTIVE FOOTING AND EACH GIRDER SHALL BEAR IN THE MIDDLE THIRD OF THE PIERS. PILASTERS TO BE BONDED TO PERIMETER FOUNDATION WALL.
5. TOP COURSE OF MASONRY SHALL BE GROUTED SOLID.
6. HORIZONTAL WALL JOINT REINFORCEMENT SHALL BE STANDARD 9 GAGE GALVANIZED LADDER OR TRUSS TYPE SPACED AT 16" O.C., UNLESS SHOWN OTHERWISE ON THE DRAWINGS.
7. SPLICED WIRE REINFORCEMENT SHALL BE LAPPED AT LEAST 6" AND CONTAIN AT LEAST ONE CROSS WIRE OF EACH PIECE OF REINFORCEMENT WITHIN THE 6". LAP WITH STANDARD 'T' AND 'L' SHAPED PIECES AT INTERSECTIONS AND CORNERS.

WOOD FRAMING:

1. SOLID SAWN WOOD FRAMING MEMBERS SHALL CONFORM TO THE SPECIFICATIONS LISTED IN THE LATEST EDITION OF THE "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION": (NDS). UNLESS OTHERWISE NOTED, ALL WOOD FRAMING MEMBERS ARE DESIGNED TO BE:
   SPRUCE-PINE-FIR (SPF) WITH THE FOLLOWING MINIMUM DESIGN VALUES:
   E=1,400,000 PSI, F_b=875 PSI, F_v=135 PSI
   1.1. FRAMING: SPF #2.
   1.2. PLATES: SPF #2.
   1.3. STUDS: SPF STUD GRADE.
2. WALL STUD SPACING, (MAXIMUM 10' NOMINAL PLATE HEIGHT):
   1 & 2 STORY EXTERIOR AND INTERIOR BEARING:
   2x4 @ 16" O.C. OR 2x6 @ 24" O.C., U.N.O.
   BOTTOM OF 3 STORIES EXTERIOR AND INTERIOR BEARING:
   2x6 @ 16" O.C., U.N.O.
   INTERIOR NON-BEARING:
   2x @ 24" O.C., U.N.O.
3. ALL LUMBER EXPOSED TO WEATHER OR IN CONTACT WITH CONCRETE SHALL BE PRESERVATIVE TREATED SOUTHERN YELLOW PINE #2 OR BETTER.
4. ANCHOR SILL PLATES IN ACCORDANCE W/ GENERAL STRUCTURAL NOTES.
5. ALL BEAMS SPECIFIED ARE MINIMUM SIZES ONLY. LARGER MEMBERS MAY BE SUBSTITUTED AS NEEDED FOR EASE OF CONSTRUCTION.
6. NAILS SHALL BE COMMON WIRE NAILS UNLESS OTHERWISE NOTED.
7. BOLT HOLES AND LEAD HOLES FOR LAG SCREWS SHALL BE IN ACCORDANCE WITH NDS SPECIFICATIONS.
8. INDIVIDUAL STUDS FORMING A COLUMN SHALL BE ATTACHED WITH (2) ROWS 10d NAILS @ 6" O.C. STAGGERED. THE STUD COLUMN SHALL BE FULLY BLOCKED AT ALL FLOOR LEVELS TO ENSURE PROPER LOAD TRANSFER. WALL SHEATHING SHALL BE NAILED TO EDGE OF EACH STUD.
9. FACE NAIL ALL MULTI-PLY BEAMS AND HEADERS WITH (2) ROWS 16d COMMON NAILS @ 16" O.C., STAGGERED, OR PER MANUFACTURER'S SPECIFICATIONS FOR ENGINEERED LUMBER. APPLY NAILING FROM BOTH FACES FOR (3) OR MORE PLIES.
10. FASTEN 4-PLY BEAMS WITH (1) ½" DIAMETER THROUGH BOLT W/ NUTS AND WASHERS AT 12" O.C. STAGGERED TOP AND BOTTOM, 1½" MINIMUM EDGE DISTANCE. (UNLESS OTHERWISE NOTED)
11. ALL BEAMS AND HEADERS SHALL HAVE (1)2x JACK STUD & (1)2x KING STUD UNLESS OTHERWISE NOTED. THE NUMBER OF STUDS INDICATED ON PLANS ARE THE TOTAL NUMBER OF JACK STUDS REQUIRED, UNLESS OTHERWISE NOTED.
12. PROVIDE KING STUDS AT EACH END OF HEADERS AS NOTED BELOW.
    (1) STUD UP TO 6' OPENING
    (2) STUDS UP TO 8' OPENING
    (3) STUDS UP TO 9' OPENING
13. ALL BEAMS TO BE CONTINUOUSLY SUPPORTED LATERALLY AND SHALL BEAR FULL WIDTH ON THE SUPPORTING WALLS OR COLUMNS INDICATED WITH A MINIMUM OF TWO STUDS, UNLESS OTHERWISE NOTED. ALL BEAM SPLICES SHALL OCCUR OVER SUPPORTS.
14. SOLID BLOCKING TO BE PROVIDED AT ALL POINT LOADS THROUGH FLOOR LEVELS TO THE FOUNDATION OR TO OTHER STRUCTURAL COMPONENTS.
15. ALL LUMBER SPECIFIED ON DRAWINGS IS INTENDED FOR DRY USE ONLY (MOISTURE CONTENT <19%) UNLESS OTHERWISE NOTED.
16. ALL WATERPROOFING AND FIRE SAFETY SYSTEMS ARE THE RESPONSIBILITY OF THE CONTRACTOR AND ARE TO BE DESIGNED AND DETAILED BY OTHERS.
17. ANY WOOD FRAME INTERIOR BEARING WALL STUDS THAT HAVE HOLES IN THE CENTER OF THE STUD UP TO 1" DIAMETER SHALL HAVE STUD PROTECTION SHIELDS. ALL HOLES OVER 1" IN DIAMETER FOR PLUMBING LINES, ETC. SHALL BE REPAIRED WITH SIMPSON HSS2 OR USP STS1 STUD SHOES, TYPICAL, UNLESS OTHERWISE NOTED.
18. BEARING WALLS SHALL BE SHEATHED ON NOT LESS THAN ONE SIDE WITH OSB OR GYPSUM BOARD. BRIDGING SHALL BE INSTALLED NOT GREATER THAN 4 FEET APART MEASURED VERTICALLY FROM EITHER END OF THE STUD IN LIEU OF SHEATHING.
19. DIAGONAL BRACING SHALL BE INSTALLED AT EACH END OF BASEMENT BEARING WALLS AND NOT MORE THAN 20' ON CENTER.

EXTERIOR WOOD FRAMED DECKS:

1. DECKS ARE TO BE FRAMED IN ACCORDANCE WITH APPLICABLE BUILDING CODES AND AS REFERENCED ON THE STRUCTURAL PLANS, EITHER THROUGH CODE REFERENCES OR CONSTRUCTION DETAILS.
2. PRESERVATIVE TREATED WOOD FRAMING TO BE SOUTHERN YELLOW PINE #2 OR BETTER.
3. GUARD RAILS REQUIRED AT DECKS. DESIGN BY OTHERS TO MEET MINIMUM CODE REQUIREMENTS.
4. PROVIDE DECK LATERAL LOAD AND BRACING CONNECTIONS PER BUILDING CODE.

RAFTER FRAMED ROOF CONSTRUCTION:

1. PROVIDE 2x4x4'-0" RAFTER TIES AT 48" O.C.
2. RAFTERS SHALL BE SUPPORTED BY PURLINS AND PURLIN BRACES AS SHOWN ON THE PLAN. PURLIN BRACES SHALL NOT BEAR ON ANY CEILING JOIST, STRONGBACK OR HEADER UNLESS SPECIFICALLY SHOWN ON PLAN. RAFTERS MAY BE SPLICED AT PURLIN LOCATIONS.
3. CEILING JOISTS SHALL HAVE LATERAL SUPPORT W/ 1x4 FLAT BRACING ON TOP EDGE OF JOIST AT LOOSE JOIST ENDS (WHERE JOISTS NOT FASTENED TO RAFTERS) OR FULL DEPTH BLOCKING. FASTEN END OF BRACING TO RAFTER OR GABLE END FRAMING.
4. FASTEN RAFTER AND CEILING JOIST WITH (6) 12d NAILS UNLESS OTHERWISE NOTED.
5. PROVIDE VERTICAL 2x6 STRONGBACKS AT CEILING JOISTS @ 8'-0" O.C. TIE STRONGBACK ENDS TO GABLE STUDS OR RAFTERS WHERE POSSIBLE. PROVIDE BLOCKING BETWEEN TOP PLATES AND STRONGBACKS. PROVIDE 2x4 FLAT FASTENED TO EACH JOIST WITH (2) 12d NAILS. FASTEN STRONGBACK TO 2x4 FLAT WITH 12d NAILS @ 12" O.C. AND FASTENED TO EACH JOIST WITH (1) 12d TOENAIL.

WOOD TRUSSES (FLOOR & ROOF):

1. THE WOOD TRUSS MANUFACTURER/FABRICATOR IS RESPONSIBLE FOR THE DESIGN OF THE WOOD TRUSSES. SUBMIT SEALED SHOP DRAWINGS AND SUPPORTING CALCULATIONS TO THE SER FOR REVIEW PRIOR TO FABRICATION. THE SER SHALL HAVE A MINIMUM OF (5) DAYS FOR REVIEW. THE REVIEW BY THE SER SHALL BE FOR OVERALL COMPLIANCE OF THE DESIGN DOCUMENTS. THE SER SHALL ASSUME NO RESPONSIBILITY FOR THE CORRECTNESS OF THE STRUCTURAL DESIGN FOR THE WOOD TRUSSES.
2. THE WOOD TRUSSES SHALL BE DESIGNED FOR ALL REQUIRED LOADINGS AS SPECIFIED IN THE LOCAL BUILDING CODE, THE ASCE STANDARD "MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES." (ASCE 7), AND THE LOADING REQUIREMENTS SHOWN ON THESE SPECIFICATIONS. THE TRUSS DRAWINGS SHALL BE COORDINATED WITH ALL OTHER CONSTRUCTION DOCUMENTS AND PROVISIONS PROVIDED FOR LOADS SHOWN ON THESE DRAWINGS INCLUDING BUT NOT LIMITED TO HVAC EQUIPMENT, PIPING, AND ARCHITECTURAL FIXTURES ATTACHED TO THE TRUSSES.
3. THE TRUSSES SHALL BE DESIGNED, FABRICATED, AND ERECTED IN ACCORDANCE WITH THE LATEST EDITION OF THE ANSI/TPI 1: "NATIONAL DESIGN STANDARD FOR METAL PLATE CONNECTED WOOD TRUSS CONSTRUCTION".
4. THE TRUSS MANUFACTURER SHALL PROVIDE ADEQUATE BRACING INFORMATION IN ACCORDANCE WITH "BUILDING COMPONENT SAFETY INFORMATION GUIDE TO GOOD PRACTICE FOR HANDLING, INSTALLING, RESTRAINING & BRACING OF METAL PLATE CONNECTED WOOD TRUSSES" (BCSI). THIS BRACING, BOTH TEMPORARY AND PERMANENT, SHALL BE SHOWN ON THE SHOP DRAWINGS. ALSO, THE SHOP DRAWINGS SHALL SHOW THE REQUIRED ATTACHMENTS FOR THE TRUSSES.
5. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING TEMPORARY BRACING AND SHORING FOR THE FLOOR AND ROOF TRUSSES AS REQUIRED DURING CONSTRUCTION. AT A MINIMUM, CONTRACTOR SHALL FOLLOW THE REQUIREMENTS OF THE LATEST BCSI. THE CONTRACTOR SHALL KEEP A COPY OF THE BCSI SUMMARY SHEETS ON SITE.
6. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING ALL PERMANENT TRUSS BRACING SHOWN IN THE STRUCTURAL DRAWINGS AND IN THE TRUSS DESIGNS. ALL CONTINUOUS LATERAL BRACING OF WEBS REQUIRES BRACES. REFER TO BCSI SUMMARY SHEET B3 FOR TYPES OF DIAGONAL BRACES TO PROVIDE AT EACH CONTINUOUS LATERAL BRACE LINE. SUCH DIAGONAL BRACES SHALL NOT BE SPACED MORE THAN 20 FEET O.C. DIAGONAL BRACES SHALL BE FASTENED TO EACH TRUSS WEB WITH A MINIMUM OF TWO 10d FACE NAILS. WHERE CONTINUOUS LATERAL BRACING CANNOT BE INSTALLED, DUE TO A MINIMUM OF THREE ADJACENT TRUSSES NOT BEING IDENTICAL, THE CONTRACTOR SHALL COORDINATE WITH THE TRUSS SPECIALTY ENGINEER/MANUFACTURER TO DETERMINE WHAT TYPE OF ALTERNATE BRACE (I.E., T OR L BRACE, ETC.) IS REQUIRED.
7. ANY CHORDS OR TRUSS WEBS SHOWN ON THESE DRAWINGS HAVE BEEN SHOWN AS A REFERENCE ONLY. THE FINAL DESIGN OF THE TRUSSES SHALL BE PER THE MANUFACTURER.
8. TRUSS LAYOUT AND PLACEMENT BY MANUFACTURER TO COINCIDE WITH THE SUPPORT LOCATIONS SHOWN ON THE SEALED STRUCTURAL DRAWINGS. TRUSS PROFILES TO BE SEALED BY THE TRUSS MANUFACTURER. TRUSS PLANS TO BE COORDINATED WITH THE SEALED STRUCTURAL DRAWINGS.
9. TRUSS MANUFACTURER TO PROVIDE REQUIRED UPLIFT CONNECTORS FOR ALL TRUSSES.
10. PROVIDE SIMPSON H2.5A, USP RT7 OR EQUIVALENT AT EACH TRUSS TO TOP PLATE CONNECTION, UNLESS OTHERWISE NOTED.

