THE BIRCH
NORTH CAROLINA

SQUARE FOOTAGES

FIRST FLOOR (HTD.)	= 1153 sf
SECOND FLOOR (HTD.)	= 589 sf
	1742 sf
GARAGE	= 449 sf
FRONT PORCH	= 149 sf
TOTAL	= 2340 sf
REAR PATIO	+ 100 sf

INDEX OF SHEETS

INDEX OF SHEETS (CONT.)

GENERAL CONTRACTOR

LGI HOMES

SCOTT STERLING
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704-953-3824

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LGI HOMES

THE BIRCH
NORTH CAROLINA

CH-9

PERMIT SET
FOR CONSTRUCTION

● 8 NOVEMBER 2024

COVER SHEET

A1.0

DATE CREATED: 11/08/2024

GENERAL NOTES

-DO NOT SCALE DRAWINGS; DESIGNATED DIMENSIONS SHALL BE USED IN PREFERENCE TO MEASUREMENTS BY SCALE.

-GENERAL CONTRACTOR SHALL VERIFY AND COMPLY TO ALL LOCAL & NATIONAL BUILDING CODES. CONTACT ARCHITECT IF INSPECTORS REQUIRE REVISIONS OR ALTERATIONS TO DRAWINGS.

-ALL SUB-CONTRACTORS SHALL BE RESPONSIBLE FOR DAMAGE TO OTHER TRADES.

DESIGN SPECIFICATIONS

USE GROUP: (2018 NCBC:R)
"RESIDENTIAL" ONE & TWO FAMILY DWELLING

CONSTRUCTION CLASS: (2018 NCBC:R)
"RESIDENTIAL"

HEIGHT & AREA LIMIT: (LOCAL ZONING)
35' MAXIMUM 2-STORY HEIGHT

EMERGENCY ESCAPE: (2018 NCBC:R)
EGRESS OR RESCUE WINDOWS FROM SLEEPING ROOMS
SHALL HAVE MINIMUM OF 5.7 SQ. FT. NET CLEAR OPENING
(5.0 SQ. FT. NET OPENING @ GRADE FLOOR)
MINIMUM 20" WIDTH.
MINIMUM 24" HEIGHT.
MAXIMUM 44" SILL HEIGHT

GARAGE / HOUSE CEILING / ASSEMBLY:
½" GYPSUM WALL BOARD
⅝" TYPE "X" GYPSUM BOARD CEILING WHERE LIVING IS ABOVE
20 MINUTE RATED GARAGE / HOUSE DOOR

ATTIC VENTILATION:
[TOTAL ATTIC SQ. FT.] / [300] = SQ. FT. AREA REQUIRED
RIDGE VENT:
[LINEAR FEET OF VENT] X [18 SQUARE INCHES IN FREE AREA] / 12 = SQ. FT. PROVIDED
SOFFIT VENT:
[LINEAR FEET OF VENT] X [7 SQUARE INCHES IN FREE AREA] / 12 = SQ. FT. PROVIDED
EDGE SHINGLE OVER VENT:
[LINEAR FEET OF VENT] X [9 SQUARE INCHES IN FREE AREA] / 12 = SQ. FT. PROVIDED
ROOF LOUVER VENTS:
[NUMBER OF VENTS] X [70 SQUARE INCHES IN FREE AREA] / 12 = SQ. FT. PROVIDED

CRAWL SPACE VENTILATION:
[TOTAL CRAWL SPACE SQ. FT.] / [300] = SQ. FT. AREA REQUIRED
FOUNDATION VENT:
FREE SPACE PROVIDED BY VENT = F
[FREE AREA REQUIRED] / F = NUMBER OF VENTS REQUIRED

LGI HOMES

THE BIRCH

NORTH CAROLINA

CH-9

PERMIT SET
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GENERAL NOTES

A1.1

FLOOR PLAN NOTES

-CONTRACTORS TO FIELD VERIFY ALL DIMENSIONS & NOTIFY ARCHITECT OF ANY DISCREPANCIES, ERRORS OR OMISSIONS PRIOR TO EXECUTION OF WORK.

-CLEANUP TO OCCUR DAILY.

-G.C. TO VERIFY FINISH GRADE @ HOUSE TO DETERMINE NUMBER OF STEPS.

-MECHANICAL CONTRACTOR TO COORDINATE W/ ARCHITECT LOCATION OF MAIN TRUNK & DISTRIBUTION LINES, REGISTERS (CENTER ALL REGISTERS ON WINDOWS), THERMOSTATS, AIR HANDLER & CONDENSERS.

-CEILING HEIGHTS LISTED ARE DIMENSIONED TO FRAMING (TOP OF SUBFLOOR TO UNDERSIDE OF FRAMING ABOVE)

-CONCRETE SLABS & SETTING BEDS TO ACCOMMODATE FOR ADEQUATE WATER DRAINAGE AT GARAGES AND PORCHES

-ATTIC ACCESS DROP-DOWN STAIRS TO CONFORM WITH LOCAL AUTHORITIES BASED ON IRC (R807.1) MINIMUM NET CLEAR OPENING OF 20" x 30". ALL ATTIC ACCESS STAIRS TO BE WEATHER STRIPPED & SEALED WITH R-VALUES THAT CONFORM WITH LOCAL AUTHORITIES BASED ON IRC (N1102.2.4). GC TO PROVIDE & INSTALL INSULATION DAMS TO RESTRICT TYPICAL ATTIC INSULATION FROM FALLING THROUGH ATTIC ACCESS OPENING. RIGID FOAM BOX COVER TO BE INSTALLED & SEALED AROUND FRAMING OF OPENING, NOT TO IMPEDE OR OBSTRUCT PERFORMANCE OF ADJACENT TYPICAL ATTIC INSULATION.

WINDOW NOTES

-ALL WINDOW DIMENSIONS ARE BASED ON M.I. WINDOW ROUGH OPENING CALL OUTS, UNO. FINAL SELECTION OF WINDOW SIZES ARE TO BE VERIFIED IN FIELD.

