Carriage Circle Lot 1156 - 138 Spruce Hollow Circle, Spring Lake 28390 Nicklaus Farmhouse Left Hand Garage

Slab Foundation



2550 Capitol Drive Suite 105 Creedmoor, NC 27522 919-528-1347

2334 The Nicklaus II - LH

	HEKITAGE	OKOI LAN	HEKHAGE I.	AKIVII IQQQL
	UNHEATED	HEATED	UNHEATED	HEATED
FIRST FLOOR	0	971	0	971
SECOND FLOOR	0	1363	0	1363
REAR COVERED PORCH	50	0	50	0
FRONT PORCH	120	0	120	0
GARAGE	472	0	472	0
SUBTOTALS	642	2334	642	2334
TOTAL UNDER ROOF	29	76	29	76
OI	PTIONS			
	UNHEATED S.F.	HEATED S.F.		
	0	0		
_	0	0		
	0	0		
_	0	0		
	0	0		
_	0	0		
	0	0		

SQUARE FOOTAGE

	REVISION LOG							
Rev	Description	Drawn By	Date	Sheets Affected	Brochure Required	Engineering Required		
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Sheet No.	Sheet Description			
0.0	Cover Sheet			
2.1	First Floor Plan			
2.2	Second Floor Plan			
3.A.0	Heritage European Front & Right Elevations			
3.A.1	Heritage European Left & Rear Elevations			
3.A.2	eritage European Roof Plan			
3.B.0	Heritage Farmhouse Front & Right Elevations			
3.B.1	Heritage Farmhouse Left & Rear Elevations			
3.B.2	Heritage Farmhouse Roof Plan			
S.1.1	Crawl Foundation			
S.1.2	Slab Foundation			
S.2.1	Second Floor Framing			
S.3.1	Attic Floor Framing			
S.4.1	Roof Plan - Heritage European			
S.4.2	Roof Plan - Heritage Farmhouse			





2550 Capitol Drive Suite 105 Creedmoor, NC 27522 919-528-1347

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Cover Sheet

2334 - THE NICKLAUS II - LI

DRAWN BY: South Designs

CURRENT REVISION DATE:

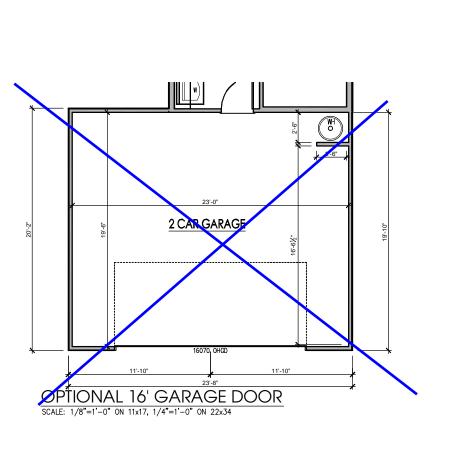
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General Floor Plan Notes

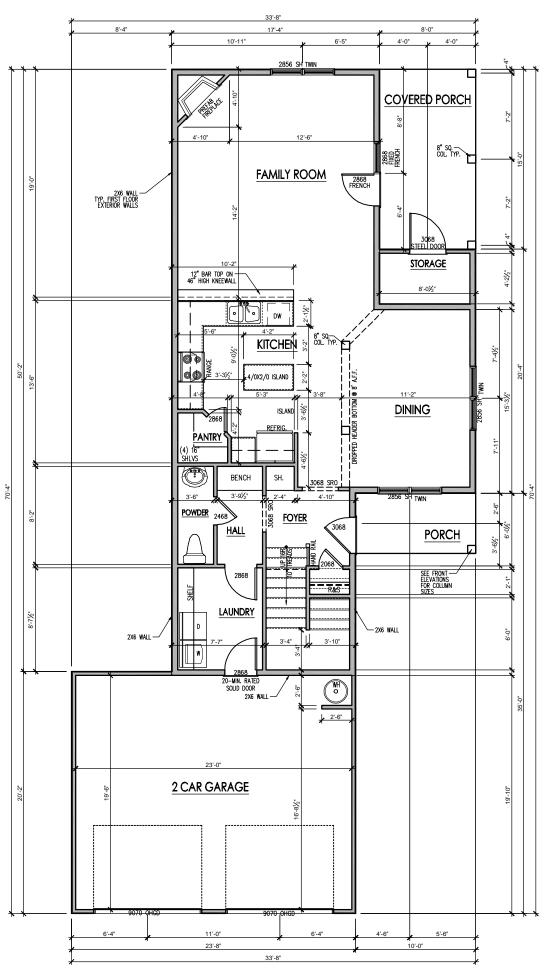
General Floor Plan Notes shall apply unless noted otherwise on plan.

- Wall Heights: Typically 10'-1-1/2' at first floor and second floor, and 9' 1-1/2' at affics 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 Pitale layer. Special wall heights are noted on plans where they occur.
- 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 lixtures. Walls greater than 10' high shall be framed will zx6 framing or greater and will be noted as a special condition where it occurs on plane.
- Header height shall be 8'-0" AFF at First Floor, and 7'-6" AFF at Second Floor unless noted otherwise.
- 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.
- 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 cabinety.
- Door & Window Frames, where occurring near corners, shall be a minimum of 6' from corner. Except for walk-in closets with doors near a corner, doors at closets shall be centered on closet.
- Windows: Shall have at least (1) window in each sleeping room, that meets egress. Shall be provided with tempered glass of hazardous glazing areas. False windows shall be installed with obscure alazina.
- Closets for clothing or coat storage shall be equipped with 1 rod/shelf, open wire. Closets for linen shall have 5 open wire shelves. Closets for partitles shall have 5 wood shelves, painted.
- Stair treads shall be 10" deep, risers shall be a maximum of 7-3/4", unless noted otherwise.
- 10. Handralis and Guards at stairs shall be 34° above the finished surface of the ramp surface of the stair. Handralis at landings and overlooks of multilevel spaces shall be 36° above finished floor. Guards (pickets or ballsters) shall be spaced with no more than 4° between guards.
- Aftic Access shall be provided at all aftic area with a height greater than 30°. Minimum clear aftic access shall be 20° x 30°. Pull down statis 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 and living space aftic by installing 1/2" gypsum board on the garage side of the wall.

SQUARE FOOTAGE HERITAGE EUROPEAN & FARMHOUSE							
LOKOTE	UNHEATED S.F.	HEATED S.F.					
FIRST FLOOR	0	971					
SECOND FLOOR	0	1363					
FRONT PORCH	50	0					
COVERED PORCH	120	0					
GARAGE	472	0					
TOTAL	642	2334					
	OPTIONS						
	UNHEATED S.F.	HEATED S.F.					











2550 Capitol Drive Suite 105 Creedmoor, NC 27522 919-528-1347

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First Floor Plan

- THE NICKLAUS II

DRAWN BY:
South Designs
ISSUE DATE:

05/05/2017

CURRENT REVISION DATE:

XX/XX/XXXX

SCALE:

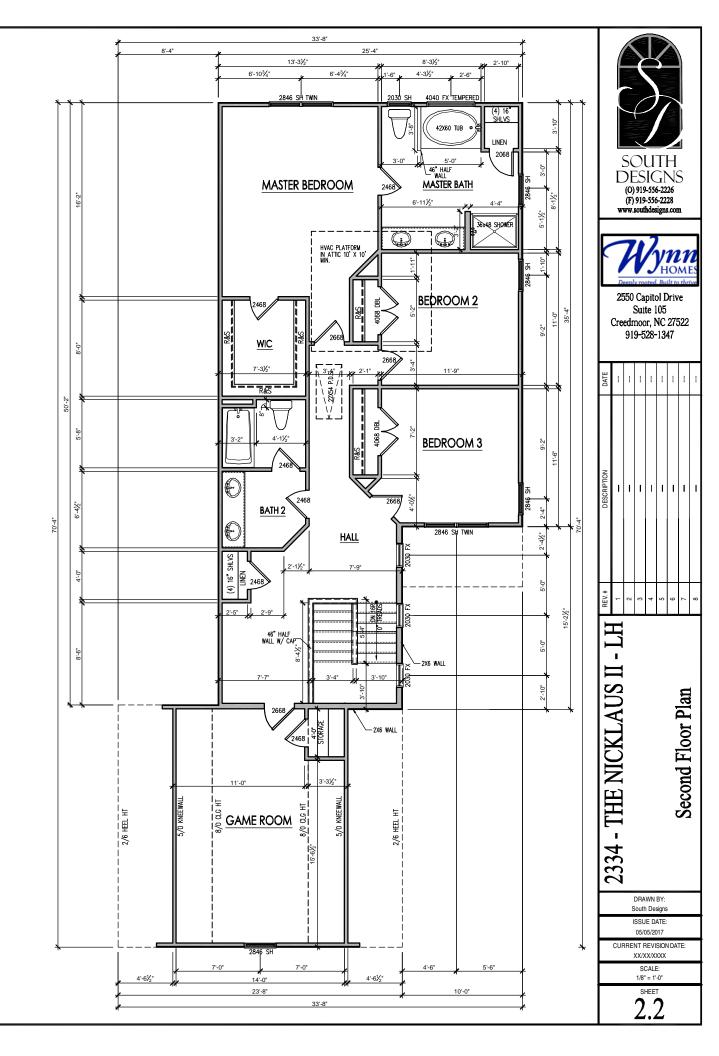
1/8" = 1'-0" SHEET

2.

