

# BUFFINGTON

CANE MILL ESTATES  
LOT 23



PLAN ID: 060120.0601

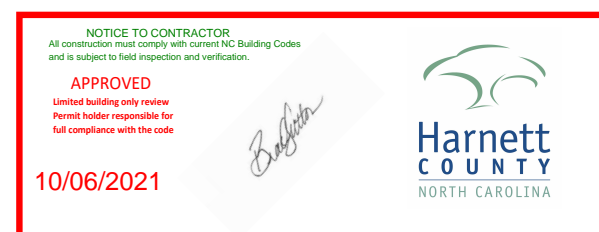
110 VILLAGE TRAIL SUITE 215  
WOODSTOCK, GA. 30188

DRAWING INDEX	
A0.0	COVER SHEET
A1.1	FRONT ELEVATIONS
A2.1	SIDE & REAR ELEVATIONS
A3.1	SLAB FOUNDATIONS
A5.1	FIRST FLOOR PLANS & DETAILS
A5.2	SECOND FLOOR PLANS & DETAILS
A6.1	ROOF PLANS
A7.2-A7.3	ELECTRICAL PLANS

AREA TABULATION	
FIRST FLOOR	1100
SECOND FLOOR	1448
TOTAL	2548
GARAGE	400
FRONT PORCH (COVERED)	86
REAR DECK	120

PLAN REVISIONS			
DATE	BY	REVISION	PAGE #
10/2/2019	AW	PCR #3256 showed Obath switches on door adjacent to W.I.C.	A7.3
10/2/2019	AW	PCR #3247 Added 3-way switches to Owner's Suite light when optional Laundry door is chosen	A7.3
10/8/2019	AW	PCR #3292 moved kitchen light switches over to clear backsplash bullnose on wall adjacent to stairs	A7.2
10/16/2019	AW	Revised location for tankless hot water heater	A3.1, A5.1, A7.2
11/1/2019	AW	PCR #3314 Relocated switch to attic light for the B&C roof massings	A7.2
2/26/2020	AW	PCR #3638 Added 1x10 on front elevations M & T	A1.16, A1.19
6/1/2020	MM	PCR #3765 Added note to return veneer ILO siding on second floor returns above front door.	A1.6, A1.11, A1.15, A1.17
8/11/2020	AW	Updated elevs M & T to remove cedar columns	A1.16, A1.19
10/1/2020	AW	PCR #4084 Removed opt. fireplace in corner location (for 10/1/20 release)	A3.1, A5.1, A7.2, A8.1
11/6/2020	MM	Removed overhang at front porch	A1.1-A1.19, A6.1-A6.1.2
12/1/2020	MM	Shifted upper run of stairs 2" from landing towards outside of house	A5.1, A5.2
12/1/2020	MM	PCR #4239 Changed 2x6 walls at Owner's Bath vanity & WC exterior wall to 2x4 walls	A5.2, A5.2.1
6/1/2021	MM	Changed hall bath vanity from (2) 33" vanities to (2) 30" vanities	A5.2, A7.3

GOVERNMENTAL CODES & STANDARDS
HOME TO BE BUILT TO CONFORM TO ALL APPLICABLE LOCAL CODES, PRACTICES AND STANDARDS
BUILDING CODE ANALYSIS / DESIGN CRITERIA
HOME TO BE BUILT TO MEET OR EXCEED ALL LOCAL CODES AND DESIGN CRITERIA



# CANE MILL ESTATES LOT 23



FRONT ELEVATION "D"

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

ALL NON-MASONRY RETURNS TO BE HORIZONTAL SIDING

SEE SHEET D3 OF SDH TYPICAL DETAILS FOR SOFFIT DETAILS PER SOFFIT MATERIAL

DATE	REVISION	BY	#	#	#	#



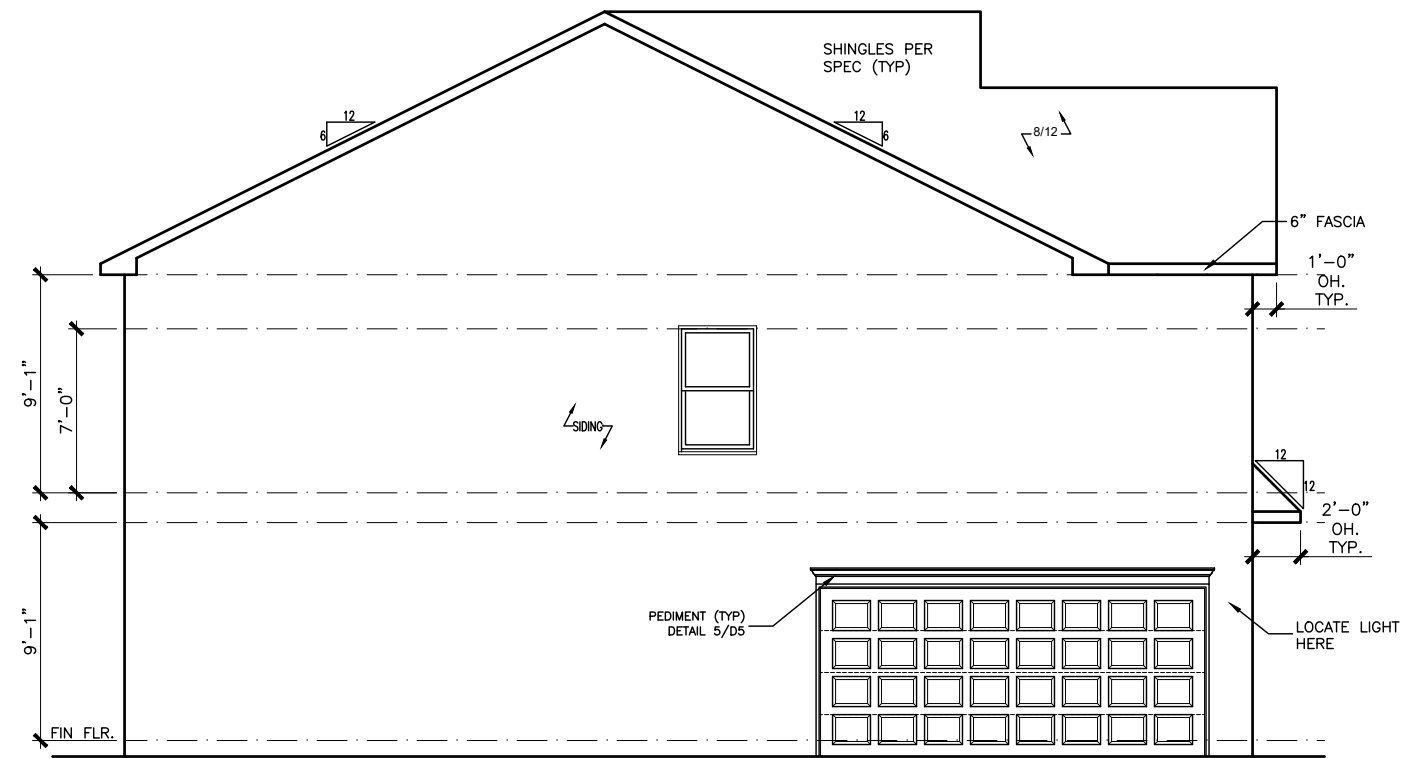
ELEVATIONS  
FRONT ELEVATION  
BUFFINGTON

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SUITE 115  
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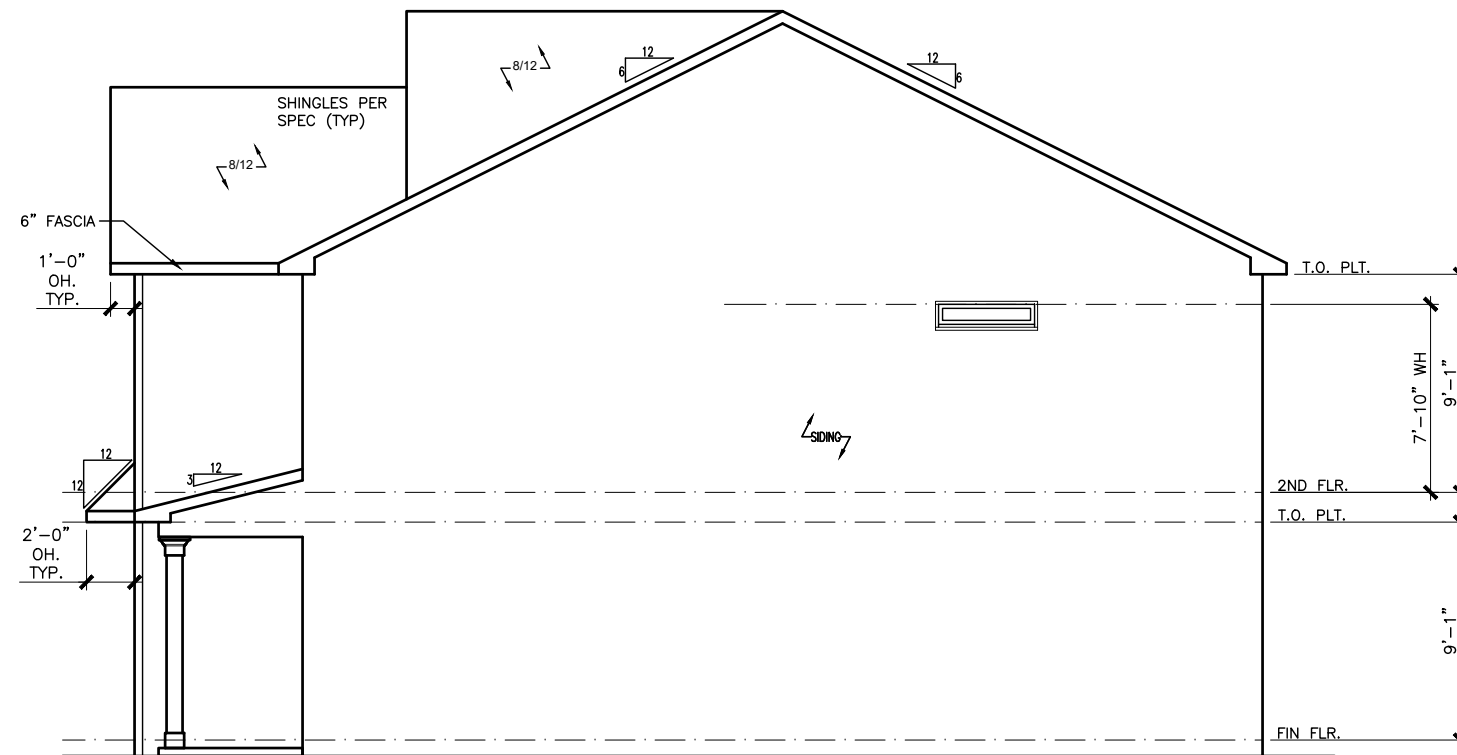
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DATE: 8/19/21	
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PLAN ID:	
FND: ALL	ELEV: D
PAGE NO: A1.1	

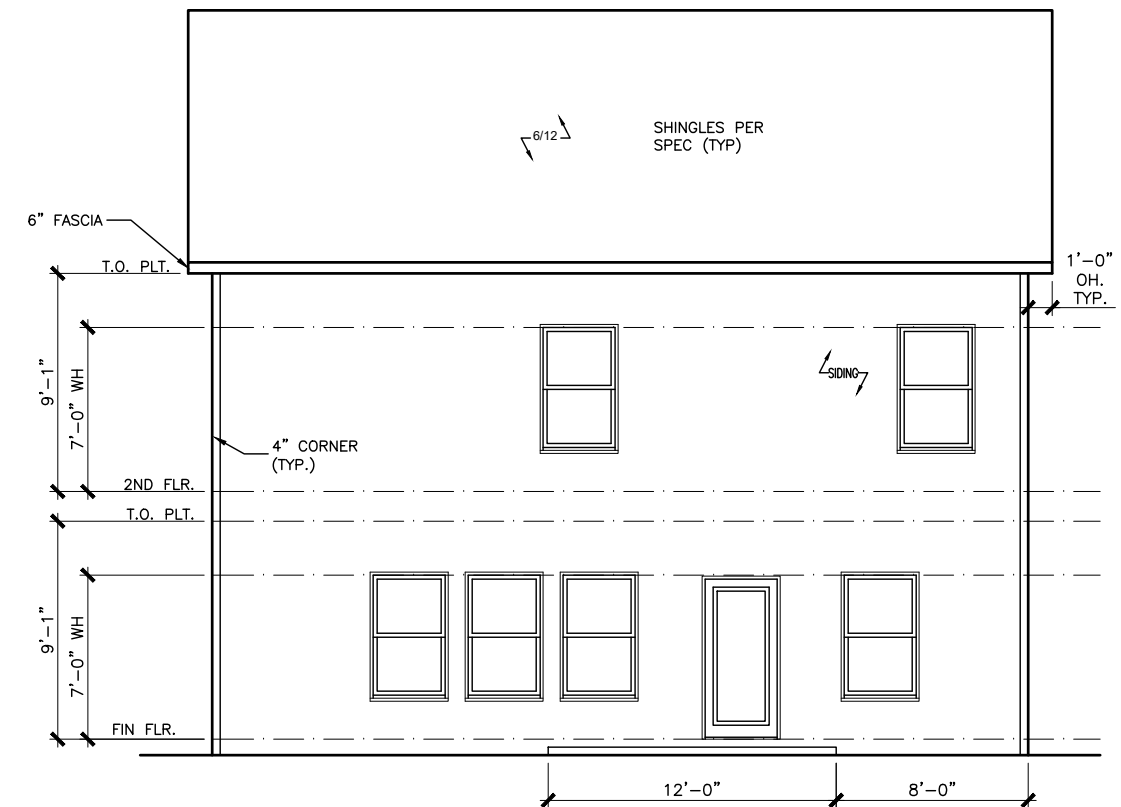
# CANE MILL ESTATES LOT 23



LEFT ELEVATION "D" SIDE ENTRY GARAGE  
SCALE: 1/8" = 1'-0"



RIGHT ELEVATION "D"  
SCALE: 1/8" = 1'-0"



REAR ELEVATION "D"  
SCALE: 1/8" = 1'-0"

BY	#	DATE	REVISION



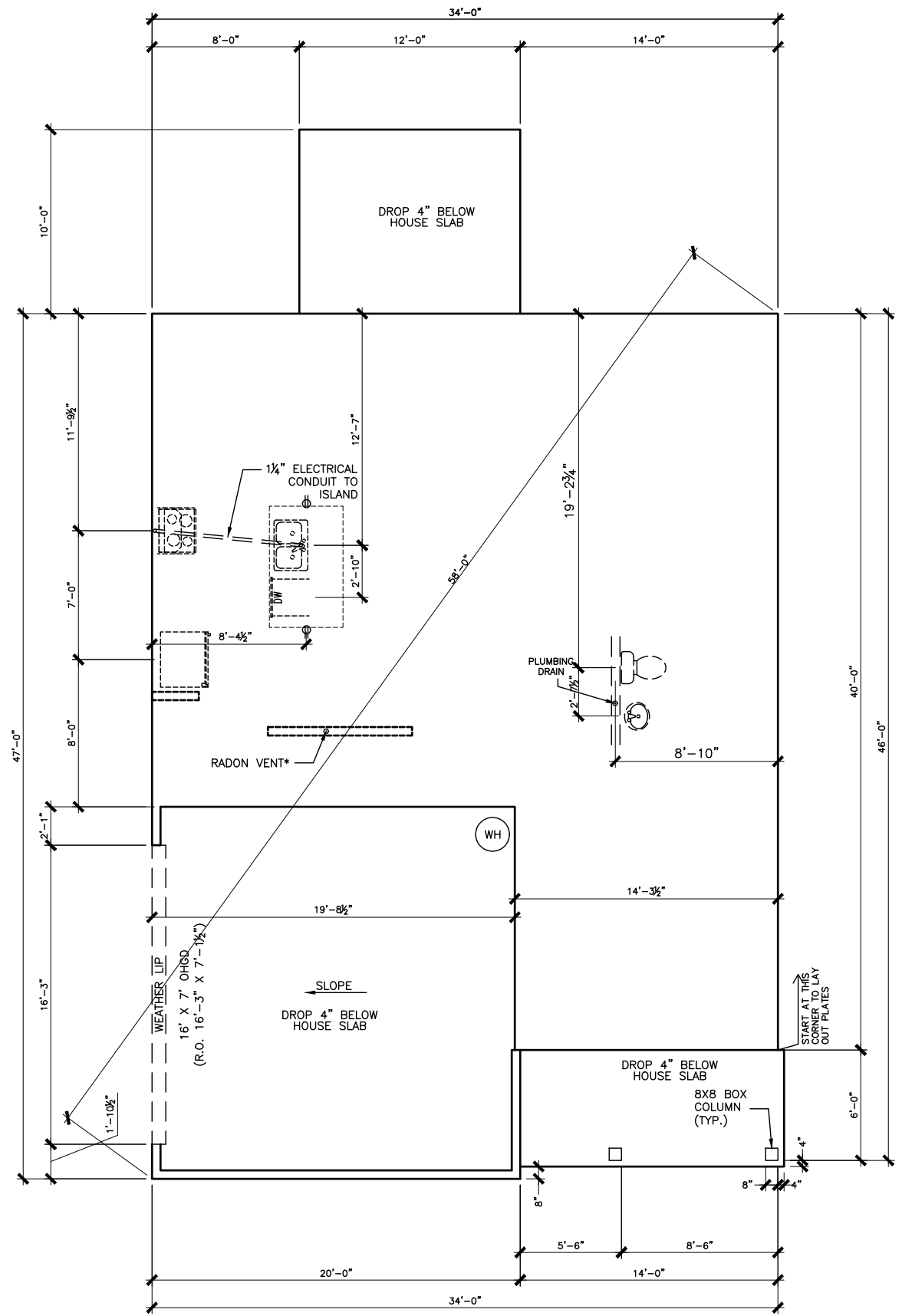
ELEVATIONS  
SIDES AND REAR  
BUFFINGTON

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PLAN ID:	
FND: ALL	ELEV: D
PAGE NO: A2.1	

# CANE MILL ESTATES LOT 23



\*RADON VENT PROVIDED  
PER LOCAL CODE

REFER TO DETAIL 3/D1  
FOR BRICK LEDGE  
DETAIL WHEN BRICK  
VENEER IS CHOSEN

SLAB PLAN

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

BY	REVISION	DATE
#	#	#
#	#	#
#	#	#
#	#	#
#	#	#



FOUNDATION PLAN  
SLAB PLAN  
BUFFINGTON

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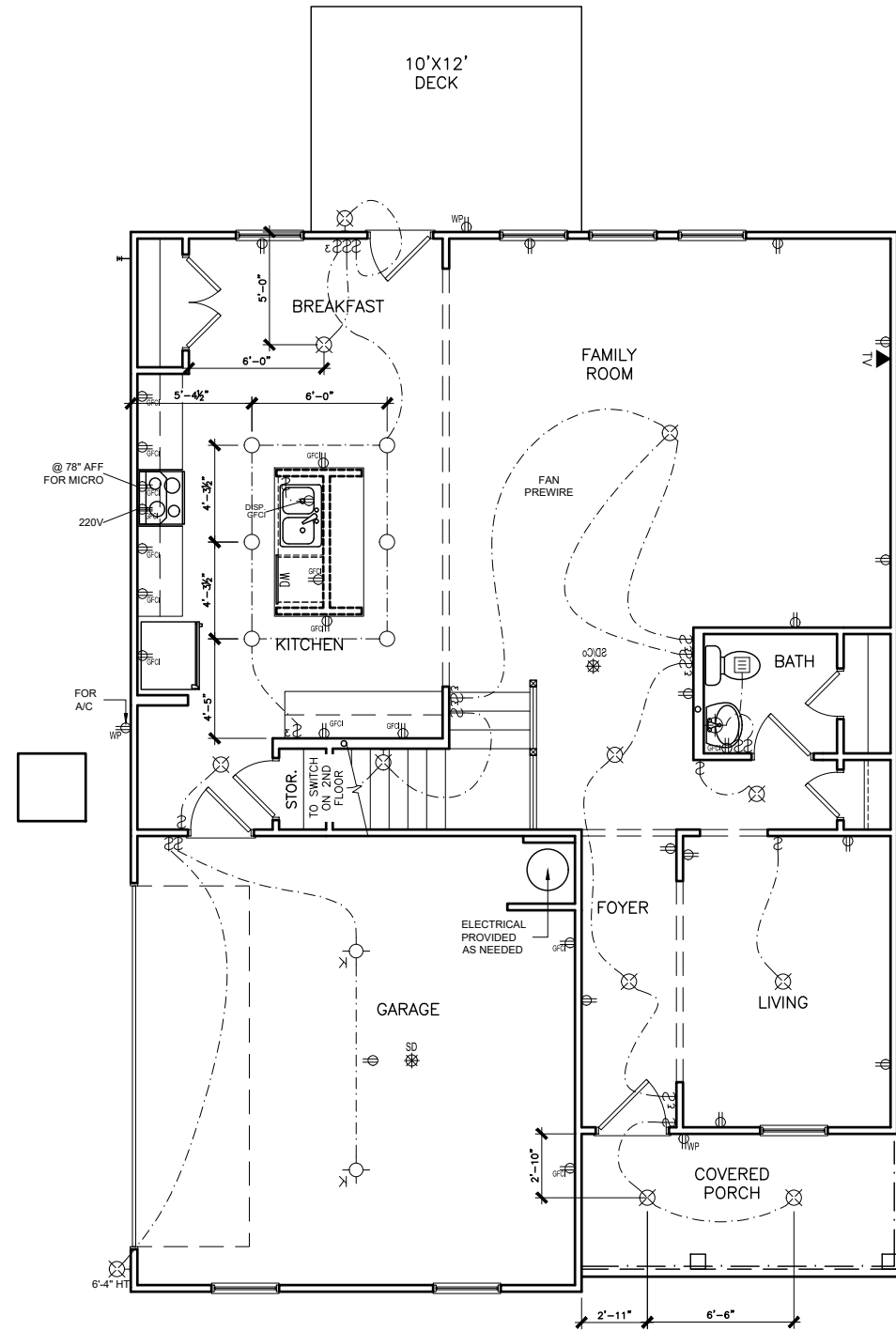
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PLAN ID:	
FND: ALL	ELEV: D
PAGE NO: A3.1	







# CANE MILL ESTATES LOT 23



## ELECTRICAL LEGEND

\$	SWITCH	TV	TV
\$3	3 WAY SWITCH	⊕	120V RECEPTACLE
\$4	4 WAY SWITCH	⊕	120V SWITCHED RECEPTACLE
⊗	CEILING FIXTURE	⊕	220V RECEPTACLE
⊕	KEYLESS	⊕	GFCI OUTLET
⊗	WALL MOUNT FIXTURE	⊕	ARCH FAULT CIRCUIT INTERRUPTER
⊕	CEILING FIXTURE	†	GAS LINE
●	FLEX CONDUIT	†	WATER LINE
CH	CHIMES	⊥	HOSE BIBB
PH	TELEPHONE	⊕	FLOOD LIGHT
SD/Co	SMOKE DETECTOR & CARBON MONOXIDE	⊕	1x4 LUMINOUS FIXTURE
SO	SECURITY OUTLET	⊕	CEILING FAN
□	GARAGE DOOR OPENER	—	ELECTRICAL WIRING
⊕	EXHAUST FAN	⊕	CEILING FIXTURE
⊕	FAN/LIGHT		

ELECTRICAL PLANS TO FOLLOW ALL LOCAL CODES

APPROX. FIXTURE HGTS (MEASURED FROM BOTTOM OF FIXTURE)

BREAKFAST/DINING ROOM	63" ABOVE FINISHED FLOOR
KITCHEN PENDANT LIGHTS	33" ABOVE COUNTER TOP
TWO STORY FOYER FIXTURE	96" ABOVE FINISHED FLOOR
CEILING FAN	96" ABOVE FINISHED FLOOR

NOTE: FINAL PLACEMENT OF PHONE/CABLE T.B.D. ON SITE BY THE BUILDER

FIRST FLOOR ELECTRICAL PLAN

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

BY	#	REVISION	DATE



ELECTRICAL PLAN  
FIRST FLOOR  
BUFFINGTON

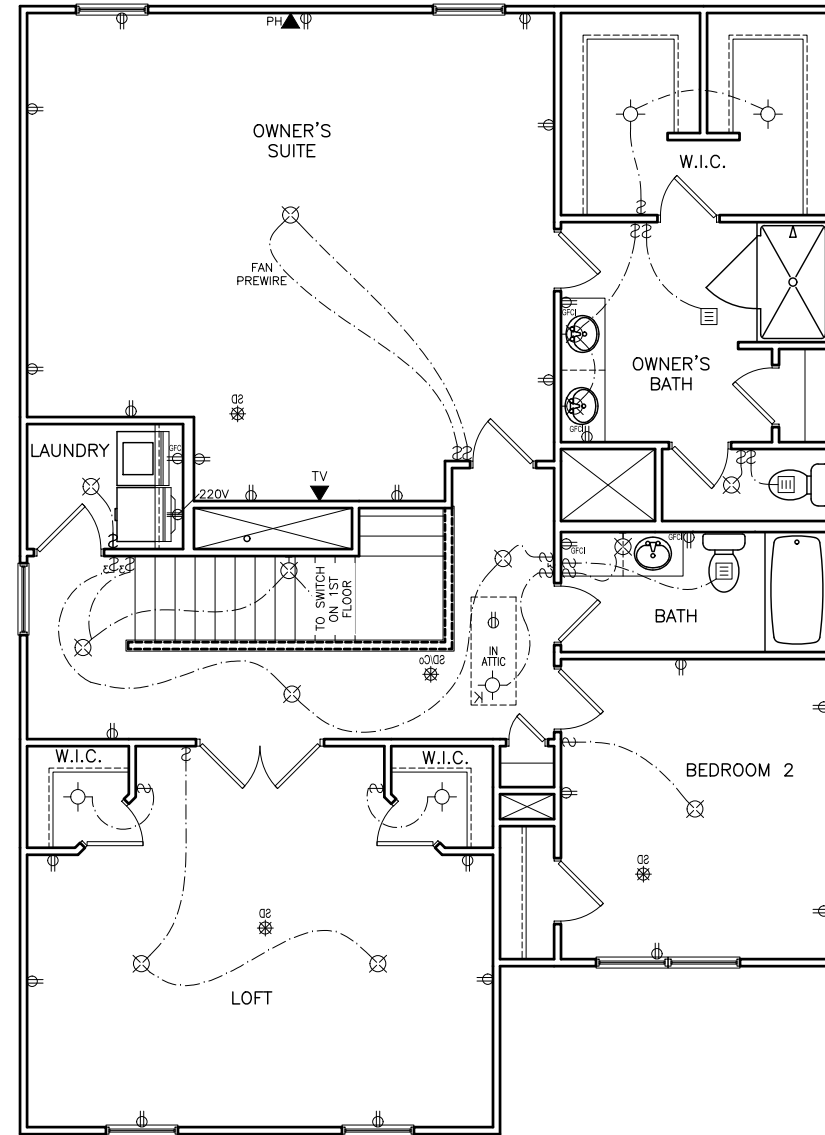
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FND: ALL	ELEV: D
PAGE NO: A7.2	



# CANE MILL ESTATES LOT 23



ELECTRICAL LEGEND			
Ⓢ	SWITCH	TV	TV
Ⓢ <sub>3</sub>	3 WAY SWITCH	Ⓢ	120V RECEPTACLE
Ⓢ <sub>4</sub>	4 WAY SWITCH	Ⓢ	120V SWITCHED RECEPTACLE
⊗	CEILING FIXTURE	Ⓢ	220V RECEPTACLE
Ⓢ <sub>K</sub>	KEYLESS	Ⓢ <sub>GFCI</sub>	GFCI OUTLET
⊗	WALL MOUNT FIXTURE	Ⓢ <sub>AFCI</sub>	ARCH FAULT CIRCUIT INTERRUPTER
○	CEILING FIXTURE	† <sub>GL</sub>	GAS LINE
●	FLEX CONDUIT	† <sub>WL</sub>	WATER LINE
CH	CHIMES	⊥	HOSE BIBB
PH	TELEPHONE	Ⓢ	FLOOD LIGHT
SD/CO	SMOKE DETECTOR & CARBON MONOXIDE	Ⓢ	1x4 LUMINOUS FIXTURE
SO	SECURITY OUTLET	Ⓢ	CEILING FAN
□	GARAGE DOOR OPENER	—	ELECTRICAL WIRING
Ⓢ	EXHAUST FAN	Ⓢ	CEILING FIXTURE
Ⓢ	FAN/LIGHT		

ELECTRICAL PLANS TO FOLLOW ALL LOCAL CODES

APPROX. FIXTURE HGTS (MEASURED FROM BOTTOM OF FIXTURE)

BREAKFAST/DINING ROOM	63" ABOVE FINISHED FLOOR
KITCHEN PENDANT LIGHTS	33" ABOVE COUNTER TOP
TWO STORY FOYER FIXTURE	96" ABOVE FINISHED FLOOR
CEILING FAN	96" ABOVE FINISHED FLOOR

NOTE: FINAL PLACEMENT OF PHONE/CABLE T.B.D. ON SITE BY THE BUILDER

BY	#	REVISION	DATE



ELECTRICAL PLAN  
SECOND FLOOR  
BUFFINGTON

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PLAN ID:	
FND: ALL	ELEV: D
PAGE NO: A7.3	

SECOND FLOOR ELECTRICAL PLAN  
SCALE: 1/8" = 1'-0"





#### GENERAL STRUCTURAL NOTES:

- 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 this structure. No other party may revise, alter, or delete any structural aspects of these construction documents without written permission of SUMMIT Engineering, Laboratory & Testing, P.C. (SUMMIT) or the SER. For the purposes of these construction documents the SER and SUMMIT shall be considered the same entity.
  - The structure is only stable in its completed form. The contractor shall provide all required temporary bracing during construction to stabilize the structure.
  - 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.
  - 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 SUMMIT 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 SUMMIT.
  - 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 SUMMIT before construction begins.
  - The SER is not responsible for any secondary structural elements or non-structural elements, except for the elements specifically noted on the structural drawings.
  - This structure and all construction shall conform to all applicable sections of the international residential code.
  - This structure and all construction shall conform to all applicable sections of the 2018 North Carolina Residential Code (NCR) and any local codes or restrictions
- #### FOUNDATIONS:
- Foundations shall be constructed in accordance with chapter 4 of the 2018 NC Residential Building Code (Special consideration shall be given to Chapter 45 in wind zones above 130mph)
  - Footings sizes based on a presumptive soil bearing capacity of 2000 PSF. Contractor is solely responsible for verifying the suitability of the site soil conditions at the time of construction
  - Maximum depth of unbalanced fill against masonry walls to be as specified in section R404.1 of the 2018 NCR
  - The structural engineer has not performed a subsurface investigation. Verification of this 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.
  - The bottom of all footings shall extend below the frost line for the region in which the structure is to be constructed. However, the bottom of all footings shall be a minimum of 12" below grade.
  - 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.
  - 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.
  - No concrete shall be placed against any subgrade containing water, ice, frost, or loose material.
  - Each crawl space pier shall bear in the middle third of its respective footing and each girder shall bearing in the middle third of the piers. Pilasters to be bonded to perimeter foundation wall
  - Crawl spaced to be graded level and clear of all debris
  - Provide foundation waterproofing and drain with positive slope to outlet as required by site conditions
  - Energy efficiency compliance and insulation of the structure to be in accordance with chapter 11 of the 2018 NCR

#### CONCRETE:

- Concrete shall have a normal weight aggregate and a minimum compressive strength ( $f_c$ ) at 28 days of 3000 psi, unless otherwise noted on the plan.
  - 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".
  - 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 target values as follows:
    - Footings: 5%
    - Exterior Slabs: 5%
  - No admixtures shall be added to any structural concrete without written permission of the SER
  - Concrete slabs-on-grade shall be constructed in accordance with ACI 302.1R-96: "Guide for Concrete Slab and Slab Construction".
  - The concrete slab-on-grade has been designed using a subgrade modulus of  $k=250$  pci and a design loading of 200 psf. The SER is not responsible for differential settlement, slab cracking or other future defects resulting from unreported conditions not in accordance with the above assumptions.
  - Control or saw cut joints shall be spaced in interior exterior slabs-on-grade at a maximum of 15'-0" O.C. and in otherwise noted.
  - Control or saw cut joints shall be produced using conventional process within 4 to 12 hours after the slab has been finished
  - Reinforcing steel may extend through a saw cut joint.
  - Reinforcing steel may extend through a saw cut joint.
  - 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. Fibermesh may be used in lieu of W.W.F.
- #### CONCRETE REINFORCEMENT:
- Fibrous concrete reinforcement, or fibermesh, specified in concrete slabs-on-grade may be used for control of cracking due to shrinkage and thermal expansion/contraction, lowered water migration, an increase in impact capacity, increased abrasion resistance, and residual strength.
  - Fibermesh reinforcing to be 100% virgin polypropylene fibers containing no reprocessed olefin materials and specifically manufactured for use as concrete secondary reinforcement.
  - Application of fibermesh per cubic yard of concrete shall equal a minimum of 0.1% by volume (1.5 pounds per cubic yard)
  - Fibermesh shall comply with ASTM C1116, any local building code requirements, and shall meet or exceed the current industry standard.
  - Steel Reinforcing bars shall be new billet steel conforming to ASTM A615, grade 60.
  - 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"
  - 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 with a class B tension splice.
  - Lap reinforcement as required, a minimum of 40 bar diameters for tension or compression unless otherwise noted. Splices in masonry shall be a minimum of 48 bar diameters.
  - 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.
  - Where reinforcing steel is required vertically, dowels shall be provided unless otherwise noted.

#### WOOD FRAMING:

- 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) #2.
- LVL or PSL engineered wood shall have the following minimum design values:
  - $E = 1,900,000$  psi
  - $F_b = 2600$  psi
  - $F_v = 285$  psi
  - $F_c = 700$  psi
- Wood in contact with concrete, masonry, or earth shall be pressure treated in accordance with AWPA standard C-15. All other moisture exposed wood shall be treated in accordance with AWPA standard C-2
- Nails shall be common wire nails unless otherwise noted.
- Lag screws shall conform to ANSI/ASME standard B18.2.1-1981. Lead holes for lag screws shall be in accordance with NDS specifications.
- All beams shall have full bearing on supporting framing members unless otherwise noted.
- Exterior and load bearing stud walls are to be 2x4 SPT#2 @16" O.C. unless otherwise noted. Studs shall be continuous from the sole plate to the double top plate. Studs shall only be discontinuous at headers for window/door openings. A minimum of one king stud shall be placed at each end of the header. King studs shall be continuous.
- Individual studs forming a column shall be attached with one 10d nail @6" O.C. staggered. The stud column shall be continuous to the foundation or beam. The column shall be fully blocked at all floor levels to ensure proper load transfer.
- Multi-ply beams shall have each ply attached with (3)10d nails @ 24" O.C.
- Fitch beams and four and five ply beams shall be bolted together with (2) rows of 1/2" dia. through bolts staggered @24" O.C. w/ 2" edge distance and (2) bolts located at 6" from each end, unless noted otherwise.

#### WOOD TRUSSES:

- 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 five (5) days for review. The review by the SER shall review for overall compliance with the design documents. The SER shall assume no responsibility for the correctness for the structural design for the wood trusses.
- 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 7-10), 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.
- The trusses shall be designed, fabricated, and erected in accordance with the latest edition of the "National Design Specification for Wood Construction." (NDS) and "Design Specification for Metal Plate Connected Wood Trusses."
- The truss manufacturer shall provide adequate bracing information in accordance with "Commentary and Recommendations for Handling, Installing, and Bracing Metal Plate Connected Wood Trusses", (HIB-91). 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.
- 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.

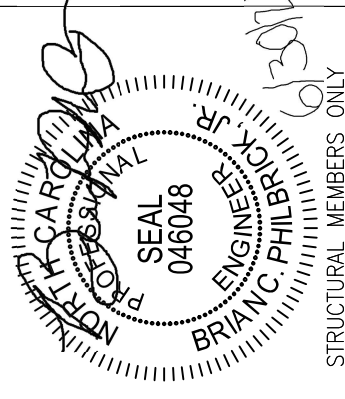
#### WOOD STRUCTURAL PANELS:

- 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.
- All structurally required wood sheathing shall bear the mark of the APA.
- 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. Sheathing shall be applied with the long direction perpendicular to framing, unless noted otherwise.
- Roof sheathing shall be APA rated sheathing exposure 1 or 2. Roof sheathing shall be continuous over two supports and attached to its supporting roof framing with (1)-8d CC 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 with the long direction perpendicular to framing. Sheathing shall have a span rating consistent with the framing spacing. Use suitable edge support by use of plywood clips or lumber blocking unless otherwise noted. Panel end joints shall occur over framing. Apply building paper over the sheathing as required by the state Building Code.
- Wood floor sheathing shall be APA rated sheathing exposure 1 or 2. Attach sheathing to its supporting framing with (1)-8d CC ringshank 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. Use suitable edge support by use of T&G plywood or lumber blocking unless otherwise noted. Panel end joints shall occur over framing. Apply building paper over the sheathing as required by the state Building Code.
- Sheathing shall have a 1/8" gap at panel ends and edges as recommended in accordance with the APA.