WOOD STRUCTURAL PANELS:

1. FABRICATION AND PLACEMENT OF STRUCTURAL WOOD SHEATHING SHALL BE IN ACCORDANCE WITH THE APA DESIGN/CONSTRUCTION GUIDE "RESIDENTIAL AND COMMERCIAL," AND ALL OTHER APPLICABLE APA STANDARDS.
2. ALL REQUIRED WOOD SHEATHING SHALL BEAR THE MARK OF THE APA.
3. WOOD WALL SHEATHING SHALL COMPLY WITH THE REQUIREMENTS OF LOCAL BUILDING CODES FOR THE APPROPRIATE STATE AS INDICATED ON THESE DRAWINGS. REFER TO WALL BRACING NOTES IN PLAN SET FOR MORE INFORMATION. EXTERIOR WALLS TO BE FULLY SHEATHED USING 7/16" OSB OR PLYWOOD MINIMUM. AT BRACED WALL PANELS, PROVIDE BLOCKING AT ALL SHEET EDGES NOT FALLING ON STUDS OR PLATES.
4. ROOF SHEATHING SHALL BE APA RATED SHEATHING EXPOSURE 1 OR 2. ROOF SHEATHING SHALL BE CONTINUOUS OVER TWO SUPPORTS MINIMUM AND ATTACHED TO ITS SUPPORTING ROOF FRAMING WITH 8d NAILS AT 6" O.C. AT PANEL EDGES AND AT 12" O.C. IN PANEL FIELD UNLESS OTHERWISE NOTED ON THE PLANS. SHEATHING SHALL BE APPLIED WITH THE LONG DIRECTION PERPENDICULAR TO FRAMING. SHEATHING SHALL HAVE A SPAN RATING CONSISTENT WITH THE FRAMING SPACING. PROVIDE SUITABLE EDGE SUPPORT BY USE OF PLYWOOD CLIPS OR LUMBER BLOCKING UNLESS OTHERWISE NOTED. PANEL END JOINTS SHALL OCCUR OVER FRAMING. ROOF SHEATHING TO BE 7/16" OSB MINIMUM.
5. WOOD FLOOR SHEATHING SHALL BE APA RATED SHEATHING EXPOSURE 1 OR 2. ATTACH SHEATHING TO ITS SUPPORTING FRAMING WITH (1) 10d NAIL AT 6" O.C. AT PANEL EDGES AND AT 12" O.C. IN PANEL FIELD UNLESS OTHERWISE NOTED ON THE PLANS. SHEATHING SHALL BE APPLIED PERPENDICULAR TO FRAMING. SHEATHING SHALL HAVE A SPAN RATING CONSISTENT WITH THE FRAMING SPACING. PROVIDE SUITABLE EDGE SUPPORT BY USE OF T&G PLYWOOD OR LUMBER BLOCKING UNLESS OTHERWISE NOTED. PANEL END JOINTS SHALL OCCUR OVER FRAMING.
6. SHEATHING SHALL HAVE A ⅛" GAP AT PANEL ENDS AND EDGES AS RECOMMENDED IN ACCORDANCE WITH THE APA.

STRUCTURAL FIBERBOARD PANELS:

1. STRUCTURAL FIBERBOARD SHEATHING SHALL ONLY BE USED WHERE SPECIFICALLY NOTED ON THE STRUCTURAL PLANS.
2. FABRICATION AND PLACEMENT OF STRUCTURAL FIBERBOARD SHEATHING SHALL BE IN ACCORDANCE WITH THE APPLICABLE AFA STANDARDS.
3. FIBERBOARD WALL SHEATHING SHALL COMPLY WITH THE REQUIREMENTS OF LOCAL BUILDING CODES FOR THE APPROPRIATE STATE AS INDICATED ON THESE DRAWINGS. REFER TO WALL BRACING NOTES IN PLAN SET FOR MORE INFORMATION.
4. SHEATHING SHALL HAVE A ⅛" GAP AT PANEL ENDS AND EDGES AS RECOMMENDED IN ACCORDANCE WITH THE AFA.

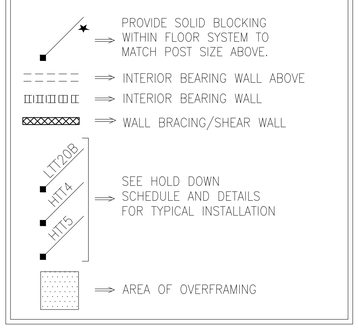
STRUCTURAL STEEL:

1. STRUCTURAL STEEL SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES" AND OF THE MANUAL OF STEEL CONSTRUCTION "LOAD RESISTANCE FACTOR DESIGN" LATEST EDITIONS.
2. ALL STEEL SHALL HAVE A MINIMUM YIELD STRESS (F_y) OF 50 KSI UNLESS OTHERWISE NOTED.
3. WELDING SHALL CONFORM TO THE LATEST EDITION OF THE AMERICAN WELDING SOCIETY'S STRUCTURAL WELDING CODE AWA D1.1. ELECTRODES FOR SHOP AND FIELDING WELDING SHALL BE CLASS E70XX. ALL WELDING SHALL BE PERFORMED BY A CERTIFIED WELDER PER THE ABOVE STANDARDS.
4. ALL STEEL BEAMS TO BE SUPPORTED AT EACH END WITH A MINIMUM BEARING LENGTH OF 3½" AND FULL FLANGE WIDTH UNLESS OTHERWISE NOTED. BEAMS MUST BE ATTACHED AT EACH END WITH A MINIMUM OF FOUR 16d NAILS OR (2) ½" x 4" LAG SCREWS UNLESS OTHERWISE NOTED.
5. INSTALL 2x WOOD PLATE ON TOP OF STEEL BEAMS, RIPPED TO MATCH BEAM WIDTH. FASTEN PLATE TO BEAM W/ HILTI X-DNI 52 P8 PINS AT 12" O.C. STAGGERED OR ½" DIAMETER BOLTS AT 24" O.C.

MECHANICAL FASTENERS:

1. ALL METAL HARDWARE AND FASTENERS TO BE SIMPSON STRONG-TIE OR APPROVED EQUIVALENT.
2. ALL HARDWARE AND FASTENERS IN CONTACT WITH PRESERVATIVE PRESSURE TREATED LUMBER SHALL BE HOT DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A 153, G-185.
3. MANY OF THE NEW PRESSURE TREATED WOODS USE CHEMICALS THAT ARE CORROSIVE TO STEEL. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE TYPE OF WOOD TREATMENT AND SELECT APPROPRIATE CONNECTORS THAT WILL RESIST THE APPLICABLE CORROSIVE CHEMICALS.

LEGEND:



BRICK VENEER LINTEL SCHEDULE

SPAN	LINTEL SIZE	END BEARING
UP TO 3'-0"	3½"x3½"x¼"	4"
UP TO 6'-3"	5"x3½"x5/16" L.L.V.	8"
UP TO 9'-6"	6"x3½"x5/16" L.L.V.	12"

LINTELS ARE NOT DESIGNED TO BE BOLTED TO HEADERS UNLESS SPECIFIED ON UNIT PLANS.
SPANS OVER 4'-0" SHALL BE SHORED UP UNTIL CURED.

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3/9/23

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General Structural Notes

Up to 120 M.P.H.
Raleigh, North Carolina

Project #:	214-22000
Designed By:	KRK
Checked By:	
Issue Date:	3/6/23
Re-Issue:	
Scale:	1/8"=1'-0" @ 11x17 1/4"=1'-0" @ 22x34

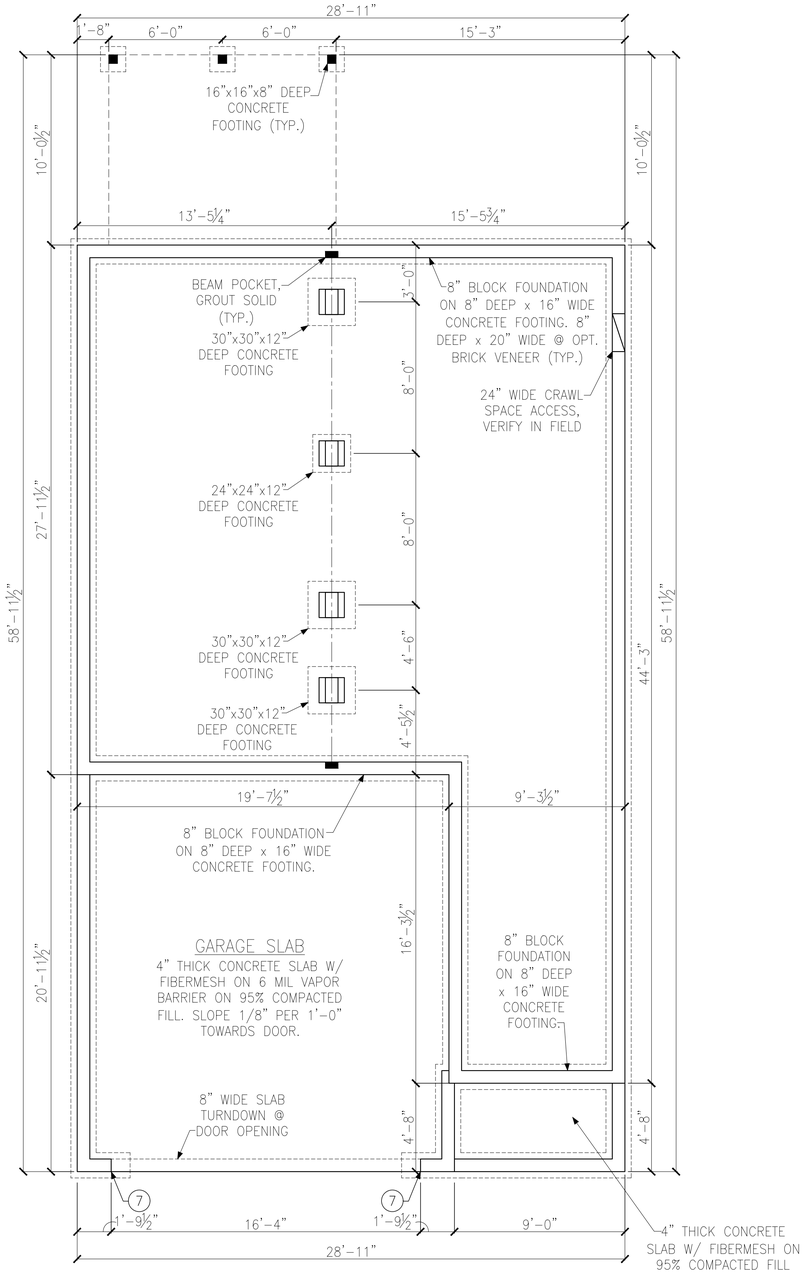
S-0.1

WELLERS
KNOLL
LOT 12

FOUNDATION PLAN FOR
2x10 FLOOR FRAMING

SEE PIER AND FOOTING SCHEDULE (TYP.)

PIER ELEV. TO BE 9¼" BELOW TOP OF WALL ELEV. (TYP.)



CRAWL SPACE FOUNDATION PLAN
ELEVATION 'B'

LEGEND

- ★ ⟹ PROVIDE SOLID BLOCKING WITHIN FLOOR SYSTEM TO MATCH POST SIZE ABOVE.
- ⟹ BEARING WALL ABOVE
- ⟹ INTERIOR BEARING WALL
- 48" WSP ⟹ BRACED WALL PANEL (SEE KSE STRUCTURAL DETAILS SET FOR BRACED WALL PANEL SHEATHING FASTENING & BLOCKING DETAILS)

REFER TO KSE STRUCTURAL DETAILS SET FOR GENERAL STRUCTURAL NOTES AND TYPICAL DETAILS

KEYNOTES:

(7) REINFORCE 8" CMU WALL AND FOOTING UNDER PORTAL FRAME PER DETAIL A OR B/SD-4.