General Floor Plan Notes

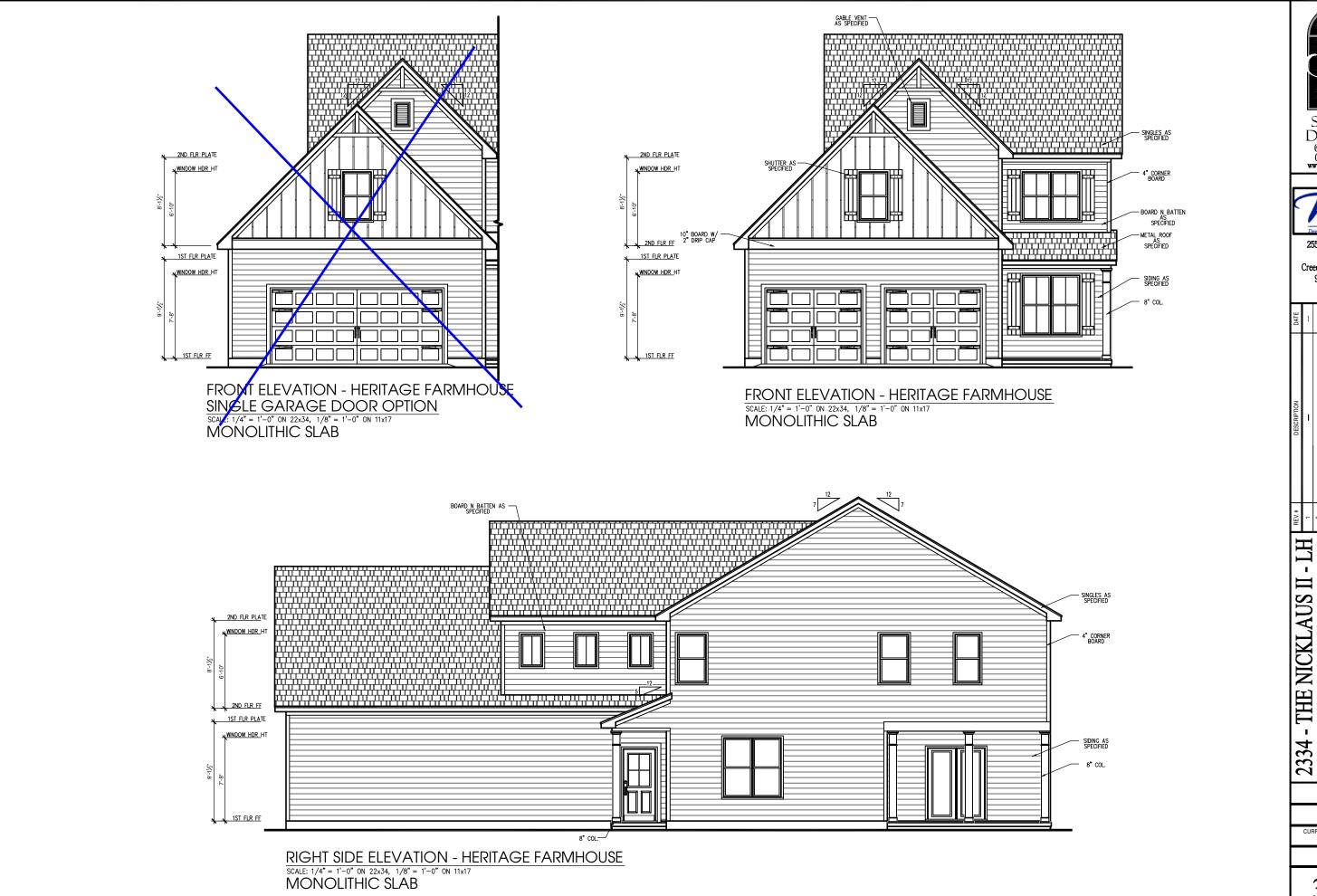
General Floor Plan Notes shall apply unless noted otherwise on plan.

- Wall Heights: Typically 10'-1-1/2' at first floor and second floor, and 9' 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.
- Wall Thickness is typically 4° at exterior walls, 3-1/2° at interior. 2x6 frome shall be used at walls that back up to plumbing fixtures. Walls greater than 10° high shall be fromed with 2x6 framing or greater and will be noted as a special condition where it occurs on plan.
- 3. Header height shall be 8'-0" AFF at First Floor, and 7'-6" AFF at Second Floor unless noted otherwise.
- 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.
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- Door & Window Frames, where occurring near corners, shall be a minimum of 6' from corner. Except for walk-in closets with doors near a corner, doors at closets shall be centered on closet.
- 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.
- Closets for clothing or coat storage shall be equipped with 1 rod/shell, open wire. Closets for linen shall have 5 open wire shelves. Closets for pantries shall have 5 wood shelves, painted.
- Stair treads shall be 10" deep, risers shall be a maximum of 7-3/4", unless noted otherwise.
- 10. Handralis and Guards at stairs shall be 34° above the finished surface of the ramp surface of the stair. Handralis at landings and overlooks of multilevel spaces shall be 36° above finished floor. Guards (pickets or ballisters) shall be spaced with no more than 4° between guards.
- Aftic Access shall be provided at all aftic area with a height greater than 30°. Minimum clear aftic access shall be 20° x 30°. Pull down stairs and access doors in knee walls meeting minimum critistic 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 and living space attic by installing 1/2" gypsum board on the garage side of the wall.



SECOND FLOOR PLAN

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







2550 Capitol Drive Suite 105 Creedmoor, NC 27522 919-528-1347

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2554 - THE NICKLAUS II - LH
Heritage Farmhouse Front & Right Elevation

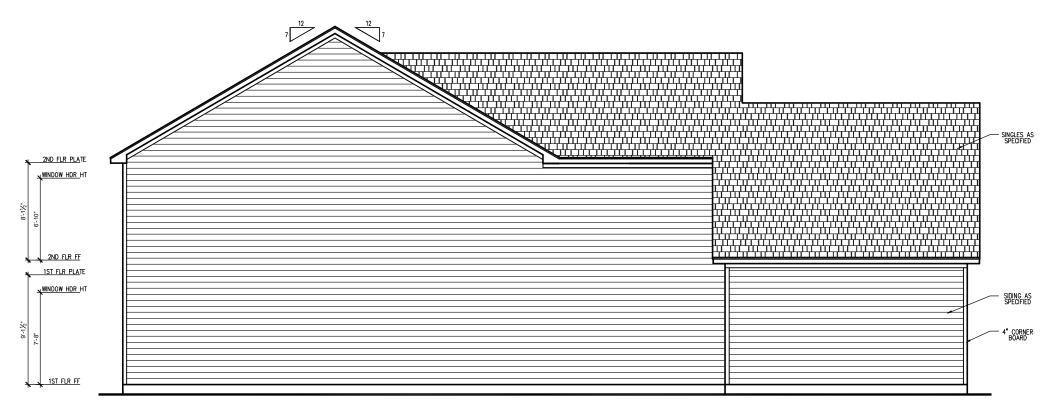
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ISSUE DATE: 05/05/2017

CURRENT REVISION DATE: XX/XX/XXXX

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

3.B.0



LEFT SIDE ELEVATION - HERITAGE FARMHOUSE

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

MONOLITHIC SLAB



REAR ELEVATION - HERITAGE FARMHOUSE
SCALE: 1/4" = 1'-0" ON 22x34, 1/8" = 1'-0" ON 11x17
MONOLITHIC SLAB





2550 Capitol Drive Suite 105 Creedmoor, NC 27522 919-528-1347

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2334 - THE NICKLAUS II - LH
Heritage Farmhouse Left & Rear Elevations