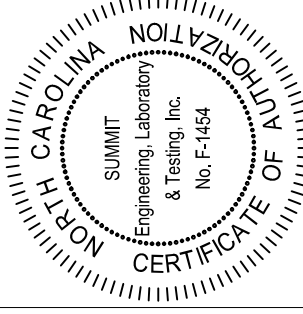
#### STRUCTURAL FIBERBOARD PANELS:

- Fabrication and placement of structural fiberboard sheathing shall be in accordance with the applicable AFA standards.
  - 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.
  - Sheathing shall have a 1/8" gap at panel ends and edges are recommended in accordance with the AFA.
- #### EXTERIOR WOOD FRAMED DECKS:
- Decks are to be framed in accordance with local building codes and as referenced on the structural plans, either through code references or construction details.
- #### STRUCTURAL STEEL:
- 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.
  - All steel shall have a minimum yield stress ( $F_y$ ) of 36 ksi unless otherwise noted.
  - Welding shall conform to the latest edition of the American Welding Society's Structural Welding Code AWS D1.1. Electrodes for shop and field welding shall be class E70XX. All welding shall be performed by a certified welder per the above standards.

Cane Mill  
Lot 23



STRUCTURAL MEMBERS ONLY



PROJECT  
Burlington - LH  
Coversheet  
CLIENT  
Smith Douglas Homes  
2520 Reliance Ave.  
Apex, NC 27539

#### CURRENT DRAWING

DATE: 6/29/2021

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

PROJECT #: 3832.202R

DRAWN BY: JW

CHECKED BY: BCP

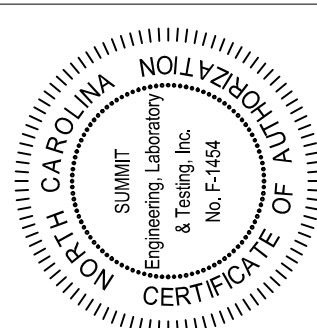
#### ORIGINAL DRAWING

DATE 12/11/15  
PROJECT# 3832.09

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

SHEET

CS2



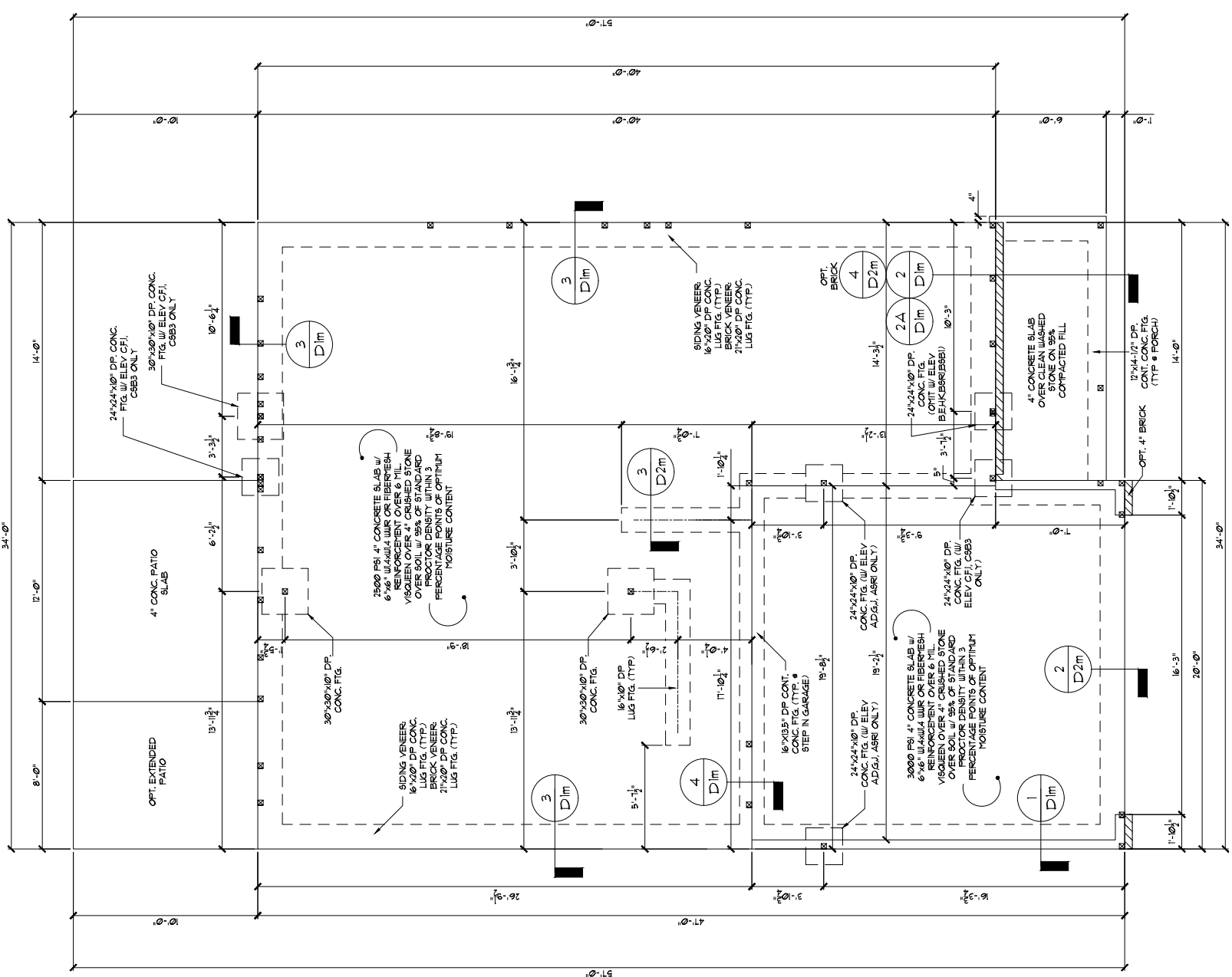
- FOUNDATION NOTES**
- FOUNDATIONS TO BE CONSTRUCTED IN ACCORDANCE WITH CHAPTER 4 OF THE 2008 NORTH CAROLINA RESIDENTIAL BUILDING CODE WITH ALL LOCAL AMENDMENTS.
  - STRUCTURAL CONCRETE TO BE F<sub>c</sub> = 3000 PSI, PREPARED AND PLACED IN ACCORDANCE WITH ACI STANDARD 308.
  - REINFORCEMENT TO BE #4 BARS, EARTH BEARINGS, A MINIMUM OF 1" BELOW ADJACENT FINISHED GRADE, OR AS OTHERWISE DIRECTED BY THE CODE ENFORCEMENT OFFICIAL.
  - FOOTING SIZES BASED ON A PRESUMPTIVE SOIL BEARING CAPACITY OF 2000 PSF. CONTRACTOR IS SOLELY RESPONSIBLE FOR VERIFYING THE SUITABILITY OF FOOTINGS AND PIERS SHALL BE CENTERED UNDER THEIR RESPECTIVE ELEMENTS. PROVIDE 2" MINIMUM FOOTING PROJECTION FROM THE FACE OF MASONRY.
  - MAXIMUM DEPTH OF UNBALANCED FILL AGAINST MASONRY WALLS TO BE AS SHOWN. SECTION BELOW OF THE 208 NORTH CAROLINA RESIDENTIAL BUILDING CODE.
  - FILLSTERS TO BE BONDED TO PERMETER FOUNDATION WALL.
  - PROVIDE FOUNDATION WATERPROOFING AND DRAIN WITH POSITIVE SLOPE TO OUTLET AS REQUIRED BY SITE CONDITIONS.
  - FOUNDATION WALLS SHALL BE CONSTRUCTED PER 2008 NORTH CAROLINA RESIDENTIAL BUILDING CODE. ALL FOUNDATIONS PER 2008 NORTH CAROLINA RESIDENTIAL BUILDING CODE SHALL BE ACCOMPANIED BY BRICK VENEER.
  - CRACK SPACE TO BE GRADED, LEVEL, AND CLEARED OF ALL DEBRIS.
  - FOUNDATION WALLS SHALL BE CONSTRUCTED PER 2008 NORTH CAROLINA RESIDENTIAL BUILDING CODE SECTION R402.1.1. MINIMUM 1/2" DIA. BOLTS SPACED AT 6'-0" ON CENTER WITH A 1" MINIMUM EMBEDMENT INTO MASONRY OR CONCRETE. ANCHOR BOLTS SHALL BE 0" FROM THE END OF EACH PLATE SECTION. MINIMUM (7) ANCHOR BOLTS PER PLATE SECTION. ANCHOR BOLTS SHALL BE CENTERED IN THE CENTER THIRD OF THE PLATE.
  - ABBREVIATIONS:  
 DJ = DOUBLE JOIST  
 GT = GIRDER TRUSS  
 TR = TRIPLE RAFTER  
 EE = EACH END  
 TC = TRIPLE JOIST  
 CL = CENTER LINE  
 FL = POINT LOAD
  - ALL PIERS TO BE 16"x16" MASONRY AND ALL PLASTERERS TO BE 8"x6" MASONRY, TYPICAL (AND).
  - WALL FOOTINGS TO BE CONTINUOUS CONCRETE. SIZES PER STRUCTURAL PLAN.
  - A FOUNDATION EXCAVATION OBSERVATION SHOULD BE CONDUCTED BY A PROFESSIONAL GEOTECHNICAL ENGINEER OR HIS QUALIFIED ASSISTANT. POTENTIALLY EXPANSIVE SOILS ARE OBSERVED IN THE FOOTING EXCAVATIONS AT THE TIME OF CONSTRUCTION. SUMMIT ENGINEERING, LABORATORY & TESTING, P.C. MUST BE PROVIDED THE OPPORTUNITY TO REVIEW THESE FINDINGS AND TO CONDUCT ANY NECESSARY TESTING. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL NECESSARY COMPACTED FILL, VERIFIED BY ENGINEER OR CODE OFFICIAL.

REFER TO BRACED WALL PLAN FOR PANEL SIZES AND BRACING. SEE ADDITIONAL AND REFER SECTION R402.1.1 AND FIGURE R602.10.3.1.4 OF THE 2008 NCRBC.

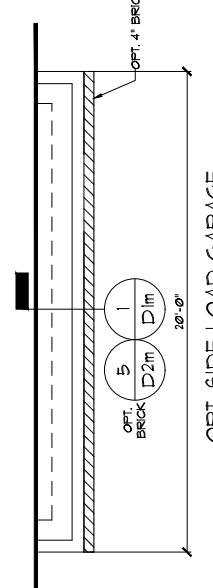
NOTE: ALL EXTERIOR FOUNDATION DIMENSIONS ARE TO FINISHING AND 1/2" BRICK VENEER END.

THESE PLANS ARE DESIGNED IN ACCORDANCE WITH ARCHITECTURAL AND ENGINEERING STANDARDS. THE RESPONSIBILITY OF THE CLIENT TO NOTIFY SUMMIT ENGINEERING, LABORATORY & TESTING, P.C. IF ANY CHANGES ARE MADE TO THE ARCHITECTURAL PLANS PRIOR TO CONSTRUCTION. SUMMIT ENGINEERING, LABORATORY & TESTING, P.C. CANNOT BE HELD RESPONSIBLE FOR ANY CHANGES MADE TO THE ARCHITECTURAL PLANS DATED DIFFERENTLY THAN THE DATE LISTED ABOVE.

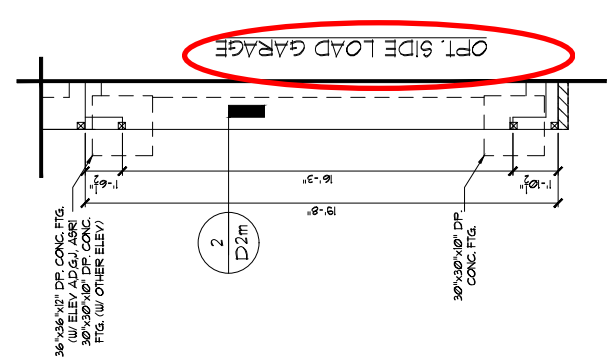
NOTE: A 4" CRUSHED STONE BASE COURSE IS NOT WELL-DRAINED OR SAND-GRAVEL MIXTURE SOILS. CLASSIFIED AS GROUP 1 PER TABLE R402.1.



ALL ELEVATIONS



OPT. SIDE LOAD GARAGE



OPT. SIDE LOAD GARAGE



HEADER/BEAM SCHEDULE		
HEADER TAG	BEAM TAG	SIZE
-	B1	(1) 14" FLOOR JOIST
-	B2	(2) 14" FLOOR JOIST
A	B3	(2) 2x6
B	B4	(2) 2x6
C	B5	(2) 2x6
D	B6	(2) 2x2
E	B7	(2) 9-1/4" LVL
F	B8	(2) 11-7/8" LVL
G	B9	(2) 14" LVL
H	B10	(2) 16" LVL
I	B11	(2) 8" LVL
J	B12	(2) 2x4 LVL
K	B13	(3) 11-7/8" LVL
L	B14	(3) 14" LVL
M	B15	(3) 16" LVL
N	B16	(3) 18" LVL
O	B17	(3) 18" LVL
P	B18	(3) 24" LVL

HEADER/BEAM SIZES SHOWN ON PLANS ARE MINIMUMS. GREATER HEADER/BEAM SIZES MAY BE USED FOR EASE OF CONSTRUCTION. ALL HEADERS TO BE DROPPED UNLESS NOTED OTHERWISE. ALL BEAMS TO BE FLUSH UNLESS NOTED OTHERWISE.

LINTEL SCHEDULE		
TAG	SIZE	OPENING SIZE
①	L3x3x1/4"	LESS THAN 6'-0"
②	L3x3x1/4"	6'-0" TO 10'-0"
③	L3x3-1/2"x5/16"	GREATER THAN 10'-0"
④	16x16x5/8"	ALL ARCHED OPENINGS

SECURE LINTEL TO HEADER w/ (2) 1/2" DIAMETER LAG SCREWS STAGGERED @ 16" O.C. (TYP FOR ③)

ALL HEADERS WITH BRICK ABOVE: (U) (UND)

WALL STUD SCHEDULE	
1ST, 2ND FLOOR LOAD BEARING STUDS:	2x4 STUDS @ 16" O.C. OR 2x6 STUDS @ 24" O.C.
3RD FLOOR LOAD BEARING STUDS:	2x4 STUDS @ 16" O.C. OR 2x6 STUDS @ 16" O.C.
BASEMENT LOAD BEARING STUDS:	2x4 STUDS @ 17" O.C. OR 2x6 STUDS @ 19" O.C.
NON-LOAD BEARING STUDS (ALL FLOORS):	2x4 STUDS @ 16" O.C.
TWO STORY WALLS:	2x4 STUDS @ 17" O.C. OR 2x6 STUDS @ 19" O.C. BALLOON FRAMED w/ CROSS BRACING @ 6'-0" O.C. VERTICALLY

KING STUD REQUIREMENTS	
OPENING WIDTH	KINGS (EACH END)
LESS THAN 3'-0"	(1)
3'-0" TO 4'-0"	(2)
4'-0" TO 6'-0"	(3)
6'-0" TO 8'-0"	(4)
8'-0" TO 10'-0"	(5)
10'-0" TO 12'-0"	(6)
12'-0" TO 14'-0"	(7)
14'-0" TO 16'-0"	(8)

KING STUD REQUIREMENTS ABOVE DO NOT APPLY TO PORTAL FRAMED OPENINGS

THESE PLANS ARE DESIGNED IN ACCORDANCE WITH ARCHITECTURAL PLANS PROVIDED BY SMITH DOUGLAS HOMES COMPLETED/REVISED ON 3/11/21. IT IS THE RESPONSIBILITY OF THE CLIENT TO NOTIFY SUMMIT ENGINEERING LABORATORY TESTING P.C. IF ANY CHANGES ARE MADE TO THE ARCHITECTURAL PLANS. SMITH DOUGLAS HOMES, SMITH ENGINEERING LABORATORY TESTING P.C. CANNOT GUARANTEE THE ADEQUACY OF THESE STRUCTURAL PLANS WHEN USED WITH ARCHITECTURAL PLANS DATED DIFFERENTLY THAN THE DATE LISTED ABOVE.

**STRUCTURAL MEMBERS ONLY**

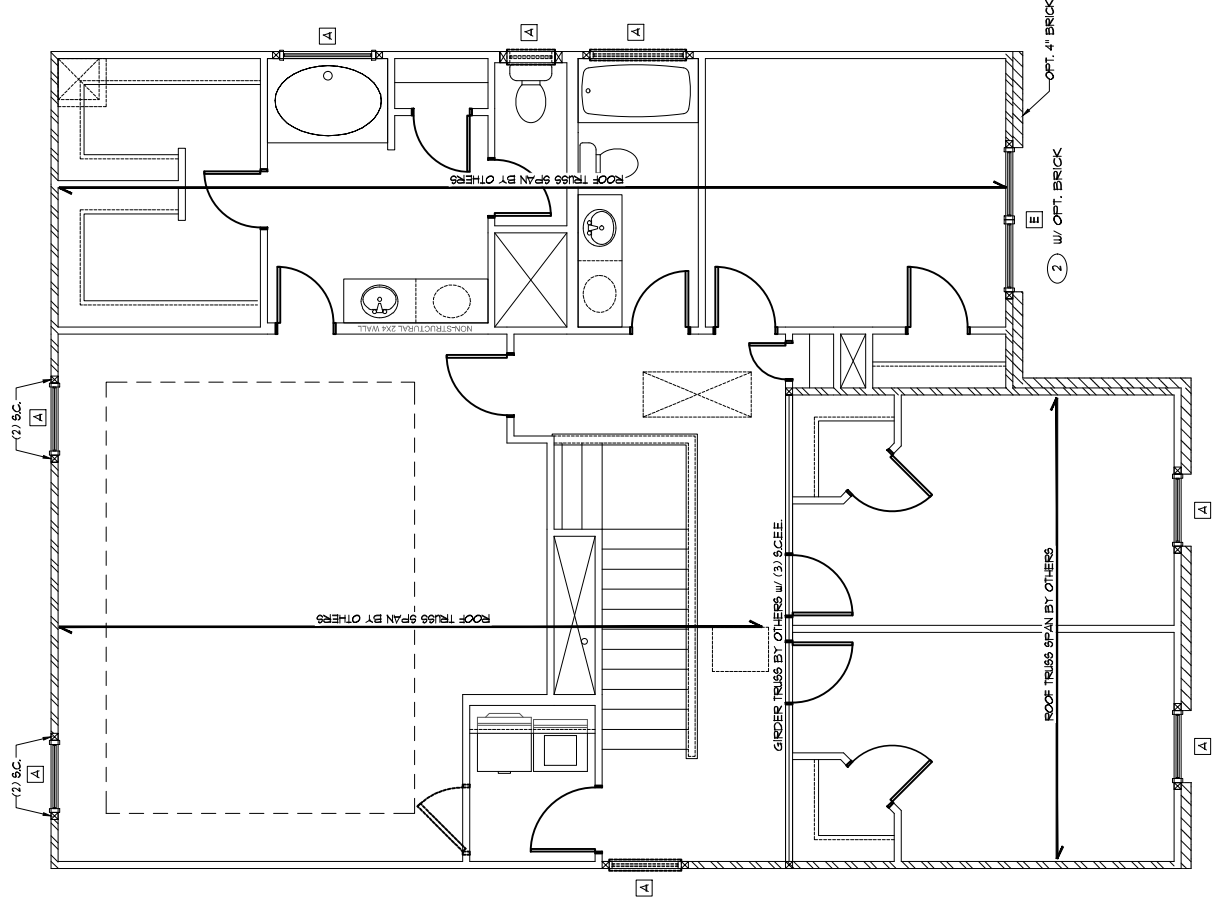
ENGINEERING SEAL APPLIES ONLY TO STRUCTURAL COMPONENTS ON THIS DOCUMENT. SEAL DOES NOT INCLUDE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES OR SAFETY PRECAUTIONS. ANY DEVIATIONS OR DISCREPANCIES ON PLANS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF SUMMIT ENGINEERING, LABORATORY & TESTING, P.C. FAILURE TO DO SO WILL VOID SUMMIT LIABILITY.

STRUCTURAL ANALYSIS BASED ON 2018 NCR.

**SECOND FLOOR FRAMING PLAN**

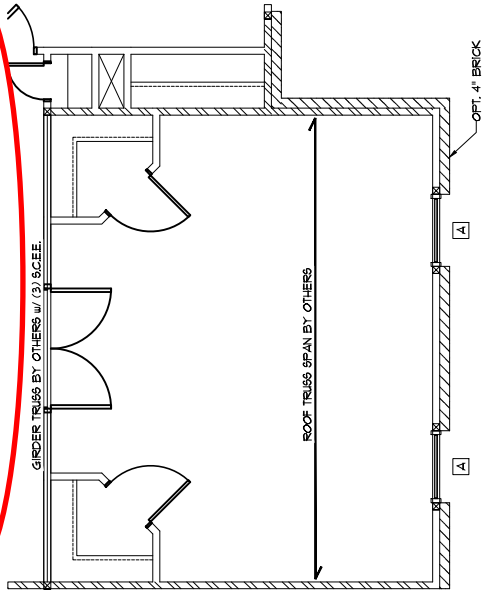
SCALE: 1/8"=1'-0"

STUD COLUMN (SC.) CALLOUTS ON PLAN SHOWN WITH BRACKETED TAGS TO BE INSTALLED PER APPLICABLE BUILDING CODE

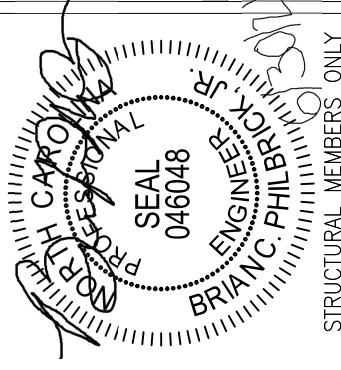


ELEVATIONS ADGJ, ASR

OPTIONAL LOFT I/O BEDROOMS 3 & 4



Cane Mill  
Lot 23



STRUCTURAL MEMBERS ONLY

SHEET

**S4.0**

PROJECT  
Burlington - LH

CLIENT  
Smith Douglas Homes - Raleigh  
2520 Reliance Ave.  
Apex, NC 27539

CURRENT DRAWING

DATE: 6/29/2021

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

PROJECT #: 3832.202R

DRAWN BY: JV

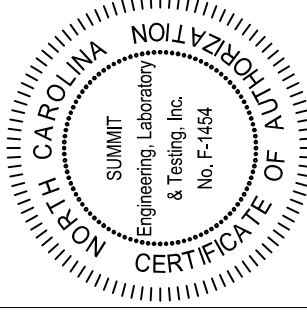
CHECKED BY: BCP

ORIGINAL DRAWING

DATE: 12/11/15

PROJECT #: 3832.09

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS



**TRUSS UPLIFT CONNECTOR SCHEDULE**

MODEL *	MAX. UPLIFT (LBS)
H1	585
H2A	515
H2.5A	600
H6	950
H10A*	1340
H4*	1465

MODEL *	MAX. UPLIFT (LBS)	FLY *
LGT1*	2050	2
LGT3-SD92*	3685	3
LGT4-SD93*	4060	4
HGT-2*	10980	2
HGT-3*	10930	3
HGT-4*	9050	4

USE BELOW ONLY FOR 2-FLY OR GREATER GIRDER ABOVE. THE UPLIFT REQUIREMENTS ABOVE.

1. ALL PRODUCTS LISTED ARE SIMPSON STRONG-TIE EQUIV. PRODUCTS MAY BE USED PER MANUF. SPECIFICATIONS. 2. VALUES LISTED ARE FOR A SINGLE UPLIFT CONNECTION. 3. VALUES LISTED TO DOUBLE THE UPLIFT CAPACITIES SHOWN ABOVE. PROVIDED A MINIMUM 2-1/2" MEMBER THICKNESS. ITEMS DENOTED WITH "\*" MAY NOT BE DOUBLED TO INCREASE LOAD CAPACITY. 4. UPLIFT VALUES ARE BASED ON THE FOLLOWING ASSUMPTIONS: 1. MEMBER TO BE CONTACT EOR OR TRUSS MANUF. IF SPECIES OR GRADE VARIES. 2. UPLIFT VALUES TRUSS TO TRUSS CONNECTIONS ARE TO BE SPECIFIED AND SUPPLIED BY THE TRUSS MANUF. THE EOR IS NOT RESPONSIBLE FOR THESE CONNECTIONS.

NOTE: BT FLY OF ALL SHOWN GIRDER TRUSSES TO ALIGN WITH INSIDE FACE OF WALL (TTP, UNO)

NOTE: ROOF TRUSSES SHALL BE SPACED TO SUPPORT FALSE FRAMED CORNER WALLS (TTP, UNO)

THESE PLANS ARE DESIGNED IN ACCORDANCE WITH ARCHITECTURAL PLANS PROVIDED BY SMITH DOUGLAS HOMES. REVISED IS THE RESPONSIBILITY OF THE CLIENT. THE SUMMIT ENGINEERING LABORATORY TESTING REPORT NUMBER AS MADE TO THE ARCHITECTURAL PLANS PRIOR TO CONSTRUCTION. SUMMIT ENGINEERING LABORATORY TESTING P.C. CANNOT GUARANTEE THE ADEQUACY OF THESE STRUCTURAL PLANS WHEN USED WITH ARCHITECTURAL PLANS DATED DIFFERENTLY THAN THE DATE LISTED ABOVE.

REFER TO TRUSS LAYOUT PER MANUFACTURER FOR UPLIFT CONNECTIONS FROM TRUSS TO TOP PLATE (TTP, UNO)

NOTE: TRUSS UPLIFT LOADS SHALL BE DETERMINED PER TRUSS MANUFACTURER. TRUSS UPLIFT SHALL BE DESIGNER'S RESPONSIBILITY. SHEATHING AND FASTENERS HAVE BEEN DESIGNED TO RESIST THE UNO UPLIFT LOAD PATH IN ACCORDANCE WITH METHOD 2 OF SECTION 1806.03.5 OF THE 2009 NCR. REFER TO BRACED WALL PLANS FOR SHEATHING AND FASTENER REQUIREMENTS.

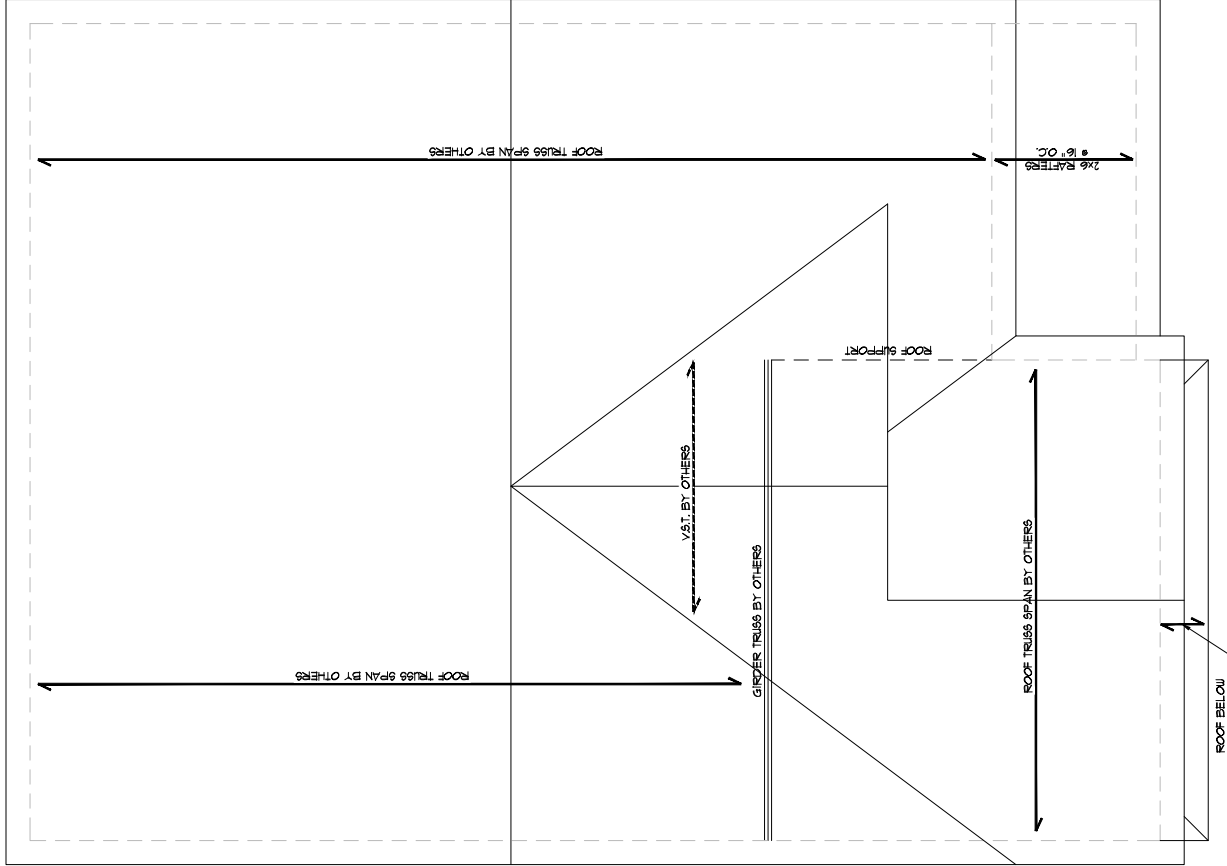
**STRUCTURAL MEMBERS ONLY**

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STRUCTURAL ANALYSIS BASED ON 2018 NCR.

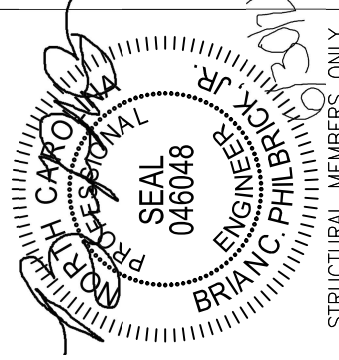
**ROOF FRAMING PLAN**

SCALE: 1/8" = 1'

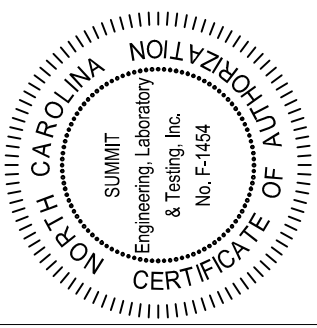


SEE ELEVATIONS ADG, J, & ASR

Cane Mill Lot 23



STRUCTURAL MEMBERS ONLY



PROJECT  
Burlington - LH

CLIENT  
Smith Douglas Homes - Raleigh  
2520 Reliance Ave.  
Apex, NC 27539

CURRENT DRAWING  
DATE: 6/29/2021  
SCALE: 1/8"=1'-0"  
PROJECT #: 3832.202R  
DRAWN BY: JV  
CHECKED BY: BCP

ORIGINAL DRAWING  
DATE: 12/11/15  
PROJECT#: 3832.09

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

SHEET

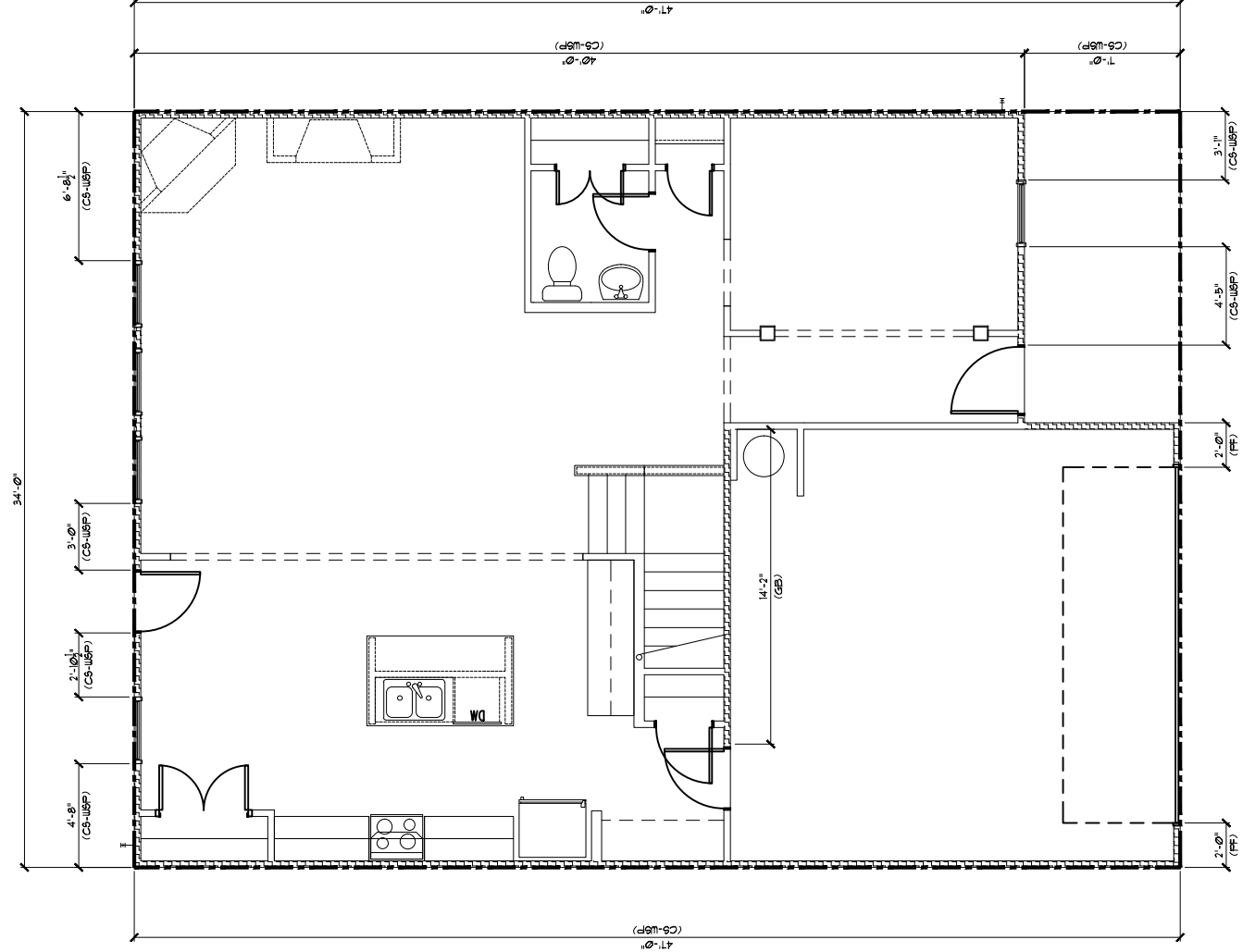
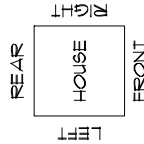
**S5.0**



REQUIRED BRACED WALL PANEL CONNECTIONS		
METHOD	MATERIAL	REQUIRED CONNECTION
CS-U8P	WOOD PANEL • 3/8" THICKNESS	• INTERMEDIATE SUPPORTS • 6d COMMON NAILS • 1" O.C.
GB	GYPSTUM BOARD • 1/2"	5d COOLER NAILS** • 1" O.C. 6d COMMON NAILS • 1" O.C.
USP	WOOD PANEL • 3/8"	6d COMMON NAILS • 1" O.C.
FF	STRUCTURAL WOOD PANEL • 1/6"	PER FIGURE R602.02.1 PER FIGURE R602.02.1

**BRACED WALL NOTES:**

- WALLS SHALL BE DESIGNED IN ACCORDANCE WITH SECTION R602.10 PER FIGURE R602.02.1 AND FIGURE R602.02.2.
- WALLS ARE DESIGNED FOR SEISMIC ZONES A-C AND ULTIMATE WIND SPEEDS UP TO 130 MPH.
- REFER TO ARCHITECTURAL PLAN FOR DOOR/WINDOW OPENING SIZES. BRACING MATERIALS METHODS AND FASTENERS SHALL BE IN ACCORDANCE WITH SECTION R602.02.1.
- ALL BRACED WALL PANELS SHALL BE FULL WALL HEIGHT AND SHALL NOT EXCEED 10 FEET FOR ISOLATED PANEL METHOD AND 12 FEET FOR CONTINUOUS SHEATHING METHOD WITHOUT ADDITIONAL ENGINEERING CALCULATIONS.
- LENGTH SHALL BE PER TABLE R602.01.
- THE INTERIOR SIDE OF EXTERIOR WALLS AND BOTH SIDES OF INTERIOR WALLS SHALL BE SHEATHED CONTINUOUSLY WITH MINIMUM 1/2" GYPSUM BOARD (UNO).
- SOE CONTINUOUS SHEATHING METHOD: EXTERIOR WALLS SHALL BE SHEATHED WITH 1/2" GYPSUM BOARD AND INTERIOR WALLS BETWEEN BRACED WALL PANELS, ABOVE AND BELOW WALL OPENINGS, AND ON GABLE END WALLS.
- FLOORS SHALL NOT BE CANTILEVERED MORE THAN 2'4" BEYOND THE FOUNDATION OR BEARING WALL BELOW WITHOUT ADDITIONAL ENGINEERING CALCULATIONS.
- A BRACED WALL PANEL SHALL BE LOCATED WITHIN 1' FEET OF EACH END OF A BRACED WALL LINE.
- THE MAXIMUM EDGE DISTANCE BETWEEN BRACED WALL PANELS SHALL NOT EXCEED 7' FEET.
- FOR STEEL STUD WALLS WITH A LENGTH OF 48" OR LESS SUPPORTING A BRACED WALL PANEL SHALL BE DESIGNED IN ACCORDANCE WITH FIGURE R602.02.3 OF THE 2018 NCR.
- BRACED WALL PANEL CONNECTIONS TO FLOOR/CEILING SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION R602.02.4.
- CRIPPLE WALLS AND WALK OUT BASEMENT WALLS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION R602.02.5.
- DESIGNED IN ACCORDANCE WITH SECTION R602.02.6.
- PORTAL WALLS SHALL BE DESIGNED IN ACCORDANCE WITH FIGURE R602.02.7.
- ON SCHEMATIC, SHADED WALLS INDICATE BRACED WALL PANELS.
- ABBREVIATIONS:
  - CS - GYPSUM BOARD
  - GB - GYPSUM BOARD
  - USP - WOOD STRUCTURAL PANEL
  - FF - PORTAL FRAME
  - CS-U8P - UNO SHEATHED
  - FF-ENG - ENG PORTAL FRAME



ALL ELEVATIONS

OPTION 1 BRACING

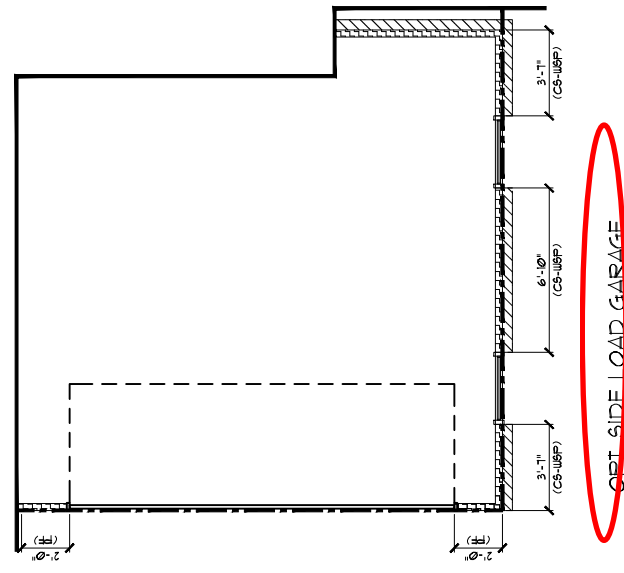
FIRST FLOOR BRACING (FT)		
CONTINUOUS SHEATHING METHOD		
FRONT SIDE	REQUIRED	PROVIDED
RIGHT SIDE	14.8	20.6
LEFT SIDE	11.0	41.0
REAR SIDE	14.8	11.2
FRONT SIDE	11.0	41.0

FIRST FLOOR BRACING - SIDE LOAD GARAGE (FT)		
CONTINUOUS SHEATHING METHOD		
FRONT SIDE	REQUIRED	PROVIDED
RIGHT SIDE	14.8	21.5
REAR SIDE	11.0	41.0
LEFT SIDE	14.8	33.0

**STRUCTURAL MEMBERS ONLY**  
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STRUCTURAL ANALYSIS BASED ON 2018 NCR.