-WINDOWS TO BE INSTALLED BY CERTIFIED WINDOW INSTALLER PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.

-WINDOW SUPPLIER TO SPECIFY & ORDER TEMPERED GLASS IN WINDOWS AS REQ'D BY LOCAL CODE.

-G.C. AND WINDOW SUPPLIER TO VERIFY THAT EACH BEDROOM TO HAVE A MINIMUM OF ONE WINDOW WHICH MEETS EMERGENCY EGRESS AS REQUIRED BY PER LOCAL AUTHORITIES BASED ON IRC. WINDOW SUPPLIER TO ADD EGRESS HARDWARE TO CASEMENT WINDOWS IF NECESSARY.

-TOP OF INTERIOR CASING @ ADJACENT DOORS & WINDOWS TO ALIGN WHEN HEADER CALL OUTS ARE EQUAL

DOOR NOTES

-ATTIC ACCESS DOORS TO INCLUDE WEATHER STRIPPING & INSULATION

-TOP OF INTERIOR CASING @ ADJACENT DOORS & WINDOWS TO ALIGN WHEN HEADER CALL OUTS ARE EQUAL

-DOOR SUPPLIER TO SPECIFY & ORDER TEMPERED GLASS IN DOORS AS REQ'D BY LOCAL CODE.

DOOR & WINDOW LEGEND

30 68
- 68 — HEIGHT: 6'-8"
- 30 — WIDTH: 3'-0"

DOORS: P = POCKET

WINDOWS: SH = SINGLE HUNG
F = FIXED

INSULATION NOTES

INSULATION VALUES PER 2018 NCRC
CH. 11 ENERGY CONSERVATION CODE

CLIMATE ZONE 3A		CLIMATE ZONE 4A	
TABLE N1102.1.2		TABLE N1102.1.2	
CEILING:	R-38	CEILING:	R-38
FLOOR:	R-19	FLOOR:	R-19
WALL:	R-15	WALL:	R-15
SLAB:	R-0	SLAB:	R-10

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FLOOR PLAN LEGEND

5S	5 SHELVES
1R 2S	1 ROD, 2 SHELVES
2R 2S	2 ROD, 2 SHELVES
HR	HANGING ROD
CO	CASED OPENING
W D	WASHER, DRYER
D/W	DISH WASHER
FRIG	REFRIGERATOR
LS	LAZY SUSAN
M	MIRROR
►	SHOWER HEAD

WALL SCHEDULE

FRAMED WALLS

OVERHEAD/BELOW

ALL WALLS ARE 2x4 WOOD STUD WALLS, UNO
5 1/2" DIMENSION INDICATES 2x6 WOOD STUD WALL

STAIR NOTES

-STAIR FABRICATOR / INSTALLER TO VERIFY THAT STAIRS MEET ALL REQ'D CODES

-ADJUSTMENTS TO STAIR TO BE CONFIRMED W/ ARCHITECT & CONTRACTOR PRIOR TO STAIR CONSTRUCTION

CEILING HEIGHT NOTES

9' - 1 ½" CEILING HEIGHTS ON FIRST FLOOR
8' - 1 ½" CEILING HEIGHTS ON SECOND FLOOR

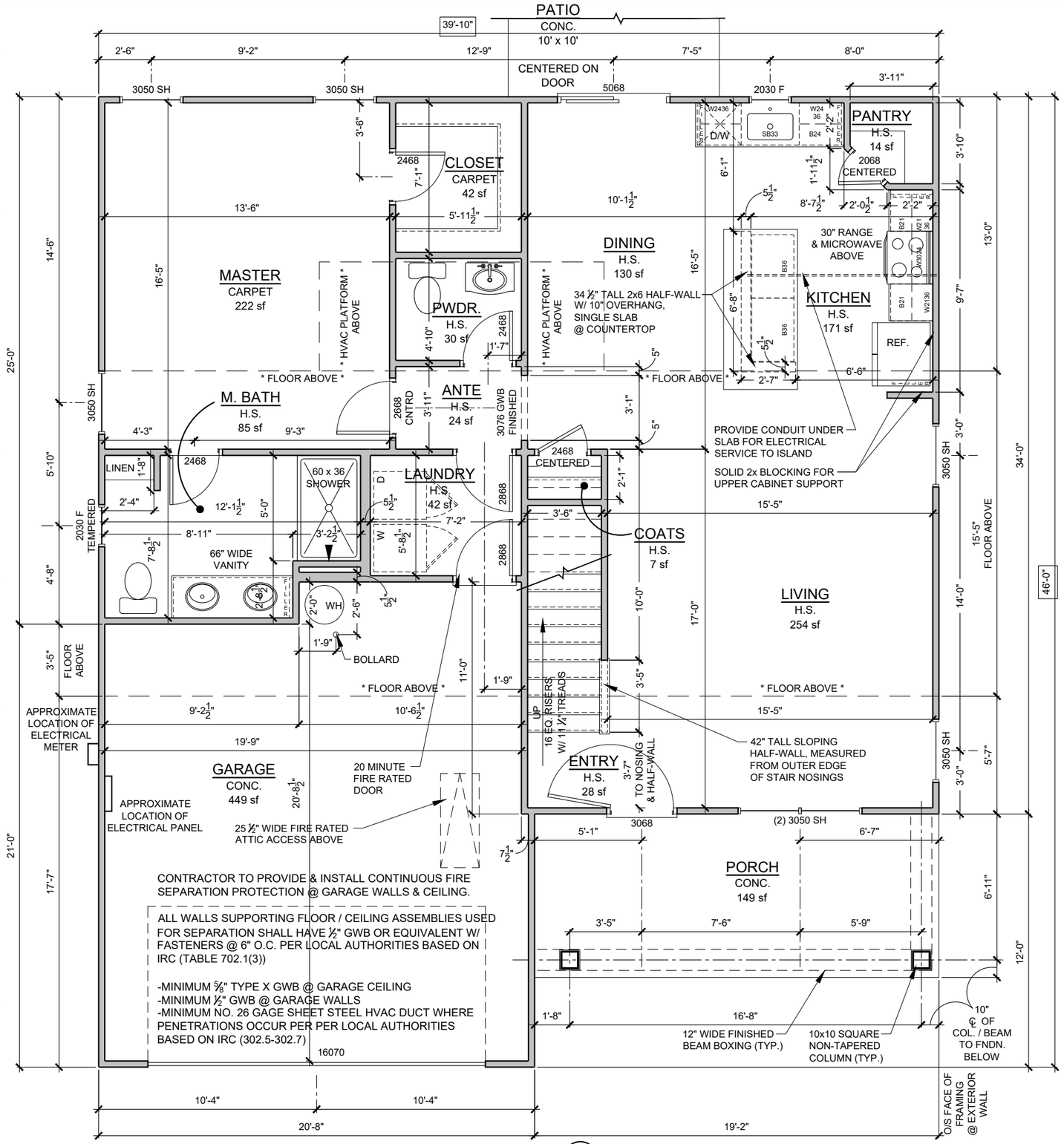
MEASURED FROM TOP OF SUBFLOOR / CONCRETE SLAB TO BOTTOM OF FLOOR JOISTS / ROOF TRUSSES