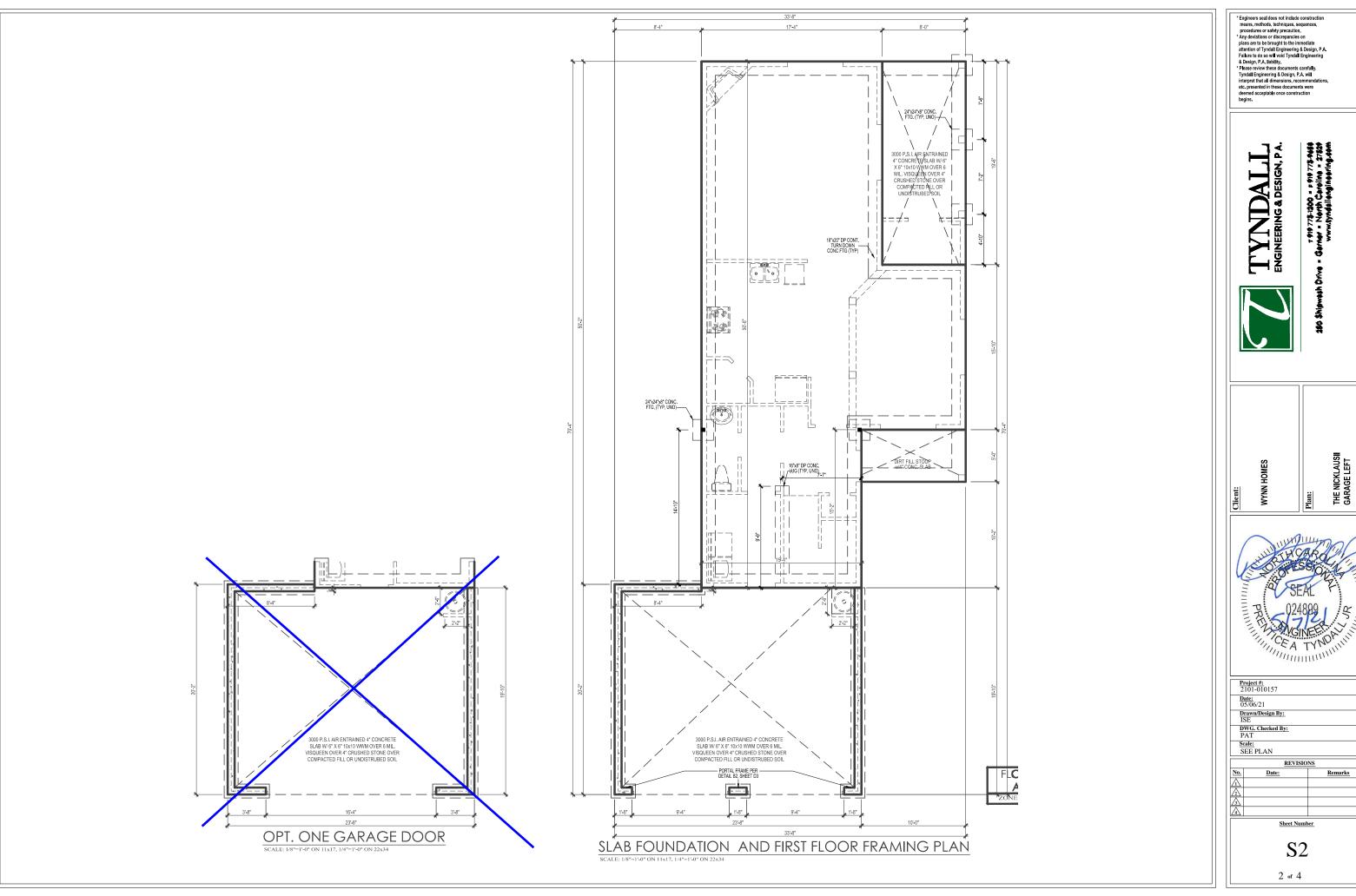
DRAWN BY: South Designs

South Design

ISSUE DATE 05/05/2017

CURRENT REVISION DATE: XX/XX/XXXX SCALE: 1/8" = 1'-0"

3.B.1



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DESIGN LOADS

		LIVE LOAD (PSF)	DEAD LOAD (PSF)	DEFLE	CTION
				LL	TL.
- 1	FLOOR (primary)	40	10	L/360	L/240
	FLOOR (secondary)	40	10	L/360	L/240
	ATTIC (w/ storage)	20	10	L/240	L/180
	ATTIC (no access)	10	5	L/240	L/180
	EXTERNAL BALCONY	40	10	L/360	L/240
	ROOF	20	10	L/240	L/180
	ROOF TRUSS	20	20	L/240	L/180
	WIND LOAD	BASED	ON 120 MPH	(EXPOSUR	EB)
	SEISMIC	BASED C	ON SEISMIC ZO	ONES A, E	& C

- STRUCTURAL NOTES:

 1) ALL CONSTRUCTION SHALL CONFORM TO THE LATEST REQUIREMENTS OF "NORTH CARQUINA STATE 2018 RESIDENTIAL BUILDING CODE", IN ADDITION TO ALL LOCAL CODES AND REQULATIONS.

 2) IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND SQUARE FOOTAGE PRIOR TO CONSTRUCTION. TYNDALL ENGINEERING & DESIGN, PA IS NOT RESPONSIBLE FOR DIMENSIONS AND SQUARE FOOTAGE REFORM ONCE CONSTRUCTION BEGINS.

 3) ALL LUMBERS SHALL BE SYP #2 (UNO)
 ALL LYL LUMBER TO BE 1.75" WIDE NOMINAL EACH SINGLE MEMBER AND Fo = 2500 PSI, E = 1.5M PSI (I.E. LLC. LUMBER SHALL BE SYP #2 (UNO)
 ALL LYL LUMBER TO BE 1.55" (FD = 2.325 PSI)

 4) ALL LOAD BEARING EXTERIOR WINDOW HEADERS WITH MAXIMUM SPAN OF 5"-6" SHOULD BE A (2) 2x10 w/ (1) 2x4 AKING STUD ANALD TOGETHER W/ (2) 104 Ø 8" O.C. PROVIDED THAT THE TOP OF THE WINDOW HEIGHT IS 6"-6", MINIMUM BOTTOM OF THE WINDOW HEIGHT IS 6"-6", OTHERWISK REFER TO TABLE REGOZ.7(2).

 3) ALL INTERIOR LOAD BEARING HEADERS TO BE (2) 2x10 (U.N.O.) REFER TO TABLE REGOZ.7(2) FOR JACK STUD REGULEMENTS FOR HEADER SPANS FOR INTERIOR RAD EXTERIOR LOAD CONDITIONS (UNO)

 REFER TO 2018 NG BUILDING CODE SECTION REGO FOR CONSTRUCTION OF ALL WALLS OVER 10"-0" IN HEIGHT.

 ALL STRUCTURAL STEEL SHALL BE ASTM A992 GRADE 50 FF = 50 KSI MIN. (UNO)

 ALL EXTERIOR LOAD CONDITIONS (UNO)

 PRESET TO 2018 NG BUILDING CODE SECTION REGO FOR CONSTRUCTION OF ALL WALLS OVER 10"-0" IN HEIGHT.

 ALL STRUCTURAL STEEL SHALL BE ASTM A992 GRADE 50 FF = 50 KSI MIN. (UNO)

 ALL EXTERIOR LOAD CONDITIONS (UNO)

 ALL EXTERIOR HOMBER TO BE #2 SYP PT ALL CONCRETE, fc = 3000 PSI MIN.

 PRESUMPTIVE BEARING CAPACITY = 2000 PSF

 1) 1/2" ANCHOR BOLTS SPACED AT MAXIMUM OF 6"-0" O.C.

 AND NOT MORE THAN 12" FROM THE CONCRET. THERE SHALL BE A MINIMUM OF (2) BOLTS PER PLATE SECTION. ANCHOR BOLTS SHALL BE SPACED AT 3"-0" OC. CONSEQUENCY OF O" ON MASONY.

 PER COLUMNS DESIGNED WITH MAX. HEIGHT OF 9"-0" (UND)

 PROVIDE THE MINIMUM OF 5000 BUT HE MAX. HEIGHT OF 9"-0" (UND)

 PROVIDE AND RECOVER OF THE PARCE SOOT BUT HOW AND RELIGIT OF 9"-0" (UND)

 PROVIDE THE S

- ANCHOR BULL SHALL EARIND / INTO CONTROL OF 9"-0" (UND)

 PSE COLUMNS DESIGNED WITH MAX. HEIGHT OF 9"-0" (UND)

 PSE COLUMNS DESIGNED WITH MAX. HEIGHT OF 9"-0" (UND)

 PSE COLUMNS COLUMNS (UND)

 PROVIDE ON THE PROVIDE OF PORCH COLUMNS (UND)

 PROVIDE CONTROL OF PORCH COLUMNS (UND)

 PROVIDE CONTROL OF PORCH COLUMNS (UND)

 MAXIMUM MASONRY PIER HEIGHT SHALL NOT EXCEED FOUR TIMES ITS LEAST HORIZONTAL DIMENSION.

 16) UPLIFT LOADS GREATER THAN 500% SHALL BE CONTROL OS GREATER THAN 500% SHALL BE CONTROL OS FROM THE POUNDATION.

 17) METAL HANGERS SHALL BE SIMPSON OR APPROVED EQUAL.

STRUCTURAL SHEATHING NOTES

- DESIGNED FOR SEISMIC ZONE A—C AND WIND SPEEDS OF 120 MPH OR LESS.