**FIRST FLOOR BRACING PLAN**  
 SCALE: 1/8" = 1'



**SUMMIT**  
 ENGINEERING LABORATORY TESTING  
 3070 HAMMOND BUSINESS PLACE, SUITE 171  
 RALEIGH, NC 27603  
 OFFICE: 919.380.9991  
 FAX: 919.380.9993  
 WWW.SUMMIT-COMPANIES.COM

**SUMMIT**  
 Engineering, Laboratory & Testing, Inc.  
 No. F-1454  
 NORTH CAROLINA CERTIFICATE OF AUTHORIZATION

PROJECT  
 Burlington - LH  
 CLIENT  
 Smith Douglas Homes - Raleigh  
 2520 Reliance Ave.  
 Apex, NC 27539

CURRENT DRAWING  
 DATE: 6/29/2021  
 SCALE: 1/8"=1'-0"  
 PROJECT #: 3832.202R  
 DRAWN BY: JV  
 CHECKED BY: BCP

ORIGINAL DRAWING  
 DATE: 12/11/15  
 PROJECT#: 3832.09

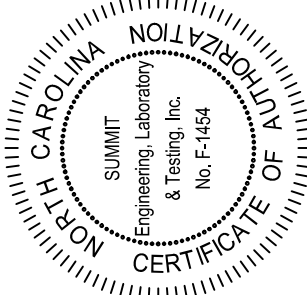
REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

SHEET  
**S7.0**

Cane Mill  
 Lot 23

**SUMMIT**  
 PROFESSIONAL ENGINEER  
 SEAL  
 046048  
 BRIAN C. PHILBRICK, JR.  
 NORTH CAROLINA

STRUCTURAL MEMBERS ONLY



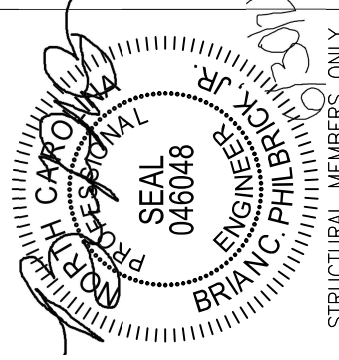
PROJECT  
Burlington - LH  
CLIENT  
Smith Douglas Homes - Raleigh  
2520 Reliance Ave.  
Apex, NC 27539

CURRENT DRAWING  
DATE: 6/29/2021  
SCALE: 1/8"=1'-0"  
PROJECT #: 3832.202R  
DRAWN BY: JV  
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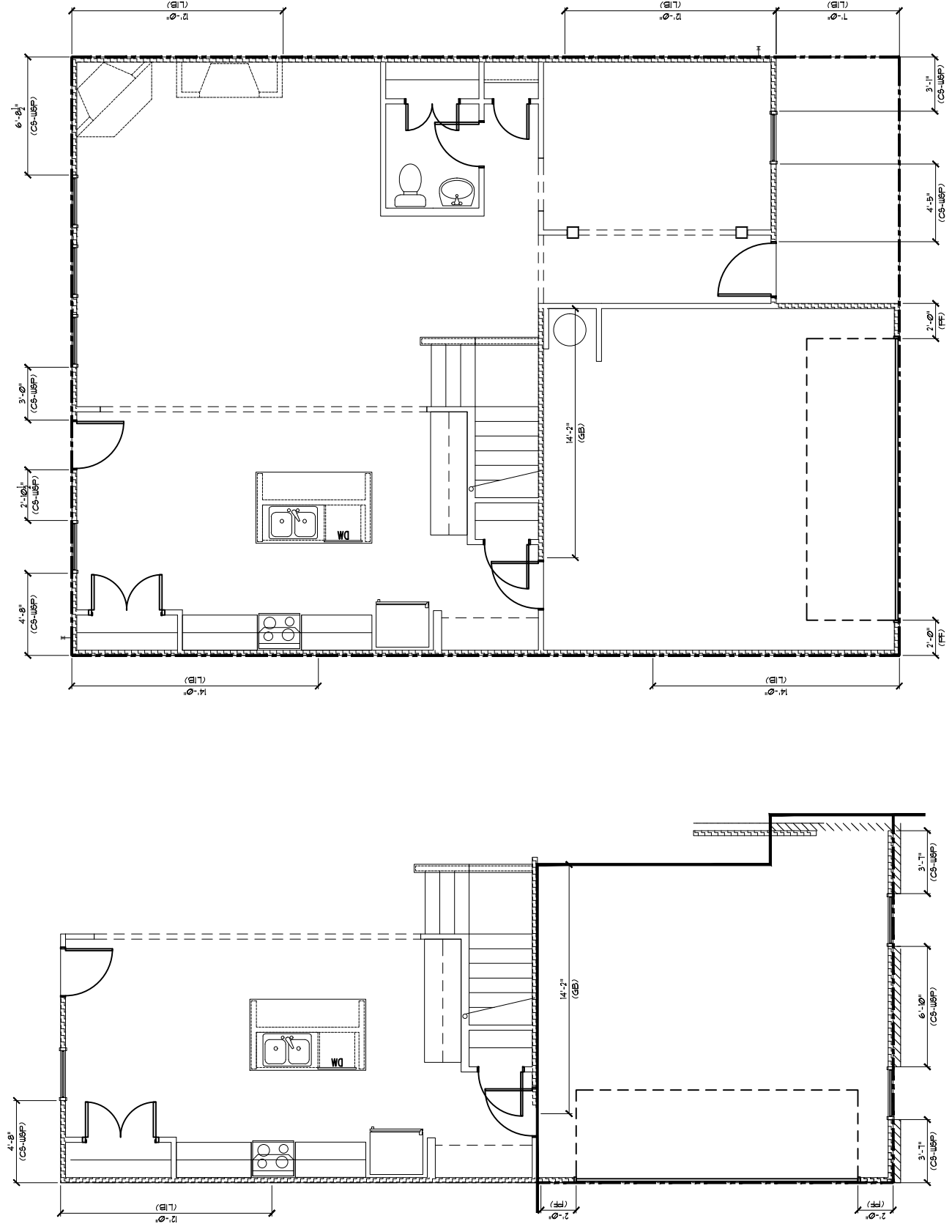
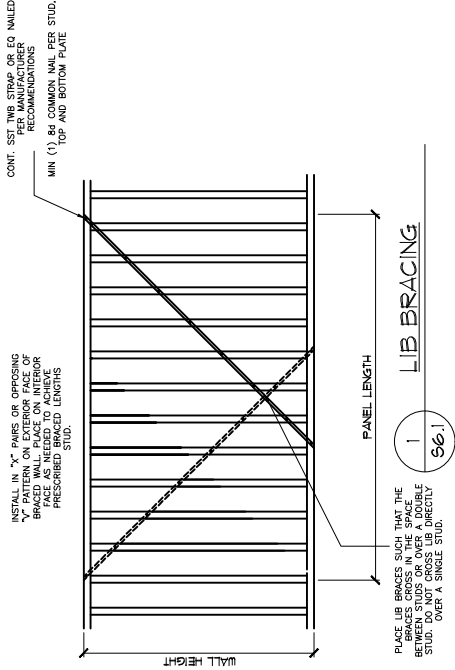
ORIGINAL DRAWING  
DATE: 12/11/15  
PROJECT#: 3832.09

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

SEE SHEET S7.0 FOR NOTES AND MORE INFORMATION



STRUCTURAL MEMBERS ONLY



ALL ELEVATIONS  
OPTION 2 BRACING

Cane Mill  
Lot 23

THESE PLANS ARE DESIGNED IN ACCORDANCE WITH ARCHITECTURAL PLANS PROVIDED BY SOUHL/DOLAS. AS NOTED, COMPLETED REVISIONS ON SHEET S7.0. IT IS THE RESPONSIBILITY OF THE CLIENT TO NOTIFY SUMMIT ENGINEERING LABORATORY & TESTING, P.C. IF ANY CHANGES ARE MADE TO THE ARCHITECTURAL PLANS PRIOR TO CONSTRUCTION. SUMMIT ENGINEERING LABORATORY & TESTING, P.C. DOES NOT GUARANTEE THE ADEQUACY OF THESE STRUCTURAL PLANS WHEN USED WITH ARCHITECTURAL PLANS DATED DIFFERENTLY THAN THE DATE LISTED ABOVE.

FIRST FLOOR BRACING (FT)		
CONTINUOUS SHEATHING METHOD		
	REQUIRED	PROVIDED
FRONT SIDE	14.8	20.6
RIGHT SIDE	11.0	19.5
REAR SIDE	14.8	17.2
LEFT SIDE	11.0	14.0

FIRST FLOOR BRACING - SIDE LOAD GARAGE (FT)		
CONTINUOUS SHEATHING METHOD		
	REQUIRED	PROVIDED
FRONT SIDE	14.8	21.5
RIGHT SIDE	11.0	47.0
REAR SIDE	14.8	17.2
LEFT SIDE	11.0	17.0

STRUCTURAL MEMBERS ONLY  
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STRUCTURAL ANALYSIS BASED ON 2018 NCR.

FIRST FLOOR BRACING PLAN  
SCALE: 1/8"=1'

OPT. SIDE LOAD GARAGE

REQUIRED BRACED WALL PANEL CONNECTIONS		
METHOD	MIN. THICKNESS	REQUIRED CONNECTION
CS-UBSP	3/8"	6d COMMON NAILS • 6" O.C.
GB	1/2"	5d COOLER NAILS** • 1" O.C.
USP	3/8"	6d COMMON NAILS • 6" O.C.
FF	1/16"	PER FIGURE R602.104 PER FIGURE R602.101

**BRACED WALL NOTES:**

- WALLS SHALL BE DESIGNED IN ACCORDANCE WITH SECTION R602.10
- WALLS ARE DESIGNED FOR SEISMIC ZONES A-C AND ULTIMATE WIND SPEEDS UP TO 130 MPH.
- REFER TO ARCHITECTURAL PLAN FOR DOOR/WINDOW OPENING SIZES. BRACING MATERIALS METHODS AND FASTENERS SHALL BE IN ACCORDANCE WITH SECTION R602.104.
- ALL BRACED WALL PANELS SHALL BE FULL WALL HEIGHT AND SHALL NOT EXCEED 10 FEET FOR ISOLATED PANEL METHOD AND 12 FEET FOR CONTINUOUS SHEATHING METHOD WITHOUT ADDITIONAL ENGINEERING CALCULATIONS.
- LENGTH SHALL BE PER TABLE R602.101.
- THE INTERIOR SIDE OF EXTERIOR WALLS AND BOTH SIDES OF INTERIOR WALLS SHALL BE SHEATHED CONTINUOUSLY WITH MINIMUM 1/2" GYPSUM BOARD (UNO).
- SOE CONTINUOUS SHEATHING METHOD: EXTERIOR WALLS SHALL BE SHEATHED WITH 1/2" GYPSUM BOARD (UNO) ON BOTH SIDES OF WALLS BETWEEN BRACED WALL PANELS, ABOVE AND BELOW WALL OPENINGS, AND ON GABLE END WALLS.
- FLOORS SHALL NOT BE CANTILEVERED MORE THAN 24' BEYOND THE FOUNDATION OR BEARING WALL BELOW WITHOUT ADDITIONAL ENGINEERING CALCULATIONS.
- A BRACED WALL PANEL SHALL BE LOCATED WITHIN 12 FEET OF EACH END OF A BRACED WALL LINE.
- THE MAXIMUM EDGE DISTANCE BETWEEN BRACED WALL PANELS SHALL NOT EXCEED 7 FEET.
- MAXIMUM SPACING BETWEEN BRACED WALL PANELS SHALL BE 16 FEET.
- SUPPORTING A BRACED WALL PANEL SHALL BE DESIGNED IN ACCORDANCE WITH FIGURE R602.104.3 OF THE 2018 NCR. CONSTRUCTION SHALL BE IN ACCORDANCE WITH SECTION R602.104.4.
- CRIPPLE WALLS AND WALK OUT BASEMENT WALLS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION R602.104.5.
- DESIGNED IN ACCORDANCE WITH SECTION R602.104.6.
- PORTAL WALLS SHALL BE DESIGNED IN ACCORDANCE WITH FIGURE R602.104.7.
- ON SCHEMATIC, SHADED WALLS INDICATE BRACED WALL PANELS.
- ABBREVIATIONS:
  - CS - GYPSUM BOARD
  - CS-X - GYPSUM SHEATHED
  - US - WOOD STRUCTURAL PANEL
  - US-X - WOOD STRUCTURAL PANEL
  - FR - ENG PORTAL FRAME

THESE PLANS ARE DESIGNED IN ACCORDANCE WITH ARCHITECTURAL PLANS PROVIDED BY BOUTELL/DOLAS NOTICES COMPLETED/RECEIVED ON 5/11/21. IT IS THE RESPONSIBILITY OF THE CLIENT TO NOTIFY SUMMIT ENGINEERING, LABORATORY & TESTING, P.C. IF ANY CHANGES ARE MADE TO THE ARCHITECTURAL PLANS PRIOR TO CONSTRUCTION. SUMMIT ENGINEERING, LABORATORY & TESTING, P.C. DOES NOT GUARANTEE THE ADEQUACY OF THESE STRUCTURAL PLANS WHEN USED WITH ARCHITECTURAL PLANS DATED DIFFERENTLY THAN THE DATE LISTED ABOVE.

SECOND FLOOR BRACING (FT)	
CONTINUOUS SHEATHING METHOD	REQUIRED
FRONT SIDE	6.3
RIGHT SIDE	72.0
REAR SIDE	5.1
LEFT SIDE	44.0

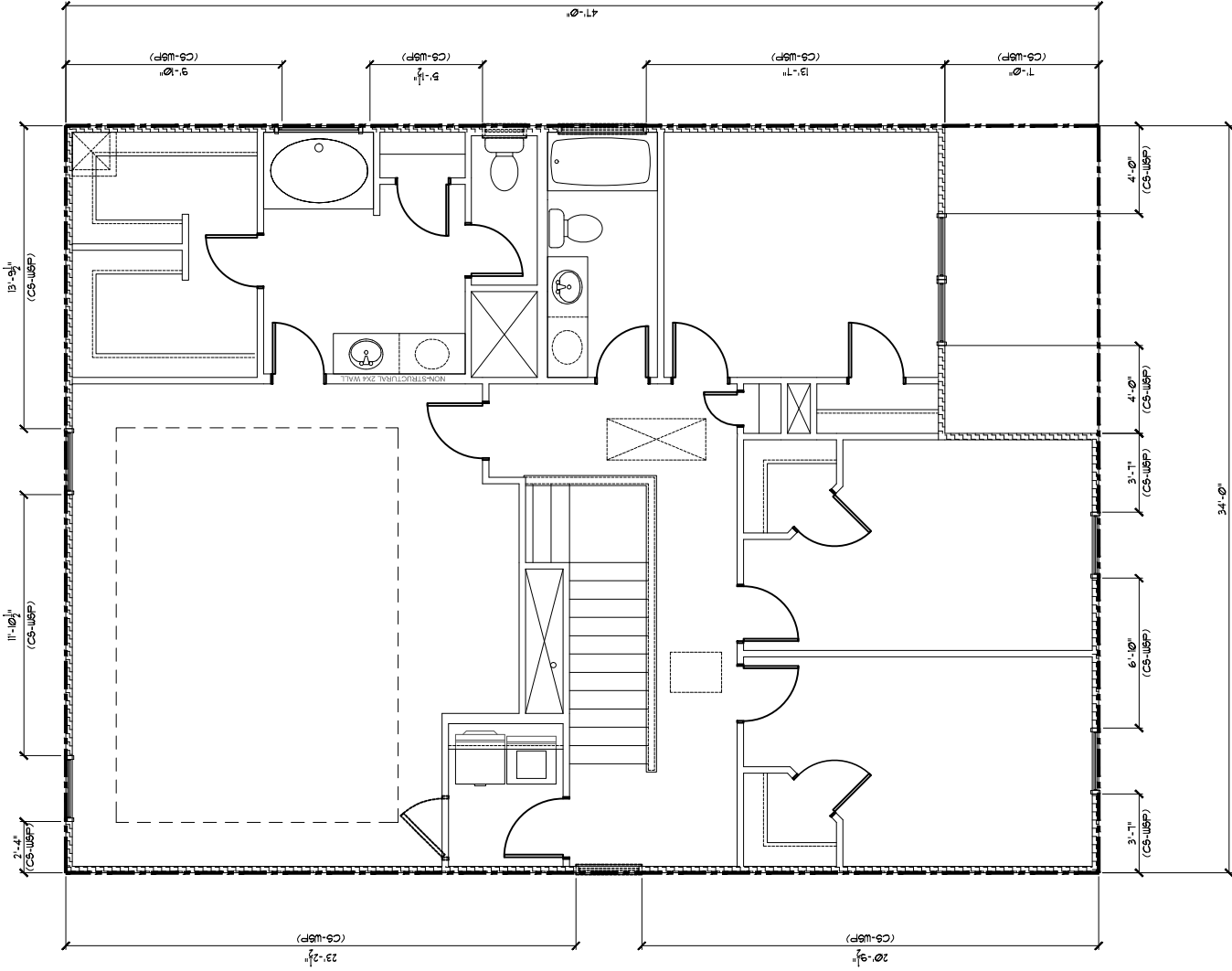
INSTALL HOLD-DOWNS PER SECTION R602.104 AND FIGURE R602.103(4) OF THE 2018 NCR.

**STRUCTURAL MEMBERS ONLY**  
ENGINEERING SEAL APPLIES ONLY TO STRUCTURAL COMPONENTS ON THIS DOCUMENT. SEAL DOES NOT INCLUDE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES OR SAFETY PRECAUTIONS. ANY DEVIATIONS OR DISCREPANCIES ON PLANS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF SUMMIT ENGINEERING, LABORATORY & TESTING, P.C. FAILURE TO DO SO WILL VOID SUMMIT LIABILITY.

STRUCTURAL ANALYSIS BASED ON 2018 NCR.

**SECOND FLOOR BRACING PLAN**

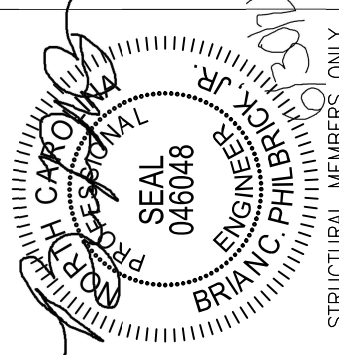
SCALE: 1/8" = 1'



ALL ELEVATIONS

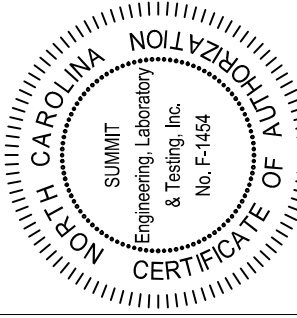
OPTION 1 BRACING

Cane Mill  
Lot 23



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**SUMMIT**  
ENGINEERING, LABORATORY & TESTING  
3070 HAMMOND BUSINESS  
PLACE, SUITE 171  
RALEIGH, NC 27603  
OFFICE: 919.380.9991  
FAX: 919.380.9993  
WWW.SUMMIT-COMPANIES.COM



PROJECT  
Burlington - LH  
CLIENT  
Smith Douglas Homes - Raleigh  
2520 Reliance Ave.  
Apex, NC 27539

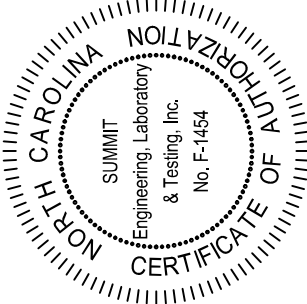
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DATE: 6/29/2021  
SCALE: 1/8"=1'-0"  
PROJECT #: 3832.202R  
DRAWN BY: JV  
CHECKED BY: BCP

ORIGINAL DRAWING  
DATE: 12/11/15  
PROJECT#: 3832.09

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

SHEET  
**S8.0**

SEE SHEET S80 FOR NOTES  
AND MORE INFORMATION



PROJECT  
Burlington - LH  
CLIENT  
Smith Douglas Homes - Raleigh  
2520 Reliance Ave.  
Apex, NC 27539

CURRENT DRAWING

DATE: 6/29/2021

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

PROJECT #: 3832.202R

DRAWN BY: JV

CHECKED BY: BCP

ORIGINAL DRAWING

DATE: 12/11/15

PROJECT#: 3832.09

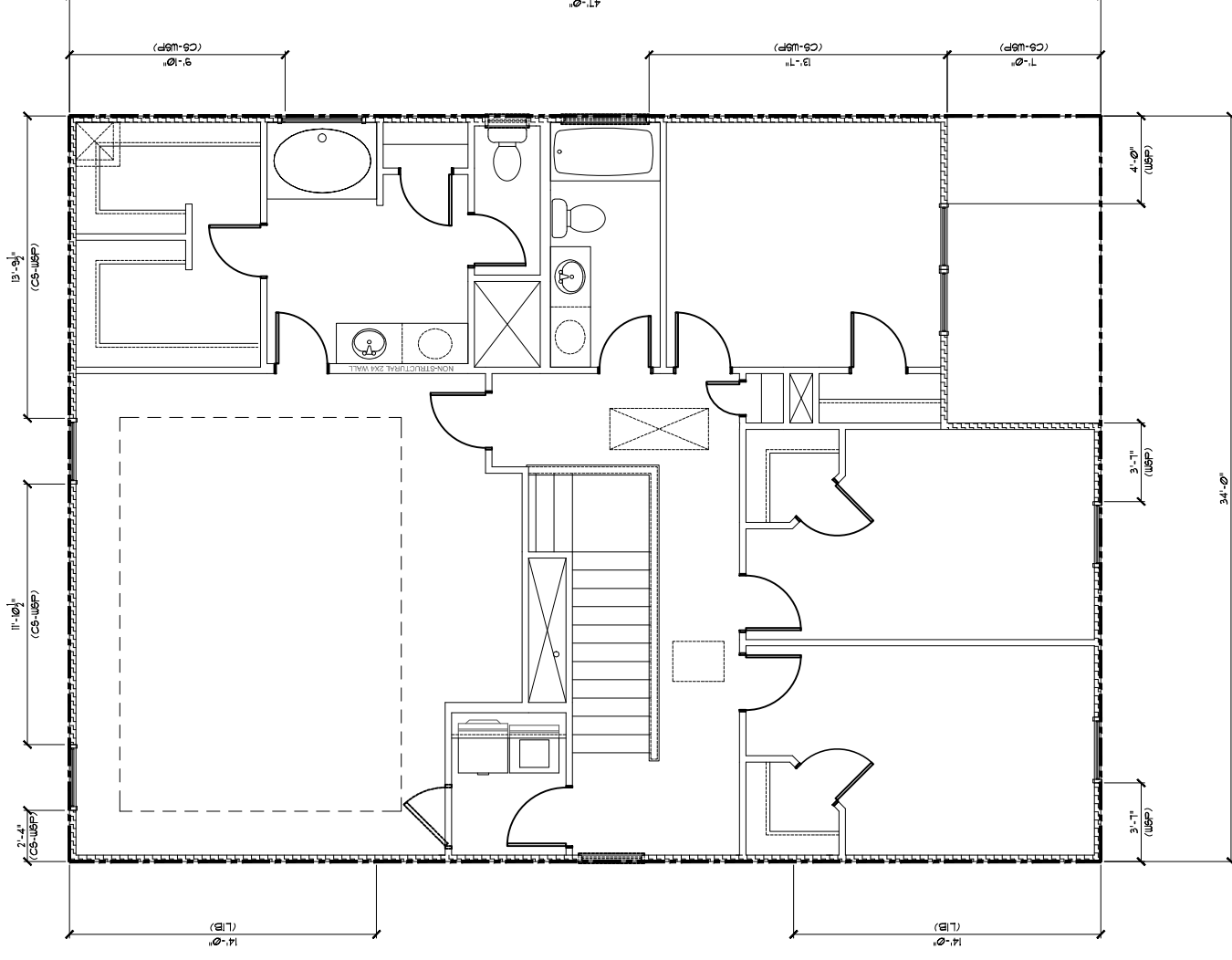
REFER TO COVER SHEET FOR A  
COMPLETE LIST OF REVISIONS

SHEET

**S8.1**

STRUCTURAL MEMBERS ONLY

Cane Mill  
Lot 23



ALL ELEVATIONS  
OPTION 2 BRACING

THESE PLANS ARE DESIGNED IN ACCORDANCE WITH ARCHITECTURAL  
PLANS PROVIDED BY SMITH DOUGLAS HOMES. NOTICES COMPLETED/RECEIVED  
ON 5/11/21. IT IS THE RESPONSIBILITY OF THE CLIENT TO NOTIFY SUMMIT  
ENGINEERING, LABORATORY & TESTING, P.C. IF ANY CHANGES ARE  
MADE TO THE ARCHITECTURAL PLANS PRIOR TO CONSTRUCTION.  
SUMMIT ENGINEERING, LABORATORY & TESTING, P.C. DOES NOT  
GUARANTEE THE ADEQUACY OF THESE STRUCTURAL PLANS WHEN  
USED WITH ARCHITECTURAL PLANS DATED DIFFERENTLY THAN THE  
DATE LISTED ABOVE.

SECOND FLOOR BRACING (FT)		
CONTINUOUS SHEATHING METHOD		
	REQUIRED	PROVIDED
FRONT SIDE	6.5	72.0
RIGHT SIDE	5.1	39.5
REAR SIDE	6.5	28.0
LEFT SIDE	5.1	14.0

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COMPONENTS ON THIS DOCUMENT. SEAL DOES NOT  
INCLUDE CONSTRUCTION MEANS, METHODS, TECHNIQUES,  
SEQUENCES, PROCEDURES OR SAFETY PRECAUTIONS.  
ANY DEVIATIONS OR DISCREPANCIES ON PLANS ARE TO  
BE BROUGHT TO THE IMMEDIATE ATTENTION OF SUMMIT  
ENGINEERING, LABORATORY & TESTING, P.C. FAILURE  
TO DO SO WILL VOID SUMMIT LIABILITY.

STRUCTURAL ANALYSIS BASED ON 2018 NCR.

SECOND FLOOR BRACING PLAN

SCALE: 1/8"=1'

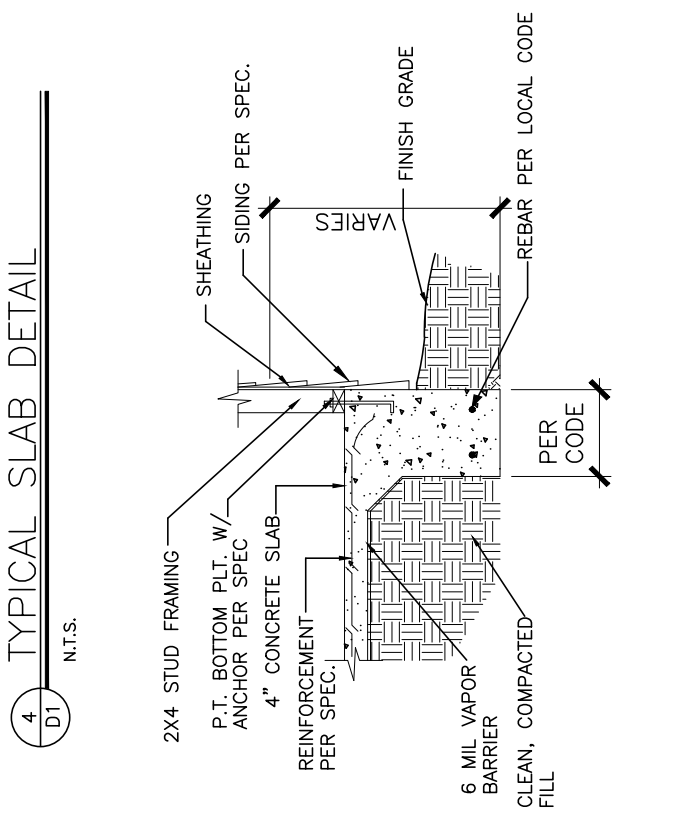
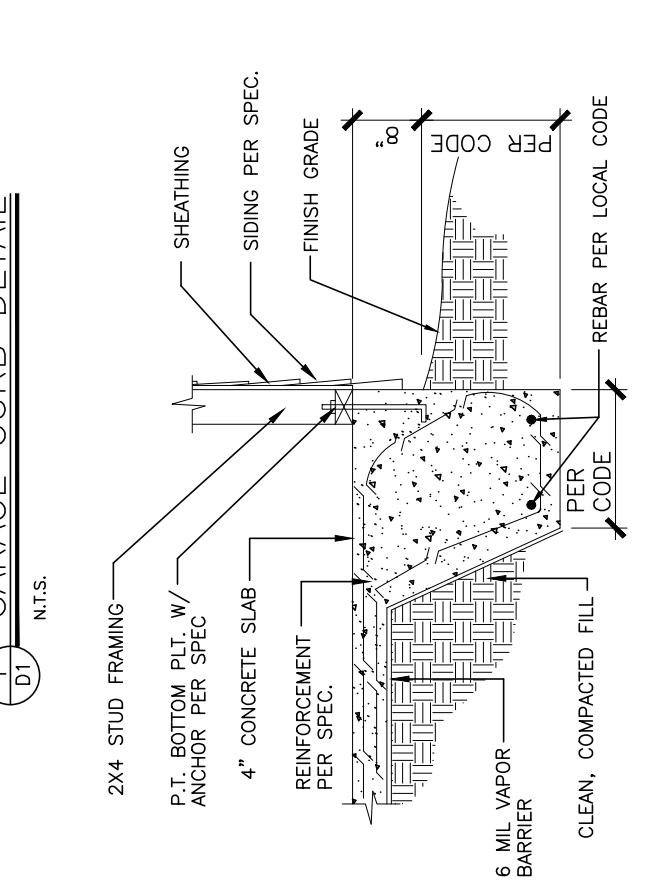
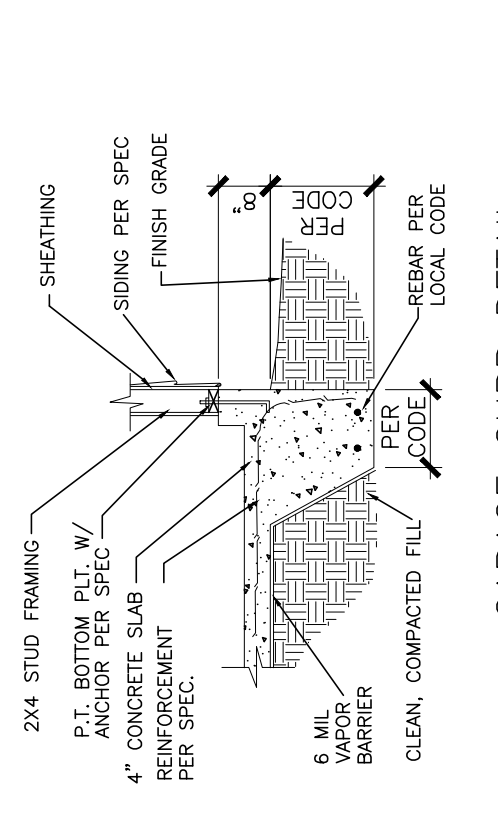
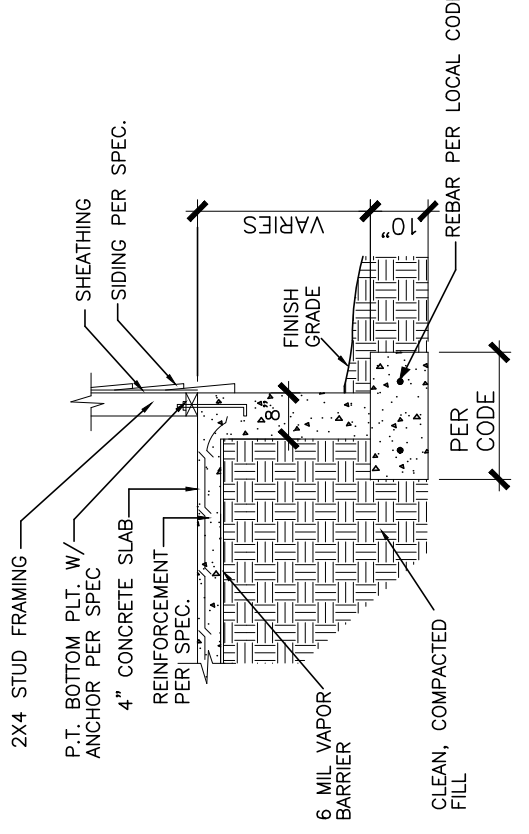
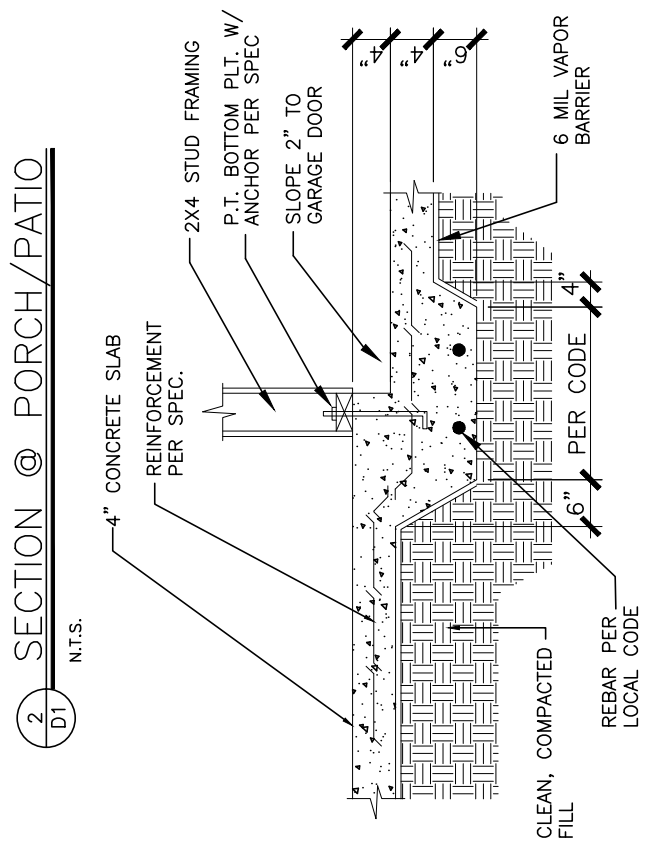
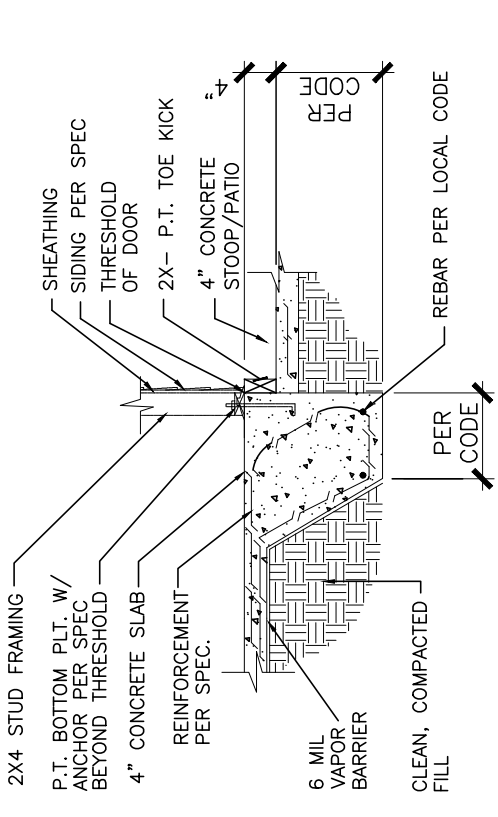
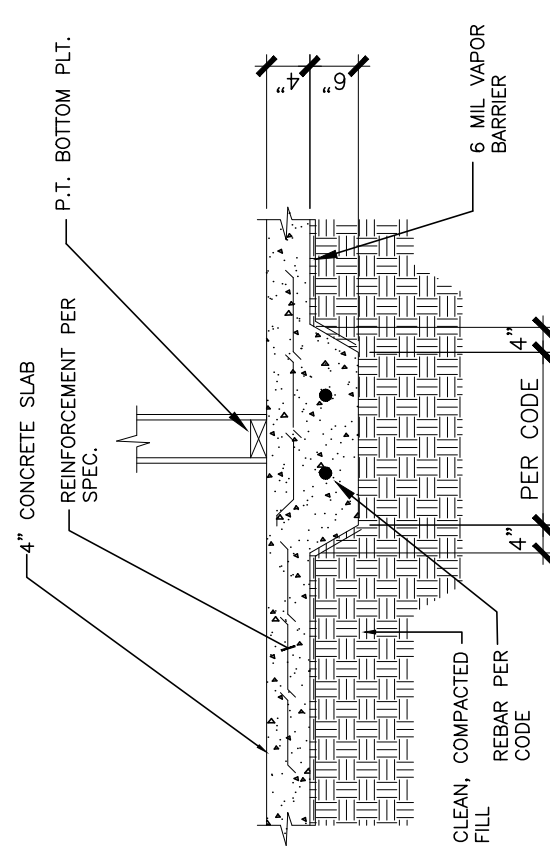
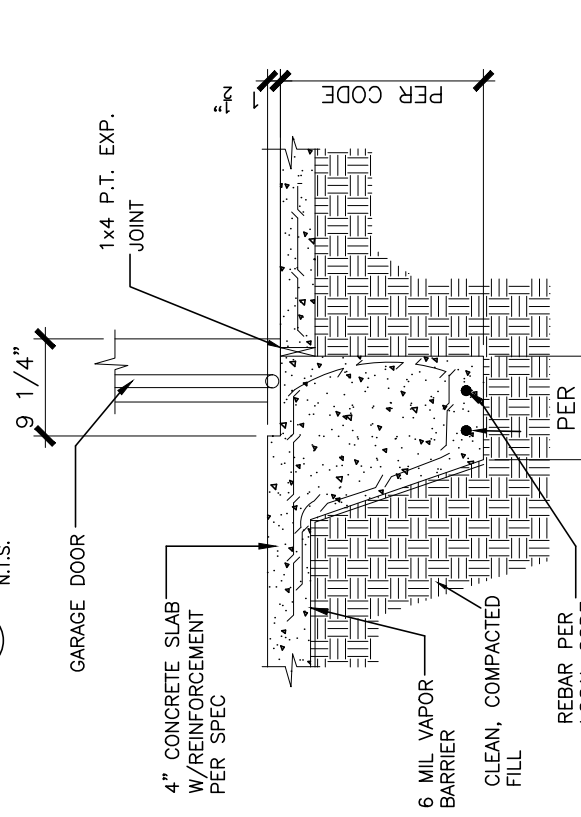
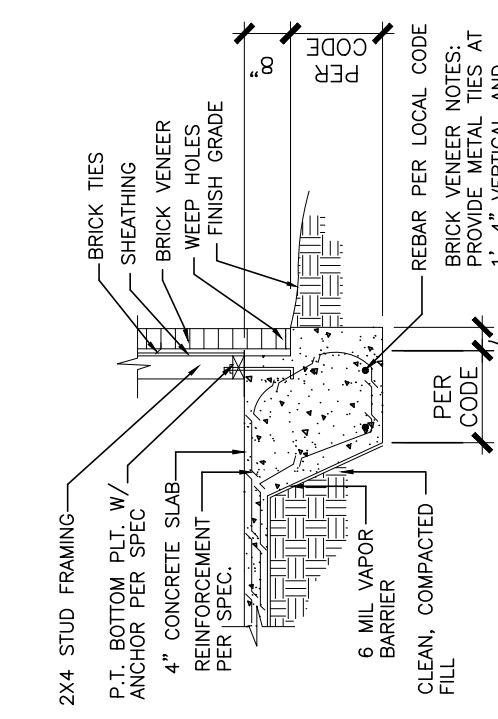
DATE	9/1/16	UPDATED PER KN REDLINES
REVISION		
BY	AW	

