

# VININGS

DUNCANS CROSSING  
LOT 14



QUALITY | INTEGRITY | VALUE

PLAN ID: 020123

110 VILLAGE TRAIL SUITE 215  
WOODSTOCK, GA. 30188

## PLAN REVISIONS

DATE	BY	REVISION	PAGE #
1/10/2019	MM	Added optional unfinished basement	A4.1
1/18/2019	AW	Prototype walk revisions - see revision sheet for changes	A3.1, A5.1, A7.2
3/27/2019	MM	Added callout for detail 3/D5.1 for A massing	A1.1-A1.9.1
8/2/2019	AW	PCR # 3105 Removed column at Foyer/Dining	A5.1, A5.1.1, A5.1.2, A7.2, A8.1
10/11/2019	AW	PCR #3301 Relocated door for optional 2nd flr to the top of the stairs (see revision sht.)	A5.1.1, A5.3, A5.4.1, A7.2, A7.3
12/18/2019	AW	PCR #3464 Remove outlet on knee wall behind kitchen sink and reduce overhang at end of peninsula to 6" per code	A5.1-A5.1.2, A7.2
2/19/2020	AW	PCR #3621 Remove hdr. between Dining & Lndry Hall and reduce length of wall next to refrig. 12"	A5.1-A5.1.2, A7.2, A8.1
2/20/2020	AW	Added new Obath configuration to allow for separate tub and shower and created basement plan only Obath options	A3.1, A3.1.1, A5.1-A5.1.2, A7.2, A8.1
11/1/2020	MM	PCR #4201 Relocated pendant lights	A7.2
5/1/2021	MM	Removed unfinished 2nd flr option	A5.3, A7.3
9/20/2021	AW	Added dim to wall next to refrig. and shifted opening over 4"	A5.1-A5.1.2
12/1/2021	AW	Noted applicable walls on opt. room over garage to be 2x6 and built into the attic truss	A5.3
12/5/2022	BB	REVISED ROOF PITCHES ON A, B AND C MASSING AND ALL ELEVATIONS OF RANCH PLAN	A1.1-.9, A2.1-A2.3, A6.1-A6.3

## DRAWING INDEX

A0.0	COVER SHEET
A1.1	FRONT ELEVATIONS
A2.1	SIDE & REAR ELEVATIONS
A3.1	SLAB FOUNDATIONS
A5.1	FIRST FLOOR PLANS & OPTIONS
A6.1	ROOF PLANS
A7.2	ELECTRICAL PLANS

## AREA TABULATION

FIRST FLOOR	1819
TOTAL	1819
GARAGE	411
FRONT PORCH ELEVATION A D G (COVERED)	33
REAR PATIO	120

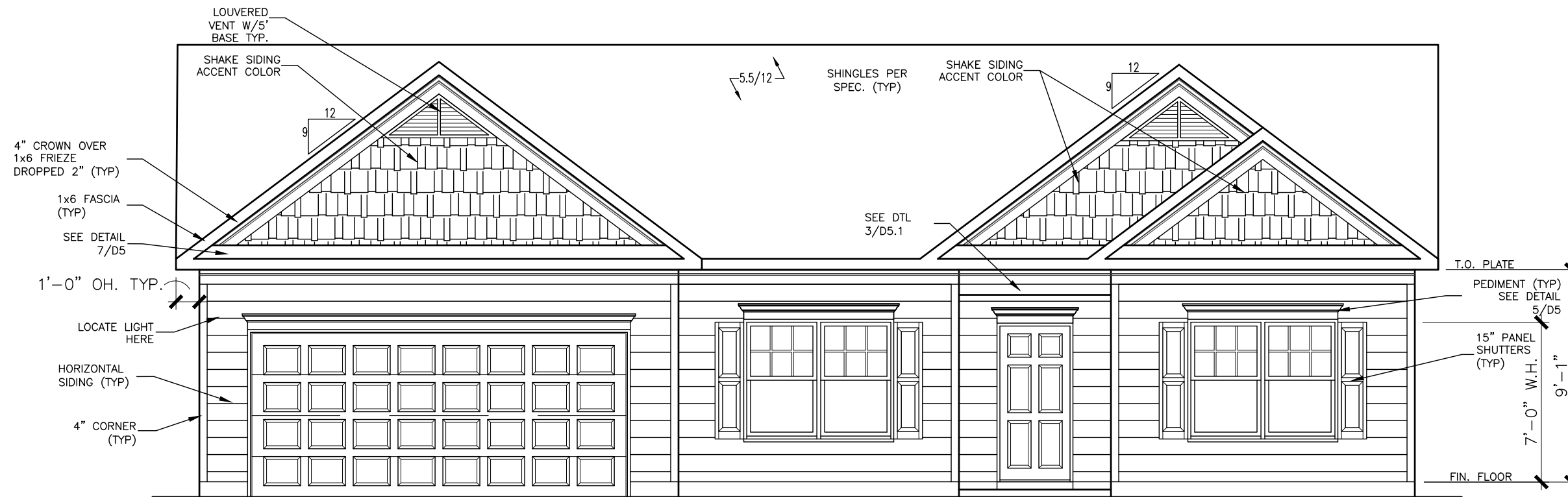
## GOVERNMENTAL CODES & STANDARDS

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

# DUNCANS CROSSING LOT 14



FRONT ELEVATION "A"

SCALE : 3/16" = 1'-0"

ALL NON-MASONRY RETURNS TO  
BE HORIZONTAL SIDING

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

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DATE	REVISION	BY	#	#	#	#	#



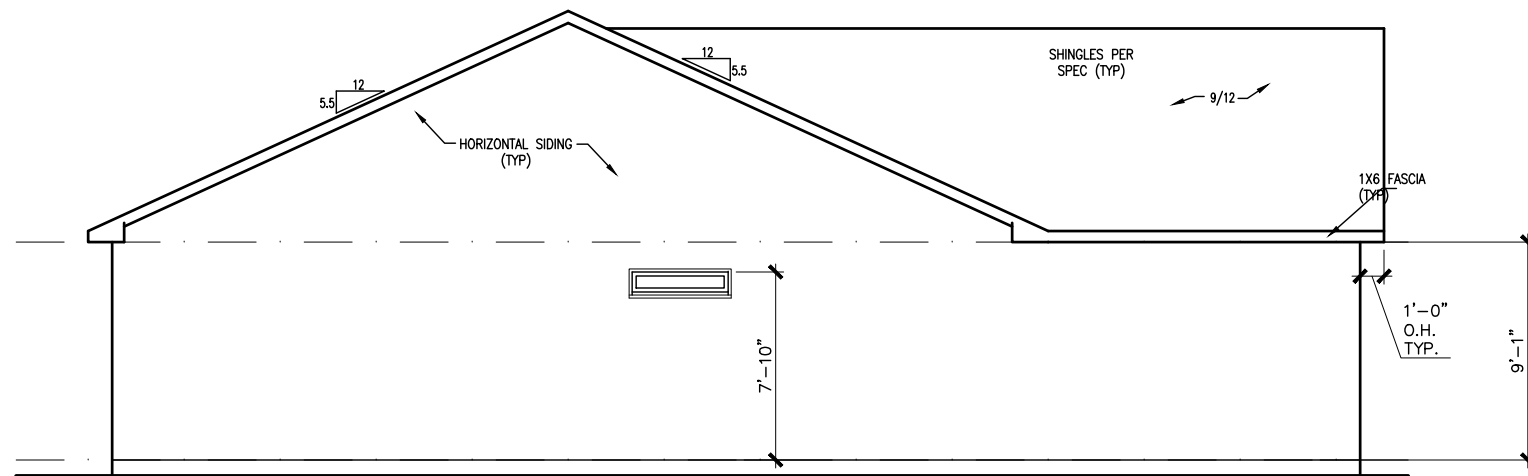
ELEVATIONS  
FRONT ELEVATION  
VININGS

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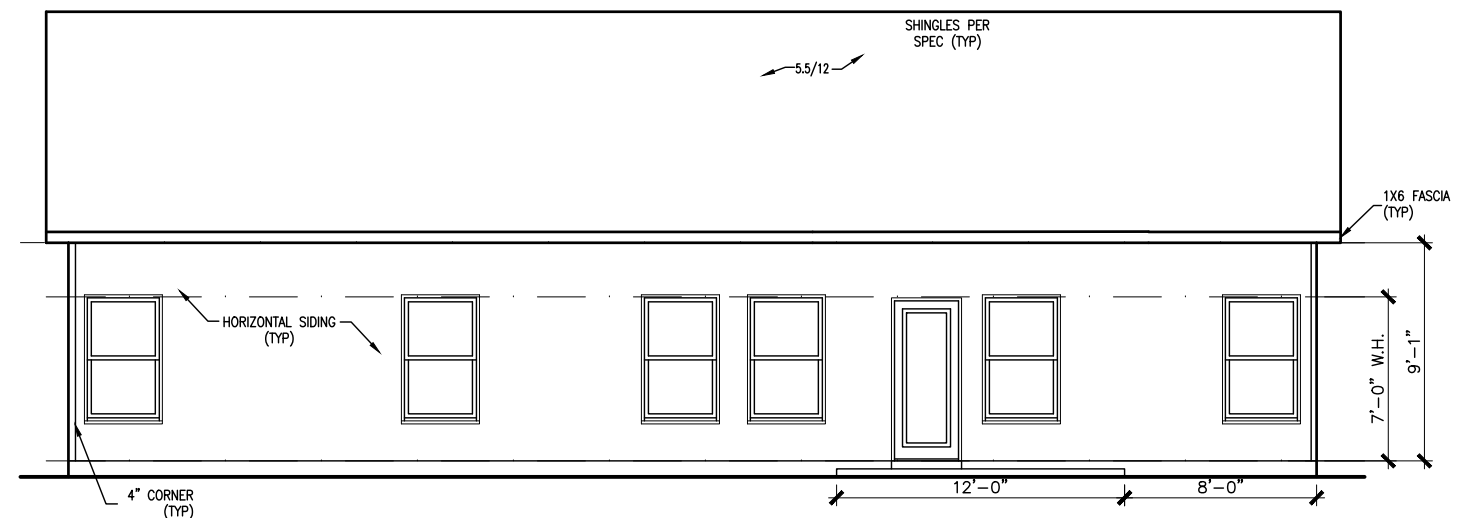
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FACADE OPT: A	
PLAN ID:	
FND: ALL	ELEV: A
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# DUNCANS CROSSING LOT 14



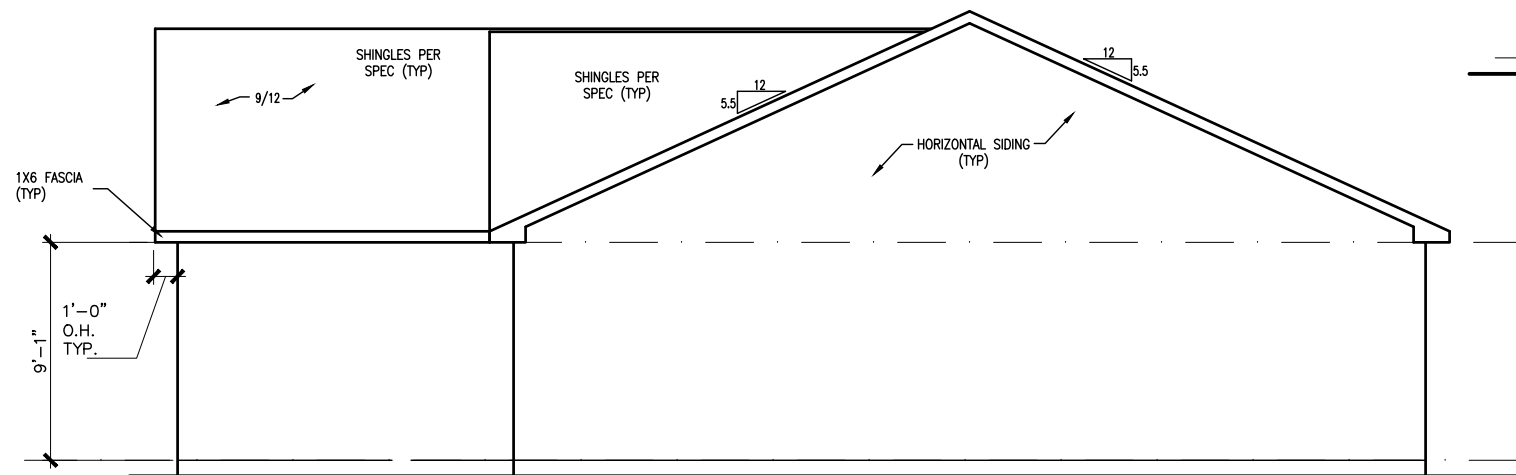
LEFT ELEVATION "A"

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



REAR ELEVATION "A"

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



RIGHT ELEVATION "A"

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

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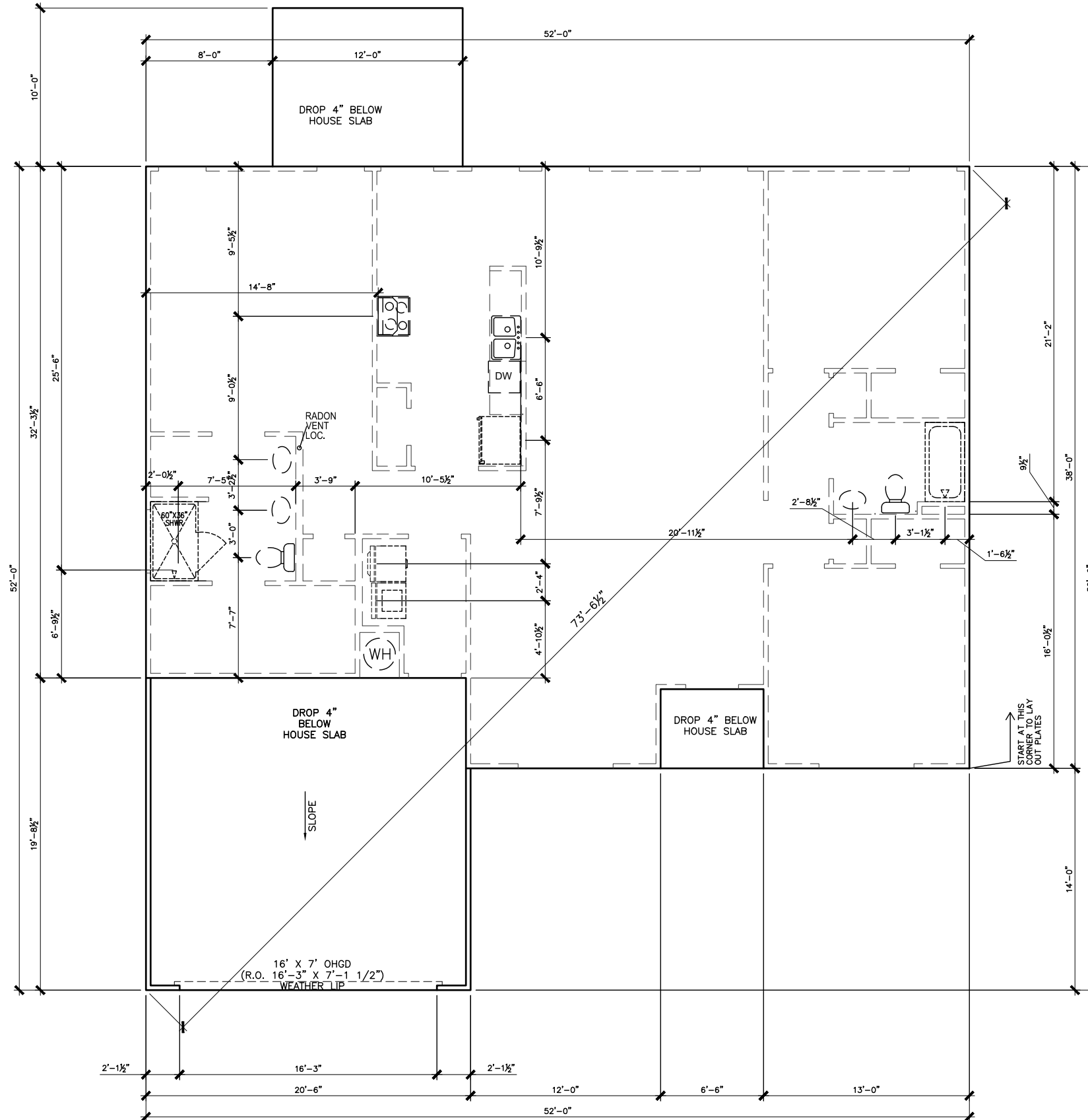
ELEVATIONS  
SIDES & REAR  
VININGS

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FND: ALL	ELEV: A
PAGE NO: A2.1	

# DUNCANS CROSSING LOT 14



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

\*RADON VENT PROVIDED  
PER LOCAL CODE

SLAB PLAN

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

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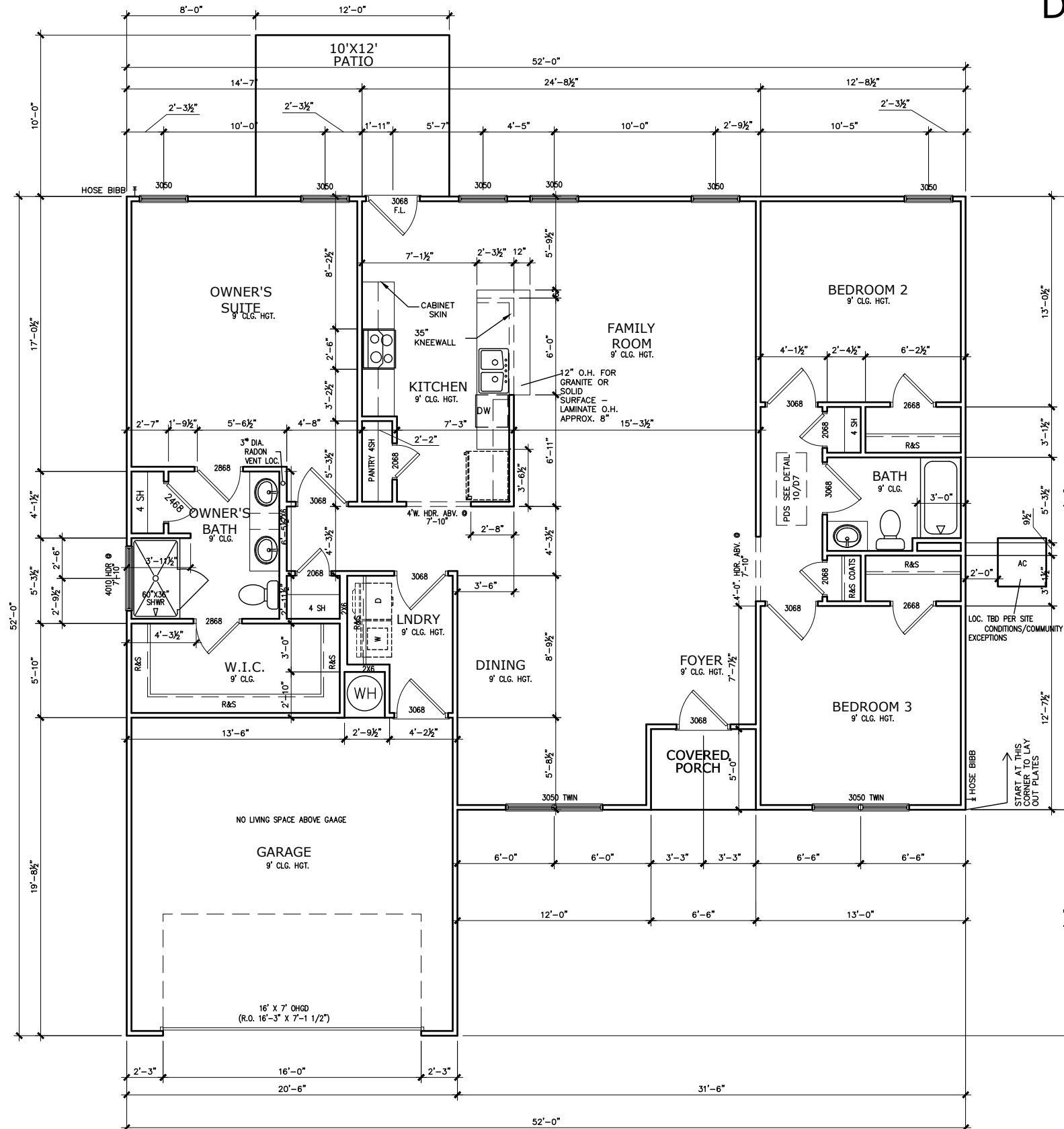
FOUNDATION PLAN  
SLAB PLAN  
VININGS

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PLAN ID:	
FND: S	ELEV: A
PAGE NO: A3.1	

# DUNCANS CROSSING LOT 14



FIRST FLOOR PLAN

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

\*RADON VENT PROVIDED  
PER LOCAL CODE

REFER TO MANUFACTURER'S SPECS.  
FOR DRAIN LOCATIONS ON DETAIL  
SHEETS D12, D12.1, D12.2 & D12.3

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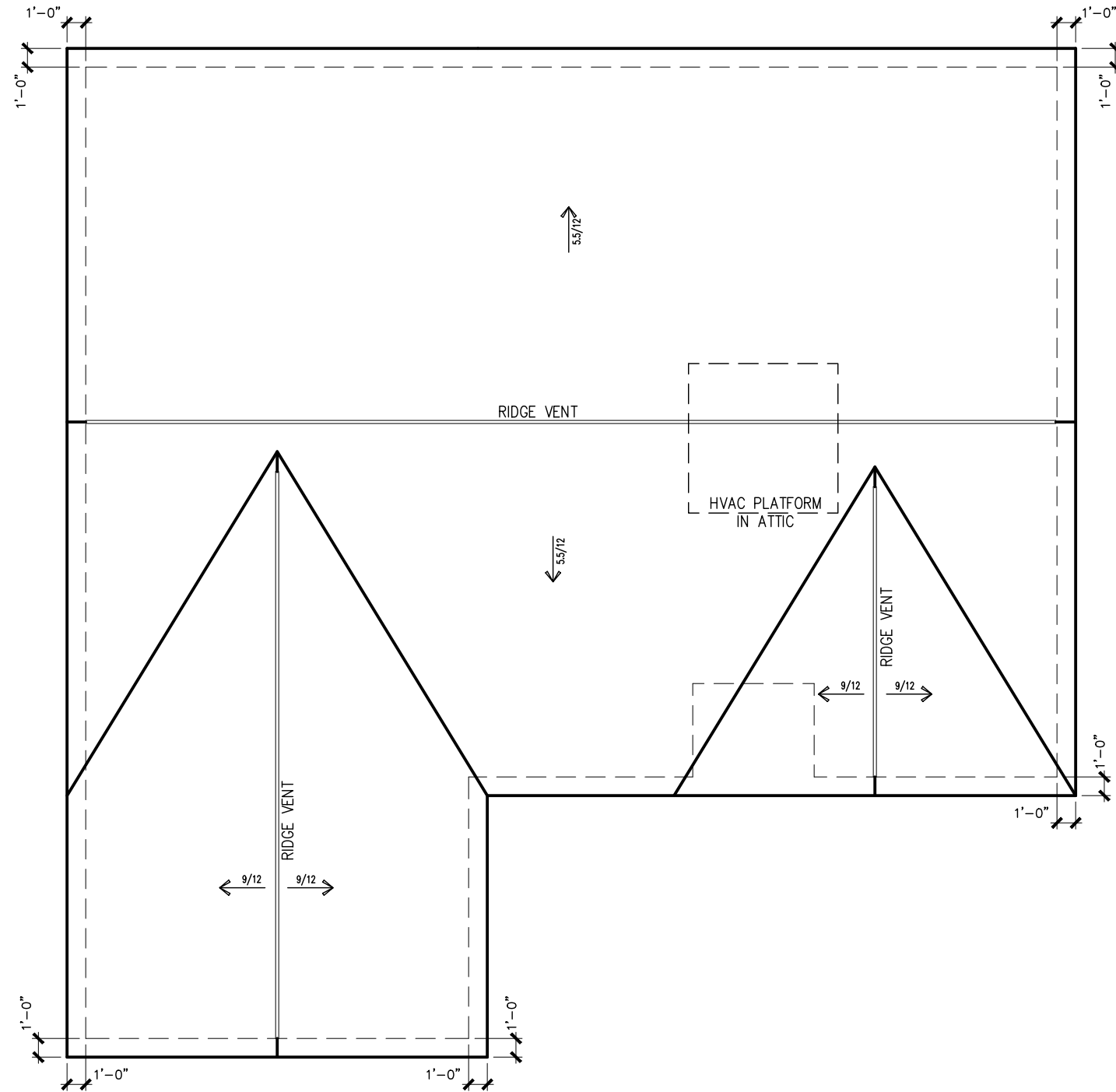
FLOOR PLAN  
FIRST FLOOR  
VININGS

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# DUNCANS CROSSING LOT 14



ROOF PLAN "A"  
SCALE : 1/8" = 1'-0"

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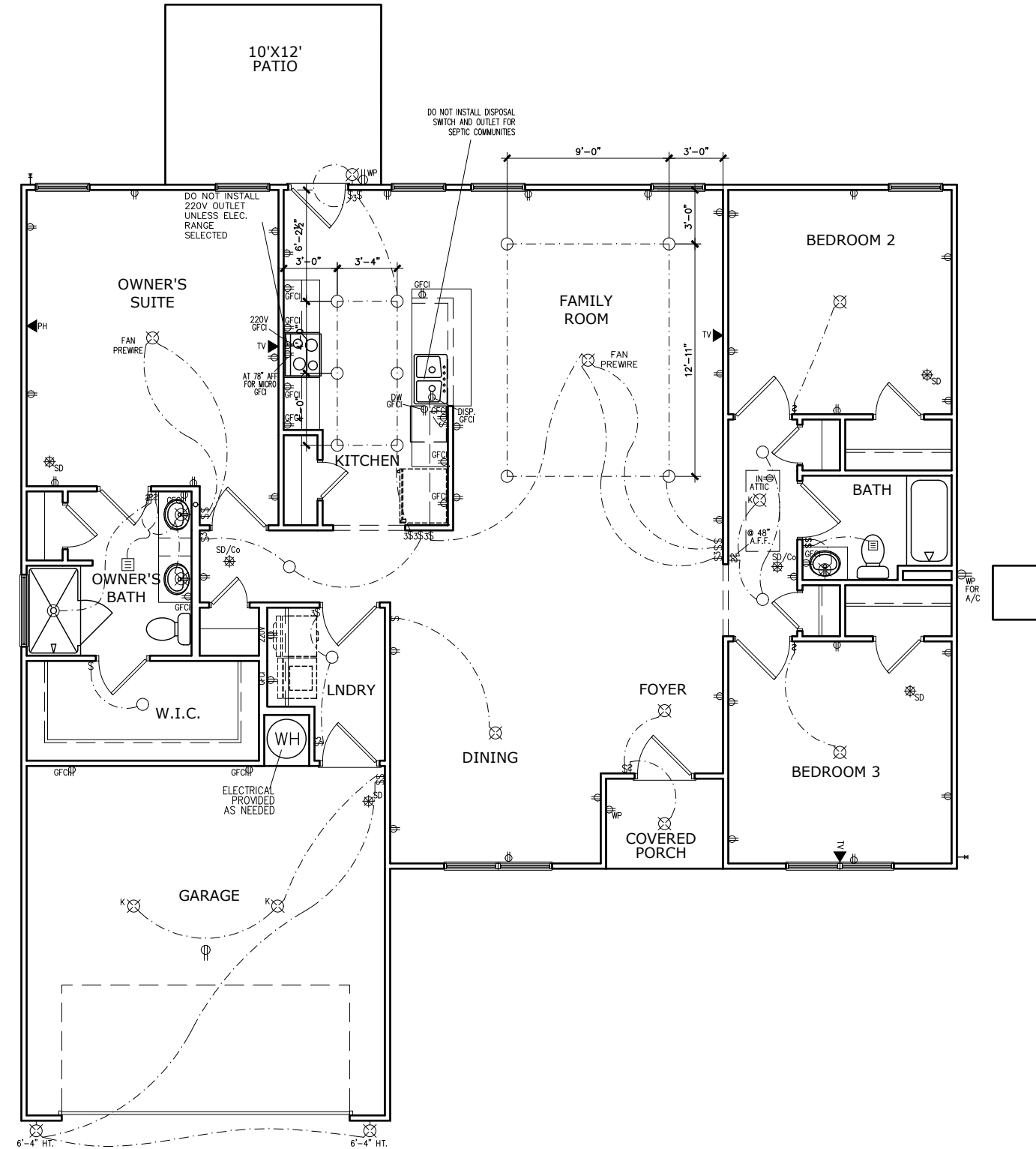
ROOF PLAN  
ROOF LAYOUT  
VININGS

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PAGE NO: A6.1	

# DUNCANS CROSSING LOT 14



## ELECTRICAL LEGEND

\$	SWITCH	TV	TV
\$3	3 WAY SWITCH	⊕	120V RECEPTACLE
\$4	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

## FIRST FLOOR ELECTRICAL PLAN

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

BY	#	#	#	#	#
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ELECTRICAL PLAN  
FIRST FLOOR  
VININGS

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PAGE NO:	A7.2		

# DUNCANS CROSSING LOT 14

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DETAILS  
LOT DEFINITION  
VININGS

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FND: ALL    ELEV: A  
PAGE NO: A9.1



Smith Douglas Communities  
Home Definition Guide  
Duncans Crossing  
Lot: 000/0014

Community: Duncans Crossing  
Lot: 000/0014  
Address: 1234 Clyde Dog Court  
Lillington, NC 27546  
Plan: Vinings A Ranch  
CAD Version: 020123  
Bedrooms: 3  
Bathrooms: 2  
Sq. Footage: 1,819