 WALLS SHALL BE BRACED IN ACCORDANCE WITH SECTION R602.10 OF THE 2018 NORC.

 BRACING REQUIREMENTS SHALL BE PER TABLE R602.10.3. REFER TO SECTION R602.10.4 FOR LOAD PATH DETAILS INCLUDING CONNECTIONS & SUPPORT OF BRACED WALL PANELS.
- 1 REFERENCE FIGURE R602.10.4.3 OF THE 2018 NCRC.
- 4) INTERIOR BRACED WALL PANELS (BWP) INDICATED SHALL BE SHEATHED IN ACCORDANCE WITH THE GB METHOD OR WSP METHOD AS PRESCRIBED IN SECTION R602.10.1 (UNO)
- (2) 1/2" GYPSUM BOARD (GB) MINIMUM LENGTH OF B'-O" (ISOLATED PANELS) OR 4'-O" (CONTINUOUS SHEATHING). SECURE W/ 54 COOLER NAILS (OR EQUAL PER TABLE R702.3.5) SPACED @ 7" O.C. AT PANEL EDGES, INCLUDING TOP AND BOTTOM PLATES & 7" O.C. AT INTERMEDIATE SUPPORTS
- 3 3/8" WOOD STRUCTURAL PANEL (WSP) SECURE W/ 8d COMMON NAILS SPACED AT 6" O.C. AT PANEL EDGES AND 12" O.C. AT INTERMEDIATE SUPPORTS
- AT INTERNEDIATE SUPPORTS

 5) EXTERIOR BRACED WALL PANELS (BWP) SHALL BE CONSTRUCTED IN ACCORDANCE WITH CS—WSP METHOD AS PRESCRIBED IN SECTION REQ2.10.3 (UNO)

 6) ALL SHEATHABLE SUPFACES OF EXTERIOR WALLS (INCLUDING AREAS ABOVE AND BELOW OPENINGS AND GABLE END WALLS) SHALL BE CONTINUOUSLY SHEATHED WITH WOOD STRUCTURAL PANEL (WSP) SHEATHING WITH A MINIMUM THICKNESS OF 3/8". SHEATHING SHALL BE SECURED WITH MINIMUM 64 COMMON NAILS SPACED AT 6"

 10.C. AT PANEL EDGES AND SPACED AT 12" 0.C. AT INTERNEDIATE SUPPORTS.

 7) MINIMUM BRACED WALL PANEL LENGTHS WITH CS—WSP METHOD SHALL BE AS FOLLOWS.

 10 SHALL BE AS FOLLOWS.

 10 SHALL BE AS FOLLOWS.

 11 STANDARD SHALL BE AS FOLLOWS.

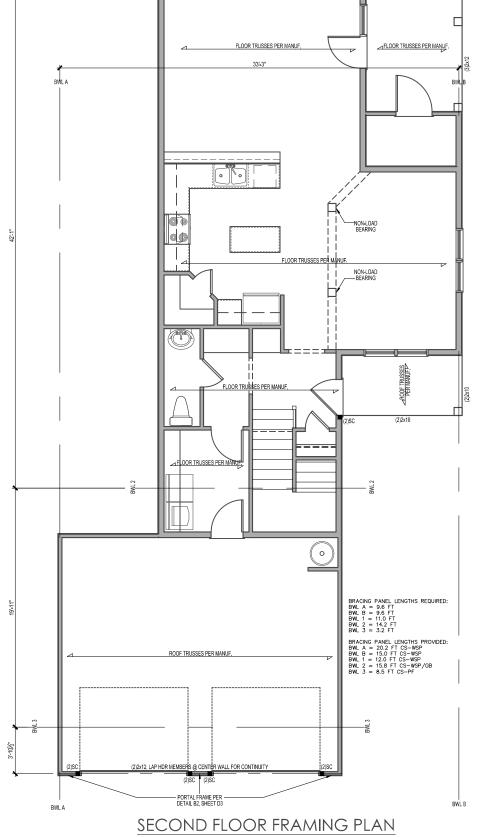
 12 ADJACENT TO OPENINGS NOT MORE THAN 67% AND LESS THAN 85% OF WALL HEIGHT.

 13 ADJACENT TO OPENINGS GREATER THAN 67% AND LESS THAN 85% OF WALL HEIGHT.

 14 SHEATH INTERIOR & EXTERIOR
- 4 SHEATH INTERIOR & EXTERIOR
- 8) FOR CS-WSP METHOD, A MINIMUM 24" BRACED WALL PANEL CORNER RETURN SHALL BE PROVIDED AT BOTH ENDS OF A BRACED WALL LINE IN ACCORDANCE WITH FIGURE R602.10.3(4). IN LIEU OF A CORNER RETURN, EITHER A MIN. 48" BRACED WALL PANEL SHALL BE PROVIDED AT THE CORNER OR A HOLD-DOWN DEVICE WITH A MINIMUM UPLIFT DESIGN VALUE OF 800% SHALL BE FASTENED TO THE EDGE OF THE BRACED WALL PANEL CLOSEST TO THE CORNER AND TO THE FOUNDATION OR FRAMING BELOW.

BRACING PANEL LENGTHS PROVIDED: BWL 3 = 7.7 FT CS-WSP

(5) MINIMUM 800# HOLD-DOWN DEVICE



BWL B BRACING PANEL LENGTHS REQUIRED: BWL A = 3.2 FT BWL B = 3.2 FT BWL 1 = 3.8 FT BWL 2 = 5.6 FT BWL 3 = 1.8 FT BRACING PANEL LENGTHS PROVIDED: BWL A = 25.0 FT GB BWL B = 13.7 FT GB BWL 1 = 7.0 FT GB BWL 2 = 7.2 FT CS-WSP/GB BWL 3 = 6.0 FT GB ATTIC TRUSSES PER MANUF

ATTIC FLOOR FRAMING PLAN

* Engineers seal does not include construction means, methods, techniques, sequ plans are to be brought to the immediate attention of Tyndall Engineering & Design, P.A. Failure to do so will void Tyndall Engineering Failure to do so will void Tyndal Engineeri & Design, P.A. faibility.

*Please review these documents carefully.
Tyndall Engineering & Design, P.A. will interpret that all dimensions, recommendat etc. presented in these documents were deemed acceptable once construction begins.

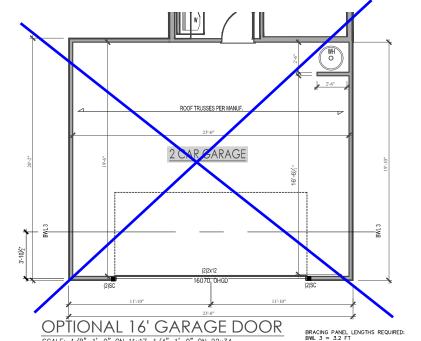




Project #: 2101-010157 Date: 05/06/21 Drawn/Design By ISE DWG. Checked By: SEE PLAN

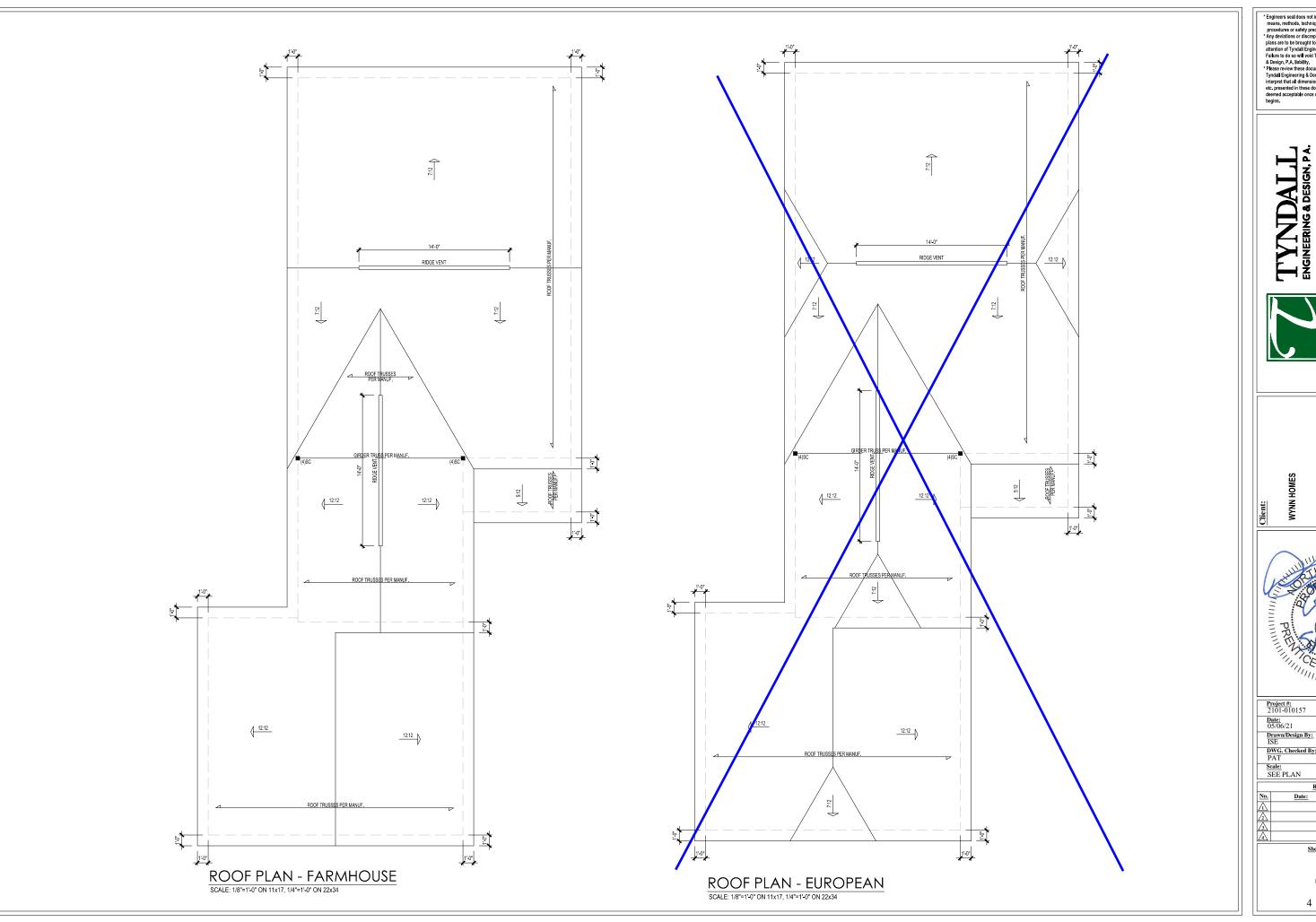
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S3



