AUBREY ELEVATION 'B'

YES	OPTION NAME
	EXTERIOR
	GARAGE SERVICE DOOR
	10 X 12 CONSERVATORY
	10 X 12 SCREEN PORCH
	14 X 10 DECK
	STONE FRONT ELEVATION
	FIRST FLOOR
	TRANSOM OVER S.G.D. REAR DOOR
	GOURMET KITCHEN
	BORM/BATH 3 I/L HM OFFICE/PR
	RAIL I/L HALF WALL AT FOYER
	MUD ROOM CUBBIES
	(2) PENDANT LIGHTS AT KITCH ISLAND
	SECOND FLOOR
	RAIL I/L HALF WALL 2ND FL HALL
	DELUXE OWNER'S BATH
	LOFT I/L BEDROOM 4
	RAIL I/L HALF WALL LOFT OPT

DESIGN CRITERIA

BUILDING CODE:
NORTH CAROLINA STATE BUILDING
RESIDENTIAL CODE 2018 EDITION

ASSUMED SOIL BEARING	- 2000 PSF
ASSUMED SOIL TYPE	- CL, ML, MH, CH
LIVING SPACE TOTAL FLOOR LOAD	- 50 PSF
SLEEPING SPACE TOTAL FLOOR LOAD	- 40 PSF
TOTAL ROOF LOAD WITH CEILING	- 30 PSF
TOTAL ROOF LOAD WITHOUT CEILING	- 20 PSF
DECK (DOUBLE WITH HOT TUB)	- 50 PSF
*ADD 2 PSF TO TOTAL FLOOR LOADS FOR I-JOISTS	
*ADD 5 PSF TO TOTAL FLOOR LOADS FOR FLOOR TRUSSES	

CLIMATIC AND GEOGRAPHIC DESIGN

ROOF SNOW LOAD	- 20 PSF
WIND EXPOSURE	- B
WIND SPEED	- 115 MPH
WEATHERING	- MODERATE
FROST DEPTH	- 12"
SUBJECT TO TERMITE DAMAGE	- MODERATE TO SEVERE

TABLE N1102.1.2 INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT

BUILDING CODE:
NORTH CAROLINA STATE BUILDING
RESIDENTIAL CODE 2018 EDITION

CLIMATE ZONE 4

GLASS DOORS	- 0.30
SOLID DOORS	- 0.22
PLYDEM WINDOWS	- Max U value of 0.35
CEILING R-VALUE m	- 38 or 30ci
WOOD FRAME WALL R-VALUE	- 15 or 13+2.5h
MASS WALL R-VALUE	- 5/13 or 5/10ci
FLOOR R-VALUE	- 19
BASEMENT c, o WALL R-VALUE	- 10/15
SLABd R-VALUE & DEPTH	- 10
CRAWL SPACEc WALL R-VALUE	- 10/15

AREA SUMMARY ELEV 'B'

MAIN HOUSE AREAS

1ST FLOOR	- 967 S.F.
2ND FLOOR	- 1155 S.F.
TOTAL	- 2122 S.F.
FRONT PORCH	- 130 S.F.
GARAGE	- 424 S.F.
PATIO	- 100 S.F.
DECK	- 100 S.F.

PLAN OPTION AREAS

SCREEN PORCH	- 120 S.F.
CONSERVATORY	- 120 S.F.
OPT DECK	- 140 S.F.

SHEET #	SHEET TITLE
1.00	COVER SHEET
4.00	EXTERIOR ELEVATIONS SLAB AND STEM WALL
4.10	EXTERIOR ELEVATIONS SLAB AND STEM WALL
4.00	EXTERIOR ELEVATIONS CRAWL
4.10	EXTERIOR ELEVATIONS CRAWL
4.20	EXT ELEV SLAB/STEM/CRAWL W/ STONE OPT
4.30	EXT ELEV SLAB/STEM-SCRN PRCH/CONSERV
4.30	EXT ELEV CRAWL-SCRN PRCH/CONSERV
6.00	1ST FLOOR PLAN
7.00	1ST FLOOR ELECTRICAL PLAN
8.00	2ND FLOOR PLAN
9.00	2ND FLOOR ELECTRICAL PLAN
10.00	SCRN PRCH/CONSERV FLOOR AND ELEC PLAN

REVISIONS

197 Farrah-Shae Way
Angier, NC 27501

MASTER ISSUE DATE:
4/22/2020

DO NOT SCALE PRINTS! CONSTRUCTION SHALL BE PER INDICATED DIMENSIONS ONLY

LATEST REVISION DATE:

GAR LEFT

DOVE HOMES, LLC
RALEIGH, NC
919-427-6991

AUBREY

COVER SHEET

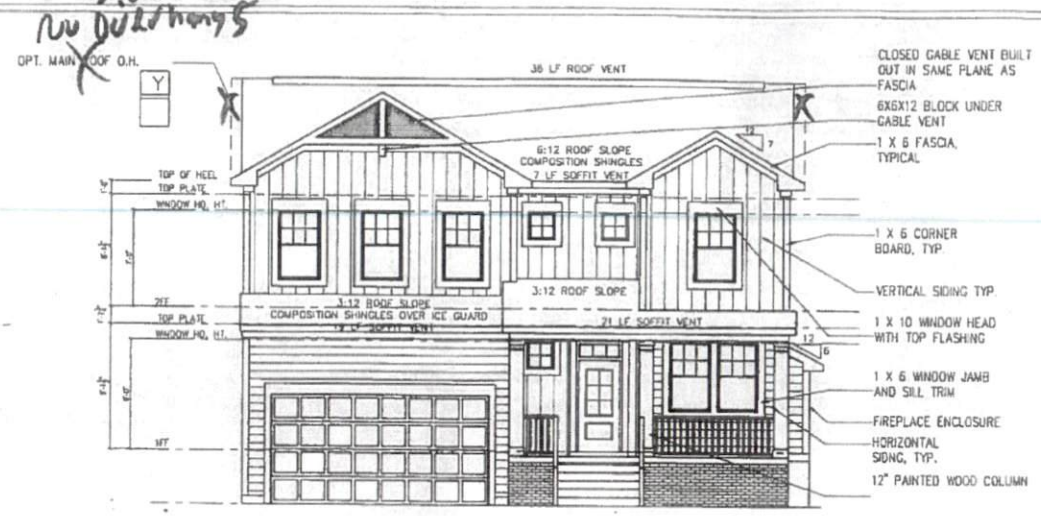
SHEET #
1.00

General Elevation Notes

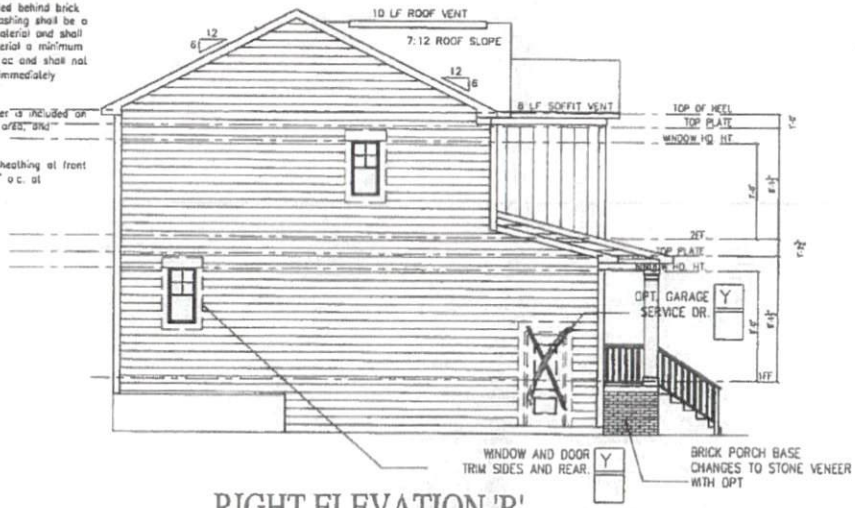
General Elevation Notes shall apply unless noted otherwise on plan.

1. **Roof** shall be finished with composition shingles with slopes as noted on plan.
2. **Metal Roof** finish is used as an accent material and may be optional, consult community specifications.
3. **Ridge Vent** shall be provided and installed on all ridges greater than 6' in length per manufacturer's specifications.
4. **Soffit Vent** shall be continuous soffit vent, consult community specifications for material.
5. Additional Vents may be required to meet ventilation requirements, consult ventilation calculations and additional vents noted on plan.
6. **House Wrap**, "Tyvek" or approved equal shall be installed over entire exterior wall per manufacturer's specifications and recommendations. "Zip" system sheathing may substitute for House Wrap
7. **Flashing** shall be provided above all door and window openings, above finish wall material changes and at wall surfaces where lower roof areas abut vertical wall surfaces.
8. **Porch Railings** shall be provided at all porch walking surfaces greater than 30" above adjacent finished grade. It shall be 36" high with guards spaced no more than 4" apart. Consult community specifications for material.
9. **Finish Wall Material** shall be as noted on elevation drawings. Consult community specifications for material make-up of siding, shown as generic on drawing.
10. **Brick Veneer**, if included on elevation shall be tied to wall surface with galvanized corrugated metal ties at a rate of 24" oc horizontally and 16" oc vertically so that no more than 2.67sf of brick is supported by (1) tie. Space between face of wall and back face of brick shall be limited to a maximum of 1". Flashing shall be provided behind brick above all wall openings and at base of brick wall. Flashing shall be a minimum of 6-mil poly or other corrosion resistant material and shall be installed so that it laps under the house wrap material a minimum of 2". Weepholes shall be provided at a rate of 48" oc and shall not be less than 3/16" in diameter and shall be located immediately above flashing.
11. **Brick Veneer Support Lintels** shall be provided if brick veneer is included on elevation. See structural plans for lintel size, bearing and connection to header.
12. **Sheathing** House is covered 100% with structural wood sheathing at front and rear and side elevations provide nail pattern of 3" o.c. at perimeter and 6" o.c. at field.

Side and Rear Buildings



FRONT ELEVATION 'B'
SCALE: 1/4"=1'-0" ON 22x34 AND 1/8"=1'-0" ON 11x17



RIGHT ELEVATION 'B'
SCALE: 1/8"=1'-0" ON 22x34 AND 1/16"=1'-0" ON 11x17

ROOF VENT CALCULATIONS ELEV 'B'

MAIN ROOF ATTIC
1198 SQ. FT.

ATTIC VENTILATION REQUIRED

1198 SQ. FT. / 300 = 3.99 SQ. FT. REQUIRED

46 LF RIDGE VENT @ 18 S.I./LF = 46x18 = 828 S.I. = 5.75 SF
63 LF SOFFIT VENT @ 4.5 S.I./LF = 63x4.5 = 283 S.I. = 1.96 SF
7.71 SF PROVIDED

ROOF OF GARAGE AND FRONT PORCH
328 SQ. FT.

ATTIC VENTILATION REQUIRED

328 SQ. FT. / 300 = 1.09 SQ. FT. REQUIRED

40 LF SOFFIT VENT @ 4.5 S.I./LF = 40x4.5 = 180 S.I. = 1.25 SF
0.87 SF PROVIDED

OPT COVERED OR SCREEN PORCH
120 SQ. FT.

ATTIC VENTILATION REQUIRED

120 SQ. FT. / 300 = 0.4 SQ. FT. REQUIRED

10 LF RIDGE VENT @ 18 S.I./LF = 10x18 = 180 S.I. = 1.25 SF
20 LF SOFFIT VENT @ 4.5 S.I./LF = 20x4.5 = 90 S.I. = 0.62 SF
1.87 SF PROVIDED

MASTER ISSUE DATE
4/02/2020

DO NOT SCALE PRINTS CONSTRUCTION SHALL BE PER INDICATED DIMENSIONS ONLY

LATEST REVISION DATE

GAR LEFT

DOVE HOMES, LLC
RALEIGH, NC
919-427-6991

AUBREY
ELEVATION 'B' - CRAWL

SHEET #
4.00

General Elevation Notes

General Elevation Notes shall apply unless noted otherwise on plan.