Option Name	Option Description	Qty
Siding Only Sch 06 (Siding Package)		1
Chrome Interior Finish Color Package	Includes chrome kitchen faucet, bath faucets, & fixtures, brushed nickel door hardware (hinges, bumps, knobs/levers, deadbolts), Pigt (on) lighting fixtures, & power oval mirror (if applies). Separate options also affected: shower door, shower grab bar, cabinet hardware (to be chrome).	1
1A Uncovered Patio-Regular to Stoop	Expand 3x3 near along to 10x12 concrete patio (size may vary, dimensions are per plan drawing). ***selecting a covered patio, do not select this option***	1
Level 2 - Package Electric (from E1) 2 SS Side-by-Side Refr	NOTE: Please See Appliance Sales PDF for Package Details Stainless Steel Standard-Depth Side-by-Side Refrigerator Multi-Level LED Lighting: PureSource SIP Ice & Water Filtration; 2 Fixed Flat Glass Shelves; 2 Stone-More™ Adjustable Gallon Door Bins; Automatic Ice Maker; Energy Saver Plus Technology	1
36" Cabinet 2nd Upr w/ Hardware	Includes hardware - knobs, pulls, or knob/pull combo. Note: Bath cabinets to match.	1
Granite-Kitchen Countertops - Lvl 1 (0)	Kitchen Granite Countertops - Level 1- where Laminate is Std.	1
Granite-Kitchen Sink Level 1	Level 1 Undermount rectangular stainless steel sink upgrade for kitchen granite.	1
Owner Bath Marble 1 Double to LamSgl	***Includes Vanity Double Bowl Option Do Not Select Both***	1
Prehis Lg Shower Only Large FD OBATHA	Large prehis shower with framed clear glass door ILO of standard bath. (obath)	1

Buyer's Signature \_\_\_\_\_ Seller's Signature \_\_\_\_\_  
Date \_\_\_\_\_ Date \_\_\_\_\_  
Smith Douglas Communities 4/18/2023 Page 1 of 3



Smith Douglas Communities  
Home Definition Guide  
Duncans Crossing  
Lot: 000/0014

Option Name	Option Description	Qty
FFPg 6AA-Floors Pro, StdCpt (FFPg1)	Flooring Package 6AA - Floors Pro, Standard Carpet (from Package 1), SPC (solid polymer core) 0.8 mm vinyl top layer plank.	1
FFPg W2-NSH/Baths/Laundry Floors Pro	Flooring Package - All Standard Baths and Laundry - Floors Pro. Does not include powder room or bathrooms which are parts of globally optional space. See Flooring Package Layouts for details. Includes Owners Bath.	1
Blinds for Base House	Includes blinds for all standard windows on front, sides, and rear that are operational and accessible. Does not include blinds for any optional windows, including windows for optional second floors.	1
Family/Great Room Ceiling Fixtures Lights	Family/Great Room Lights - Low Profile Flush Mount LED Lights per plan.	1
Kitchen Ceiling Fixture Lights ILO Std	Kitchen Lights - Low Profile Flush Mount LED Lights per Plan ILO Standard Light.	1
Light Over Tub or Shower	NOTE: As of 4/1/2020, any Home or Change Order processed will have LED-Lights(ILO of recessed can light). Lighting - Low Profile Flush Mount LED Light.	1
Automatic Garage Door Opener	Garage Door Opener - Pier Door	1
Additional Cable Outlet		1

Buyer's Signature \_\_\_\_\_ Seller's Signature \_\_\_\_\_  
Date \_\_\_\_\_ Date \_\_\_\_\_  
Smith Douglas Communities 4/18/2023 Page 2 of 3



Smith Douglas Communities  
Home Definition Guide  
Duncans Crossing  
Lot: 000/0014

Activity	Item	Selection	Accepted
Del/Instal AppliancePkg	Appliance Package Select - All	Appliance Package Selected	04/10/2023
Deliver & Install Blinds	Blind Color	White	04/10/2023
Install Cabinets Complet	Cab Finish Type(2)WALL	Knob/Pull Combo	04/10/2023
Install Cabinets Complet	Cabinet Finish - Upgrade 2Aris	2nd-Upr Brnlin Purestyle-Stone	04/10/2023
Install Cabinets Complet	Master Bath Vanity Tops - All	Selection not Needed	04/10/2023
Install Cabinets Complet	Secondary Bath Vanity Tops-All	Selection not Needed	04/10/2023
Install Carpet	Carpet - Standard ALL	Smith Grove II West Field 102	04/10/2023
Install Floors Pro (LP)	Floors Pro - AllUpr ALL	Simonton Plus - 509 Washed Oak	04/10/2023
Install Granite Tops	RDU Granite CounterKitchenLvl1	Dalila-Ashen White	04/10/2023
Install Granite Tops	RDU Rectangular SS Sink Lvl 1	Single Bowl Sink-Chemore Radial ZS-300	04/10/2023
Install Laminate Tops	Secondary Bath Vanity Tops-All	Selection not Needed	04/10/2023
Install Marble Tops	RDU Marble Vanity Top Lvl 1	Matta-#163 White w/ice Grey w/oval bowl	04/10/2023
Paint Interior Complete	Interior Paint (Trim)	SW 7006 Extra White	04/10/2023
Paint Interior Complete	Interior Paint (Walls) - Base	SW 7014 Eider White	04/10/2023
PM Install Vinyl Floor	VinylPkg-Option Baths	Selection not needed	04/10/2023
PM Install Vinyl Floor	VinylPkg-Owner Bath	Selection Not Needed	04/10/2023
PM Install Vinyl Floor	VinylPkg-Std 2nd Baths/Laundry	Selection Not Needed	04/10/2023

Buyer's Signature \_\_\_\_\_ Seller's Signature \_\_\_\_\_  
Date \_\_\_\_\_ Date \_\_\_\_\_  
Smith Douglas Communities 4/18/2023 Page 3 of 3





**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 (WWF) for concrete slabs-on-grade shall be placed at mid-depth of slab. The WWF shall be securely supported during the concrete pour. Fiberglass may be used in lieu of WWF.

**CONCRETE REINFORCEMENT:**

- Fibrous concrete reinforcement, or fiberglass, 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.
- Fiberglass reinforcing to be 100% virgin polypropylene fibers containing no reprocessed olefin materials and specifically manufactured for use as concrete secondary reinforcement.
- Application of fiberglass per cubic yard of concrete shall equal a minimum of 0.1% by volume (15 pounds per cubic yard)
- Fiberglass 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 = 100 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 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.
- Flitch 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 APA 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 as recommended in accordance with the APA.

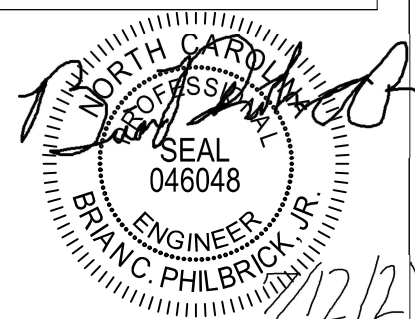
**EXTERIOR WOOD FRAMED DECKS:**

- 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.

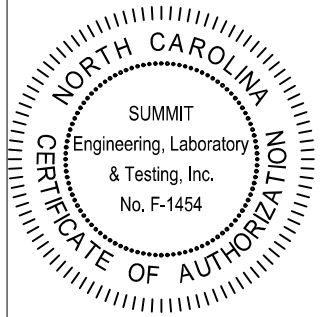
**STRUCTURAL STEEL:**

- 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 D11. Electrodes for shop and field welding shall be class E70XX. All welding shall be performed by a certified welder per the above standards.

Duncans  
Lot 14



STRUCTURAL MEMBERS ONLY



PROJECT Vining\$ (LH)  
Coversheet  
CLIENT Smith Douglas Homes - Raleigh  
2520 Reliance Ave  
Apex, NC 27539

**CURRENT DRAWING**  
DATE: 10/17/2019  
SCALE: 1/8"=1'-0"  
PROJECT #: 3832226R2  
DRAWN BY: MEB  
CHECKED BY: CNB

**ORIGINAL DRAWING**  
DATE PROJECT #  
08/07/2018 3832154

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 2018 NORTH CAROLINA RESIDENTIAL BUILDING CODE WITH ALL LOCAL AMENDMENTS.
- STRUCTURAL CONCRETE TO BE  $F_c = 3000$  PSI, PREPARED AND PLACED IN ACCORDANCE WITH ACI STANDARD 318.
- FOOTINGS TO BE PLACED ON UNDISTURBED EARTH BEARING A MINIMUM OF 12" 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 THE SITE SOIL CONDITIONS AT THE TIME OF CONSTRUCTION.
- 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 SPECIFIED IN SECTION R404.1 OF THE 2018 NORTH CAROLINA RESIDENTIAL BUILDING CODE.
- FILASTERS TO BE BONDED TO PERIMETER FOUNDATION WALL.
- PROVIDE FOUNDATION WATERPROOFING, AND DRAIN WITH POSITIVE SLOPE TO OUTLET AS REQUIRED BY SITE CONDITIONS.
- PROVIDED PERIMETER INSULATION FOR ALL FOUNDATIONS PER 2018 NORTH CAROLINA RESIDENTIAL BUILDING CODE.
- CORBEL FOUNDATION WALL AS REQUIRED TO ACCOMMODATE BRICK VENEERS.
- GRAIL SPACE TO BE GRADED LEVEL, AND CLEARED OF ALL DEBRIS.
- FOUNDATION ANCHORAGE SHALL BE CONSTRUCTED PER THE 2018 NORTH CAROLINA RESIDENTIAL CODE SECTION R403.16. MINIMUM 1/2" DIA. BOLTS SPACED AT 6'-0" ON CENTER WITH A 1" MINIMUM EMBEDMENT INTO MASONRY OR CONCRETE. ANCHOR BOLTS SHALL BE 12" FROM THE END OF EACH PLATE SECTION. MINIMUM (2) ANCHOR BOLTS PER PLATE SECTION. ANCHOR BOLTS SHALL BE LOCATED IN THE CENTER THIRD OF THE PLATE.
- ABBREVIATIONS:

DJ = DOUBLE JOIST	SJ = SINGLE JOIST
GT = GIRDER TRUSS	FT = FLOOR TRUSS
SC = STUD COLUMN	DR = DOUBLE RAFTER
EE = EACH END	TR = TRIPLE RAFTER
TJ = TRIPLE JOIST	OC = ON CENTER
CL = CENTER LINE	PL = POINT LOAD

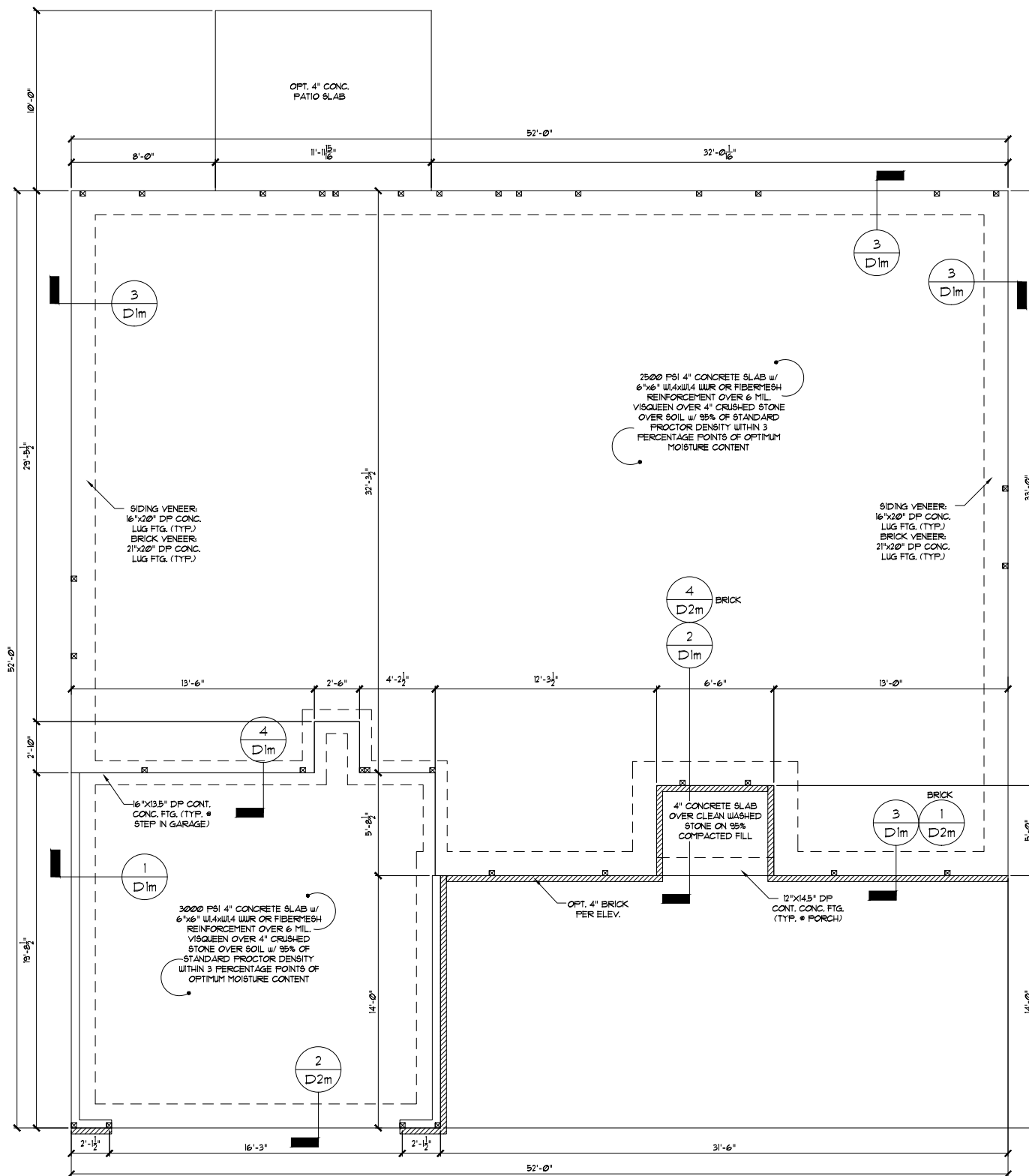
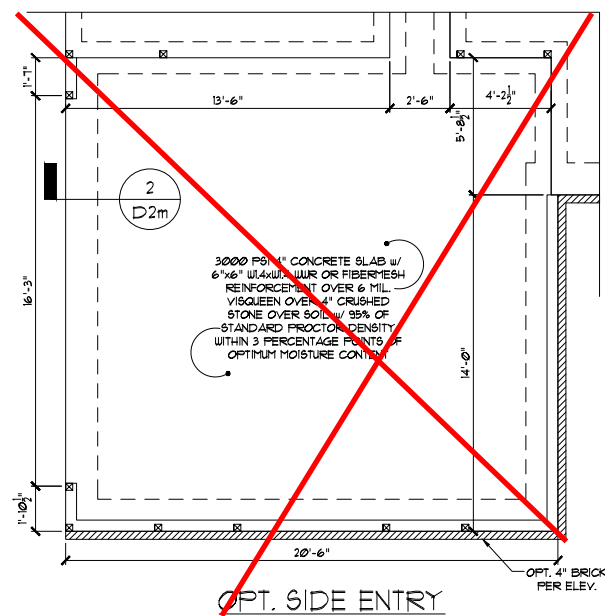
- ALL PIERS TO BE 16"x16" MASONRY AND ALL FILASTERS TO BE 8"x16" MASONRY, TYPICAL (IND).
- WALL FOOTINGS TO BE CONTINUOUS CONCRETE, SIZES PER STRUCTURAL PLAN.
- A FOUNDATION EXCAVATION OBSERVATION SHOULD BE CONDUCTED BY A PROFESSIONAL GEOTECHNICAL ENGINEER OR HIS QUALIFIED REPRESENTATIVE. IF ISOLATED AREAS OF YIELDING MATERIALS AND/OR 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 THE FOOTING DESIGN PRIOR TO CONCRETE PLACEMENT.
- ALL FOOTINGS & SLABS ARE TO BEAR ON UNDISTURBED SOIL OR 95% COMPACTED FILL, VERIFIED BY ENGINEER OR CODE OFFICIAL.

REFER TO BRACED WALL PLAN FOR PANEL LOCATIONS AND ANY REQUIRED HOLDINGS. ADDITIONAL INFO PER SECTION R602.10.4 AND FIGURE R602.10.3(4) OF THE 2018 NCRC.

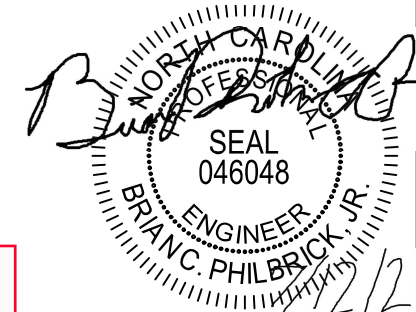
NOTE: ALL EXTERIOR FOUNDATION DIMENSIONS ARE TO FRAMING AND NOT BRICK VENEER UNO

THESE PLANS ARE DESIGNED IN ACCORDANCE WITH ARCHITECTURAL PLANS PROVIDED BY SMITH DOUGLAS HOMES. COMPLETED/REVISED ON 10/11/2019. 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. CANNOT GUARANTEE THE ADEQUACY OF THESE STRUCTURAL PLANS WHEN USED WITH ARCHITECTURAL PLANS DATED DIFFERENTLY THAN THE DATE LISTED ABOVE.

NOTE: A 4" CRUSHED STONE BASE COURSE IS NOT REQUIRED WHEN SLAB IS INSTALLED ON WELL-DRAINED OR SAND-GRAVEL MIXTURE SOILS (CLASSIFIED AS GROUP 1 PER TABLE R402.1)



ELEVATIONS AD.G



Duncans  
Lot 14

STRUCTURAL MEMBERS ONLY

**STRUCTURAL MEMBERS ONLY**

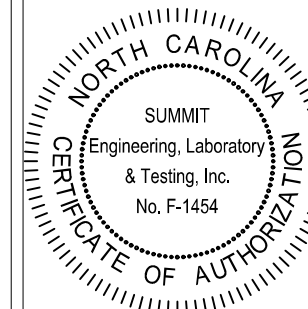
ENGINEERING SEAL APPLIES ONLY TO STRUCTURAL COMPONENTS ON THIS DOCUMENT. SEAL DOES NOT INCLUDE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES OR SAFETY PRECAUTIONS. ANY DEVIATIONS OR DISCREPANCIES ON PLANS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF SUMMIT ENGINEERING, LABORATORY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

STRUCTURAL ANALYSIS BASED ON 2018 NCRC.

**MONOLITHIC SLAB FOUNDATION**

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



PROJECT  
Vining's (LH)  
Monolithic Slab Fnd.  
CLIENT  
Smith Douglas Homes - Raleigh  
2520 Reliance Ave  
Apex, NC 27539

**CURRENT DRAWING**

DATE: 10/17/2019

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

PROJECT #: 3832226R2

DRAWN BY: MEB

CHECKED BY: CNB

**ORIGINAL DRAWING**

DATE	PROJECT #
08/07/2018	3832154

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

**SHEET**

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**GENERAL STRUCTURAL NOTES:**

- CONSTRUCTION SHALL CONFORM TO 2018 NORTH CAROLINA RESIDENTIAL BUILDING CODE WITH ALL LOCAL AMENDMENTS.
- CONTRACTOR SHALL VERIFY ALL DIMENSIONS. CONTRACTOR SHALL COMPLY WITH THE CONTENTS OF THE DRAWING FOR THIS SPECIFIC PROJECT. ENGINEER IS NOT RESPONSIBLE FOR ANY DEVIATIONS FROM THIS PLAN.
- CONTRACTOR IS RESPONSIBLE FOR PROVIDING TEMPORARY BRACING REQUIRED TO RESIST ALL FORCES ENCOUNTERED DURING ERECTION.
- PROPERTIES USED IN THE DESIGN ARE AS FOLLOWS:  
MICROLAM (LVL):  $F_b = 2600$  PSI,  $F_v = 285$  PSI,  $E = 19 \times 10^6$  PSI  
PARALLAM (PSL):  $F_b = 2300$  PSI,  $F_v = 230$  PSI,  $E = 125 \times 10^6$  PSI
- ALL WOOD MEMBERS SHALL BE  $\frac{1}{2}$  SFF UNLESS NOTED ON PLAN. ALL STUD COLUMNS AND JOISTS SHALL BE  $\frac{1}{2}$  SFF (UNO).
- ALL BEAMS SHALL BE SUPPORTED WITH A (2) 2x4  $\frac{1}{2}$  SFF STUD COLUMN AT EACH END UNLESS NOTED OTHERWISE.
- ALL REINFORCING STEEL SHALL BE GRADE 60 BARS CONFORMING TO ASTM A615 AND SHALL HAVE A MINIMUM COVER OF 3".
- FOUNDATION ANCHORAGE SHALL BE CONSTRUCTED PER THE 2018 NORTH CAROLINA RESIDENTIAL CODE SECTION R403.6. MINIMUM 1" DIA BOLTS SPACED AT 6'-0" ON CENTER WITH A 1" MINIMUM EMBEDMENT INTO MASONRY OR CONCRETE. ANCHOR BOLTS SHALL BE 12" FROM THE END OF EACH PLATE SECTION. MINIMUM (2) ANCHOR BOLTS PER PLATE SECTION. ANCHOR BOLTS SHALL BE LOCATED IN THE CENTER THIRD OF THE PLATE.
- CONTRACTOR TO PROVIDE LOOKOUTS WHEN CEILING JOISTS SPAN PERPENDICULAR TO RAFTERS.
- FLITCH BEAMS, 4-PLY LVL6 AND 3-PLY SIDE LOADED LVL6 SHALL BE BOLTED TOGETHER WITH 1/2" DIA. THRU BOLTS SPACED AT 24" O.C. (MAX) STAGGERED OR EQUIVALENT CONNECTIONS PER DETAIL, 1031. MIN. EDGE DISTANCE SHALL BE 2" AND (2) BOLTS SHALL BE LOCATED MINIMUM 6" FROM EACH END OF THE BEAM.
- ALL NON-LOAD BEARING HEADERS SHALL BE (1) FLAT 2x4 SFF  $\frac{1}{2}$ , DROPPED, FOR MORE THAN 2'-0" OF CRIPPLE WALL ABOVE, SHALL BE (2) FLAT 2x4 SFF  $\frac{1}{2}$ , DROPPED. (UNLESS NOTED OTHERWISE)
- ABBREVIATIONS:

DJ = DOUBLE JOIST  
GT = GIRDER TRUSS  
SC = STUD COLUMN  
EE = EACH END  
CL = CENTER LINE

SU = SINGLE JOIST  
FT = FLOOR TRUSS  
DR = DOUBLE RAFTER  
TR = TRIPLE RAFTER  
OC = ON CENTER  
PL = POINT LOAD

NOTE: --- DESIGNATES JOIST SUPPORTED LOAD BEARING WALL ABOVE. PROVIDE BLOCKING UNDER JOIST SUPPORTED LOAD BEARING WALL.

NOTE: SHADED WALLS INDICATE LOAD BEARING WALLS.

JOIST & BEAM SIZES SHOWN ARE MINIMUMS. BUILDER MAY INCREASE DEPTH FOR EASE OF CONSTRUCTION.

NOTE: REDUCE JOIST SPACING UNDER TILE FLOORS, GRANITE COUNTERTOPS AND/OR ISLANDS.

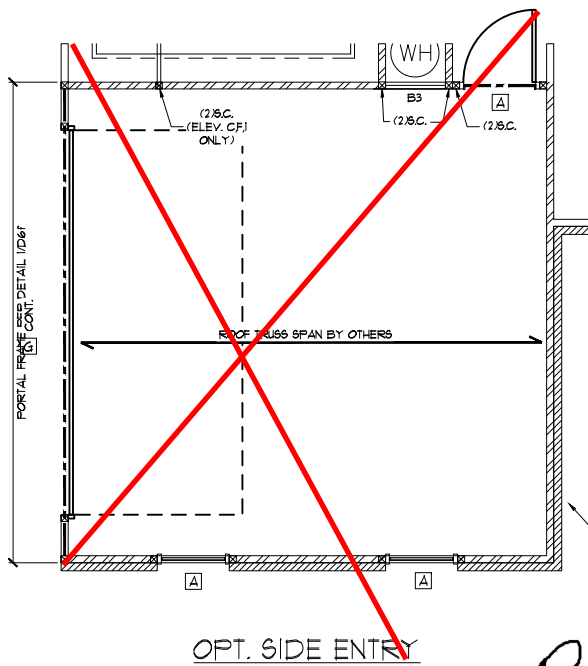
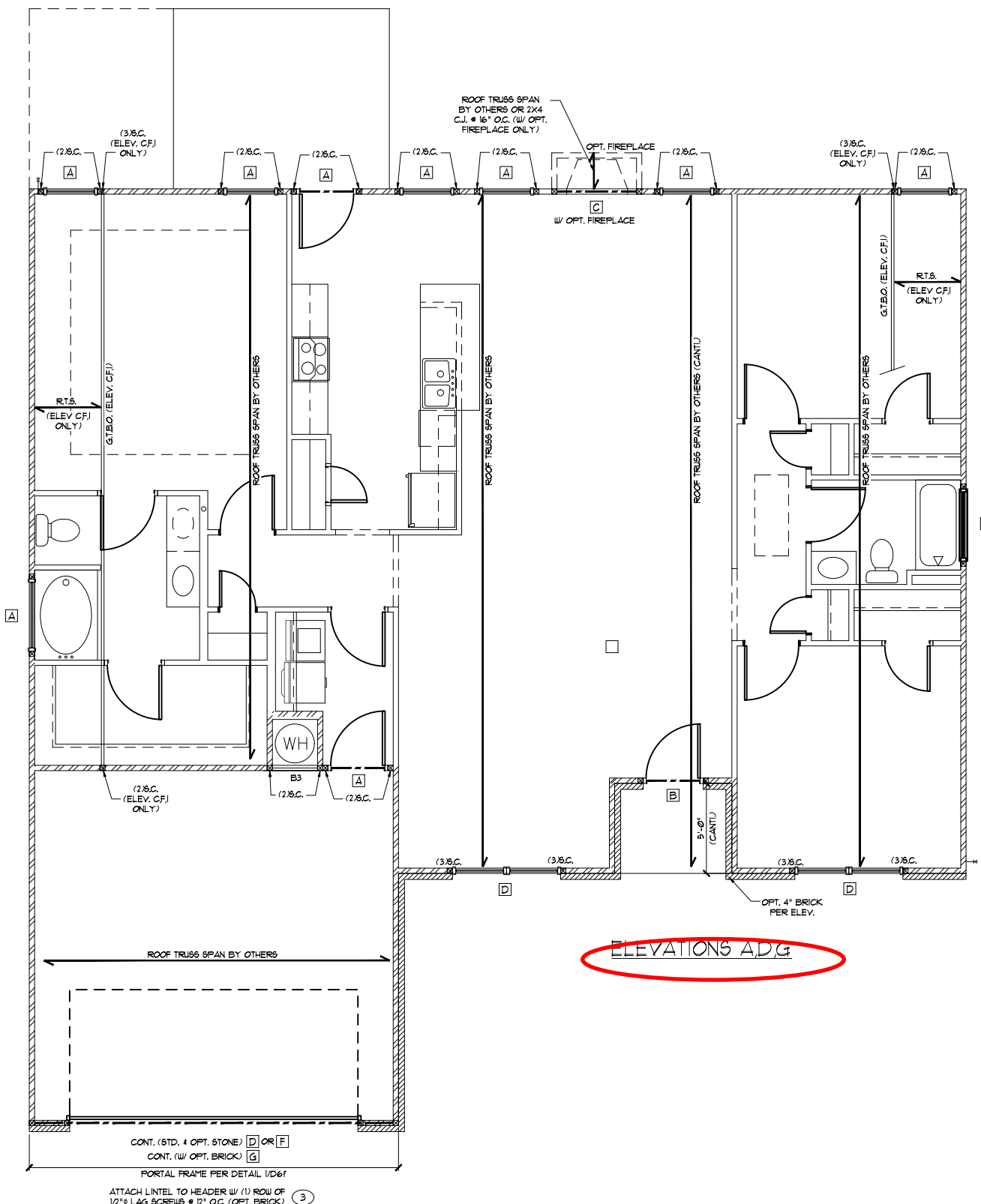
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**STRUCTURAL MEMBERS ONLY**

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STRUCTURAL ANALYSIS BASED ON 2018 NCRC.

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



**KING STUD REQUIREMENTS**

OPENING WIDTH (FT)	KINGS (EACH END)	
	16" O.C.	24" O.C.
LESS THAN 3'-0"	(1)	(1)
3'-0" TO 4'-0"	(2)	(1)
4'-0" TO 8'-0"	(3)	(2)
8'-0" TO 12'-0"	(5)	(3)
12'-0" TO 16'-0"	(6)	(4)

KING STUD REQUIREMENTS ABOVE DO NOT APPLY TO PORTAL FRAMED OPENINGS

**HEADER/BEAM SCHEDULE**

HEADER TAG	BEAM TAG	SIZE	JACKS (EACH END)
-	B1	(1) 14" FLOOR JOIST	(2)
-	B2	(2) 14" FLOOR JOIST	(2)
A	B3	(2) 2x6	(1)
B	B4	(2) 2x8	(2)
C	B5	(2) 2x10	(2)
D	B6	(2) 2x12	(2)
E	B7	(2) 9-1/4" LVL	(3)
F	B8	(2) 14" LVL	(3)
G	B9	(2) 14" LVL	(3)
H	B10	(2) 16" LVL	(3)
I	B11	(2) 18" LVL	(3)
J	B12	(2) 24" LVL	(4)
K	B13	(3) 9-1/4" LVL	(3)
L	B14	(3) 11-7/8" LVL	(3)
M	B15	(3) 14" LVL	(3)
N	B17	(3) 16" LVL	(3)
O	B18	(3) 18" LVL	(3)
P	B19	(3) 24" LVL	(4)

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

**LINTEL SCHEDULE**

TAG	SIZE	OPENING SIZE
①	L3x3x1/4"	LESS THAN 6'-0"
②	L5x3x1/4"	6'-0" TO 10'-0"
③	L5x3-1/2"x5/16"	GREATER THAN 10'-0"
④	L5x3-1/2"x5/16"	ALL ARCHED OPENINGS ROLLED OR EQUIV.

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

ALL HEADERS WITH BRICK ABOVE: ① (UNO)

**WALL STUD SCHEDULE**

1ST & 2ND FLOOR LOAD BEARING WALLS:  
2x6 STUDS @ 24" O.C. OR 2x4 STUDS @ 16" O.C.

1ST FLOOR LOAD BEARING WALLS SUPPORTING 2ND FLOOR & WALL/FLOOR ATTS:  
2x6 STUDS @ 16" O.C. OR 2x4 STUDS @ 12" O.C.