FOUNDATION  
 SLAB  
 DETAILS

SMITH DOUGLAS HOMES  
 110 VILLAGE TRAIL  
 SUITE 115  
 WOODBRIDGE, VA 20188  
 www.smithdouglashomes.com

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DATE:	6/17/16
PACKAGE QTY:	
PLAN ID:	ALL
FILE:	ALL
REV:	ALL
PAGE NO.:	D1



**GENERAL STRUCTURAL NOTES:**

- 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 permission of SUMMIT Engineering, Laboratory & Testing, P.C. (SUMMIT) or the SER. For the purposes of these construction documents the SER and SUMMIT shall be considered the same entity.
- The structure is only stable in its completed form. The contractor shall provide all required temporary bracing during construction to stabilize the structure.
- 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.
- 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 SUMMIT 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 SUMMIT.
- 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 SUMMIT before construction begins.
- The SER is not responsible for any secondary structural elements or non-structural elements, except for the elements specifically noted on the structural drawings.
- This structure and all construction shall conform to all applicable sections of the international residential code.
- This structure and all construction shall conform to all applicable sections of the 2018 North Carolina Residential Code (NCRC) and any local codes or restrictions

**FOUNDATIONS:**

- Foundations shall be constructed in accordance with chapter 4 of the 2018 NC Residential Building Code (Special consideration shall be given to Chapter 45 in wind zones above 130mph)
- Footing sizes based on a presumptive soil bearing capacity of 2000 PSF. Contractor is solely responsible for verifying the suitability of the site soil conditions at the time of construction
- Maximum depth of unbalanced fill against masonry walls to be as specified in section R404.1 of the 2018 NCRC
- The structural engineer has not performed a subsurface investigation. Verification of this 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.
- The bottom of all footings shall extend below the frost line for the region in which the structure is to be constructed. However, the bottom of all footings shall be a minimum of 12" below grade.
- 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.
- 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.
- No concrete shall be placed against any subgrade containing water, ice, frost, or loose material.
- Each crawl space pier shall bear in the middle third of its respective footing and each girder shall bearing in the middle third of the piers. Pilasters to be bonded to perimeter foundation wall
- Crawl spaced to be graded level and clear of all debris
- Provide foundation waterproofing and drain with positive slope to outlet as required by site conditions
- Energy efficiency compliance and insulation of the structure to be in accordance with chapter 11 of the 2018 NCRC

**CONCRETE:**

- Concrete shall have a normal weight aggregate and a minimum compressive strength (f'c) at 28 days of 3000 psi, unless otherwise noted on the plan.
- 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".
- 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 target values as follows:
  - Footings: 5%
  - Exterior Slabs: 5%
- No admixtures shall be added to any structural concrete without written permission of the SER
- Concrete slabs-on-grade shall be constructed in accordance with ACI 302.1R-96: "Guide for Concrete Slab and Slab Construction".
- The concrete slab-on-grade has been designed using a subgrade modulus of k=250 pci and a design loading of 200 psf. The SER is not responsible for differential settlement, slab cracking or other future defects resulting from unreported conditions not in accordance with the above assumptions.
- Control or saw cut joints 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.
- Control or saw cut joints shall be produced using conventional process within 4 to 12 hours after the slab has been finished
- Reinforcing steel may not extend through a control joint. Reinforcing steel may extend through a saw cut joint.
- 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. Fibermesh may be used in lieu of W.W.F.

**CONCRETE REINFORCEMENT:**

- Fibrous concrete reinforcement, or fibermesh, specified in concrete slabs-on-grade may be used for control of cracking due to shrinkage and thermal expansion/contraction, lowered water migration, an increase in impact capacity, increased abrasion resistance, and residual strength.
- Fibermesh reinforcing to be 100% virgin polypropylene fibers containing no reprocessed olefin materials and specifically manufactured for use as concrete secondary reinforcement.
- Application of fibermesh per cubic yard of concrete shall equal a minimum of 0.1% by volume (1.5 pounds per cubic yard)
- Fibermesh shall comply with ASTM C1116, any local building code requirements, and shall meet or exceed the current industry standard.
- Steel Reinforcing bars shall be new billet steel conforming to ASTM A615, grade 60.
- 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"
- 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 with a class B tension splice.
- Lap reinforcement as required, a minimum of 40 bar diameters for tension or compression unless otherwise noted. Splices in masonry shall be a minimum of 48 bar diameters.
- 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.
- Where reinforcing steel is required vertically, dowels shall be provided unless otherwise noted.

**WOOD FRAMING:**

- 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) #2.
- LVL or PSL engineered wood shall have the following minimum design values:
  - E = 1,900,000 psi
  - Fb = 2600 psi
  - Fv = 285 psi
  - Fc = 700 psi
- Wood in contact with concrete, masonry, or earth shall be pressure treated in accordance with AWPA standard C-15. All other moisture exposed wood shall be treated in accordance with AWPA standard C-2
- Nails shall be common wire nails unless otherwise noted.
- Lag screws shall conform to ANSI/ASME standard B18.2.1-1981. Lead holes for lag screws shall be in accordance with NDS specifications.
- All beams shall have full bearing on supporting framing members unless otherwise noted.
- Exterior and load bearing stud walls are to be 2x4 SPF#2 @16" O.C. unless otherwise noted. Studs shall be continuous from the sole plate to the double top plate. Studs shall only be discontinuous at headers for window/door openings. A minimum of one king stud shall be placed at each end of the header. King studs shall be continuous.
- Individual studs forming a column shall be attached with one 10d nail @6" O.C. staggered. The stud column shall be continuous to the foundation or beam. The column shall be fully blocked at all floor levels to ensure proper load transfer.
- Multi-ply beams shall have each ply attached with (3)10d nails @ 24" O.C.
- Fitch beams and four and five ply beams shall be bolted together with (2) rows of 1/2" dia. through bolts staggered @24" O.C. w/ 2" edge distance and (2) bolts located at 6" from each end, unless noted otherwise.

**WOOD TRUSSES:**

- 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 five (5) days for review. The review by the SER shall review for overall compliance with the design documents. The SER shall assume no responsibility for the correctness for the structural design for the wood trusses.
- 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 7-10), 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.
- The trusses shall be designed, fabricated, and erected in accordance with the latest edition of the "National Design Specification for Wood Construction." (NDS) and "Design Specification for Metal Plate Connected Wood Trusses."
- The truss manufacturer shall provide adequate bracing information in accordance with "Commentary and Recommendations for Handling, Installing, and Bracing Metal Plate Connected Wood Trusses" (HIB-91). 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.
- 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.

**WOOD STRUCTURAL PANELS:**

- 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.
- All structurally required wood sheathing shall bear the mark of the APA.
- 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. Sheathing shall be applied with the long direction perpendicular to framing, unless noted otherwise.
- Roof sheathing shall be APA rated sheathing exposure 1 or 2. Roof sheathing shall be continuous over two supports and attached to its supporting roof framing with (1)-8d CC 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 with the long direction perpendicular to framing. Sheathing shall have a span rating consistent with the framing spacing. Use suitable edge support by use of plywood clips or lumber blocking unless otherwise noted. Panel end joints shall occur over framing. Apply building paper over the sheathing as required by the state Building Code.
- Wood floor sheathing shall be APA rated sheathing exposure 1 or 2. Attach sheathing to its supporting framing with (1)-8d CC ringshank 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. Use suitable edge support by use of T&G plywood or lumber blocking unless otherwise noted. Panel end joints shall occur over framing. Apply building paper over the sheathing as required by the state Building Code.
- Sheathing shall have a 1/8" gap at panel ends and edges as recommended in accordance with the APA.

**STRUCTURAL FIBERBOARD PANELS:**

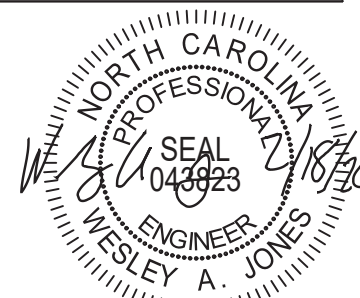
- Fabrication and placement of structural fiberboard sheathing shall be in accordance with the applicable AFA standards.
- Fiberboard wall sheathing shall comply with the requirements of local building codes for the appropriate state as indicated on these drawings. Refer to wall bracing notes in plan set for more information.
- Sheathing shall have a 1/8" gap at panel ends and edges are recommended in accordance with the AFA.

**EXTERIOR WOOD FRAMED DECKS:**

- Decks are to be framed in accordance with local building codes and as referenced on the structural plans, either through code references or construction details.

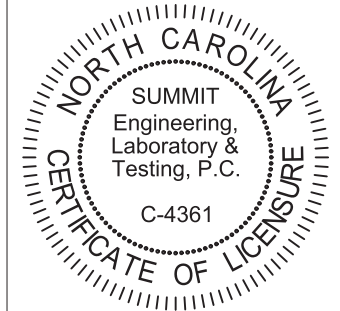
**STRUCTURAL STEEL:**

- 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.
- All steel shall have a minimum yield stress (Fy) of 36 ksi unless otherwise noted.
- Welding shall conform to the latest edition of the American Welding Society's Structural Welding Code AWS D1.1. Electrodes for shop and field welding shall be class E70XX. All welding shall be performed by a certified welder per the above standards.



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ENGINEERING LABORATORY TESTING  
3070 HAMMOND BUSINESS PLACE,  
SUITE 171, RALEIGH, NC 27603  
OFFICE: 919.380.9991  
FAX: 919.380.9993  
WWW.SUMMIT-COMPANIES.COM



PROJECT  
**Standard Details**  
**Notes and Specifications**  
CLIENT  
**Smith Douglas Homes**  
**110 Village Trail, Suite 215**  
**Woodstock, GA 30188**

**CURRENT DRAWING**

DATE: 2/18/20  
SCALE: NTS  
PROJECT #: 3832  
DRAWN BY: LBV  
CHECKED BY: WAJ

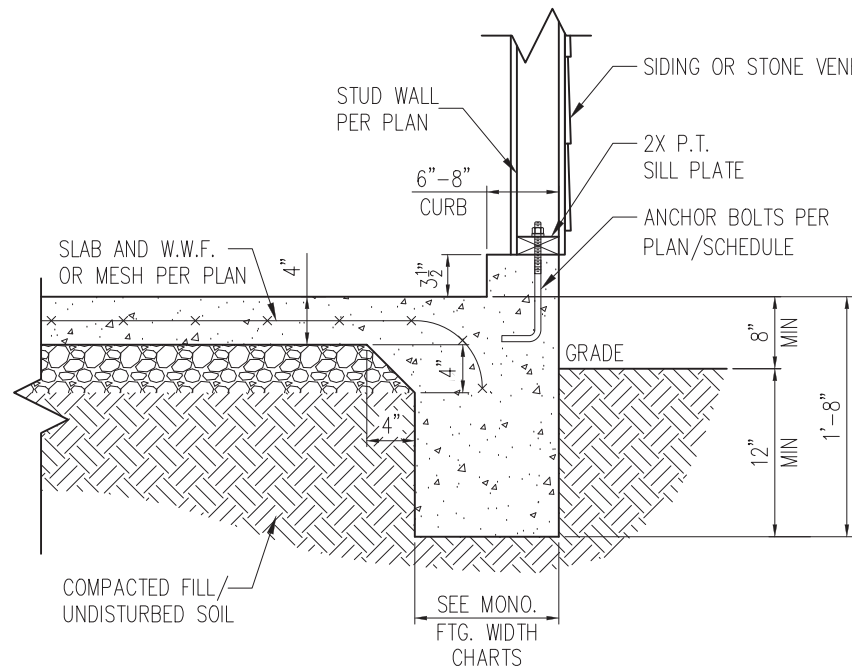
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NO.	DATE	PROJECT #
0	1/7/16	3832

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

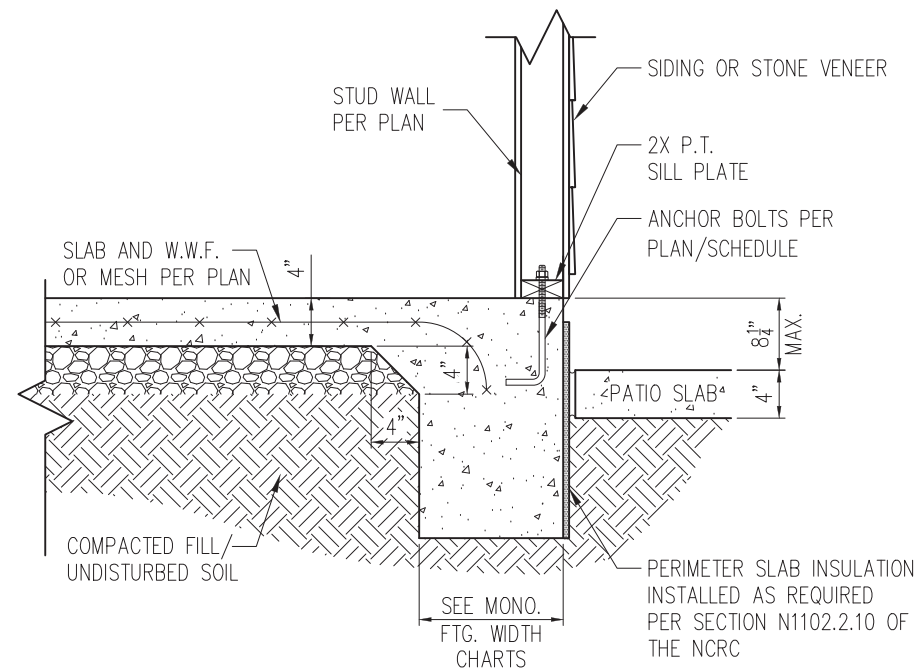
**SHEET**

**CS2**



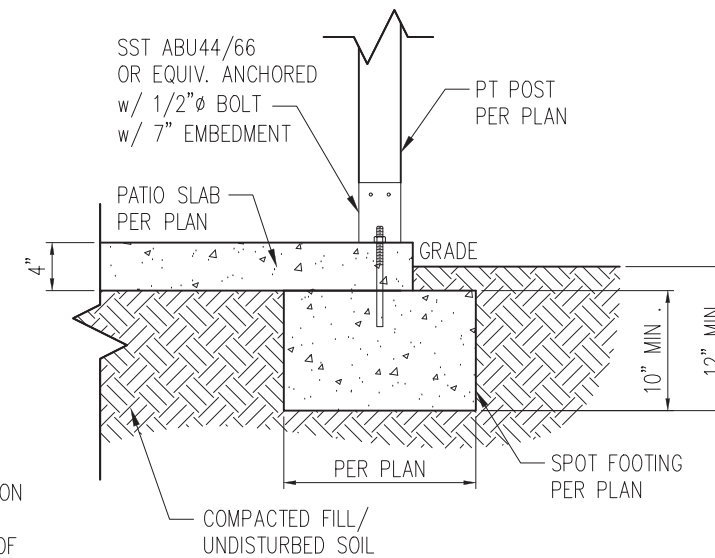
STANDARD - SIDING/STONE

1 TYP. GARAGE CURB DETAIL  
D1m 3/4" = 1'-0"

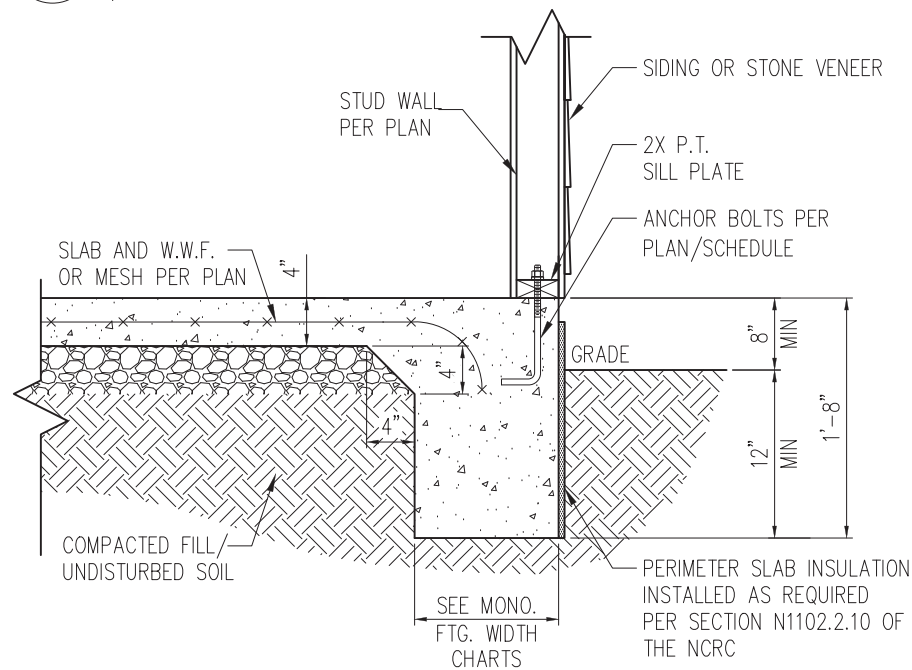


STANDARD - SIDING/STONE

2 PATIO SLAB DETAIL  
D1m 3/4" = 1'-0"

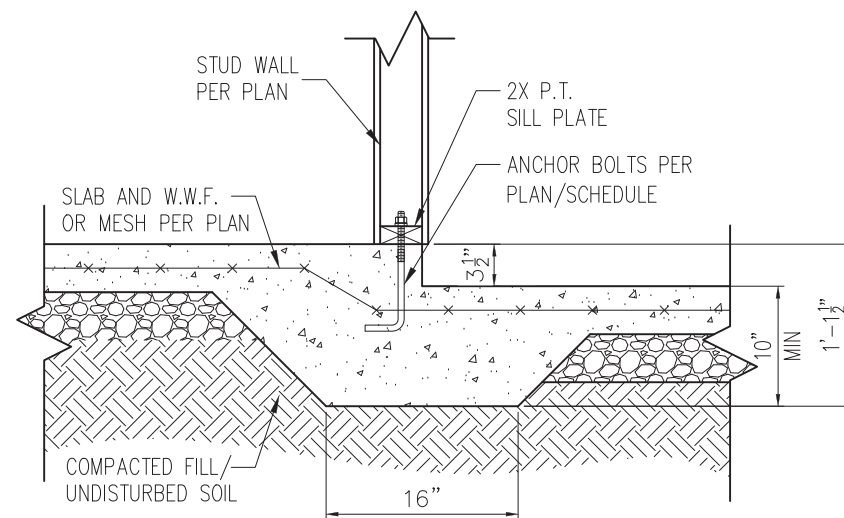


2A COVERED PATIO DETAIL  
D1m 3/4" = 1'-0"



STANDARD - SIDING/STONE

3 TYP. SLAB DETAIL  
D1m 3/4" = 1'-0"



4 STEP IN GARAGE  
D1m 3/4" = 1'-0"

WALL ANCHOR SCHEDULE

TYPE OF ANCHOR	MIN. CONC. EMBEDMENT	SPACING EMBEDMENT	INTERIOR WALL	EXTERIOR WALL
1/2" Ø A307 BOLTS w/ STD. 90° BEND	7"	6'-0"	YES	YES
SST - MAS	4"	5'-0"	NO	YES
HILTI KWIK BOLT KBI 1/2-2-3/4	2-1/4"	6'-0"	YES	NO
1/2" Ø HILTI THREADED ROD w/ HIT HY150 ADHESIVE	7"	6'-0"	YES	YES

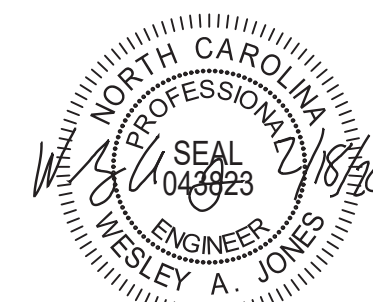
NOTE: INSTALL ALL ANCHORS 12" MAX. FROM ALL BOTTOM PLATE ENDS AND JOINTS.

MONOLITHIC FOOTING WIDTH

# OF STORIES	WIDTH BASED ON SOIL BEARING CAPACITY		
	1500 PSF	2000 PSF	2500 PSF
1 STORY - STD.	16"	16"	16"
1 STORY - BRICK VENEER	21"	21"	21"
2 STORY - STD.	20"	16"	16"
2 STORY - BRICK VENEER	25"	21"	21"

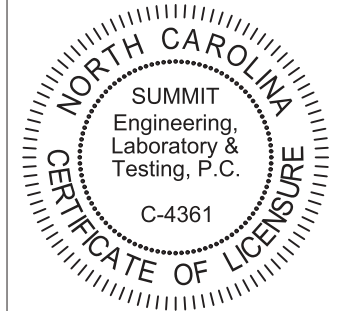
\*5" BRICK LEDGE HAS BEEN ADDED TO THE MONOLITHIC FOOTING WIDTH FOR BRICK SUPPORT

- NOTES:
- REFER TO GENERAL NOTES & SPECIFICATIONS ON SHEET CS2 FOR ADDITIONAL INFORMATION.
  - PROVIDE 6 MIL VAPOR BARRIER UNDER ALL SLABS-ON-GRADE.
  - SEE ARCH. DWGS. FOR ALL TOP OF THE SLAB ELEVATIONS, SLOPES AND DEPRESSIONS.



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ENGINEERING LABORATORY TESTING  
3070 HAMMOND BUSINESS PLACE,  
SUITE 171, RALEIGH, NC 27603  
OFFICE: 919.380.9991  
FAX: 919.380.9993  
WWW.SUMMIT-COMPANIES.COM



PROJECT  
Standard Details  
Monolithic Slab Details  
CLIENT  
Smith Douglas Homes  
110 Village Trail, Suite 215  
Woodstock, GA 30188

CURRENT DRAWING  
DATE: 2/18/20  
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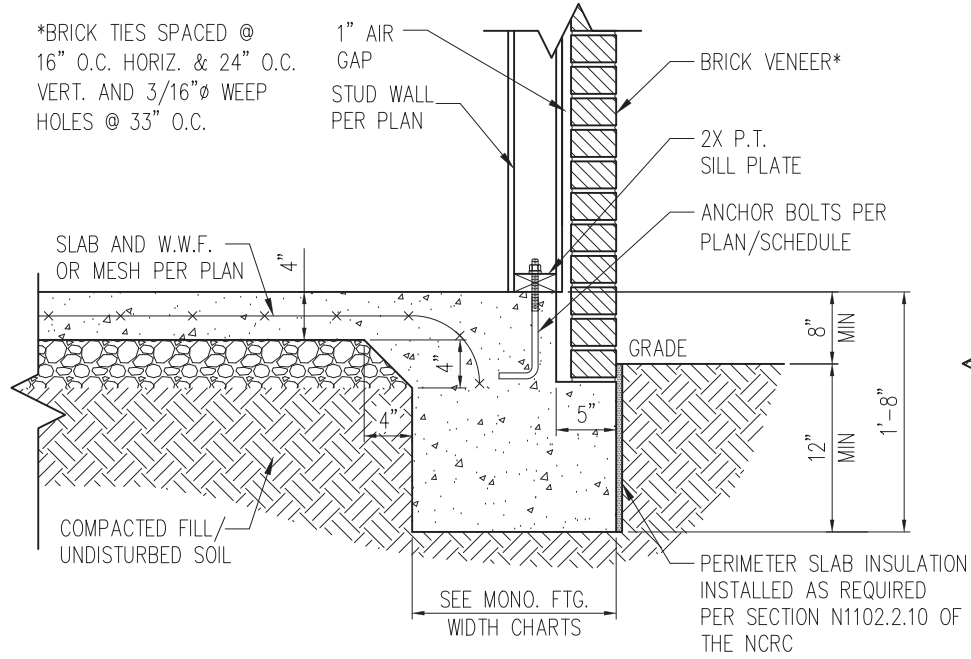
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NO. DATE PROJECT #  
0 1/7/16 3832

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

SHEET

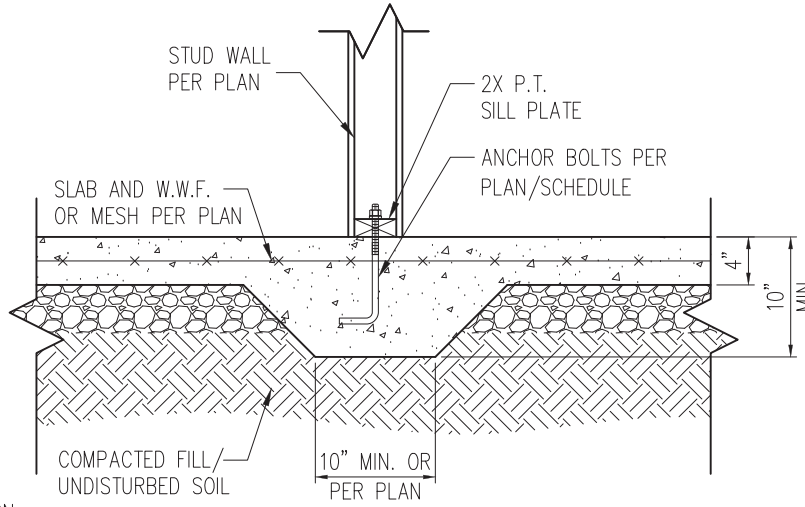
D1m

\*BRICK TIES SPACED @ 16" O.C. HORIZ. & 24" O.C. VERT. AND 3/16" Ø WEEP HOLES @ 33" O.C.



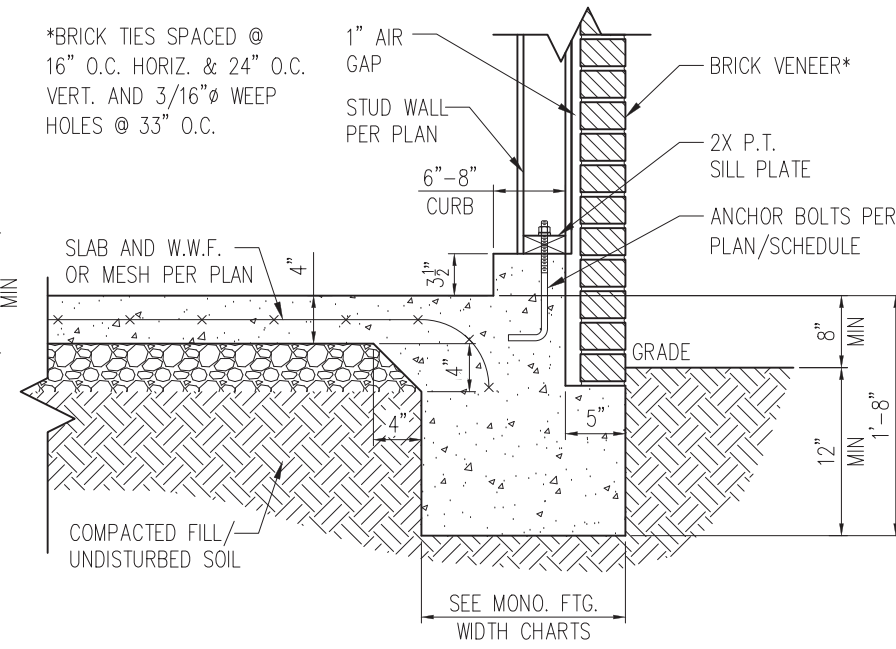
STANDARD - BRICK

1 TYP. SLAB DETAIL W/ BRICK VENEER  
D2m 3/4" = 1'-0"



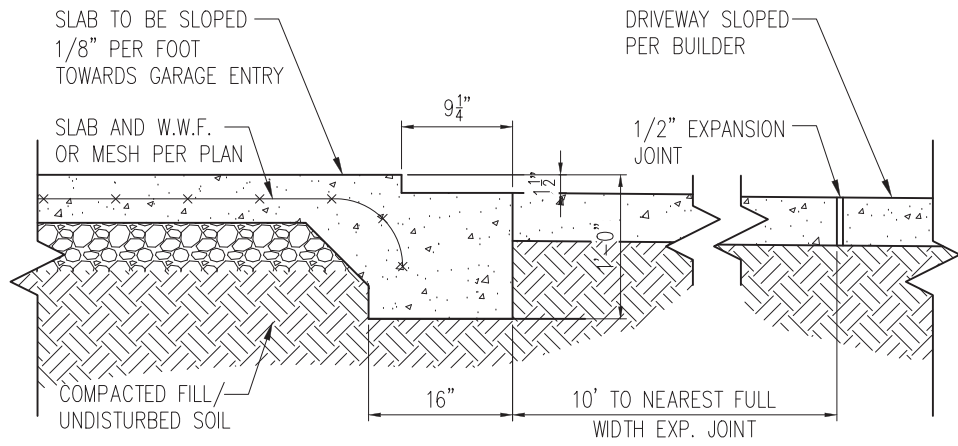
3 TYP. THICKENED SLAB DETAIL  
D2m 3/4" = 1'-0"

\*BRICK TIES SPACED @ 16" O.C. HORIZ. & 24" O.C. VERT. AND 3/16" Ø WEEP HOLES @ 33" O.C.

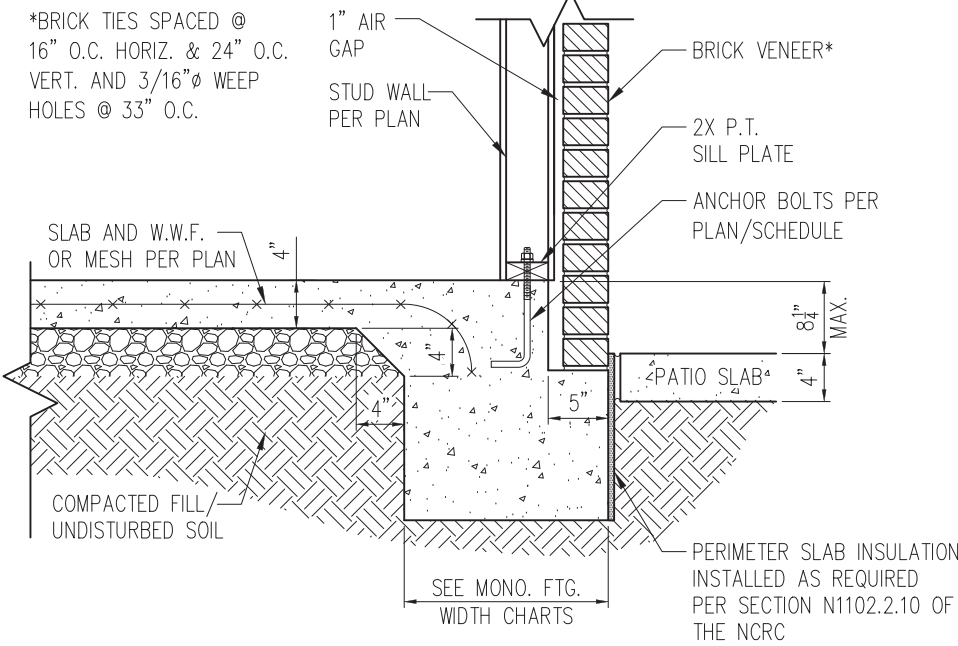


STANDARD - BRICK

5 TYP. GARAGE CURB DETAIL W/ BRICK VENEER  
D2m 3/4" = 1'-0"



2 SLAB AT GARAGE DOOR  
D2m 3/4" = 1'-0"



STANDARD - BRICK

4 PATIO SLAB DETAIL W/ BRICK VENEER  
D2m 3/4" = 1'-0"

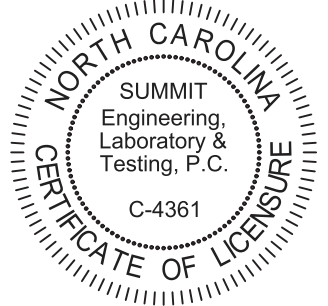
NOTES:

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- SEE ARCH. DWGS. FOR ALL TOP OF THE SLAB ELEVATIONS, SLOPES AND DEPRESSIONS.