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





* Engineers seal does not include construction means, methods, techniques, sequences, procedures or safety pre-caution.

*Any deviations or discrepancies on plans are to be brought to the immediat attention of Tyndal Engineering & Design, P.A. Fallure to do so will void Tyndal Engineering & Design, P.A. blabilty.

*Please review these documents carefully Tyndal Engineering & Design, P.A. will interpret that all dimensions, recommendations, etc. presented in these documents were deemed acceptable once construction begins.



THE NICKLAUSII Garage Left



Date: 05/06/21 Drawn/Design By: ISE DWG. Checked By: PAT

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STRUCTURAL NOTES

ALL CONSTRUCTION SHALL CONFORM TO THE LATEST REQUIREMENTS OF "NORTH CAROLINA STATE 2018 RESIDENTIAL BUILDING CODE", IN ADDITION TO ALL LOCAL CODES AND REGULATIONS.

2) DESIGN LOADS:

	LIVE LOAD (PSF)	DEAD LOAD (PSF)		CTION		
			LL	TL.		
ALL FLOORS	40	10	L/360	L/240		
ATTIC (w/ walk up stairs)	30	10	L/360	L/240		
ATTIC (pull down access)	20	10	L/240	L/180		
ATTIC (no access)	10	5	L/240	L/180		
EXTERNAL BALCONY	40	10	L/360	L/240		
ROOF	20	10	L/240	L/180		
ROOF TRUSS	20	20	L/240	L/180		
WIND LOAD	BASED ON 120 MPH (EXPOSURE B)					
SEISMIC		SEISMIC ZONES A, B & C				

- 3) MINIMUM ALLOWABLE SOIL BEARING PRESSURE = 2000 PSF
- 4) CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3000 PSI AND A MAXIMUM SLUMP OF FIVE INCHES UNLESS NOTED OTHERWISE. (U.N.O.)
- MAXIMUM DEPTH OF UNBALANCED FILL AGAINST FOUNDATION WALLS TO BE LESS THAN 4'-0" WITHOUT USING SUFFICIENT WALL BRACING. REFER TO SECTION R404 OF 2018 NC BUILDING CODE FOR BACKFILL LIMITATIONS BASED ON WALL HEIGHT, WALL THICKNESS, SOIL TYPE, AND UNBALANCED BACKFILL HEIGHT.
- ALL FRAMING LUMBER SHALL BE SYP #2 (Fb = 800 PSI, BASED ON 2×10) UNO. ALL FRAMING LUMBER EXPOSED TO THE ELEMENTS SHALL BE TREATED MATERIAL. ALL IVIL LUMBER TO BE 1.5° WIDEN FORMER LEACH SINGLE MEMBER AND Fb = 2800 PSI, E = 1.9M PSI (U.N.O.) ALL ISL LUMBER TO BE 3.5° WIDE NOMINAL EACH SINGLE MEMBER AND Fb = 2825 PSI, E = 1.6M PSI (U.N.O.) ALL ISL LUMBER TO BE 3.5° WIDE NOMINAL EACH SINGLE MEMBER AND Fb = 2400 PSI, E = 1.6M PSI (U.N.O.) ALL PSI LUMBER TO BE 3.5° WIDE NOMINAL EACH SINGLE MEMBER AND Fb = 2400 PSI, E = 1.6M PSI (U.N.O.)
- ALL STRUCTURAL STEEL W-SHAPES (I-BEAMS) SHALL BE ASTM A992 GRADE 50. ALL STEEL ANGLES, PLATES, AND C-CHANNELS SHALL BE ASTM A36. ALL STEEL PIPE SHALL BE ASTM A53 GRADE B.
- 9) STEEL BEAMS SHALL BE SUPPORTED AT EACH END WITH A MINIMUM BEARING LENGTH OF 3-1/2" AND FULL FLANGE WIDTH. PROVIDE SOLID BEARING FROM BEAM SUPPORT TO FOUNDATION. BEAMS SHALL BE ATTACHED TO EACH SUPPORT WITH TWO (2) LAG SCOREW (1/2" o * 4" LONG). LATERAL SUPPORT IS CONSIDERED ADCOUNTE PROVIDED THE JOSTS ARE TOE NAILED TO THE SOLE PLATES, AND THE SOLE PLATES ARE NAILED OR BOLTED TO THE BEAM FLANGES @ 48" O.C.
- 10) PROVIDE ANCHOR BOLT PLACEMENT PER SECTION 403.1.6: 1/2"

 ANCHOR BOLTS SPACED AT 6"-0" O.C. AND PLACED 12" FROM THE END OF EACH PLATE SECTION. ANCHOR BOLTS SHALL BE SPACED AT 3"-0" O.C. FOR BASSMENTS. ANCHOR BOLT SHALL EXTEND 7" INTO CONCRETE OR MASONRY. THE BOLTS SHALL BE LOCATED IN THE MIDDLE THIRD OF THE WIDTH OF THE PLATE. THERE SHALL BE A MINIMUM TWO ANCHOR BOLTS PER PLATE SECTION.
- 11) FOUNDATION DRAINAGE-DAMP PROOFING OR WATERPROOFING PER SECTION 405 AND 406 OF NC BUILDING CODE.
- 12) WALL AND ROOF CLADDING VALUES:
 WALL CLADDING SHALL BE DESIGNED FOR 28.0 POUNDS PER SQUARE FOOT (LBS/SQFT) OR GREATER POSITIVE AND NEGATIVE PRESSURE.
 ROOF VALUES BOTH POSITIVE AND NEGATIVE SHALL BE AS FOLLOWS:
 39.0 LBS/SQFT FOR ROOF PITCHES 0/12 TO 1.5/12
 36.0 LBS/SQFT FOR ROOF PITCHES 15/12 TO 6/12
 18.0 LBS/SQFT FOR ROOF PITCHES 6/12 TO 12/12
 **MEAN ROOF HIGHES 15.0-0" OR LBS/SQFT POR ROOF PITCHES 15/12 TO 12/12
- 13) FOR ROOF SLOPES FROM 2/12 THROUGH 4/12, BUILDER TO INSTALL 2 LAYERS OF 15# FELT PAPER.
- 14) REFER TO SECTION R602.3 FOR FRAMING OF ALL WALLS OVER 10'-0" IN HEIGHT
- 15) PROVIDE CONTINUOUS SHEATHING PER SECTION 602.10.3 OF THE 2018 IRC
- 16) UPLIFT LOADS GREATER THAN 500# SHALL BE CONTINUOUSLY ANCHORED TO THE FOUNDATION. 17) REFER TO TABLE N1102.1 FOR PRESCRIPTIVE BUILDING ENVELOPE THERMAL COMPONENT CRITERIA.

- 19) PROVIDE A MINIMUM OF 500# UPLIFT & LATERAL CONNECTION AT TOP AND BOTTOM OF PORCH COLUMNS. (U.N.O.)
- 20) MAXIMUM MASONRY PEIR HEIGHT SHALL NOT EXCEED FOUR TIMES ITS LEAST HORIZONTAL DIMENSION.
- 21) IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND SQUARE FOOTAGE PRIOR TO CONSTRUCTION.
 TYNDALL ENGINEERING & DESIGN, PA IS NOT RESPONSIBLE FOR DIMENSION OR SQUARE FOOTAGE ERRORS ONCE CONSTRUCTION BEGINS.