COLUMN NOTES

COLUMNS TO BE: AFCO OR COLUMN OF EQUAL BEARING CAPACITY. (6000 # MINIMUM)
TOP CONNECTION: (2) #8 - ¼" x 3" STAINLESS STEEL SCREWS PER SIDE INSERTED INTO BEAM.
BOTTOM CONNECTION: (3) UBS - #18043 BRACKETS FASTENED WITH (2) ¼" x 1 ½" SCREWS INTO COLUMN & (2) ¼" x 3 ¾" CONCRETE SCREWS THROUGH FASTENER INTO CONCRETE

ELECTRICAL PANEL/METER

MAXIMUM DISTANCE BETWEEN ELECTRICAL PANEL & ELECTRICAL METER (NEC 230.70) TO BE DETERMINED BY LOCAL AUTHORITY.



1 FIRST FLOOR PLAN
3/16" = 1'-0"

LGI HOMES

THE BIRCH

NORTH CAROLINA

CH-9

PERMIT SET
FOR CONSTRUCTION

● 8 NOVEMBER 2024

FLOOR PLAN

A2.0

SQUARE FOOTAGES

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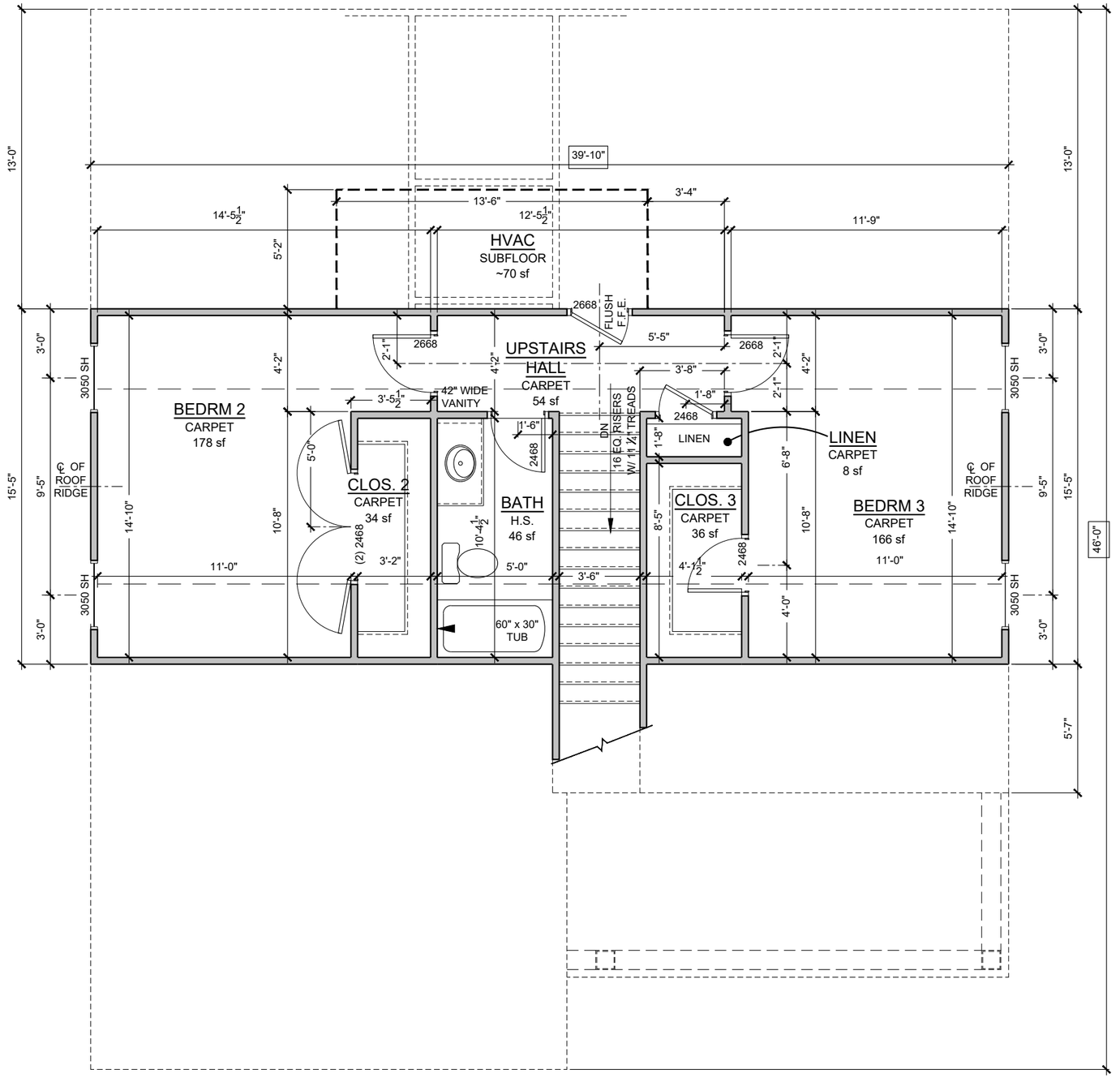

1 SECOND FLOOR PLAN
3/16" = 1'-0"

LGI HOMES

THE BIRCH

NORTH CAROLINA

CH-9

PERMIT SET
FOR CONSTRUCTION

● 8 NOVEMBER 2024

FLOOR PLAN

A2.1

ROOF NOTES

-CONTRACTORS TO FIELD VERIFY ALL DIMENSIONS & NOTIFY ARCHITECT OF ANY DISCREPANCIES, ERRORS OR OMISSIONS PRIOR TO EXECUTION OF WORK.