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PROJECT  
Standard Details  
Monolithic Slab Details  
CLIENT  
Smith Douglas Homes  
110 Village Trail, Suite 215  
Woodstock, GA 30188

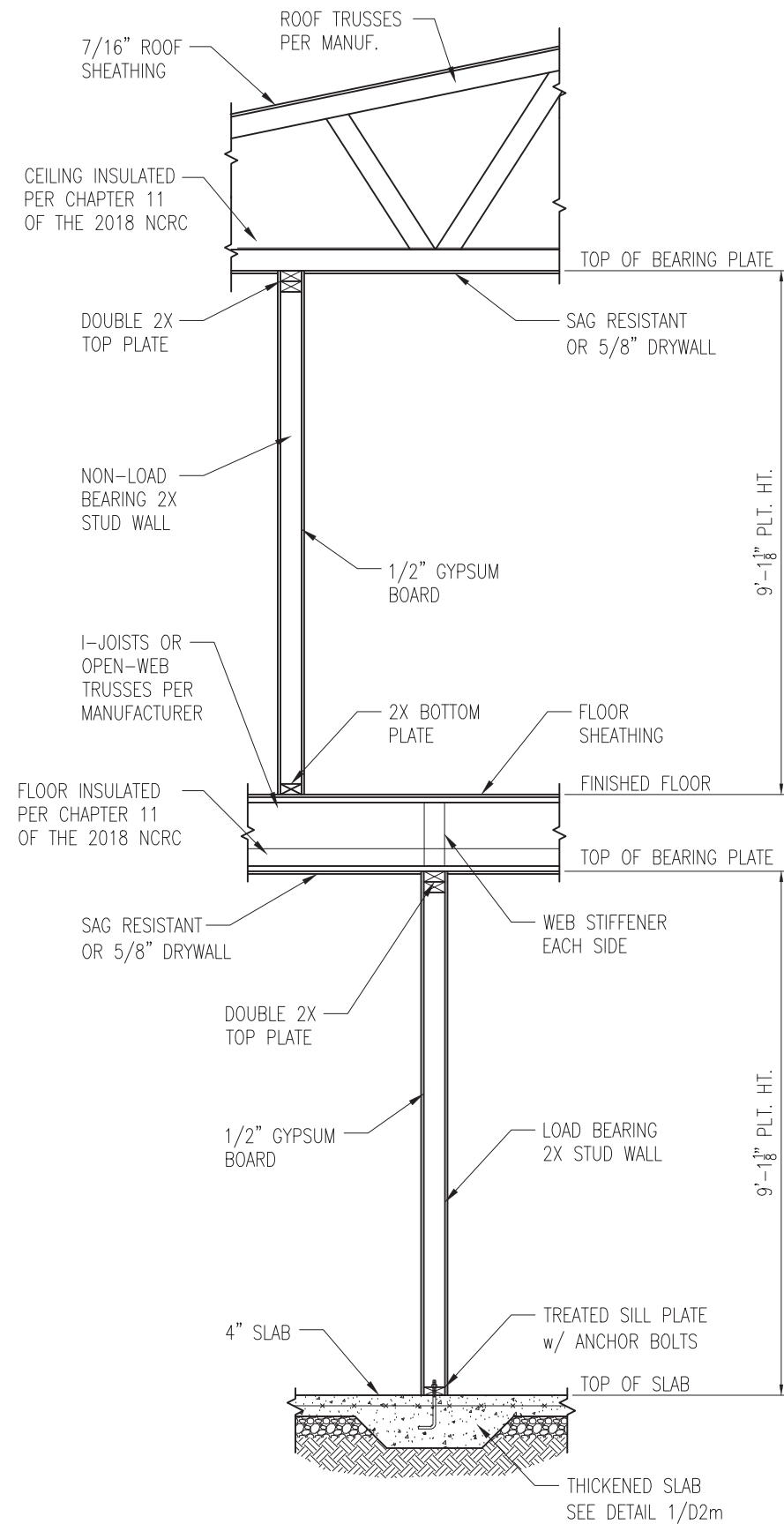
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DATE: 2/18/20  
SCALE: NTS  
PROJECT #: 3832  
DRAWN BY: LBV  
CHECKED BY: WAJ

ORIGINAL DRAWING  
NO. DATE PROJECT #  
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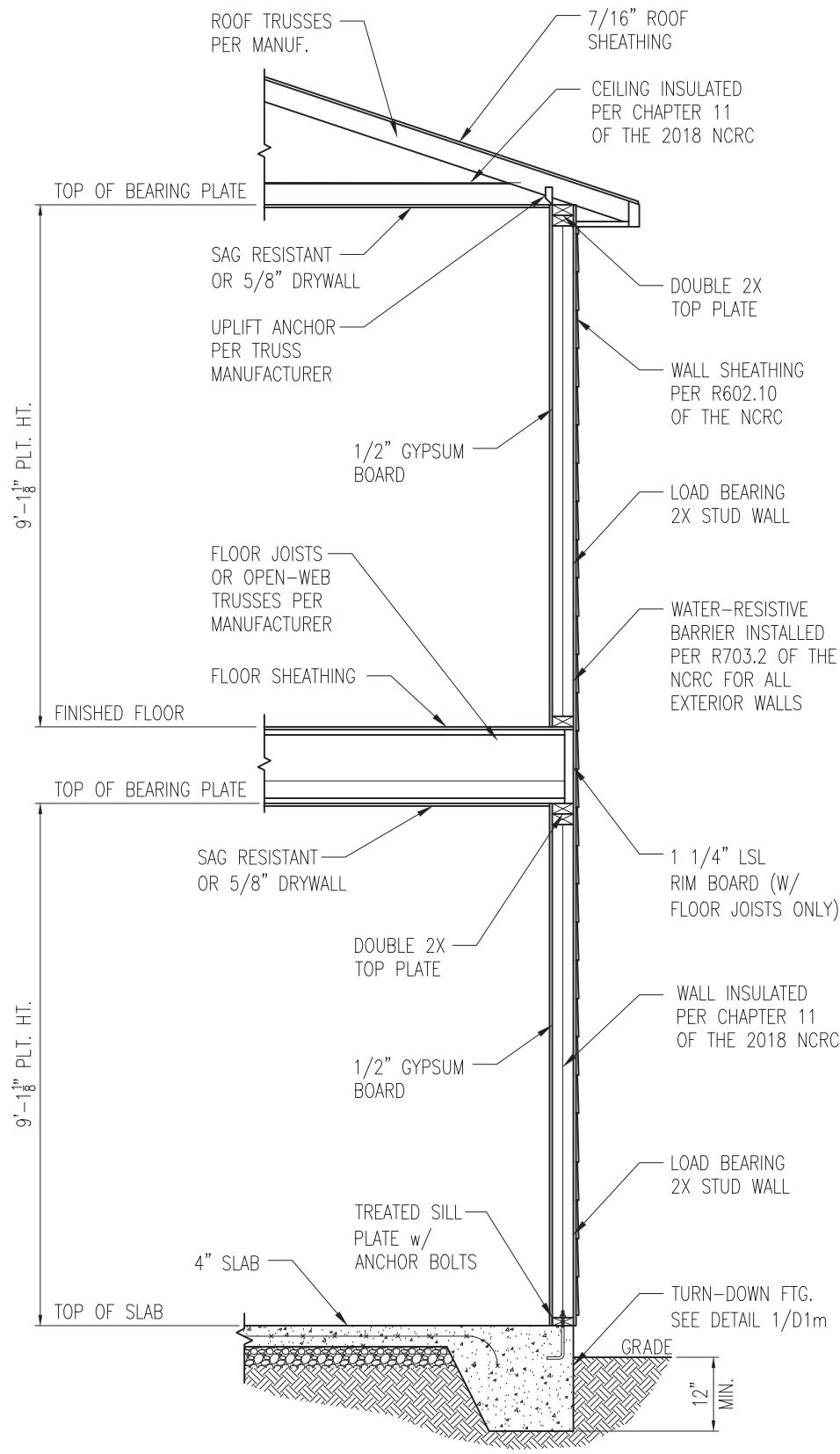
REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

SHEET  
D2m





1 TYP. INTERIOR LOAD BEARING WALL SECTION  
 D3m 3/4" = 1'-0"

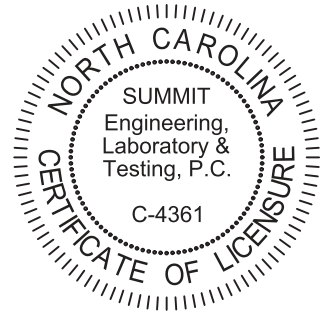


2 TYP. EXTERIOR LOAD BEARING WALL SECTION  
 D3m 3/4" = 1'-0"  
 -SIMILAR w/ BRICK AND STONE  
 -BRICK TIES SPACED @ 16" O.C. HORIZ. & 24" O.C. VERT.  
 -MIN. 3/16" Ø WEEP HOLES @ 33" O.C.

- NOTES:
1. REFER TO GENERAL NOTES & SPECIFICATIONS ON SHEET CS2 FOR ADDITIONAL INFORMATION.
  2. PROVIDE 6 MIL VAPOR BARRIER UNDER ALL SLABS-ON-GRADE.
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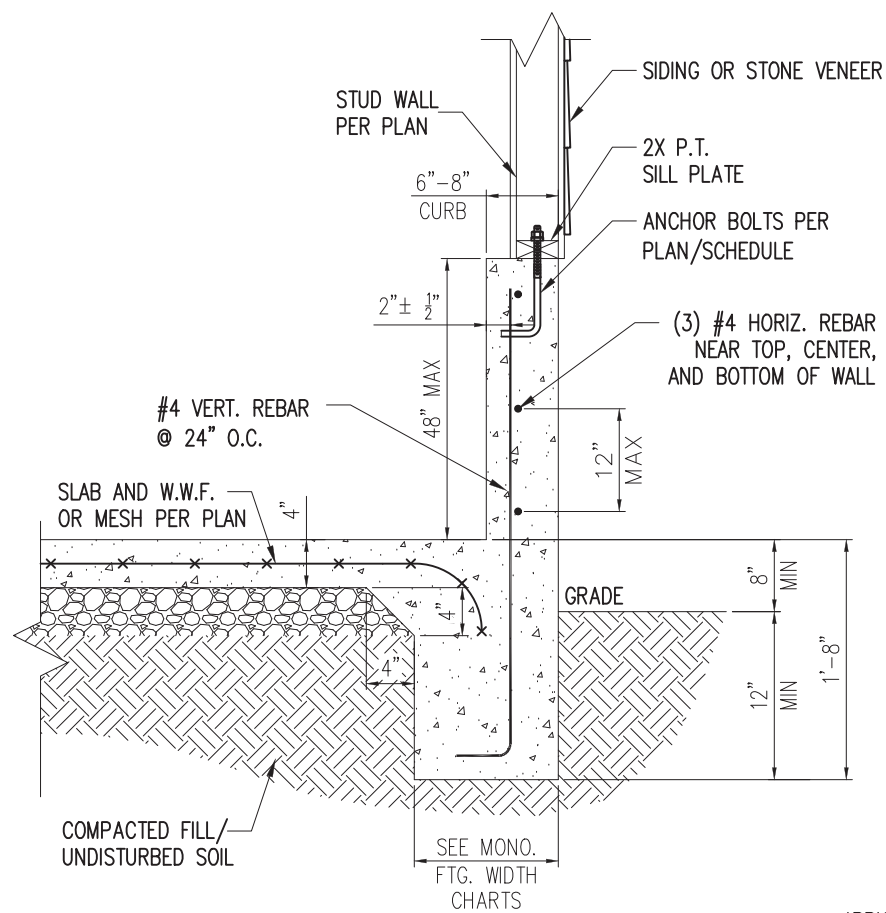
PROJECT  
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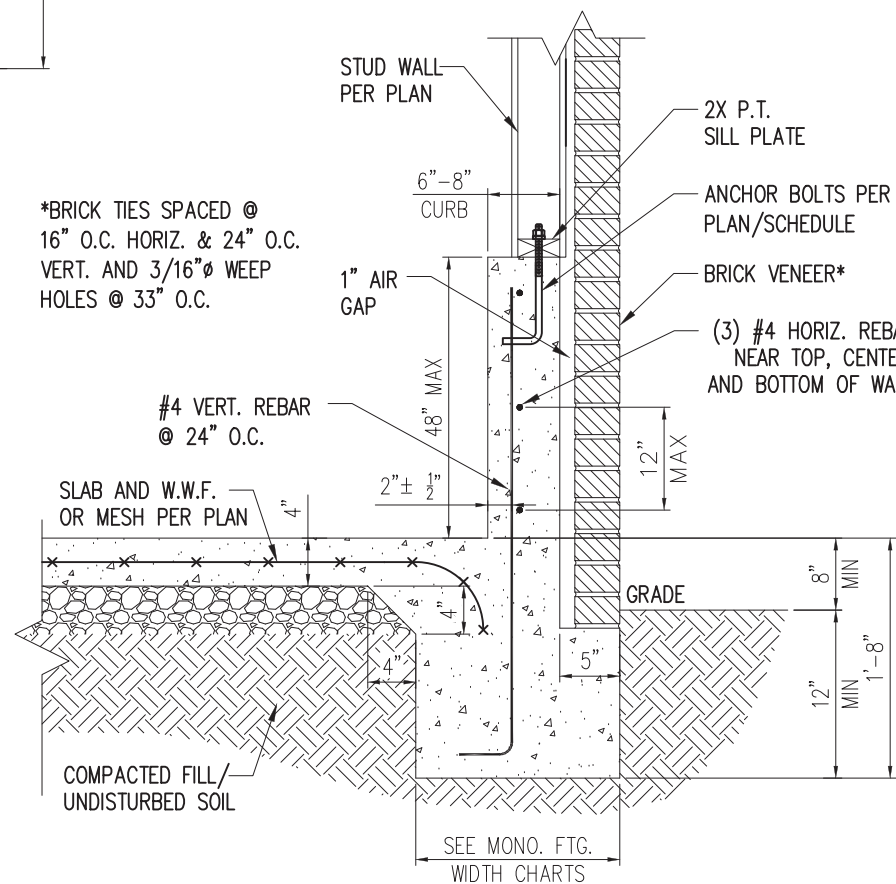
SHEET  
**D3m**



STANDARD - SIDING/STONE

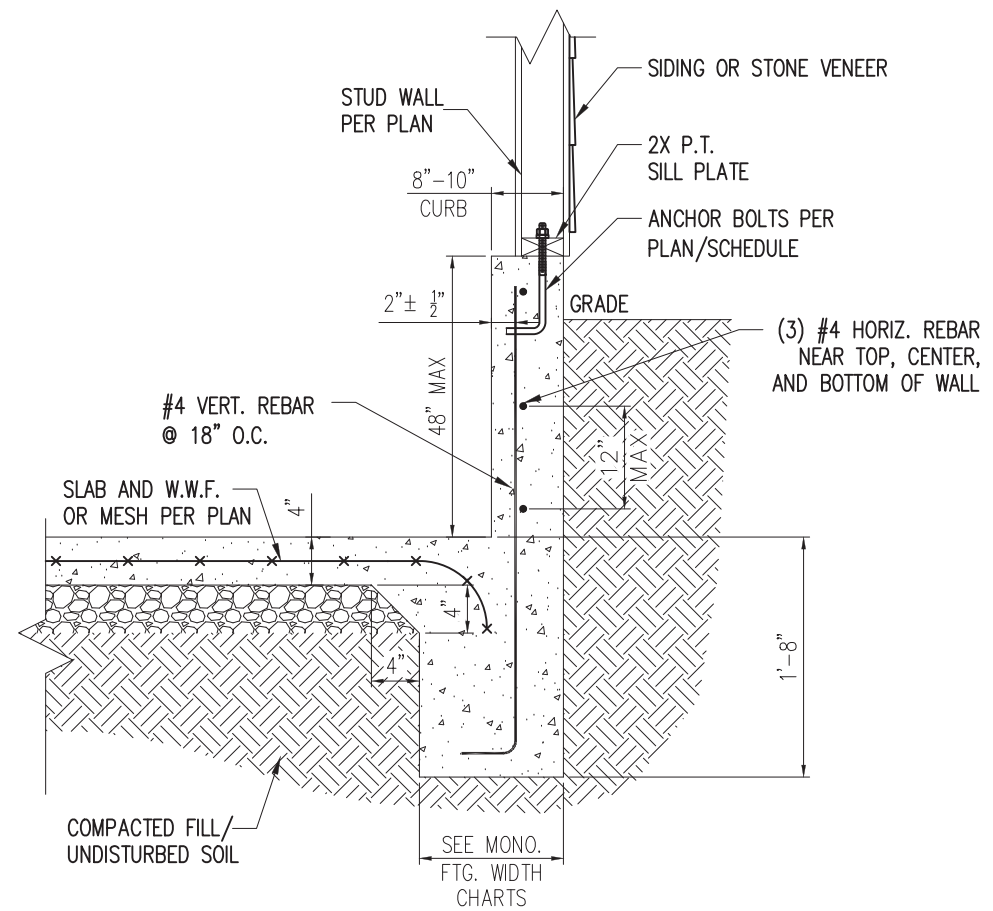
1 EXTENDED GARAGE CURB DETAIL  
D4m NTS

\*BRICK TIES SPACED @  
16" O.C. HORIZ. & 24" O.C.  
VERT. AND 3/16" Ø WEEP  
HOLES @ 33" O.C.



STANDARD - BRICK

3 EXTENDED GARAGE CURB DETAIL  
W/ BRICK VENEER  
D4m NTS



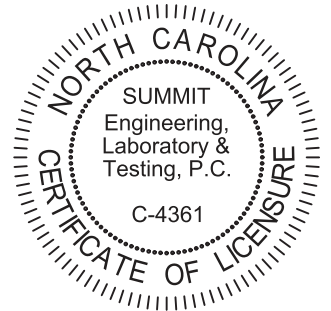
STANDARD - SIDING/STONE

2 EXTENDED GARAGE CURB DETAIL  
W/ UNBALANCED FILL  
D4m NTS



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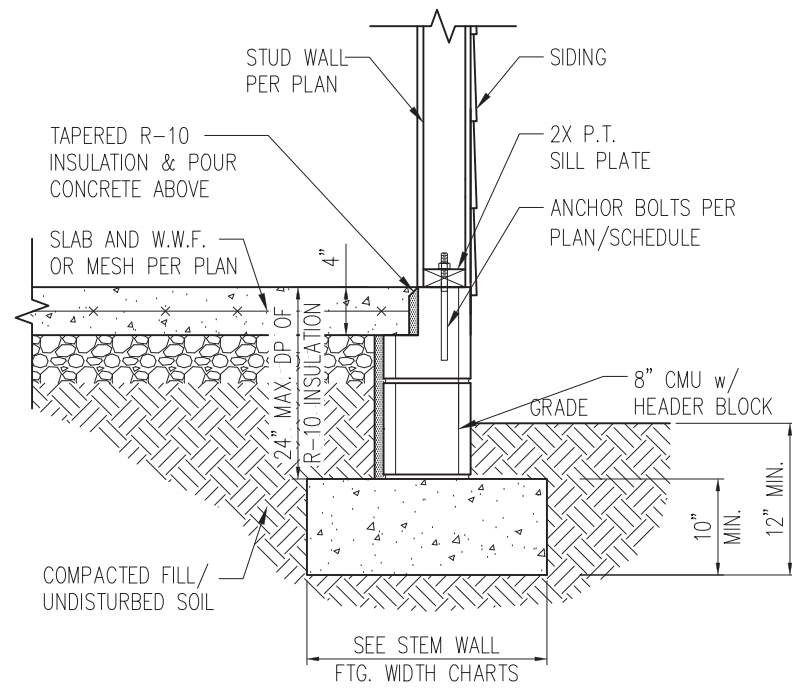
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PROJECT #: 3832  
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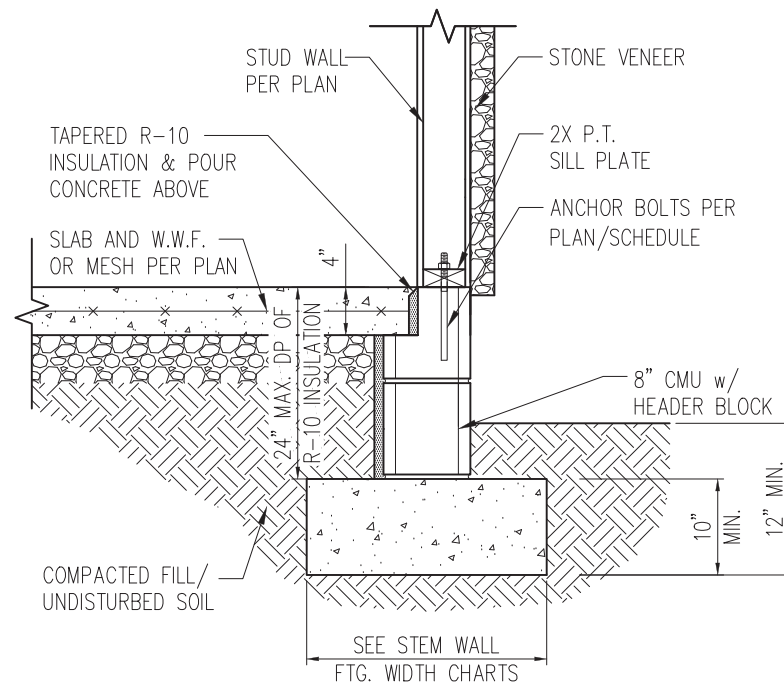
ORIGINAL DRAWING  
NO. DATE PROJECT #  
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COMPLETE LIST OF REVISIONS

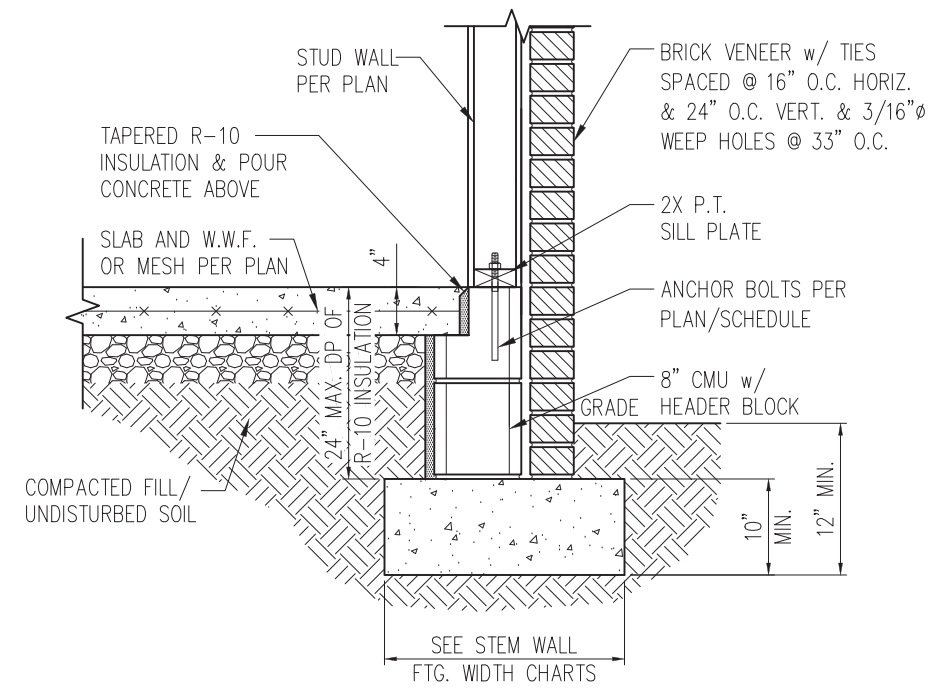
SHEET  
**D4m**



STANDARD - SIDING

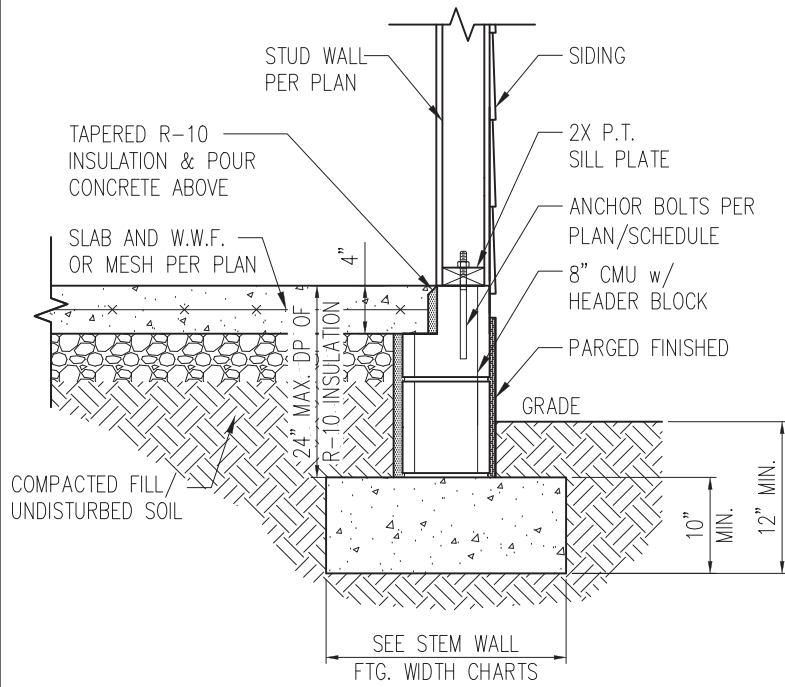


STANDARD - STONE

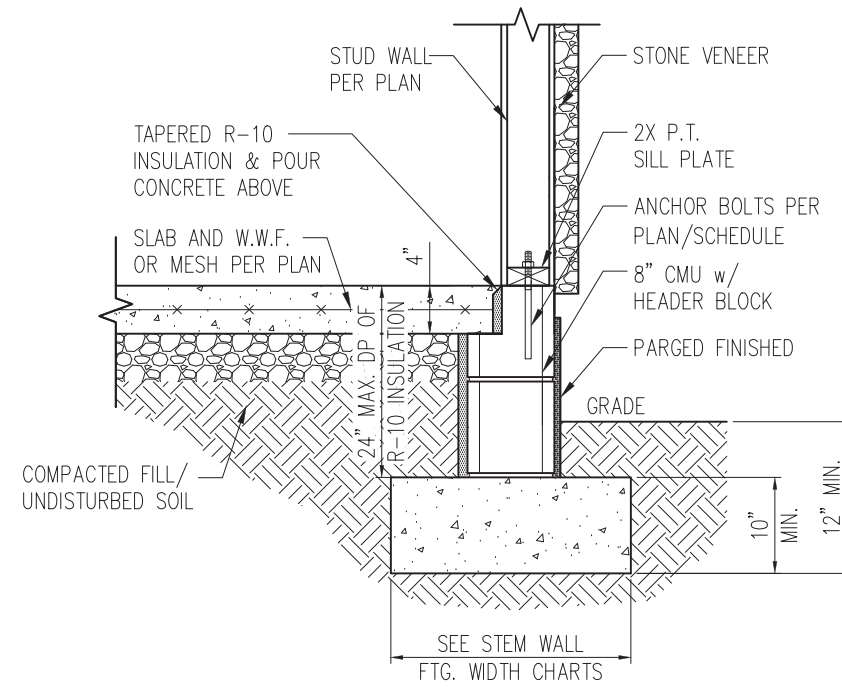


STANDARD - BRICK

1 TYP. STEM WALL DETAIL  
D1s 3/4" = 1'-0"



STANDARD - SIDING



STANDARD - STONE

1a STEM WALL DETAIL w/ PARGED FINISH  
D1s 3/4" = 1'-0"

STEM WALL FOOTING WIDTH

# OF STORIES	WIDTH BASED ON SOIL BEARING CAPACITY		
	1500 PSF	2000 PSF	2500 PSF
1 STORY - STD.	16"	16"	16"
1 STORY - BRICK VENEER	21"*	21"*	21"*
2 STORY - STD.	20"	16"	16"
2 STORY - BRICK VENEER	25"*	21"*	21"*

\*5" BRICK LEDGE HAS BEEN ADDED TO THE STEM WALL FOOTING WIDTH FOR BRICK SUPPORT

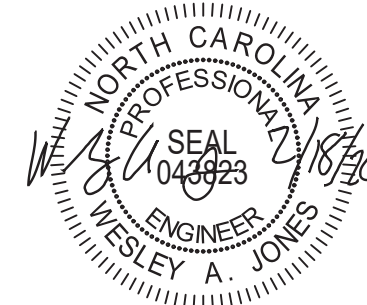
WALL ANCHOR SCHEDULE

TYPE OF ANCHOR	MIN. CONC. EMBEDMENT	SPACING EMBEDMENT	INTERIOR	EXTERIOR
			WALL	WALL
1/2" A307 BOLTS w/ STD. 90° BEND	7"	6'-0"	YES	YES
SST - MAS	4"	5'-0"	NO	YES
HILTI KWIK BOLT KBI 1/2-2-3/4	2-1/4"	6'-0"	YES	NO
1/2" HILTI THREADED ROD w/ HIT HY150 ADHESIVE	7"	6'-0"	YES	YES

NOTE: INSTALL ALL ANCHORS 12" MAX. FROM ALL BOTTOM PLATE ENDS AND JOINTS.

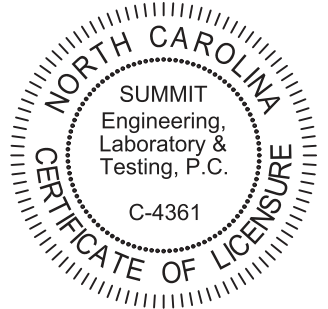
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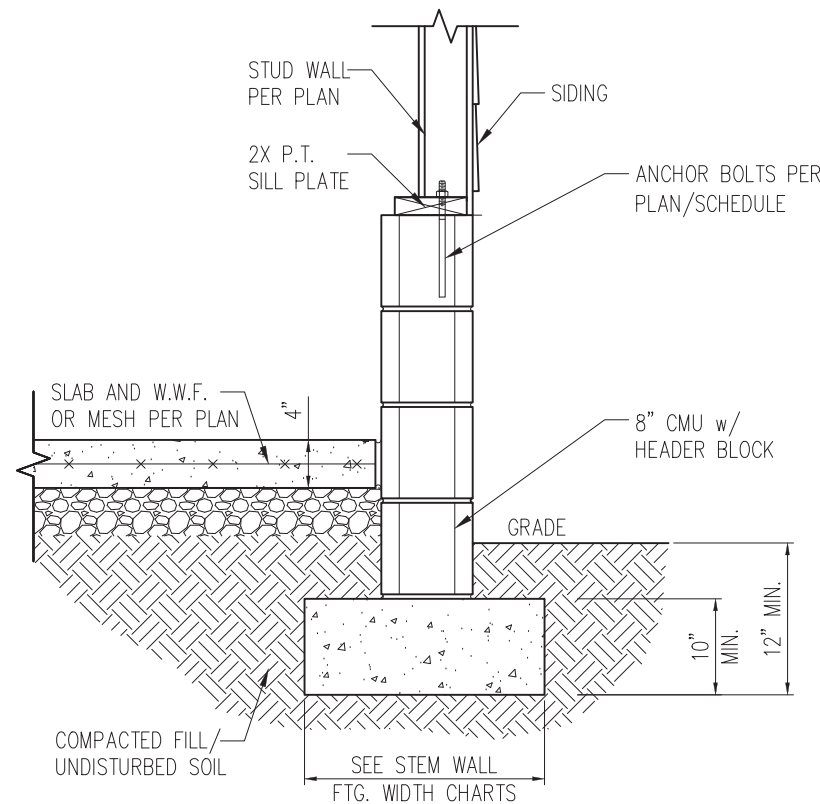
PROJECT  
**Standard Details**  
**Stemwall Details**  
CLIENT  
**Smith Douglas Homes**  
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Woodstock, GA 30188

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PROJECT #: 3832  
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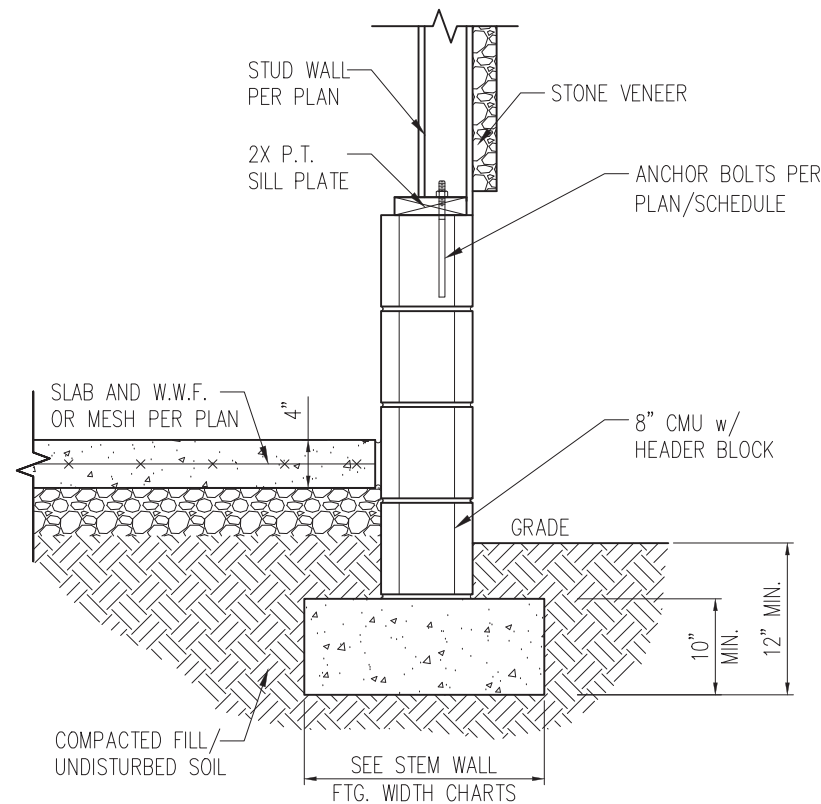
ORIGINAL DRAWING  
NO. DATE PROJECT #  
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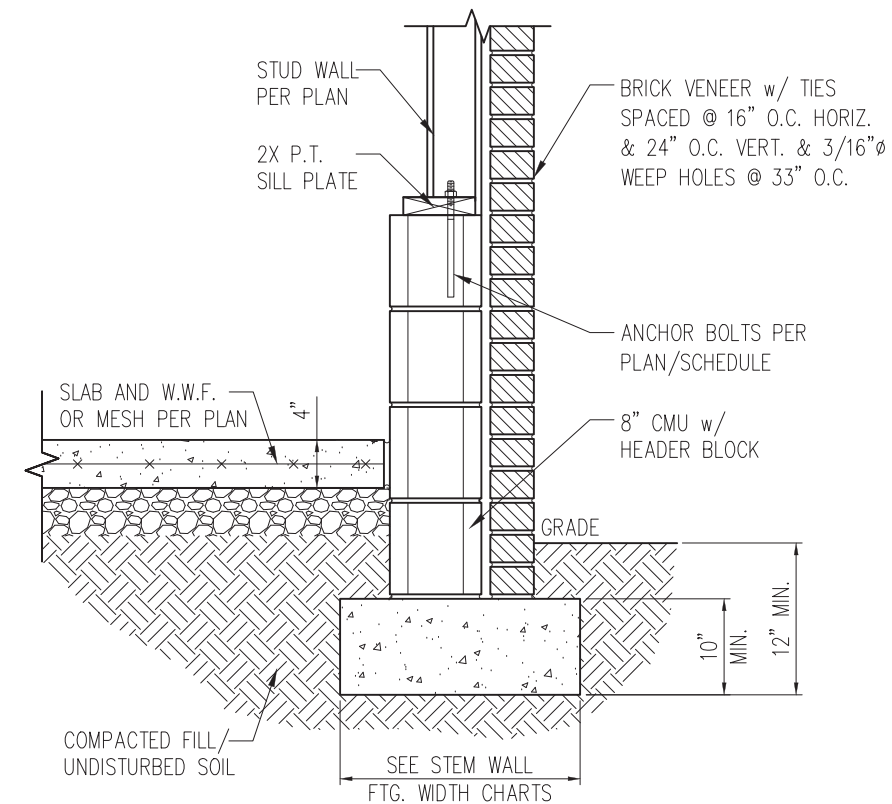
SHEET  
**D1s**