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NORTH CAROLINA PROFESSIONAL SEAL 046096 ENGINEER ANDREW A. MOORE
3/9/23

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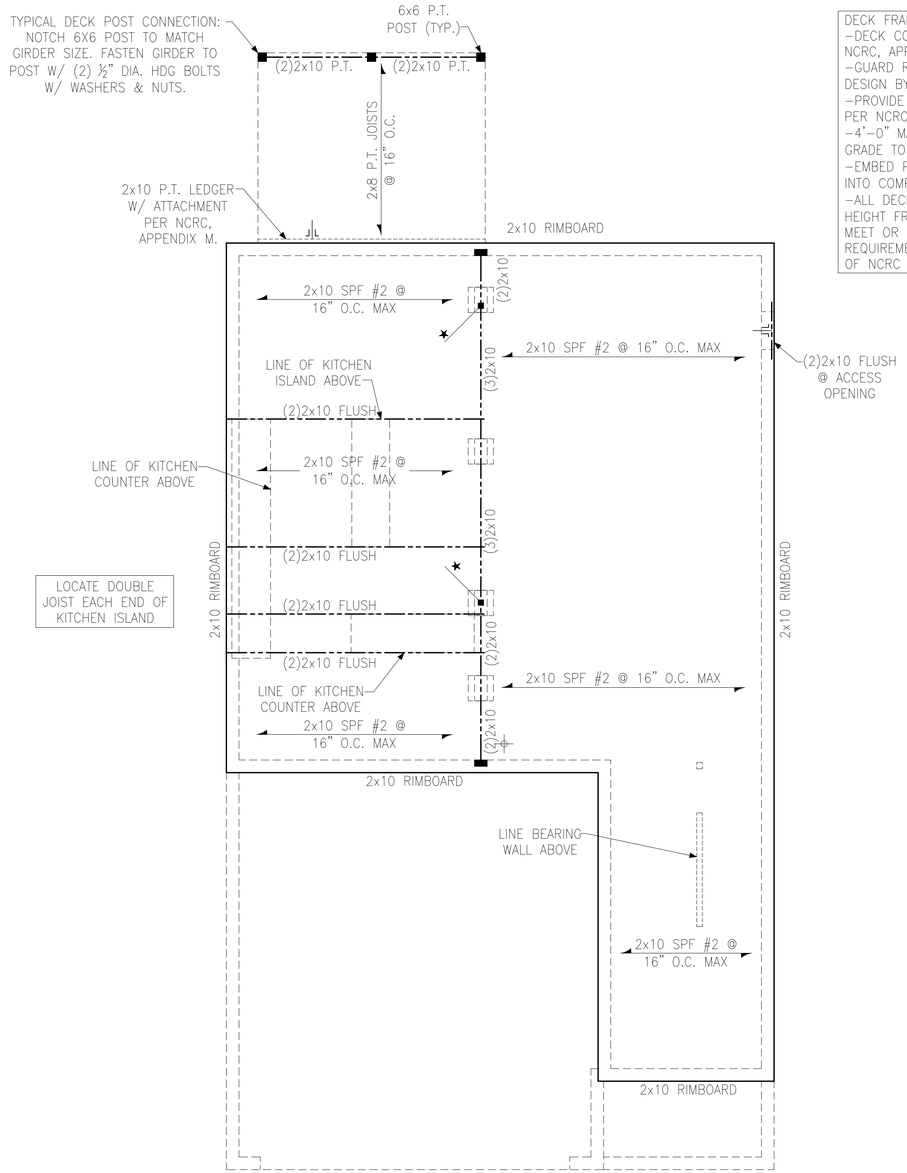
Crawl Space Foundation Plans - 2x10 Joists
Elevation 'B' & Option
2204 The Gavin Model - LH
Up to 120 M.P.H.
Raleigh, North Carolina

Project #:	214-22004
Designed By:	AAM
Checked By:	KRK
Issue Date:	4/29/22
Re-Issue:	3/9/23
Scale:	1/8"=1'-0" @ 11x17 1/4"=1'-0" @ 22x34

S-1.13



DECK FRAMING NOTES:
- DECK CONSTRUCTION PER NCRC, APPENDIX M, U.N.O.
- GUARD RAIL REQUIRED, DESIGN BY OTHERS (TYP.)
- PROVIDE LATERAL BRACING PER NCRC, APPENDIX M.
- 4'-0" MAXIMUM HEIGHT FROM GRADE TO DECKING.
- EMBED POST 12" MINIMUM INTO COMPACTED FILL.
- ALL DECKS OVER 4'-0" HEIGHT FROM GRADE MUST MEET OR EXCEED REQUIREMENTS OF APPENDIX M OF NCRC 2018.

CRAWL SPACE FRAMING PLAN
ELEVATION 'B'

WELLERS KNOLL LOT 12

LEGEND

- ★ ⟹ PROVIDE SOLID BLOCKING WITHIN FLOOR SYSTEM TO MATCH POST SIZE ABOVE.
- ⟹ BEARING WALL ABOVE
- ⟹ INTERIOR BEARING WALL
- 48" WSP ⟹ BRACED WALL PANEL (SEE KSE STRUCTURAL DETAILS SET FOR BRACED WALL PANEL SHEATHING FASTENING & BLOCKING DETAILS)

REFER TO KSE STRUCTURAL DETAILS SET FOR GENERAL STRUCTURAL NOTES AND TYPICAL DETAILS

FLOOR FRAMING TO BE 2x10 SPF #2 @ 16" O.C. MAX OR EQUAL (U.N.O.).

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NORTH CAROLINA PROFESSIONAL SEAL 045986 ENGINEER ANDREW A. MOORE
3/9/23

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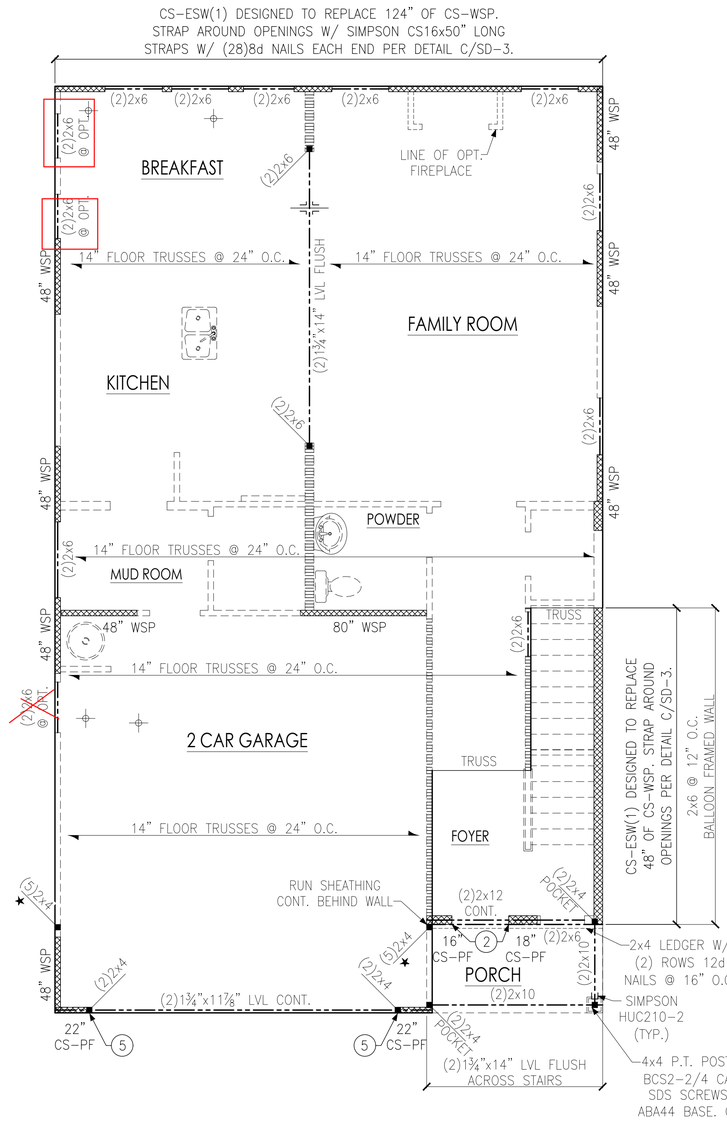
DAVIDSON HOMES

Crawl Space Framing Plan - 2x10 Joists
Elevation 'B'
2204 The Gavin Model - LH
Up to 120 M.P.H.
Raleigh, North Carolina

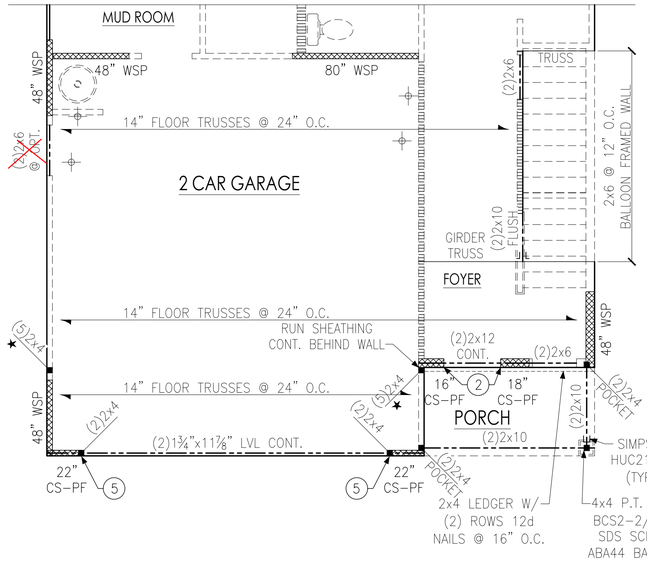
Project #:	214-22004
Designed By:	AAM
Checked By:	KRK
Issue Date:	4/29/22
Re-Issue:	3/9/23
Scale:	1/8"=1'-0" @ 11x17 1/4"=1'-0" @ 22x34

S-2.4

WELLERS
KNOLL
LOT 12



SECOND FLOOR FRAMING PLAN
ELEVATION 'B'



PARTIAL FRAMING PLAN
OPT. BEDROOM 4 / BATH 3

LEGEND

- ★ ⟹ PROVIDE SOLID BLOCKING WITHIN FLOOR SYSTEM TO MATCH POST SIZE ABOVE.
- ⟹ BEARING WALL ABOVE
- ⟹ INTERIOR BEARING WALL
- 48" WSP ⟹ BRACED WALL PANEL (SEE KSE STRUCTURAL DETAILS SET FOR BRACED WALL PANEL SHEATHING FASTENING & BLOCKING DETAILS)
- NH ⟹ NO HEADER REQUIRED

REFER TO KSE STRUCTURAL DETAILS SET FOR GENERAL STRUCTURAL NOTES AND TYPICAL DETAILS

PLAN DESIGNED WITH 9' WALL PLATES

FLOOR FRAMING TO BE 14" DEEP OPEN WEB TRUSSES @ 24" O.C. MAXIMUM OR EQUAL (U.N.O.).

KEYNOTES:

(2) INSTALL TWO PANEL CS-PF PORTAL FRAME PER DETAIL B/SD-3.

(5) INSTALL TWO PANEL CS-PF PORTAL FRAME PER DETAIL A OR B/SD-4.

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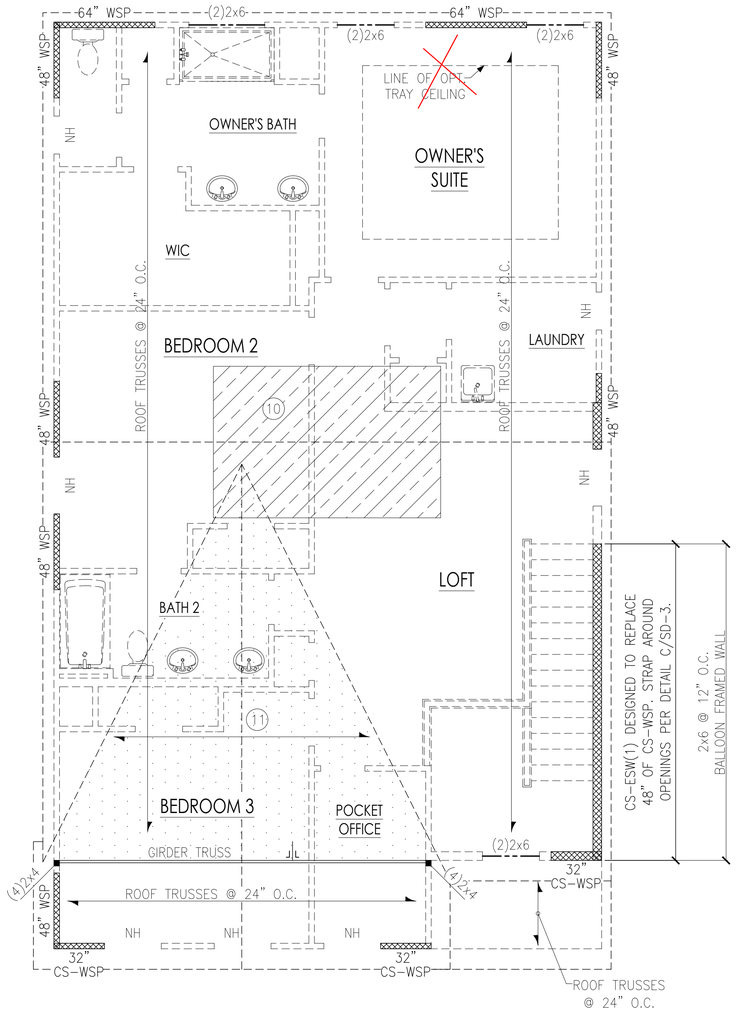
DAVIDSON HOMES

Second Floor Framing Plans - Floor Trusses
Elevation 'B' & Option
2204 The Gavin Model - LH
Up to 120 M.P.H.
Raleigh, North Carolina