BASEMENT LOAD BEARING WALLS:  
2x6 STUDS @ 16" O.C. OR 2x4 STUDS @ 12" O.C.

NON-LOAD BEARING WALLS (ALL FLOORS):  
2x4 STUDS @ 24" O.C.

TWO STORY WALLS:  
2x4 STUDS @ 12" O.C. OR 2x6 STUDS @ 16" O.C. w/ 2X BRACING @ 6'-0" O.C. VERTICALLY (AKA, "BALLOON FRAMING")

PROJECT: Vining's (LH)  
First Floor Framing  
CLIENT: Smith Douglas Homes - Raleigh  
2520 Reliance Ave  
Apex, NC 27539

CURRENT DRAWING  
DATE: 10/17/2018  
SCALE: 1/8"=1'-0"  
PROJECT #: 3832.226R2  
DRAWN BY: MEB  
CHECKED BY: CNB

ORIGINAL DRAWING  
DATE: 08/07/2018 PROJECT #: 3832.154

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

Duncans Lot 14

SHEET  
**S3.0**

STRUCTURAL MEMBERS ONLY

**TRUSS UPLIFT CONNECTOR SCHEDULE**

MAX. UPLIFT	ROOF TO WALL	FLOOR TO FLOOR	FLOOR TO END
535 LBS	H2.5A	PER WALL SHEATHING & FASTENERS	
1070 LBS	(2) H2.5A	C916 (END + 13')	DTT2Z
1245 LBS	HT520	C916 (END + 13')	DTT2Z
1720 LBS	(2) HT520	(2) C916 (END + 13')	DTT2Z
2430 LBS	(2) HT520	(2) C916 (END + 13')	HTT4
2365 LBS	LGT3-SD525	(2) C916 (END + 13')	HTT4

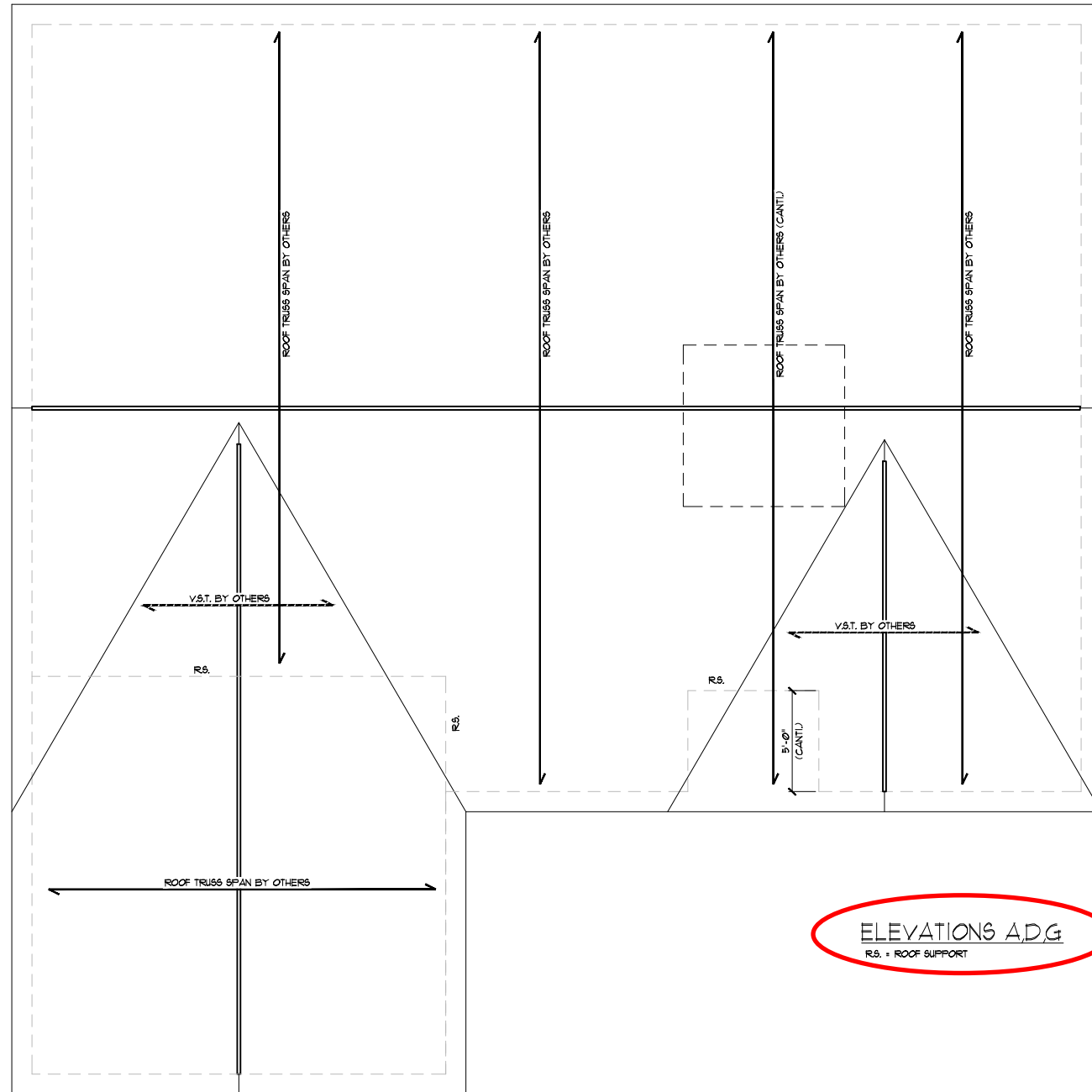
1. ALL PRODUCTS LISTED ARE SIMPSON STRONG-TIE. EQUIVALENT PRODUCTS MAY BE USED PER MANUFACTURER'S SPECIFICATIONS.
2. UPLIFT VALUES LISTED ARE FOR 6PF #2 GRADE MEMBERS.
3. REFER TO TRUSS LAYOUT PER MANUF. FOR UPLIFT VALUES AND TRUSS TO TRUSS CONNECTIONS. CONNECTORS SPECIFIED BY TRUSS MANUFACTURER OVERRIDE THOSE LISTED ABOVE.
4. CONTACT SUMMIT FOR REQUIRED CONNECTORS WHEN LOADS EXCEED THOSE LISTED ABOVE.

NOTE: 1ST PLY OF ALL SHOWN GIRDER TRUSSES TO ALIGN WITH INSIDE FACE OF WALL (TYP, UNO)

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

NOTE: TRUSS UPLIFT LOADS SHALL BE DETERMINED PER TRUSS MANUFACTURER IN ACCORDANCE WITH SECTION R602.11.11 WALL SHEATHING AND FASTENERS HAVE BEEN DESIGNED TO RESIST THE WIND UPLIFT LOAD PATH IN ACCORDANCE WITH METHOD 3 OF SECTION R602.3.5 OF THE 2018 NCRC. REFER TO BRACED WALL PLANS FOR SHEATHING AND FASTENER REQUIREMENTS.

THESE PLANS ARE DESIGNED IN ACCORDANCE WITH ARCHITECTURAL PLANS PROVIDED BY SMITH DOUGLAS HOMES COMPLETED/REVISED ON 10/11/2019. 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. CANNOT GUARANTEE THE ADEQUACY OF THESE STRUCTURAL PLANS WHEN USED WITH ARCHITECTURAL PLANS DATED DIFFERENTLY THAN THE DATE LISTED ABOVE.



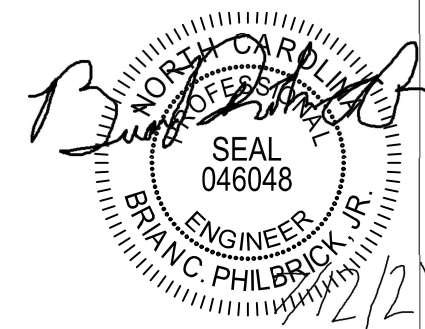
**STRUCTURAL MEMBERS ONLY**

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STRUCTURAL ANALYSIS BASED ON 2018 NCRC.

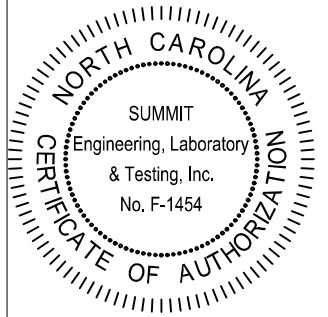
**ROOF FRAMING PLAN**

SCALE: 1/8"=1'



STRUCTURAL MEMBERS ONLY

**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  
Vining\$ (LH)  
**Roof Framing Plan**  
CLIENT  
Smith Douglas Homes - Raleigh  
2520 Reliance Ave  
Apex, NC 27539

**CURRENT DRAWING**  
DATE: 10/17/2019  
SCALE: 1/8"=1'-0"  
PROJECT #: 3832226R2  
DRAWN BY: MEB  
CHECKED BY: CNB

**ORIGINAL DRAWING**  
DATE PROJECT #  
08/07/2018 3832154

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

SHEET  
**S5.0**

Duncans  
Lot 14

REQUIRED BRACED WALL PANEL CONNECTIONS				
METHOD	MATERIAL	MIN. THICKNESS	REQUIRED CONNECTION	
			• PANEL EDGES	• INTERMEDIATE SUPPORTS
CS-WSP	WOOD STRUCTURAL PANEL	3/8"	6d COMMON NAILS @ 6" O.C.	6d COMMON NAILS @ 12" O.C.
GB	GYPSON BOARD	1/2"	5d COOLER NAILS** @ 1" O.C.	5d COOLER NAILS** @ 1" O.C.
WSP	WOOD STRUCTURAL PANEL	3/8"	6d COMMON NAILS @ 6" O.C.	6d COMMON NAILS @ 12" O.C.
FF	WOOD STRUCTURAL PANEL	1/16"	PER FIGURE R602.10.1	PER FIGURE R602.10.1

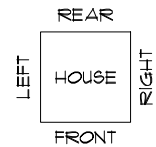
\*\*OR EQUIVALENT PER TABLE R702.3.5

**BRACED WALL NOTES:**

- WALLS SHALL BE DESIGNED IN ACCORDANCE WITH SECTION R602.10 FROM THE 2018 NORTH CAROLINA RESIDENTIAL CODE.
- 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 TABLE R602.10.1.
- 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.
- MINIMUM PANEL LENGTH SHALL BE PER TABLE R602.10.1.
- THE INTERIOR SIDE OF EXTERIOR WALLS AND BOTH SIDES OF INTERIOR WALLS SHALL BE SHEATHED CONTINUOUSLY WITH MINIMUM 1/2" GYPSON BOARD (UNO).
- FOR CONTINUOUS SHEATHING METHOD, EXTERIOR WALLS SHALL BE SHEATHED ON ALL SHEATHABLE SURFACES INCLUDING IN-fill AREAS 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 10 FEET OF EACH END OF A BRACED WALL LINE.
- THE MAXIMUM EDGE DISTANCE BETWEEN BRACED WALL PANELS SHALL NOT EXCEED 21 FEET.
- MASONRY OR CONCRETE STEM WALLS WITH A LENGTH OF 48" OR LESS SUPPORTING A BRACED WALL PANEL SHALL BE DESIGNED IN ACCORDANCE WITH FIGURE R602.10.4.3 OF THE 2018 NCRC.
- BRACED WALL PANEL CONNECTIONS TO FLOOR/CEILING SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION R602.10.4.4.
- BRACED WALL PANEL CONNECTION TO ROOF SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION R602.10.4.5.
- CRIPPLE WALLS AND WALK OUT BASEMENT WALLS SHALL BE DESIGNED IN ACCORDANCE WITH SECTION R602.10.4.6.
- PORTAL WALLS SHALL BE DESIGNED IN ACCORDANCE WITH FIGURE R602.10.1 (UNO).
- ON SCHEMATIC, SHADED WALLS INDICATE BRACED WALL PANELS.
- ABBREVIATIONS:

GB = GYPSON BOARD WSP = WOOD STRUCTURAL PANEL  
 CS-XXX = CONT. SHEATHED ENG = ENGINEERED SOLUTION  
 FF = PORTAL FRAME FF-ENG = ENG. PORTAL FRAME

THESE PLANS ARE DESIGNED IN ACCORDANCE WITH ARCHITECTURAL PLANS PROVIDED BY SMITH DOUGLAS HOMES COMPLETED/REVISED ON 10/11/2019. 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. CANNOT GUARANTEE THE ADEQUACY OF THESE STRUCTURAL PLANS WHEN USED WITH ARCHITECTURAL PLANS DATED DIFFERENTLY THAN THE DATE LISTED ABOVE.



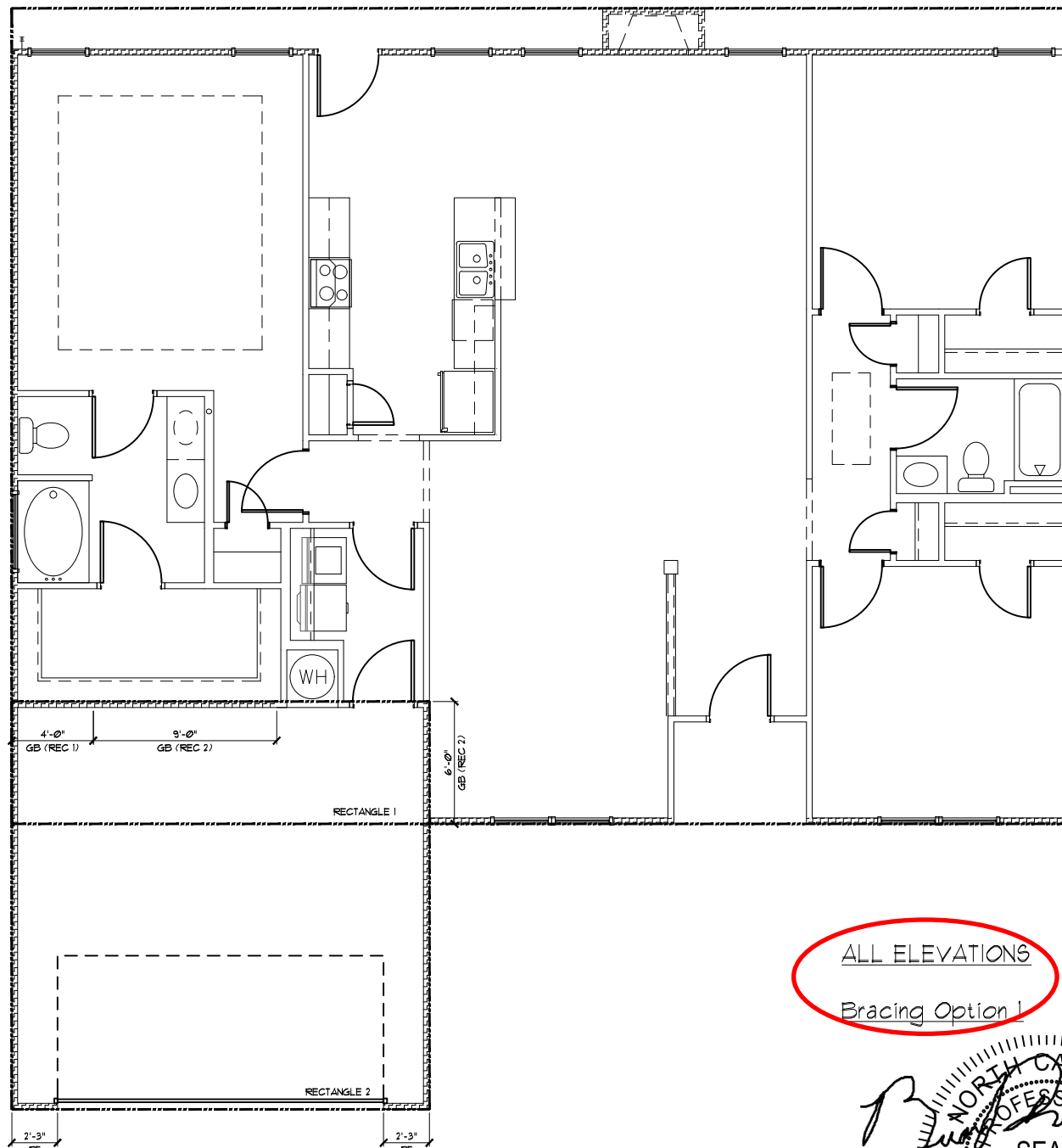
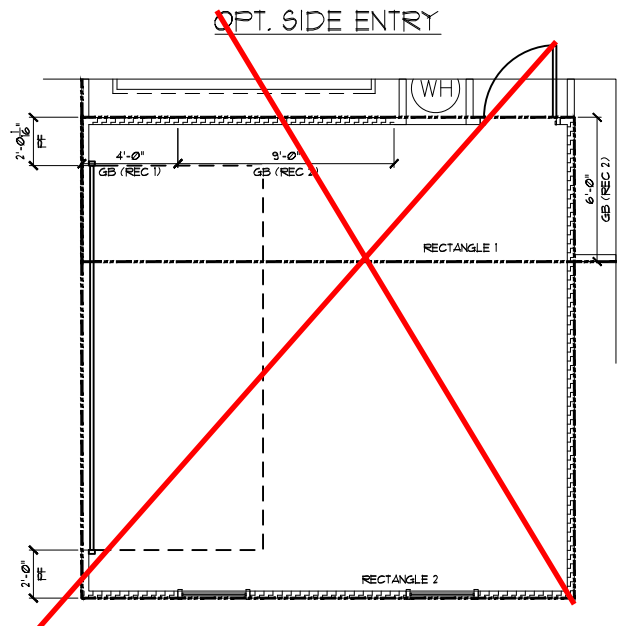
FIRST FLOOR BRACING (FT)		
CONTINUOUS SHEATHING METHOD: SIDE ENTRY RECTANGLE 1		
	REQUIRED	PROVIDED
FRONT	5.8	15.0
RIGHT	7.4	34.0
REAR	5.8	24.6
LEFT	7.4	28.3

FIRST FLOOR BRACING (FT)		
CONTINUOUS SHEATHING METHOD: SIDE ENTRY RECTANGLE 2		
	REQUIRED	PROVIDED
FRONT	3.0	14.5
RIGHT	3.1	17.0
REAR	3.0	4.5
LEFT	3.1	6.0

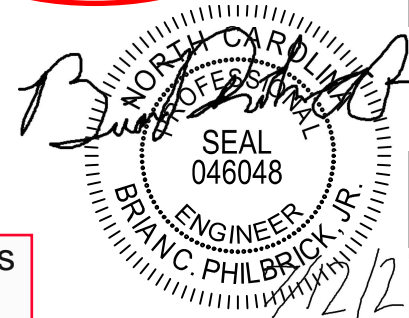
FIRST FLOOR BRACING (FT)		
CONTINUOUS SHEATHING METHOD: RECTANGLE 1		
	REQUIRED	PROVIDED
FRONT	5.8	17.0
RIGHT	7.4	13.1
REAR	5.8	34.0
LEFT	7.4	37.3

FIRST FLOOR BRACING (FT)		
CONTINUOUS SHEATHING METHOD: RECTANGLE 2		
	REQUIRED	PROVIDED
FRONT	3.0	17.0
RIGHT	3.1	13.1
REAR	3.0	34.0
LEFT	3.1	37.3

INSTALL HOLD-DOWNS PER SECTION R602.10.4 AND FIGURE R602.10.3.1.4) OF THE 2018 NCRC.



ALL ELEVATIONS  
 Bracing Option 1



Duncans  
 Lot 14

STRUCTURAL MEMBERS ONLY

**STRUCTURAL MEMBERS ONLY**

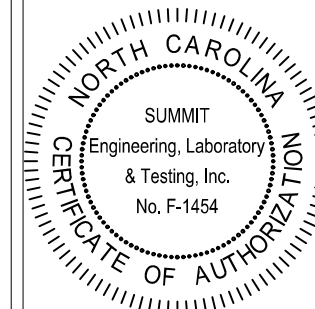
ENGINEERING SEAL APPLIES ONLY TO STRUCTURAL COMPONENTS ON THIS DOCUMENT. SEAL DOES NOT INCLUDE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES OR SAFETY PRECAUTIONS. ANY DEVIATIONS OR DISCREPANCIES ON PLANS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF SUMMIT ENGINEERING, LABORATORY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

STRUCTURAL ANALYSIS BASED ON 2018 NCRC.

**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



PROJECT  
 Vining\$ (LH)  
 First Floor Bracing  
 CLIENT  
 Smith Douglas Homes - Raleigh  
 2520 Reliance Ave  
 Apex, NC 27539

**CURRENT DRAWING**

DATE: 10/17/2019

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

PROJECT #: 3832.226R2

DRAWN BY: MEB

CHECKED BY: CNB

**ORIGINAL DRAWING**

DATE PROJECT #  
 08/07/2018 3832.154

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

SHEET

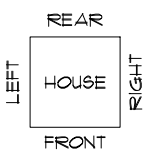
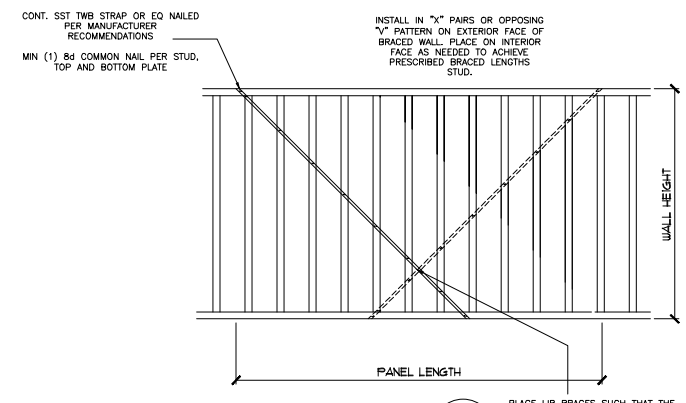
**S7.0**

REQUIRED BRACED WALL PANEL CONNECTIONS				
METHOD	MATERIAL	MIN. THICKNESS	REQUIRED CONNECTION	
			* PANEL EDGES	* INTERMEDIATE SUPPORTS
CS-WSP	WOOD STRUCTURAL PANEL	3/8"	6d COMMON NAILS * 6" O.C.	6d COMMON NAILS * 12" O.C.
GB	GYPSPUM BOARD	1/2"	5d COOLER NAILS** * 1" O.C.	5d COOLER NAILS** * 1" O.C.
WSP	WOOD STRUCTURAL PANEL	3/8"	6d COMMON NAILS * 6" O.C.	6d COMMON NAILS * 12" O.C.
PF	WOOD STRUCTURAL PANEL	7/16"	PER FIGURE R602.10.1	PER FIGURE R602.10.1

\*OR EQUIVALENT PER TABLE R102.3.5

SEE SHEET S7.0 FOR NOTES AND MORE INFORMATION

- BRACED WALL NOTES:**
- WALLS SHALL BE DESIGNED IN ACCORDANCE WITH SECTION R602.10 FROM THE 2018 NORTH CAROLINA RESIDENTIAL CODE.
  - WALLS ARE DESIGNED FOR SEISMIC ZONES A-C AND ULTIMATE WIND SPEEDS UP TO 150 MPH.
  - REFER TO ARCHITECTURAL PLAN FOR DOOR/WINDOW OPENING SIZES.
  - BRACING MATERIALS, METHODS AND FASTENERS SHALL BE IN ACCORDANCE WITH TABLE R602.10.1.
  - 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.
  - MINIMUM PANEL LENGTH SHALL BE PER TABLE R602.10.1.
  - THE INTERIOR SIDE OF EXTERIOR WALLS AND BOTH SIDES OF INTERIOR WALLS SHALL BE SHEATHED CONTINUOUSLY WITH MINIMUM 1/2" GYPSPUM BOARD (UNO).
  - FOR CONTINUOUS SHEATHING METHOD EXTERIOR WALLS SHALL BE SHEATHED ON ALL SHEATHABLE SURFACES INCLUDING INFILL AREAS 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 21 FEET.
  - MASONRY OR CONCRETE STEM WALLS WITH A LENGTH OF 48" OR LESS SUPPORTING A BRACED WALL PANEL SHALL BE DESIGNED IN ACCORDANCE WITH FIGURE R602.10.4.3 OF THE 2018 NCRC.
  - BRACED WALL PANEL CONNECTIONS TO FLOOR/CEILING SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION R602.10.4.4.
  - BRACED WALL PANEL CONNECTIONS TO ROOF SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION R602.10.4.5.
  - CRIPPLE WALLS AND WALK OUT BASEMENT WALLS SHALL BE DESIGNED IN ACCORDANCE WITH SECTION R602.10.4.6.
  - PORTAL WALLS SHALL BE DESIGNED IN ACCORDANCE WITH FIGURE R602.10.1 (UNO).
  - ON SCHEMATIC, SHADED WALLS INDICATE BRACED WALL PANELS.
  - ABBREVIATIONS:
- GB = GYPSPUM BOARD      WSP = WOOD STRUCTURAL PANEL  
CS-XXX = CONT. SHEATHED      ENG = ENGINEERED SOLUTION  
PF = PORTAL FRAME      PF-ENG = ENG. PORTAL FRAME



FIRST FLOOR BRACING (FT)		
CONTINUOUS SHEATHING METHOD: SIDE ENTRY RECTANGLE 1		
	REQUIRED	PROVIDED
FRONT	5.8	15.0
RIGHT	7.4	12
REAR	5.8	13.6
LEFT	7.4	11.3

FIRST FLOOR BRACING (FT)		
CONTINUOUS SHEATHING METHOD: SIDE ENTRY RECTANGLE 2		
	REQUIRED	PROVIDED
FRONT	3.0	21.5
RIGHT	3.1	12
REAR	3.0	13.6
LEFT	3.1	14.5

THESE PLANS ARE DESIGNED IN ACCORDANCE WITH ARCHITECTURAL PLANS PROVIDED BY SMITH DOUGLAS HOMES. HOME'S COMPLETED/REVISED ON 10/11/2019. 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. CANNOT 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: RECTANGLE 1		
	REQUIRED	PROVIDED
FRONT	5.8	15.0
RIGHT	7.4	12.0
REAR	5.8	13.6
LEFT	7.4	11.3

FIRST FLOOR BRACING (FT)		
CONTINUOUS SHEATHING METHOD: RECTANGLE 2		
	REQUIRED	PROVIDED
FRONT	3.0	11.5
RIGHT	3.1	12.0
REAR	3.0	13.6
LEFT	3.1	14.5

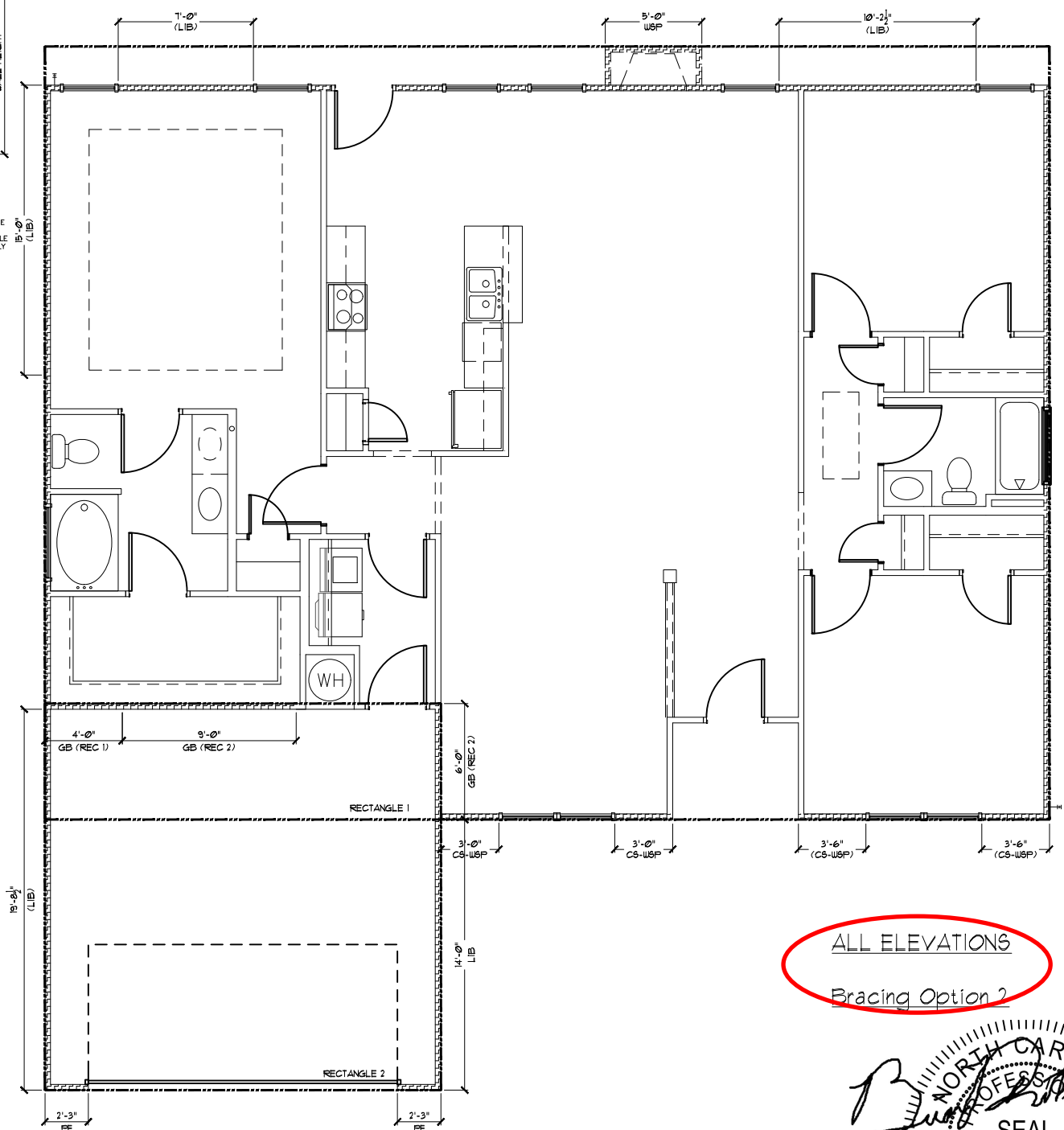
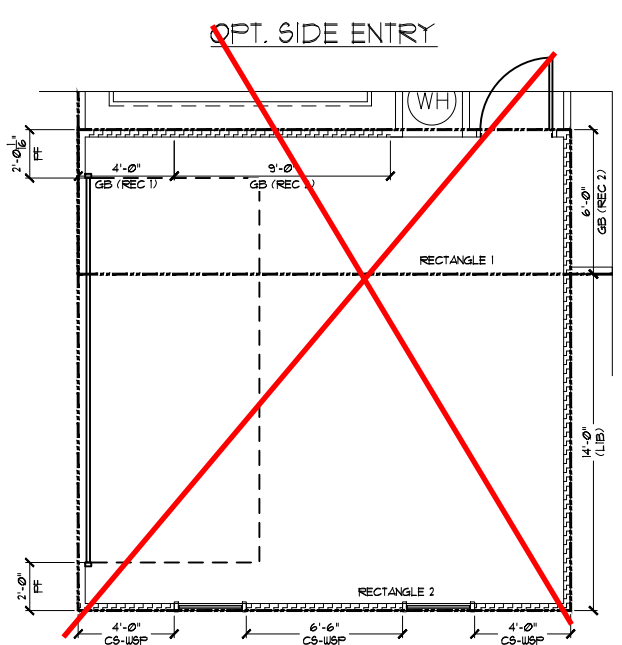
INSTALL HOLD-DOWNS PER SECTION R602.10.4 AND FIGURE R602.10.3(4) OF THE 2018 NCRC.