STANDARD – SIDING

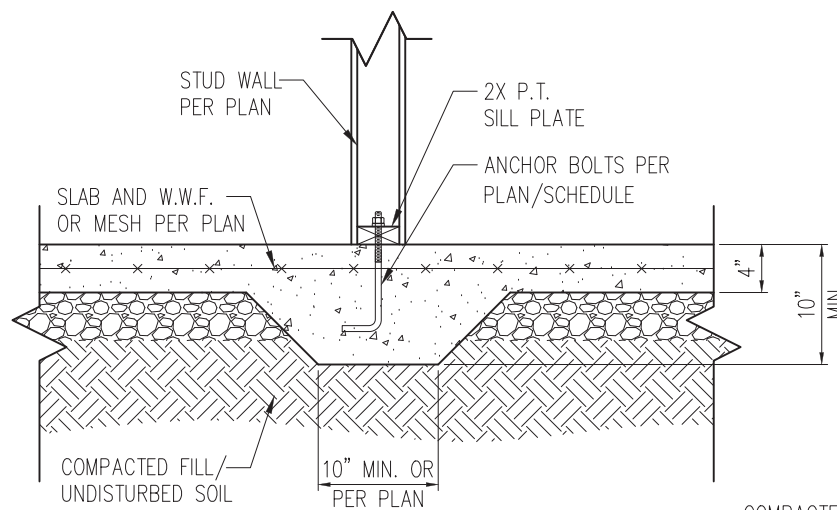


STANDARD – STONE

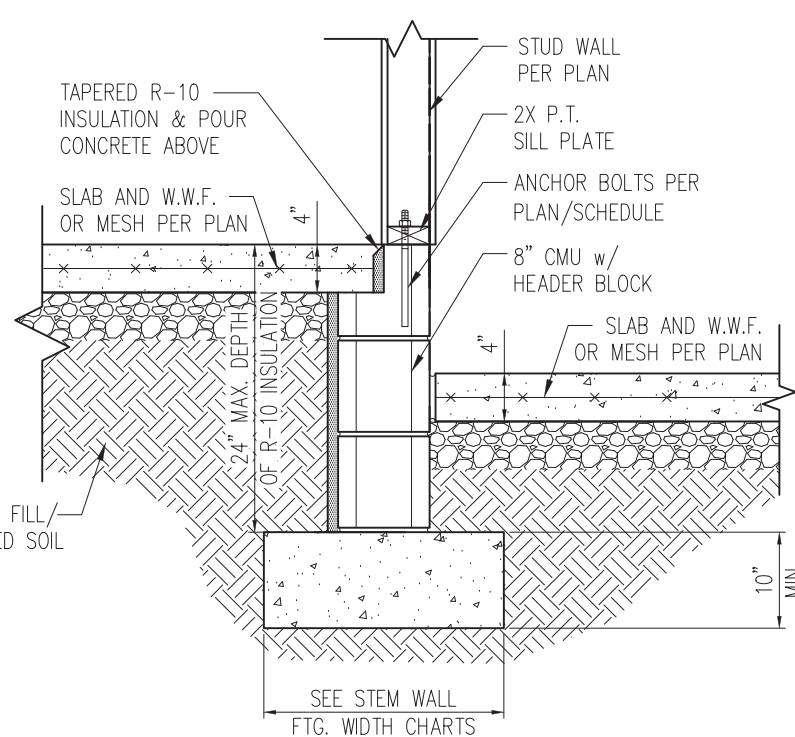


STANDARD – BRICK

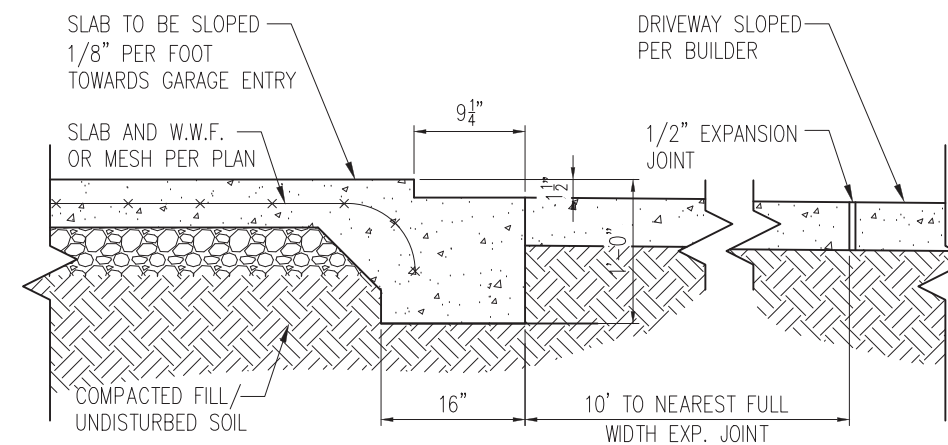
1 TYP. GARAGE CURB DETAIL  
D2s 3/4" = 1'-0"



2 TYP. THICKENED SLAB DETAIL  
D2s 3/4" = 1'-0"



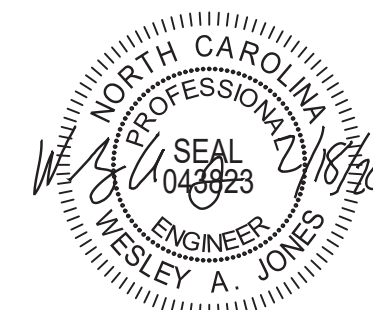
3 HOUSE/GARAGE WALL DETAIL  
D2s 3/4" = 1'-0"



4 SLAB AT GARAGE DOOR  
D2s 3/4" = 1'-0"

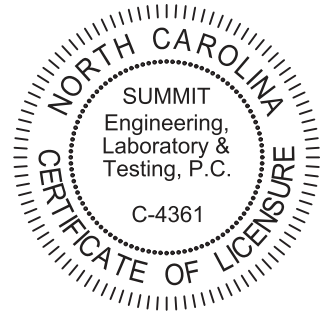
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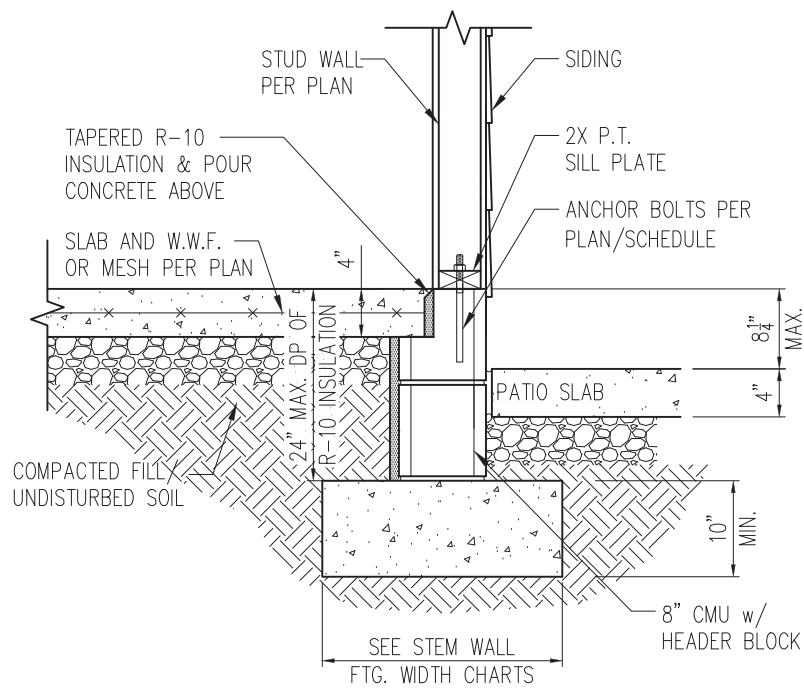
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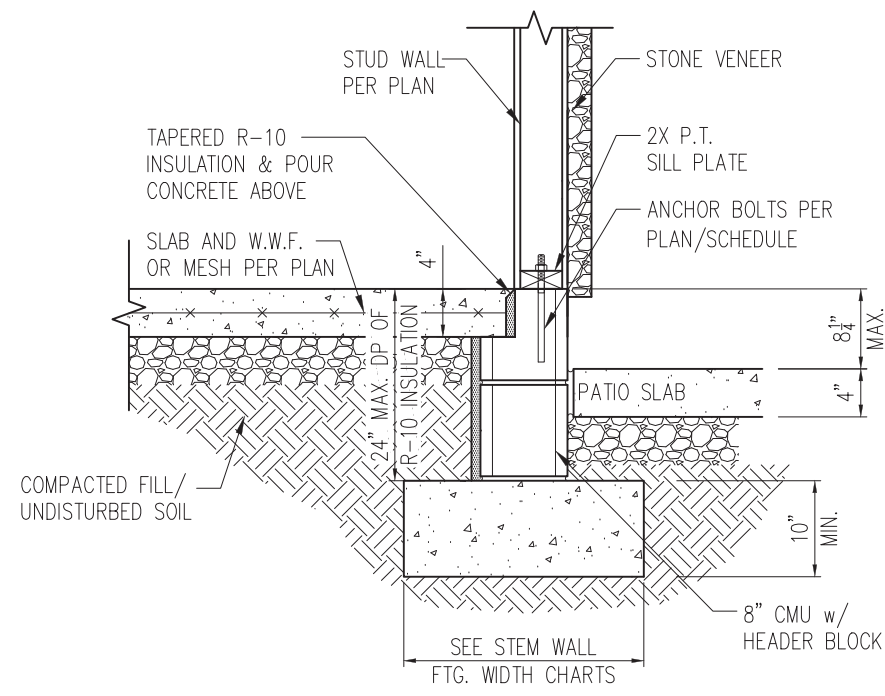
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SHEET

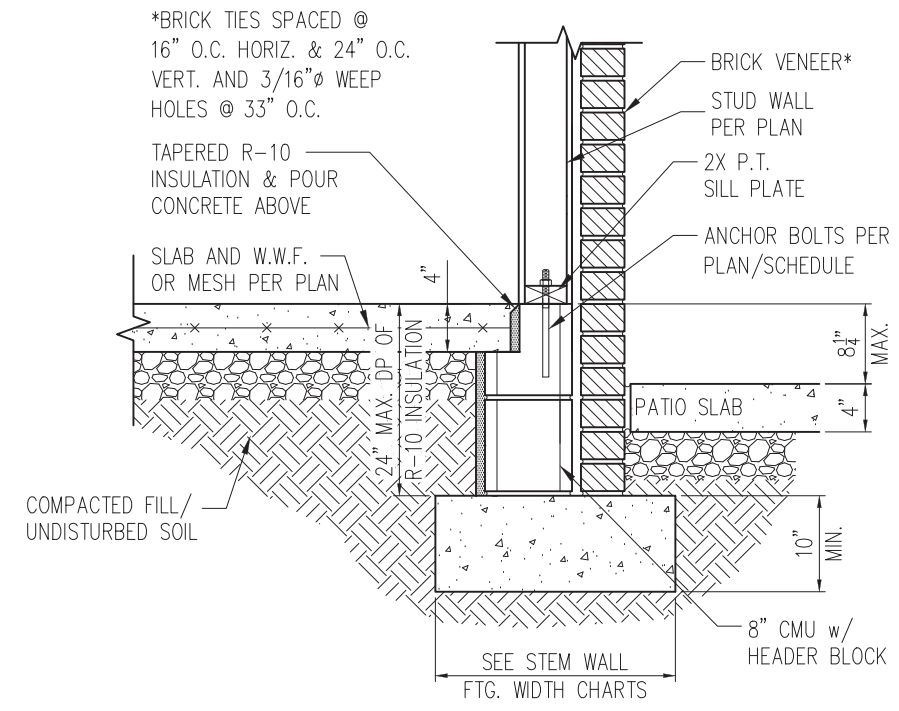
**D2s**



STANDARD - SIDING

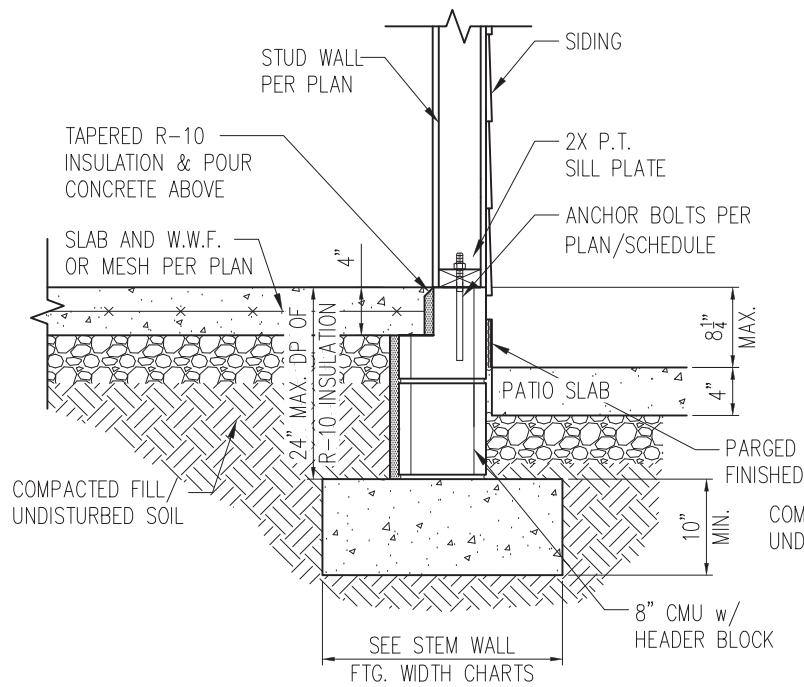


STANDARD - STONE

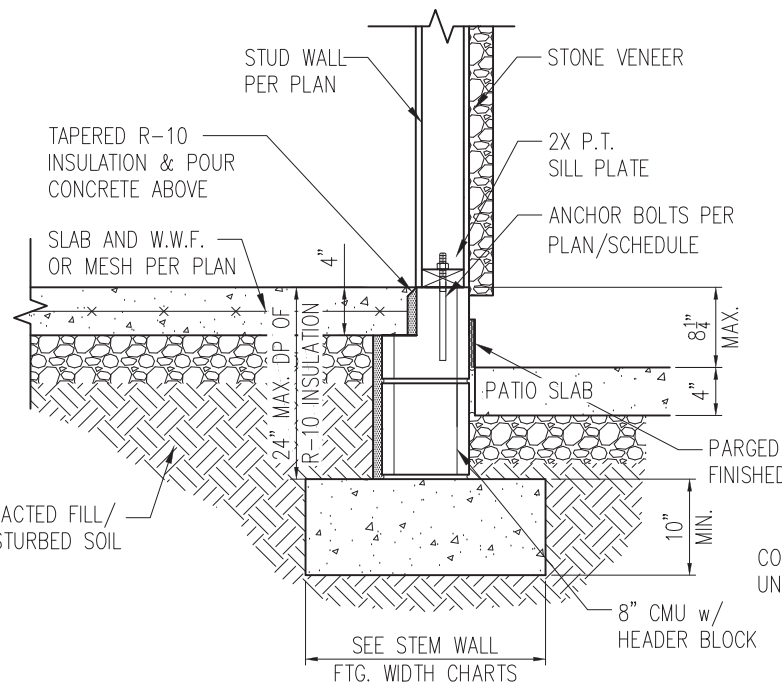


STANDARD - BRICK

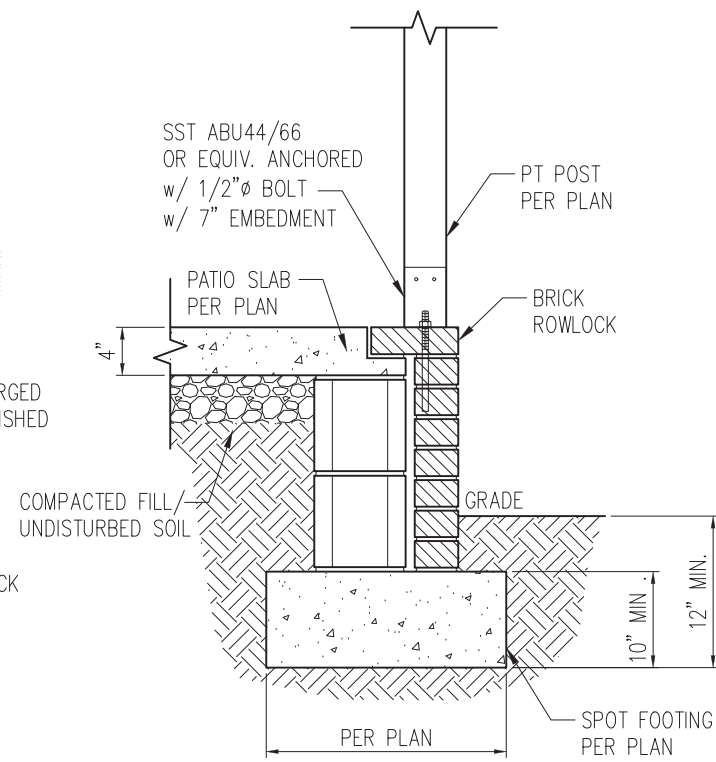
1 PORCH SLAB DETAIL  
D3s 3/4" = 1'-0"



STANDARD - SIDING

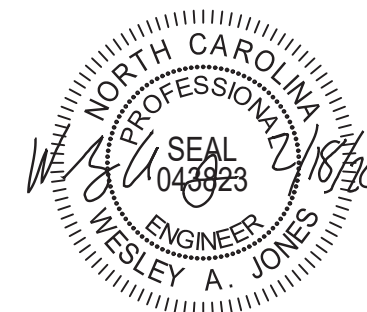


STANDARD - STONE



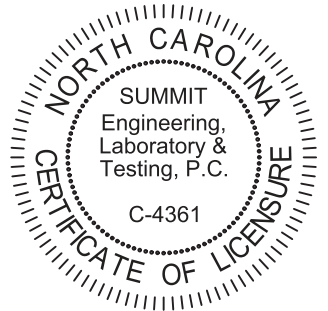
2 COVERED PORCH DETAIL  
D3s 3/4" = 1'-0"

- NOTES:
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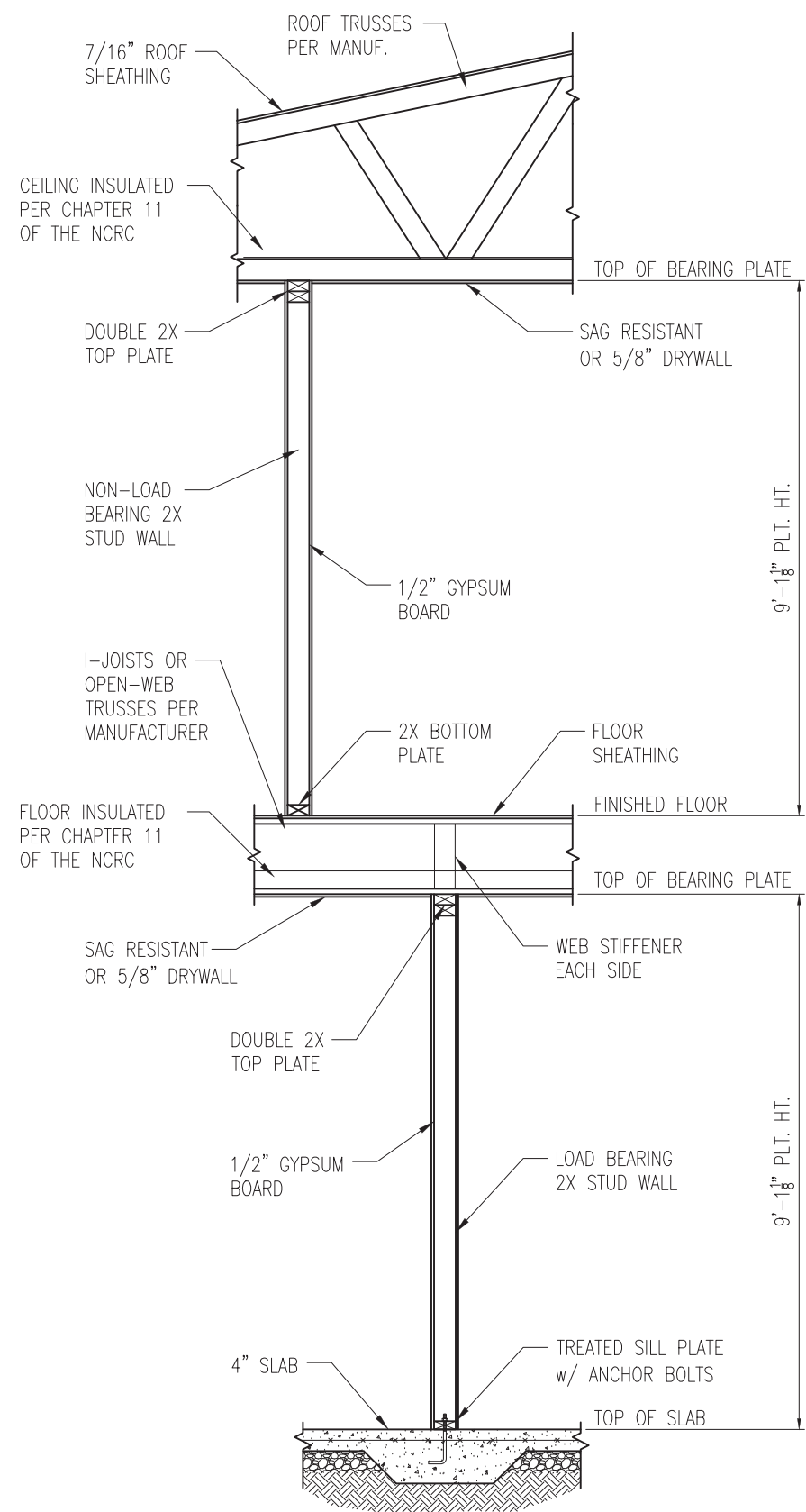
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SCALE: NTS  
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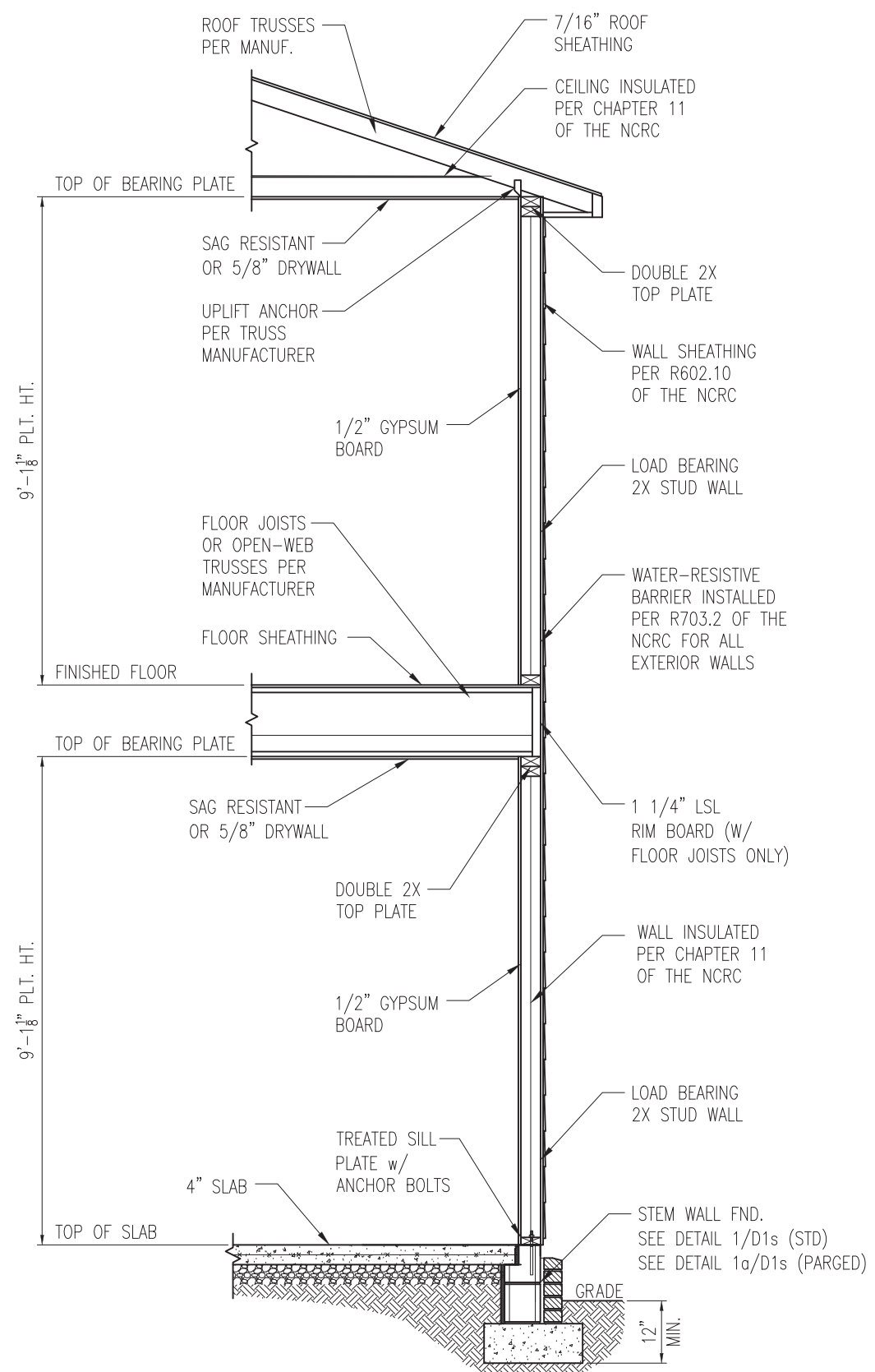
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SHEET

**D3s**



1 TYP. INTERIOR LOAD BEARING WALL SECTION  
 D4s 3/4" = 1'-0"



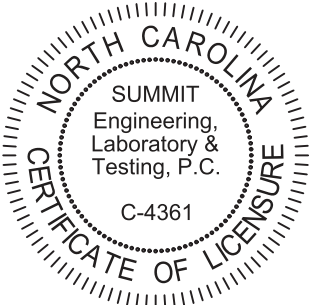
2 TYP. EXTERIOR LOAD BEARING WALL SECTION  
 D4s 3/4" = 1'-0" -SIMILAR w/ BRICK AND STONE  
 -BRICK TIES SPACED @ 16" O.C. HORIZ. & 24" O.C. VERT.  
 -MIN. 3/16"Ø WEEP HOLES @ 33" O.C.

- NOTES:
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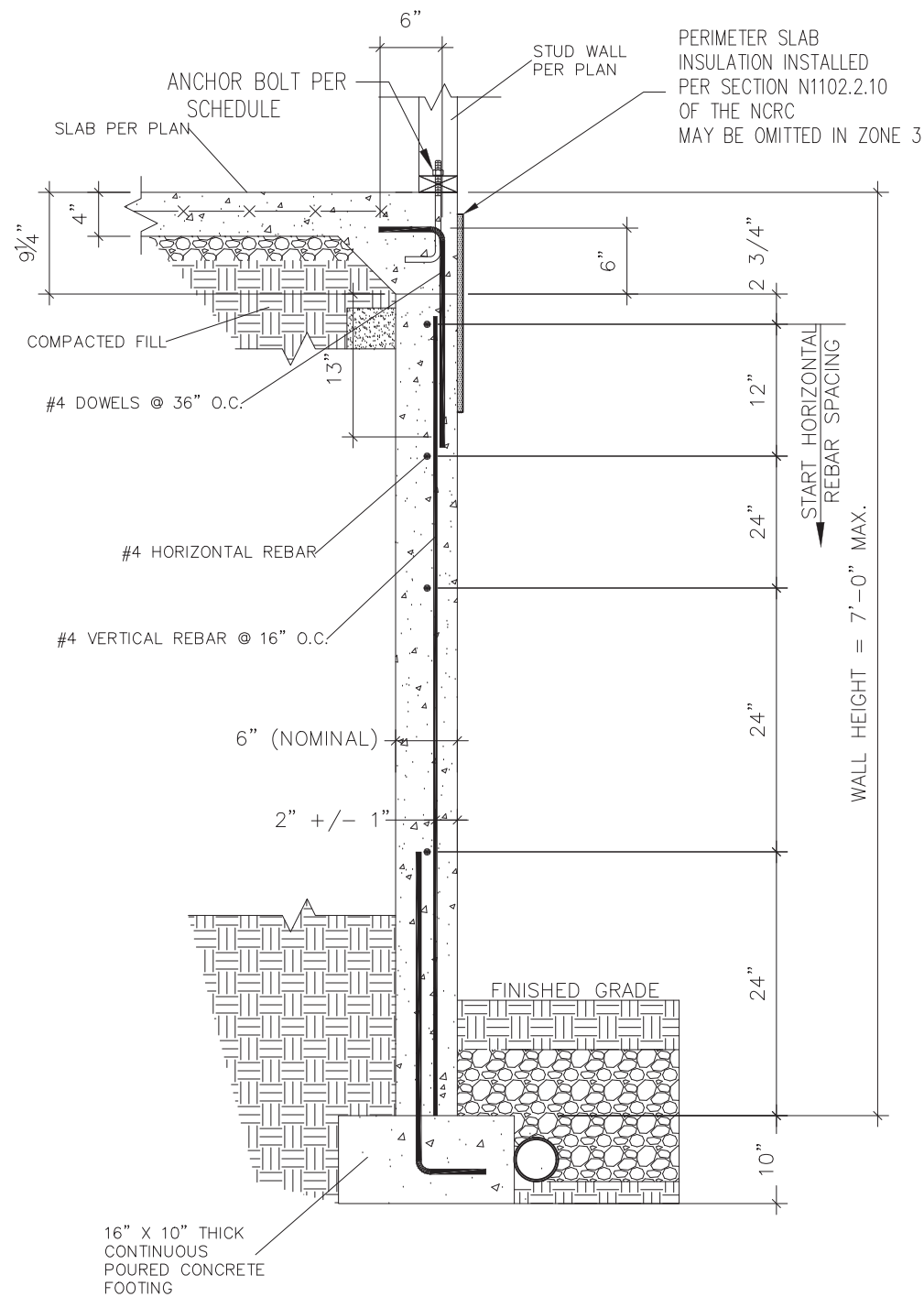
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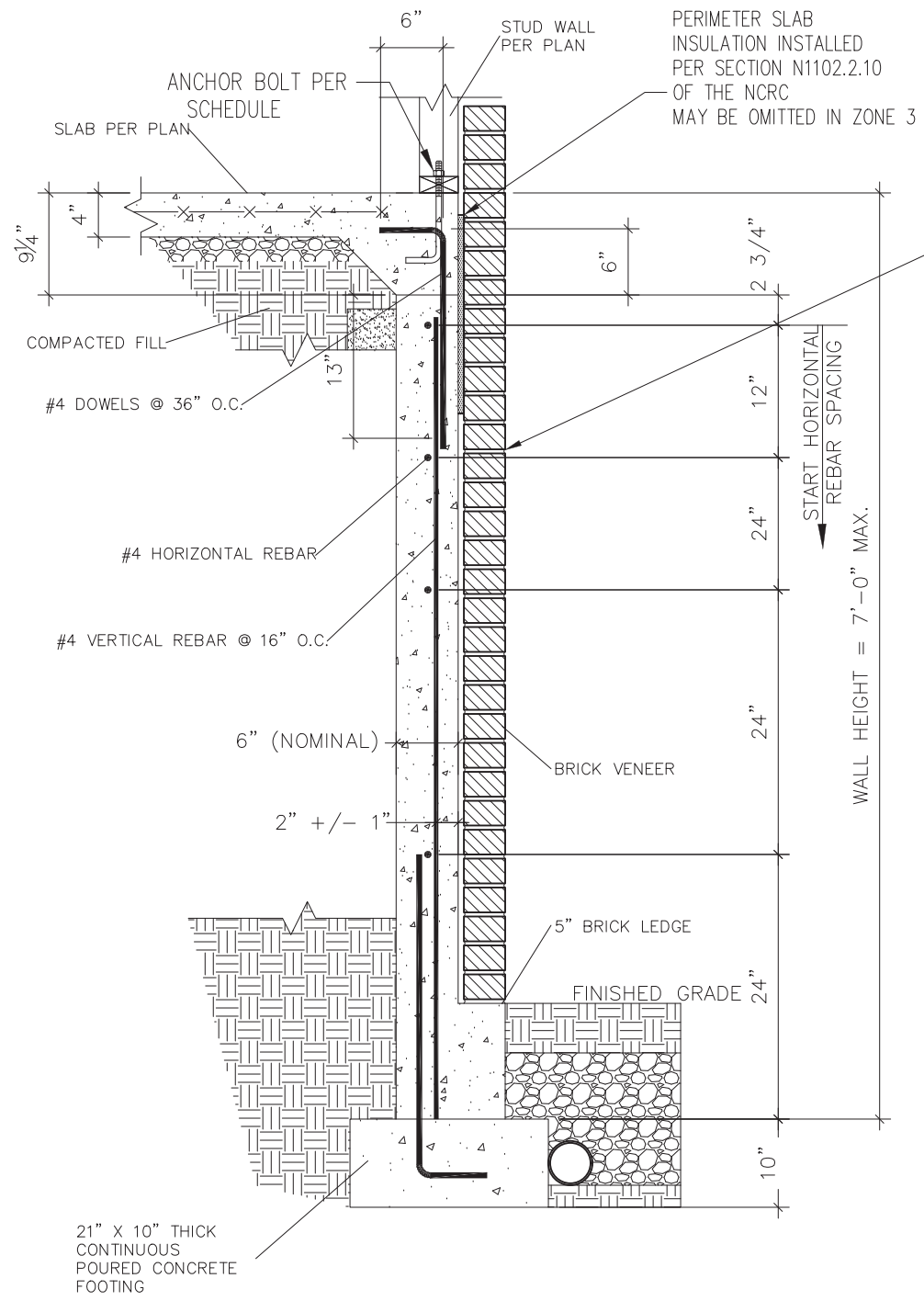
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SHEET  
**D4s**



1 SUBWALL FOUNDATION  
 D5s 3/4" = 1'-0"



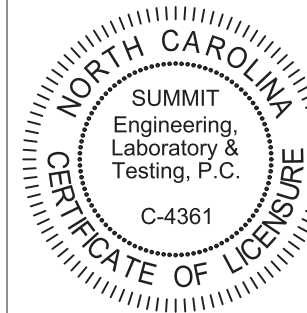
2 SUBWALL FOUNDATION W/ BRICK VENEER  
 D5s 3/4" = 1'-0"

PROVIDE LADDER WIRE OR METAL TIES, INSTALLED PER R608.1.2 OF THE 2012 NCRC, AND FULLY GROUT BETWEEN BRICK AND CONCRETE.