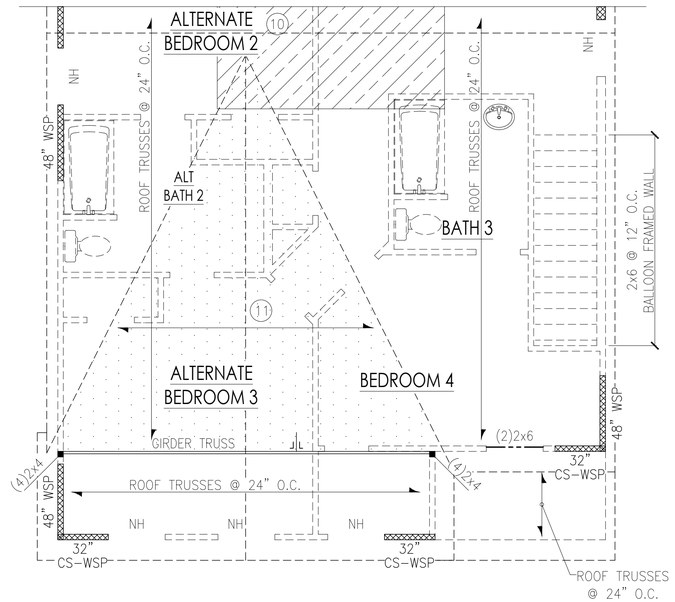
Project #:	214-22004
Designed By:	AAM
Checked By:	KRK
Issue Date:	4/29/22
Re-Issue:	3/9/23
Scale:	1/8"=1'-0" @ 11x17 1/4"=1'-0" @ 22x34

S-3.1T

WELLERS
KNOLL
LOT 12



ROOF FRAMING PLAN
ELEVATION 'B'



PARTIAL FRAMING PLAN
OPT. BEDROOM 4 / BATH 3

LEGEND

- ★ ⟹ PROVIDE SOLID BLOCKING WITHIN FLOOR SYSTEM TO MATCH POST SIZE ABOVE.
- ⟹ BEARING WALL ABOVE
- ⟹ INTERIOR BEARING WALL
- 48" WSP ⟹ BRACED WALL PANEL (SEE KSE STRUCTURAL DETAILS SET FOR BRACED WALL PANEL SHEATHING FASTENING & BLOCKING DETAILS)
- NH ⟹ NO HEADER REQUIRED

REFER TO KSE STRUCTURAL DETAILS SET FOR GENERAL STRUCTURAL NOTES AND TYPICAL DETAILS

PLAN DESIGNED WITH 8' WALL PLATES

KEYNOTES:

(10) 8'x12' HVAC PLATFORM TRUSSES DESIGNED TO SUPPORT HVAC UNITS.

(11) VALLEY SET TRUSSES @ 24" O.C. OR 2x6 OVERFRAMING @ 24" O.C. W/ 2x8 RIDGE & VALLEY PLATES (TYP.)

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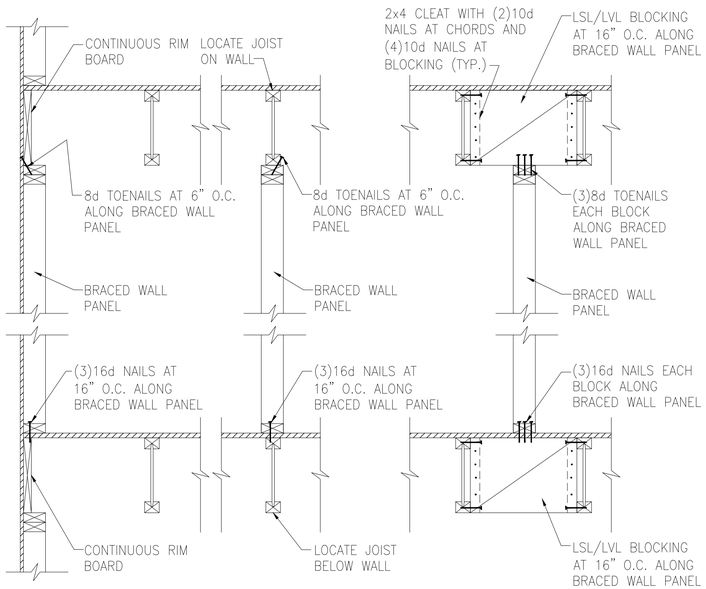
Roof Framing Plan
Elevation 'B'
2204 The Gavin Model – LH
Up to 120 M.P.H.
Raleigh, North Carolina

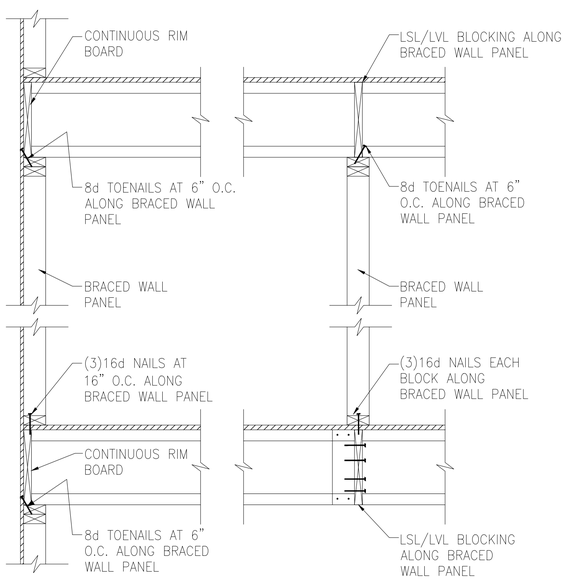
Project #:	214-22004
Designed By:	AAM
Checked By:	KRK
Issue Date:	4/29/22
Re-Issue:	3/9/23
Scale:	1/8"=1'-0" @ 11x17 1/4"=1'-0" @ 22x34

NC Firm #C-2101
NORTH CAROLINA PROFESSIONAL SEAL 046986 ENGINEER ANDREW A. MOORE
3/9/23

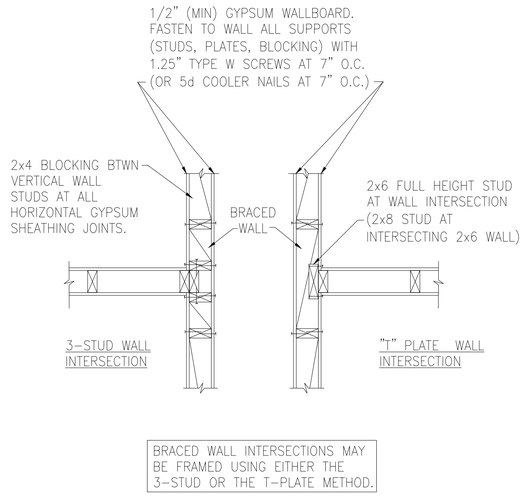
S-4.1



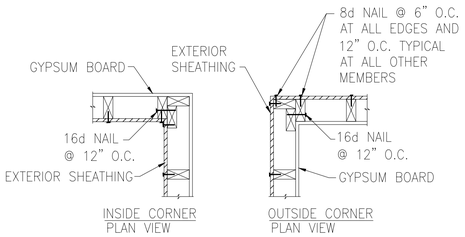
A TYPICAL BRACED WALL PANEL TO FLOOR/CEILING CONNECTION
BRACED WALL PANELS PARALLEL TO I-JOISTS



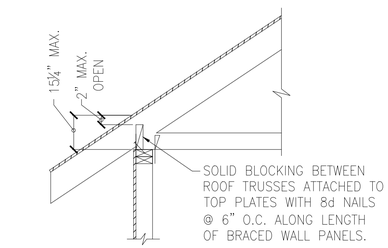
B TYPICAL BRACED WALL PANEL TO FLOOR/CEILING CONNECTION
BRACED WALL PANELS PERPENDICULAR TO I-JOISTS



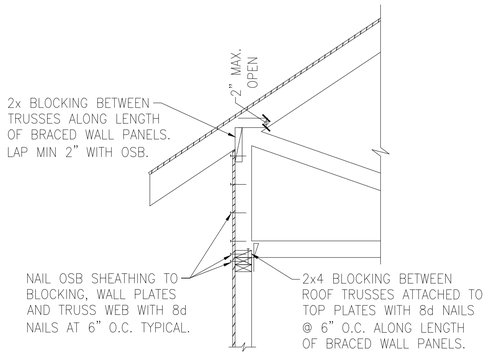
C METHOD GB(1) AND GB(2) INTERSECTION DETAILS



D TYPICAL EXTERIOR CORNER WALL FRAMING



HEEL HEIGHT GREATER THAN 9¼" AND LESS THAN 15¼"



HEEL HEIGHT GREATER 15"

E ROOF TRUSS BEARING/BLOCKING AT BRACED WALL PANELS
ONLY REQUIRED AT BRACED WALL PANELS

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DAVIDSON HOMES

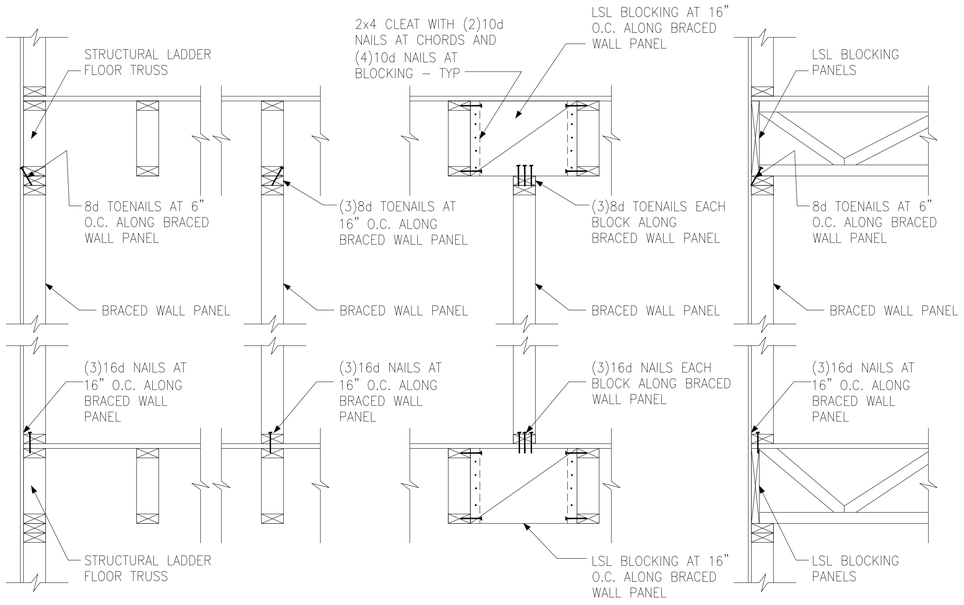
NC Firm #C-2101
NORTH CAROLINA PROFESSIONAL SEAL 046496 ENGINEER ANDREW A. MOORE
3/9/23

Braced Wall Details

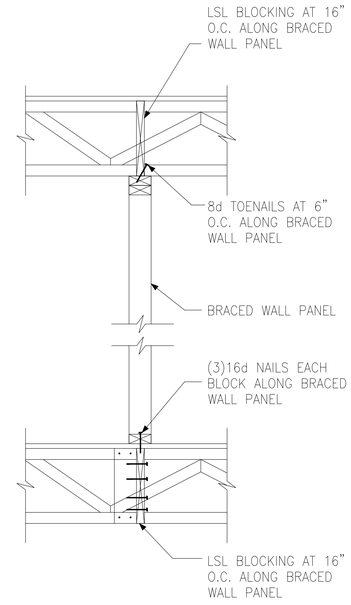
Up to 120 M.P.H.
Raleigh, North Carolina

Project #:	214-22000
Designed By:	KRK
Checked By:	
Issue Date:	3/6/23
Re-Issue:	
Scale:	1/8"=1'-0" @ 11x17 1/4"=1'-0" @ 22x34

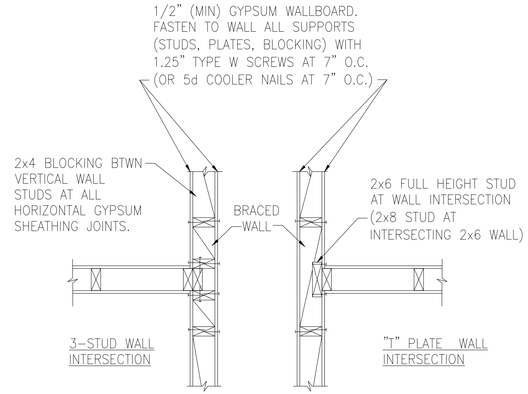
SD-1



A TYPICAL BRACED WALL PANEL TO FLOOR / CEILING CONNECTION
BRACED WALL PANELS PARALLEL TO TRUSSES

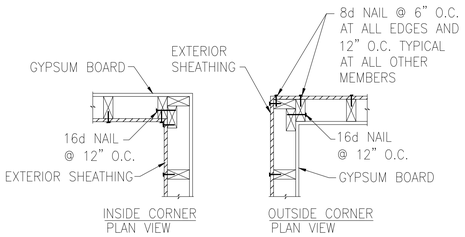


B TYPICAL BRACED WALL PANEL TO FLOOR / CEILING CONNECTION
BRACED WALL PANELS PERPENDICULAR TO TRUSSES

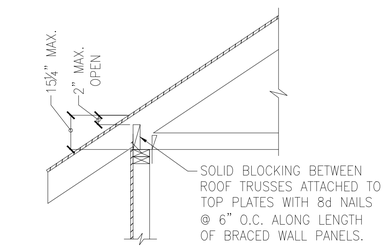


BRACED WALL INTERSECTIONS MAY BE FRAMED USING EITHER THE 3-STUD OR THE T-PLATE METHOD.