-ALL ROOF PENETRATIONS TO BE PLACED ON REAR SIDE OF MAIN RIDGE OR AS SPECIFIED BY ARCHITECT. PAINT TO MATCH SHINGLE COLOR.

-ATTIC INSULATION TO BE BATT. INSUL. PER CODE, PROVIDE BAFFLES @ PERIMETER TO ALLOW 2" FOR AIRFLOW FROM EAVE VENTS TO RIDGE VENTS.

-ROOF SHEATHING TO BE ½" T&G PLYWOOD W/ METAL CLIPS @ ENDS.

-ALL BATHROOM & DRYER VENT PENETRATIONS TO RUN TOWARD REAR OF HOUSE & VENT IN REAR OUTSIDE WALL OR ROOF BEHIND MAIN RIDGE.

-GUTTER & DOWNSPOUT INSTALLER TO PROVIDE ADEQUATE UNITS PER MANUFACTURER SPECIFICATIONS BASED ON ROOF COVERAGE. SUB-CONTACTOR TO VERIFY NUMBER & LOCATION OF DOWNSPOUTS

-ALL SHINGLED ROOFS WITH A PITCH OF 4:12 OR LESS REQUIRE (2) LAYERS OF 30# FELT PAPER PER SC IRC

INSULATION NOTES

INSULATION VALUES PER 2018 NCRC
CH. 11 ENERGY CONSERVATION CODE

CLIMATE ZONE 3A		CLIMATE ZONE 4A	
TABLE N1102.1.2		TABLE N1102.1.2	
CEILING:	R-38	CEILING:	R-38
FLOOR:	R-19	FLOOR:	R-19
WALL:	R-15	WALL:	R-15
SLAB:	R-0	SLAB:	R-10

ELEVATION NOTES

-ALL REPRESENTATIONS OF GRADE LEVELS ARE FOR DRAWING PURPOSES ONLY, AND TO BE VERIFIED IN FIELD.

-ALL EXTERIOR ELEVATION DIMENSIONS ARE FRAMING DIMENSIONS, UNO. G.C. TO FILED VERIFY DIMENSIONS LOCATED AT SLOPED FRAMING AND / OR CONCRETE SLABS & PADS

-ALL TRUSS PROFILE DIMENSIONS TO BE VERIFIED BY TRUSS MANUFACTURER. TRUSS MANUFACTURER TO NOTIFY ARCHITECT IF TRUSS PROFILES / DIMENSIONS CHANGE.

-ALL BUILDINGS CONSTRUCTED WITH LESS THAN A 10' FIRE SEPARATION DISTANCE BETWEEN SHALL COMPLY WITH LOCAL AUTHORITIES BASED ON IRC (R302.1.1):
IN CONSTRUCTION USING VINYL OR ALUMINUM SOFFIT MATERIAL, THE FOLLOWING APPLICATION SHALL APPLY. SOFFIT ASSEMBLIES MUST BE SECURELY ATTACHED TO FRAMING MEMBERS AND APPLIED OVER FIRE-RETARDANT-TREATED WOOD, 23/32-INCH WOOD SHEATHING OR 5/8-INCH EXTERIOR GRADE OR MOISTURE RESISTANT GYPSUM BOARD. VENTING REQUIREMENTS SHALL BE PROVIDED IN BOTH SOFFIT AND UNDERLAYMENT. VENTS SHALL BE EITHER NOMINAL 2-INCH CONTINUOUS OR EQUIVALENT INTERMITTENT AND SHALL NOT EXCEED THE MINIMUM NET FREE AIR REQUIREMENTS ESTABLISHED IN SECTION R806.2 BY MORE THAN 50 PERCENT. TOWNHOME CONSTRUCTION SHALL MEET ADDITIONAL REQUIREMENTS OF SECTIONS R302.2.5 AND R302.2.6.

CEILING HEIGHT NOTES

9' - 1 ½" CEILING HEIGHTS ON FIRST FLOOR
8' - 1 ½" CEILING HEIGHTS ON SECOND FLOOR

MEASURED FROM TOP OF
SUBFLOOR / CONCRETE SLAB
TO BOTTOM OF
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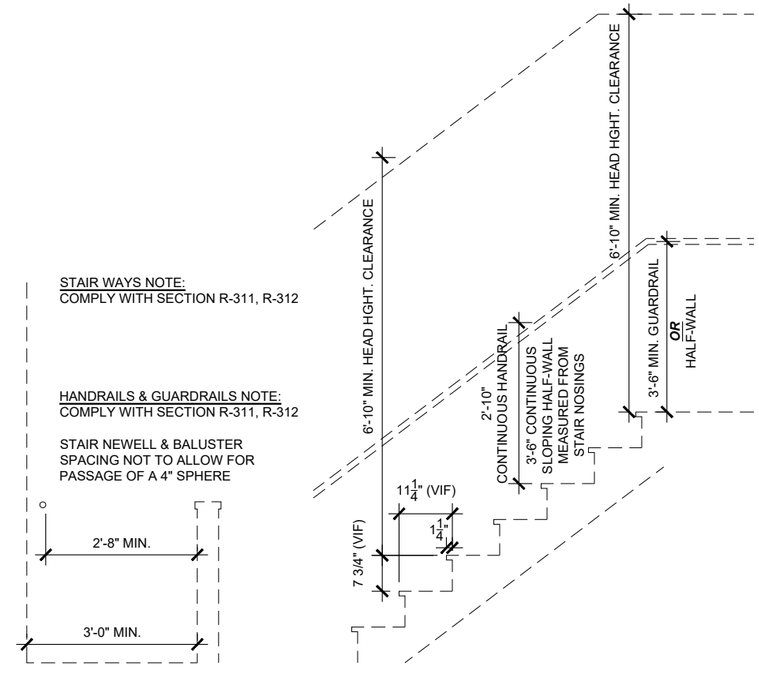