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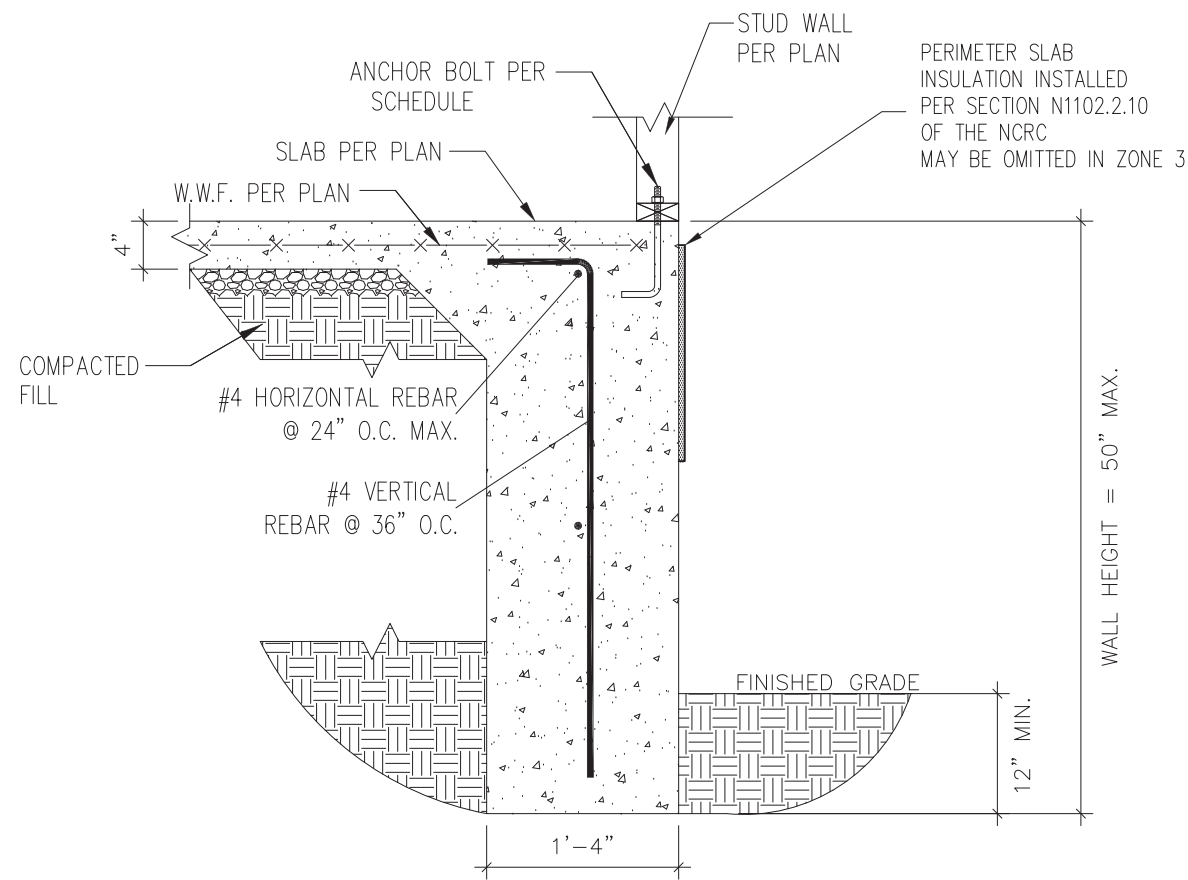
ORIGINAL DRAWING  

NO.	DATE	PROJECT #
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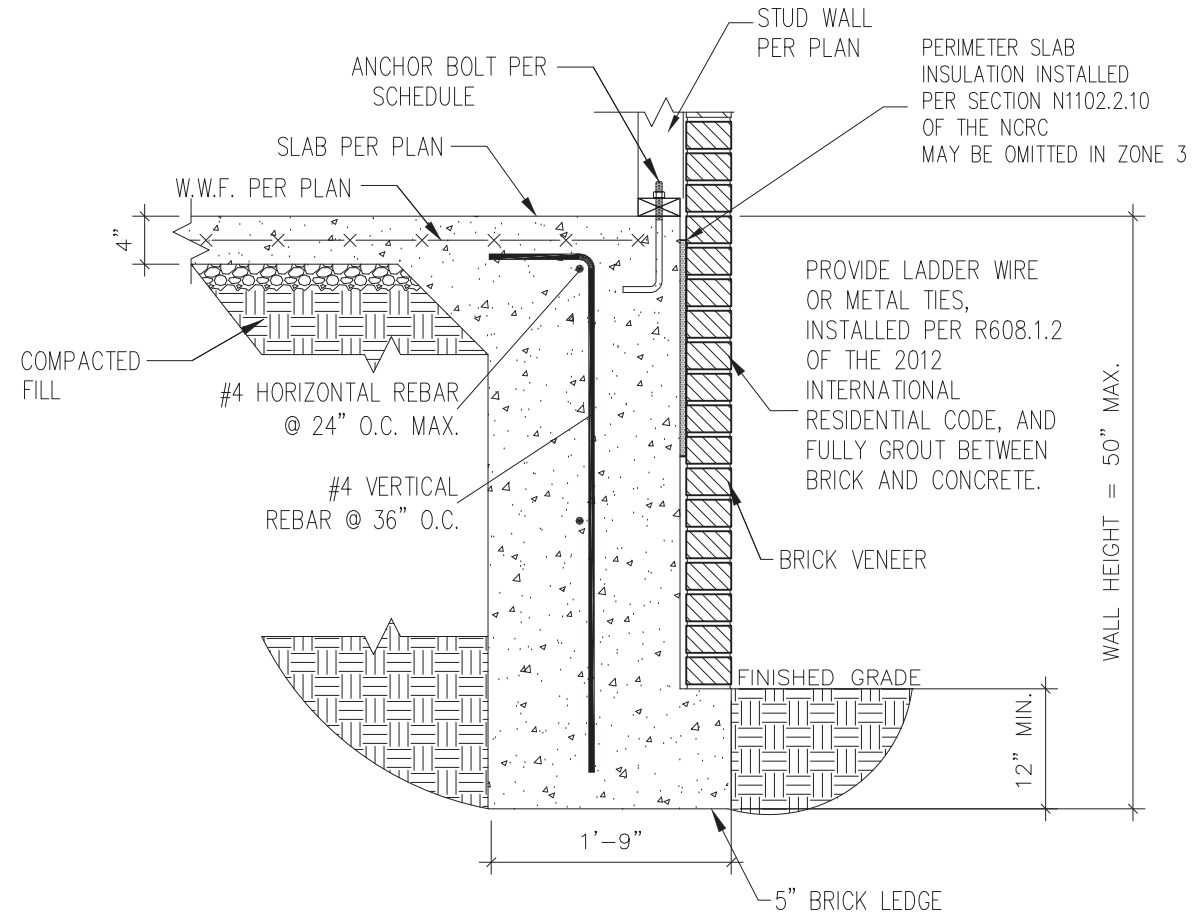
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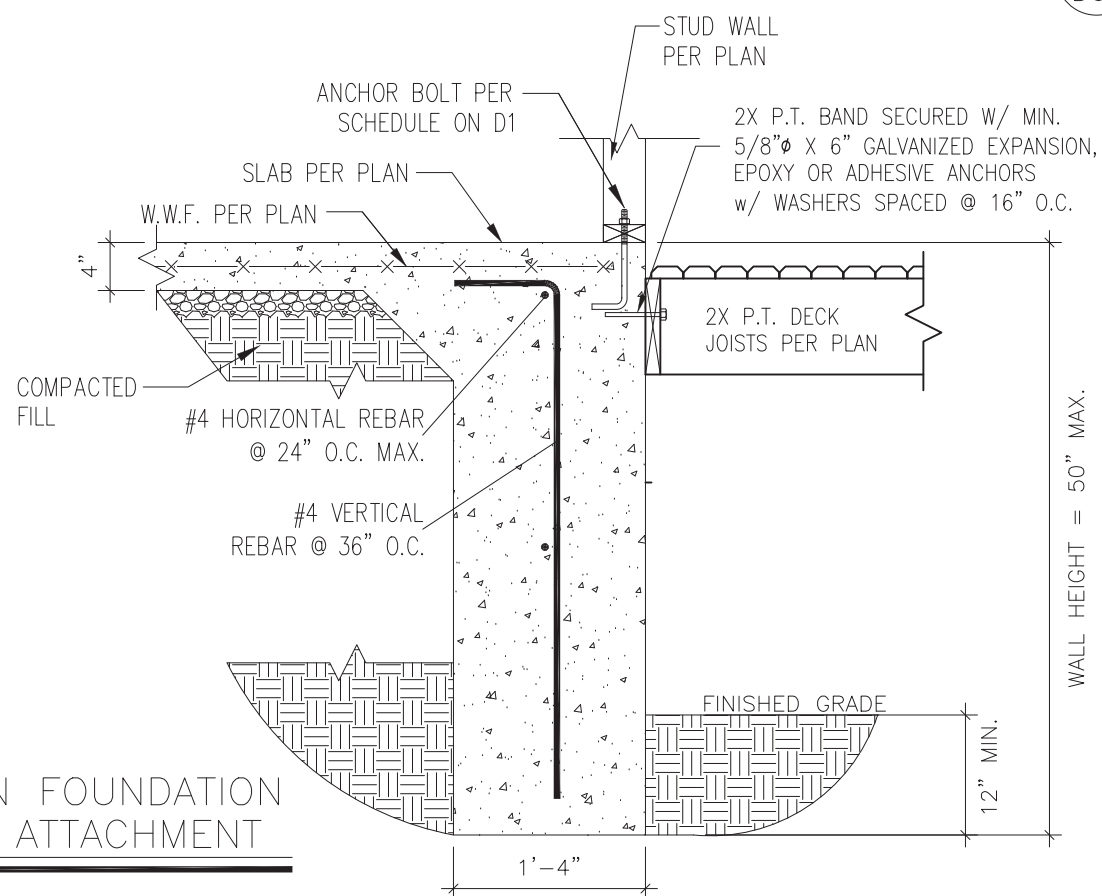
**D5s**



1 TURNDOWN FOUNDATION  
 D6s 3/4" = 1'-0"



2 TURNDOWN FOUNDATION W/ BRICK VENEER  
 D6s 3/4" = 1'-0"

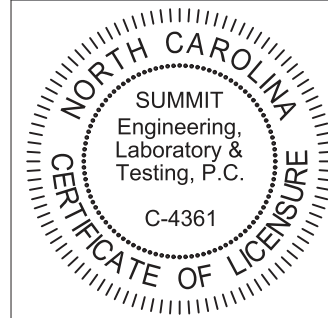


3 TURNDOWN FOUNDATION W/ DECK ATTACHMENT  
 D6s 3/4" = 1'-0"



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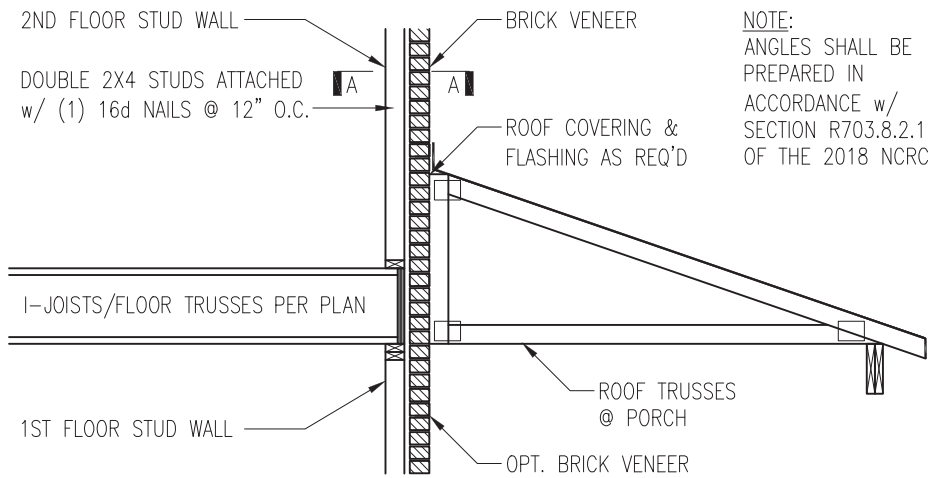
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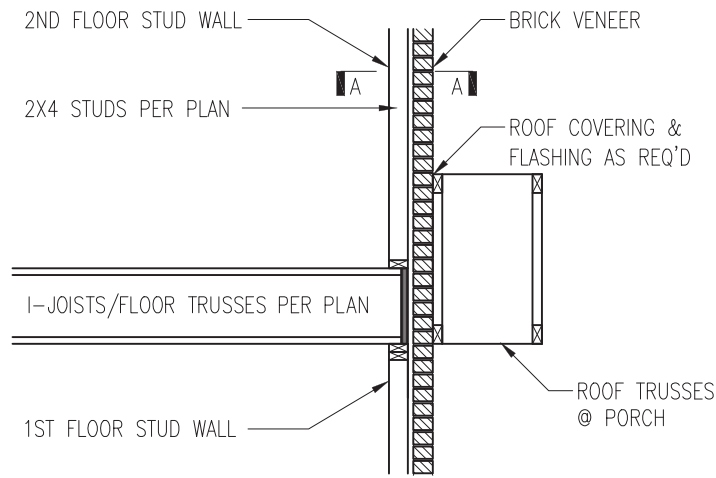
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SHEET  
**D6s**





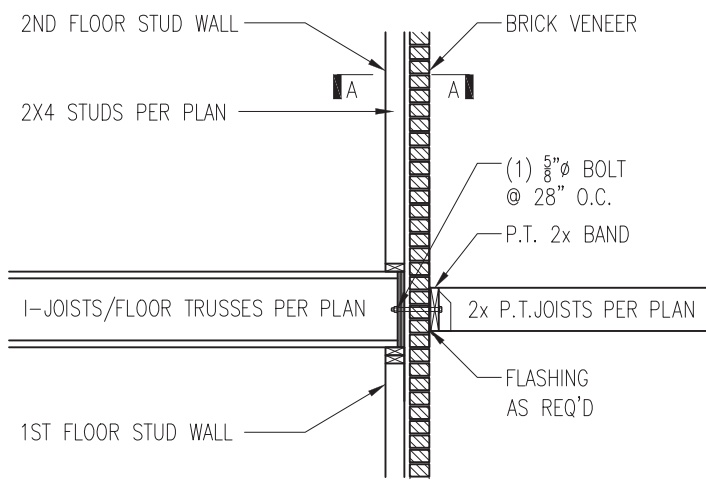
NOTE:  
ANGLES SHALL BE PREPARED IN ACCORDANCE w/ SECTION R703.8.2.1 OF THE 2018 NCR



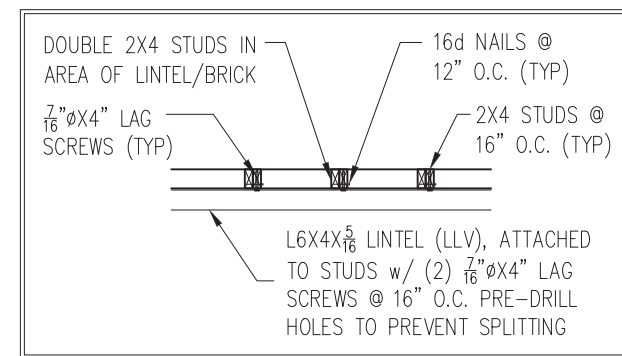
TRUSSES PERPENDICULAR TO STUD WALL

TRUSSES PARALLEL TO STUD WALL w/ CONTINUOUS BRICK VENEER

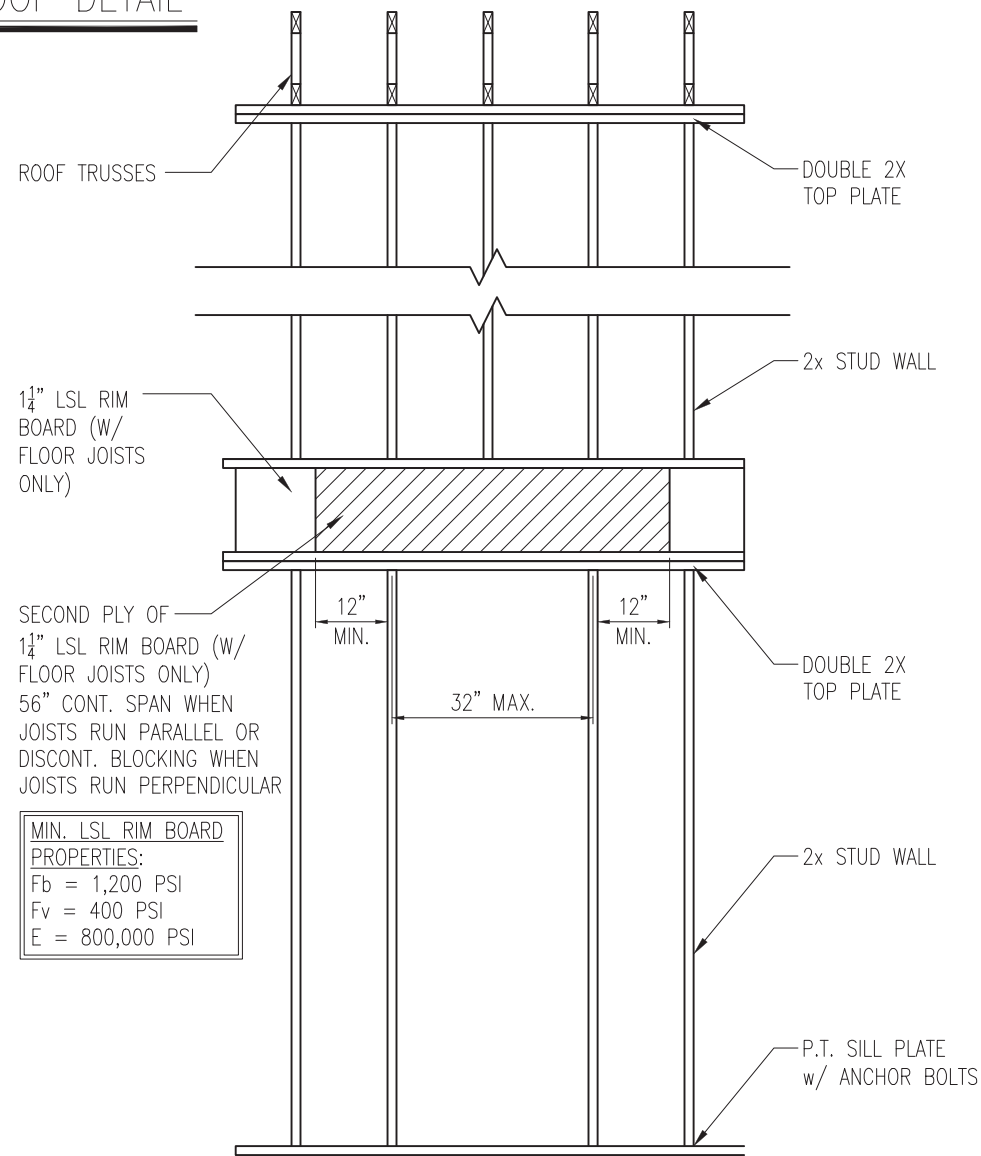
1 BRICK SUPPORT ABOVE STORAGE/PORCH ROOF DETAIL  
D5f NTS



3 BALCONY JOIST ATTACHMENT  
D5f NTS



SECTION A-A  
NTS



SECOND PLY OF 1 1/4\"/>

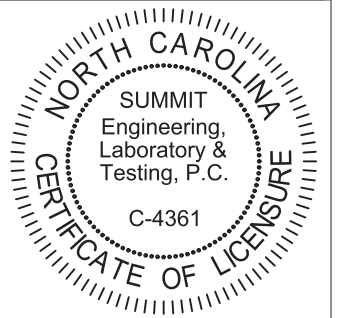
MIN. LSL RIM BOARD  
PROPERTIES:  
Fb = 1,200 PSI  
Fv = 400 PSI  
E = 800,000 PSI

4 TYP. RANGE VENT FRAMING  
D5f VENTED TO EXTERIOR WALL



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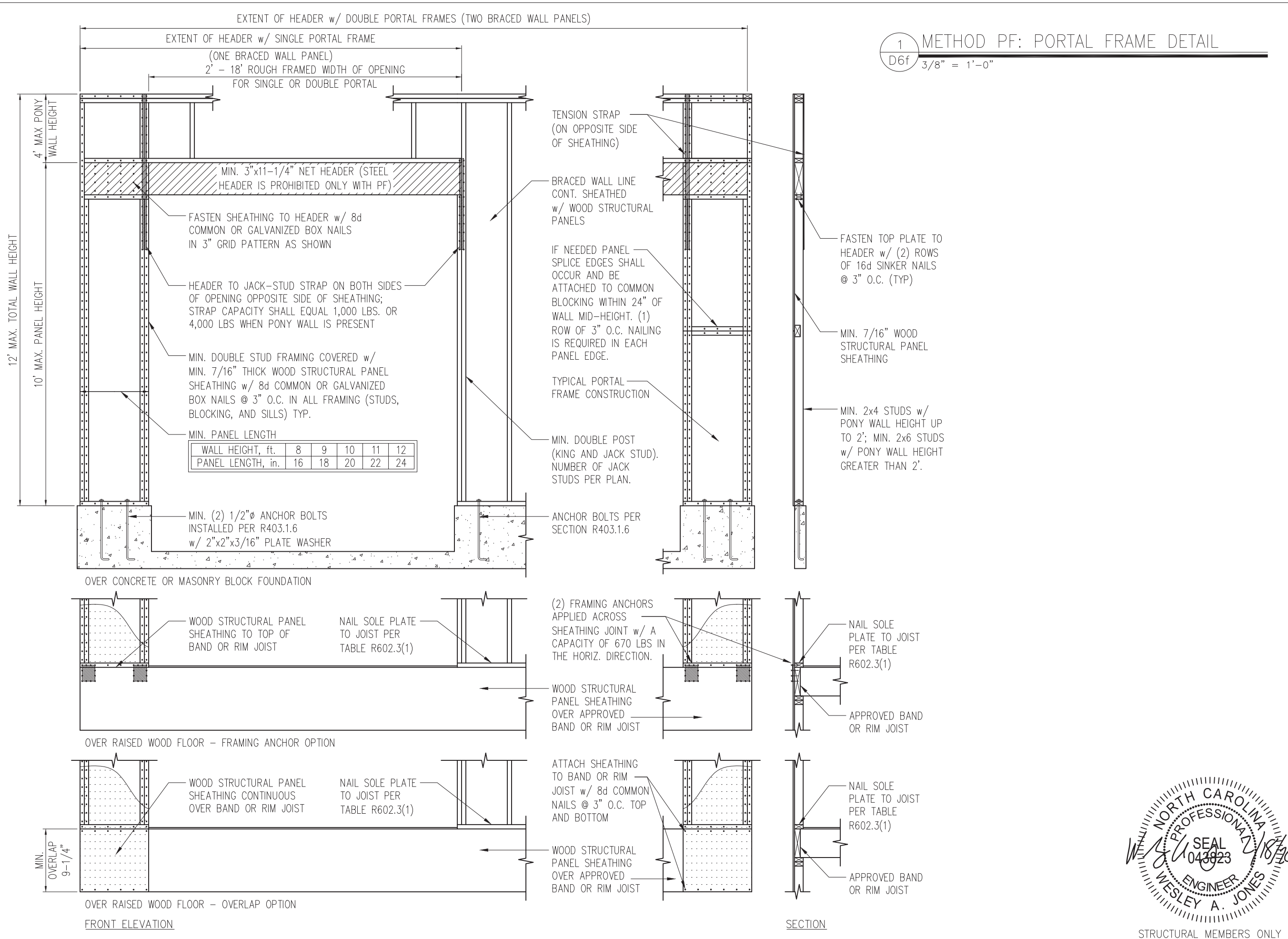
PROJECT  
Standard Details  
Framing Details  
CLIENT  
Smith Douglas Homes  
110 Village Trail, Suite 215  
Woodstock, GA 30188

CURRENT DRAWING  
DATE: 2/18/20  
SCALE: NTS  
PROJECT #: 3832  
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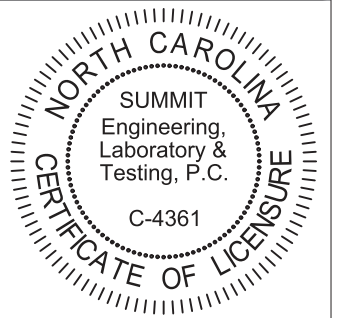
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NO. DATE PROJECT #  
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SHEET  
**D5f**



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PROJECT  
**Standard Details**  
**Framing Details - Bracing**

CLIENT  
**Smith Douglas Homes**  
**110 Village Trail, Suite 215**  
**Woodstock, GA 30188**

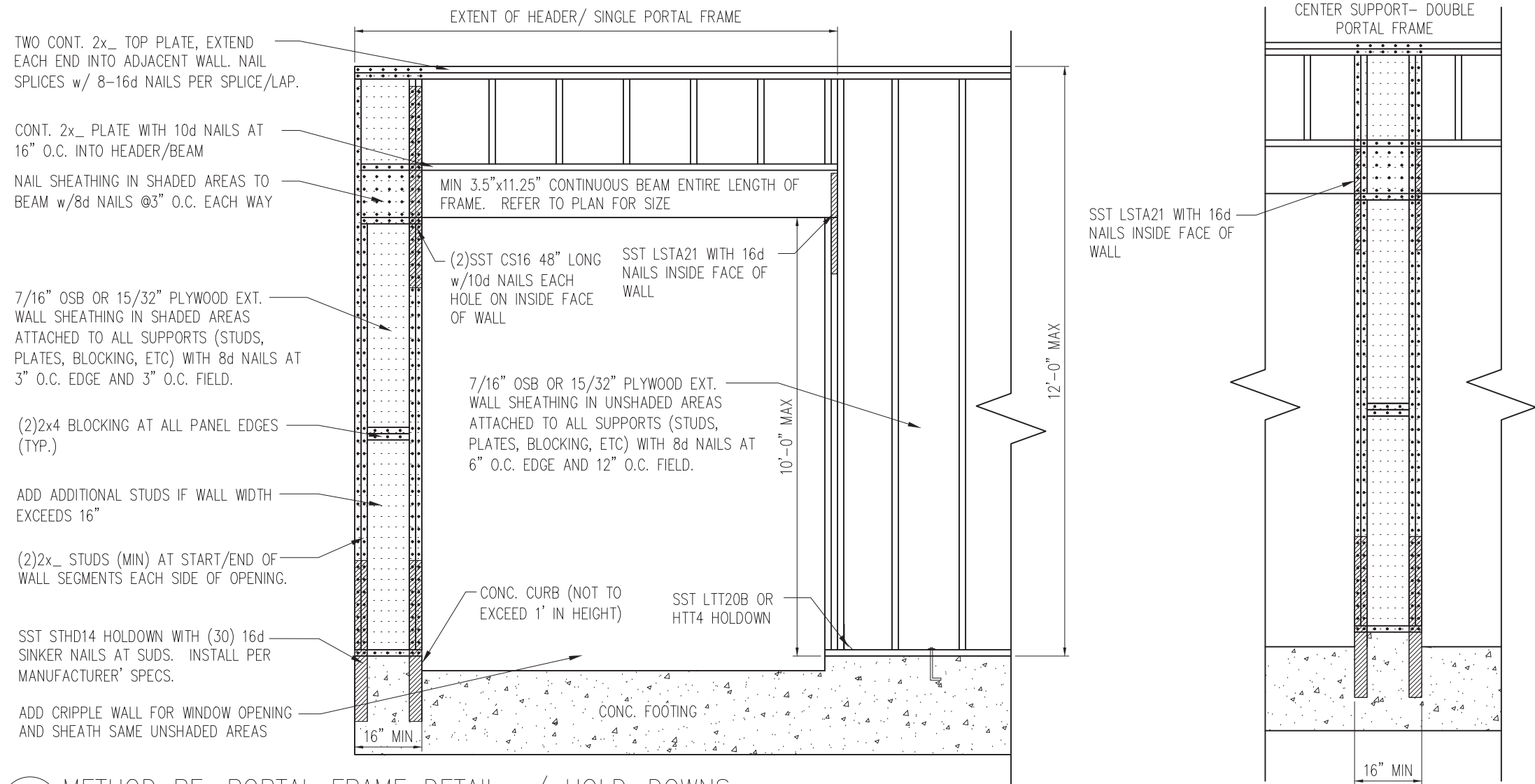
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NO. DATE PROJECT #  
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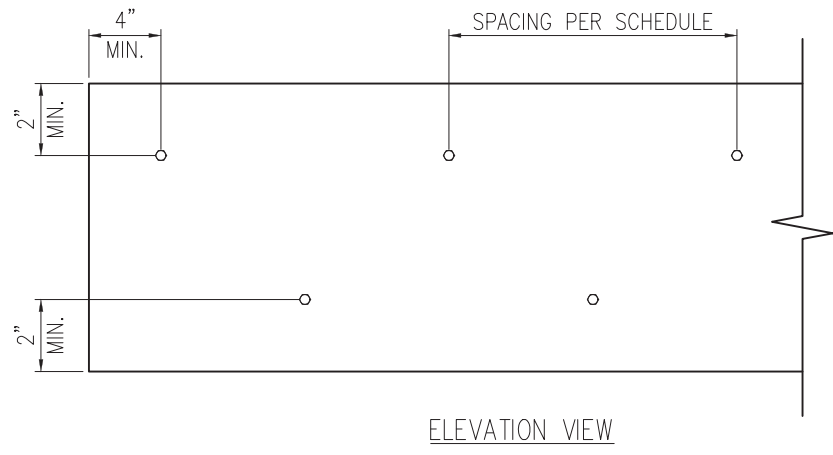
REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS



SHEET  
**D6f**  
STRUCTURAL MEMBERS ONLY



1 METHOD PF: PORTAL FRAME DETAIL w/ HOLD-DOWNS  
 D7f 3/4" = 1'-0"



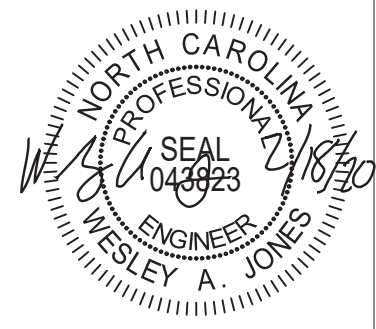
2 MULTI-PLY BEAM CONNECTION DETAIL  
 D7f N.T.S

**MINIMUM FASTENING REQUIREMENTS FOR TOP- AND SIDE-LOADED MEMBERS**

FASTENER TYPE	LVL DEPTH	3 1/2" WIDE		5 1/4" WIDE		7" WIDE	
		2-Ply 1 3/4"	3-Ply 1 3/4"	1 3/4" + 3 1/2"	4-Ply 1 3/4"	2-Ply 1 3/4" + 3 1/2"	2-Ply 3 1/2"
10d (0.128" x 3") Nails	7 1/4" ≤ d < 14"	3 rows @ 12" o.c.	3 rows @ 12" o.c. (ES)	3 rows @ 12" o.c.	-	3 rows @ 12" o.c. (ES)	-
	d ≥ 14"	4 rows @ 12" o.c.	4 rows @ 12" o.c. (ES)	4 rows @ 12" o.c.	-	4 rows @ 12" o.c. (ES)	-
16d (0.162" x 3 1/2") Nails	7 1/4" ≤ d < 14"	2 rows @ 12" o.c.	2 rows @ 12" o.c. (ES)	2 rows @ 12" o.c.	-	2 rows @ 12" o.c. (ES)	-
	d ≥ 14"	3 rows @ 12" o.c.	3 rows @ 12" o.c. (ES)	3 rows @ 12" o.c.	-	3 rows @ 12" o.c. (ES)	-
1/2" Through Bolts	d ≥ 7 1/4"	2 rows @ 24" o.c.	2 rows @ 24" o.c.		2 rows @ 24" o.c.		-
SDS 1/4" x 3 1/2", WS35, 3 3/8" TrussLok		2 rows @ 24" o.c.	2 rows @ 24" o.c. (ES)	2 rows @ 24" o.c.	-	2 rows @ 24" o.c. (ES)	-
SDS 1/4" x 6", WS6		-	-	-	2 rows @ 24" o.c. (ES)		-
5" TrussLok		-	2 rows @ 24" o.c.		-		-
6 3/4" TrussLok		-	-	-	2 rows @ 24" o.c.		-

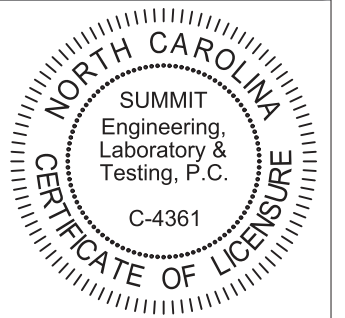
**NOTES:**

- All fasteners must meet the minimum requirements in the table above. Side-loaded multiple-ply members must meet the minimum fastening and side-loading capacity requirements given on page 48.
- Minimum fastening requirements for depths less than 7 1/4" require special consideration. Please contact your technical representative.
- Three general rules for staggering or offsetting for a certain fastener schedule:
  - If staggering or offsetting is not referenced, then none is required;
  - If staggering is referenced, then fasteners installed in adjacent rows on the front side are to be staggered up to one-half the o.c. spacing, but maintaining the fastener clearances above; and
  - If "ES" is referenced, then the fastener schedule must be repeated on each side, with the fasteners on the back side offset up to one-half the o.c. spacing of the front side (whether or not it is staggered).



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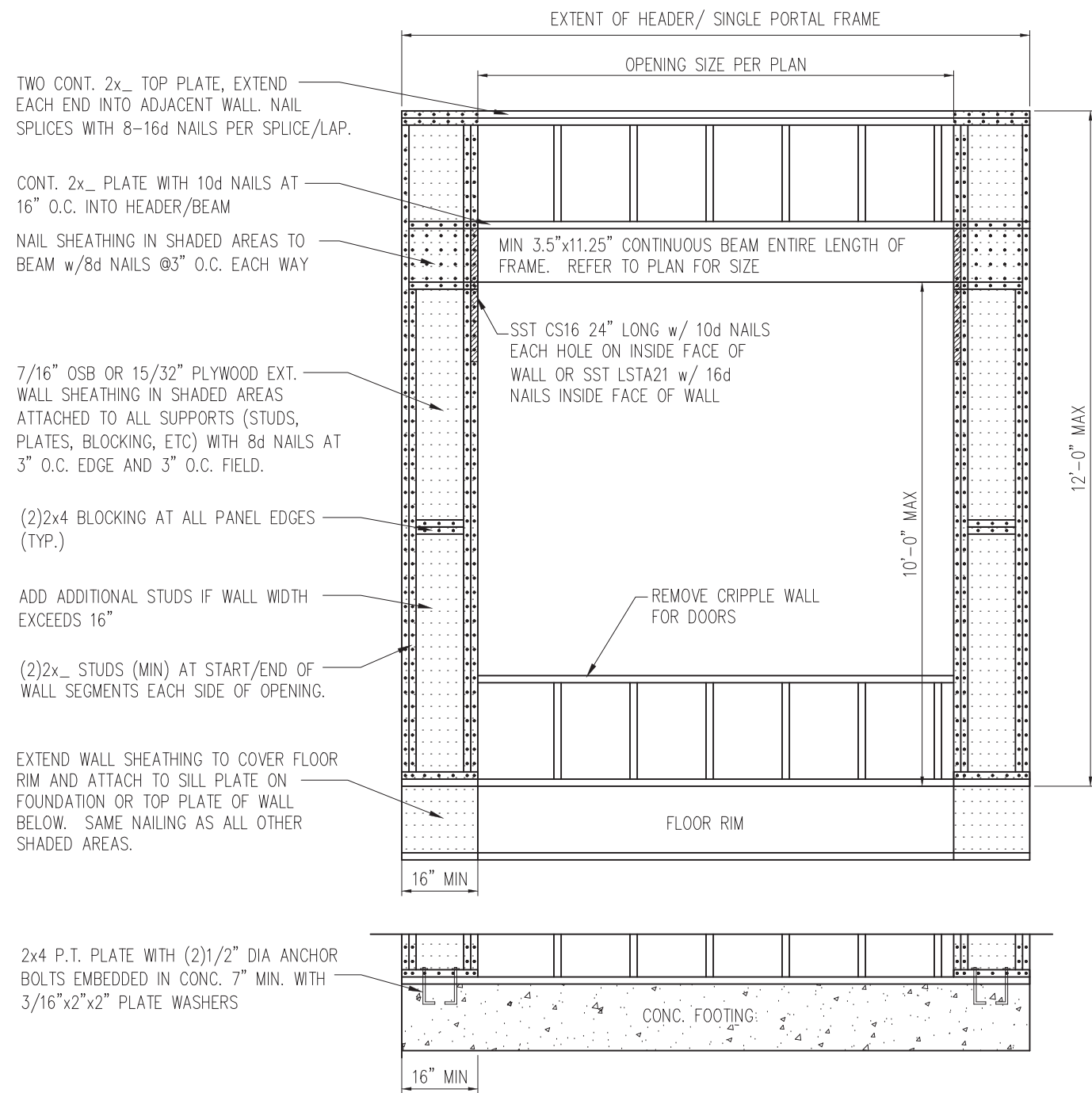


PROJECT  
 Standard Details  
 Framing Details - Bracing  
 CLIENT  
 Smith Douglas Homes  
 110 Village Trail, Suite 215  
 Woodstock, GA 30188

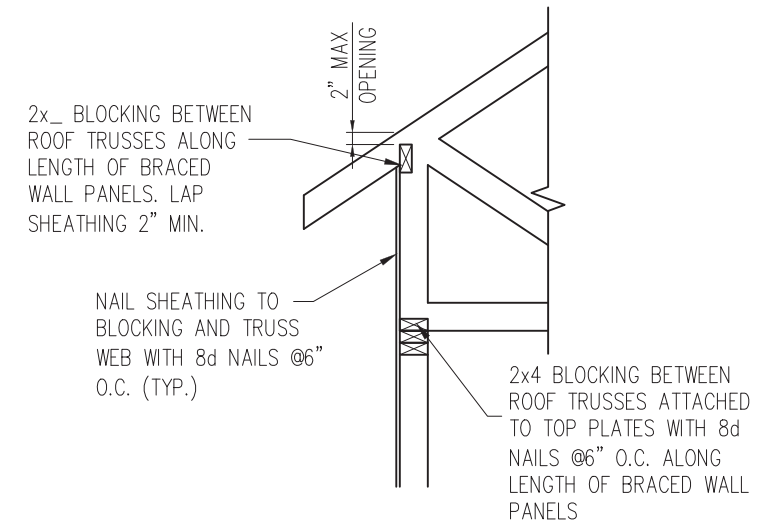
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 SCALE: NTS  
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 0 1/7/16 3832

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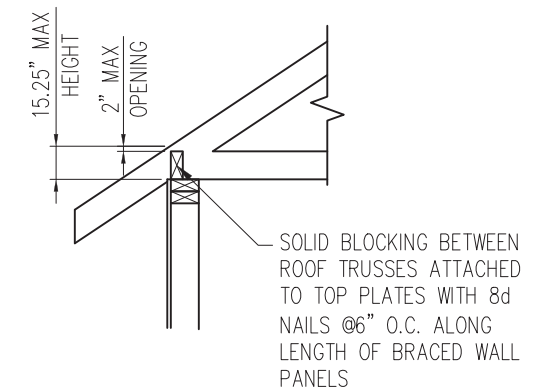
SHEET  
**D7f**



1 METHOD PF: PORTAL FRAME DETAIL  
 D8f 3/4" = 1'-0" OPENINGS UNDER 8'-0"



HEEL HEIGHT GREATER THAN 15.25"