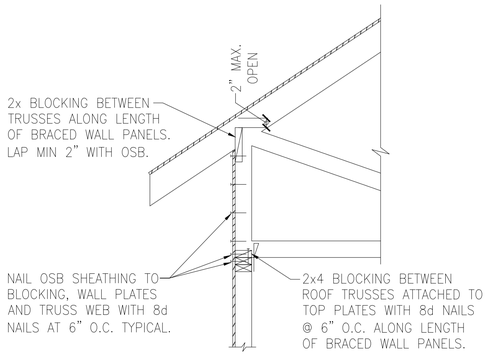
C METHOD GB(1) AND GB(2) INTERSECTION DETAILS



D TYPICAL EXTERIOR CORNER WALL FRAMING



HEEL HEIGHT GREATER THAN 9¼" AND LESS THAN 15¼"



HEEL HEIGHT GREATER 15"

E ROOF TRUSS BEARING/BLOCKING AT BRACED WALL PANELS
ONLY REQUIRED AT BRACED WALL PANELS

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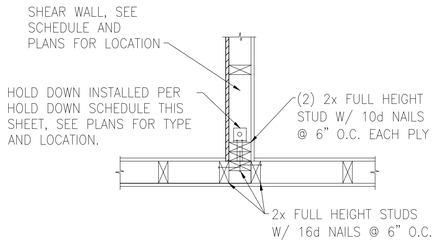
NC Firm #C-2101
NORTH CAROLINA PROFESSIONAL SEAL 046496 ENGINEER ANDREW A. MOORE
3/9/23

Braced Wall Details

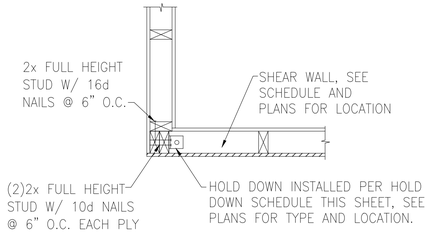
Up to 120 M.P.H.
Raleigh, North Carolina

Project #:	214-22000
Designed By:	KRK
Checked By:	
Issue Date:	3/6/23
Re-Issue:	
Scale:	1/8"=1'-0" @ 11x17 1/4"=1'-0" @ 22x34

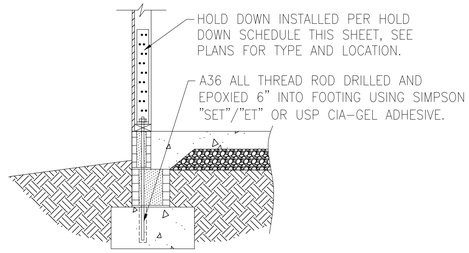
SD-1



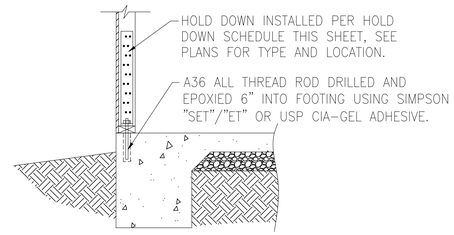
A TYPICAL HOLD DOWN DETAIL



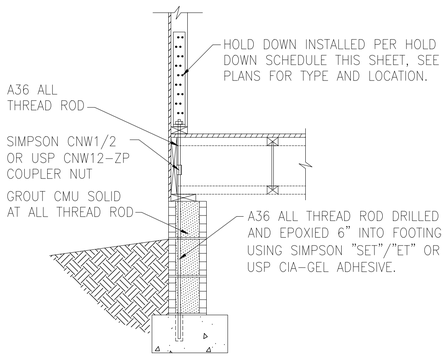
B TYPICAL HOLD DOWN DETAIL



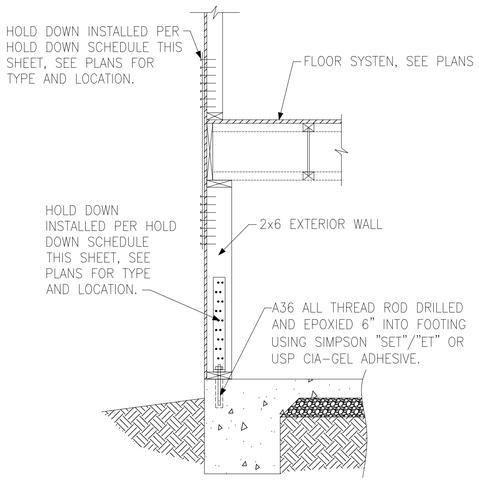
C HOLD DOWN AT STEMWALL SLAB FOUNDATION



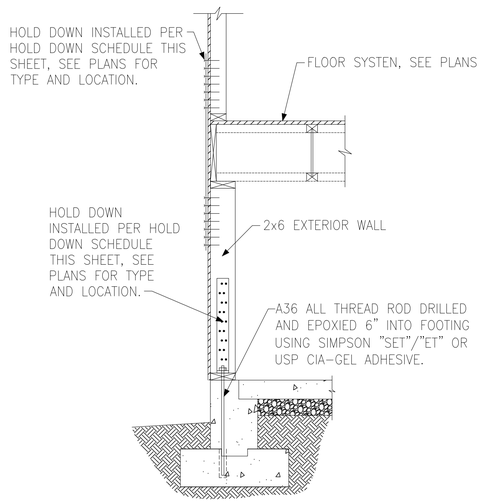
D HOLD DOWN AT MONOLITHIC SLAB FOUNDATION



E HOLD DOWN AT CRAWL SPACE FOUNDATION



F HOLD DOWN AT BASEMENT FOUNDATION
MONOLITHIC TURN-DOWN



G HOLD DOWN AT BASEMENT FOUNDATION
STEM WALL

HOLD DOWN SCHEDULE

HOLD DOWN		ALL THREAD ROD	FASTENERS
SIMPSON	USP		
LTTP2	LTS20B	½" DIA.	(12)0.148"x2.5" LONG NAILS
HTT4	HTT16	⅝" DIA.	(18)0.162"x2.5" LONG NAILS
HTT5	HTT45	⅝" DIA.	(26)0.162"x2.5" LONG NAILS

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3/9/23

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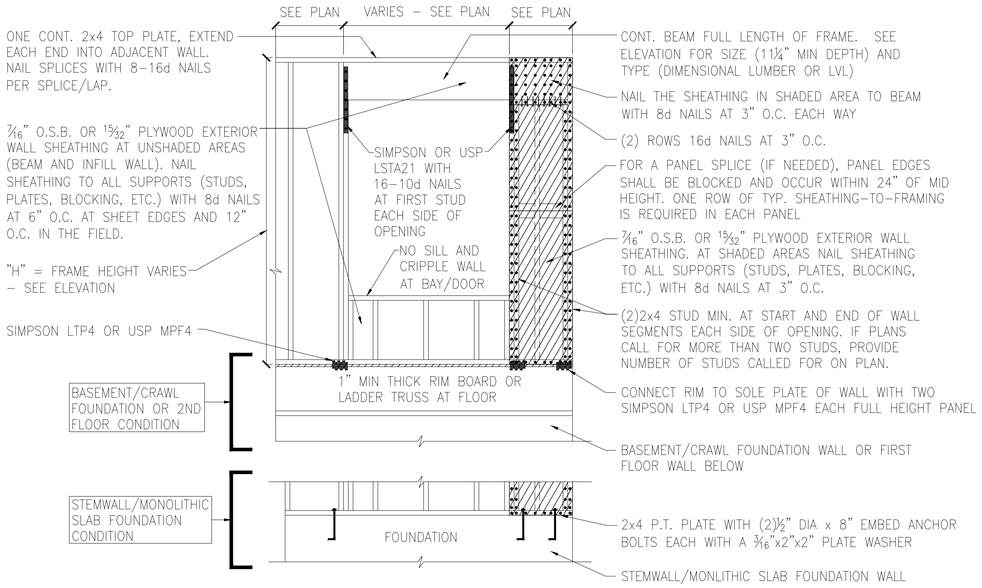
DAVIDSON HOMES

Hold Down Details

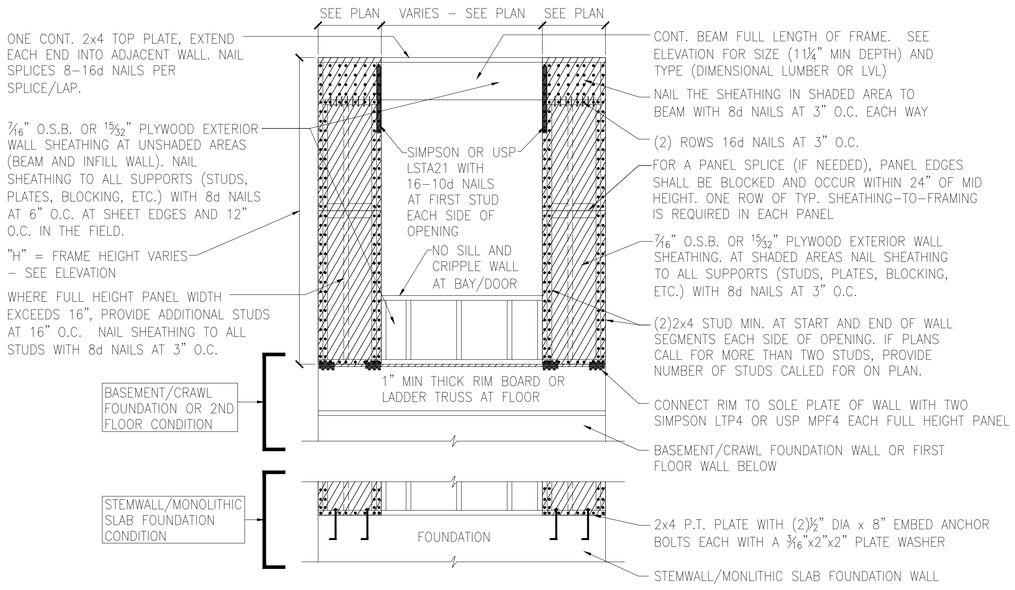
Up to 120 M.P.H.
Raleigh, North Carolina

Project #: 214-22000
Designed By: KRK
Checked By:
Issue Date: 3/6/23
Re-Issue:
Scale: 1/8"=1'-0" @ 11x17
1/4"=1'-0" @ 22x34

SD-2



A METHOD CS–PF: CONTINUOUS PORTAL FRAME PANEL CONSTRUCTION
ONE BRACED WALL SEGMENT



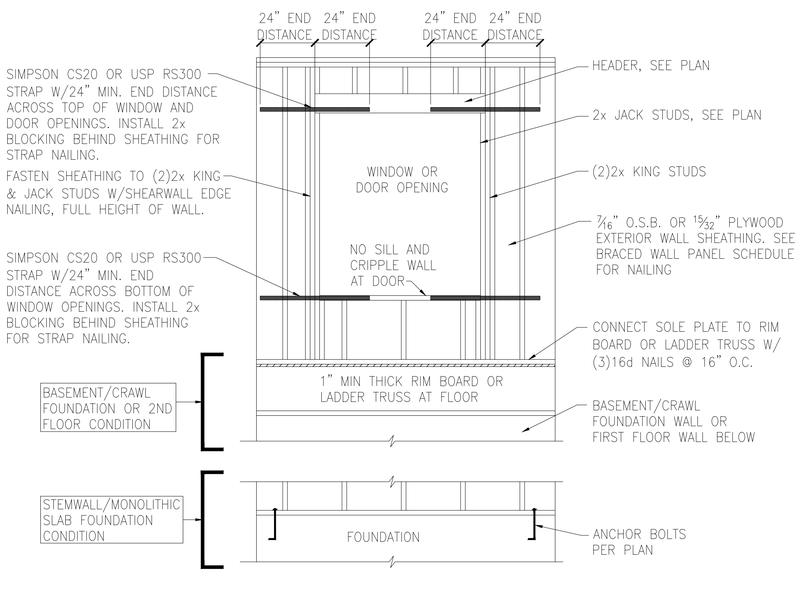
B METHOD CS–PF: CONTINUOUS PORTAL FRAME PANEL CONSTRUCTION
TWO BRACED WALL SEGMENTS