1. **Roof** shall be finished with composition shingles with slopes as noted on plan.
2. **Metal Roof** finish is used as an accent material and may be optional, consult community specifications.
3. **Ridge Vent** shall be provided and installed on all ridges greater than 6' in length per manufacturer's specifications.
4. **Soffit Vent** shall be continuous soffit vent, consult community specifications for material.
5. Additional Vents may be required to meet ventilation requirements, consult ventilation calculations and additional vents noted on plan.
6. **House Wrap**, "Tyvek" or approved equal shall be installed over entire exterior wall per manufacturer's specifications and recommendations. "Zip" system sheathing may substitute for House Wrap.
7. **Flashing** shall be provided above all door and window openings, above finish wall material changes and at wall surfaces where lower roof areas abut vertical wall surfaces.
8. **Porch Railings** shall be provided at all porch walking surfaces greater than 30" above adjacent finished grade. It shall be 36" high with guards spaced no more than 4" apart. Consult community specifications for material.
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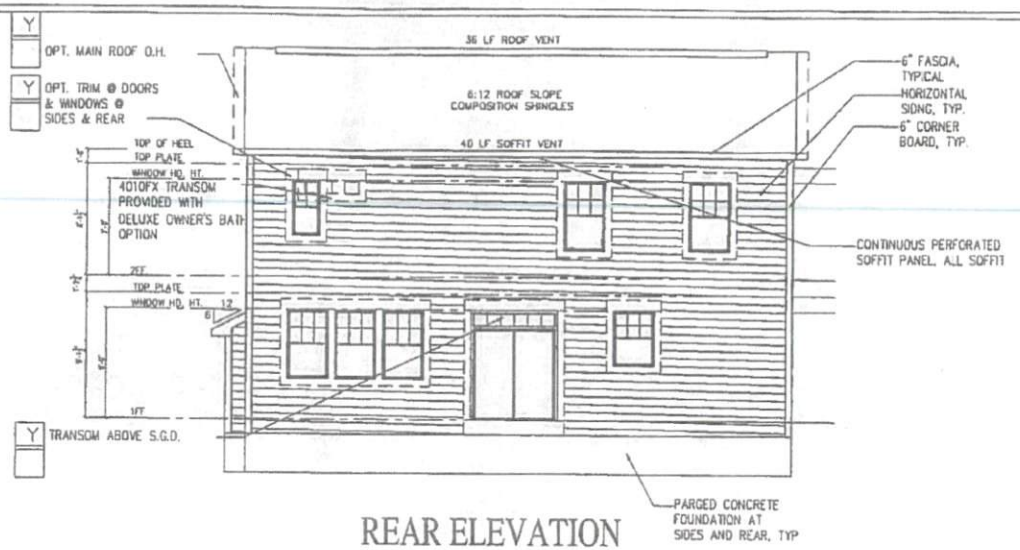
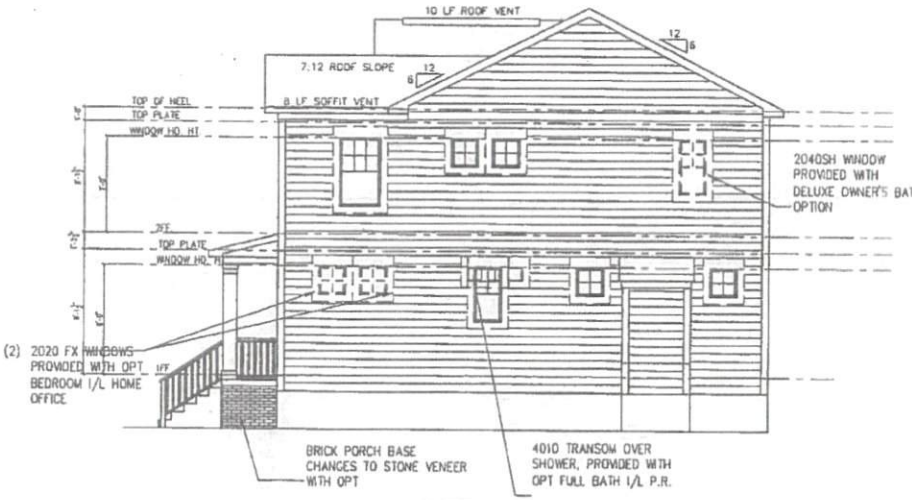
11. **Brick Veneer Support Lintels** shall be provided if brick veneer is included on elevation. See structural plans for lintel size, bearing area, and connection to header.
12. **Sheathing** House is covered 100% with structural wood sheathing at front and rear and side elevations provide nail pattern of 3" o.c. at perimeter and 6" o.c. at field.



REAR ELEVATION

SCALE: 1/8"=1'-0" ON 22x34 AND 1/16"=1'-0" ON 11x17



LEFT ELEVATION 'B'

SCALE: 1/8"=1'-0" ON 22x34 AND 1/16"=1'-0" ON 11x17

MASTER ISSUE DATE: 4/02/2020

DO NOT SCALE PRINTS. CONSTRUCTION SHALL BE PER WRITTEN DIMENSIONS ONLY

LATEST REVISION DATE:

GAR LEFT

DOVE HOMES, LLC
RALEIGH, NC
919-427-6991

AUBREY

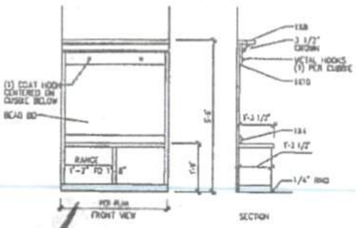
ELEVATION 'B' - CRAWL

SHEET #
4.00

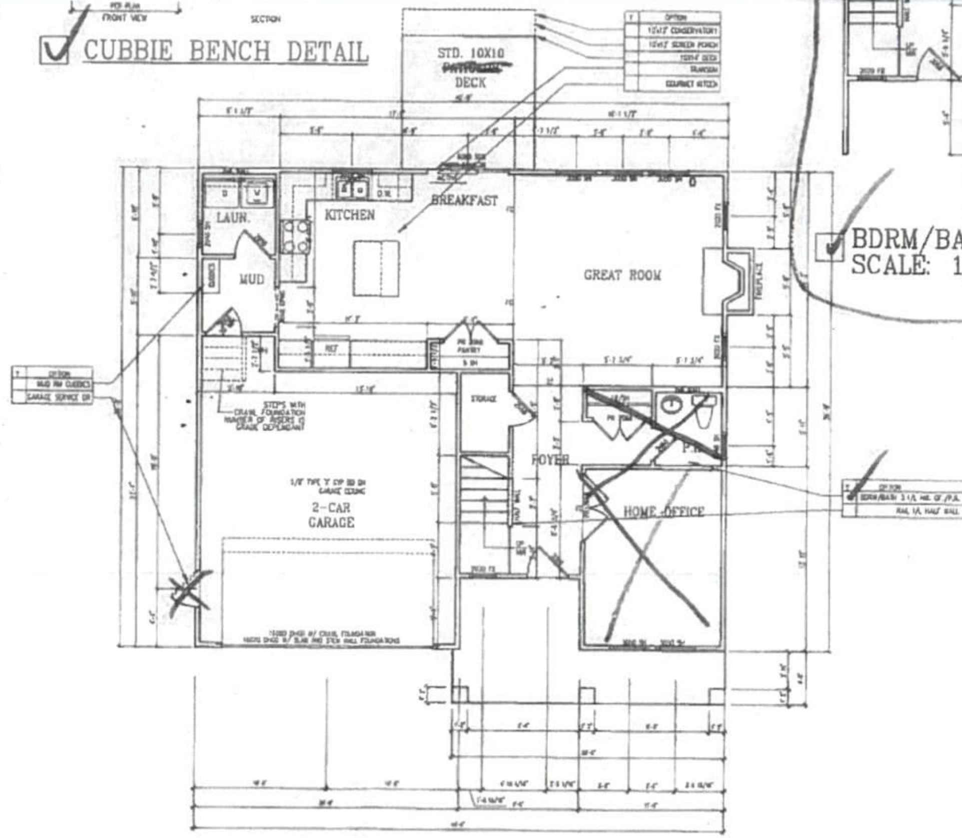
General Floor Plan Notes

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

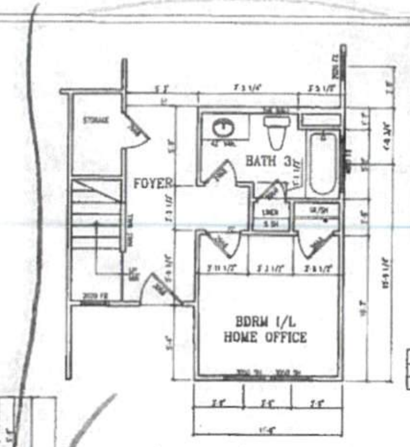
1. **Wall Heights:** Typically 9'-1-1/2" first floor and 8'-1-1/2" second floors U.N.O.. All walls are constructed using a double top plate. Splices at Double Top Plate do not need to occur at Vertical Studs but must be at least 24" apart from Joint in other Top Plate layer. Special wall heights are noted on plans where they occur.
2. **Wall Thickness** is typically 4" at exterior walls, 3-1/2" at interior. 2x6 frame shall be used at walls that back up to plumbing fixtures. Walls greater than 10' high shall be framed with 2x6 framing or greater and will be noted as a special condition where it occurs on plan.
3. **Header height** shall be 7'-11" AFF at 9' plate height and 6'-11" at 8' plate height, unless noted otherwise.
4. **Soffits, Coffered Ceilings, Tray Ceilings** and other significant ceiling plan elements are shown on the floor plans and are denoted as single dashed lines. Unless specifically call out as included, Kitchens do not include soffits over wall cabinetry.
5. **Door & Window Frames**, where occurring near corners, shall be a minimum of 4-1/2" from corner. Except for walk-in closets with doors near a corner, doors at closets shall be centered on closet.
6. **Windows:** Shall have at least (1) window in each sleeping room, that meets egress. Shall be provided with tempered glass at hazardous glazing areas. Windows used at unfinished attic spaces as elevation decorative elements only shall have obscure glazing.
7. **Closets** for clothing or coat storage shall be equipped with 1 rod/shelf. Closets for linen shall have 5. Closets for pantries shall have 5 shelves. Consult spec level for solid or wire shelves.
8. **Stairs** shall have a minimum width dimensioned as 3'-7", treads shall be 10" deep, risers shall be a maximum of 7-3/4", unless noted otherwise.
9. **Handrails and Guards** at stairs shall be 34" above the finished surface of the ramp surface of the stair. Handrails at landings and overlooks of multilevel spaces shall be 42" above finished floor. Guards (pickets or balusters) shall be spaced with no more than 4" between guards
10. **Attic Access** shall be provided to attic areas that exceed 400 square feet and have a vertical height of 60" or greater. Minimum clear attic access shall be 20" x 30". Pull down stairs and access doors in knee walls meeting minimum criteria are also acceptable.
11. **Garage Door to Living Space** shall be 2'-8" x 6'-8" minimum size and shall be 20 minute fire rated and weather sealed.
12. **Garage Walls**, as a minimum, shall be separated from living space and living space attic by installing 1/2" gypsum board on the garage side of the wall.
13. **Garage Ceilings**, 5/8" type "X" gypsum board on the garage ceilings when heated space is above.



CUBBIE BENCH DETAIL



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



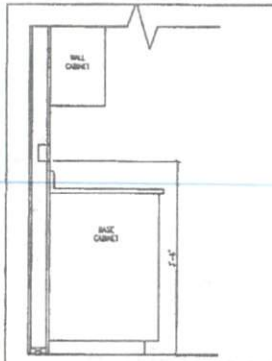
BDRM/BA3 I/L HM OF/PR
SCALE: 1/8"=1'-0"

GAR
LEFT

DOVE HOMES, LLC
RALEIGH, NC
919-427-6991

AUBREY
1ST FLOOR PLAN - ELEVATION "B"

SHEET #
6.00



SWITCH & RECEPTACLE BOXES OVER KITCHEN CABINETS

SWITCH & RECEPTACLE BOXES OVER BATH CABINETS

ELECTRICAL LEGEND

	SINGLE SWITCH
	3 WAY SWITCH
	4 WAY SWITCH
	WP WET SEAL
	CEILING FAN FIXTURE
	CEILING MOUNTED LIGHT FIXTURE
	WALL MOUNTED LIGHT FIXTURE
	3 WAY FLOOD LIGHT
	EXHAUST FAN
	SMOKE DETECTOR

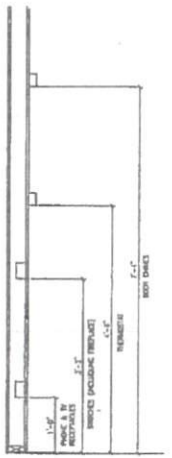
NOTE:
THIS PLAN SHOWS LIGHTING AND LIFE SAFETY ITEMS ONLY. CONVENIENCE OUTLETS ARE PLACED IN FIELD BY ELECTRICAL CONTRACTOR BASED ON REQUIREMENTS SURLINED IN THE NATIONAL ELEC CODE.

GENERAL POWER AND LIGHTING NOTES

GENERAL POWER AND LIGHTING NOTES SHALL APPLY UNLESS NOTED OTHERWISE ON PLANS. ALL WORK SHALL BE INSTALLED PER THE 2018 NC RESIDENTIAL BUILDING CODE, AND THE NATIONAL ELECTRIC CODE. ALARM DEVICES SHALL MEET NFPA 72.

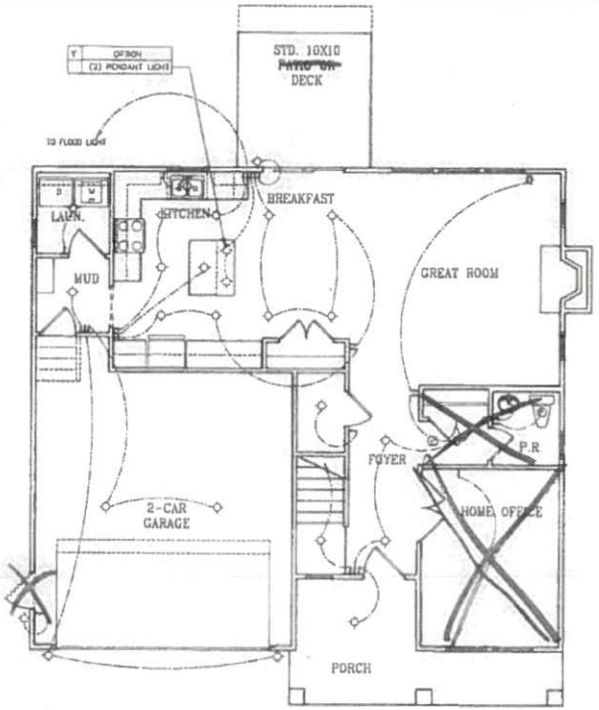
1. SMOKE ALARMS - SHALL BE PROVIDED AS A MINIMUM OF (1) PER FLOOR, INCLUDING BASEMENTS (IF APPLICABLE), (1) IN EACH SLEEPING ROOM, AND (1) OUTSIDE EACH SLEEPING AREA, WITHIN THE IMMEDIATE VICINITY OF SLEEPING ROOMS. WHEN MORE THAN ONE ALARM IS REQUIRED, THE ALARM DEVICES SHALL BE INTERCONNECTED IN SUCH A MANNER THAT THE ACTUATION OF ONE ALARM WILL ACTIVATE ALL OF THE ALARMS. SMOKE ALARMS SHALL BE HARD WIRED TO PERMANENT POWER AND SHALL HAVE BATTERY BACK-UPS.

2. SWITCHED - FOR LIGHTING, FANS, ETC. SHALL BE INSTALLED AT HEIGHTS ILLUSTRATED ON THIS PAGE AND SHALL BE LOCATED A MINIMUM OF 4" FROM DOOR OPENINGS TO ALLOW FOR THE PROPER INSTALLATION OF DOOR CASINGS. SWITCH, THERMOSTATS, SECURITY PADS AND OTHER SIMILAR DEVICES SHALL BE GROUPED TOGETHER AND INSTALLED THROUGHOUTLY FOR COMMENCEMENT OF USE AND TO AVOID PLACEMENT WITHIN CENTERS OF WALL AREAS.