**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.

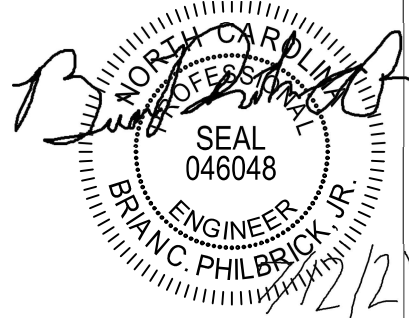
STRUCTURAL ANALYSIS BASED ON 2018 NCRC.

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

INSTALL HOLD-DOWNS PER SECTION R602.10.4 AND FIGURE R602.10.3(4) OF THE 2018 NCRC.



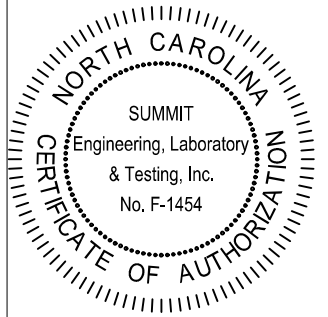
ALL ELEVATIONS  
Bracing Option 2



Duncans  
Lot 14

STRUCTURAL MEMBERS ONLY

**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  
Vining's (LH)  
**First Floor Bracing**  
CLIENT  
Smith Douglas Homes - Raleigh  
2520 Reliance Ave  
Apex, NC 27539

**CURRENT DRAWING**  
DATE: 10/17/2019  
SCALE: 1/8"=1'-0"  
PROJECT #: 3832.226R2  
DRAWN BY: MEB  
CHECKED BY: CNB

**ORIGINAL DRAWING**  
DATE PROJECT #  
08/07/2018 3832.154

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

SHEET  
**S7.1**

**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:**

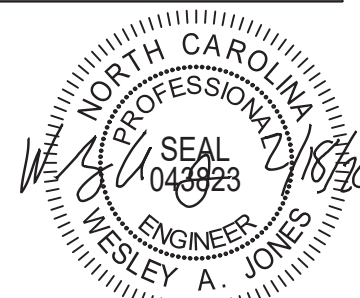
- Fabrication and placement of structural fiberboard sheathing shall be in accordance with the applicable AFA standards.
- Fiberboard wall sheathing shall comply with the requirements of local building codes for the appropriate state as indicated on these drawings. Refer to wall bracing notes in plan 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:**

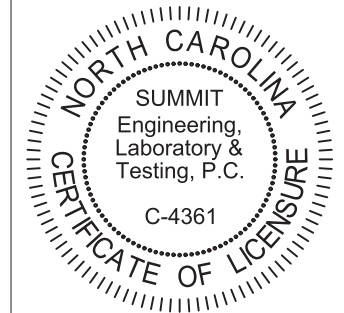
- Decks are to be framed in accordance with local building codes and as referenced on the structural plans, either through code references or construction details.

**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.



STRUCTURAL MEMBERS ONLY



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

**ORIGINAL DRAWING**

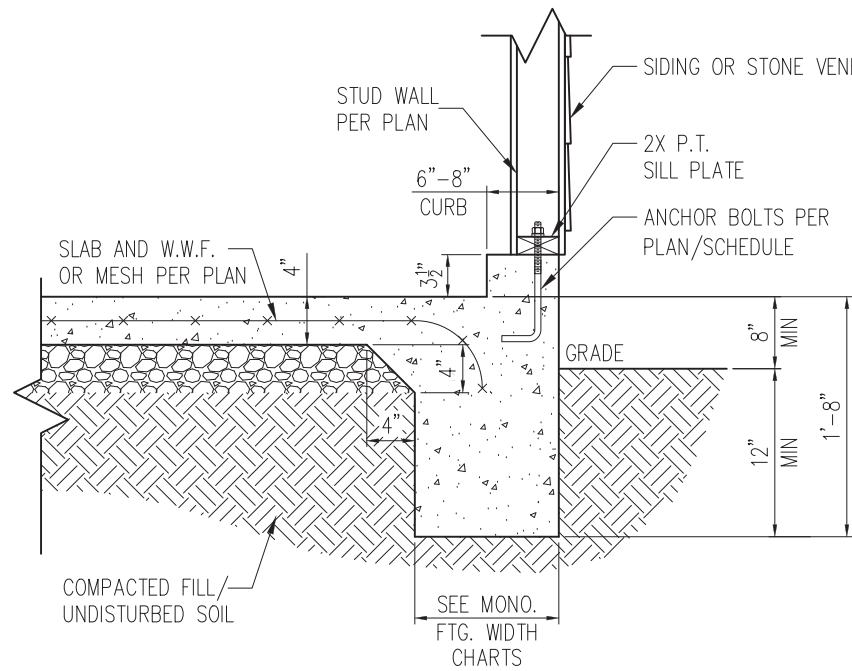
NO.	DATE	PROJECT #
0	1/7/16	3832

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

**SHEET**

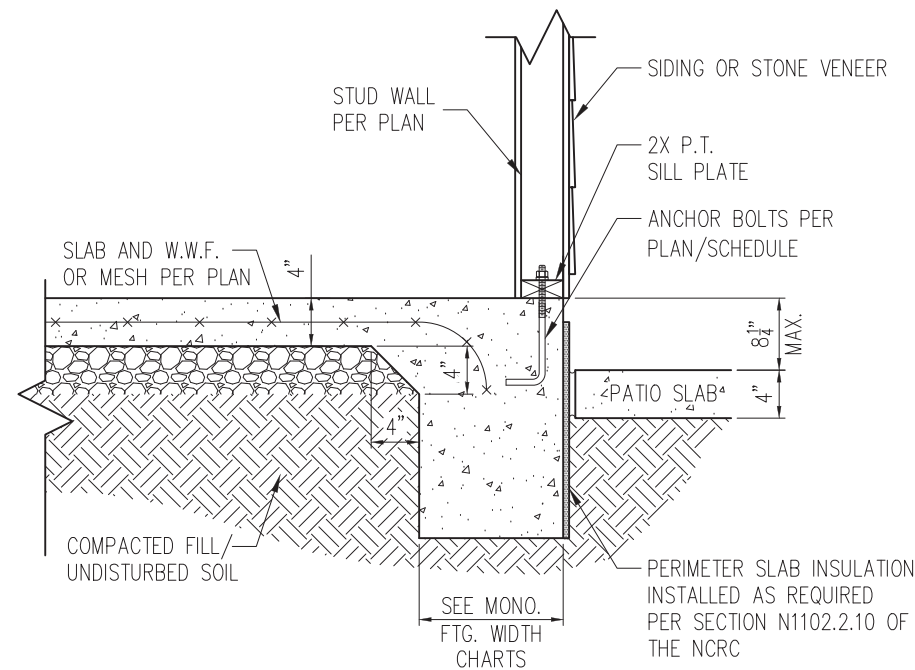
**CS2**





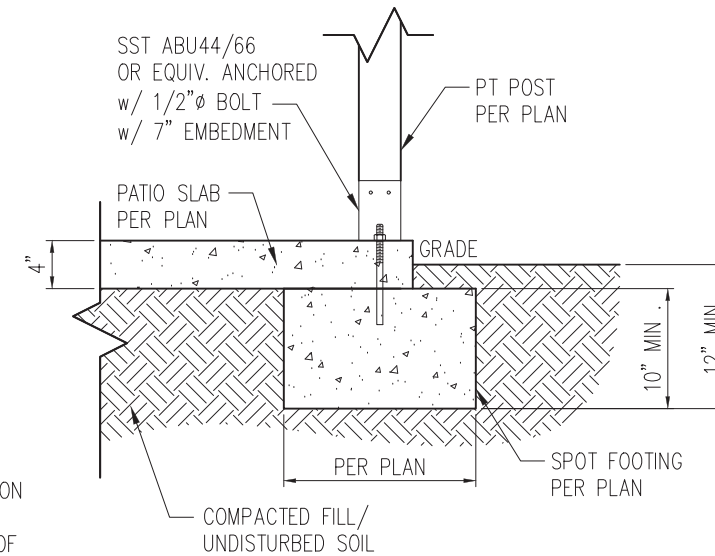
STANDARD - SIDING/STONE

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

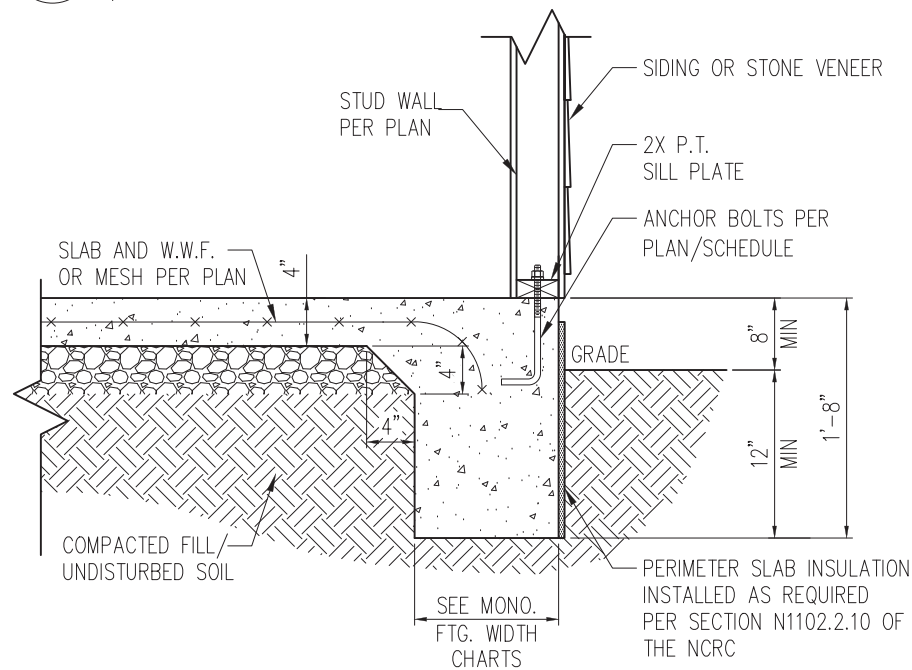


STANDARD - SIDING/STONE

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

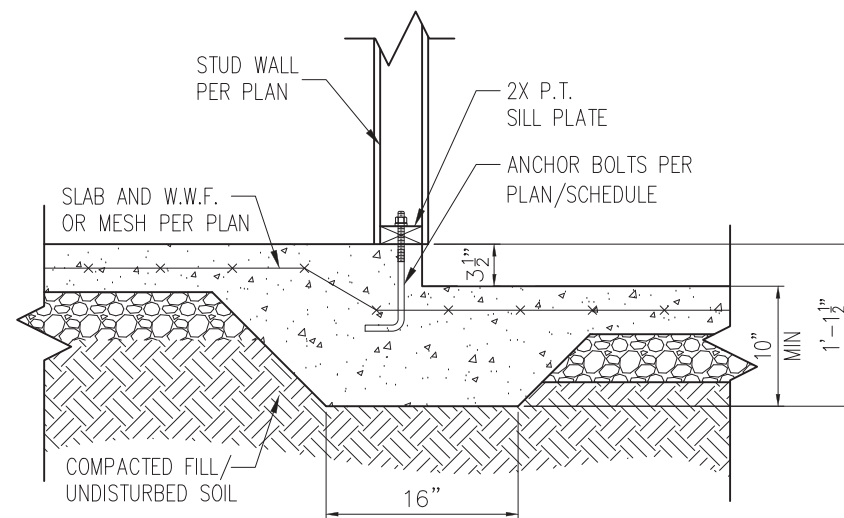


2A COVERED PATIO DETAIL  
D1m 3/4" = 1'-0"



STANDARD - SIDING/STONE

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



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

- 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.

WALL ANCHOR SCHEDULE

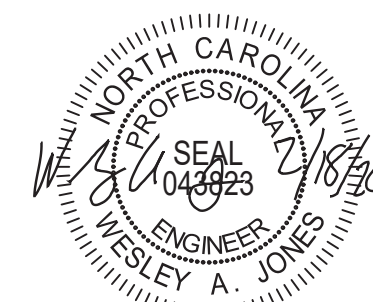
TYPE OF ANCHOR	MIN. CONC. EMBEDMENT	SPACING EMBEDMENT	INTERIOR WALL	EXTERIOR WALL
1/2" A307 BOLTS w/ STD. 90° BEND	7"	6'-0"	YES	YES
SST - MAS	4"	5'-0"	NO	YES
HILTI KWIK BOLT KBI 1/2-2-3/4	2-1/4"	6'-0"	YES	NO
1/2" HILTI THREADED ROD w/ HIT HY150 ADHESIVE	7"	6'-0"	YES	YES

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

MONOLITHIC FOOTING WIDTH

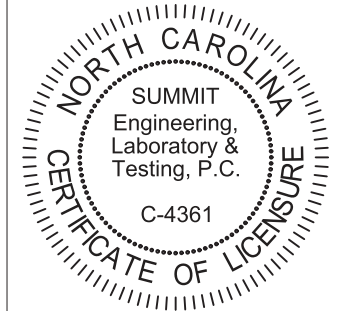
# OF STORIES	WIDTH BASED ON SOIL BEARING CAPACITY		
	1500 PSF	2000 PSF	2500 PSF
1 STORY - STD.	16"	16"	16"
1 STORY - BRICK VENEER	21"	21"	21"
2 STORY - STD.	20"	16"	16"
2 STORY - BRICK VENEER	25"	21"	21"

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



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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  
SCALE: NTS  
PROJECT #: 3832  
DRAWN BY: LBV  
CHECKED BY: WAJ

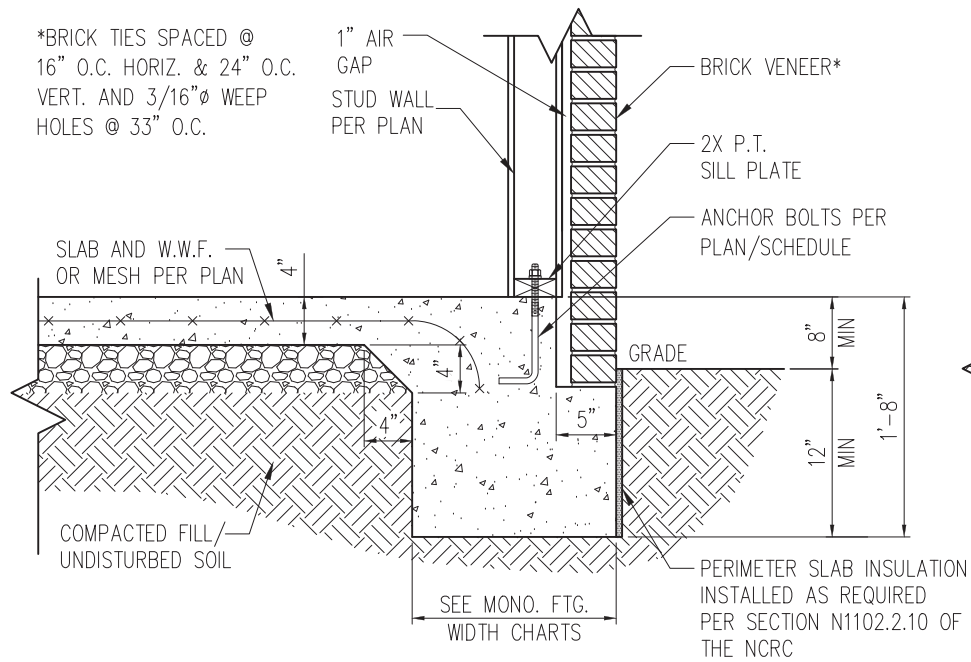
ORIGINAL DRAWING  
NO. DATE PROJECT #  
0 1/7/16 3832

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

SHEET

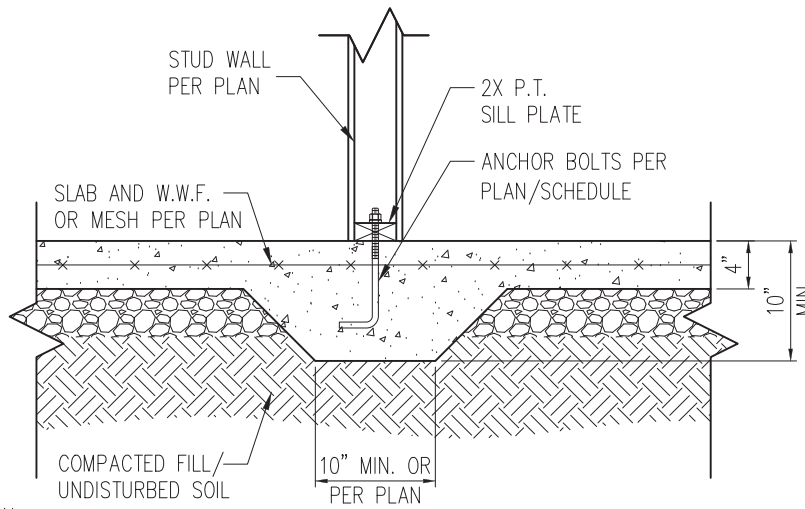
D1m

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



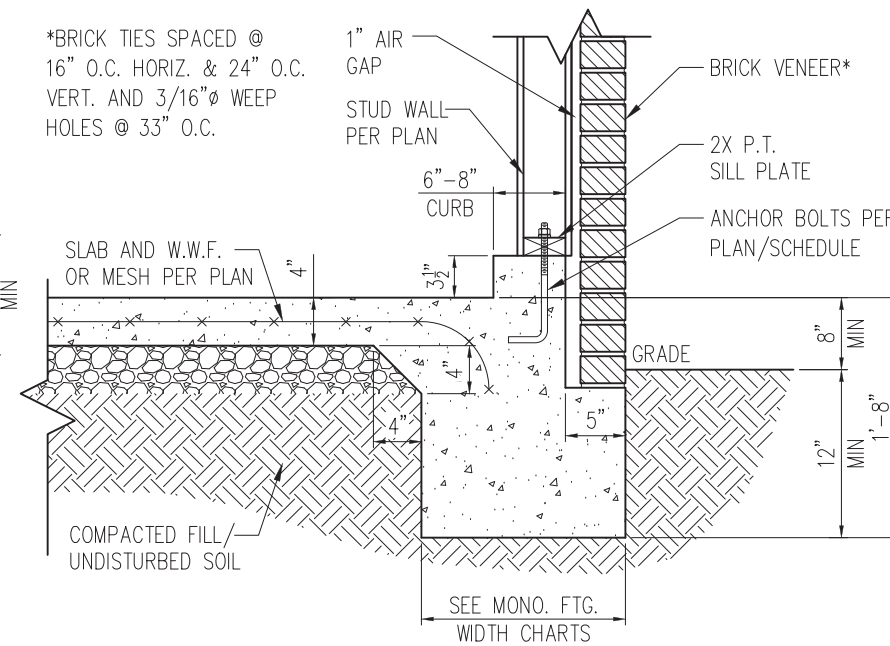
STANDARD - BRICK

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



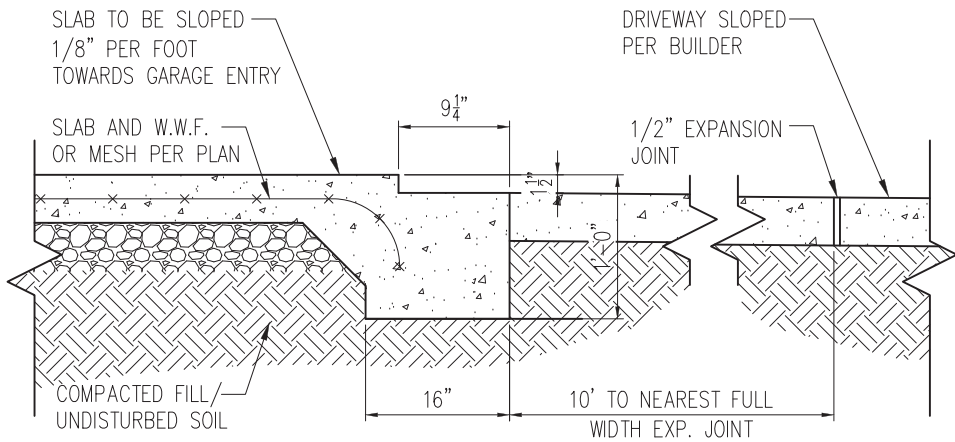
3 TYP. THICKENED SLAB DETAIL  
D2m 3/4" = 1'-0"

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

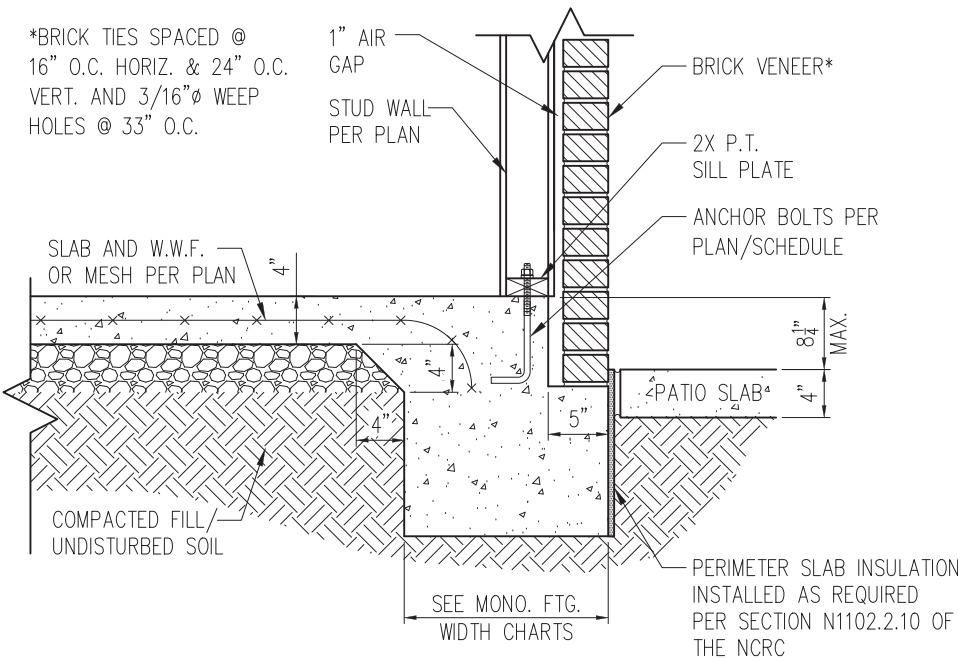


STANDARD - BRICK

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"

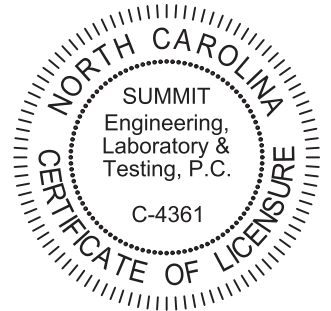
NOTES:

1. REFER TO GENERAL NOTES & SPECIFICATIONS ON SHEET CS2 FOR ADDITIONAL INFORMATION.
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PROJECT  
**Standard Details**  
**Monolithic Slab Details**  
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

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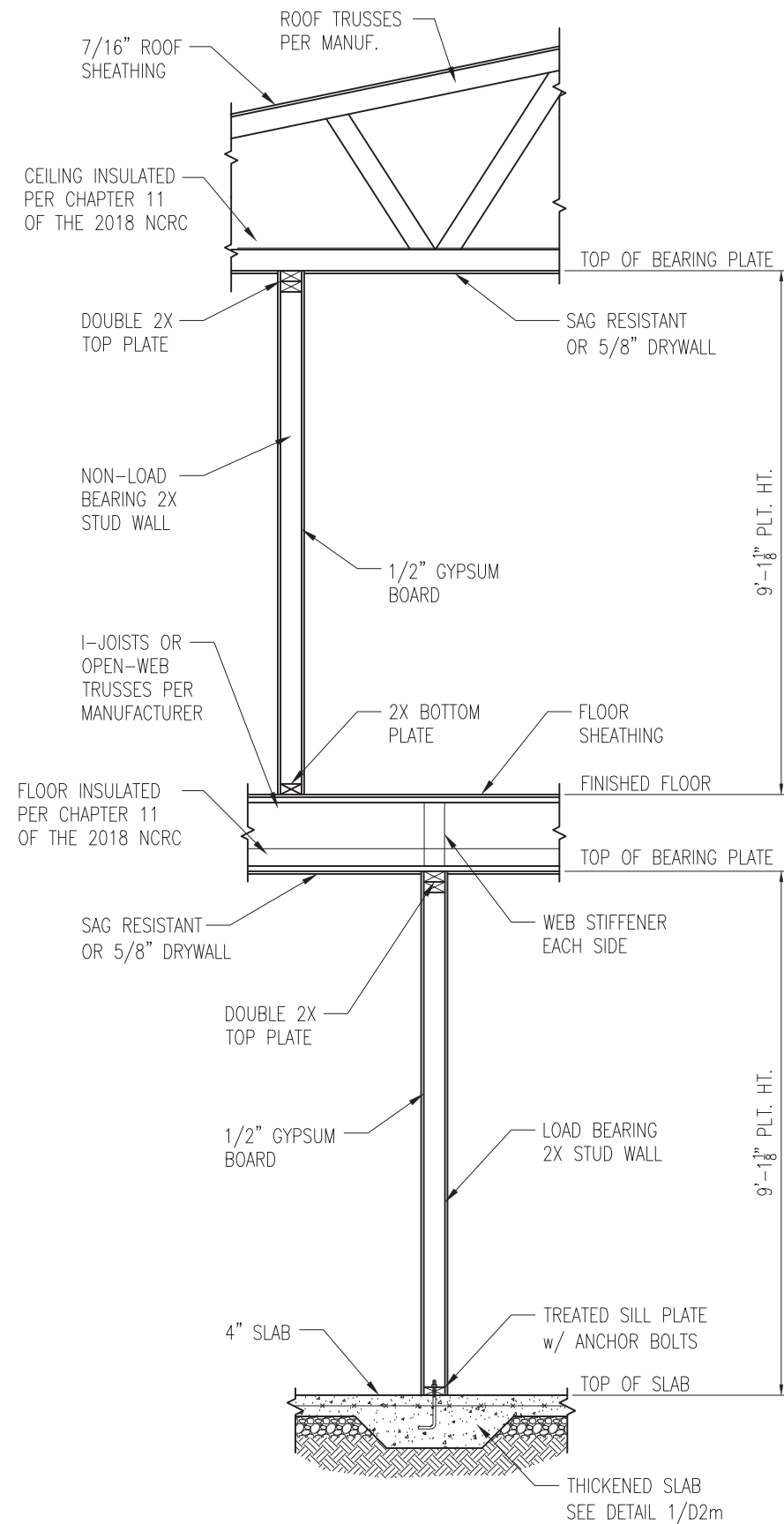
ORIGINAL DRAWING

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

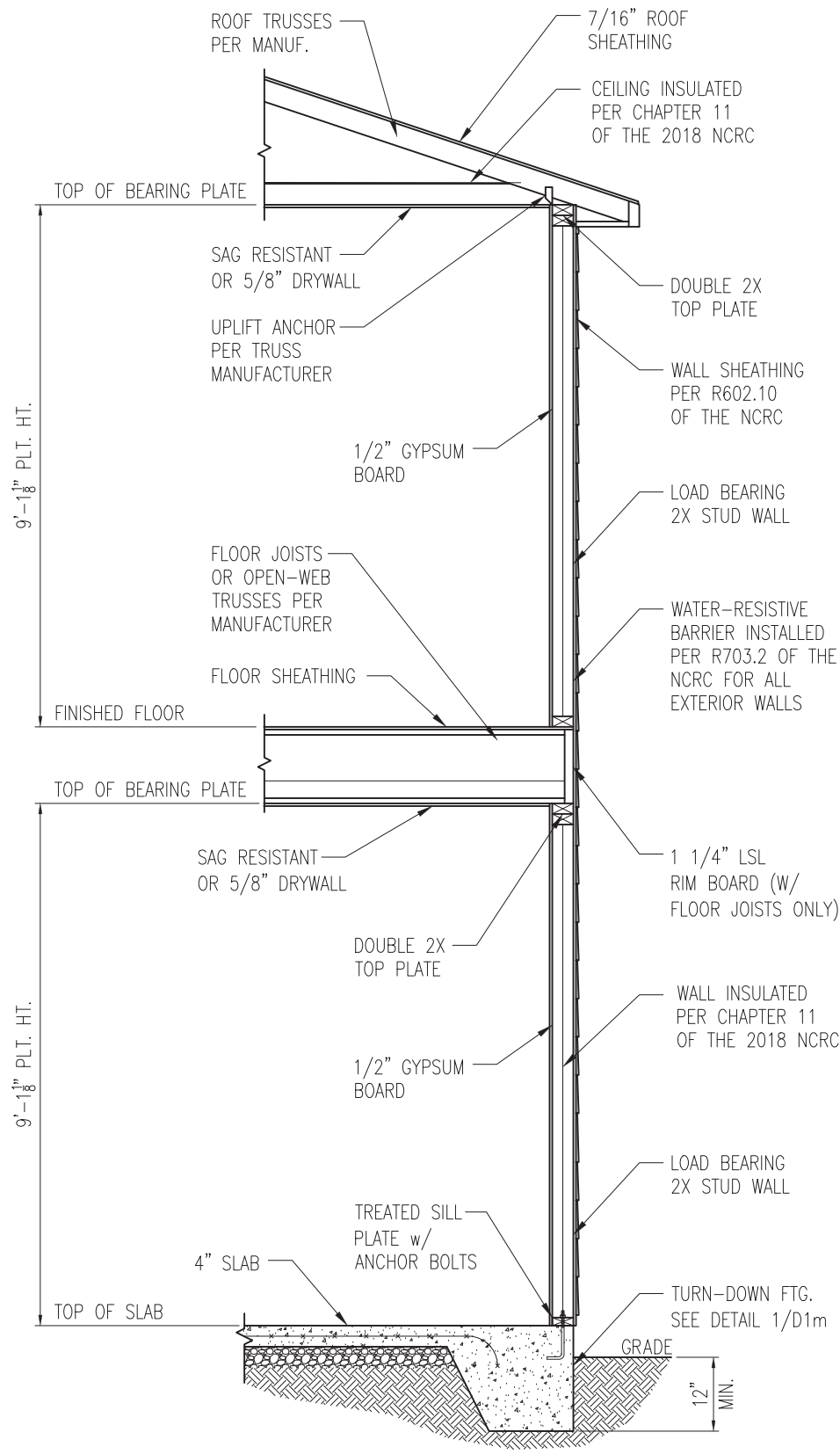
REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

SHEET

**D2m**



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

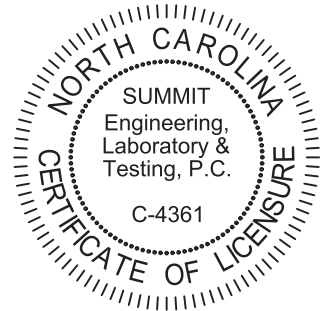


2 TYP. EXTERIOR LOAD BEARING WALL SECTION  
 D3m 3/4" = 1'-0"  
 -SIMILAR w/ BRICK AND STONE  
 -BRICK TIES SPACED @ 16" O.C. HORIZ. & 24" O.C. VERT.  
 -MIN. 3/16" Ø WEEP HOLES @ 33" O.C.