BRACED WALL PANEL AND ENGINEERED SHEAR WALL SCHEDULE

PANEL TYPES	PANEL TYPE	MATERIAL	FASTENERS
WSP	INTERMITTENT WOOD STRUCTURAL PANEL	7/16" OSB	6D OR 8D COMMON NAILS AT 6" O.C. AT SHEET EDGES AND 12" O.C. AT INTERMEDIATE SUPPORTS. ENGINEERED ALTERNATIVE: 16 GAGE BY 1.75" LONG STAPLES AT 3" O.C. AT SHEET EDGES AND 6" O.C. AT INTERMEDIATE SUPPORTS
GB(1)	INTERMITTENT GYPSUM BOARD (SHEATHING ONE FACE OF WALL)	1/2" GYPSUM	1.5" LONG GALV. ROOFING NAILS, 6d COMMON NAILS, OR 1.25" LONG TYPE W DRYWALL SCREWS AT 7" O.C. AT SHEET EDGES AND INTERMEDIATE SUPPORTS.
GB(1)–4	INTERMITTENT GYPSUM BOARD (SHEATHING ONE FACE OF WALL)	1/2" GYPSUM	1.5" LONG GALV. ROOFING NAILS, 6d COMMON NAILS, OR 1.25" LONG TYPE W DRYWALL SCREWS AT 4" O.C. AT SHEET EDGES AND INTERMEDIATE SUPPORTS.
GB(2)	INTERMITTENT GYPSUM BOARD (SHEATHING BOTH FACES OF WALL)	1/2" GYPSUM	1.5" LONG GALV. ROOFING NAILS, 6d COMMON NAILS, OR 1.25" LONG TYPE W DRYWALL SCREWS AT 7" O.C. AT SHEET EDGES AND INTERMEDIATE SUPPORTS.
CS–WSP	CONTINUOUS SHEATHED WOOD STRUCTURAL PANEL	7/16" OSB	6D OR 8D COMMON NAILS AT 6" O.C. AT SHEET EDGES AND 12" O.C. AT INTERMEDIATE SUPPORTS. ENGINEERED ALTERNATIVE: 16 GAGE BY 1.75" LONG STAPLES AT 3" O.C. AT SHEET EDGES AND 6" O.C. AT INTERMEDIATE SUPPORTS
CS–PF	CONTINUOUS SHEATHED PORTAL FRAME	7/16" OSB	NAILING PER DETAIL
PFH	PORTAL FRAME WITH HOLD DOWNS	7/16" OSB	NAILING PER DETAIL
CS–ESW(1)	ENGINEERED SHEAR WALL, TYPE 1	7/16" OSB	8D COMMON NAILS AT 6" O.C. AT SHEET EDGES AND 12" O.C. AT INTERMEDIATE SUPPORTS. CONTINUOUS OSB AROUND DOOR/WINDOW OPENINGS
CS–ESW(2)	ENGINEERED SHEAR WALL, TYPE 2	7/16" OSB	8D COMMON NAILS AT 4" O.C. AT SHEET EDGES AND 12" O.C. AT INTERMEDIATE SUPPORTS. CONTINUOUS OSB AROUND DOOR/WINDOW OPENINGS
CS–ESW(3)	ENGINEERED SHEAR WALL, TYPE 3	7/16" OSB	8D COMMON NAILS AT 3" O.C. AT SHEET EDGES AND 12" O.C. AT INTERMEDIATE SUPPORTS. CONTINUOUS OSB AROUND DOOR/WINDOW OPENINGS

BRACED WALL PANEL NOTES:

1. ALL BRACED WALL PANELS, EXCEPT GB(1) & GB(2), SHALL HAVE 2x BLOCKING BETWEEN WALL STUDS AT ALL HORIZONTAL SHEET EDGES.
2. PROVIDE NAILING/BLOCKING ABOVE AND BELOW ALL BRACED WALL PANELS PER KSE BRACED WALL DETAILS.
3. SHEATH ALL EXTERIOR WALLS OF THE HOUSE WITH 7/16" O.S.B., OR 15/32" PLYWOOD, FASTENED PER IRC. AT EXTERIOR CORNERS, SHEATHING SHALL BE FASTENED PER KSE BRACED WALL DETAILS. AT INTERIOR WALL INTERSECTIONS, FASTEN STUDS & WALL BRACING PER KSE BRACED WALL DETAILS.
4. BRACED WALL PANELS AND ENGINEERED SHEAR WALLS ARE PROVIDED PER IRC. PANEL LENGTHS SHOWN ON PLANS ARE THE MINIMUM LENGTH REQUIRED.



C WINDOW OR DOOR REINFORCEMENT IN ENGINEERED SHEAR WALL
ONLY REQUIRED WHERE SPECIFED ON PLANS

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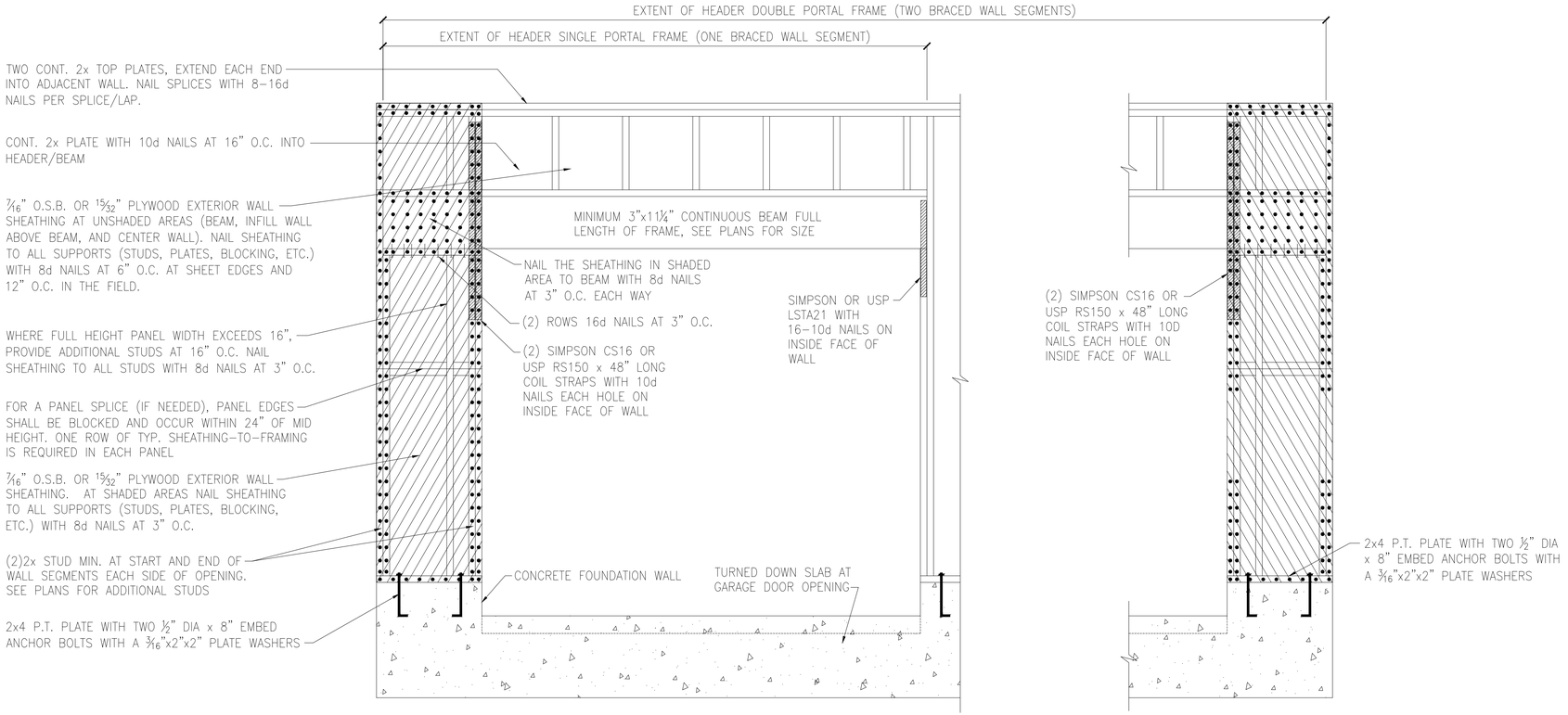
Braced Wall Notes & Details

Up to 120 M.P.H.
Raleigh, North Carolina

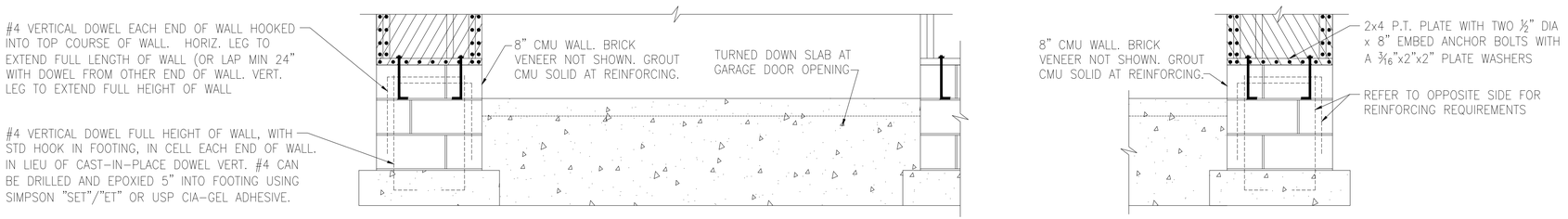
Project #:	214–22000
Designed By:	KRK
Checked By:	
Issue Date:	3/6/23
Re–Issue:	
Scale:	1/8"=1'–0" @ 11x17 1/4"=1'–0" @ 22x34

NC Firm #C-2101
NORTH CAROLINA PROFESSIONAL SEAL 046996 ENGINEER ANDREW A. MOORE
3/9/23

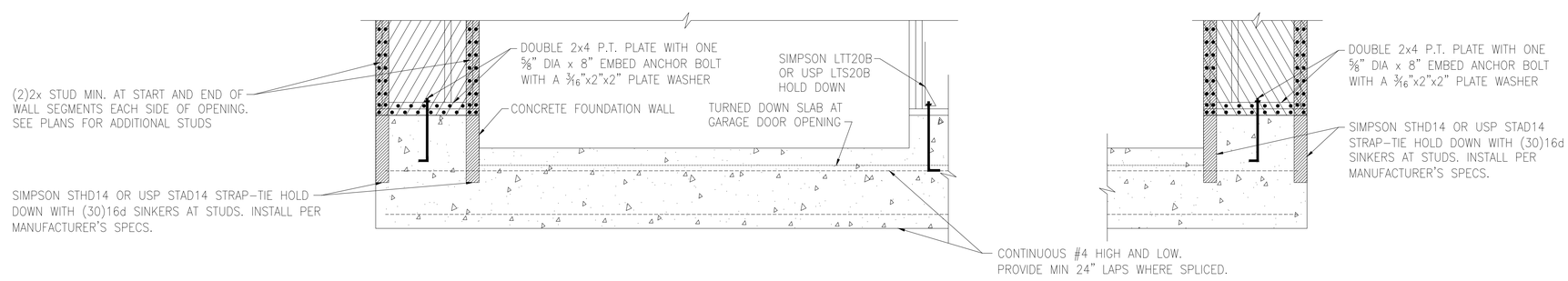
SD–3



A METHOD CS-PF: CONTINUOUS PORTAL FRAME PANEL CONSTRUCTION
MONOLITHIC SLAB OR BASEMENT FOUNDATION



B METHOD CS-PF: CONTINUOUS PORTAL FRAME PANEL CONSTRUCTION
STEMWALL SLAB OR CRAWL SPACE FOUNDATION



C METHOD PFH: PORTAL FRAME WITH HOLD-DOWNS
MONOLITHIC SLAB OR BASEMENT FOUNDATION

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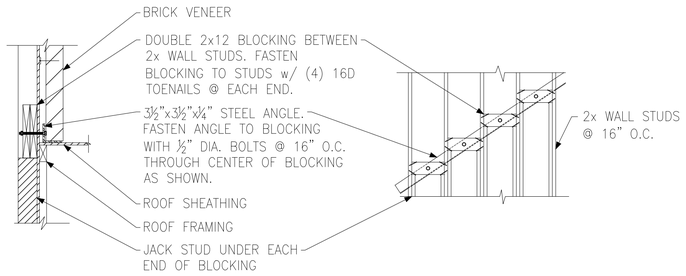
Portal Frame Details

Up to 120 M.P.H.
Raleigh, North Carolina

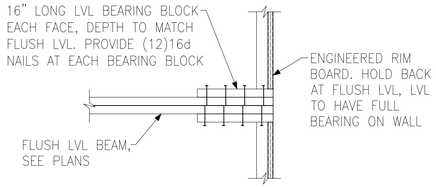
Project #:	214-22000
Designed By:	KRK
Checked By:	
Issue Date:	3/6/23
Re-Issue:	
Scale:	1/8"=1'-0" @ 11x17 1/4"=1'-0" @ 22x34

SD-4

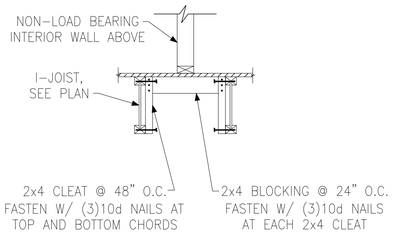
NC Firm #C-2101
NORTH CAROLINA PROFESSIONAL SEAL 046496 ENGINEER ANDREW A. MOORE
3/9/23