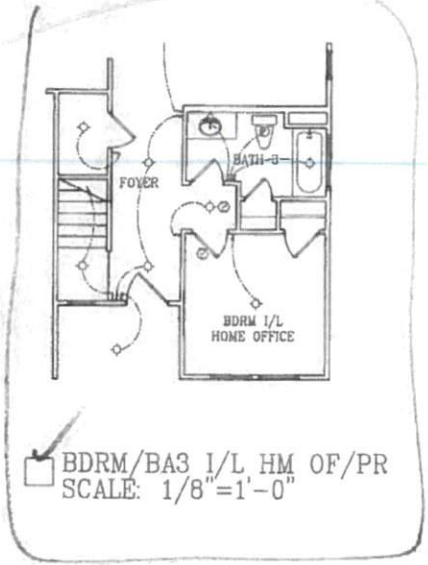


STANDARD ELECTRICAL BOX HEIGHTS

ELECTRICAL OUTLETS ARE NOT SHOWN UNLESS SPECIFICALLY CALLED FOR TO BE SWITCHED. PROVIDE OUTLETS IN REQUIRED VOLTAGES TO MEET PLAN REQUIREMENTS AND TO MEET ALL APPLICABLE CODES AND NATIONAL ELECTRICAL CODE CURRENT EDITIONS AND REQUIRED SPACING..



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



BDRM/BA3 I/L HM OF/PR
SCALE: 1/8"=1'-0"

MASTER ISSUE DATE: 4/22/2020

DO NOT SCALE PRINTS CONTRACTOR SHALL BE PER INDICATED DIMENSIONS ONLY

LATEST REVISION DATE:

GAR LEFT

DOVE HOMES, LLC
RALEIGH, NC
919-427-6991

AUBREY
1ST FLOOR ELECTRICAL PLANS - ELEV "B"

SHEET # 7.00

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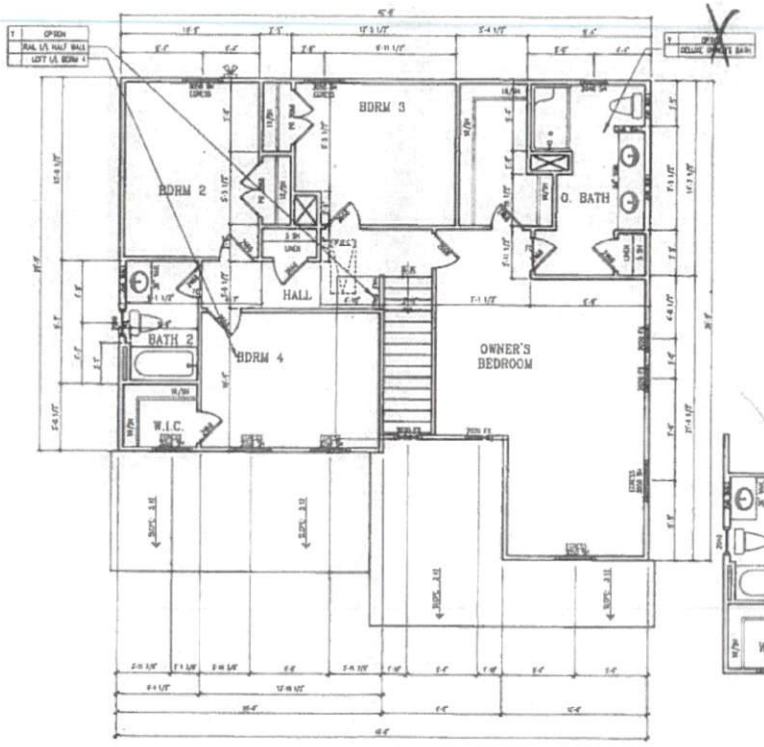
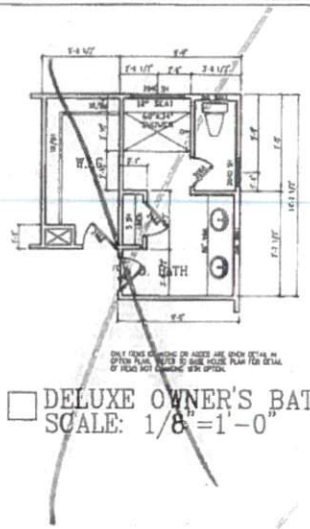
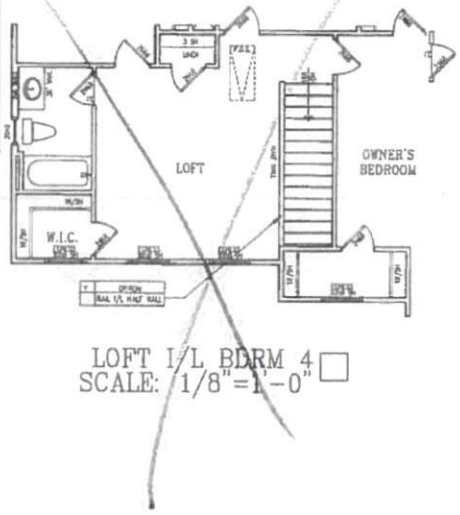


SECOND FLOOR PLAN
SCALE: 1/8"=1'-0"



☐ DELUXE OWNER'S BATH
SCALE: 1/8"=1'-0"



LOFT I/L BDRM 4 ☐
SCALE: 1/8"=1'-0"

MASTER ISSUE DATE:
4/02/2020

DO NOT SCALE PRINTS. CONSTRUCTION SHALL BE PER INDICATED DIMENSIONS ONLY

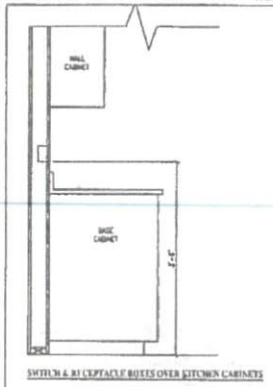
LATEST REVISION DATE:

GAR LEFT

DOVE HOMES, LLC
RALEIGH, NC
919-427-6991

AUBREY
2ND FLOOR PLAN - ELEVATION "B"

SHEET #
6.00



SWITCH & RECEPTACLE BOXES OVER KITCHEN CABINETS

SWITCH & RECEPTACLE BOXES OVER BATH CABINETS

ELECTRICAL LEGEND

	SINGLE SWITCH
	3 WAY SWITCH
	4 WAY SWITCH
	110 VOLT OUTLET
	CEILING FAN PREWIRE
	CEILING MOUNTED LIGHT FIXTURE
	WALL MOUNTED LIGHT FIXTURE
	3 WAY FLOOD LIGHT
	DOORBELL
	SMOKE DETECTOR

NOTE:
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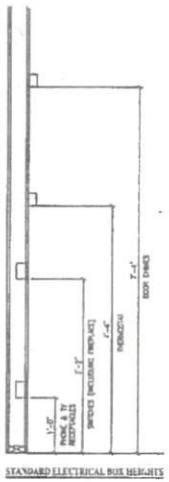
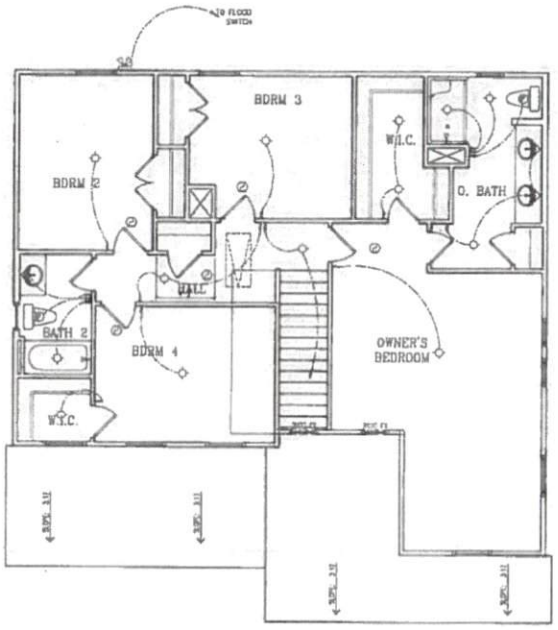
1. SMOKE ALARMS – SHALL BE PROVIDED AS A MINIMUM OF (1) PER FLOOR, INCLUDING BASEMENTS (IF APPLICABLE), (1) IN EACH SLEEPING ROOM, AND (1) OUTSIDE EACH SLEEPING AREA, WITHIN THE IMMEDIATE VICINITY OF SLEEPING ROOMS, WHEN MORE THAN ONE ALARM IS REQUIRED, THE ALARM DEVICES SHALL BE INTERCONNECTED IN SUCH A MANNER THAT THE ACTUATION OF ONE ALARM WILL ACTIVATE ALL OF THE ALARMS. SMOKE ALARMS SHALL BE HARD WIRED TO PERMANENT POWER AND SHALL HAVE BATTERY BACK-UPS.

2. SWITCHES – FOR LIGHTING, FANS, ETC. SHALL BE INSTALLED AT HEIGHTS ILLUSTRATED ON THIS PAGE AND SHALL BE LOCATED A MINIMUM OF 1'-2" FROM DOOR OPENINGS TO ALLOW FOR THE PROPER INSTALLATION OF DOOR CASINGS. SWITCHES, THERMOSTATS, SECURITY PADS AND OTHER SIMILAR DEVICES SHALL BE UNIFORM THROUGHOUT AND INSTALLED PLUMB/VERTICALLY FOR CONSISTENCY OF USE AND TO AVOID PLACEMENT WITHIN CORNERS OF WALL AREAS.

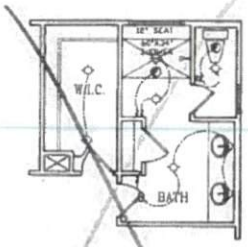


STANDARD ELECTRICAL BOX HEIGHTS

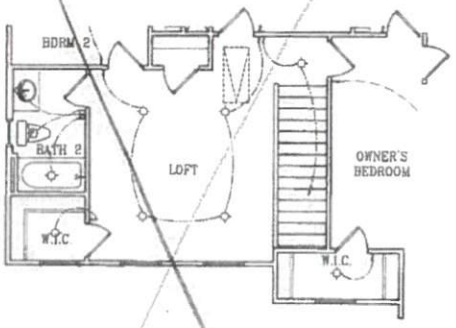
ELECTRICAL OUTLETS ARE NOT SHOWN UNLESS SPECIFICALLY CALLED FOR TO BE SWITCHED. PROVIDE OUTLETS IN REQUIRED VOLTAGES TO MEET PLAN REQUIREMENTS AND TO MEET ALL APPLICABLE CODES AND NATIONAL ELECTRICAL CODE CURRENT EDITIONS AND REQUIRED SPACING..



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



DELUXE OWNER'S BATH
SCALE: 1/8"=1'-0"



LOFT I/L BDRM 4
SCALE: 1/8"=1'-0"

MASTER ISSUE DATE:
4/22/2020

DO NOT SCALE PRINTS
CONSTRUCTION SHALL BE
FOR INDICATED DIMENSIONS
ONLY

LATEST REVISION DATE

GAR
LEFT

DOVE HOMES, LLC
RALEIGH, NC
919-427-6991

AUBREY

2ND FLOOR ELECTRICAL PLANS - ELEV "B"

SHEET #
7.00

DESIGN SPECIFICATIONS:

Construction Type: Commerical ☐ Residential ☒

Applicable Building Codes:
- 2018 North Carolina Residential Building Code
- ASCE 7-10: Minimum Design Loads for Buildings and Other Structures

Design Loads:

1. Roof Live Loads
   - 1.1. Conventional 2x ..... 20 PSF
   - 1.2. Truss ..... 20 PSF
     - 1.2.1. Attic Truss ..... 60 PSF
2. Roof Dead Loads
   - 2.1. Conventional 2x ..... 10 PSF
   - 2.2. Truss ..... 20 PSF
3. Snow ..... 15 PSF
   - 3.1. Importance Factor 1.0
4. Floor Live Loads
   - 4.1. Typ. Dwelling ..... 40 PSF
   - 4.2. Sleeping Areas ..... 30 PSF
   - 4.3. Decks ..... 40 PSF
   - 4.4. Passenger Garage ..... 50 PSF
5. Floor Dead Loads
   - 5.1. Conventional 2x ..... 10 PSF
   - 5.2. I-Joist ..... 15 PSF
   - 5.3. Floor Truss ..... 15 PSF
6. Ultimate Wind Speed (3 sec. gust) ..... 130 MPH
   - 6.1. Exposure ..... B
   - 6.2. Importance Factor 1.0
   - 6.3. Wind Base Shear
     - 6.3.1. Vx =
     - 6.3.2. Vy =
7. Component and Cladding (in PSF)

MEAN ROOF HT.	UP TO 30'	30'1"-35'	35'1"-40'	40'1"-45'
ZONE 1	16.7,-18.0	17.5,-18.9	18.2,-19.6	18.7,-20.2
ZONE 2	16.7,-21.0	17.5,-22.1	18.2,-22.9	18.7,-23.5
ZONE 3	16.7,-21.0	17.5,-22.1	18.2,-22.9	18.7,-23.5
ZONE 4	18.2,-19.0	19.2,-20.0	19.9,-20.7	20.4,-21.3
ZONE 5	18.2,-24.0	19.2,-25.2	19.9,-26.1	20.4,-26.9

8. Seismic
   - 8.1. Site Class ..... D
   - 8.2. Design Category C
   - 8.3. Importance Factor 1.0
   - 8.4. Seismic Use Group 1
   - 8.5. Spectral Response Acceleration
     - 8.5.1. Sms = %g
     - 8.5.2. Sm1 = %g
   - 8.6. Seismic Base Shear
     - 8.6.1. Vx =
     - 8.6.2. Vy =
   - 8.7. Basic Structural System (check one)
     - ☒ Bearing Wall
     - ☐ Building Frame
     - ☐ Moment Frame
     - ☐ Dual w/ Special Moment Frame
     - ☐ Dual w/ Intermediate R/C or Special Steel
     - ☐ Inverted Pendulum
   - 8.8. Arch/Mech Components Anchored ..... No
   - 8.9. Lateral Design Control: Seismic ☐ Wind ☒
9. Assumed Soil Bearing Capacity 2000psf

SUMMIT
ENGINEERING LABORATORY TESTING

STRUCTURAL PLANS PREPARED FOR:

AUBREY

PROJECT ADDRESS:
TBD

OWNER:
John Dove
2516 Brook Crossing Circle
Raleigh, NC 27606

DESIGNER:
Mike Majewski, architect, PLLC
8227 Hillside Drive
Raleigh, NC 27612

These drawings are to be coordinated with the architectural, mechanical, plumbing, electrical, and civil drawings. This coordination is not the responsibility of the structural engineering of record (SER). Should any discrepancies become apparent, the contractor shall notify SUMMIT Engineering, Laboratory and Testing, P.C. before construction begins.