CLIMATE ZONES	FENESTRATION U-FACTOR	SKYLIGHT b U-FACTOR	GLAZED FENESTRATION SHGC ^{b,k}	CEILING™ R-VALUE	WOOD FRAMED WALL R-VALUE	MASS WALL R-VALUE	FLOOR R-VALUE	BASEMENT [©] WALL R-VALUE	SLAB ^d R-VALUE AND DEPTH	CRAWL SPACE® WALL R-VALUE
3	0.35	0.55	0.30	38 or 30 cont	15 or 13 + 2.5	5/13 or 5/10 cont	19	5/13	0	5/13
4	0.35	0.55	0.30	38 or 30 cont ^j	15 or 13 + <u>2.5</u> ^h	5/13 or 5/10 cont	19	10/15	10	10/15
5	0.35	0.55	NR	38 or 30 cont J	19 ⁿ , or 13 + 5 ^h	13/17 <u>or</u> 13/12.5 cont	30 ⁹	10/15	10	10/19

* TABLE N1102.1 CLIMATE ZONES 3-5

- * IABLE NITUZ.1 CLIMATE ZUNES 3—3

 RO SCALE

 A R-WALLES REHAMAS LI-ACTOR AS DISCA DE MANUES, WICH ROSLATION IS INSTALLED IN A CAMTY WHICH IS LESS THAN THE LABEL OF DESIGN THROSESS OF THE ROBLATION, THE INSTALLED R-VALUE OF THE ROBLATION SHALL NOT BE LESS THAN THE R-VALUE SPROFTED IN THE TABLE.

 b. THE PROBLING LICENSE DEVICE AND LICENSE STATE TO THE ROBLATION SHALL NOT BE LESS THAN THE R-VALUE SPROFTED IN THE TABLE.

 c. DATE AS ASSESS AND LICENSE DEVICE AS ADMINISTRATION OF THE TABLE STATE AS ADMINISTRATION OF THE TABLE STA

 - BOOLDING IN THE PROMOTOR OF THE FORMATION AND THE ACCUSATION AND THE SECRET PROMOTOR OF THE FORMATION AND THE ACCUSATION AND TH
- 972 SQ. FT. OF CRAWL SPACE / 150 = 6.48 SQ. FT. OF REQ'D VENTILATION WITHOUT CROSS VENTILATION 6.48 SQ. FT. OF VENTILATION REQ'D / 0.45 SQ.FT. PER VENT = 15 VENTS REQ'D:

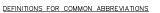
- VENT LOCATIONS MAY VARY FROM THOSE SHOWN ON PLAN, HOWEVER VENTS SHALL BE PLACED TO PROVIDE ADEQUATE VENTILATION AT ALL POINTS AND TO PREVENT DEAD AIR POCKETS.
- THE TOTAL AREA OF WITHAINS OF MOST AND A STORY THE AREA OF THE TOTAL AREA OF WITHAINS OF SHORY AND A STORY THE AREA OF THE TOTAL AREA OF THE AREA OF T

* CRAWL SPACE VENTILATION CALCULATION

1650 SQ. FT. OF ATTIC / 300 = 5.50 SQ. FT. INLETS/OUTLETS REQUIRED

- CALCULATION BASED ON VENTILATORS USED AT LEAST 3"-0" ABOVE THE COMICE VENTS WITH THE BALANCE OF VENTILATION PROVIDED BY EAVE VENTS.
- CATHEDRAL CEILINGS SHALL HAVE A 1" MINIMUM CLEARANCE BETWEEN THE BOTTOM OF THE ROOF DECK AND THE INSULATION.

* ATTIC VENTILATION CALCULATION



MANUAUM
MANUAU ALT CANT CJ COU COU CONT CT DBIA DJ DR EE FJ FND FTG GALV HORIZ HT

1) MAXIMUM HEIGHT OF DECK SUPPORT POSTS AS FOLLOWS:

POST SIZE	MAX. POST HEIGHT**
4 × 4	8'-0"
6 x 6	20'-0"
***	OVER 20'-0"

- THIS TABLE IS BASED ON NO. 2 TREATED SOUTHERN PINE POSTS.
 MAXIMUM TRIBUTARY AREA IS BASED ON 128 TOTAL SQUARE FEET
 WHICH MAY BE LOCATED AT DIFFERENT LEVELS.
 FROM TOP OF FOOTING TO BOTTOM OF GROER
 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 THESE METHODS:
- HIESE MEINDUS:

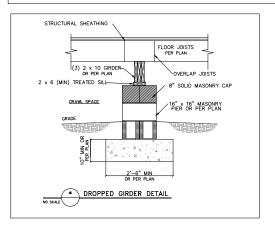
 A THE DECK FLOOR HEIGHT IS LESS THAN 4"-0" AND THE DECK IS
 ATTACHED TO THE STRUCTURE IN ACCORDANCE WITH SECTION (4)
 ABOVE. LATERAL BRACING IS NOT REQUIRED.

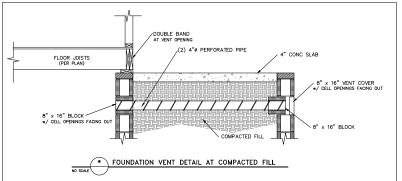
 B. 4 × 4 WOOD KIKE BRACKES MAY BE PROVIDED ON EACH COLUMN IN
 BOTH DIRECTIONS. THE KIKE BRACES SHALL BATCHO TO EACH POST
 AT A POINT NOT LESS THAN 1/3 OF THE POST LENGTH FROM THE
 TOP OF THE POST. AND THE BRACES SHALL BE RANGED BETWEEN
 45' AND 60' FROM THE HORIZONTAL KIKE BRACES SHALL BE BOLIZED
 OTHE FOST AND GROBER WITH ONE 5/8" # NOT DIPPED GALVANIZED
 OTHER FOST AND GROBER WITH ONE 5/8" # NOT DIPPED GALVANIZED

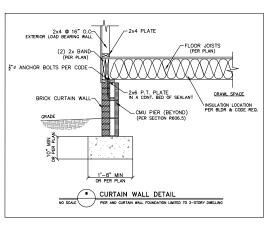
 C. FOR FREESTANDING DECKS WITHOUT KIKE BRACES OR DIAGONAL
 BRACKONG, LATERAL STABILITY MAY BE PROVIDED BY EMBEDDING THE
 POSTS IN ACCORDANCE WITH THE FOLLOWING:

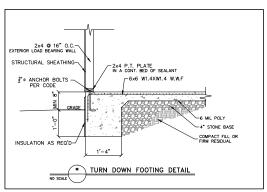
	POST SIZE	MAX. TRIBUTARY AREA	MAX. POST HEIGHT	EMBEDMENT DEPTH	CONCRETE DIAMETER	
	4 × 4	48 SQ. FT.	4'-0"	2'-6"	1'-0"	
1	6 x 6	120 SQ. FT.	6'-0"	3'-6"	1'-8"	

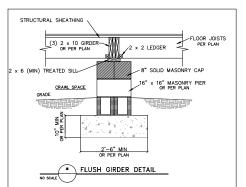
D. 2 x 6 DIAGONAL VERTICAL CROSS BRACING MAY BE PROVIDED IN TWO
(2) PERPENDICULAR DIRECTIONS FOR FREESTANDING DECKS OR PARALLEL
TO THE STRUCTURE AT THE EXPENDENC OCLUMN LINE FOR ATTACHED DECKS
THE 2 x 6s SHALL BE ATTACHED TO THE POSTS WITH ONE 5/8" 6 HOT
DIPPED CALVANIZED BOLT AT EACH END OF EACH BRACING MEMBER.
E. FOR EMBEDMENT OF PILES IN COASTAL REGIONS, SEE CHAPTER 46.









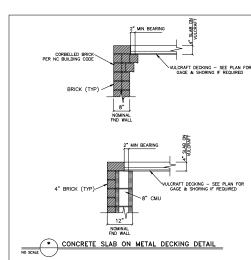


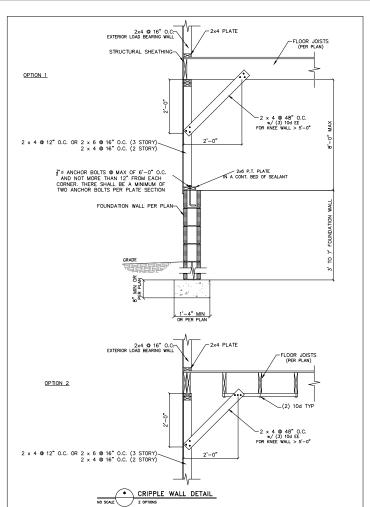
2x SILL PLATE

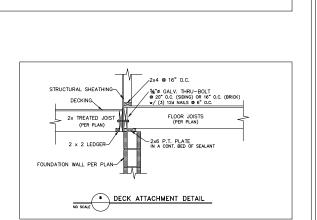
CONCRETE STEPPED FOOTING

2'-0"

FOOTING SECTION "A"







* STEP DOWN FOUNDATION AT CRIPPLE WALL

USED WITH BOTH OPTIONS ABOVE

NOTE: MICHER FORTIONS SECTION "A" IS LESS THAN 8 FEET LONG IN A 25 FEET TOTAL
LICHORY MICH. PROVINE REPORT AT CHEPPLE TIOD WALL.