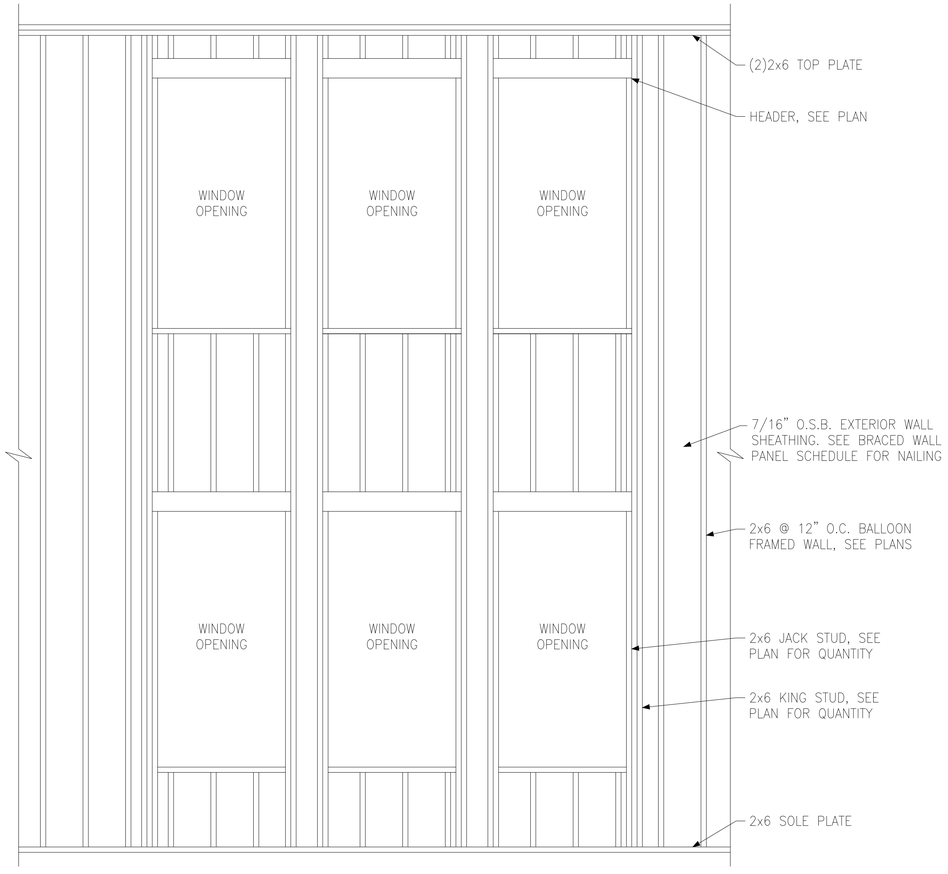
A BRICK LEDGER CONNECTION DETAIL



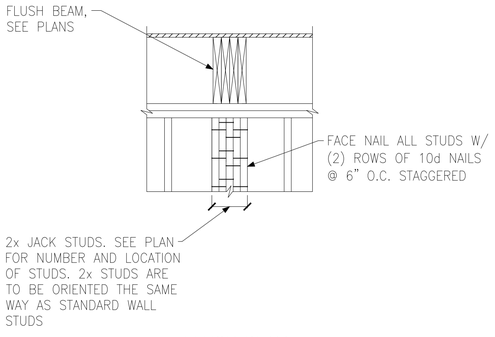
B BEARING ENHANCER
FLUSH LVL

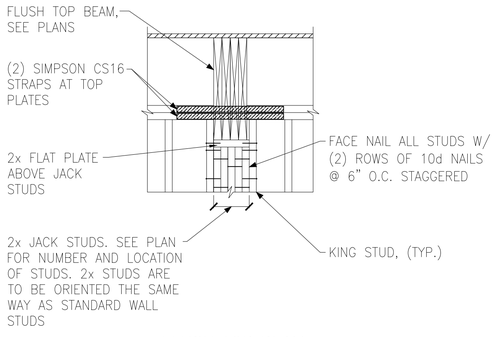


C I-JOIST LADDER BLOCKING
AS REQUIRED @ PARALLEL WALLS



D BALLOON FRAMED WALL DETAIL
N.T.S.





E BUILT-UP STUD DETAIL SUPPORTING BEAM

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Miscellaneous Framing Details

Up to 120 M.P.H.
Raleigh, North Carolina

Project #:	214-22000
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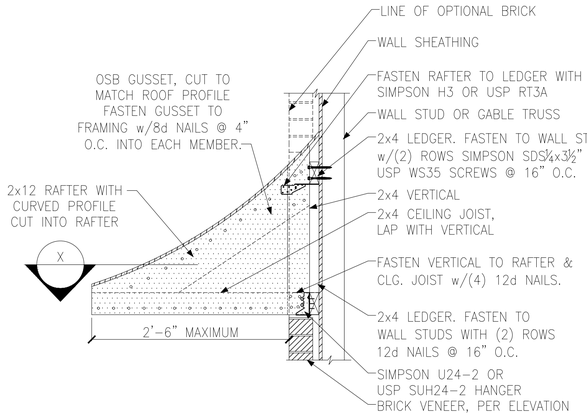
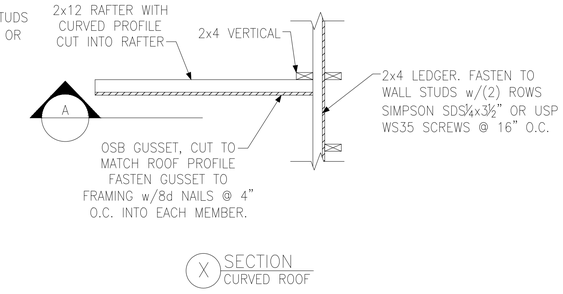
Checked By:	
Issue Date:	3/6/23
Re-Issue:	
Scale:	1/8"=1'-0" @ 11x17 1/4"=1'-0" @ 22x34

NC Firm #C-2101
NORTH CAROLINA PROFESSIONAL SEAL 046996 ENGINEER ANDREW A. MOORE
3/9/23

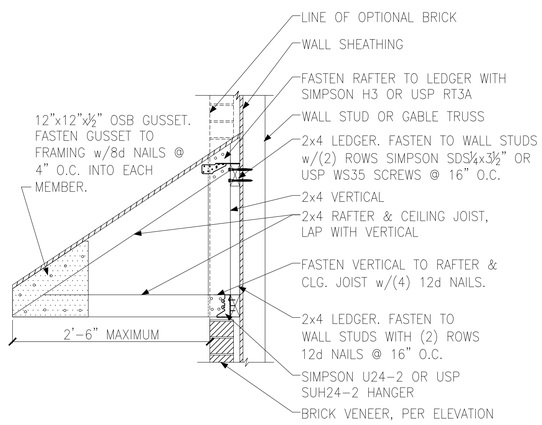
SD-5



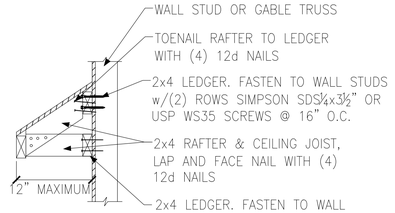
A PENT ROOF DETAIL
CURVED ROOF



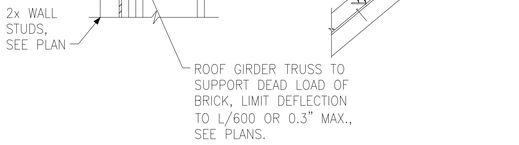
X SECTION
CURVED ROOF



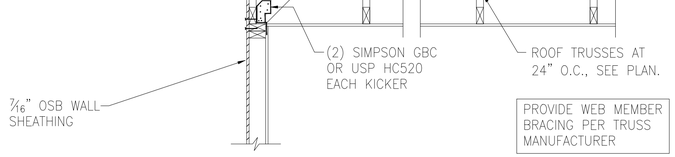
B PENT ROOF DETAIL
STRAIGHT ROOF



C EYEBROW ROOF DETAIL
STRAIGHT ROOF



D TRUSS DETAIL



E GABLE END WALL DETAIL

KSE ENGINEERING
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(215) 804-4449
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NC Firm #C-2101
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 046986 ANDREW A. MOORE
3/9/23

Miscellaneous Framing Details

Up to 120 M.P.H.
Raleigh, North Carolina

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Checked By:	
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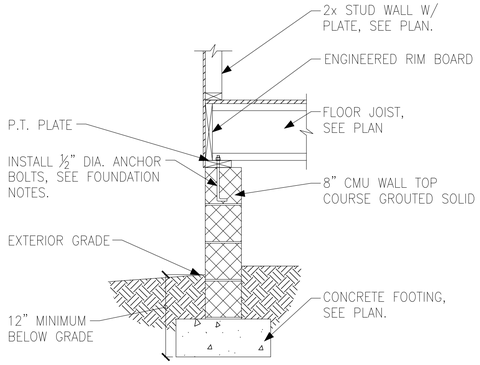
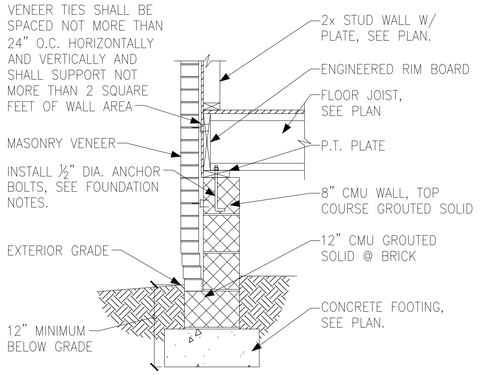
Re-Issue:	
Scale:	1/8"=1'-0" @ 11x17 1/4"=1'-0" @ 22x34

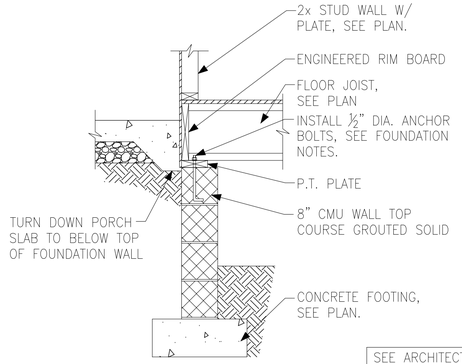
SD-6



A FOUNDATION SECTION
EXTERIOR WALL

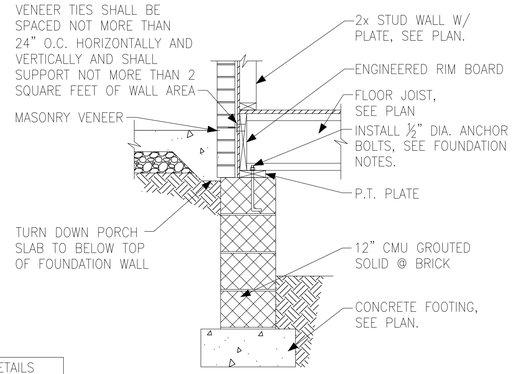


B FOUNDATION SECTION
EXTERIOR WALL @ MASONRY VENEER

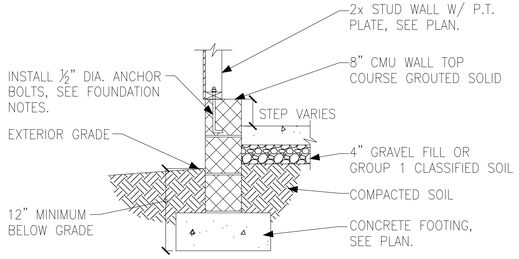


C FOUNDATION SECTION
EXTERIOR WALL AT PORCH

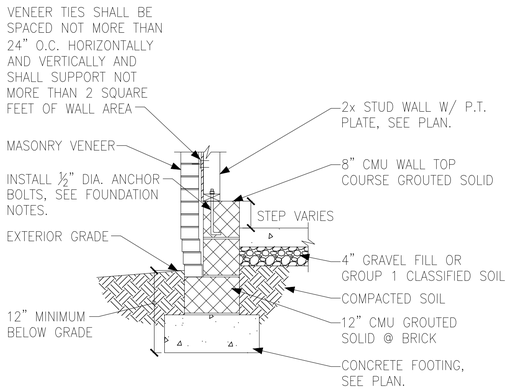
SEE ARCHITECTURAL DETAILS FOR WATERPROOFING AT PORCH SLAB/WOOD FRAMING.