2 **STAIR DETAILS (TYP.)**
3/8" = 1'-0"

1 **FRONT ELEVATION**
1/8" = 1'-0"

LGI HOMES

THE BIRCH

NORTH CAROLINA

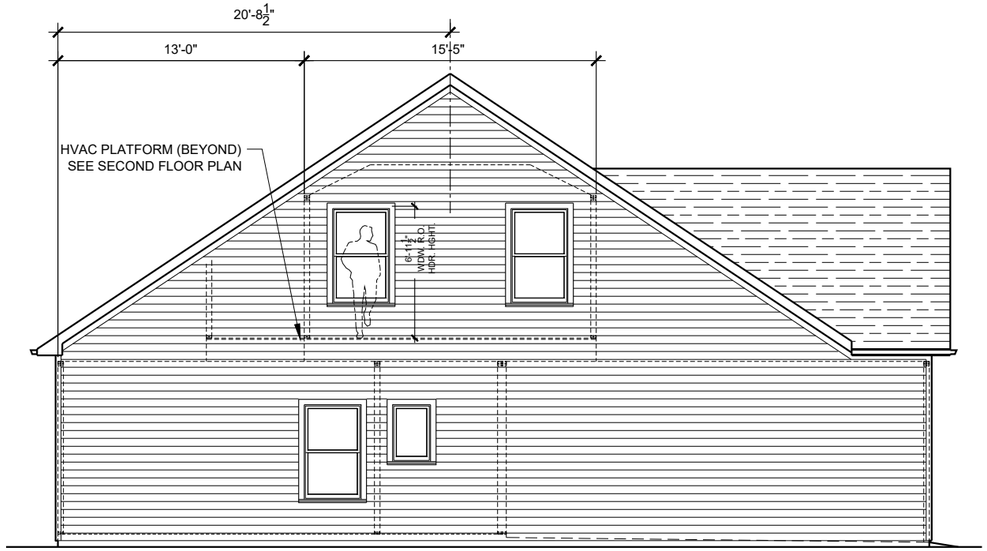
CH-9

PERMIT SET
FOR CONSTRUCTION

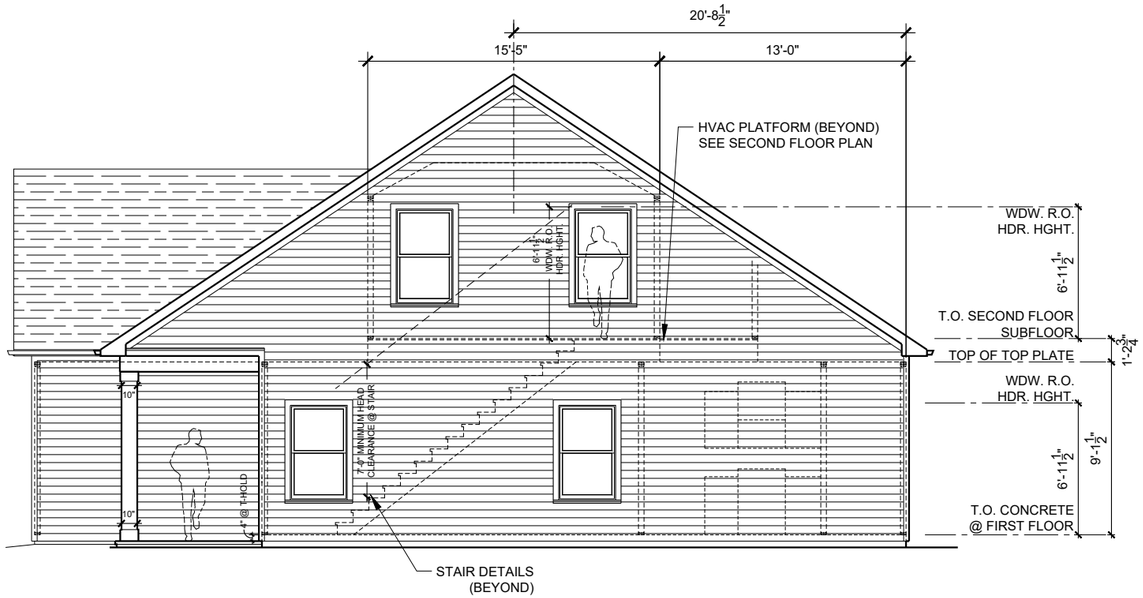
● 8 NOVEMBER 2024

ELEVATIONS

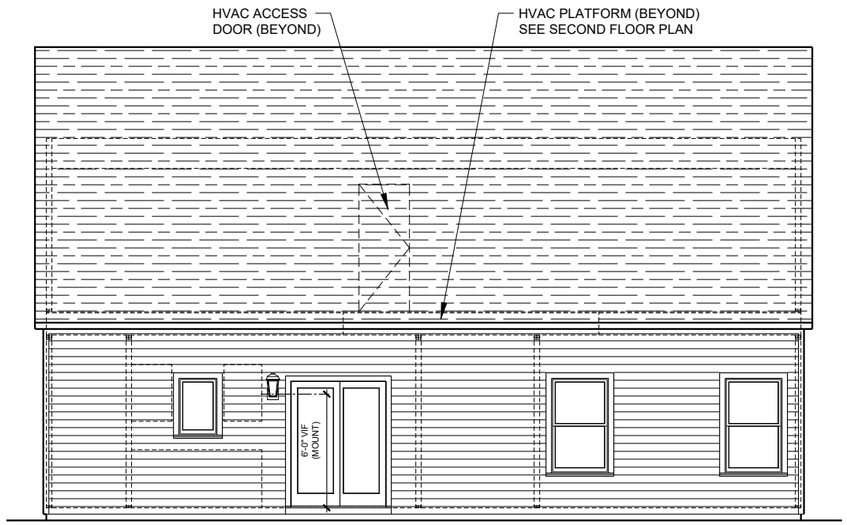
A3.0



2 LEFT SIDE ELEVATION
1/8" = 1'-0"



3 RIGHT SIDE ELEVATION
1/8" = 1'-0"



1 REAR ELEVATION
1/8" = 1'-0"

LGI HOMES

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FOR CONSTRUCTION

● 8 NOVEMBER 2024

ELEVATIONS

A3.1

ELECTRICAL LEGEND

- 120 OUTLET, 18" A.F.F. TO CENTER OR 12" ABOVE COUNTERTOPS
- G.F.I. 120 OUTLET, 18" A.F.F. TO CENTER OR 12" ABOVE COUNTERTOPS
- WP WEATHER PROOF GFI 120 OUTLET
- 240 OUTLET, COORDINATE EXACT LOCATION WITH EQUIPMENT SPECIFICATIONS
- 1/2 SWITCHED 120 OUTLET, 18" A.F.F. TO CENTER OR 12" ABOVE COUNTERTOPS
- 120 QUADRAPLEX OUTLET, 18" A.F.F. TO CENTER
- USB USB OUTLET, 18" A.F.F. TO CENTER OR 12" ABOVE COUNTERTOPS
- FLOOR 120 OUTLET (FLUSH) (TBD IN FIELD W/ OWNER)
- J JUNCTION BOX
- CEILING LIGHT FIXTURE (LED)
- WALL LIGHT FIXTURE
- 4" RECESSED LIGHT FIXTURE
- 4" RECESSED DAMP LOCATION LIGHT FIXTURE
- 4" RECESSED EYEBALL FIXTURE
- FAN/LIGHT RECESSED FIXTURE
- FAN/LIGHT RECESSED DAMP LOCATION FIXTURE