- NOTES:
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  2. PROVIDE 6 MIL VAPOR BARRIER UNDER ALL SLABS-ON-GRADE.
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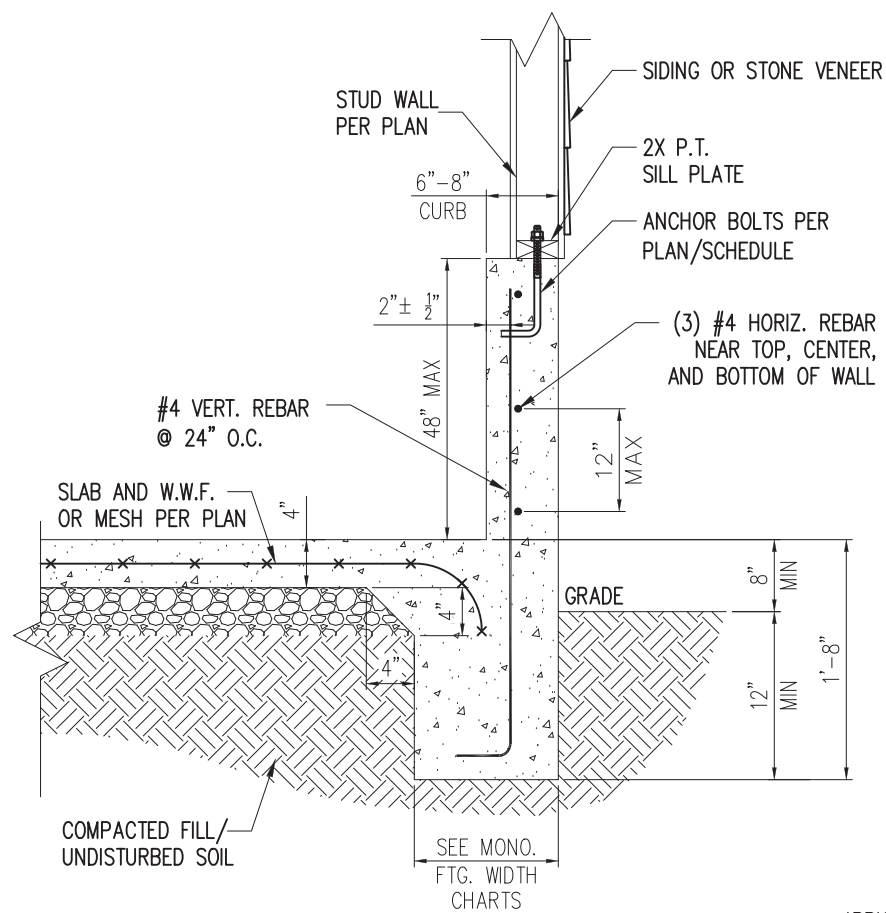
PROJECT  
**Standard Details**  
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 110 Village Trail, Suite 215  
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CURRENT DRAWING  
 DATE: 2/18/20  
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ORIGINAL DRAWING  
 NO. DATE PROJECT #  
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REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

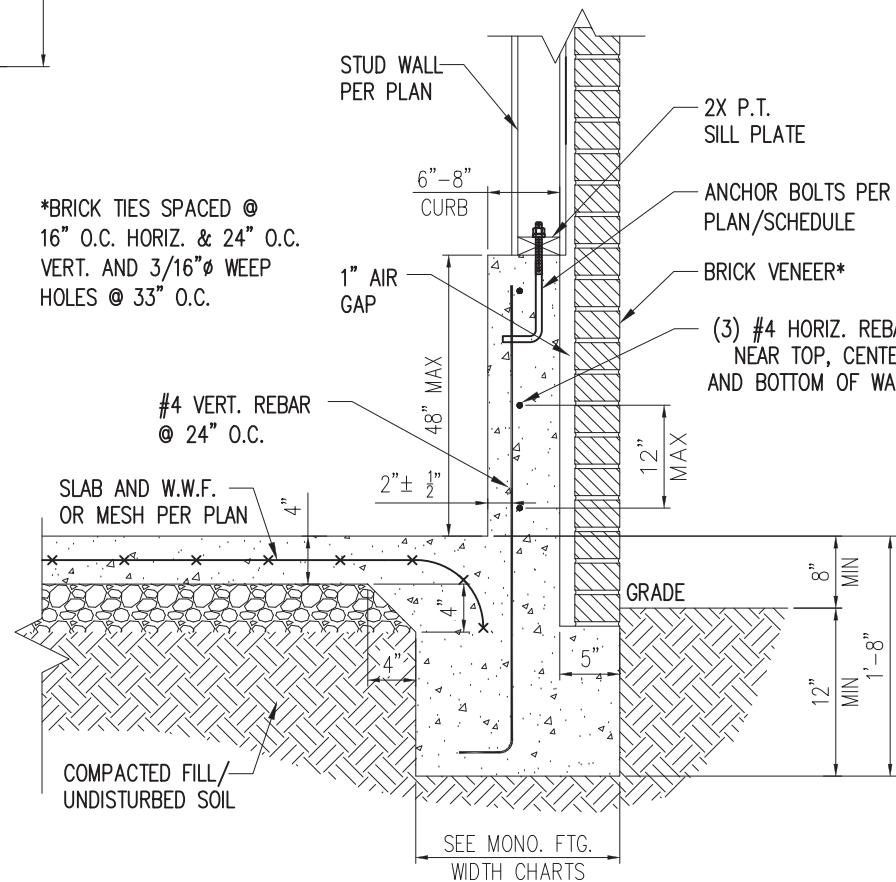
SHEET  
**D3m**



STANDARD - SIDING/STONE

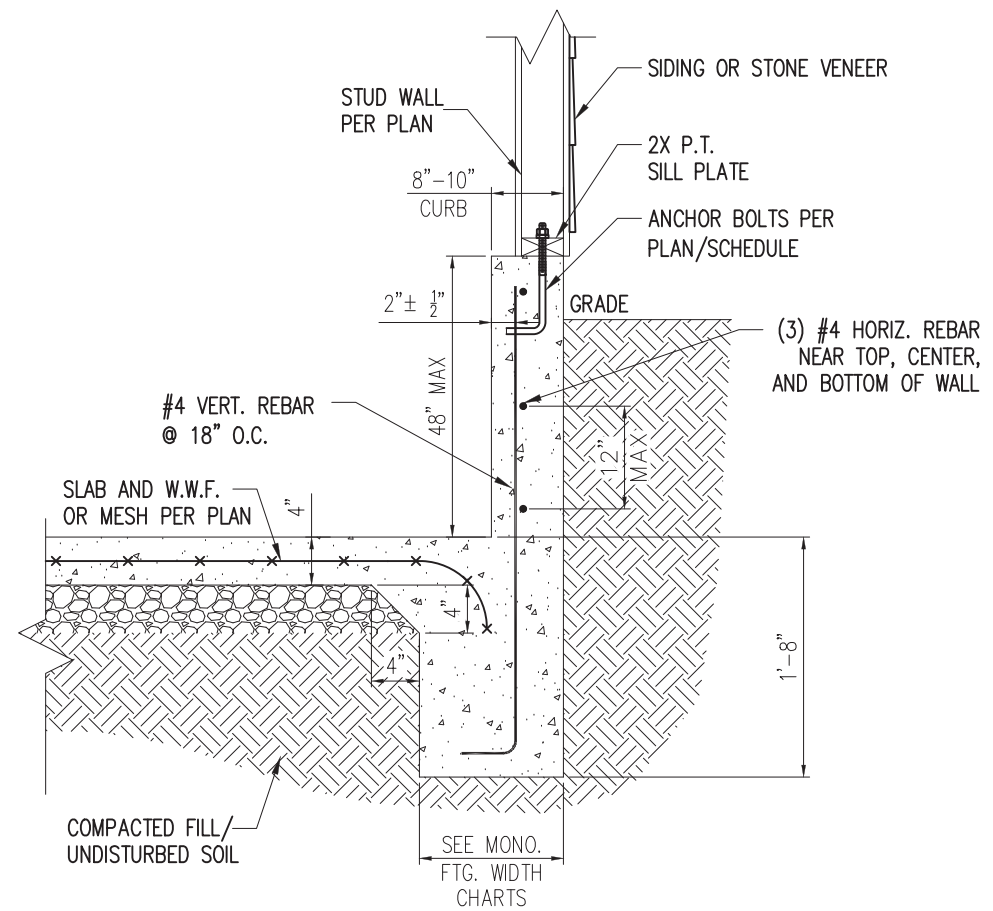
1 EXTENDED GARAGE CURB DETAIL  
D4m NTS

\*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



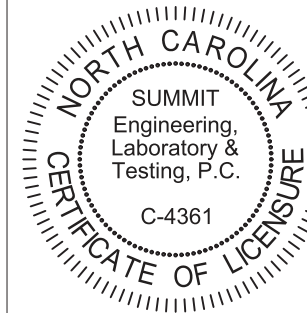
STANDARD - SIDING/STONE

2 EXTENDED GARAGE CURB DETAIL  
W/ UNBALANCED FILL  
D4m NTS



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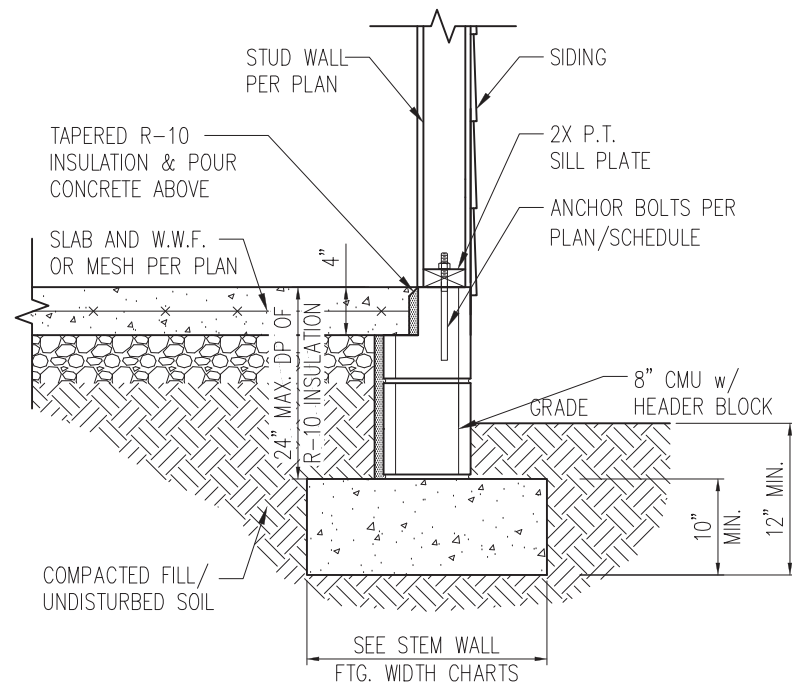
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DATE: 2/18/20  
SCALE: NTS  
PROJECT #: 3832  
DRAWN BY: LBV  
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ORIGINAL DRAWING  
NO. DATE PROJECT #  
0 1/7/16 3832

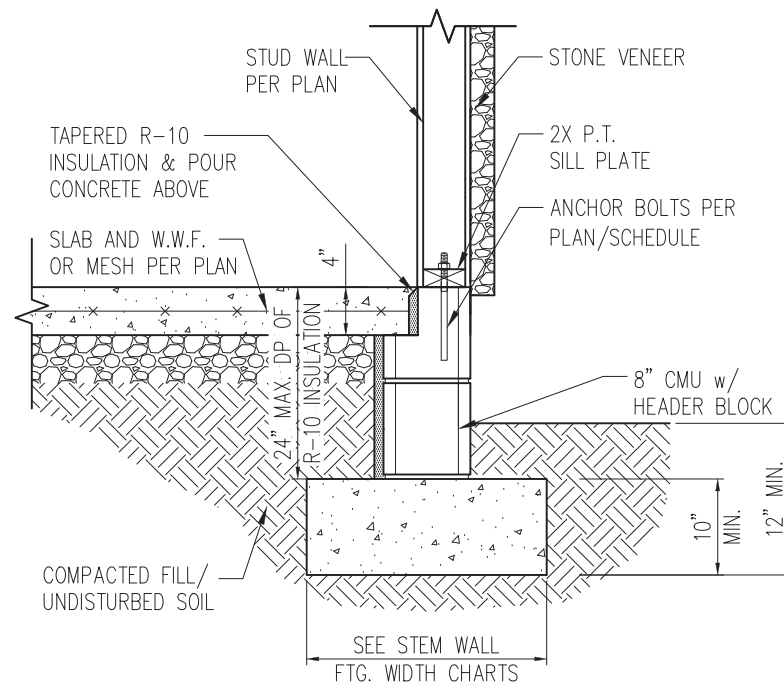
REFER TO COVER SHEET FOR A  
COMPLETE LIST OF REVISIONS

SHEET

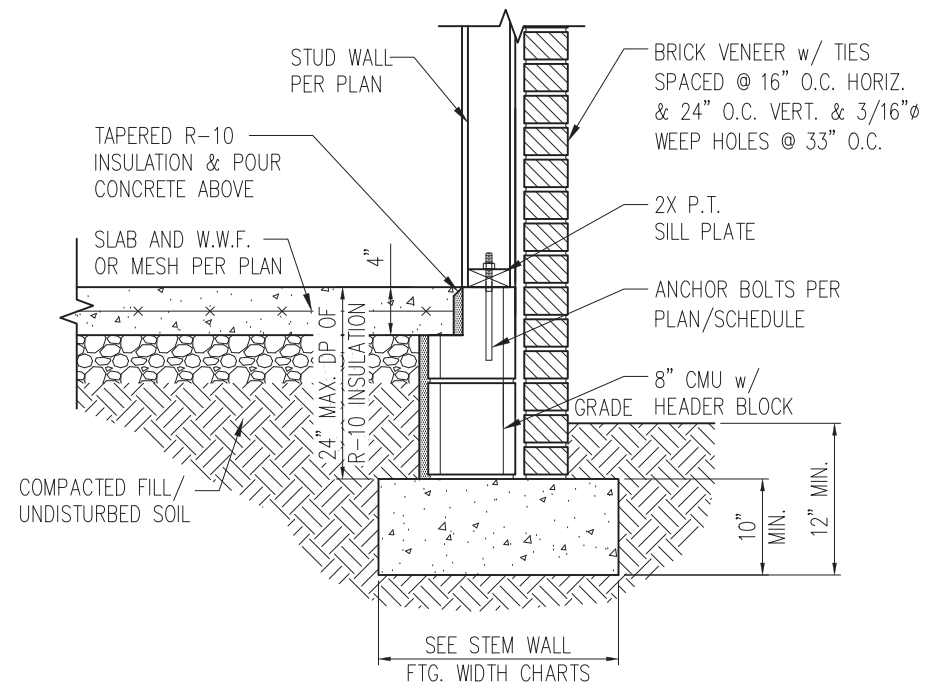
D4m



STANDARD - SIDING

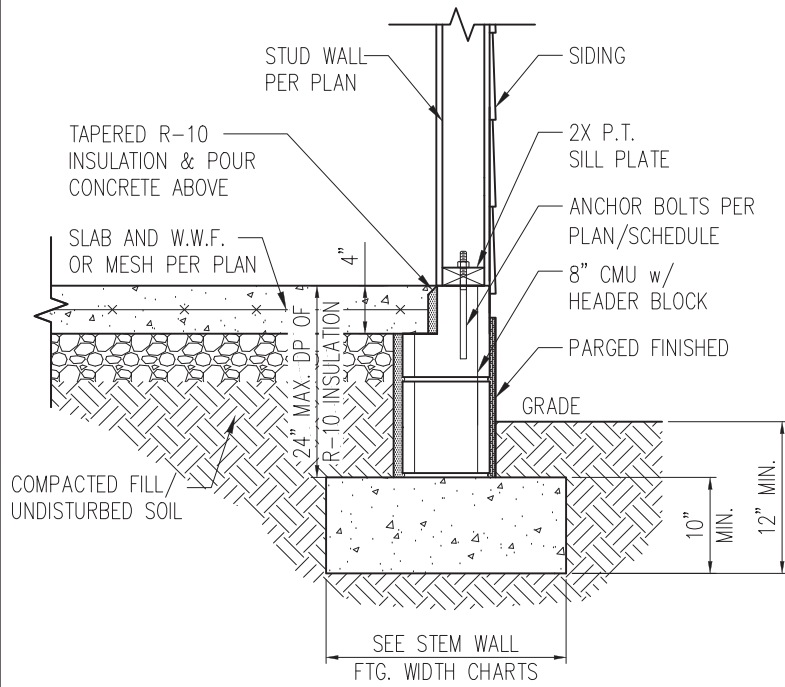


STANDARD - STONE

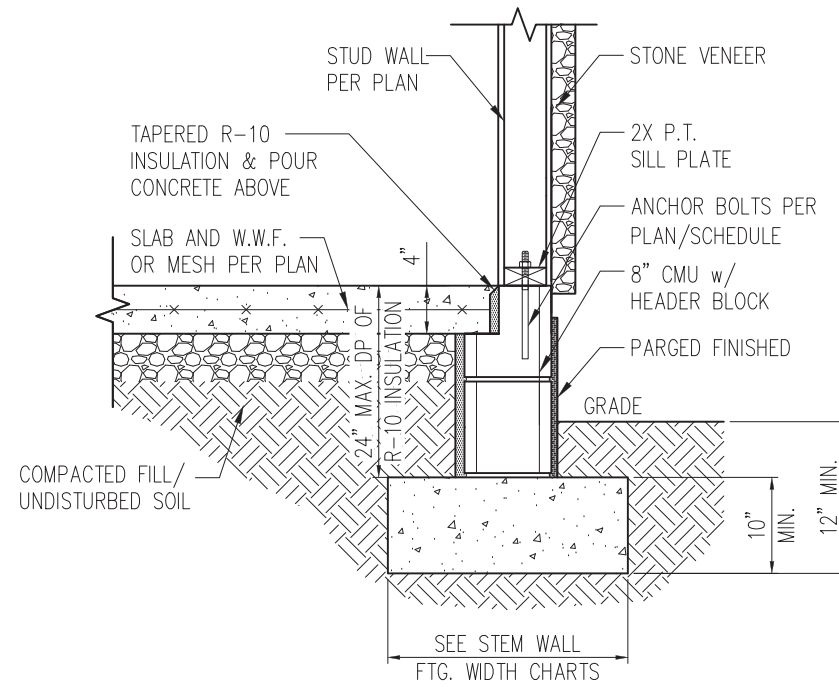


STANDARD - BRICK

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

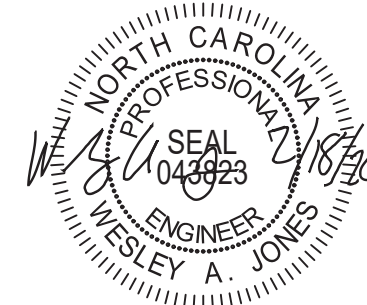
WALL ANCHOR SCHEDULE

TYPE OF ANCHOR	MIN. CONC. EMBEDMENT	SPACING EMBEDMENT	INTERIOR WALL	EXTERIOR 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.

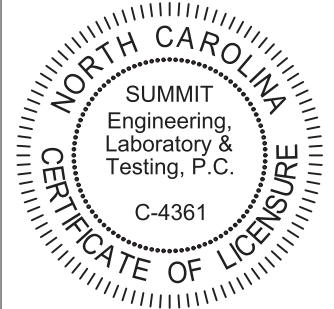
NOTES:

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PROJECT  
**Standard Details**  
**Stemwall Details**  
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

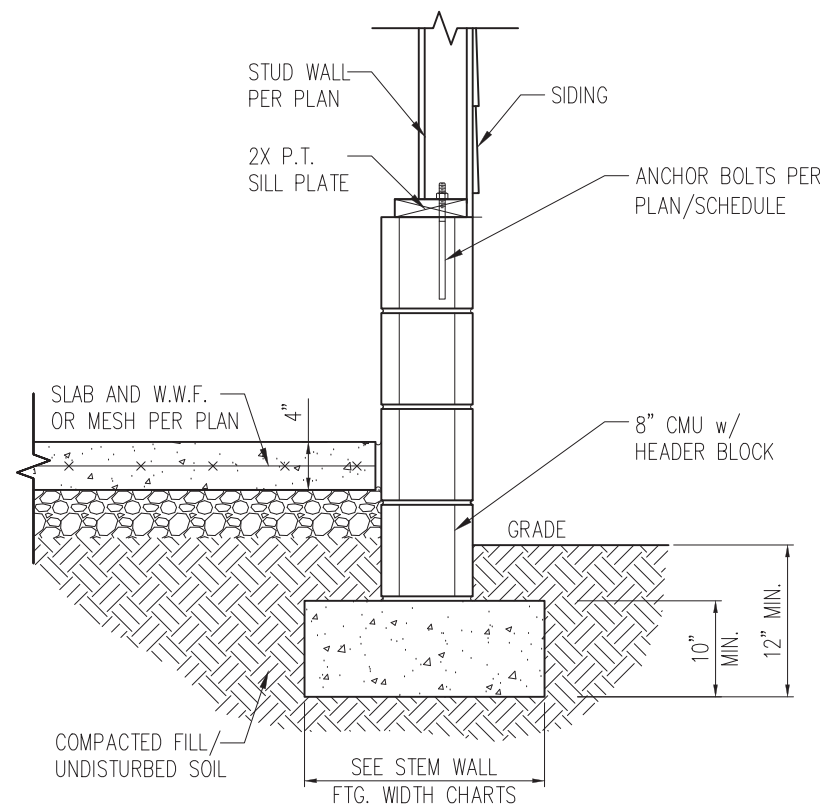
ORIGINAL DRAWING

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

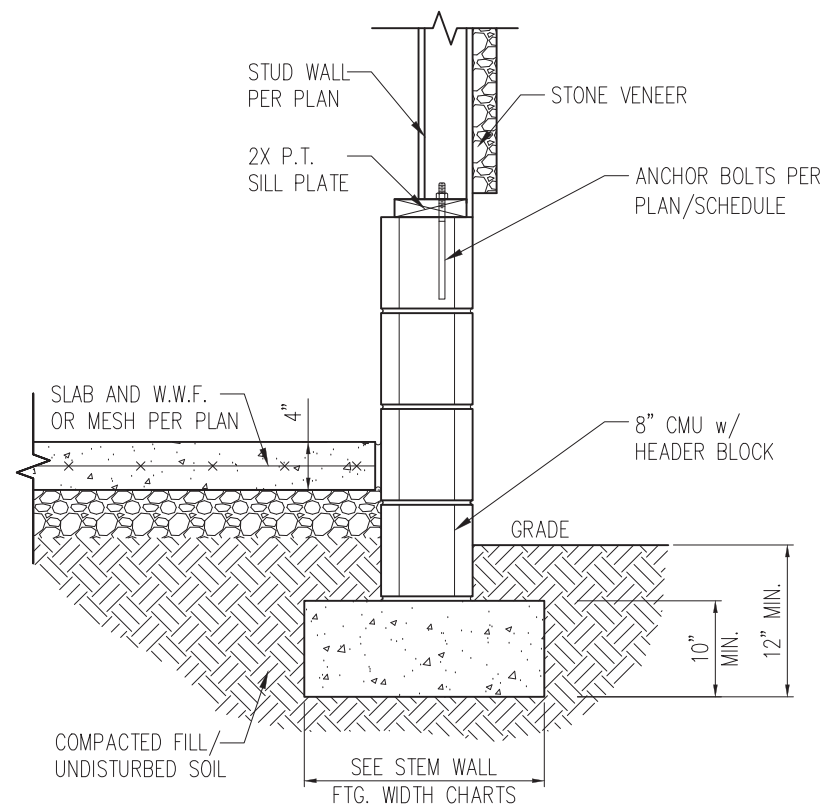
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SHEET

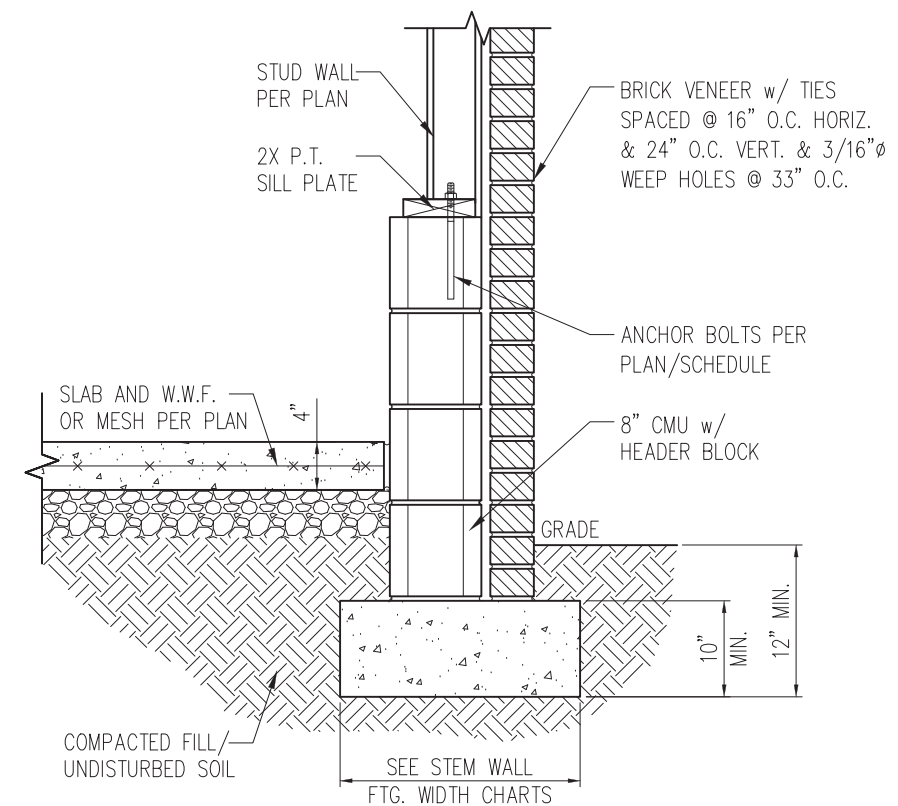
**D1s**



STANDARD - SIDING

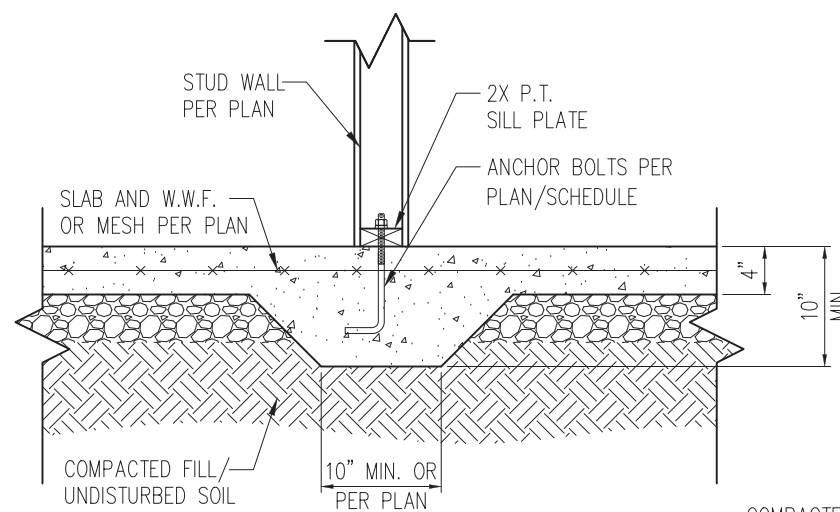


STANDARD - STONE

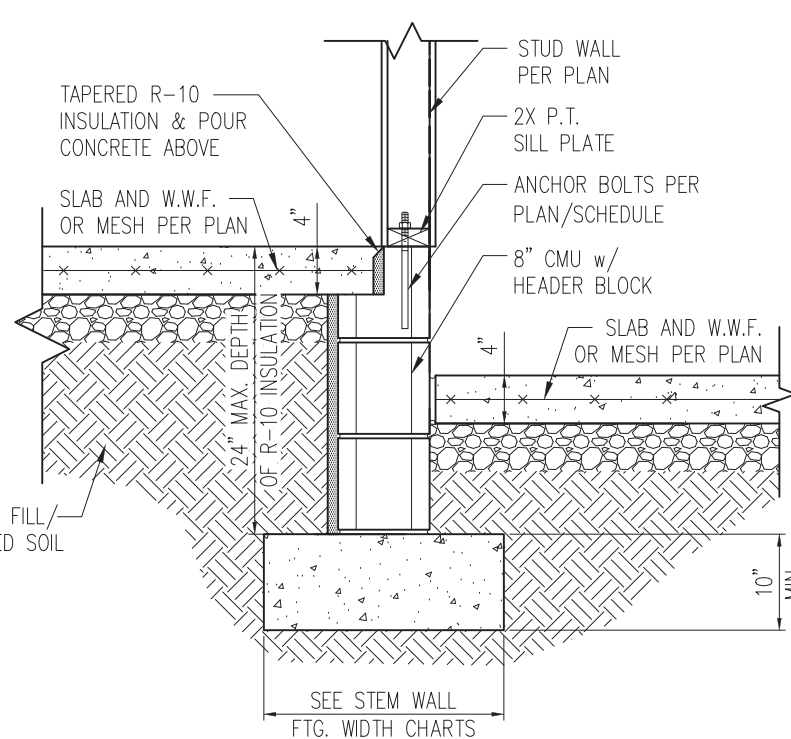


STANDARD - BRICK

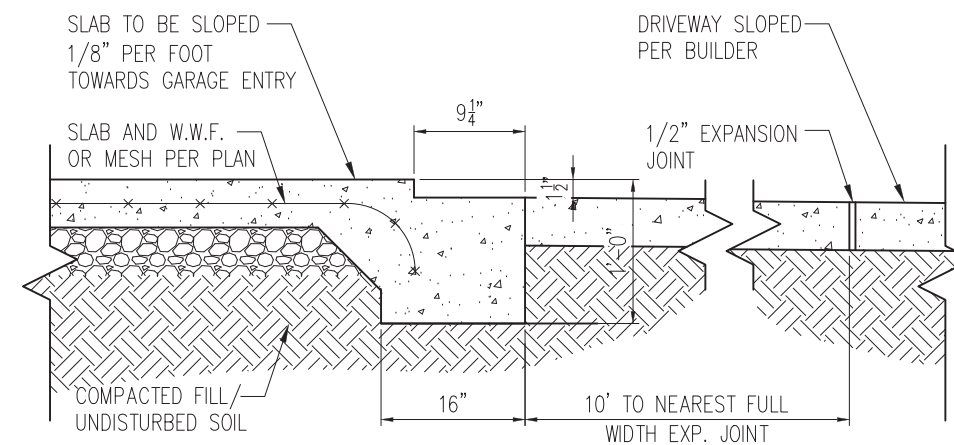
1 TYP. GARAGE CURB DETAIL  
D2s 3/4" = 1'-0"