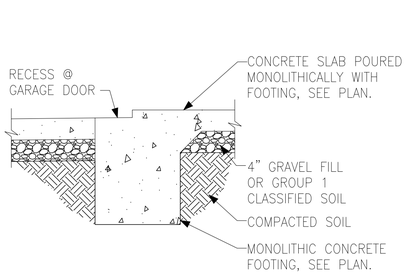
D FOUNDATION SECTION
EXTERIOR WALL AT PORCH W/ MASONRY VENEER



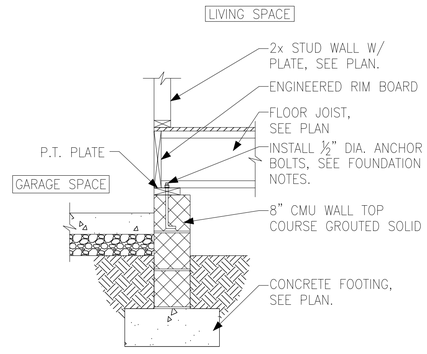
E FOUNDATION SECTION
EXTERIOR GARAGE WALL



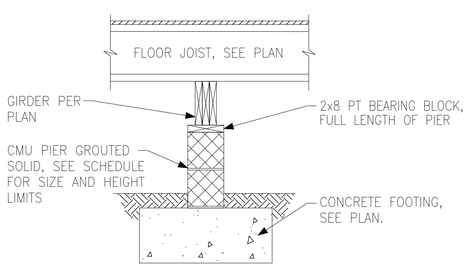
F FOUNDATION SECTION
EXTERIOR GARAGE WALL @ MASONRY VENEER



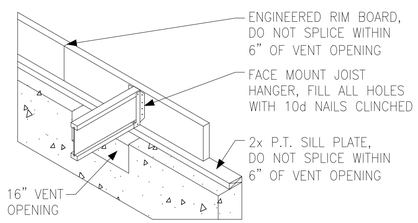
G FOUNDATION SECTION
GARAGE DOOR



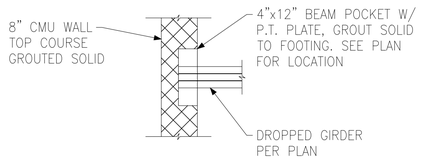
H FOUNDATION SECTION
INTERIOR GARAGE WALL



J FOUNDATION SECTION
INTERIOR PIER



K CRAWL SPACE VENT DETAIL



L CRAWL SPACE BEAM POCKET DETAIL

PIER AND FOOTING SCHEDULE

PIER HEIGHT	PIER SIZE	MIN. FOOTING SIZE
UP TO 2'-8"	8" x 16"	24" x 24" x 12" U.N.O.
UP TO 5'-4"	16" x 16"	24" x 24" x 12" U.N.O.
UP TO 8'-0"	16" x 16"	30" x 30" x 12" U.N.O.

NOTE:
PIERS SHALL BE CAPPED WITH 8" OF SOLID MASONRY OR CONCRETE OR TOP COURSE FILLED SOLID WITH CONCRETE/MORTAR.
PIERS OVER 5'-4" SHALL BE BE FILLED SOLIDLY WITH CONCRETE OR TYPE M OR S MORTAR.
FOR PIERS OVER 8'-0" CONTACT KSE ENGINEERING FOR PIER AND FOOTING DESIGN.

NC Firm #C-2101
NORTH CAROLINA PROFESSIONAL
SEAL 046496 ENGINEER
ANDREW A. MOORE
3/9/23

KSE ENGINEERING
1900 AM DRIVE, SUITE 201, QUAKERTOWN, PA 18951
(215) 804-4449
www.kse-eng.com

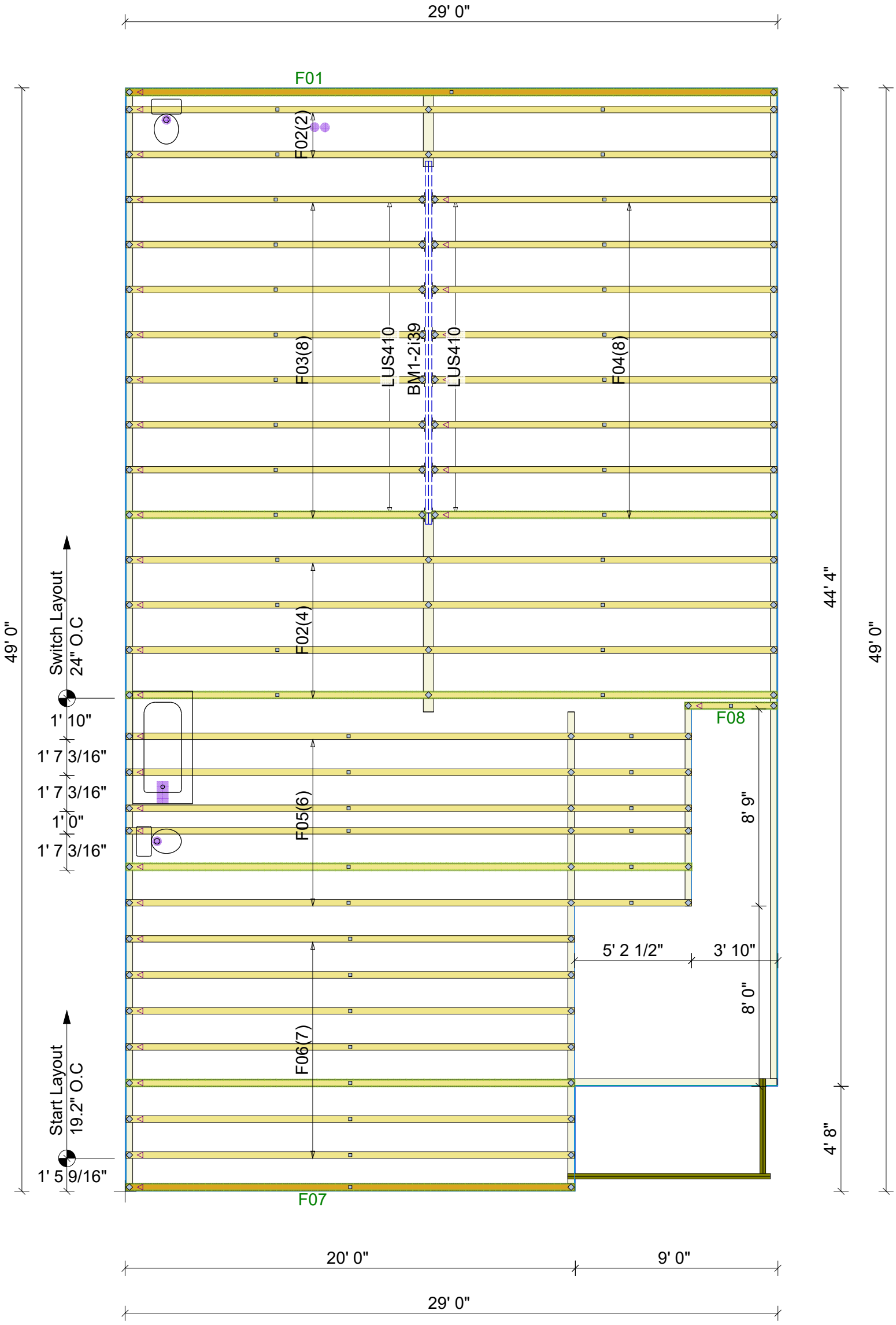
DAVIDSON HOMES

Crawl Space Foundation Details

Up to 120 M.P.H.
Raleigh, North Carolina

Project #: 214-22000
Designed By: KRK
Checked By:
Issue Date: 3/6/23
Re-Issue:
Scale: 1/8"=1'-0" @ 11x17
1/4"=1'-0" @ 22x34

SD-9



= LEFT END OF TRUSS ON DRAWINGS

Truss Connector Total List		
Manuf	Product	Qty
Simpson	LUS410	16

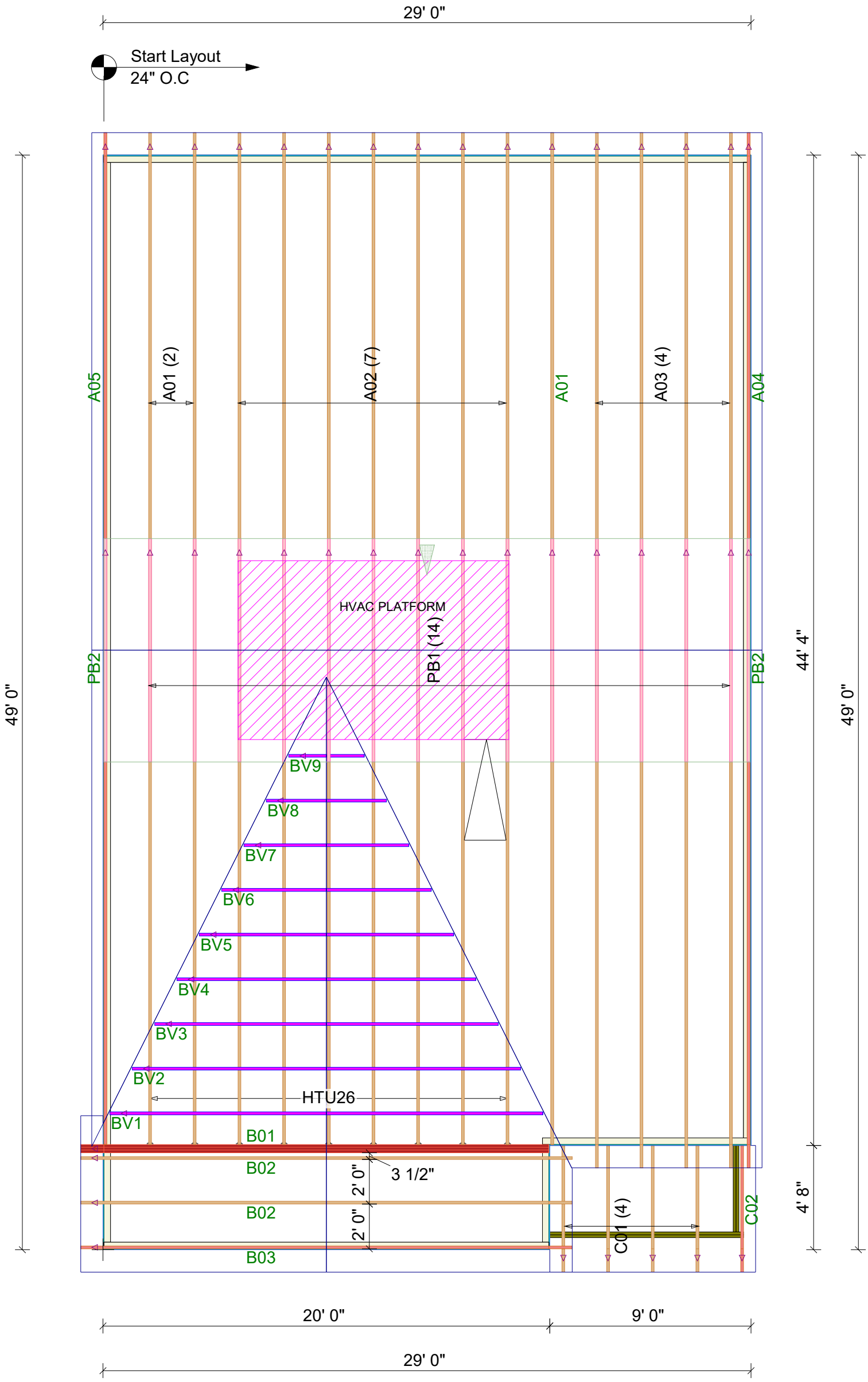
DIMENSIONS TO SHEATHING

Products					
PlotID	Length	Product	Plies	Net Qty	Fab Type
BM1-2	18' 0"	1-3/4" x 14" VERSA-LAM® 2.0 3100 SP	2	2	MFD

NOTE:
TRUSS DESIGNS MAY NOT BE SYMETRICAL. IT IS THE RESPOSIBILITY OF THE PERSONS ERRECTING THE TRUSSES TO ASSURE PROPER TRUSS ORIENTATION. THINGS TO LOOK FOR INCLUDE HEEL HEIGHTS, BEARING POINTS, POINT LOADS, CANTILEVERS, OVERHANGS, WEB CONFIGURATIONS, ECT.

BUILDERS FIRSTSOURCE
8401 Planer Mill Rd.
Middlesex, NC 27557
Office: 252.235.4530 | Fax: 252.235.2619
BLDR.com

IRC 2015	CUSTOMER : DAVIDSON HOMES	DESIGNER : JHM
TCLL : 40 FLOOR	LOT : 12	DATE : 05/04/23
TCDL : 10	SUBDIV : WELLERS KNOLL	FILE : 3509590
BCLL : 0	MODEL : THE GAVIN - ELEV B - LH	SPACING : 24" O.C., U.N.O.
BCDL : 5	OPTIONS : BED 4/BATH 3	



= LEFT END OF TRUSS ON DRAWINGS

Truss Connector Total List		
Manuf	Product	Qty
Simpson	HTU26	9

DIMENSIONS TO SHEATHING

NOTE:
TRUSS DESIGNS MAY NOT BE SYMETRICAL. IT IS THE RESPOSIBILITY OF THE PERSONS ERRECTING THE TRUSSES TO ASSURE PROPER TRUSS ORIENTATION. THINGS TO LOOK FOR INCLUDE HEEL HEIGHTS, BEARING POINTS, POINT LOADS, CANTILEVERS, OVERHANGS, WEB CONFIGURATIONS, ECT.

BUILDERS FIRSTSOURCE
8401 Planer Mill Rd.
Middlesex, NC 27557
Office: 252.235.4530 | Fax: 252.235.2619
BLDR.com

IRC 2015 - 115 MPH WIND SPEED	CUSTOMER : DAVIDSON HOMES	DESIGNER : JHM
TCLL : 20 ROOF	LOT : 12	DATE : 05/04/23
TCDL : 10	SUBDIV : WELLERS KNOLL	FILE : 3509591
BCLL : 0	MODEL : THE GAVIN - ELEV B - LH	SPACING : 24" O.C., U.N.O.
BCDL : 10	OPTIONS : BED 4/BATH 3	