PLAN ABBRIVATIONS:

AB	Anchor Bolt	OC	On Center
ACI	American Concrete Institute	PCF	Pounds per Cubic Foot
ASCE	American Society of Civil Engineers	PCI	Pounds per Cubic Inch
AFA	American Fiberboard Association	PSF	Pounds per Square Foot
AFF	Above Finished Floor	PSI	Pounds per Square Inch
AISC	American Institute for Steel Construction	PT	Pressure Treated
APA	American Plywood Association	SC	Stud Column
AWS	American Welding Society	SER	Structural Engineer of Record
CJ	Ceiling Joist	SJ	Single Joist
CLR	Clear	SPF	Spruce Pine Fir
DBL	Double	SST	Simpson Strong Tie
DJ	Double Joist	ST	Single Truss
DSP	Double Stud Pocket	STD	Standard
EA	Each	SYP	Southern Yellow Pine
EE	Each End	TJ	Triple Joist
EOS	Edge of Slab	TOF	Top of Footing
EW	Each Way	TSP	Triple Stud Pocket
HDG	Hot Dipped Galvanized	TYP	Typical
NDS	Nation Design Spec. for Wood	UNO	Unless Noted Otherwise
NTS	Not to Scale	WWF	Welded Wire Fabric

SHEET LIST:

197
Farah - Shae Way
Angier, NC 27501

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WWW.SUMMIT-COMPANIES.COM

NORTH CAROLINA CERTIFICATE OF LICENSURE
SUMMIT Engineering, Laboratory & Testing, P.C.
C-4361

PROJECT: Aubrey LH Coversheet
CLIENT: John Dove 2516 Brook Crossing Circle Raleigh, NC 27606

CURRENT DRAWING
DATE: 6/24/2020
SCALE: 1/8"=1'-0"
PROJECT #: 2672-12R 28266
DRAWN BY: LBV
CHECKED BY: LAG

ORIGINAL INFORMATION

PROJECT #	DATE
28266	6/23/20

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

SHEET: CS1

NORTH CAROLINA PROFESSIONAL SEAL 046048 ENGINEER BRIAN C. PHILBRICK JR.
6/25/2020
STRUCTURAL MEMBERS ONLY

GENERAL STRUCTURAL NOTES:

1. The design professional whose seal appears on these drawings is the structural engineer of record (SER) for this project. The SER bears the responsibility of the primary structural elements and the performance of this structure. No other party may revise, alter, or delete any structural aspects of these construction documents without written 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.
2. The structure is only stable in its completed form. The contractor shall provide all required temporary bracing during construction to stabilize the structure.
3. The SER is not responsible for construction sequences, methods, or techniques in connection with the construction of this structure. The SER will not be held responsible for the contractor's failure to conform to the contract documents, should any non-conformities occur.
4. 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.
5. 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.
6. The SER is not responsible for any secondary structural elements or non-structural elements, except for the elements specifically noted on the structural drawings.
7. This structure and all construction shall conform to all applicable sections of the international residential code.
8. All structural and all construction shall conform to all applicable sections of the 2018 North Carolina Residential Code (NCRC) and any local codes or restrictions.

FOUNDATIONS:

1. Foundations shall be constructed in accordance with chapter 4 of the 2018 NC Residential Code (Special consideration shall be given to chapter 45 in wind zones 130 mph and above.)
2. Footing sizes are based on a presumptive soil bearing capacity of 2000 PSF. The contractor is solely responsible for verifying the suitability of the site soil conditions at the time of construction.
3. Maximum depth of unbalanced fill against masonry walls to be as specified in section R404.1 of the 2018 NCRC.
4. 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.
5. 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.
6. 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.
7. 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.
8. No concrete shall be placed against any subgrade containing water, ice, frost, or loose material.
9. Each crawl space pier shall bear in the middle third of its respective footing and each girder shall bear in the middle third of the pier. Pilasters to be bonded to the perimeter foundation wall.
10. Crawl space to be graded level and clear of all debris.
11. Proved foundation waterproofing and drain with positive slope to outlet as required by site conditions.
12. Energy efficiency compliance and insulation of the structure to be in accordance with chapter 11 of the 2018 NCRC.

STRUCTURAL STEEL:

1. Structural steel shall be fabricated and erected in accordance with the American Institute of Steel Construction "Code of Standard Practice for Steel Buildings and Bridges" and the manual of Steel Construction "Load Resistance Factor Design" latest editions.
2. All steel shall have a minimum yield stress (F_y) of 36 ksi unless otherwise noted.
3. 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.

CONCRETE:

1. Concrete shall have a normal weight aggregate and a minimum compressive strength (f'_c) at 28 days of 3000 psi, unless noted otherwise on the plan.
2. Concrete shall be proportioned, mixed, and placed in accordance with the latest editions of ACI 318: "Building Code Requirements for Reinforced Concrete" and ACI 301: "Specifications for Structural Concrete for Buildings".
3. Air entrained concrete must be used for all structural elements exposed to freeze/thaw cycles and deicing chemicals. Air entrainment amounts (in percent) shall be within -1% to +2% of target values as follows:
   - 3.1. Footings: 5%
   - 3.2. Exterior Slabs: 5%
4. No admixtures shall be added to any structural concrete without written permission of the SER.
5. Concrete slabs-on-grade shall be constructed in accordance with ACI 302.1R-96: "Guide for Concrete Slab and Slab Construction".
6. 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.
7. 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 noted otherwise.
8. 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.
9. 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.

CONCRETE REINFORCEMENT:

1. 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.
2. Fibermesh reinforcing to be 100% virgin polypropylene fibers containing no reprocessed olefin materials and specifically manufactured for use as concrete secondary reinforcement.
3. Application of fibermesh per cubic yard of concrete shall equal a minimum of 0.1% by volume (1.5 pounds per cubic yard)
4. Fibermesh shall comply with ASTM C1116, any local building code requirements, and shall meet or exceed the current industry standard.
5. Steel reinforcing bars shall be new billet steel conforming to ASTM A615, grade 60.
6. 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"
7. 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.
8. 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.
9. 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.
10. Where reinforcing steel is required vertically, dowels shall be provided unless otherwise noted.

WOOD FRAMING:

1. Solid sawn wood framing members shall conform to the specifications listed in the latest edition of the "National Design Specification for Wood Construction" (NDS). Unless otherwise noted, all wood framing members are designed to be Southern-Yellow-Pine (SYP) #2.
2. LVL or PSL engineered wood shall have the following minimum design values:
   - 2.1. E = 1,900,000 psi
   - 2.2. Fb = 2600 psi
   - 2.3. Fv = 285 psi
   - 2.4. Fc = 700 psi
3. 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
4. Nails shall be common wire nails unless otherwise noted.
5. Lag screws shall conform to ANSI/ASME standard B18.2.1-1981. Lead holes for lag screws shall be in accordance with NDS specifications.
6. All beams shall have full bearing on supporting framing members unless otherwise noted.
7. Exterior and load bearing stud walls are to be 2x4 SYP #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.
8. 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 properly blocked at all floor levels to ensure proper load transfer.
9. Multi-ply beams shall have each ply attached with (3) 12d nails @ 12" O.C.
10. Flitch beams, 4-ply beams and 3-ply side loaded beams shall be bolted together with (2) rows of 1/2" diameter through bolts staggered @ 24" O.C. unless noted otherwise. Min. edge distance shall be 2" and (2) bolts shall be located a min. 6" from each end of the beam.

WOOD TRUSSES:

1. The wood truss manufacturer/fabricator is responsible for the design of the wood trusses. The SER shall assume no responsibility for the correctness for the structural design for the wood trusses. SUMMIT shall be notified by the truss manufacturers/fabricator or the client of any discrepancies between the truss/joist layouts and the sealed structural plans prior to the start of construction.
2. The wood trusses shall be designed for all required loadings as specified in the local building code, the ASCE Standard "Minimum Design Loads for Buildings and Other Structures." (ASCE 7-10), 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.
3. All girder truss to girder truss connections, truss to top plate connections and uplift connections are the responsibility of the wood truss manufacturer/fabricator.
4. 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."
5. 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.
6. 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.

EXTERIOR WOOD FRAMED DECKS:

1. 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.

WOOD STRUCTURAL PANELS:

1. Fabrication and placement of structural wood sheathing shall be in accordance with the APA Design/Construction Guide "Residential and Commercial," and all other applicable APA standards.
2. All structurally required wood sheathing shall bear the mark of the APA.
3. Wood wall sheathing shall comply with the requirements of local building codes for the appropriate state as indicated on these drawings. Refer to wall bracing notes in plan set for more information. Sheathing shall be applied with the long direction perpendicular to framing, unless noted otherwise.
4. 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 and joints shall occur over framing. Apply building paper over the sheathing as required by the state Building Code.
5. 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.
6. Sheathing shall have a 1/8" gap at panel ends and edges as recommended in accordance with the APA.

STRUCTURAL FIBERBOARD PANELS:

1. Fabrication and placement of structural fiberboard sheathing shall be in accordance with the applicable AFA standards.
2. 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.
3. Sheathing shall have a 1/8" gap at panel ends and edges are recommended in accordance with the AFA.

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

6/25/2020

STRUCTURAL MEMBERS ONLY

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NORTH CAROLINA CERTIFICATE OF LICENSURE
SUMMIT Engineering, Laboratory & Testing, P.C.
C-4361

PROJECT
Aubrey LH
Coversheet

CLIENT
John Dove
2516 Brook Crossing Circle
Raleigh, NC 27606

CURRENT DRAWING
DATE: 6/24/2020
SCALE: 1/8"=1'-0"
PROJECT #: 2672-12R 28266
DRAWN BY: LBV
CHECKED BY: LAG

ORIGINAL INFORMATION

PROJECT #	DATE
28266	6/23/20

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

SHEET
CS2

REVISION LOG:

DATE:	SHEET:	REVISION:

DATE:	SHEET:	REVISION:

DATE:	SHEET:	REVISION:

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PROJECT
Aubrey LH
Revision Log

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John Dove
2516 Brook Crossing Circle
Raleigh, NC 27606

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28266	6/23/20

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

SHEET
CS3

FOUNDATION NOTES:

1. FOUNDATIONS TO BE CONSTRUCTED IN ACCORDANCE WITH CHAPTER 4 OF THE 2018 NC RESIDENTIAL BUILDING CODE.
2. STRUCTURAL CONCRETE TO BE F_c = 3000 PSI, PREPARED AND PLACED IN ACCORDANCE WITH ACI STANDARD 318.
3. 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.
4. 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.
5. ALL REINFORCING STEEL SHALL BE GRADE 60 BARS CONFORMING TO ASTM A615 AND SHALL HAVE A MINIMUM COVER OF 3".
6. FOOTINGS AND PIERS SHALL BE CENTERED UNDER THEIR RESPECTIVE ELEMENTS. PROVIDE 2" MINIMUM FOOTING PROJECTION FROM THE FACE OF MASONRY.
7. MAXIMUM DEPTH OF UNBALANCED FILL AGAINST MASONRY WALLS TO BE AS SPECIFIED IN SECTION R404.1 OF THE 2018 NC RESIDENTIAL BUILDING CODE.
8. PILASTERS TO BE BONDED TO PERIMETER FOUNDATION WALL.
9. PROVIDE FOUNDATION WATERPROOFING, AND DRAIN WITH POSITIVE SLOPE TO OUTLET AS REQUIRED BY SITE CONDITIONS.
10. PROVIDED PERIMETER INSULATION FOR ALL FOUNDATIONS PER 2018 NC RESIDENTIAL BUILDING CODE.
11. CORBEL FOUNDATION WALL AS REQUIRED TO ACCOMMODATE BRICK VENEERS.
12. CRAWL SPACE TO BE GRADED LEVEL & CLEARED OF ALL DEBRIS.
13. FOUNDATION ANCHORAGE SHALL BE A MIN. OF 1/2" DIA. ANCHOR BOLTS AND SHALL EXTEND A MIN. OF 7" INTO MASONRY OR CONCRETE. BOLTS SHALL BE 6'-0" O.C. AND WITHIN 12" OF ALL PLATE SPLICES. MIN. (2) ANCHOR BOLTS PER PLATE SECTION.
14. ALL PIERS TO BE 16"x16" MASONRY AND ALL PILASTERS TO BE 8"x16" MASONRY, TYPICAL. (U.N.O.)
15. WALL FOOTINGS TO BE CONTINUOUS CONCRETE, SIZED PER STRUCTURAL PLAN.
16. 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 MUST BE PROVIDED THE OPPORTUNITY TO REVIEW THE FOOTING DESIGN PRIOR TO CONCRETE PLACEMENT.
17. ALL FOOTINGS & SLABS ARE TO BEAR ON UNDISTURBED SOIL OR 95% COMPACTED FILL, VERIFIED BY ENGINEER OR CODE OFFICIAL.

REINFORCE GARAGE PORTAL WALLS PER FIGURE R404.1.3.4.3 OF THE 2018 NCRC.

NOTE: ALL EXTERIOR FOUNDATION DIMENSIONS ARE TO FRAMING AND NOT BRICK VENEER, U.N.O.

NOTE: BEAM POCKETS MAY BE SUBSTITUTED FOR 8"x16" CMU PIERS AT GIRDER ENDS. BEAM POCKETS SHALL HAVE A MIN. OF 4" SOLID MAS. BEARING.

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

CRAWL SPACE VENTILATION:
678 SQ. FT. / 150 = 5.5 SQ. FT. REQ'D.
5.5 SQ. FT. / 0.45 PER VENT = 12 VENTS REQ'D.