WHERE FOOTING SECTION "A" IS MORE THAN 8'-0" PROVIDE METAL TIE 16 ga \times 1.5 \times 4'-0" MIN,, EACH SIDE OF SPLICE w/ 8-16d

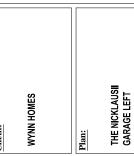
2 x 4 @ 12" O.C. OR 2 x 6 @ 16" O.C. (3 STORY) 2 x 4 @ 16" O.C. (2 STORY)







1419 778-1200 = 1419 7. 1441 = North Carelina . www.syndallanaineari.

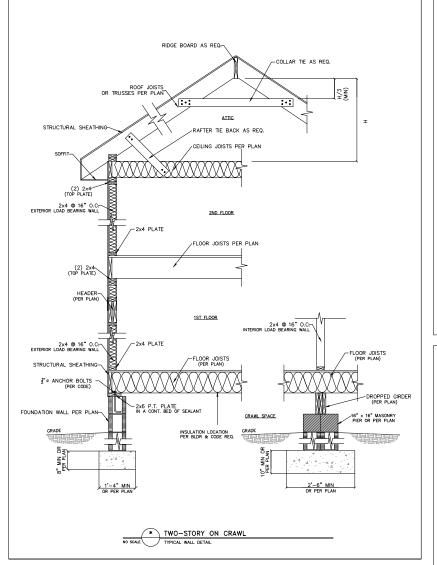




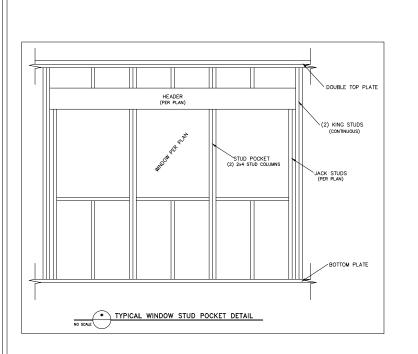
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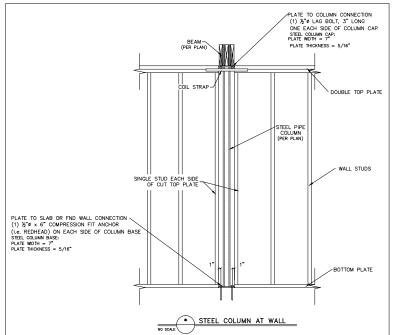
Date: Remarks

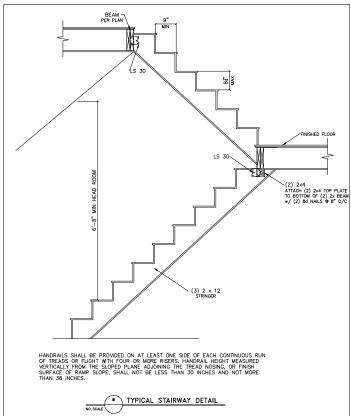
1 of 3

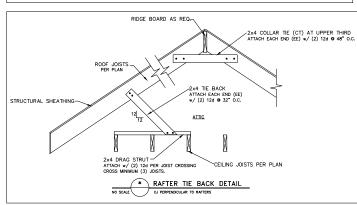


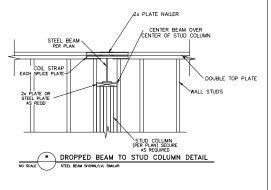


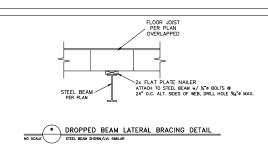


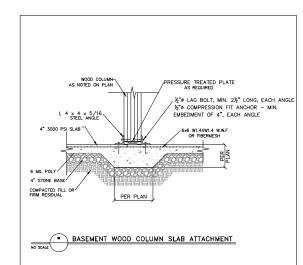


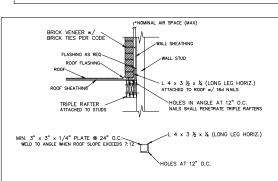












ALLOWABLE SPANS FOR LINTELS SUPPORTING MASONRY VENEER

SIZE OF ANGLE ^(1,3)	NO STORY ABOVE(5)	1 STORY ABOVE(5)	2 STORIES ABOVE (5)	# OF ½" (OR EQUIV.) REINFORCING BARS IN REINFORCED LINTEL (2.4.5)
L 3 x 3 x 1/4	6'-0"	4'-6"	3'-0"	1
L 4 × 3 × 1/4	8'-0"	6'-0"	4'-6"	1
L 5 x 3 ½ x ¾6	10'-0"	8'-0"	6'-0"	2
L 6 x 3 ½ x ¾6	14'-0"	9'-6"	7'-0"	2
2L 5 x 3 ½ x 5√6	20'-0"	12'-0"	9'-6"	4

- 1. LONG LEG OF THE ANGLE SHALL BE PLACED IN A VERTICAL POSITION.

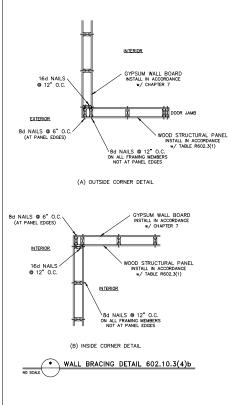
 2. DEPTH OF REINFORCED LINTELS SHALL NOT BE LESS THAN 87 AND ALL CELLS OF NOT LESS THAN 87 AND THE STALL EXTEND NOT LESS THAN 87 INTO THE SUPPORT.

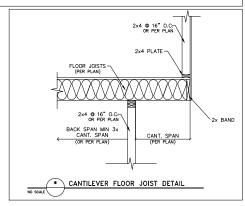
 2. STEEL MEMBERS INDICATED ARE ADDICULATE TYPICAL EXAMPLES, OTHER STEEL MEMBERS METHING STRUCTURAL DESIGN REQUIREMENTS SHALL BE PERMITTED TO BE USED.

 4. ETHER STEEL ANGEL OR REINFORCED LINTEL SHALL SPAN DETAILS OF THE STEEL ANGEL OR REINFORCED LINTEL SHALL SPAN DETAILS OF THE STEEL ANGEL OR REINFORCED LINTEL SHALL SPAN DETAILS OF THE STEEL ANGEL OR REINFORCED LINTEL SHALL SPAN DETAILS OF THE STEEL ANGEL OR REINFORCED LINTEL SHALL SPAN DETAILS OF THE STEEL ANGEL OR REINFORCED LINTEL SHALL SPAN DETAILS OF THE STEEL ANGEL OR REINFORCED LINTEL SHALL SPAN DETAILS OF THE STEEL ANGEL OR REINFORCED LINTEL SHALL SPAN DETAILS OF THE STEEL ANGEL OR REINFORCED LINTEL SHALL SPAN DETAILS OF THE STEEL ANGEL OR REINFORCED LINTEL SHALL SPAN DETAILS OF THE STEEL ANGEL OR REINFORCED LINTEL SHALL SPAN DETAILS OF THE STEEL ANGEL OR REINFORCED LINTEL SHALL SPAN DETAILS OF THE STEEL ANGEL OR REINFORCED LINTEL SHALL SPAN DETAILS OF THE STEEL ANGEL OR REINFORCED LINTEL SHALL SPAN DETAILS OF THE STEEL ANGEL OR REINFORCED LINTEL SHALL SPAN DETAILS OF THE STEEL ANGEL OR REINFORCED LINTEL SHALL SPAN DETAILS OF THE STEEL ANGEL OR REINFORCED LINTEL SHALL SPAN DETAILS OF THE STEEL ANGEL OR REINFORCED LINTEL SHALL SPAN DETAILS OF THE STEEL ANGEL OR REINFORCED LINTEL SHALL SPAN DETAILS OF THE STEEL ANGEL OR REINFORCED LINTEL SHALL SPAN DETAILS OF THE STEEL ANGEL OR REINFORCED LINTEL SHALL SHALL SPAN DETAILS OF THE STEEL ANGEL OR REINFORCED LINTEL SHALL SHAL