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

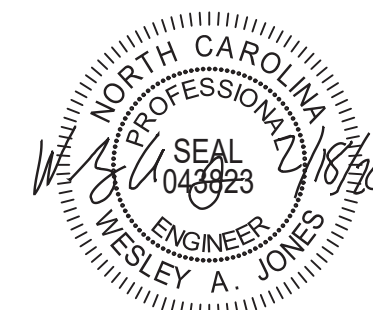


3 HOUSE/GARAGE WALL DETAIL  
D2s 3/4" = 1'-0"



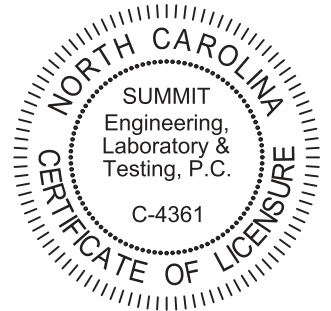
4 SLAB AT GARAGE DOOR  
D2s 3/4" = 1'-0"

- NOTES:
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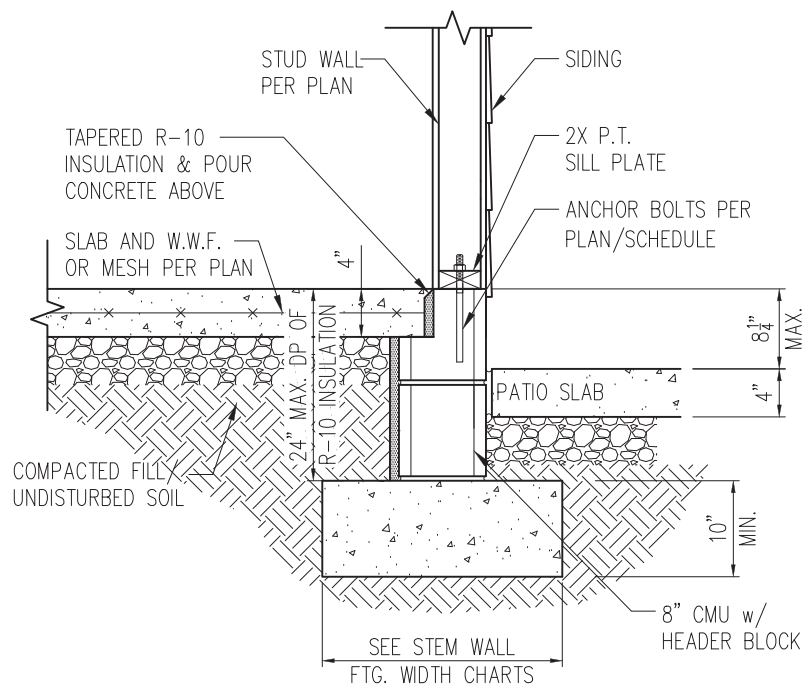


PROJECT  
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CLIENT  
Smith Douglas Homes  
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Woodstock, GA 30188

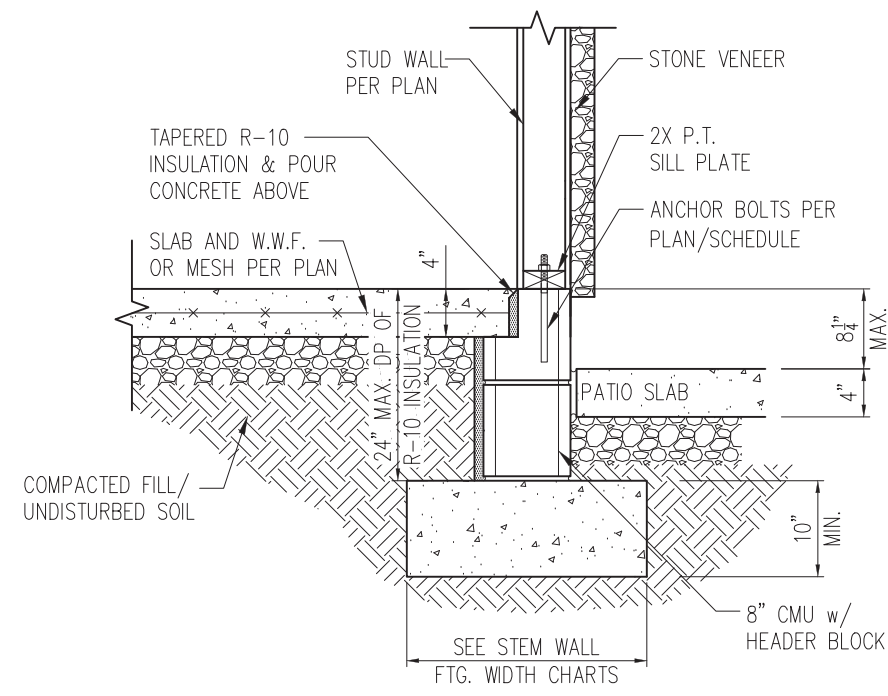
CURRENT DRAWING		
DATE: 2/18/20		
SCALE: NTS		
PROJECT #: 3832		
DRAWN BY: LBV		
CHECKED BY: WAJ		
ORIGINAL DRAWING		
NO.	DATE	PROJECT #
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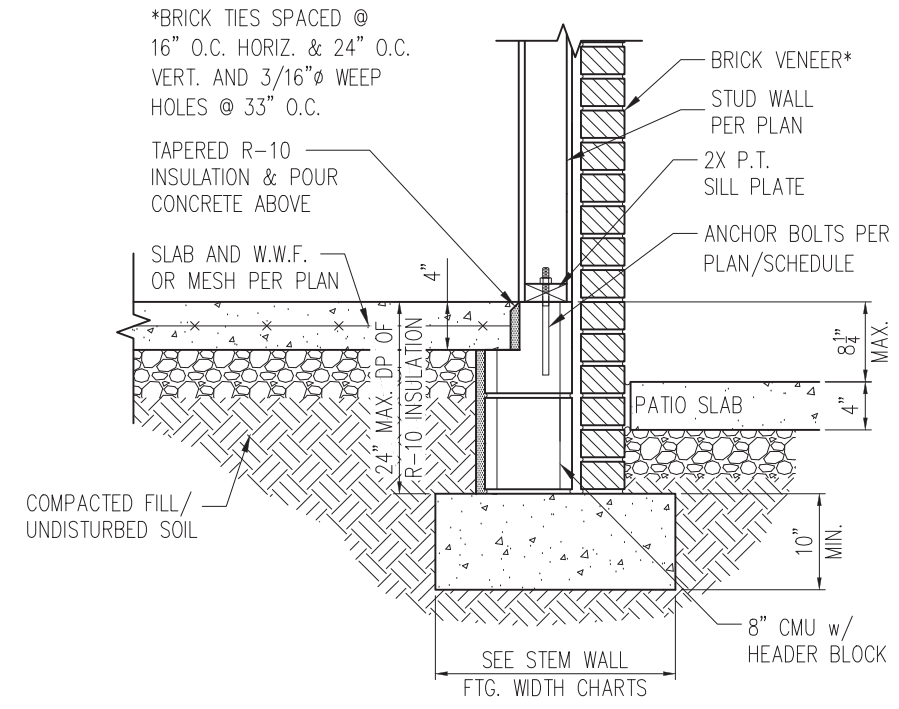
SHEET  
**D2s**



STANDARD - SIDING

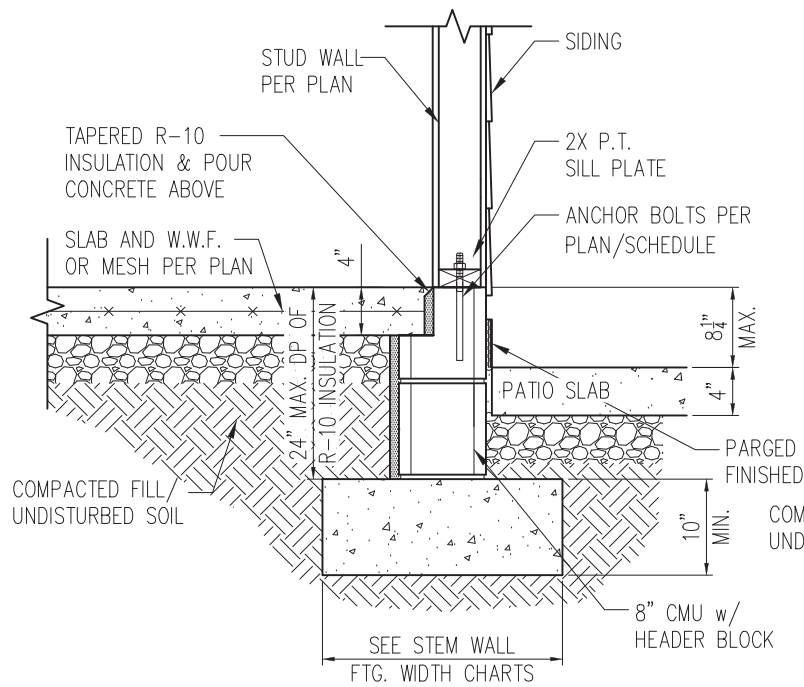


STANDARD - STONE

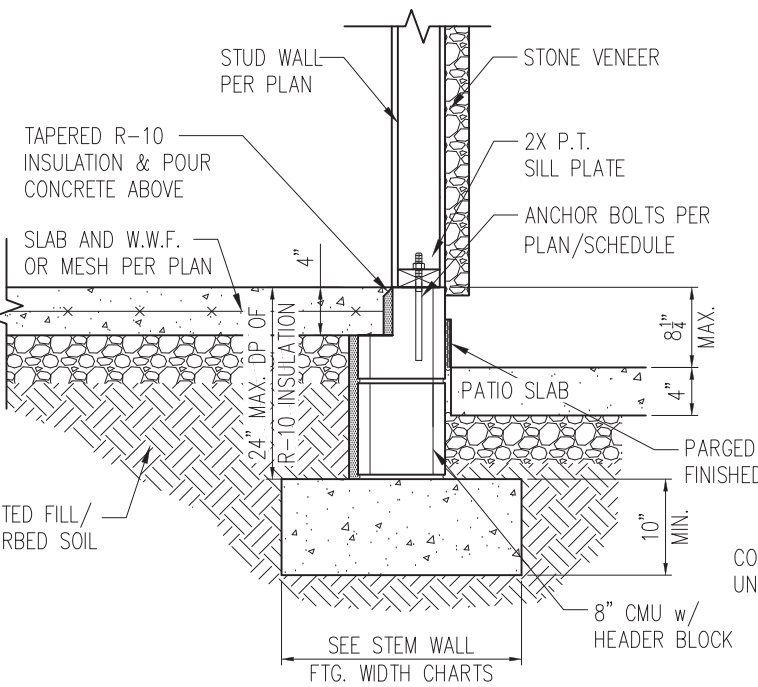


STANDARD - BRICK

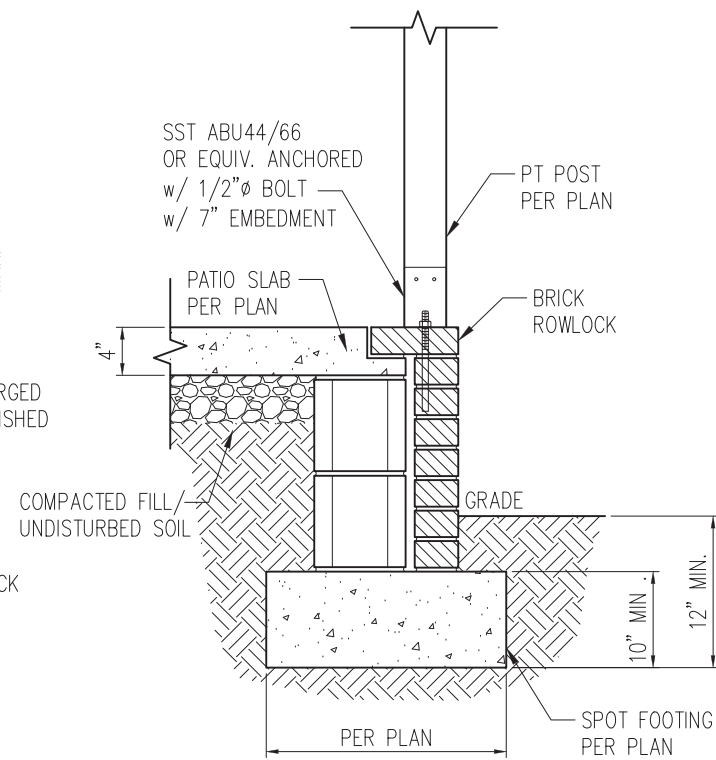
1 PORCH SLAB DETAIL  
D3s 3/4" = 1'-0"



STANDARD - SIDING



STANDARD - STONE



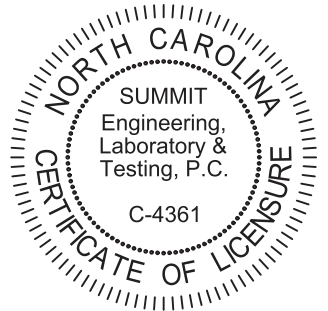
2 COVERED PORCH DETAIL  
D3s 3/4" = 1'-0"

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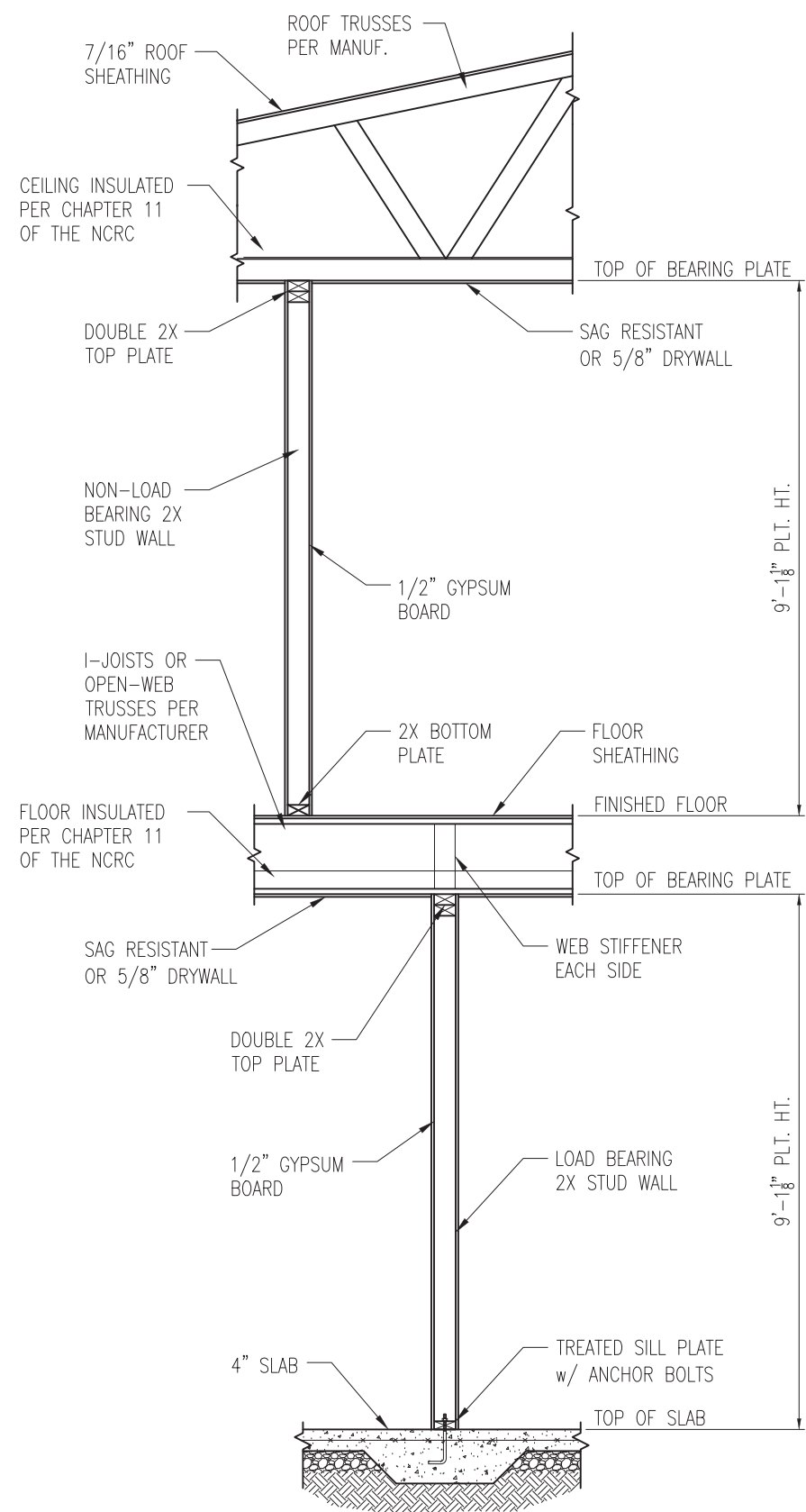
PROJECT  
**Standard Details**  
**Stemwall Details**  
CLIENT  
**Smith Douglas Homes**  
110 Village Trail, Suite 215  
Woodstock, GA 30188

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

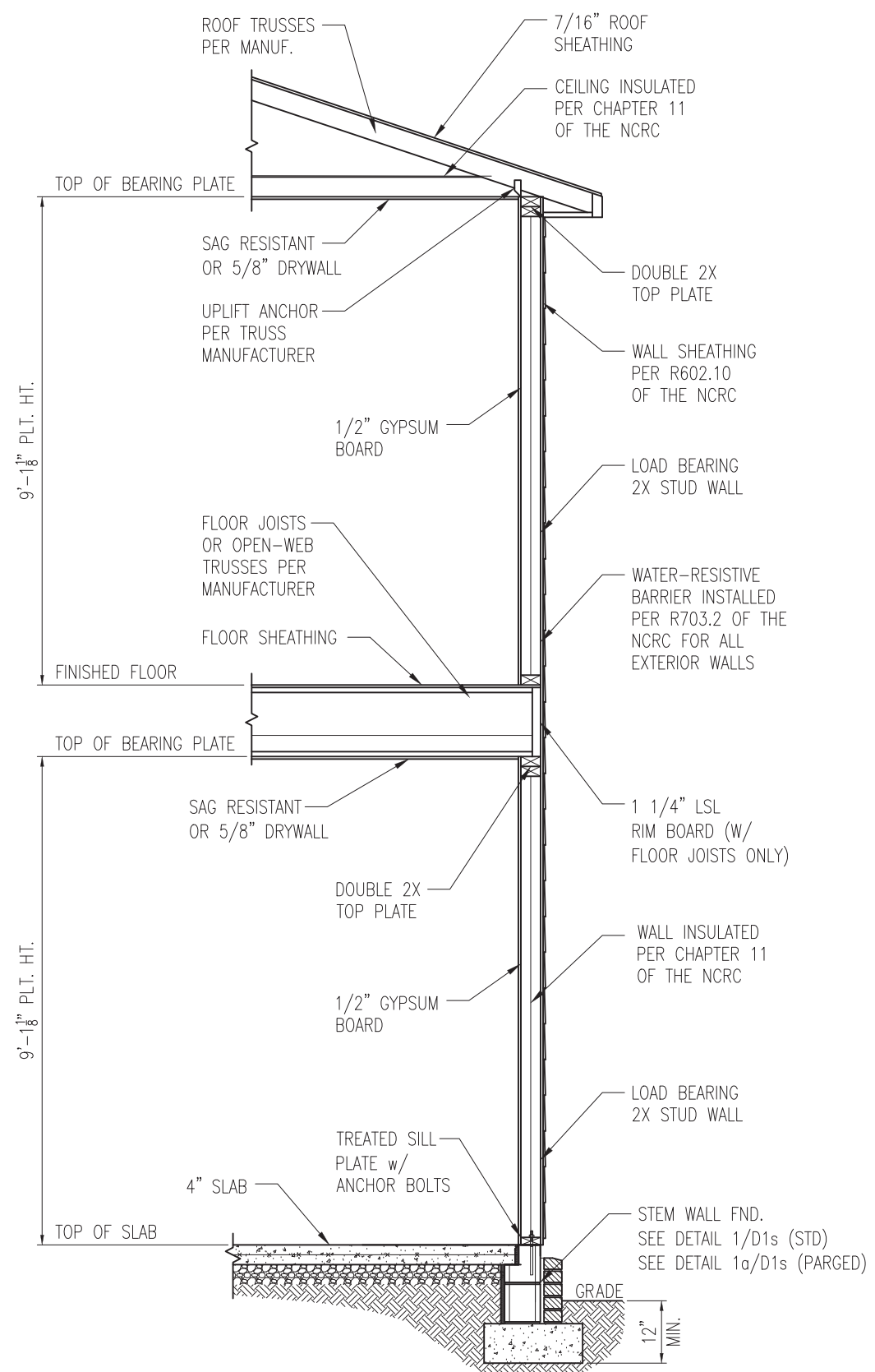
ORIGINAL DRAWING  
NO. DATE PROJECT #  
0 1/7/16 3832

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

SHEET  
**D3s**



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



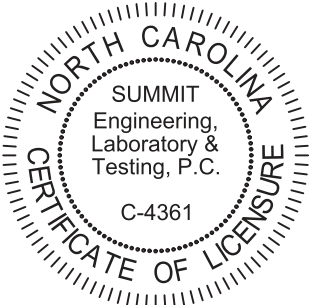
2 TYP. EXTERIOR LOAD BEARING WALL SECTION  
 D4s 3/4" = 1'-0" -SIMILAR w/ BRICK AND STONE  
 -BRICK TIES SPACED @ 16" O.C. HORIZ. & 24" O.C. VERT.  
 -MIN. 3/16" Ø WEEP HOLES @ 33" O.C.

- NOTES:
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  2. PROVIDE 6 MIL VAPOR BARRIER UNDER ALL SLABS-ON-GRADE.
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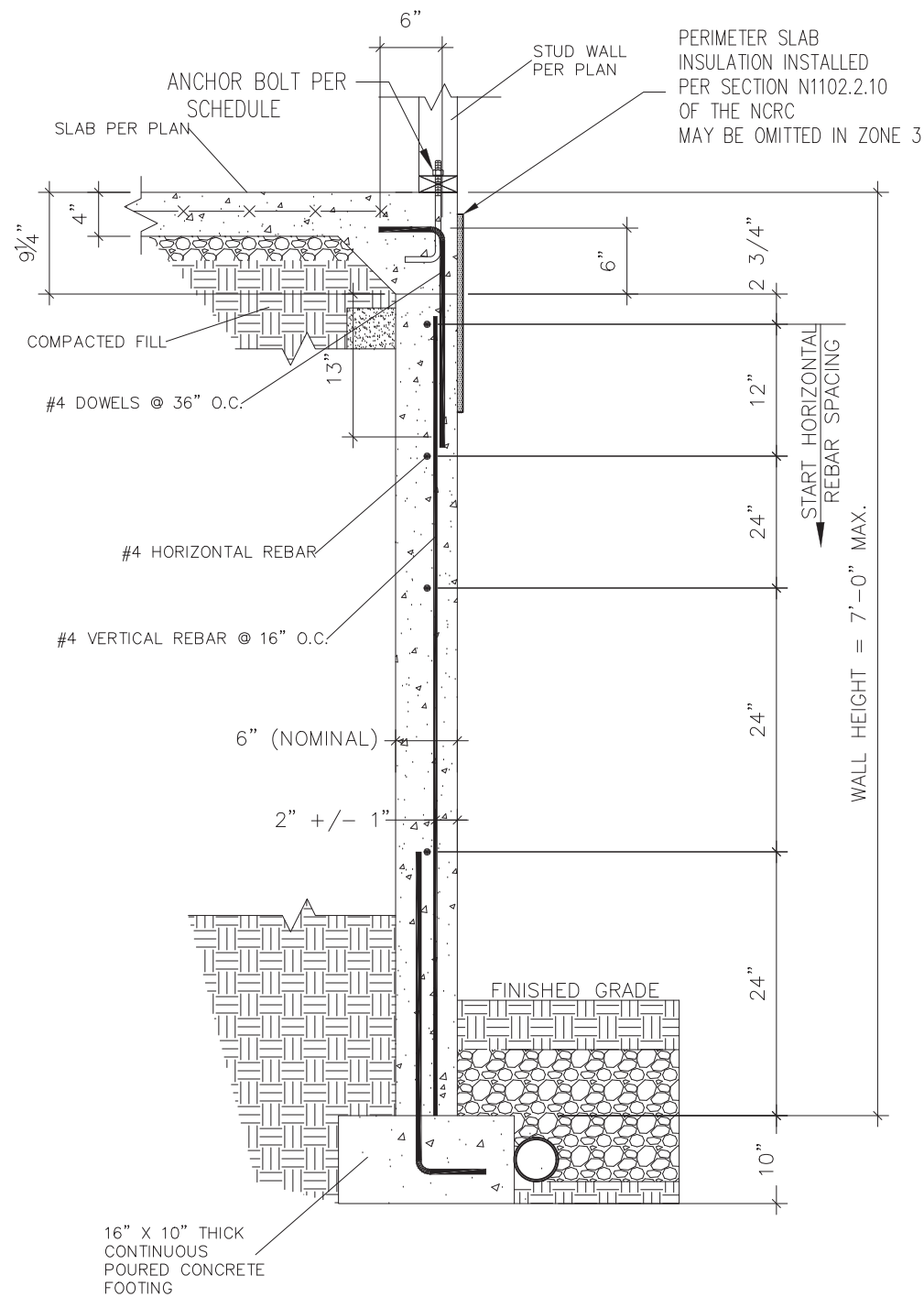
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 DATE: 2/18/20  
 SCALE: NTS  
 PROJECT #: 3832  
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 NO. DATE PROJECT #  
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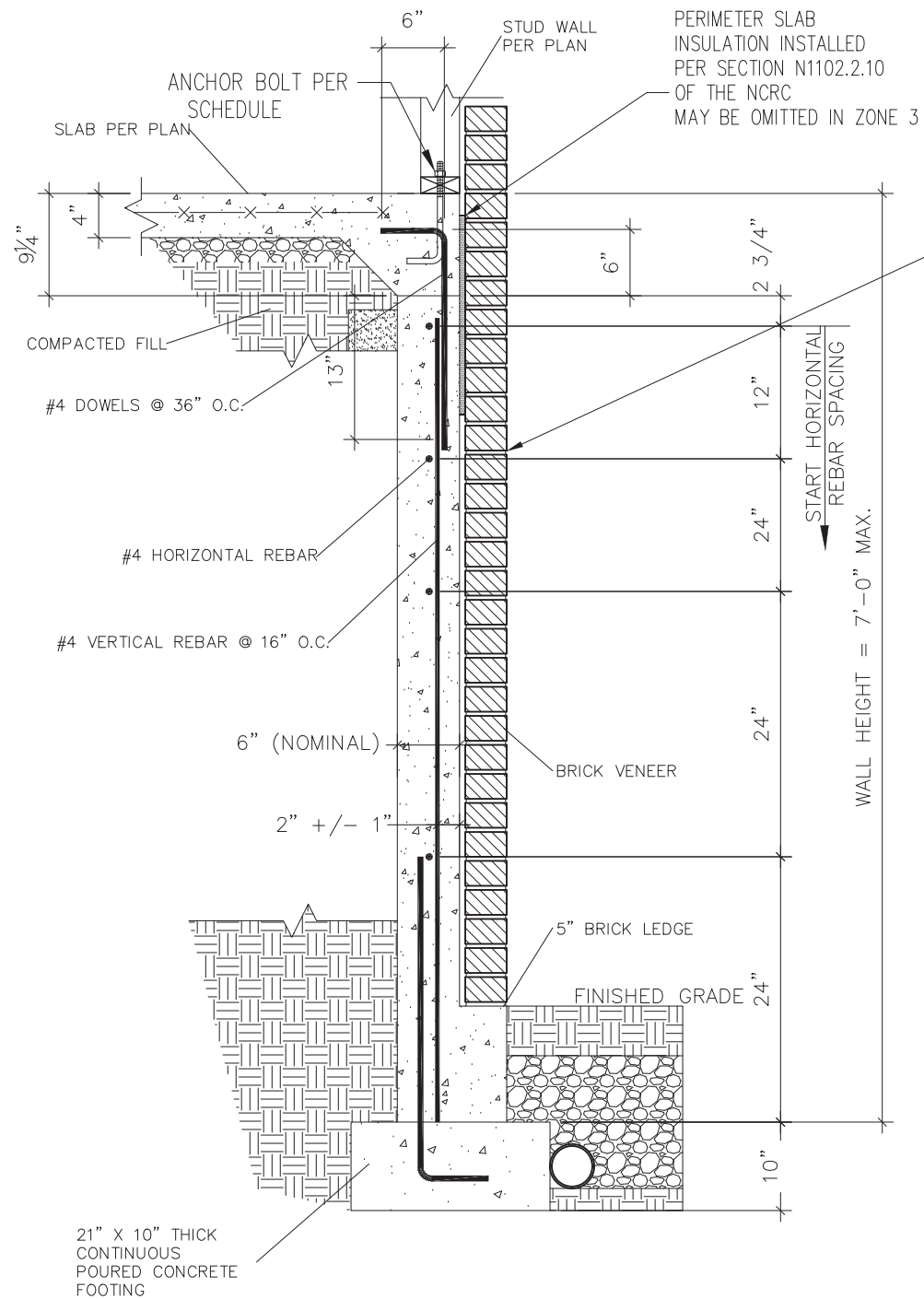
REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