NOTE: WHERE AN APPROVED VAPOR BARRIER IS INSTALLED OVER GROUND SURFACE, THE REQ'D. VENTILATION MAY BE REDUCED BY 50%.

36"x24" MIN. CRAWL SPACE ACCESS DOOR LOCATED BY BUILDER. PROVIDE MIN. (1) 2x10 HEADER OVER DOOR W/ MIN 4" BEARING EE

REFER TO BRACED WALL PLAN FOR PANEL LOCATIONS AND ANY REQUIRED HOLD-DOWNS. ADDITIONAL INFORMATION PER SECTION R602.10.4 AND FIGURE R602.10.3.4) OF THE 2018 NCRC.

NOTE: FOUNDATION ANCHORAGE HAS BEEN DESIGNED TO RESIST THE CONTINUOUS WIND UPLIFT LOAD PATH IN ACCORDANCE WITH METHOD 3 OF SECTION R602.3.5 OF THE 2018 NCRC.

THESE PLANS ARE DESIGNED IN ACCORDANCE WITH ARCHITECTURAL PLANS PROVIDED BY MIKE HALBRIG, AIA, COMPLETED/REVISED ON 5/5/20. 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 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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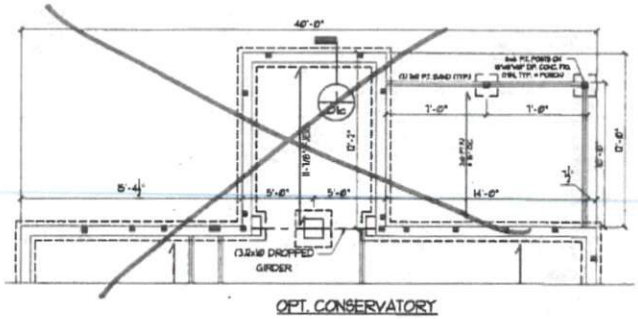
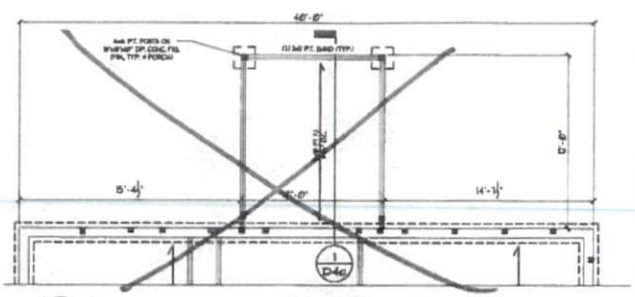
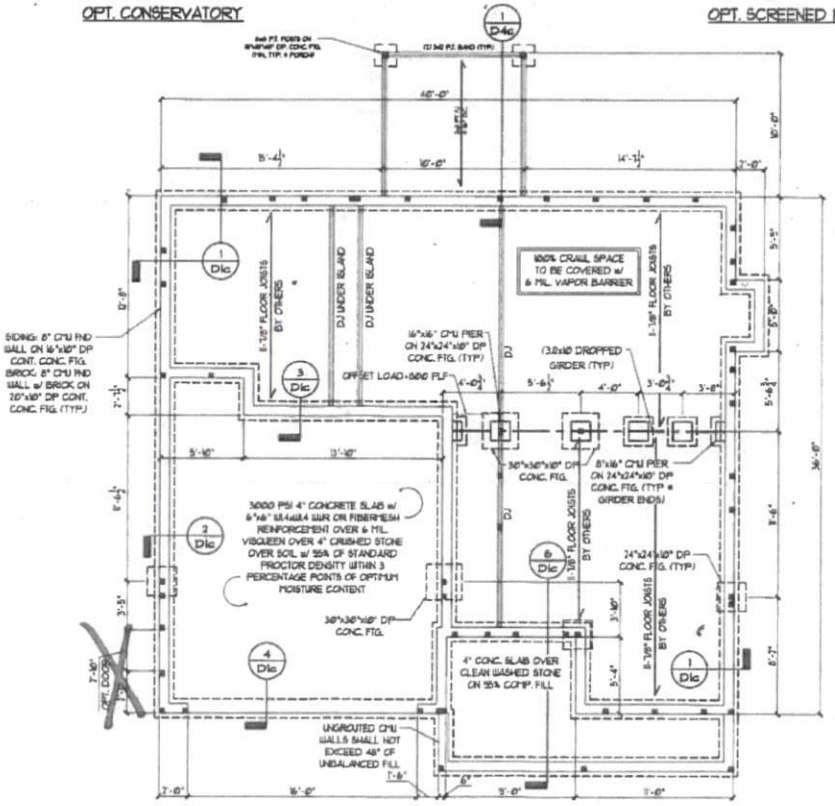
STRUCTURAL ANALYSIS BASED ON 2018 NCRC.



OPT. CONSERVATORY



OPT. SCREENED PORCH



ELEVATION B

CRAWL SPACE FOUNDATION
SCALE: 1/8"=1'

SUMMIT
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NORTH CAROLINA CERTIFICATE OF LICENSURE
SUMMIT Engineering, Laboratory & Testing, P.C.
C-4361

PROJECT: Aubrey LH Crawl Space Fnd.
CLIENT: John Dove
2516 Brook Crossing Circle
Raleigh, NC 27606

CURRENT DRAWING
DATE: 6/24/2020
SCALE: 1/8"=1'-0"
PROJECT #: 2672-12R-28266
DRAWN BY: LBV
CHECKED BY: LAG

ORIGINAL INFORMATION

PROJECT #	DATE
28266	6/23/20

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

NORTH CAROLINA PROFESSIONAL SEAL 046048 ENGINEER BRIAN C. PHILBRICK, JR.
6/25/2020
STRUCTURAL MEMBERS ONLY

SHEET
S1.1c

GENERAL STRUCTURAL NOTES:

1. CONSTRUCTION SHALL CONFORM TO 2018 NC RESIDENTIAL BUILDING CODE.
2. 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.
3. CONTRACTOR IS RESPONSIBLE FOR PROVIDING TEMPORARY BRACING REQUIRED TO RESIST ALL FORCES ENCOUNTERED DURING ERECTION.
4. PROPERTIES USED IN THE DESIGN ARE AS FOLLOWS: MICRO.LAM (T.V.L.): F_b = 2600 PSI, F_v = 285 PSI, E = 1.9x10^6 PSI PARALLAM (PSL): F_b = 2900 PSI, F_v = 290 PSI, E = 1.8x10^6 PSI
5. ALL WOOD HEADERS SHALL BE 5 SYP UNLESS NOTED ON PLAN. ALL STUD COLUMNS AND JOISTS SHALL BE #2 SYP (U.N.O.)
6. ALL BEAMS SHALL BE SUPPORTED WITH A (2) 2x4 #2 SYP STUD COLUMN AT EACH END UNLESS NOTED OTHERWISE.
7. FOUNDATION ANCHORAGE SHALL BE CONSTRUCTED PER NC RESIDENTIAL BUILDING CODE 2018 SECTION 403.1.6. 1/2" DIA. BOLTS SPACED AT 6'-0" CENTERS WITH A 7" 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.
8. POSITIVE AND NEGATIVE WALL CLADDING DESIGN VALUES FOR 100 MPH, CATEGORY B, AND MRH 30 FEET OR LESS ARE 19.2 AND 24.8 RESPECTIVELY.
9. CONTRACTOR TO PROVIDED LOOKOUTS WHEN CEILING JOISTS SPAN PERPENDICULAR TO RAFTERS.
10. FLITCH BEAMS, 4-PLY LVLS AND 3-PLY SIDE LOADED LVLS SHALL BE BOLTED TOGETHER WITH 1/2" DIA. THRU BOLTS SPACED AT 24" O.C. (MAX) STAGGERED. MIN. EDGE DISTANCE SHALL BE 2" AND (2) BOLTS SHALL BE LOCATED A MINIMUM 6" FROM EACH END OF THE BEAM. EQUIVALENT SCREWS MAY BE SUBSTITUTED PER MANUFACTURER'S SPECIFICATIONS.
11. ALL NON-LOAD BEARING HEADERS SHALL BE (1) FLAT 2x4 SYP #2, DROPPED. FOR NON-LOAD BEARING HEADERS EXCEEDING 8'-0" IN WIDTH AND/OR WITH MORE THAN 2'-0" OF CRIPPLE WALL ABOVE, SHALL BE (2) FLAT 2x4 SYP #2, DROPPED (U.N.O.)

ALL HEADERS WHERE BRICK IS USED, TO BE:
(1) LINTEL (U.N.O.)

LINTEL SCHEDULE:

STEEL ANGLES TO HAVE MIN. 4" BEARING ONTO BRICK AT EACH END.

(1) L3x3x1/4"
(2) L3x3"x1/4"
(3) L3x3-1/2x5/16"
(4) L3x3-1/2"x5/16" ROLLED OR EQUAL ARCHED COMPONENT.

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

NOTE: SHADED WALLS INDICATED LOAD BEARING WALLS.

TWO STORY WALL NOTE (BALLOON FRAMING):
2x4 STUDS @ 12" O.C. OR 2x6 STUDS @ 16" O.C. w/ CROSS BRACING @ 6'-0" O.C. VERTICALLY.

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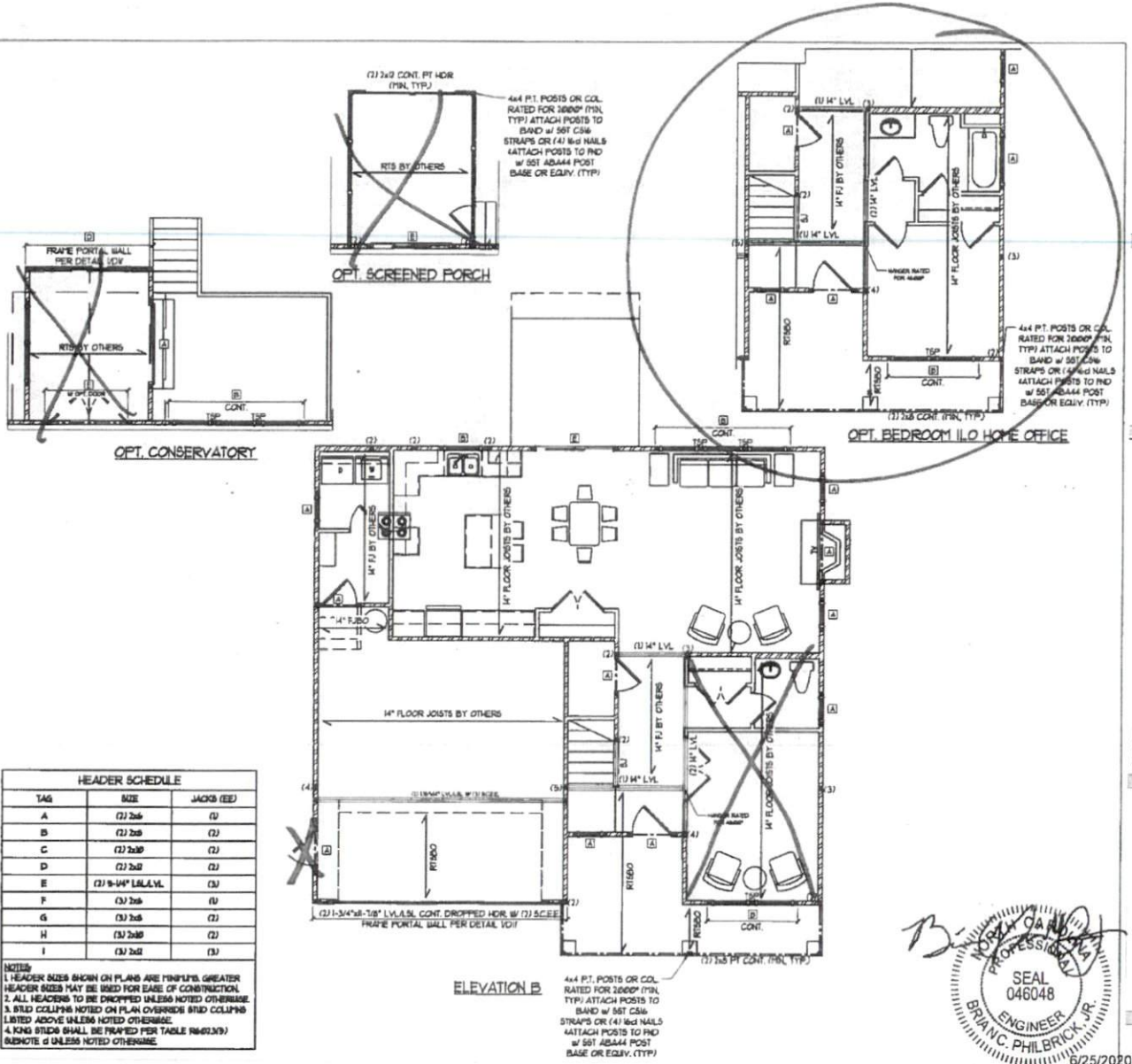
STRUCTURAL ANALYSIS BASED ON 2018 NCRC.

FIRST FLOOR FRAMING PLAN

SCALE: 1/8"=1'

HEADER SCHEDULE		
TAG	SIZE	JACKS (EE)
A	(2) 2x6	(1)
B	(2) 2x8	(2)
C	(2) 2x10	(2)
D	(2) 2x12	(2)
E	(2) 9-1/4" LSL/LVL	(3)
F	(3) 2x6	(1)
G	(3) 2x8	(2)
H	(3) 2x10	(2)
I	(3) 2x12	(3)

NOTES:
1. HEADER SIZES SHOWN ON PLANS ARE MINIMUMS. GREATER HEADER SIZES MAY BE USED FOR EASE OF CONSTRUCTION.
2. ALL HEADERS TO BE DROPPED UNLESS NOTED OTHERWISE.
3. STUD COLUMNS NOTED ON PLAN OVERRIDE STUD COLUMNS LISTED ABOVE UNLESS NOTED OTHERWISE.
4. KING STUDS SHALL BE PAIRED PER TABLE R602.3(3)
SUBNOTE a UNLESS NOTED OTHERWISE.