* MASONRY VENEER SUPPORT FIG 703.8.3.1

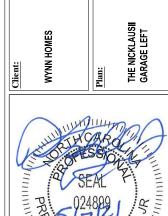
HARDWARE CRO	OSS-REFERENCE CHART
SIMPSON STRONG-TIE	USP STRUCTURAL CONNECTORS
PRODUCT NUMBER	PRODUCT NUMBER
A35	MPA1
ABE	PAE
CBSQ	CBSQ
CCQ	KCCQ
CMSTC16	CMSTC16
CS	RS
H1	RT15
H2.5A	RT7A
H10	RT16
HDQ8-SDS3	UPHD8
HDU2-SDS2.5	PHD2
HDU5-SDS2.5	PHD5
HETA	HTA
HGAM10KTA	HGAM
HHDQ14-SDS2.5	UPHD14
HTS	HTW
HTT	нтт
HUS	HUS
LTA1	LPTA
LTHJA26	HJC26
LTP4	MP4F
LUS	JUS
MAS	FA3
MSTAM	MSTAM
PC	PCM
PHD-SDS3	PHD
SSP	RSPT6
STC	TR1
STHD	STAD







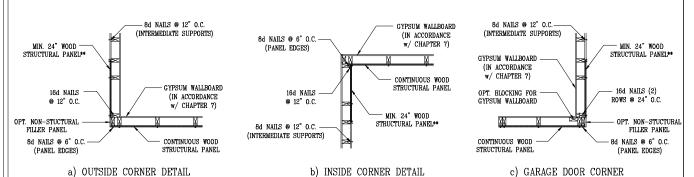




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2 of 3



** IN LIEU OF THE 24" (MIN.) CORNER RETURN. A HOLD-DOWN DEVICE WITH A MINIMUM UPLIFT DESIGN VALUE OF 800# SHALL BE FASTENED TO THE CORNER STUD AND TO THE FOUNDATION OR FRAMING BELOW.

TYPICAL EXTERIOR CORNER FRAMING FOR CONTINUOUS SHEATHING

STRUCTURAL SHEATHING NOTES

- DESIGNED FOR SEISMIC ZONE A-C AND WIND SPEEDS OF 120 MPH OR LESS.
- 2) WALLS SHALL BE BRACED IN ACCORDANCE WITH SECTION R602.10 OF THE 2018 NCRC.
- 3) BRACING FIRE 2010 NOTE.

 3) BRACING REQUIREMENTS SHALL BE PER TABLE R602.10.3. REFER TO SECTION R602.10.4 FOR LOAD PATH DETAILS INCLUDING CONNECTIONS & SUPPORT OF BRACED WALL PANELS.
- (1) REFERENCE FIGURE R602.10.4.3 OF THE 2018 NCRC.
- INTERIOR BRACED WALL PANELS (BWP) INDICATED SHALL
 BE SHEATHED IN ACCORDANCE WITH THE GB METHOD OR
 WSP METHOD AS PRESCRIBED IN SECTION R602.10.1 (UNO
- (2) 1/2° GYPSUM BOARD (GB) MINIMUM LENGTH OF B'-0° (SIGLATED PANELS) OR 4-0° (CONTINUOUS SHEATHING). SECURE √5 GLOCKE MAILS (OR EQUIA PER TABLE R702.3.5) SPACED ⊕ 7° 0.C. AT PANEL EDGES, INCLUMNO TOP AND BOTTOM PLATES & 7° 0.C. AT INTERMEDIATE SUPPORT
- (3) 3/8" WOOD STRUCTURAL PANEL (WSP) SECURE w/ 6d COMMON NAILS SPACED AT 6" O.C. AT PANEL EDGES AND 12" O.C. AT INTERMEDIATE SUPPORTS
- 6 O.C. AT PANEL EDGES AND TO CO.

 AT INTERMEDIATE SUPPORTS

 5) EXTERIOR BRACED WALL PANELS (BWP) SHALL BE CONSTRUCTED IN ACCORDANCE WITH CS-WSP METHOD AS PRESCRIBED IN SECTION REGO. 10.3 (UNO)

 6) ALL SHEATHABLE SUPPACES OF EXTERIOR WALLS

 6) ALL SHEATHABLE SUPPACES OF EXTERIOR WALLS

 6) ALL SHEATHABLE SUPPACES OF EXTERIOR WALLS

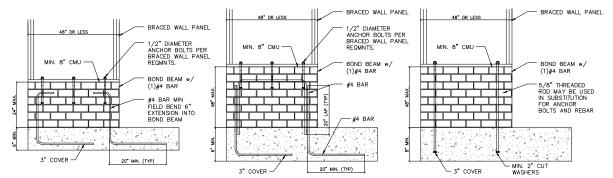
 6) CARRIED STRUCTURAL PANEL (WSP) SHEATHING WITH A MINIMUM THICKNESS OF 3/8". SHEATHING SHALL BE SECURED WITH MINIMUM BADEL (WSP) SHEATHING WITH A MINIMUM THICKNESS OF 3/8". SHEATHING SHALL BE SECURED WITH MINIMUM BO COMMON THICKNESS OF 3/8". SHEATHING SHALL BE SECURED WITH MINIMUM BO COMMON THICKNESS OF 3/8". SHEATHING SHALL BE SECURED WITH MINIMUM BRACED WALL PANEL LENGTHS WITH CS-WSP METHOD SHALL BE AS FOLLOWS:

 24" ADJACENT TO OPENINGS OREATER THAN 67% AND LESS THAN 85% OF WALL HEIGHT.

 48" FOR OPENINGS GREATER THAN 65% OF WALL HEIGHT.
- 4 SHEATH INTERIOR & EXTERIOR
- (5) MINIMUM 800# HOLD-DOWN DEVICE

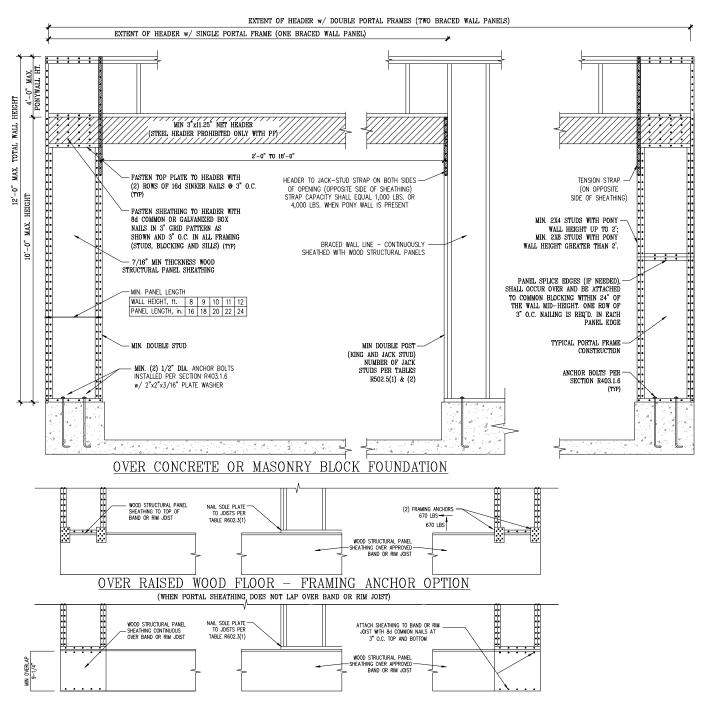
REQUIRED BRACED WALL PANEL CONNECTIONS								
			REQUIRED CONNECTION					
METHOD	MATERIAL	MIN. THICKNESS	@ PANEL EDGES	@ INTERMEDIATE SUPPORTS				
CS-WSP	WOOD STRUCTURAL PANEL	3/8"	6d COMMON NAILS ⊚ 6" O.C.	6d COMMON NAILS @ 12" O.C.				
GB	GYPSUM BOARD	1/2"	5d COOLER NAIL** ⊗ 7" O.C.	5d COOLER NAIL** @ 7" O.C.				
WSP	WOOD STRUCTURAL PANEL	3/8"	6d COMMON NAILS © 6" O.C.	6d COMMON NAILS @ 12" O.C.				

**OR EQUIVALENT PER TABLE R702.3.5 B3: BRACE WALL PANEL CONNECTIONS



B4: MASONRY STEM WALL SUPPORTING BRACED WALL PANELS

FIGURE R602.10.4.3 OF THE 2018 NCRC NOTE: GROUT BOND BEAMS AND ALL CELLS WHICH CONTAIN REBAR, THREADED RODS AND ANCHOR BOLTS



OVER RAISED WOOD FLOOR - OVERLAP OPTION

B2: METHOD CS-PF: CONTINUOUSLY SHEATHED PORTAL FRAME

* Engineers seal does not include construction plans are to be brought to the imm attention of Tyndal Engineering & Design, P.A. Failure to do so will void Tyndall Engineering Failure to do so will void Tyndal Engineeri & Design, P.A. faibility.

*Please review these documents carefully.

*Yphadal Engineering & Design, P.A. will interpret that all dimensions, recommendate etc. presented in these documents were deemed acceptable once construction begins.

TYNDALL ENGINEERING & DESIGN, P.A.





Project #: 2101-010157 Date: 05/06/21 Drawn/Design By ACS DWG. Checked By: PAT NOT TO SCALE