- CEILING FAN (*PROVIDE BLOCKING)
- FLOOD LIGHT
- T THERMOSTAT
- EF EXHAUST FAN
- SD SMOKE/CARBON MONOXIDE DETECTOR
- DB DOOR BELL
- DC DOOR BELL CHIME
- DT DOOR BELL TRANSFORMER
- $ WALL SWITCH, 48" A.F.F. TO CENTER
- $D DIMMER SWITCH, 48" A.F.F. TO CENTER
- $3 3 WAY SWITCH, 48" A.F.F. TO CENTER
- $4 4 WAY SWITCH, 48" A.F.F. TO CENTER
- $3 3 WAY STACKED SWITCH
- PHONE, 18" A.F.F. TO CENTER, 'W' INDICATES WALL MOUNTED @ 48" A.F.F.
- DATA, 18" A.F.F. TO CENTER, 'W' INDICATES WALL MOUNTED @ 48" A.F.F.
- CABLE
- FLUORESCENT LIGHT FIXTURE
- ZENON UNDER CABINET LIGHT TO BE MTD. TO BOTTOM OF WALL CAB. NEAR FRONT EDGE
- PLUG MOLD TO BE MTD. TO BOTTOM OF WALL CAB. NEAR WALL
- LED TAPE LIGHT
- DO DOOR OPENER
- EP ELECTRICAL PANEL
- EM ELECTRICAL METER
- TWH TANKLESS WATER HEATER
- HB HOSE BIBB
- G GAS CONNECTION
- GSO GAS SHUT-OFF

ELECTRICAL NOTES

-LIGHT FIXTURES IN CLOSETS TO COMPLY WITH SECTION 410.8 OF THE LATEST VERSION OF THE NEC HANDBOOK

-SMOKE/CARBON MONOXIDE DETECTORS TO BE INSTALLED PER MANUFACTURER'S INSTRUCTIONS. QUANTITY AND LOCATION OF CARBON MONOXIDE DETECTORS TO BE DETERMINED BY LOCAL AUTHORITY.

-LIGHT SWITCHES & OUTLETS LOCATED AT COUNTERTOP SIDEWALLS ARE TO BE A MAXIMUM OF 18" FROM CENTERLINE OF SWITCH/OUTLET TO COUNTERTOP REAR WALL