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NORTH CAROLINA CERTIFICATE OF LICENSURE
SUMMIT Engineering, Laboratory & Testing, P.C.
C-4361

PROJECT: Aubrey LH
First Floor Framing
CLIENT: John Dove
2516 Brook Crossing Circle
Raleigh, NC 27606

CURRENT DRAWING
DATE: 6/24/2020
SCALE: 1/8"=1'-0"
PROJECT #: 2672-12R:28266
DRAWN BY: LBV
CHECKED BY: LAG

ORIGINAL INFORMATION

PROJECT #	DATE
28266	6/23/20

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

NORTH CAROLINA PROFESSIONAL SEAL 046048 ENGINEER BRIAN C. PHILBRICK, JR.
6/25/2020
STRUCTURAL MEMBERS ONLY

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HEADER SCHEDULE		
TAG	SIZE	JACKS (EE)
A	(2) 2x6	(1)
B	(2) 2x8	(1)
C	(2) 2x10	(1)
D	(2) 2x12	(1)
E	(2) 9-1/4" LSL/LVL	(1)
F	(3) 2x6	(1)
G	(3) 2x8	(2)
H	(3) 2x10	(2)
I	(3) 2x12	(3)

NOTES:
1. HEADER SIZES SHOWN ON PLANS ARE MINIMUMS. GREATER HEADER SIZES MAY BE USED FOR EASE OF CONSTRUCTION.
2. ALL HEADERS TO BE DROPPED UNLESS NOTED OTHERWISE.
3. STUD COLUMNS NOTED ON PLAN OVERRIDE STUD COLUMNS LISTED ABOVE UNLESS NOTED OTHERWISE.
4. KING STUDS SHALL BE FRAMED PER TABLE R602.3(5) FOOTNOTE d UNLESS NOTED OTHERWISE.

ALL HEADERS WHERE BRICK IS USED, TO BE:
(1) LINTEL (L1/L2)

LINTEL SCHEDULE:

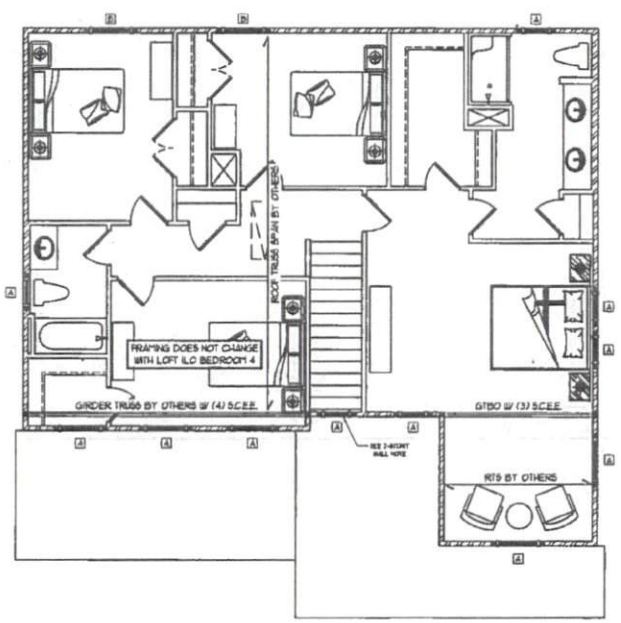
STEEL ANGLES TO HAVE MIN. 4" BEARING ONTO BRICK AT EACH END.

(1) L3x3x1/4"
(2) (3) L3x3-1/2x5/16"
(4) L3x3-1/2x5/16" ROLLED OR EQUAL ARCHED COMPONENT.

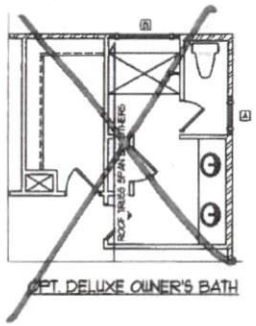
NOTE: JOIST & BEAM SIZES SHOWN ARE MINIMUMS. BUILDER MAY INCREASE DEPTH FOR EASE OF CONSTRUCTION.

NOTE: SHADED WALLS INDICATED LOAD BEARING WALLS.

TWO STORY WALL NOTE (BALLOON FRAMING)
2x4 STUDS @ 12" O.C. OR 2x6 STUDS @ 16" O.C. w/ CROSS BRACING @ 6'-0" O.C. VERTICALLY.



ELEVATION B



OPT. DELUXE OWNER'S BATH

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STRUCTURAL ANALYSIS BASED ON 2018 NCRC.

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

NORTH CAROLINA PROFESSIONAL SEAL 046048 ENGINEER BRIAN C. PHILBRICK, JR.
6/25/2020
STRUCTURAL MEMBERS ONLY

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NORTH CAROLINA CERTIFICATE OF LICENSURE
SUMMIT Engineering, Laboratory & Testing, P.C.
C-4361

PROJECT
Aubrey LH
Second Floor Framing
CLIENT
John Dove
2516 Brook Crossing Circle
Raleigh, NC 27606

CURRENT DRAWING
DATE: 6/24/2020
SCALE: 1/8"=1'-0"
PROJECT #: 2872-12R 28266
DRAWN BY: LBV
CHECKED BY: LAG

ORIGINAL INFORMATION

PROJECT #	DATE
28266	6/23/20

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

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

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

MAX. GIRDER TRUSS REACTION (LBS)		
NO TIE, SYP #2 TOP PLATE		
# OF PLYS	2x4 WALL	2x6 WALL
2	[illegible]	[illegible]
3	[illegible]	[illegible]
4	[illegible]	[illegible]
WITH TIE, SYP #2 TOP PLATE		
2	[illegible]	[illegible]
3	[illegible]	[illegible]
4	[illegible]	[illegible]

GIRDER TRUSS PLYS SHOWN ARE FOR ILLUSTRATION ONLY. PLEASE REFER TO TRUSS LAYOUT DRAWINGS PROVIDED BY TRUSS MANUF. FOR ACTUAL NUMBER OF PLYS REQ'D.

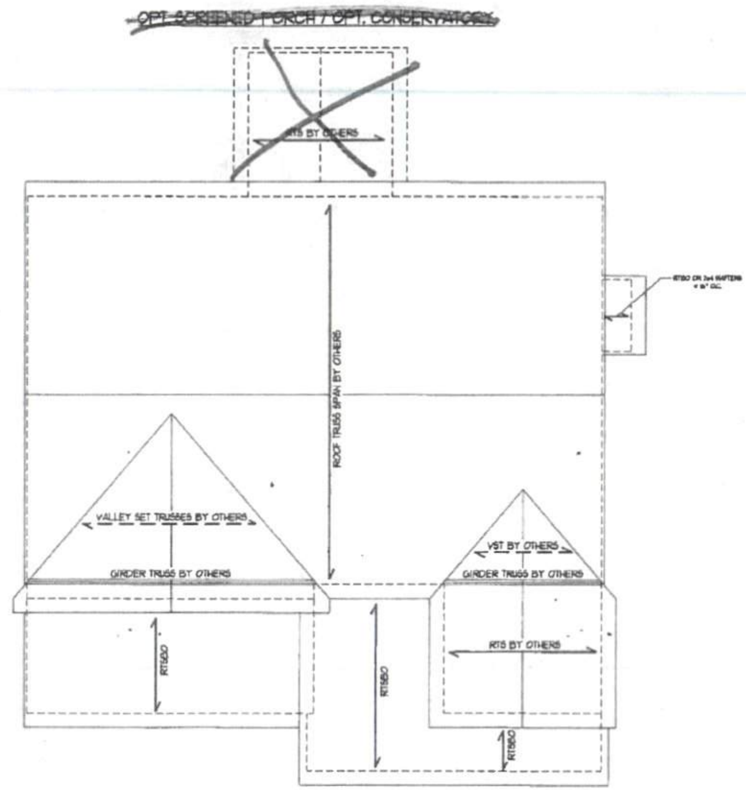
TRUSS UPLIFT CONNECTOR SCHEDULE

MAX. UPLIFT	ROOF TO WALL	FLOOR TO FLOOR	FLOOR TO FND
600 LBS	H2.5A	PER WALL SHEATHING & FASTENERS	
1200 LBS	(2) H2.5A	CS16 (END + 11")	DTT2Z
1450 LBS	HTS20	CS16 (END + 11")	DTT2Z
2000 LBS	(2) HTS20	(2) CS16 (END + 11")	DTT2Z
2900 LBS	(3) HTS20	(2) CS16 (END + 11")	HDU4
3685 LBS	LGT3-SDS2.5	MSTC52	HDU4

1. ALL PRODUCTS LISTED ARE SIMPSON STRONG-TIE. EQUIVALENT PRODUCTS MAY BE USED PER MANUFACTURER'S SPECIFICATIONS.
2. UPLIFT VALUES LISTED ARE FOR SYP #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: TRUSS UPLIFT LOADS SHALL BE DETERMINED PER TRUSS MANUFACTURER IN ACCORDANCE WITH SECTION R802.11. 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.

REFER TO DETAIL 8/OSP FOR EYEBROW, RETURN OR SHED ROOF FRAMING REQUIREMENTS. (TYP FOR ROOFS PROTRUDING MAXIMUM 24" FROM STRUCTURE)



ELEVATION B

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STRUCTURAL ANALYSIS BASED ON 2018 NCRC.

ROOF FRAMING PLAN

SCALE: 1/8"=1'

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 046048 BRIAN C. PHILBRICK, JR.
6/25/2020
STRUCTURAL MEMBERS ONLY

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NORTH CAROLINA CERTIFICATE OF LICENSURE
SUMMIT Engineering, Laboratory & Testing, P.C.
C-4361

PROJECT
Aubrey LH
Roof Framing Plan

CLIENT
John Dove
2516 Brook Crossing Circle
Raleigh, NC 27606

CURRENT DRAWING
DATE: 6/24/2020
SCALE: 1/8"=1'-0"
PROJECT #: 2572-12R 28266
DRAWN BY: LBV
CHECKED BY: LAG

ORIGINAL INFORMATION

PROJECT #	DATE
28266	6/23/20

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

SHEET
S5.1

REQUIRED BRACED WALL PANEL CONNECTIONS				
METHOD	MATERIAL	MIN. THICKNESS	REQUIRED CONNECTION	
			• PANEL EDGES	• INTERMEDIATE SUPPORTS
GB	GYPSUM BOARD	1/2"	5d COOLER NAILS** @ 7" O.C.	5d COOLER NAILS** @ 7" O.C.
SFP	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 R602.3.5				

NOTE: WALL SHEATHING AND FASTENERS HAVE BEEN DESIGNED TO RESIST THE WIND UPLIFT LOAD PATH IN ACCORDANCE WITH METHOD 3 OF SECTION R602.3.5.

INSTALL HOLD-DOWNS FOR BRACED WALL END CONDITIONS PER SECTION R602.10.4 AND FIGURE R602.10.3(4) OF THE 2018 NCRC.

REAR / LEFT / HOUSE / RIGHT / FRONT

BRACED WALL NOTES:

1. WALLS SHALL BE DESIGNED IN ACCORDANCE WITH SECTION R602.10 FROM THE 2018 NORTH CAROLINA RESIDENTIAL CODE WITH AMENDED PERMANENT RULES.
2. WALLS ARE DESIGNED FOR SEISMIC ZONES A-C AND ULTIMATE WIND SPEEDS OF 130 MPH.
3. BRACING MATERIALS, METHODS AND FASTENERS SHALL BE IN ACCORDANCE WITH TABLE R602.10.1
4. 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.
5. REFER TO ARCHITECTURAL PLAN FOR DOOR AND/OR OPENING SIZES.
6. THE INTERIOR SIDE OF EXTERIOR WALLS AND BOTH SIDES OF INTERIOR WALLS SHALL BE SHEATHED CONTINUOUSLY WITH MINIMUM 1/2" GYPSUM BOARD (UNO).
7. 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.
8. FLOORS SHALL NOT BE CANTILEVERED MORE THAN 24" BEYOND THE FOUNDATION OR BEARING WALL BELOW WITHOUT ADDITIONAL ENGINEERING CALCULATIONS.
9. CORNERS AND BRACED WALL LINE INTERSECTIONS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION R602.10.1.1(1)
10. A BRACED WALL PANEL SHALL BE LOCATED WITHIN 8 FEET OF EACH CORNER OF EACH ELEVATION VIEW OF THE HOUSE OR EACH END OF THE CIRCUMSCRIBED RECTANGLES.
11. THE EDGE DISTANCE BETWEEN BRACED WALL PANELS SHALL NOT EXCEED 21 FEET.
12. ADEQUATE CONTINUOUS LOAD PATHS FOR TRANSFER OF BRACING LOADS AND UPLIFT LOADS SHALL COMPLY WITH SECTION R602.10.4
13. 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
14. BRACED WALL PANEL CONNECTIONS TO FLOOR/CEILING SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION R602.10.4.4
15. BRACED WALL PANEL CONNECTIONS TO ROOF SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION R602.10.4.5 .
16. CRIPPLE WALLS AND WALK OUT BASEMENT WALLS SHALL BE DESIGNED IN ACCORDANCE WITH SECTION R602.10.4.6
17. BALLOON FRAMED WALLS SHALL DESIGNED IN ACCORDANCE WITH SECTION R602.10.4.8 WITH A MAXIMUM LENGTH OF 30 FEET.
18. PORTAL WALLS SHALL BE DESIGNED IN ACCORDANCE WITH FIGURE R602.10.1 (UNO)
19. ON SCHEMATIC, SHADED WALLS INDICATE BRACED WALL PANELS
20. ABBREVIATIONS

GB = GYPSUM BOARD; SBP = WOOD STRUCTURAL PANEL; CS-XXX = CONT. SHEATHED; ENG = ENGINEERED SOLUTION; PF = PORTAL FRAMED

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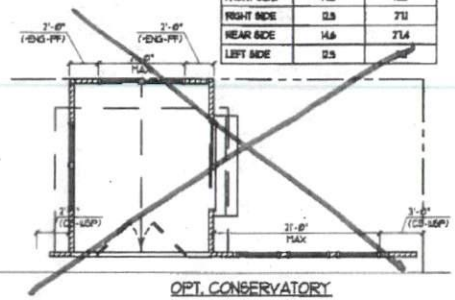
STRUCTURAL ANALYSIS BASED ON 2018 NCRC.