SHEET  
**D4s**





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



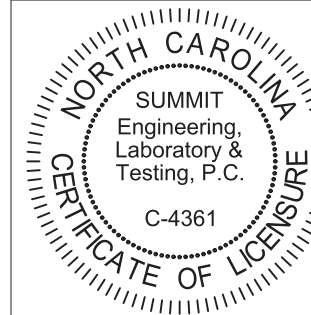
2 SUBWALL FOUNDATION W/ BRICK VENEER  
 D5s 3/4" = 1'-0"

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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**Standard Details**  
**Stemwall Details**  
 CLIENT  
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SCALE: NTS

PROJECT #: 3832

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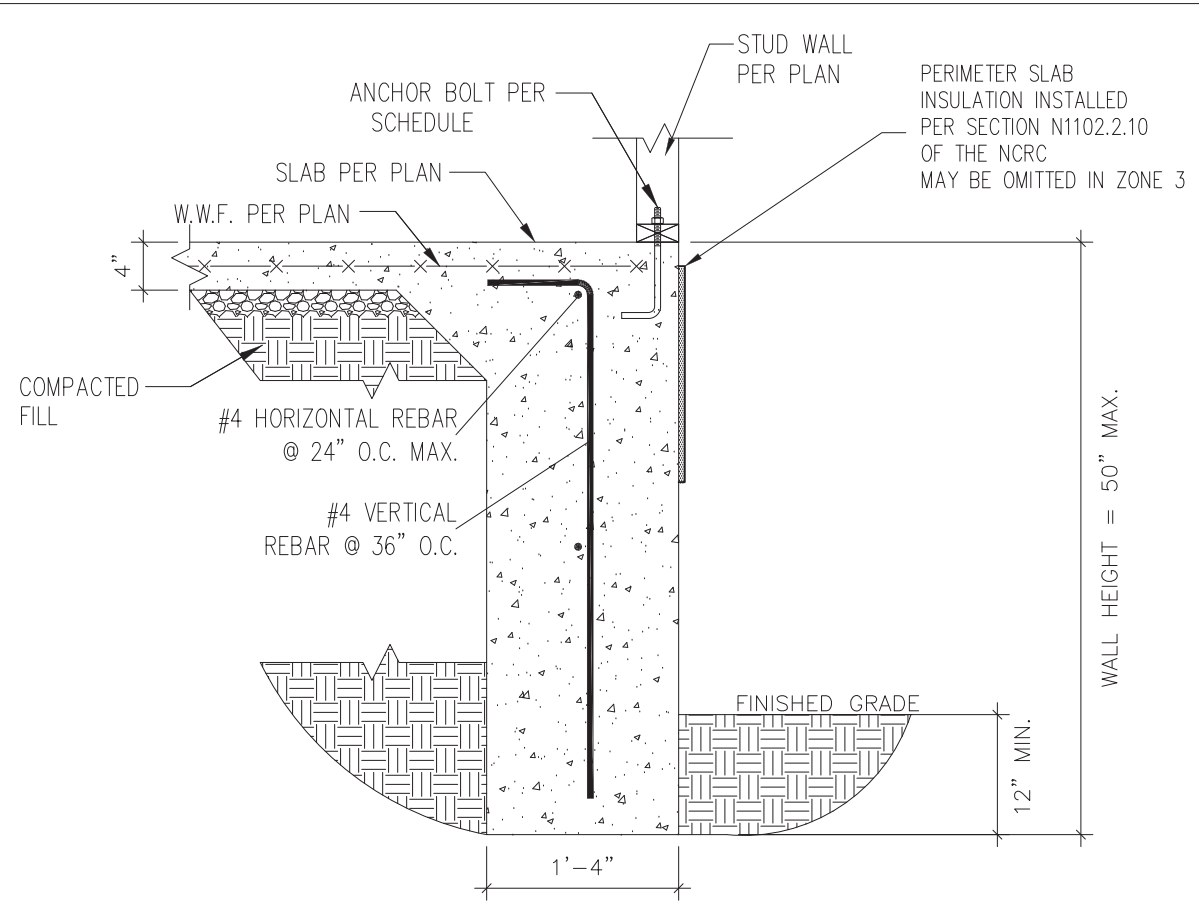
ORIGINAL DRAWING

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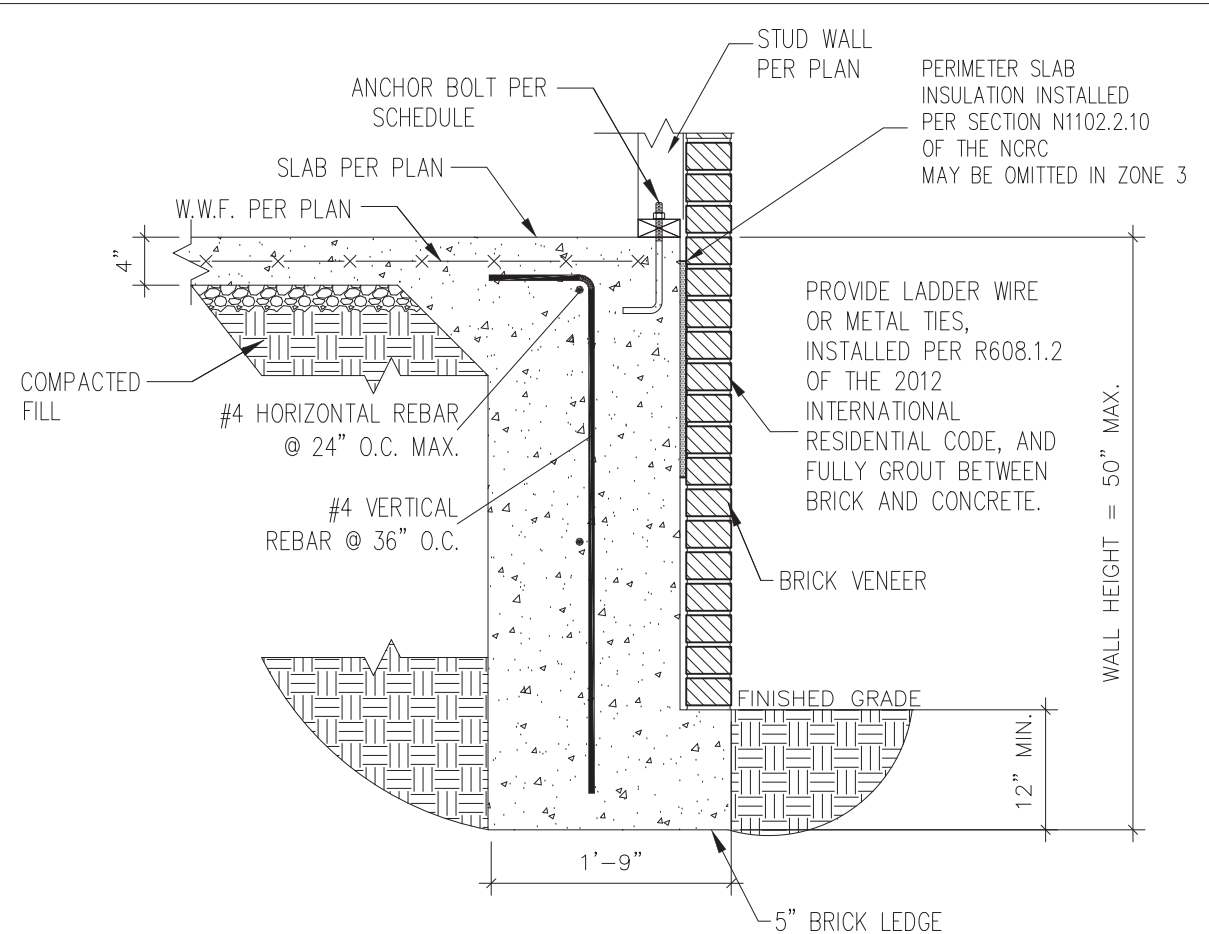
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SHEET

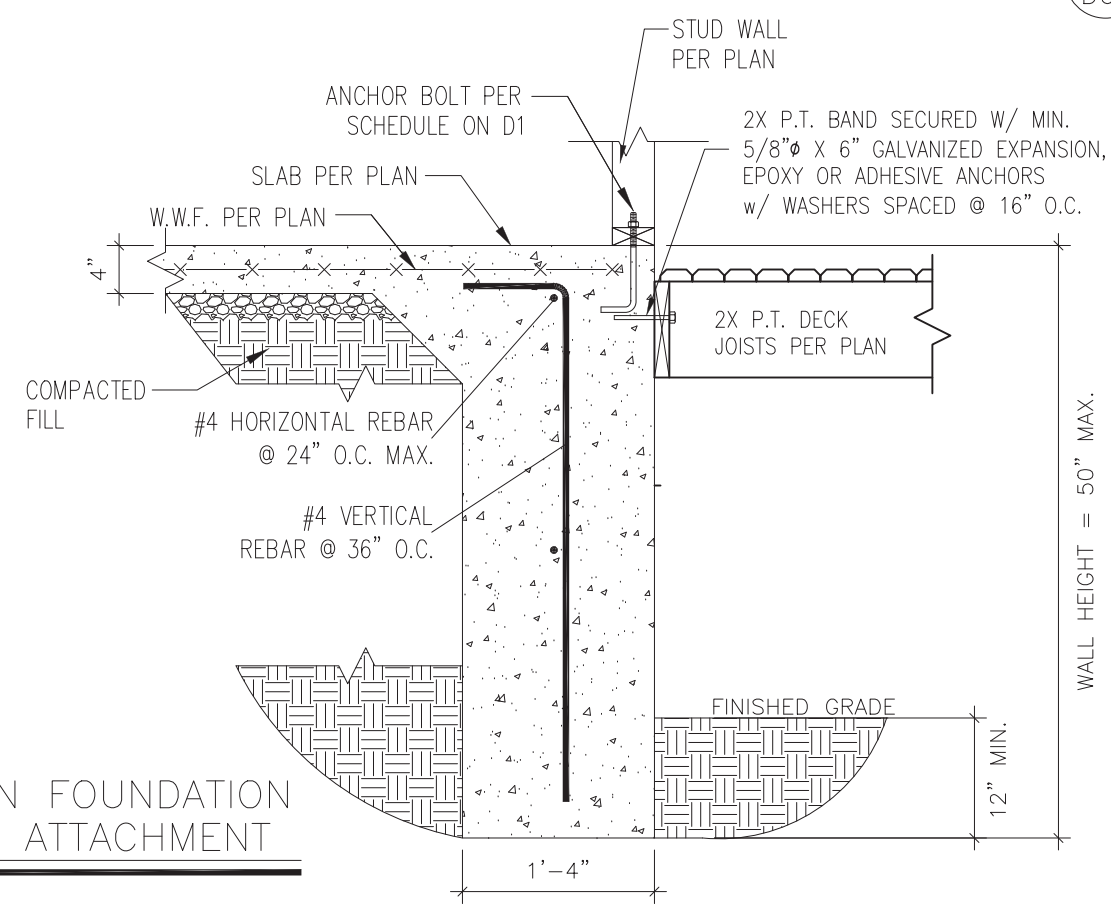
**D5s**



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



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

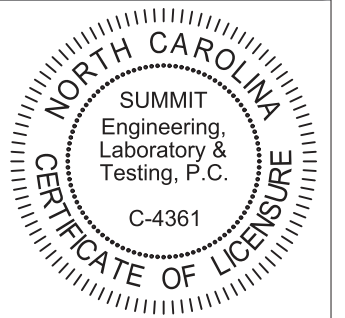


3 TURNDOWN FOUNDATION W/ DECK ATTACHMENT  
 D6s 3/4" = 1'-0"



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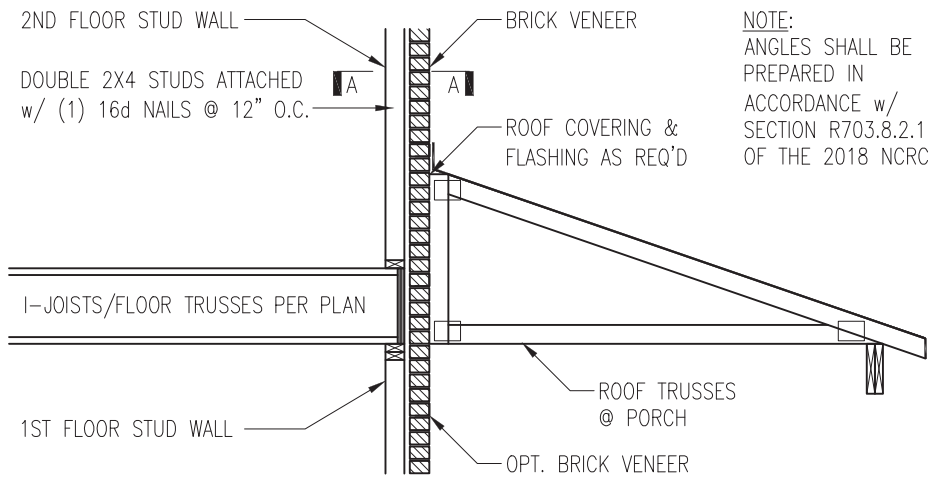
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**Stemwall Details**  
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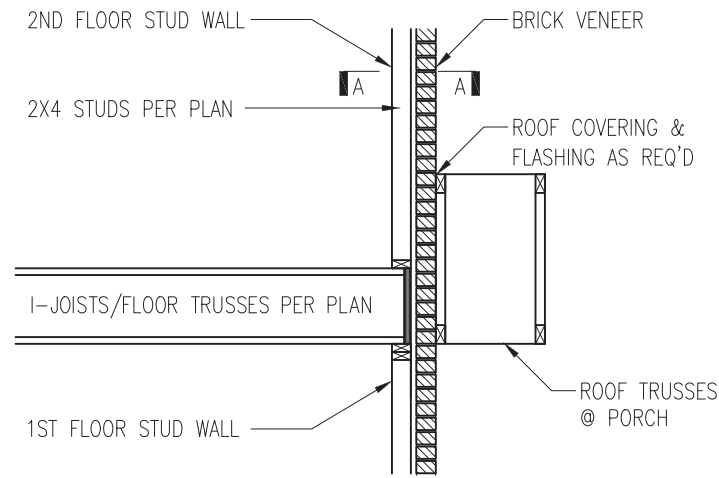
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SHEET  
**D6s**



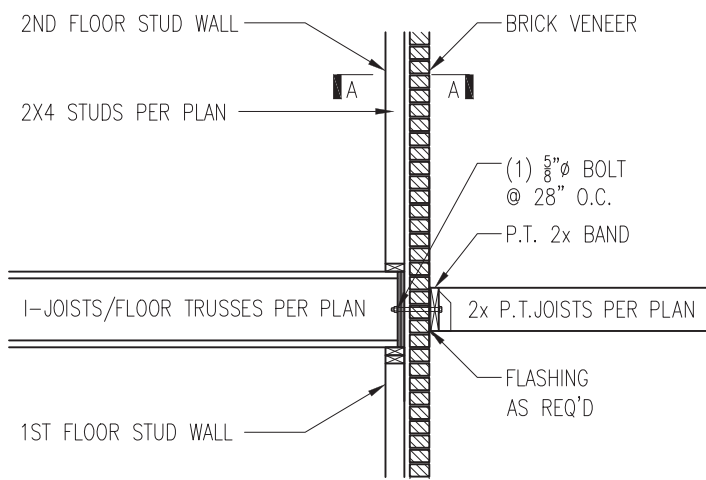
NOTE:  
ANGLES SHALL BE  
PREPARED IN  
ACCORDANCE W/  
SECTION R703.8.2.1  
OF THE 2018 NCR



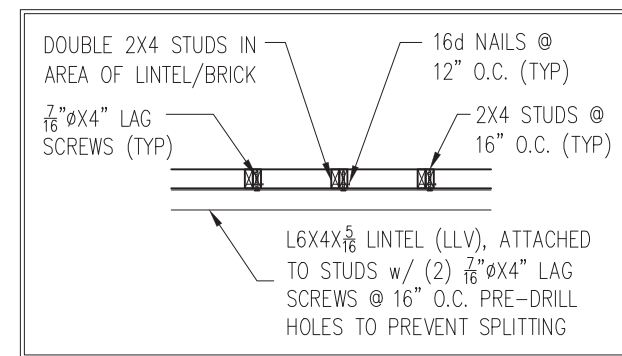
TRUSSES PERPENDICULAR TO STUD WALL

TRUSSES PARALLEL TO STUD WALL  
w/ CONTINUOUS BRICK VENEER

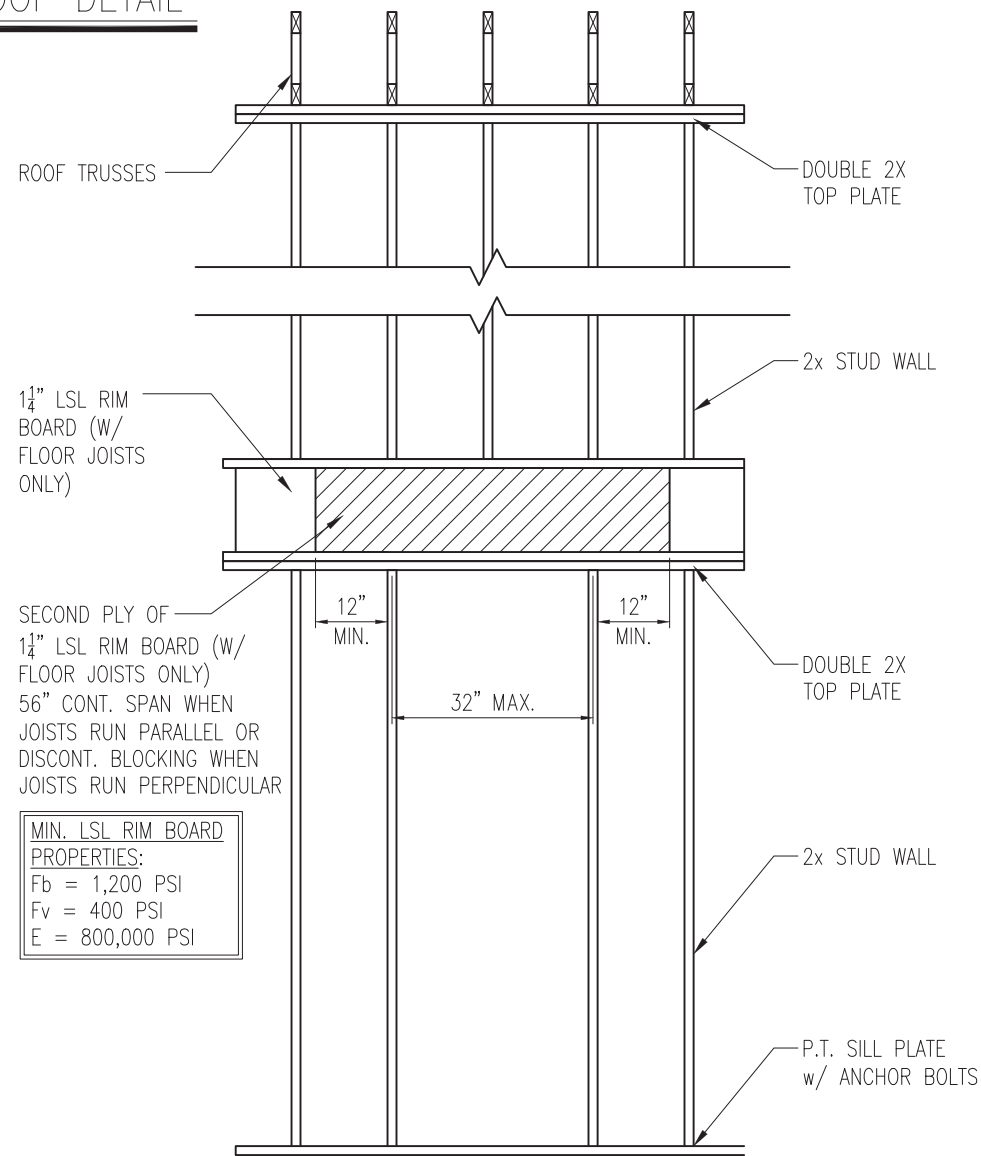
1 BRICK SUPPORT ABOVE STORAGE/PORCH ROOF DETAIL  
D5f NTS



3 BALCONY JOIST ATTACHMENT  
D5f NTS



SECTION A-A  
NTS

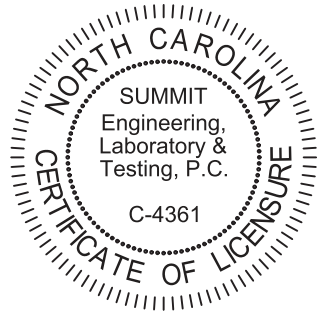


SECOND PLY OF  
1 1/4\"/>

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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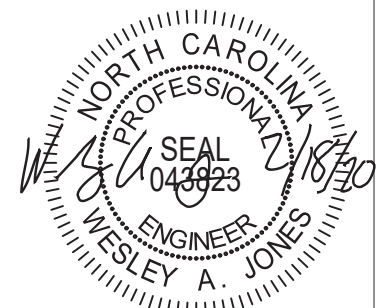


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Framing Details  
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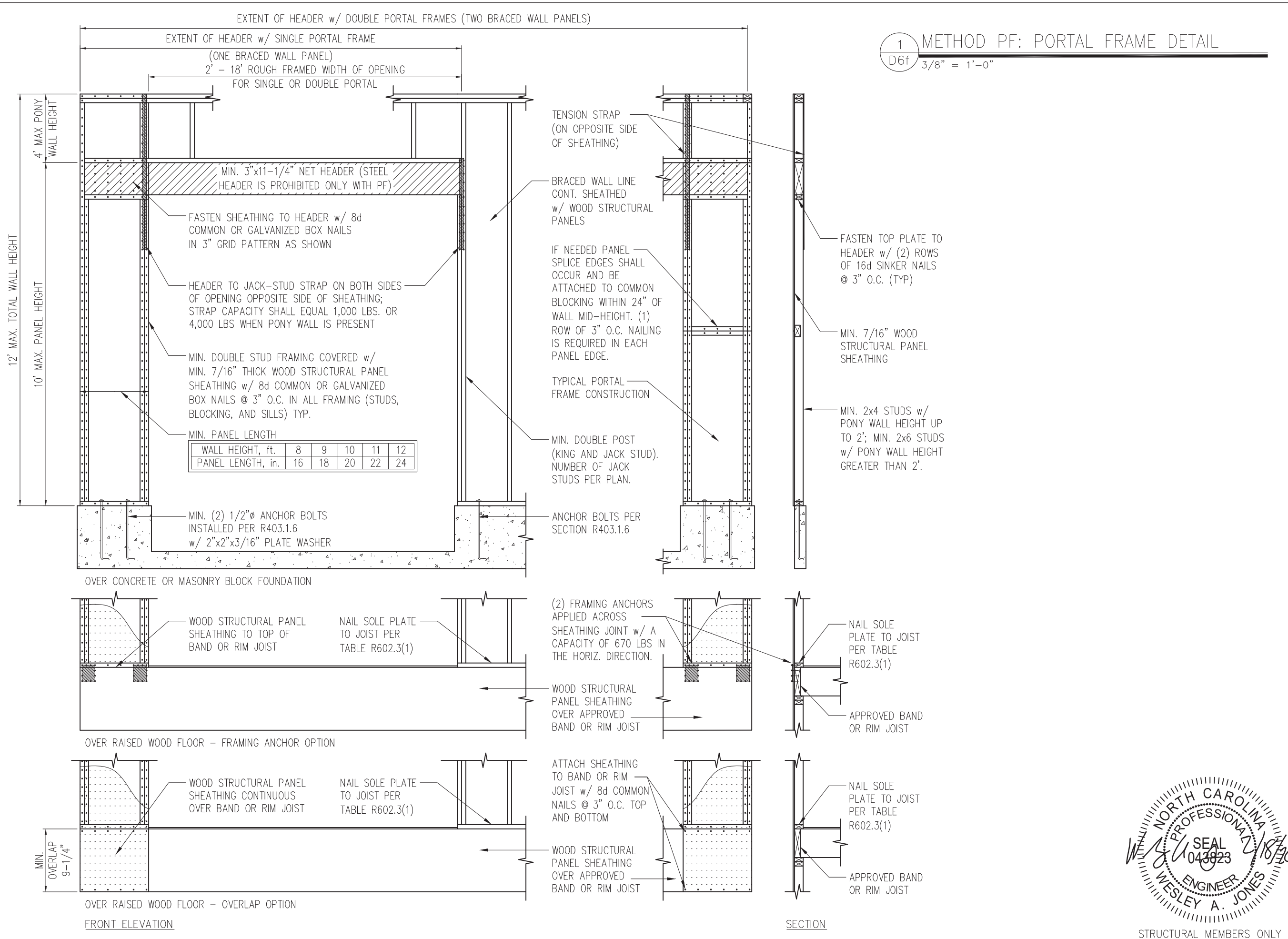
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SHEET  
**D5f**



1 METHOD PF: PORTAL FRAME DETAIL  
 D6f 3/8" = 1'-0"

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**Framing Details - Bracing**

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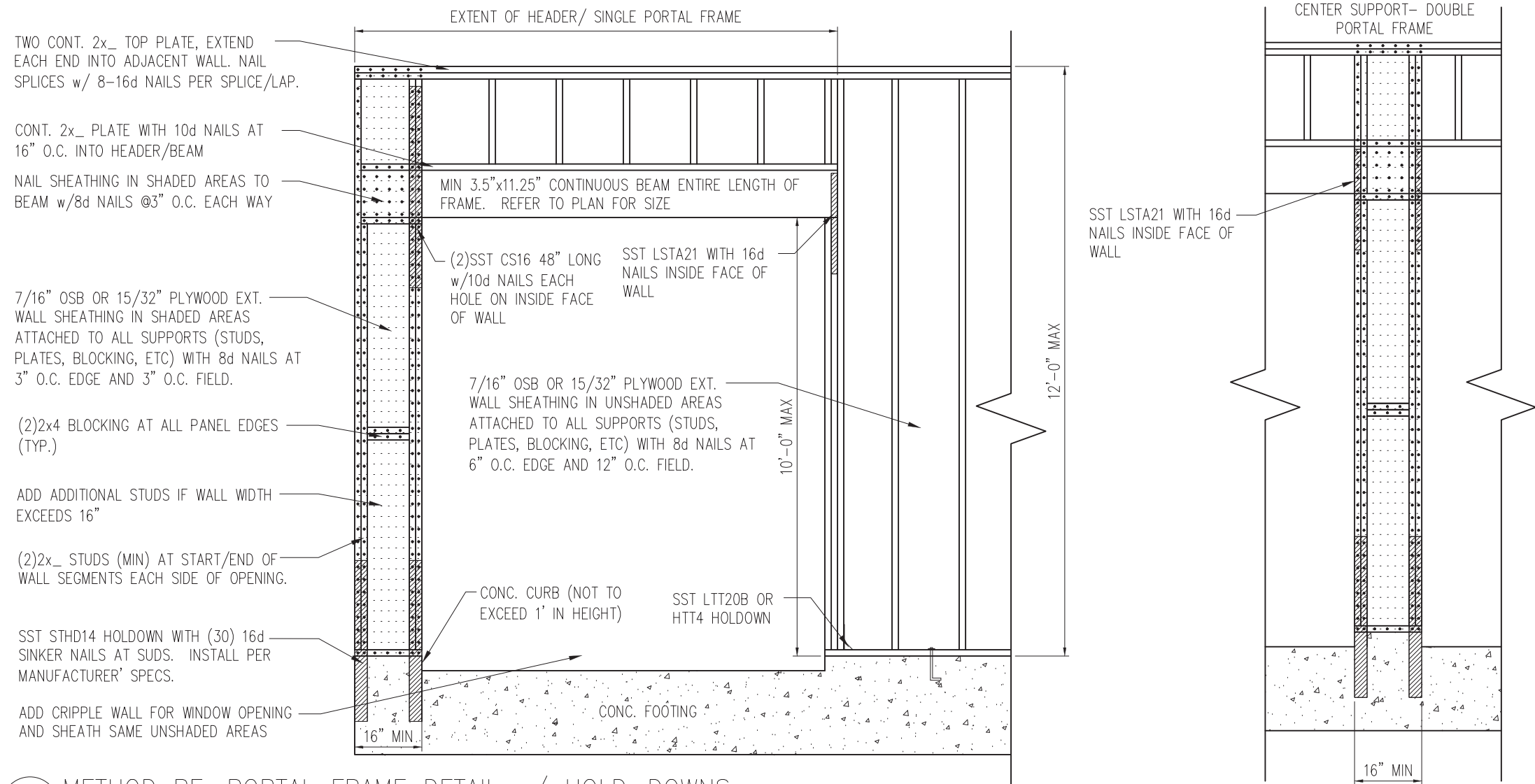
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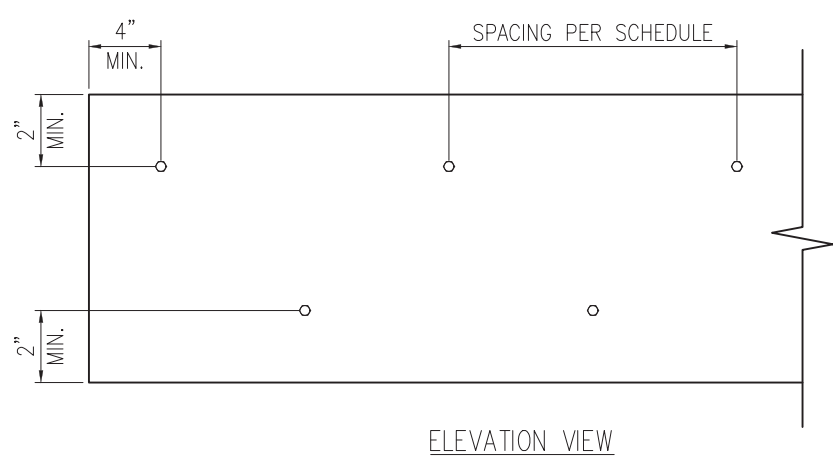
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NORTH CAROLINA  
 PROFESSIONAL ENGINEER  
 SEAL  
 043823  
 WESLEY A. JONES

SHEET  
**D6f**  
 STRUCTURAL MEMBERS ONLY



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



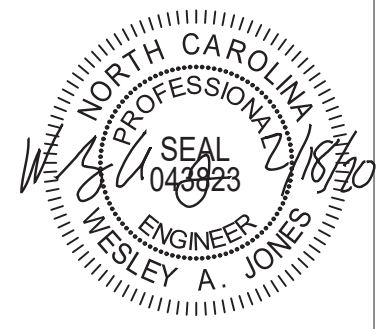
2 MULTI-PLY BEAM CONNECTION DETAIL  
 D7f N.T.S

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

FASTENER TYPE	LVL DEPTH	3/4" WIDE		5/4" 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	7/4" ≤ 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	7/4" ≤ 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 ≥ 7/4"	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.		