ELECTRICAL PANEL / METER

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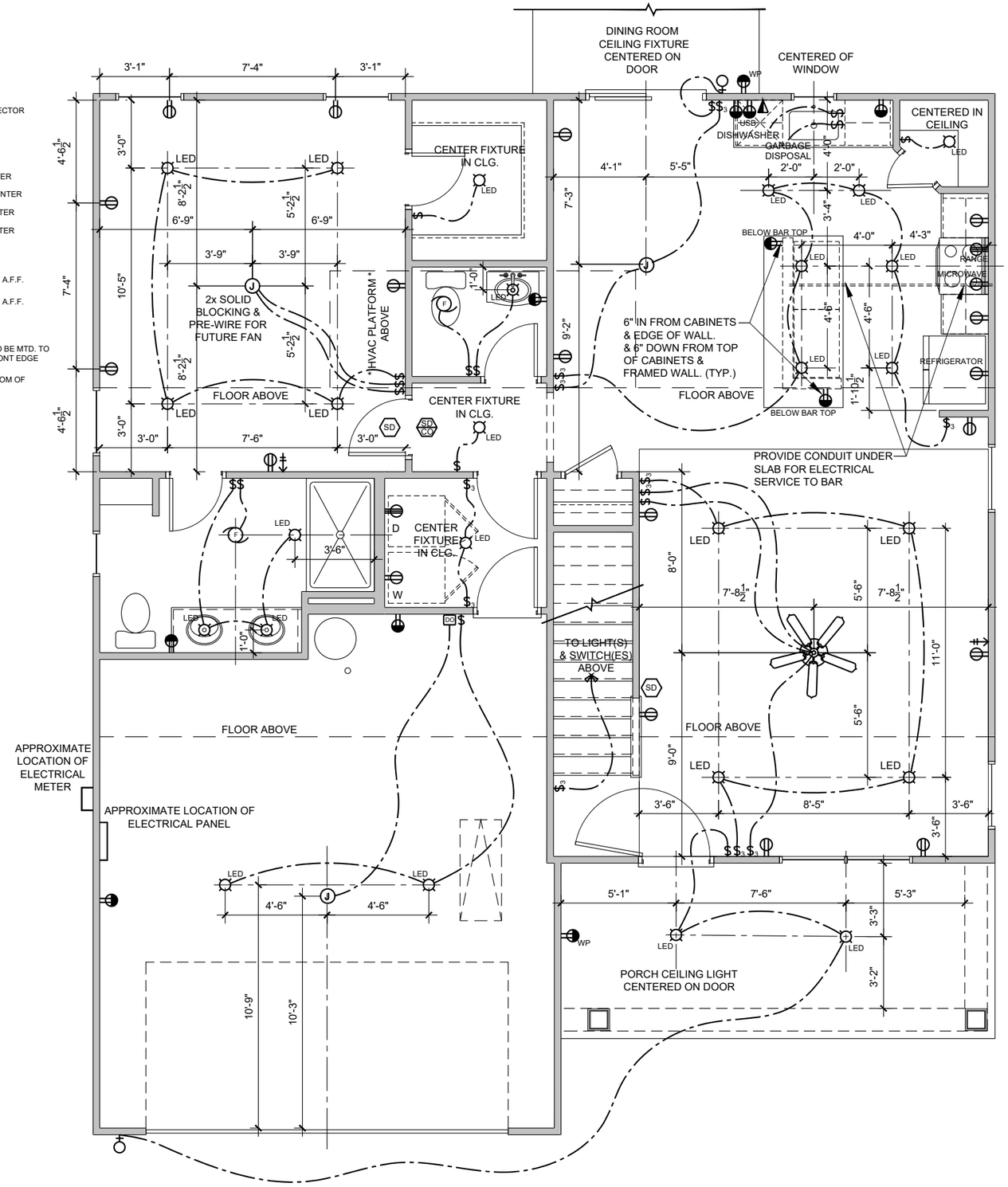

1 FIRST FLOOR ELECTRICAL PLAN
3/16" = 1'-0"

LGI HOMES

THE BIRCH

NORTH CAROLINA

CH-9

PERMIT SET
FOR CONSTRUCTION

ELECTRICAL PLAN

E1.0

DATE CREATED: 11/08/2024

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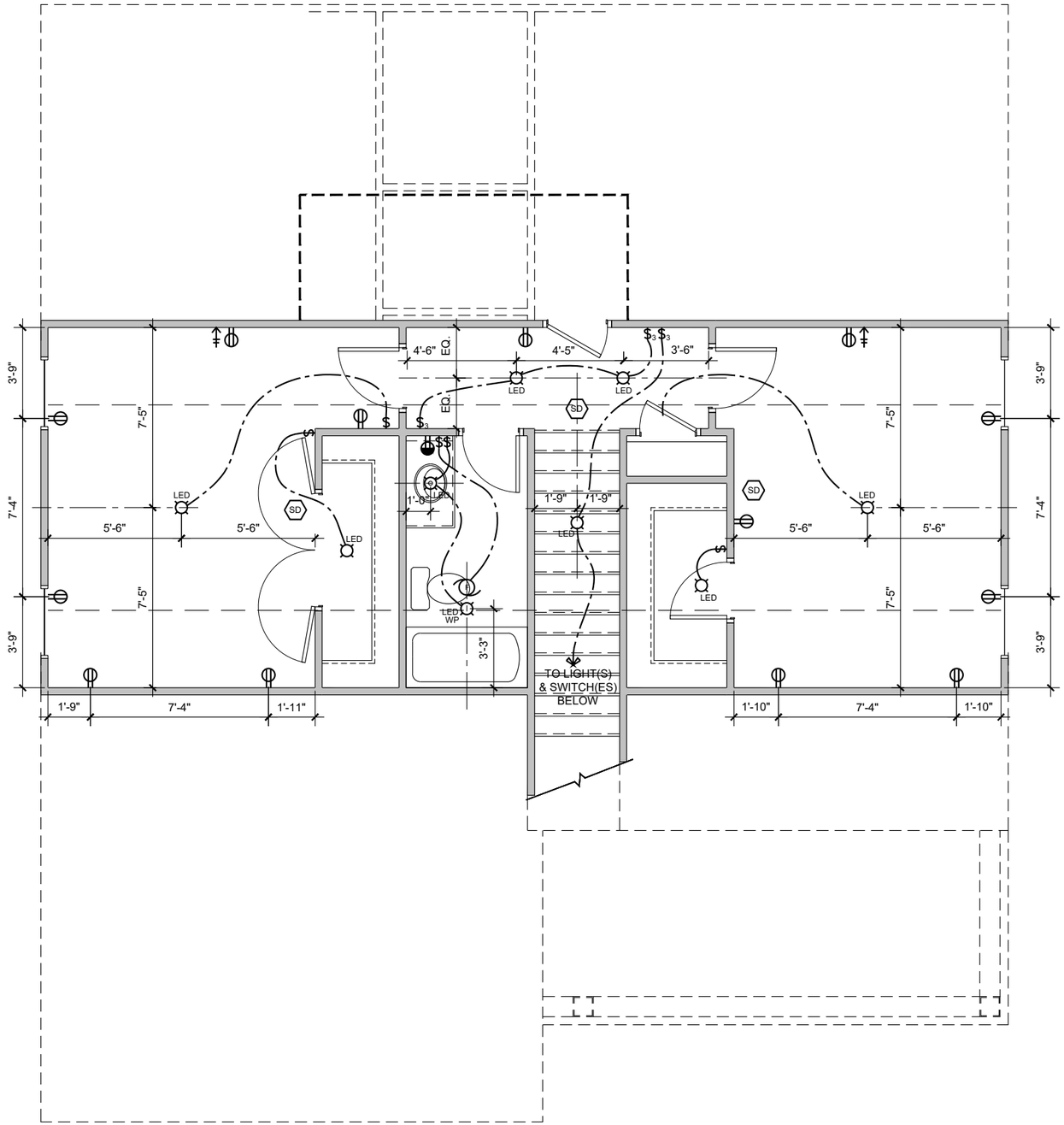