FIRST FLOOR BRACING PLAN

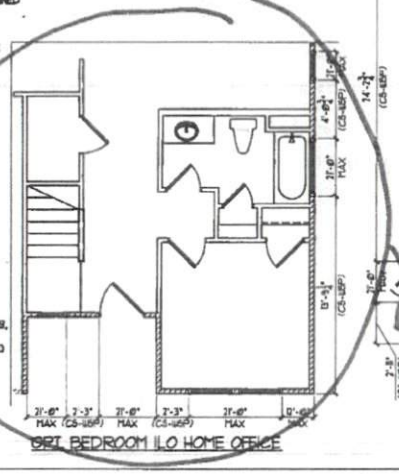
SCALE: 1/8"=1'

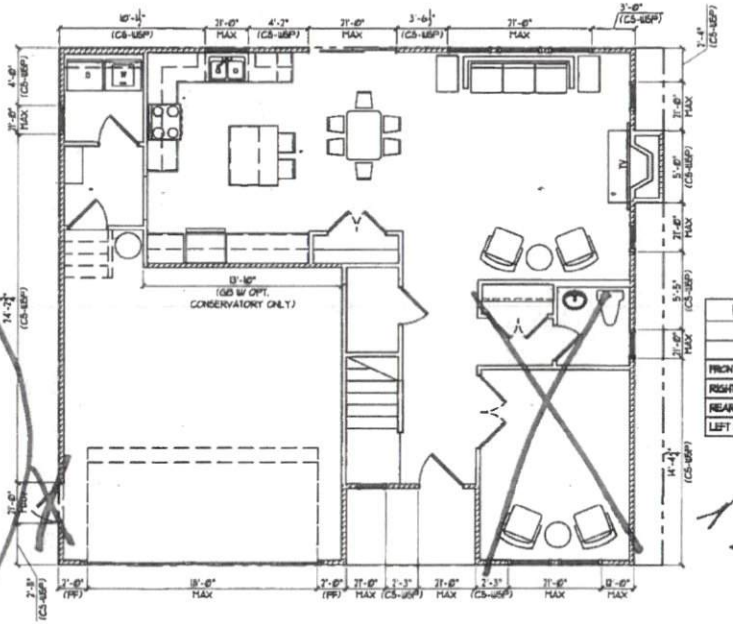
FIRST FLOOR BRACING (FT)		
CONTINUOUS SHEATHING METHOD - OPT. CONSERVATORY		
	REQUIRED	PROVIDED
FRONT SIDE	14.6	15.6
RIGHT SIDE	12.5	27.1
REAR SIDE	14.6	27.4
LEFT SIDE	12.5	



*ENG-PF: SHEATHE INTERIOR AND EXTERIOR W/ MIN. 3/8" OSB/PLYWOOD

FIRST FLOOR BRACING (FT)		
CONTINUOUS SHEATHING METHOD - OPT. BEDROOM 1/OFFICE		
	REQUIRED	PROVIDED
FRONT SIDE	12	12.7
RIGHT SIDE	12.5	25.1
REAR SIDE	12	20.8
LEFT SIDE	12.5	36





FIRST FLOOR BRACING (FT)		
CONTINUOUS SHEATHING METHOD		
	REQUIRED	PROVIDED
FRONT SIDE	12	12.7
RIGHT SIDE	12.5	27.1
REAR SIDE	12	20.8
LEFT SIDE	12.5	36

NORTH CAROLINA PROFESSIONAL SEAL 046048 ENGINEER BRIAN C. PHILBRICK, JR. 5/25/2020

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NORTH CAROLINA CERTIFICATE OF LICENSURE
SUMMIT Engineering, Laboratory & Testing, P.C.
C-4361

PROJECT: Aubrey LH
First Floor Bracing
CLIENT: John Dove
2516 Brook Crossing Circle
Raleigh, NC 27606

CURRENT DRAWING
DATE: 6/24/2020
SCALE: 1/8"=1'-0"
PROJECT #: 2672-12R:28266
DRAWN BY: LBV
CHECKED BY: LAG

ORIGINAL INFORMATION

PROJECT #	DATE
28266	6/23/20

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

SHEET
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REQUIRED BRACED WALL PANEL CONNECTIONS				
METHOD	MATERIAL	MIN. THICKNESS	REQUIRED CONNECTION	
			@ PANEL EDGES	@ INTERMEDIATE SUPPORTS
CS-WSP	WOOD STRUCTURAL PANEL	3/8"	8d COMMON NAILS @ 6" O.C.	8d COMMON NAILS @ 12" O.C.
GB	GYPSUM BOARD	1/2"	5d COOLER NAILS* @ 7" O.C.	5d COOLER NAILS* @ 7" O.C.
WSP	WOOD STRUCTURAL PANEL	3/8"	6d COMMON NAILS @ 6" O.C.	6d COMMON NAILS @ 12" O.C.
FF	WOOD STRUCTURAL PANEL	7/16"	PER FIGURE R602.10.1	PER FIGURE R602.10.1
*OR EQUIVALENT PER TABLE R602.3.5				

BRACED WALL NOTES:

1. WALLS SHALL BE DESIGNED IN ACCORDANCE WITH SECTION R602.10 FROM THE 2018 NORTH CAROLINA RESIDENTIAL CODE WITH AMENDED PERMANENT RULES.
2. WALLS ARE DESIGNED FOR SEISMIC ZONES A-C AND ULTIMATE WIND SPEEDS OF 130 MPH.
3. BRACING MATERIALS, METHODS AND FASTENERS SHALL BE IN ACCORDANCE WITH TABLE R602.10.1
4. ALL BRACED WALL PANELS SHALL BE FULL WALL HEIGHT AND SHALL NOT EXCEED 10 FEET FOR ISOLATED PANEL METHOD AND 9 FEET FOR CONTINUOUS SHEATHING METHOD WITHOUT ADDITIONAL ENGINEERING CALCULATIONS.
5. REFER TO ARCHITECTURAL PLAN FOR DOOR/WINDOW OPENING SIZES.
6. THE INTERIOR SIDE OF EXTERIOR WALLS AND BOTH SIDES OF INTERIOR WALLS SHALL BE SHEATHED CONTINUOUSLY WITH MINIMUM 1/2" GYPSUM BOARD (UNO).
7. 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.
8. FLOORS SHALL NOT BE CANTILEVERED MORE THAN 24" BEYOND THE FOUNDATION OR BEARING WALL BELOW WITHOUT ADDITIONAL ENGINEERING CALCULATIONS.
10. CORNERS AND BRACED WALL LINE INTERSECTIONS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION R602.10.3(3)
11. A BRACED WALL PANEL SHALL BE LOCATED WITHIN 8 FEET OF EACH CORNER OF EACH ELEVATION VIEW OF THE HOUSE OR EACH END OF THE CIRCUMSCRIBED RECTANGLES.
12. THE EDGE DISTANCE BETWEEN BRACED WALL PANELS SHALL NOT EXCEED 21 FEET.
13. ADEQUATE CONTINUOUS LOAD PATHS FOR TRANSFER OF BRACING LOADS AND UPLIFT LOADS SHALL COMPLY WITH SECTION R602.10.4
14. 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
15. BRACED WALL PANEL CONNECTIONS TO FLOOR/CEILING SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION R602.10.4.4
16. BRACED WALL PANEL CONNECTIONS TO ROOF SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION R602.10.4.5 .
17. CRIPPLE WALLS AND WALK OUT BASEMENT WALLS SHALL BE DESIGNED IN ACCORDANCE WITH SECTION R602.10.4.6
18. BALLOON FRAMED WALLS SHALL DESIGNED IN ACCORDANCE WITH SECTION R602.10.4.6 WITH A MAXIMUM LENGTH OF 30 FEET.
19. PORTAL WALLS SHALL BE DESIGNED IN ACCORDANCE WITH FIGURE R602.10.1 (UNO)
20. ON SCHEMATIC, SHADED WALLS INDICATE BRACED WALL PANELS.
21. ABBREVIATIONS:

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

THESE PLANS ARE DESIGNED IN ACCORDANCE WITH ARCHITECTURAL PLANS PROVIDED BY MIKE HARRELL AIA COMPLETED/REVISED ON 5/5/20. 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 CANNOT GUARANTEE THE ADEQUACY OF THESE STRUCTURAL PLANS WHEN USED WITH ARCHITECTURAL PLANS DATED DIFFERENTLY THAN THE DATE LISTED ABOVE.

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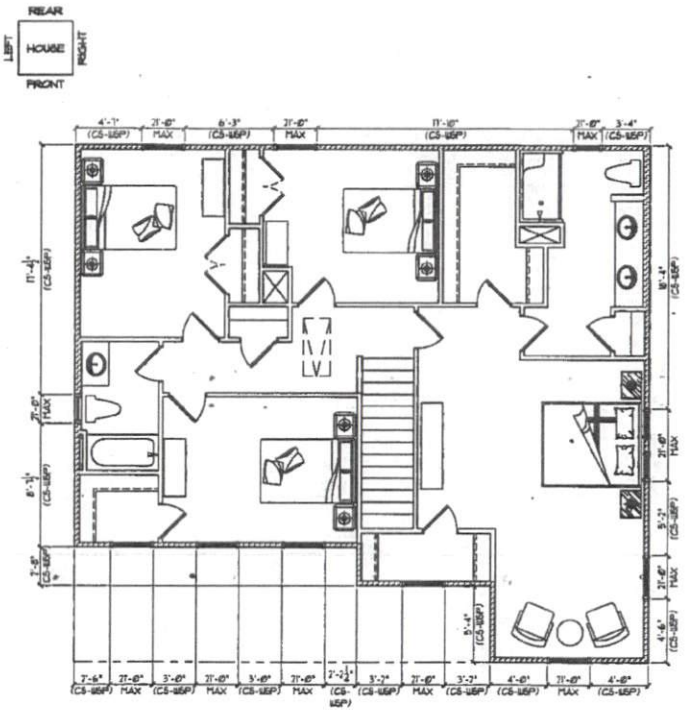
ENGINEERING SEAL APPLIES ONLY TO STRUCTURAL COMPONENTS ON THIS DOCUMENT. SEAL DOES NOT INCLUDE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES OR SAFETY PRECAUTIONS. ANY DEVIATIONS OR DISCREPANCIES ON PLANS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF SUMMIT ENGINEERING, LABORATORY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

STRUCTURAL ANALYSIS BASED ON 2018 NCRC.

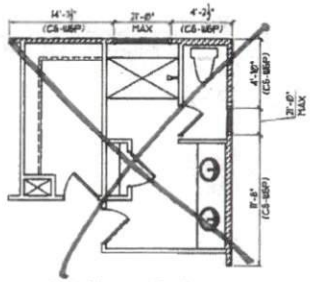
SECOND FLOOR BRACING PLAN

SCALE: 1/8"=1'



ALL ELEVATIONS

SECOND FLOOR BRACING (FT)		
CONTINUOUS SHEATHING METHOD		
	REQUIRED	PROVIDED
FRONT SIDE	4.6	25.0
RIGHT SIDE	5.0	33.3
REAR SIDE	4.6	32.0
LEFT SIDE	5.0	28.6



OPT. DELUXE OWNER'S BATH

SECOND FLOOR BRACING (FT)		
CONTINUOUS SHEATHING METHOD		
	REQUIRED	PROVIDED
FRONT SIDE	4.6	25.0
RIGHT SIDE	5.0	26.3
REAR SIDE	4.6	30.0
LEFT SIDE	5.0	28.6

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PROJECT
Aubrey LH
Second Floor Bracing
CLIENT
John Dove
2516 Brook Crossing Circle
Raleigh, NC 27606

CURRENT DRAWING
DATE: 6/24/2020
SCALE: 1/8"=1'-0"
PROJECT #: 2672-12R.28266
DRAWN BY: LBV
CHECKED BY: LAG

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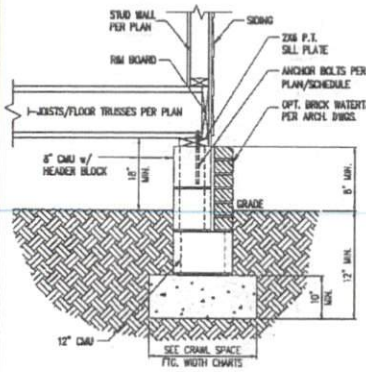
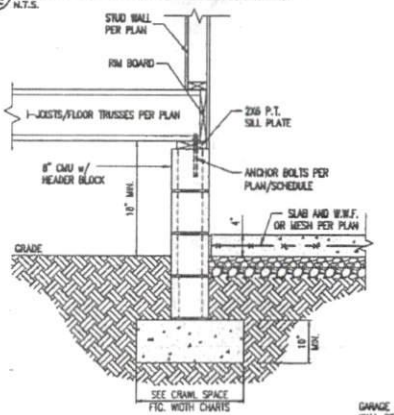


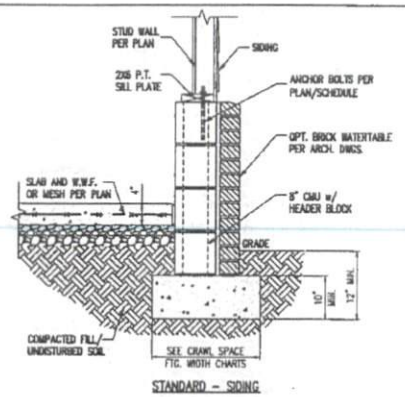
STANDARD - SIDING

1 D1c TYP. FOUNDATION WALL DETAIL N.T.S.



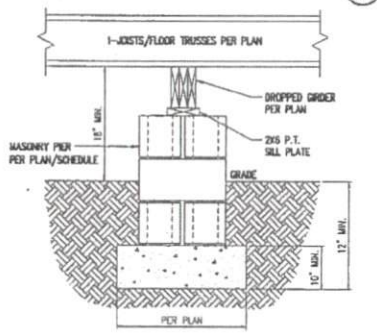
3 D1c HOUSE/GARAGE WALL DETAIL N.T.S.