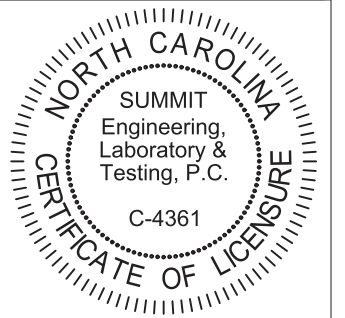
**NOTES:**

- 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 7/4" 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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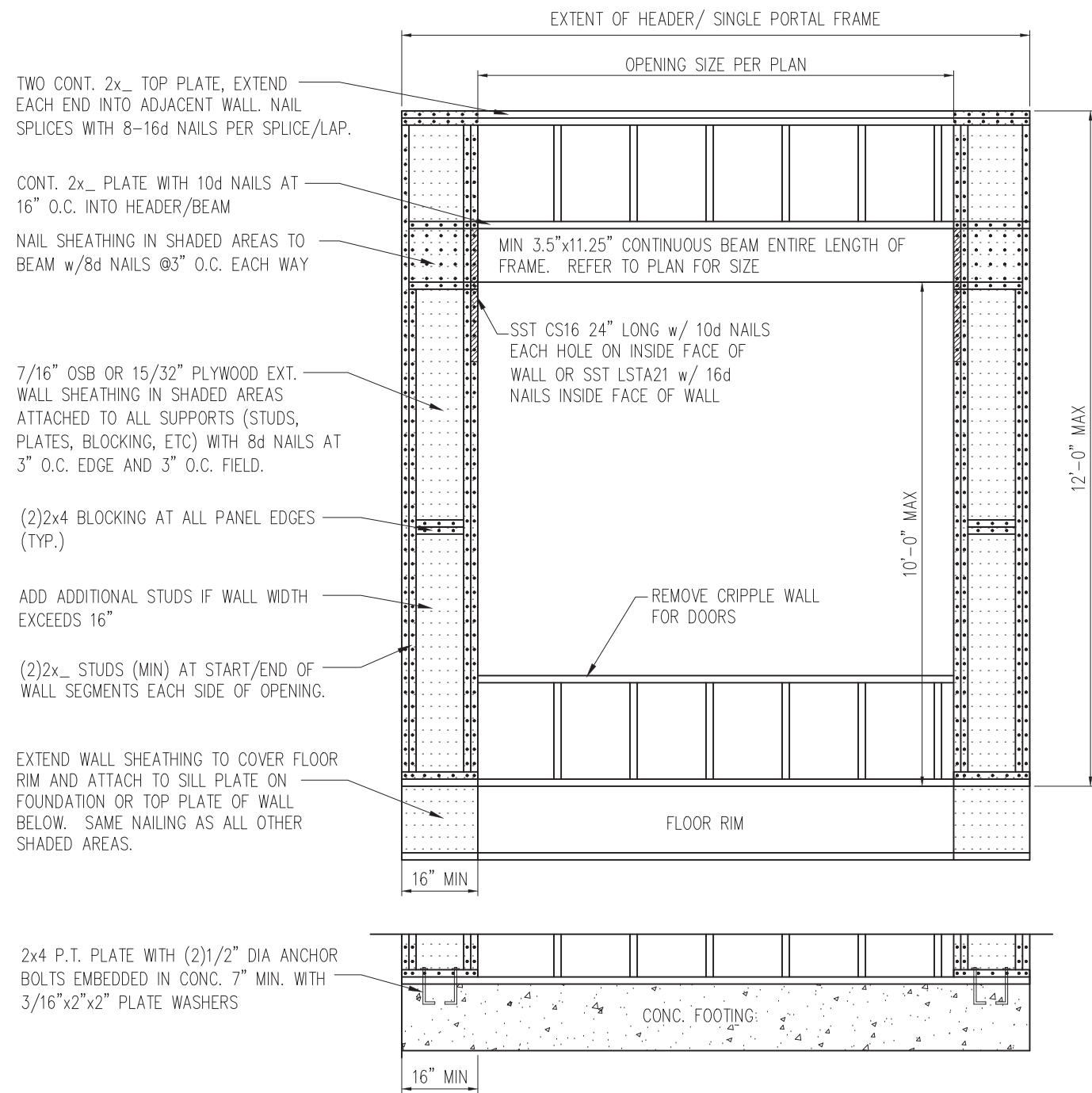


PROJECT  
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 Framing Details - Bracing  
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 Smith Douglas Homes  
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SHEET  
**D7f**



TWO CONT. 2x\_ TOP PLATE, EXTEND EACH END INTO ADJACENT WALL. NAIL SPLICES WITH 8-16d NAILS PER SPLICE/LAP.

CONT. 2x\_ PLATE WITH 10d NAILS AT 16\" O.C. INTO HEADER/BEAM

NAIL SHEATHING IN SHADED AREAS TO BEAM w/8d NAILS @3\" O.C. EACH WAY

7/16\" OSB OR 15/32\" PLYWOOD EXT. WALL SHEATHING IN SHADED AREAS ATTACHED TO ALL SUPPORTS (STUDS, PLATES, BLOCKING, ETC) WITH 8d NAILS AT 3\" O.C. EDGE AND 3\" O.C. FIELD.

(2)2x4 BLOCKING AT ALL PANEL EDGES (TYP.)

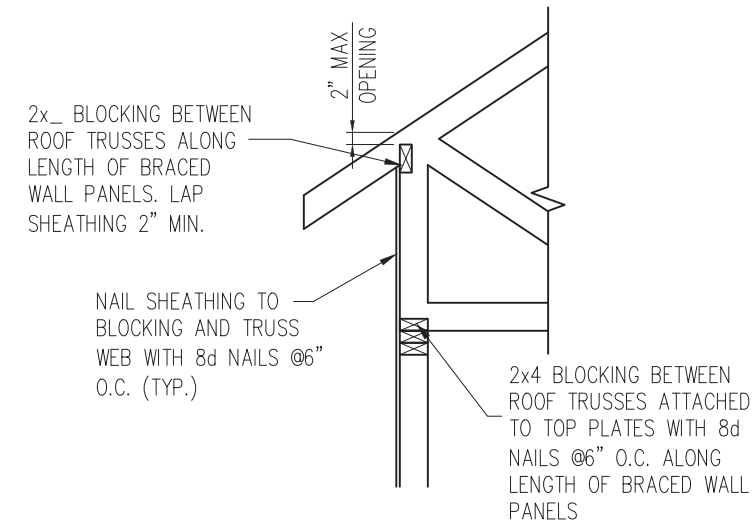
ADD ADDITIONAL STUDS IF WALL WIDTH EXCEEDS 16\"

(2)2x\_ STUDS (MIN) AT START/END OF WALL SEGMENTS EACH SIDE OF OPENING.

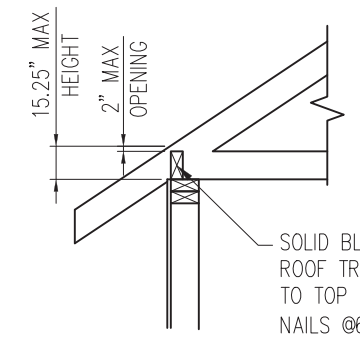
EXTEND WALL SHEATHING TO COVER FLOOR RIM AND ATTACH TO SILL PLATE ON FOUNDATION OR TOP PLATE OF WALL BELOW. SAME NAILING AS ALL OTHER SHADED AREAS.

2x4 P.T. PLATE WITH (2)1/2\" DIA ANCHOR BOLTS EMBEDDED IN CONC. 7\" MIN. WITH 3/16\"x2\"x2\" PLATE WASHERS

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\" \*

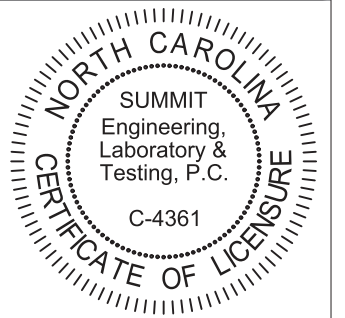
\*BLOCKING IS NOT REQUIRED WITH HEEL HEIGHTS LESS THAN 9.25\"

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



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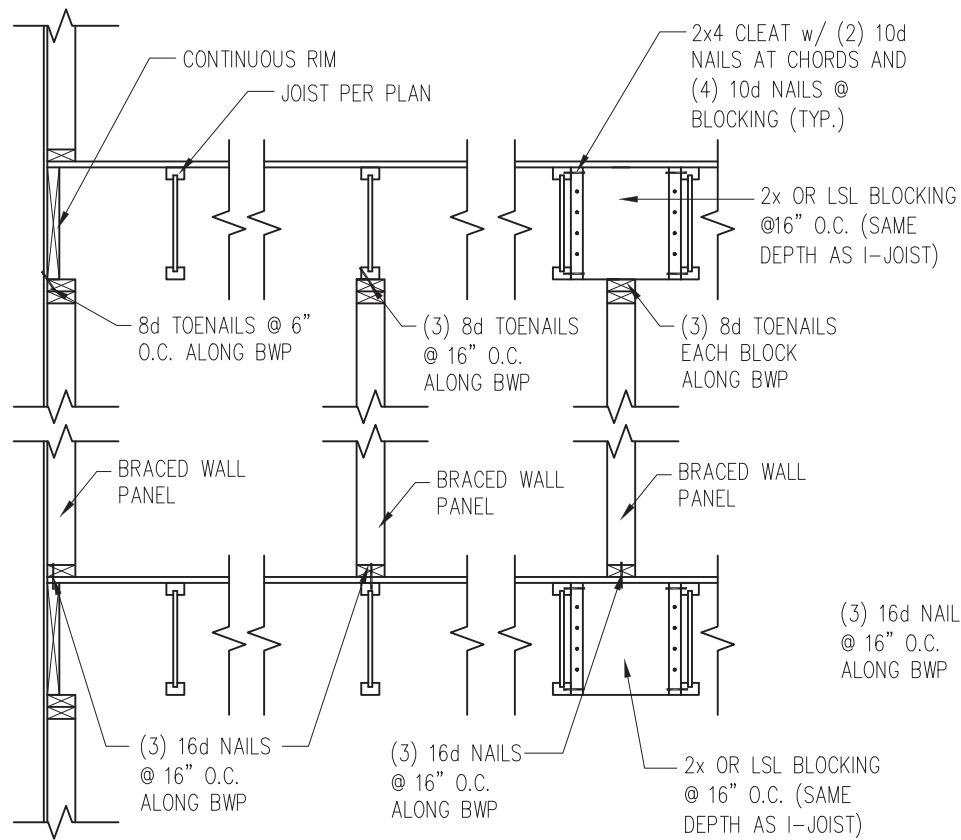
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**Standard Details - Bracing**  
**Framing Details - Bracing**  
CLIENT  
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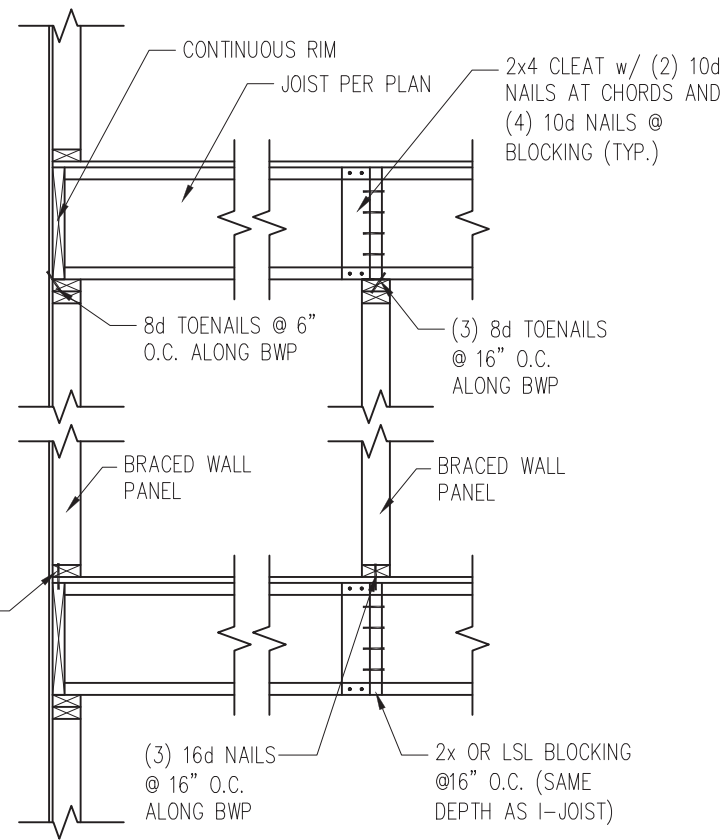
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SHEET  
**D8f**

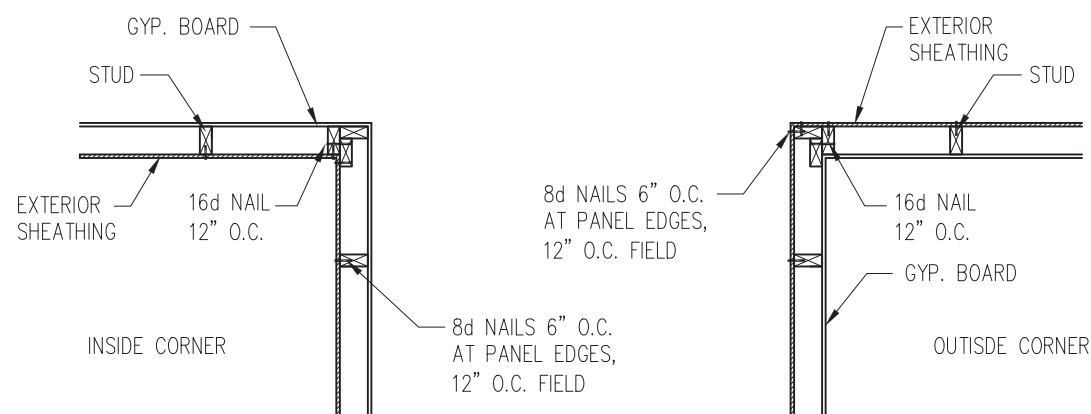


JOISTS PARALLEL TO BRACED WALLS



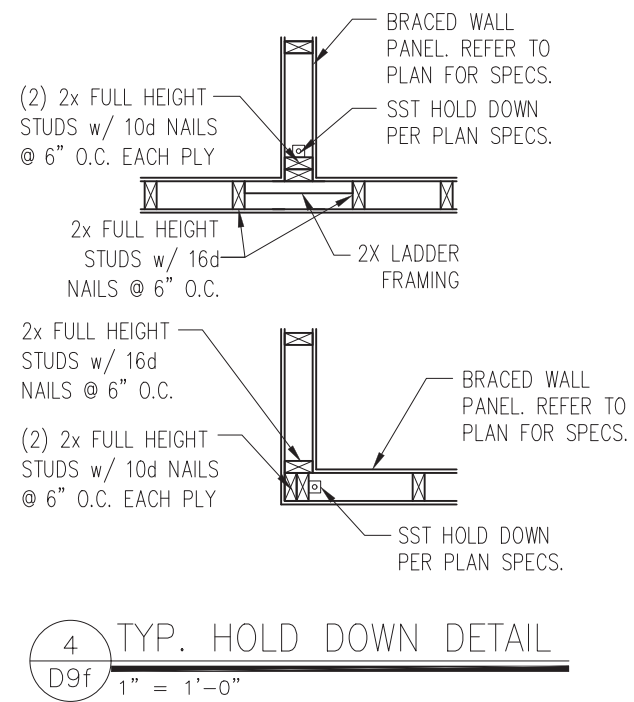
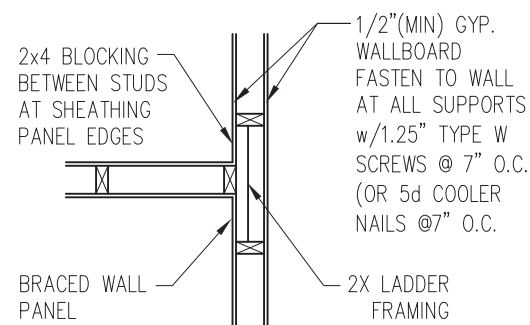
JOISTS PERPENDICULAR TO BRACED WALLS

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

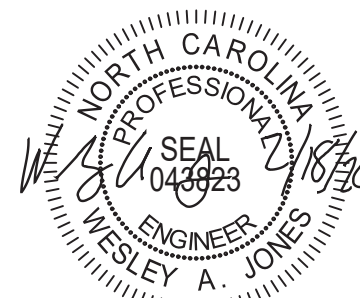


2 TYP. EXTERIOR CORNER FRAMING  
D9f 1" = 1'-0"

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

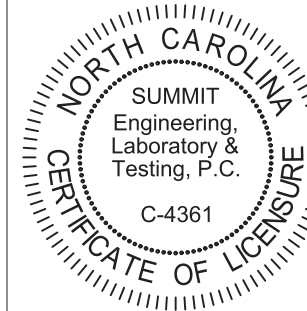


4 TYP. HOLD DOWN DETAIL  
D9f 1" = 1'-0"



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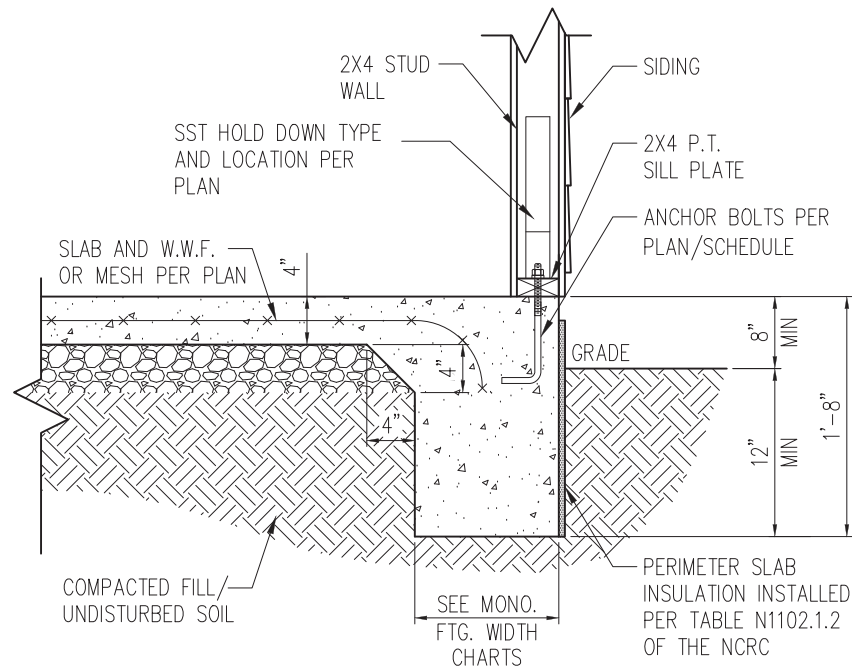
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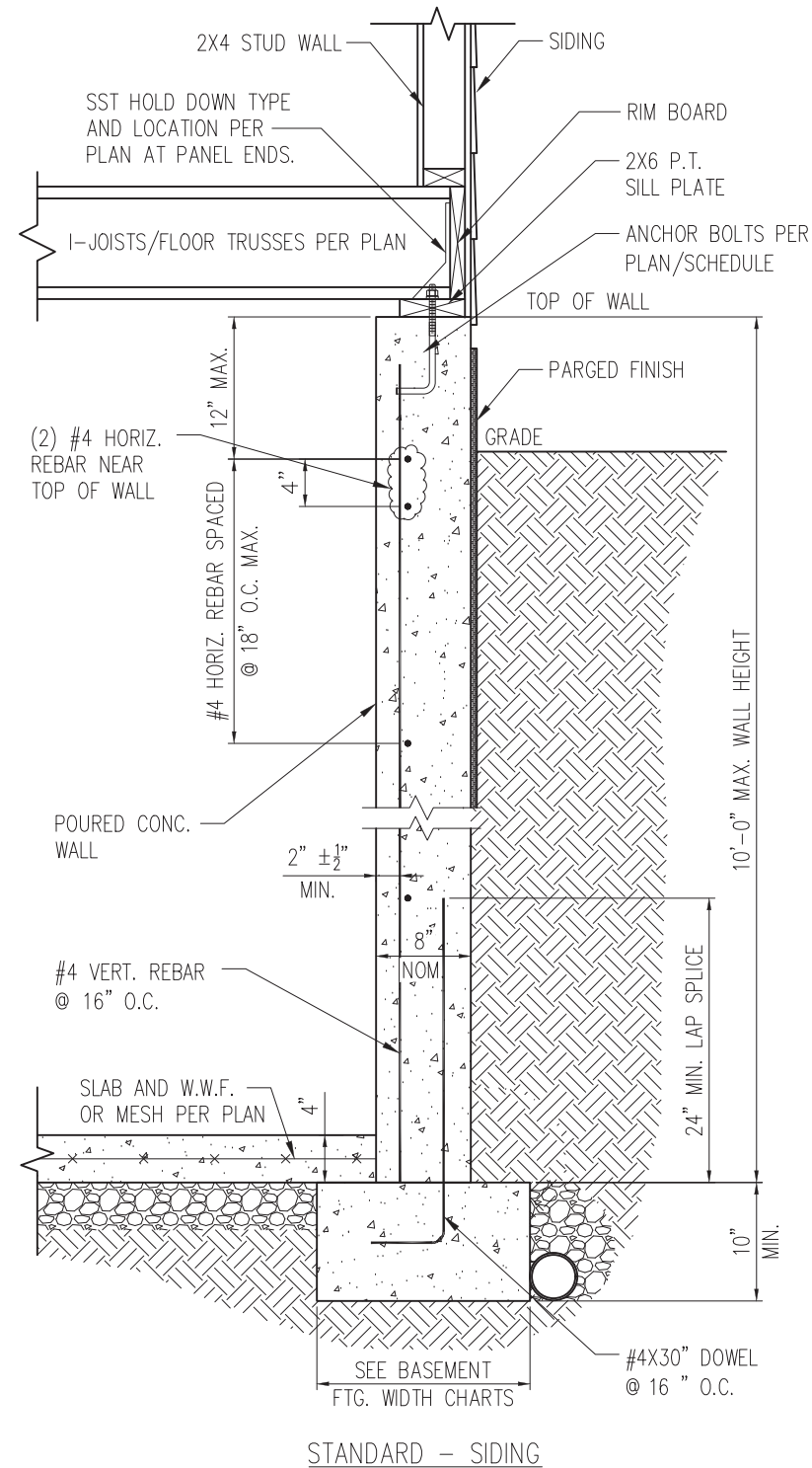
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SHEET

**D9f**



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

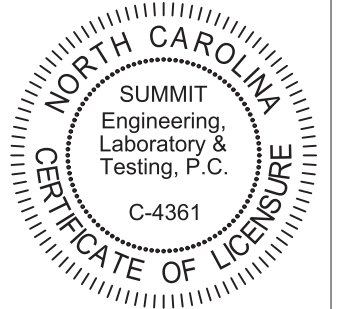


2 BASEMENT FOUNDATION WALL DETAIL W/ HOLD-DOWN  
 D10f 3/4" = 1'-0"



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**D10f**

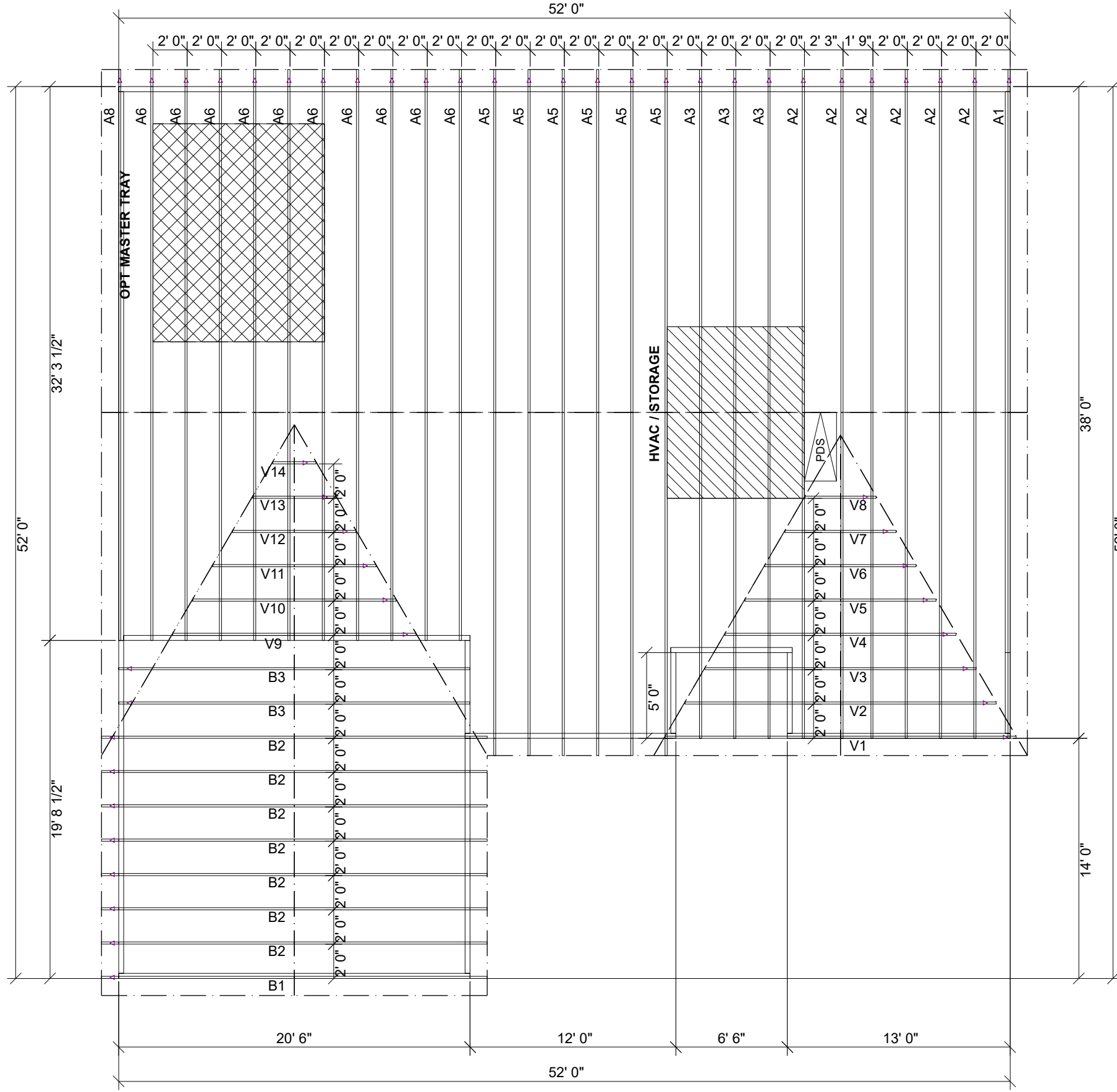


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# 72314769 14 DUNCANS CROSSING

## VININGS ADG

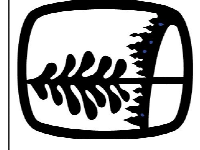
Hatch Legend	
OPT MASTER TRAY	
HVAC / STORAGE	



ROOF AREA: 3053.98 RIDGE LINE: 105.96 VALLEY LINES: 98.43 HIP LINES: 0  Indicates Left End of Truss

CUSTOMER	SMITH DOUGLAS
Job Name	VININGS ADG
Date: 8-24-20	
Scale: NTS	Quality Products for Quality Builders
Revision Date 1:	
Revision Date 2:	
Checked By:	SDAL
Quote Number	MASTER

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