HEEL HEIGHT LESS THAN 15.25" \*

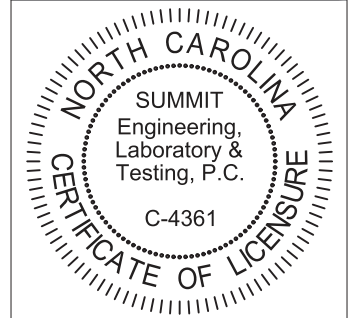
\*BLOCKING IS NOT REQUIRED WITH HEEL HEIGHTS LESS THAN 9.25"

2 TYP. WALL PANEL TO ROOF TRUSS CONNECTION  
 D8f 1" = 1'-0"



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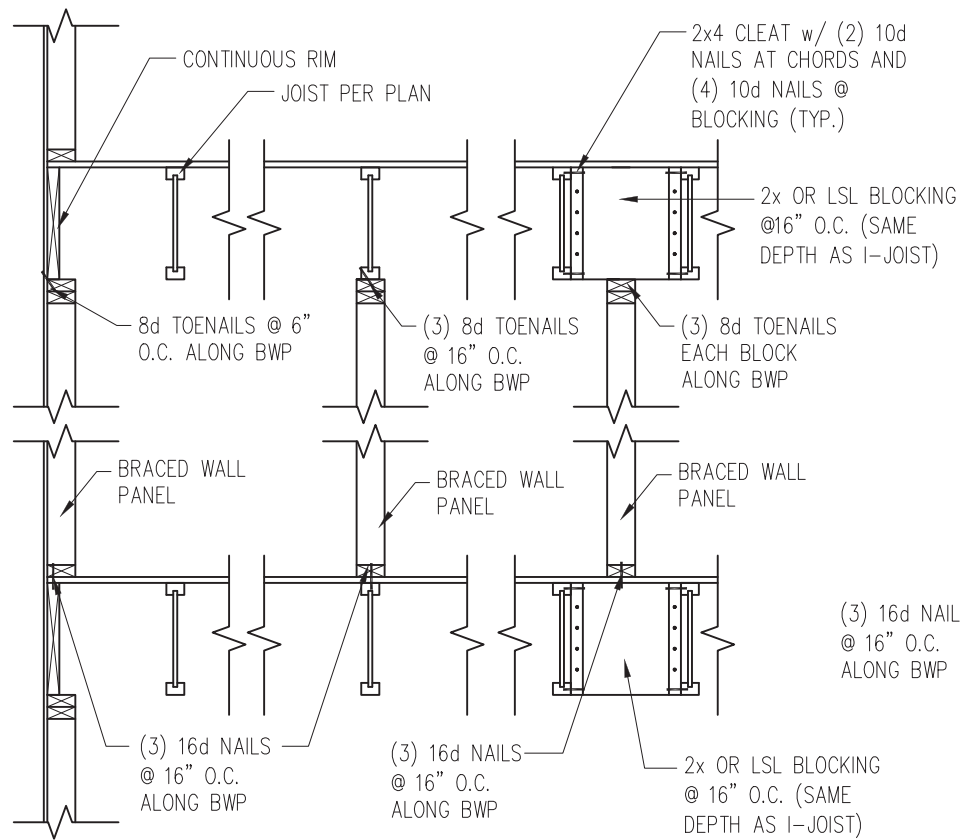
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**Standard Details - Bracing**  
**Framing Details - Bracing**  
 CLIENT  
**Smith Douglas Homes**  
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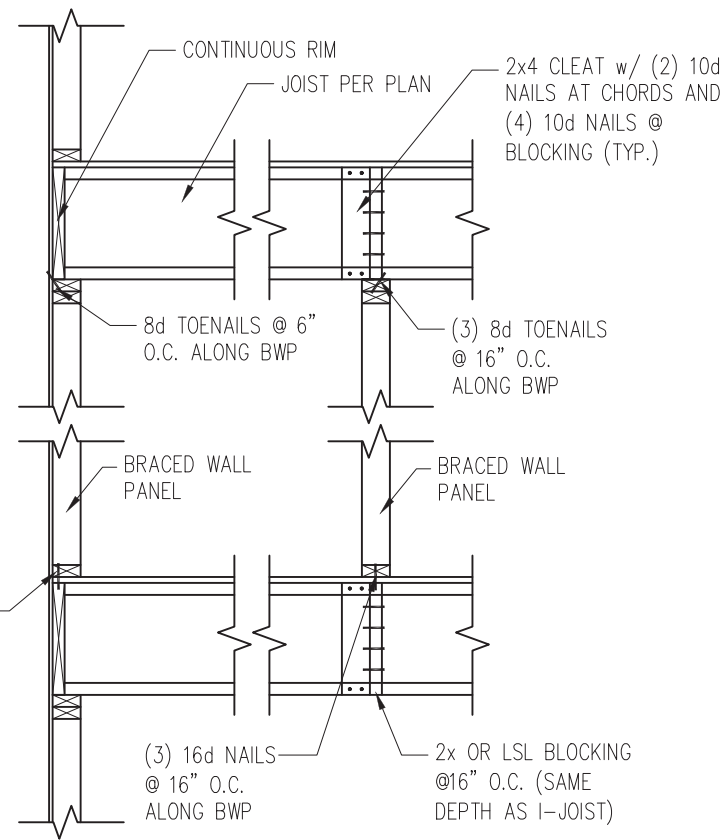
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SHEET  
**D8f**

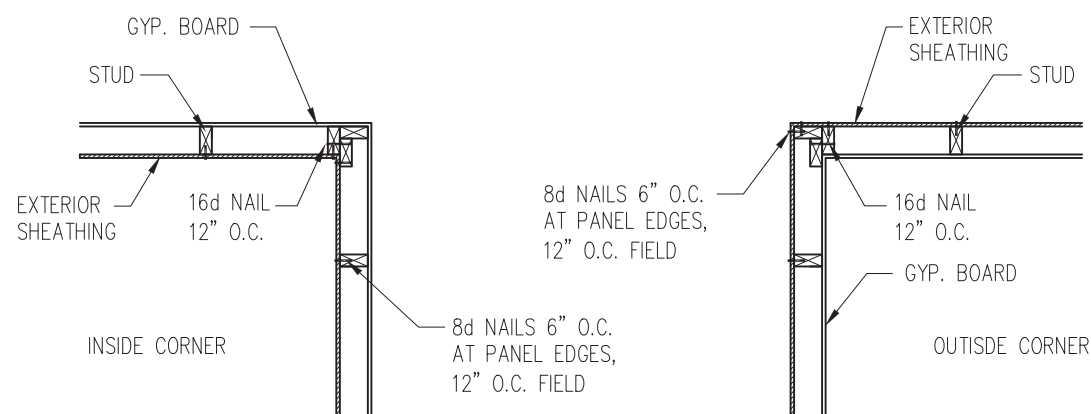


JOISTS PARALLEL TO BRACED WALLS

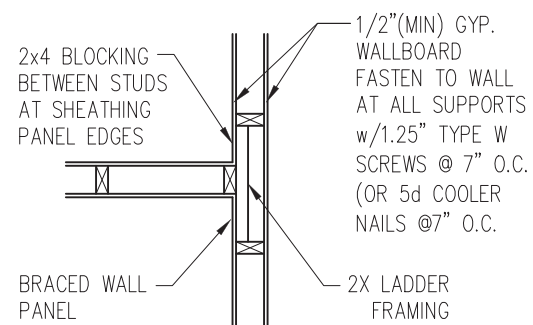


JOISTS PERPENDICULAR TO BRACED WALLS

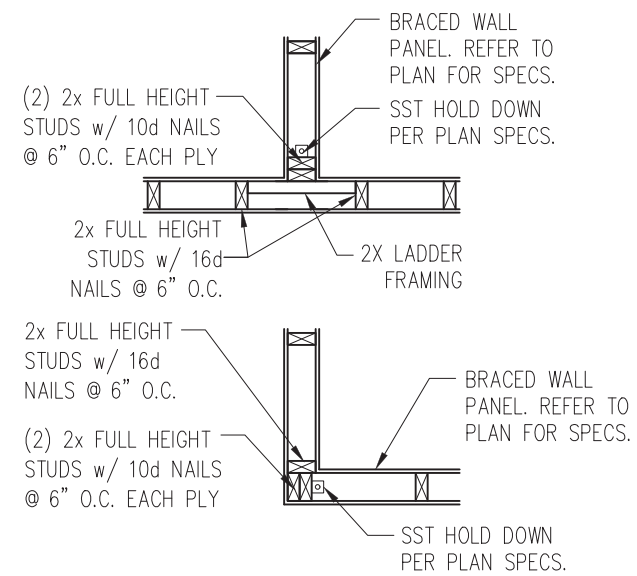
1 TYP. WALL PANEL TO FLOOR/CEILING CONNECTION  
D9f 1" = 1'-0"



2 TYP. EXTERIOR CORNER FRAMING  
D9f 1" = 1'-0"



3 INTERIOR 3-STUD WALL INTERSECTION  
D9f 1" = 1'-0"

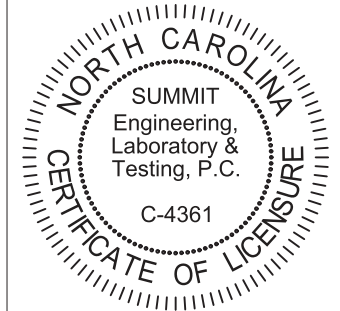


4 TYP. HOLD DOWN DETAIL  
D9f 1" = 1'-0"



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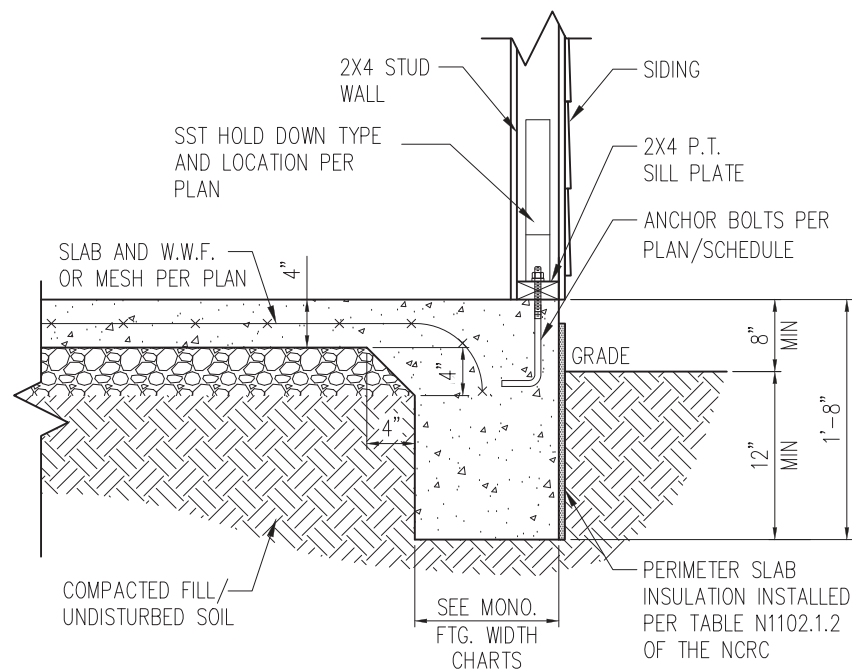
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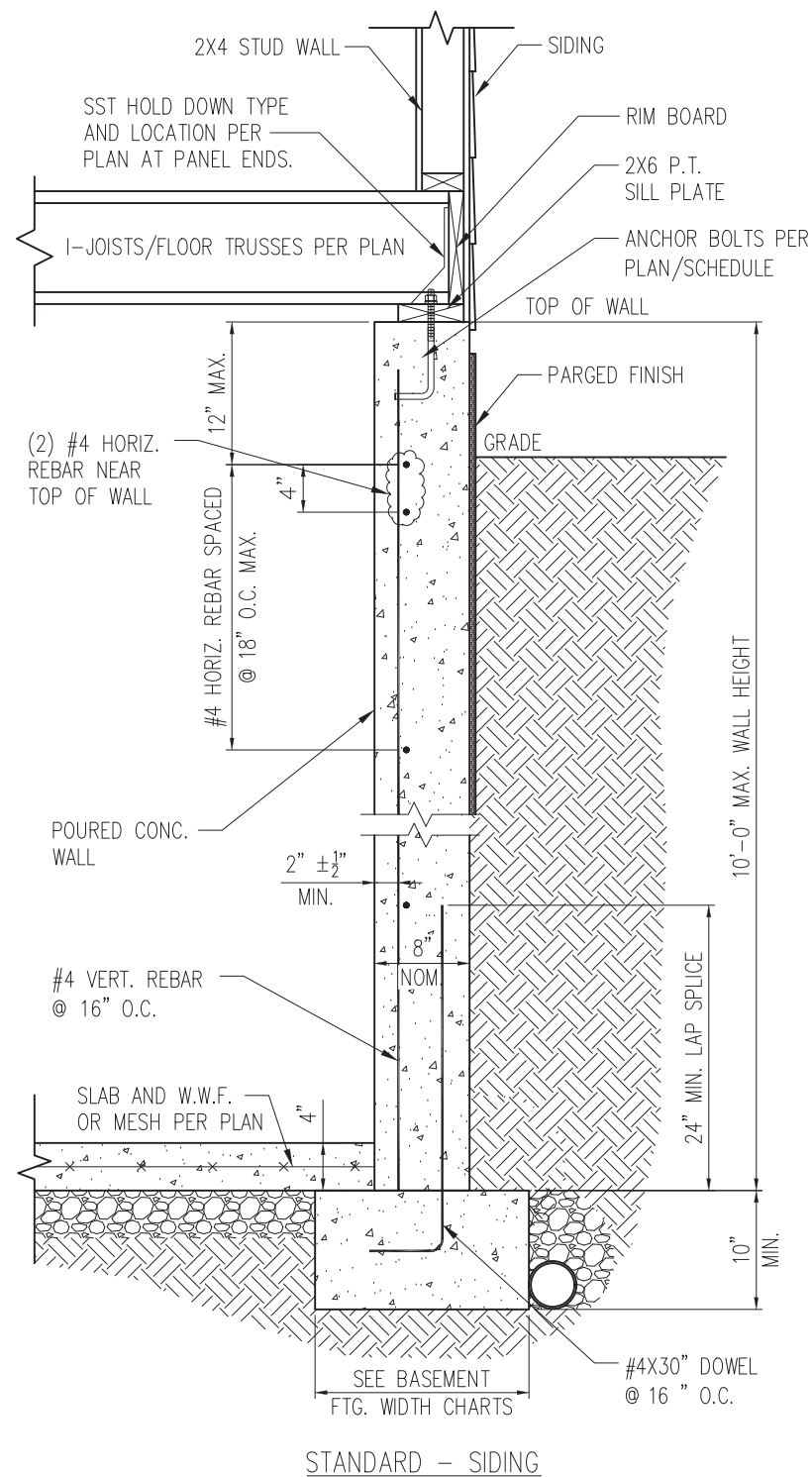
REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

SHEET

**D9f**



1 SLAB DETAIL w/ HOLD-DOWN  
 D10f 3/4" = 1'-0"

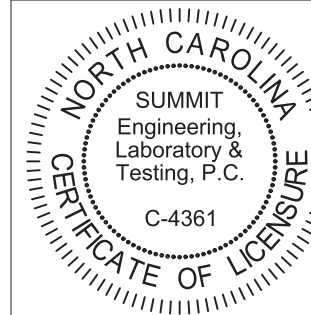


2 BASEMENT FOUNDATION WALL DETAIL W/ HOLD-DOWN  
 D10f 3/4" = 1'-0"



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 NO. DATE PROJECT #  
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SHEET

**D10f**

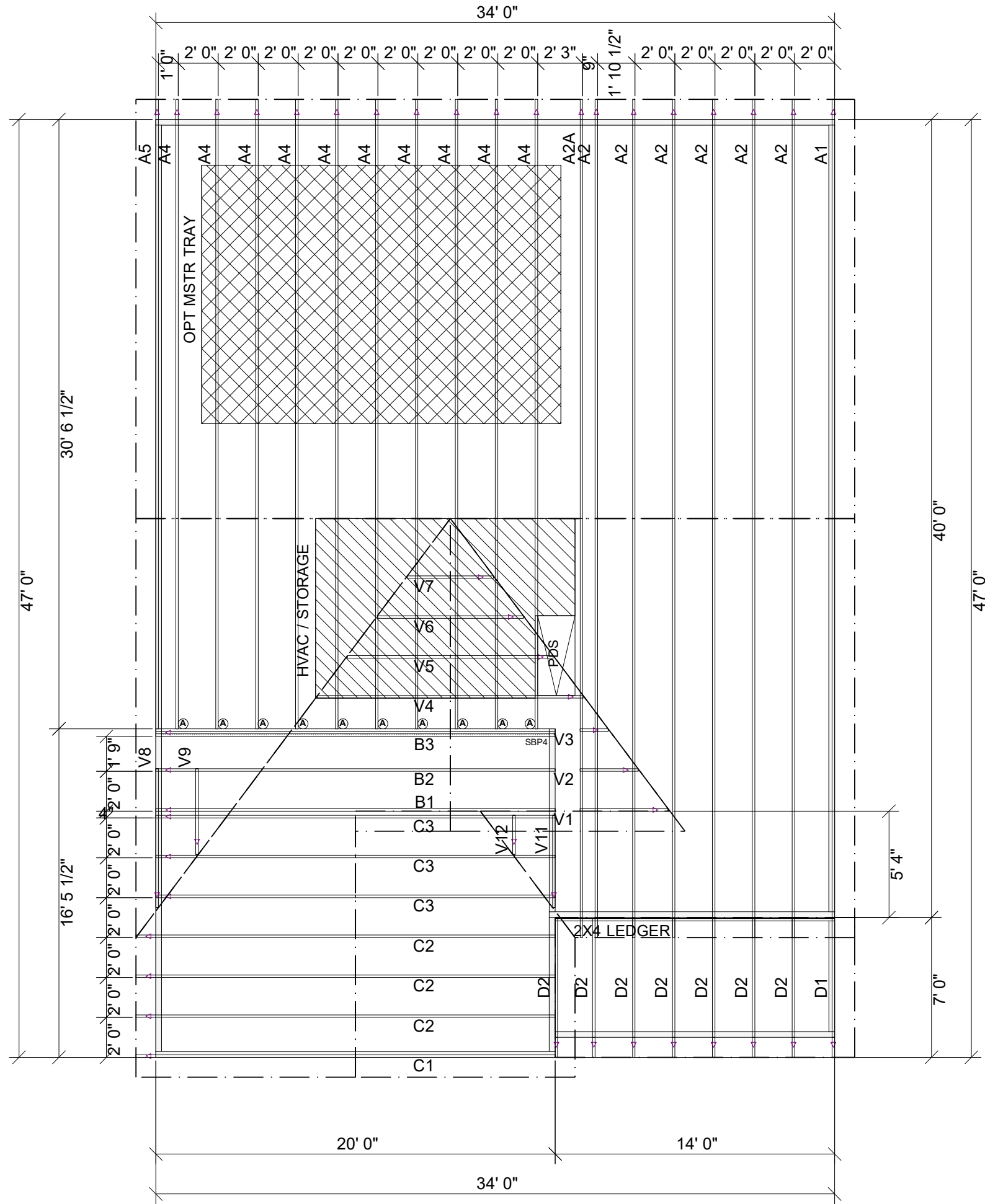
TRUSS TO WALL CONNECTIONS, IF SHOWN, ARE FOR UPLIFT ONLY AND DO NOT CONSIDER LATERAL LOADS. ALL CONNECTORS ON THIS PROJECT ARE TO BE INSTALLED PER THE CONNECTOR MANUFACTURER'S SPECIFICATIONS. ALL CONNECTORS SHOWN THAT ARE NOT "TRUSS TO TRUSS" ARE SUGGESTIONS ONLY AND ARE TO BE VERIFIED BY THE BUILDING DESIGNER OR ENGINEER OF RECORD FOR SUITABILITY TO THIS PARTICULAR PROJECT. UFP MID-ATLANTIC, LLC, ACCEPTS NO RESPONSIBILITY FOR THE SPECIFIC APPLICATION OR SUITABILITY OF ANY CONNECTOR THAT IS NOT "TRUSS TO TRUSS" AS THEY APPLY TO THIS SPECIFIC STRUCTURE.

71035285 23 CANE MILL

# BUFFINGTON ADG

Hatch Legend	
OPT MSTR TRAY	
HVAC / STORAGE	

Roof Hanger List			
QTY	DESCRIPTION	TYPE	MARK
10	FACE MOUNT HANGER	HUS26	A
2	SUPPLEMENTAL BEARING ENHANCER	SBP4	2x4

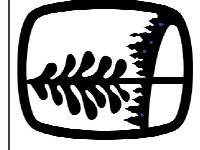


ROOF AREA: 2025.84 RIDGE LINE: 65 VALLEY LINES: 57.89 HIP LINES: 0 INDICATES LEFT END OF TRUSS

CUSTOMER: SMITH DOUGLAS  
 Job Name: BUFFINGTON ADG  
 Date: 9-29-20  
 Scale: NTS  
 Revision Date: \_\_\_\_\_  
 Revision Date2: \_\_\_\_\_

Checked By: \_\_\_\_\_  
 Quote Number: \_\_\_\_\_  
**MASTER**

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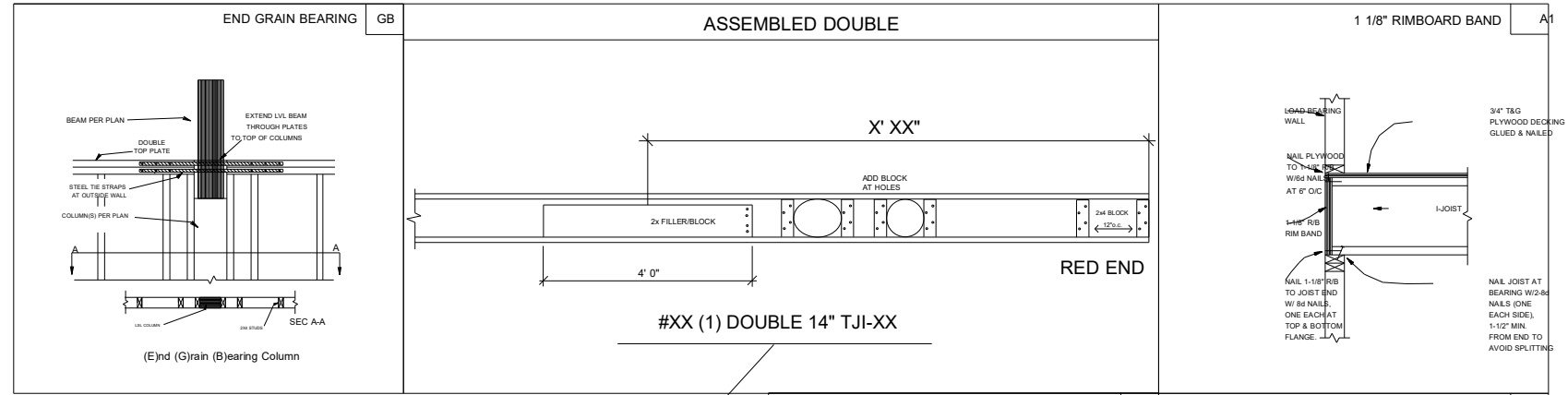
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 JEFFERSON GA PHONE (800) 648-4038  
 PEARISBURG, VA PHONE (800) 397-9571

1. TEMPORARY BRACING TO BE INSTALLED W/T.P.I. STANDARD BC5I-B1.  
 2. SEE ENGINEERED DRAWING FOR PERMANENT BRACING MINIMUM REQUIREMENTS.  
 3. FRAMER TO VERIFY ALL DIMENSIONS, DROP, & RISE LOCATIONS PRIOR TO TRUSS PLACEMENT.  
 4. BLDR/FRAMER RESPONSIBLE FOR ADJUSTMENT OF TRUSS SPACING TO MISS PLUMBING DROPS, UNLESS NOTED OTHERWISE.

This layout is not an engineered drawing. This drawing was created to establish truss placement only. It is the responsibility of the builder to provide adequate support for all the elements shown in this drawing.

Products					
Fab Type	Net Qty	Plies	Product	Length	PlotID
MFD	11	1	14" TJI@ 110	34' 0"	J1
MFD	2	2	14" TJI@ 110	20' 0"	J2
MFD	2	1	14" TJI@ 110	14' 0"	J3
MFD	1	1	14" TJI@ 110	7' 0"	J4
MFD	1	1	14" TJI@ 110	6' 0"	J5
MFD	2	1	14" TJI@ 110	5' 0"	J6
MFD	1	1	14" TJI@ 110	4' 0"	J7
MFD	6	1	14" TJI@ 210	34' 0"	J8
MFD	6	1	14" TJI@ 210	20' 0"	J10
MFD	2	1	14" TJI@ 210	20' 0"	J9
MFD	3	1	14" TJI@ 210	17' 0"	J11
MFD	12	1	1 1/8" x 14" TJI@ Rim Board	16' 0"	RIM-1
FF	8	1	14" TJI@ 110	2' 0"	Bk1

Connector Summary			
Product	Manuf	Qty	PlotID
TFL1714	USP	4	H1
TFL2014	USP	3	H2



**PLAN LEGEND**

\*INDICATES BEAM ABOVE TOP PLATE (FLUSH WITH FLOOR SYSTEM)

**1B-, 2B- H-, 1H-, GDH-**

INDICATES BEAM BELOW TOP PLATE (DROPPED BELOW FLOOR SYSTEM)

\*BEAMS MAY PROTRUDE ABOVE OR BELOW DECKING OR TOP PLATE RESPECTIVELY. REFER TO DETAIL IF BEAM IS A DIFFERENT DEPTH THAN FLOOR SYSTEM

SINGLE PLY BEAM (ADD LINE FOR EACH ADDITIONAL PLY)

SHIFT JOIST TO MISS PLUMBING, ALIGN W/WALL OR SUPPORT FURNITURE

A JOIST ADDED TO THE LAYOUT IN ADDITION TO THE ON CENTER JOISTS

TWO JOISTS SIDE BY SIDE (ONLY ASSEMBLED IF NOTED)

SHIFT

EXTRA

DOUBLE

**GENERAL NOTES:**

- 1.) TOP CHORD OF JOISTS ARE PAINTED RED AT NUMBERED END. PLACE PAINTED END AS NOTED ON PLAN.
- 2.) FOLLOW SPECIAL SPACING AND LOCATION DIMENSIONS FOR EXTRAS OR SHIFTED JOISTS AS SHOWN ON PLAN.
- 3.) ALL INTERIOR WALL PLATES MUST BE LEVEL WITH OUTSIDE WALL TOP PLATES.
- 4.) DO NOT STACK CONSTRUCTION LOADS ON UN-BRACED JOISTS.
- 5.) PROVIDE SOLID SUPPORT BELOW ALL BEAM AND HEADER BEARING POINTS IN WALL AND JOIST SPACES CONTINUOUS DOWN TO THE FOUNDATION.
- 6.) LOCATE CRIPPLE STUDS IN JOIST SPACE DIRECTLY BELOW HEADER JACKS AT ALL FIRST FLOOR EXTERIOR DOOR LOCATIONS.
- 7.) INSTALL NAILS IN ALL HOLES PROVIDED IN JOIST HANGERS EXCEPT AT BOTTOM CHORD SEAT. PLACE A DAB OF GLUE IN THE HANGER SEAT BEFORE SETTING JOISTS.
- 8.) IMPORTANT NOTE! NO STRUCTURAL ANALYSIS OF CONVENTIONAL HEADERS HAS BEEN CONDUCTED IF NOT NOTED. THEY ARE CONSIDERED TO BE ADEQUATE TO SUPPORT THE APPLIED LOADS.

**FIELD TRIM NON RED END TO KEEP HOLES ALIGNED**  
**CONTAR EL LADO DE SIN MARCA ROJA PARA HOYOS ALINEADOS**

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

**LAYOUT FOR 19.2" O/C**

9= 172-13/16"	1= 19-3/16"
10= 192"	2= 38-3/8"
11= 211-3/16"	3= 57-5/8"
12= 230-3/8"	4= 76-13/16"
13= 249-13/16"	5= 96"
14= 268-13/16"	6= 115-3/16"
15= 288"	7= 134-3/8"
	8= 153-5/8"

**FIELD VERIFY DIMENSIONS TO JOISTS LOCATED UNDER WALLS!!**

# 2ND FLOOR LAYOUT

**FRAMER NOTE**

DENOTES DUCT HOLE RUNS

ALL DIMENSIONS TO CENTERLINE UNLESS OTHERWISE NOTED

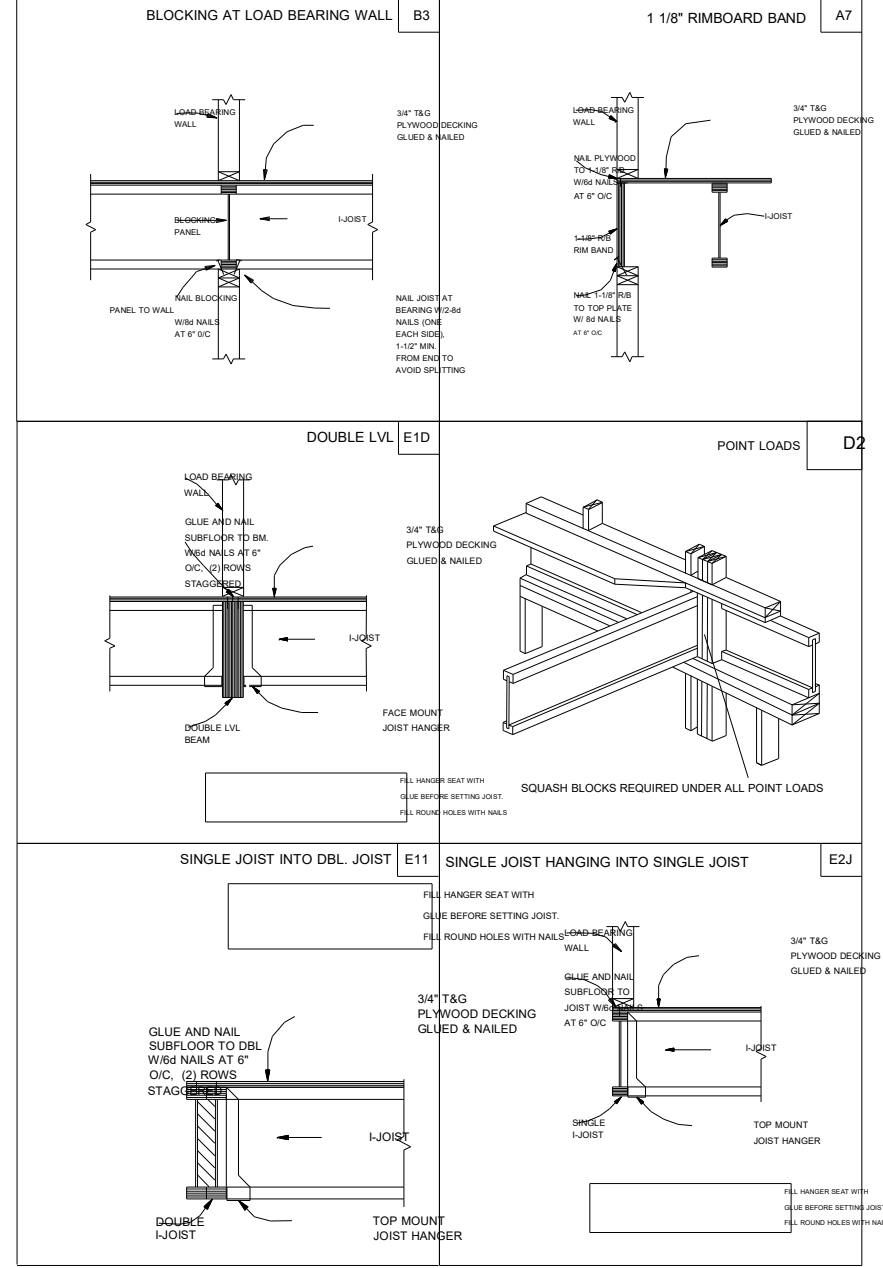
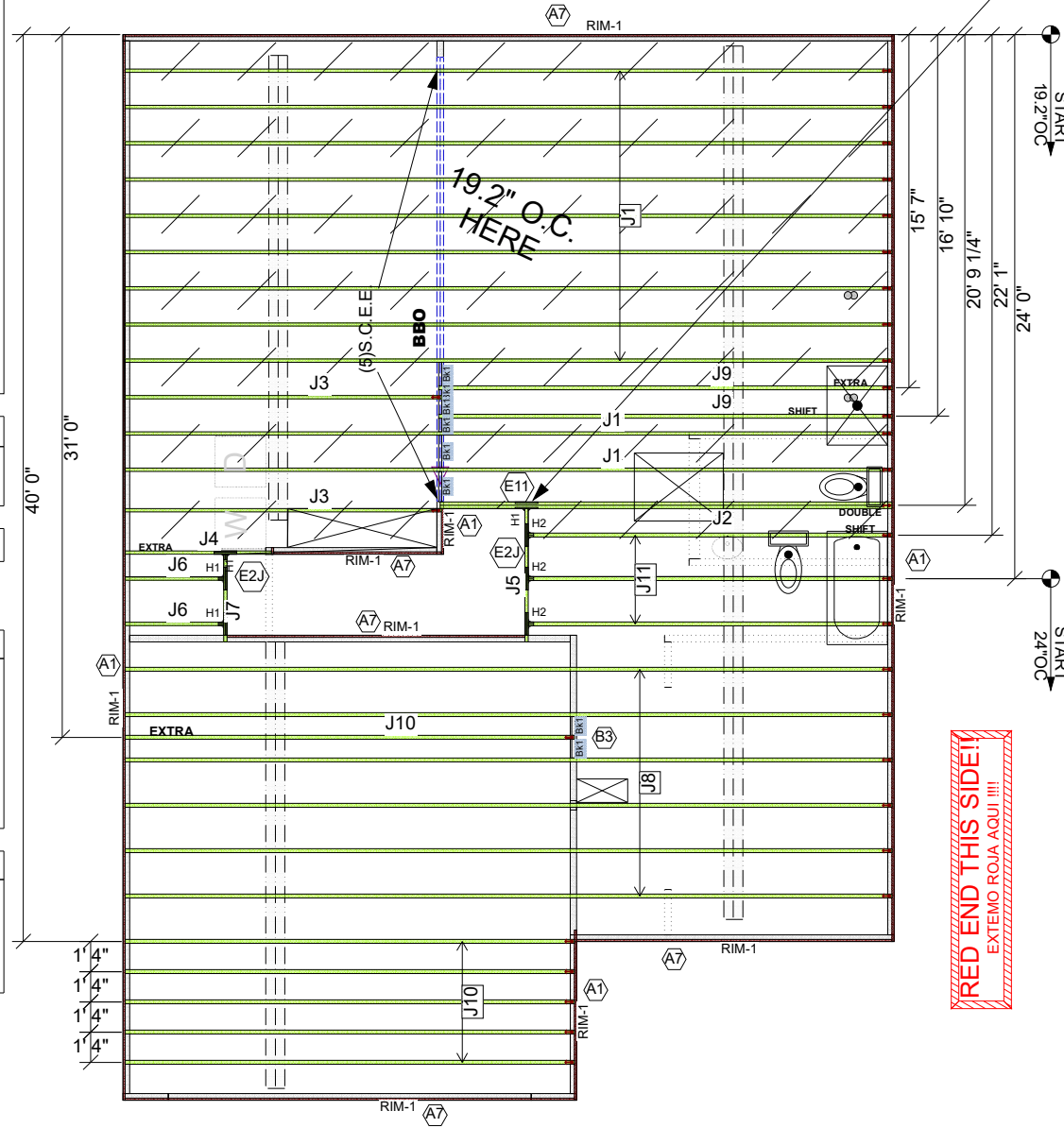
Avoid Plumbing Drops

**FRAMER NOTE**

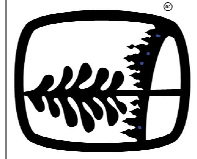
1. GLUE AND NAIL PLYWOOD SUBFLOOR TO BEAMS AND GIRDERS AT 6" O/C WHERE NO WALL IS ABOVE.
2. FILL HANGER SEAT WITH GLUE BEFORE SETTING JOIST IN HANGER. FILL ROUND HOLES WITH NAILS.

**CRITICAL !!**

INSTALL 2X4 SQUASH BLOCKS IN FLOOR TRUSS SPACE BELOW ALL EXTERIOR DOOR HEADER JACKS. CUT 1/16" TALLER THAN TRUSS.



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LOADING	DEFLECTION
ROOF LIVE 20 PSF	L/240
ROOF DEAD 20 PSF	L/180
FLOOR LIVE 40 PSF	L/480
FLOOR DEAD 10 PSF	L/240

Special Loading:

Customer: **SMITH DOUGLAS HOMES**  
 Job Name: **BUFFINGTON**  
 Date: 4/22/2021  
 Scale: NTS  
 Revision Date: \_\_\_\_\_  
 Revision Date: \_\_\_\_\_

Checked By: EOR  
 Drawing Number: **21040577F2**  
**MSTR**