VERTICAL REBAR SHALL BE INSTALLED IN WALLS WITH GREATER THAN 4'-0" OF UNBALANCED FILLED SHALL HAVE VERTICAL REINFORCING BARS. REINFORCEMENT SHALL BE SIZED AND SPACED IN ACCORDANCE WITH TABLE 404.1.1(4) BASED ON SITE CONDITIONS. HORIZONTAL LADDER REINFORCEMENT SHALL BE INSTALLED BETWEEN CMU COURSES AS REQUIRED.

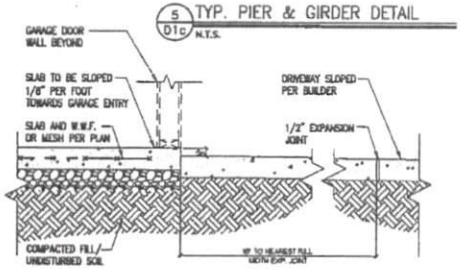


STANDARD - SIDING

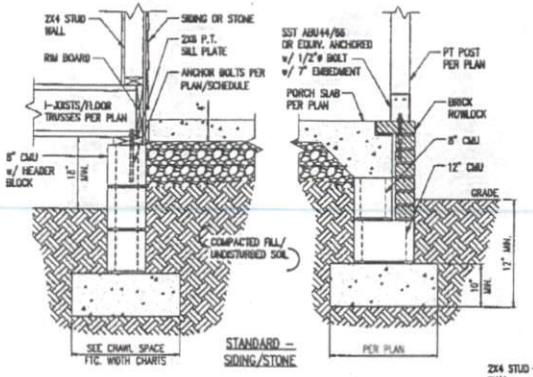
2 D1c TYP. GARAGE CURB DETAIL N.T.S.



5 D1c TYP. PIER & GIRDER DETAIL N.T.S.



4 D1c SLAB AT GARAGE DOOR N.T.S.



STANDARD - SIDING/STONE

6 D1c TYP. FRONT PORCH DETAIL N.T.S.

PIER SIZE AND HEIGHT SCHEDULE

SIZE	HOLLOW	SOLID
8"X16"	UP TO 32" HEIGHT	UP TO 5'-0" HEIGHT
12"X16"	UP TO 48" HEIGHT	UP TO 9'-0" HEIGHT
16"X16"	UP TO 84" HEIGHT	UP TO 12'-0" HEIGHT*
24"X24"	UP TO 96" HEIGHT	UP TO 12'-0" HEIGHT*

*(4) #4 CONT. REBAR w/ #3 STIRRUPS @ 16" O.C. AND 24" MIN. LAP JOINTS

CRAWL SPACE FOOTING WIDTH

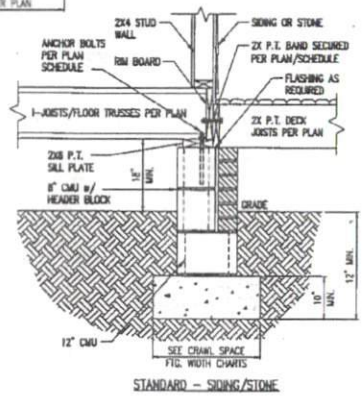
# OF STORIES	WIDTH BASED ON SOIL BEARING CAPACITY		
	1500 PSF	2000 PSF	2500 PSF
1 STORY - STD.	16"	16"	16"
1 STORY - BRICK VENEER	21"*	21"*	21"*
2 STORY - STD.	16"	16"	16"
2 STORY - BRICK VENEER	21"*	21"*	21"*
3 STORY - STD.	23"	18"	18"
3 STORY - BRICK VENEER	32"*	24"*	24"*

*5" BRICK LEDGE HAS BEEN ADDED TO THE CRAWL SPACE FOOTING WIDTH FOR BRICK SUPPORT

WALL ANCHOR SCHEDULE

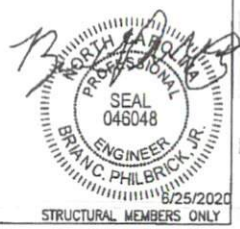
TYPE OF ANCHOR	MIN. CONC. EMBEDMENT	SPACING EMBEDMENT	INTERIOR WALL	EXTERIOR WALL
1/2"ø A307 BOLTS w/ STD. 90° BEND	7"	6'-0"	YES	YES
1/2"ø THREADED ROD w/ w/ SST SET-XP EPOXY	7"	6'-0"	YES	YES
1/2"ø SST TITEN HD	4-1/2"	4'-8"	YES	YES

NOTE:
1) INSTALL ALL ANCHORS 12" MAX. FROM ALL BOTTOM PLATE ENDS AND JOINTS.
2) EQUIVALENT ANCHORS MAY BE USED. SIZE & SPACING PER MANUF. SPECS.



STANDARD - SIDING/STONE

4 D1c DECK ATTACHMENT DETAIL N.T.S.



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SUMMIT Engineering, Laboratory & Testing, P.C.
C-4361

PROJECT
Aubrey LH
Crawl Space Foundation Details

CLIENT
John Dove
2516 Brook Crossing Circle
Raleigh, NC 27606

CURRENT DRAWING
DATE: 6/24/2020
SCALE: 1/8"=1'-0"
PROJECT #: 2672-12R 28266
DRAWN BY: LBV
CHECKED BY: LAG

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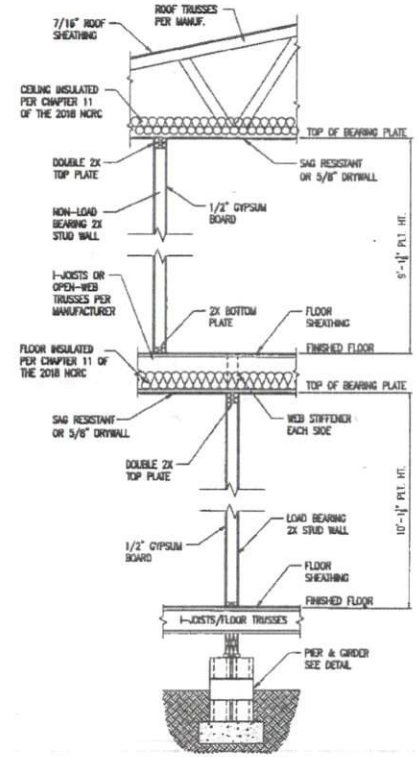
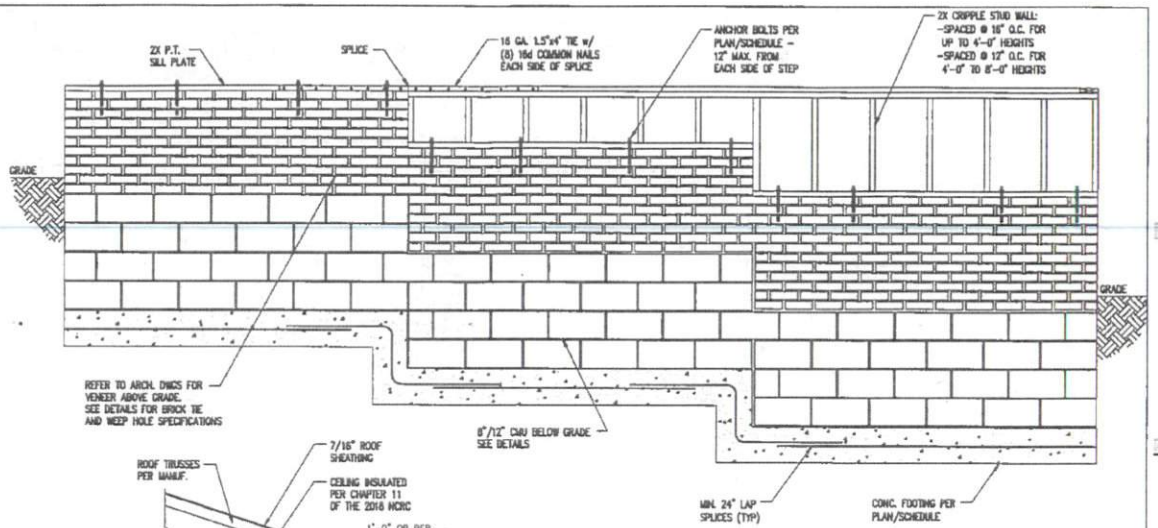
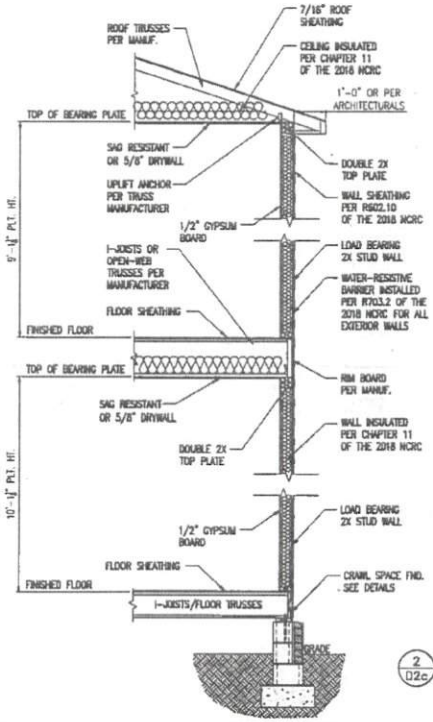


1 D2c TYP. INTERIOR LOAD BEARING WALL SECTION
3/4" = 1'-0"



3 D2c TYP. STEPPED FOUNDATION WALL DETAIL
N.T.S.



2 D2c TYP. EXTERIOR LOAD BEARING WALL SECTION
3/4" = 1'-0"
-SIMILAR w/ BRICK AND STONE.
-BRICK TIES SPACED @ 24" O.C. HORIZ. & 16" O.C. VERT.
-MIN. 3/16"ø WEEP HOLES @ 33" O.C.

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6/25/2020
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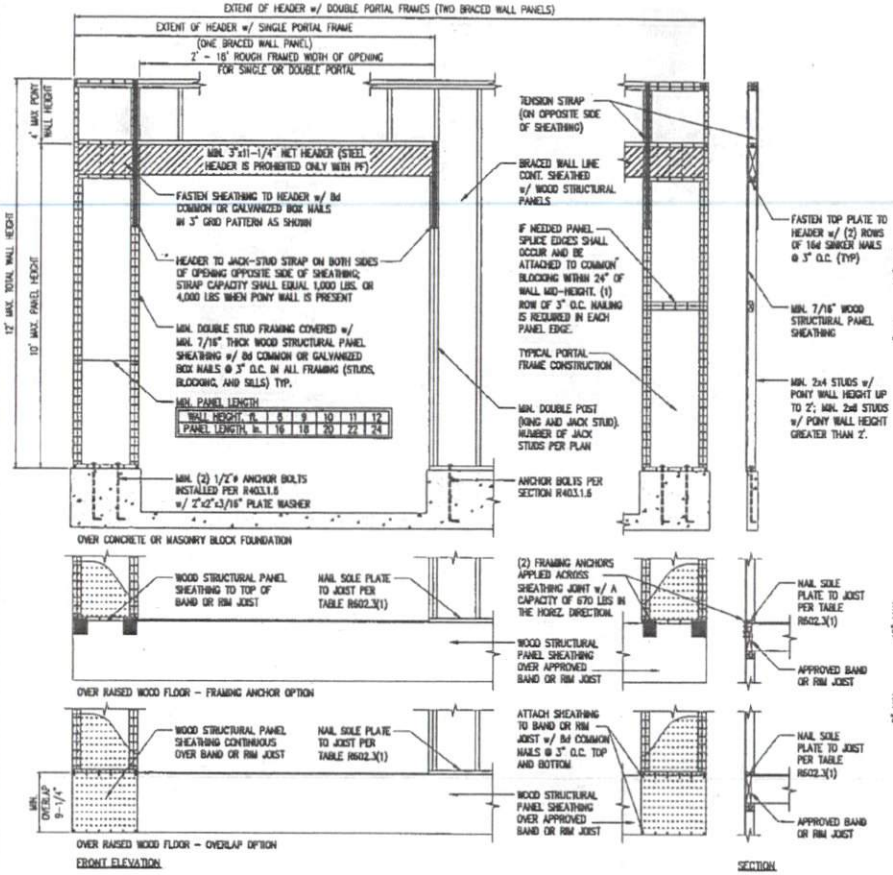
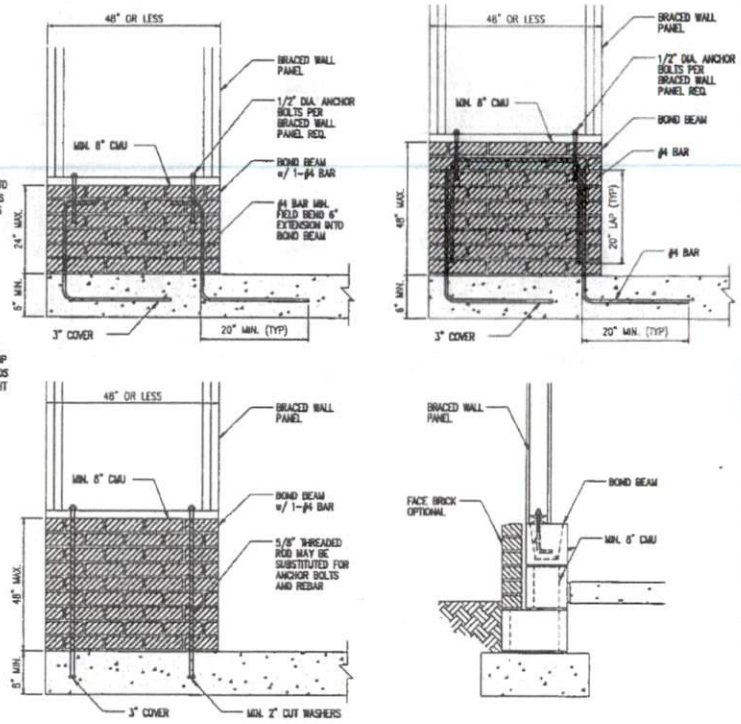


1 D1f METHOD PF: PORTAL FRAME DETAIL
3/8" = 1'-0"



2 D2f MASONRY STEM WALLS SUPPORTING BRACED WALL PANELS
NTS

NOTE: GROUT BOND BEAMS AND ALL CELLS WHICH CONTAIN REBAR, THREADED RODS AND ANCHOR BOLTS

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