2 SECOND FLOOR ELECTRICAL PLAN
3/16" = 1'-0"

THE BIRCH
NORTH CAROLINA

CH-9

PERMIT SET
FOR CONSTRUCTION

ELECTRICAL PLAN

E1.1

DATE CREATED: 11/08/2024

GENERAL STRUCTURAL NOTES:

1. These drawings and its contents are the property of Queen City Consulting and Design, PLLC, (QC) and the client as noted on this page. Distribution to any other parties for purposes other than those directly concerned with the titled project without prior written consent from QC is strictly prohibited.
2. The engineer's name present on the seal of these drawings is the engineer of record (EOR).
3. Details noted as "Typical" shall be used whenever applicable. Refer to specifications for information not covered by these notes or drawings.
4. It is the responsibility of the contractor to verify all dimensions prior to construction. Furthermore, QC will not be held responsible for the contractor's failure to conform to the construction documents, including this structural set, should any non-conformities occur.
5. The contractor shall assume sole and complete responsibility for job site conditions during the course of construction of this project, including safety of all persons and property.
6. Any omissions and conflicts between the various elements of the structural drawings and/or specifications shall be brought to the attention of, and resolved with, the engineer before proceeding with any work so involved.
7. All construction shall conform to the latest requirements of the North Carolina Residential Code (NCRC), 2018 Edition, plus all local codes and regulations.
8. Seismic design shall be per section R301.2.2 of the 2018 NCRC and is based off of local seismic design categories.

FOOTING AND FOUNDATION NOTES:

1. Foundation Design is based on a minimum allowing bearing capacity of 2,000 PSF. Contact the EOR if bearing capacity is not achieved.
2. No excavation shall occur within a 45 degree line projected from the bottom of the building foundation is permitted, unless it is specifically approved by the EOR.
3. The bottom of all footings shall extend below the frost line for the region, as specified by the local municipality. However, the bottom of all footings shall be a minimum of 12" below grade.
4. Contractor to ensure that all drainage is directed away from the exterior footings (Min. 2% slope).
5. Excavations of footings shall be temporarily protected with a 10 mil polyethylene membrane if concrete is not placed within 24 hours of excavation.
6. Do not place concrete or other cementitious materials against subgrade with any deleterious materials present, including but not limited to: water, ice, frost, or loose material.
7. All footings are to have minimum 2" projection on each side of foundation walls (except for monolithic slab foundations).

CONCRETE:

1. Poured concrete is to have a minimum compressive strength of 3000 psi at 28 days.
2. Aggregates for normal weight concrete shall conform to ASTM C33.
3. All materials used for concrete shall conform to ACI 318, ACI 301, or ASTM C1157.
4. The placing of all concrete shall be in accordance with ACI 318 and ASTM C94 requirements.
5. Admixtures may be used with prior approval of the EOR. Admixtures shall comply with ASTM C494 and C1017.
6. Concrete slabs-on-grade shall be constructed in a manner that complies with ACI 302.1R-96.
7. Control or saw cut joints shall be cut to a minimum of 1/4 of the thickness of the respective concrete element. Control joints located within interior and exterior slabs-on-grade shall be spaced at a maximum of 12' O.C. Control joints shall comply with ACI 301.

CONCRETE REINFORCEMENT:

1. Bar reinforcement shall be conform to ASTM A615, grade 60 steel.
2. The following minimum clear cover shall be provided over reinforcing bars:
   - 2.1. Concrete exposed to earth = 3"
   - 2.2. Concrete exposed to weather = 1-1/2"
   - 2.3. Slabs not exposed to weather = 3/4"
   - 2.4. Concrete Beams & Columns = 1-1/2"
3. Brick and/or porous material shall not be used to support footing steel off the ground. Plastic rebar chairs or precast concrete dobies may be used.
4. Splices in reinforcing steel shall be a minimum of 45x the diameter, up to a #6 rebar. Rebar larger than #6 requires a minimum lap splice of 56x the diameter.
5. All concrete walls shall be doweled to their supporting footings, beams, pads, etc. with bars of the same size and spacing as the vertical bars located within the wall, unless otherwise noted. Anchorage of dowels shall be the equivalent of a bar splice.

GENERAL WOOD FRAMING:

1. All wood framing members are designed to be Spruce-Pine-Fir (SPF) #2, unless otherwise noted on the plan. Grade marks shall be made by a recognized grading agency.
2. Framing members exposed to weather or in direct contact with soil, concrete, or masonry shall be pressure treated Spruce-Pine-Fir #2 and shall comply with the AWPA standard C-15.
3. All fasteners such as nails, bolts, screws, anchor bolts, etc. attaching pressure treated or fire-retardant treated wood shall be hot-dipped zinc coated galvanized or stainless steel (ASTM A153).
4. LVL engineered wood shall have the following minimum design values:
   - 4.1. E = 1,900,000 psi
   - 4.2. Fb = 2600 psi
   - 4.3. Fv = 285 psi
   - 4.4. Ft = 1555 psi
5. PSL engineered wood shall have the following minimum design values:
   - 5.1. E = 2,000,000 psi
   - 5.2. Fb = 2900 psi
   - 5.3. Fv = 290 psi
   - 5.4. Ft = 1755 psi
6. LSL engineered wood shall have the following minimum design values:
   - 6.1. E = 1,550,000 psi
   - 6.2. Fb = 2250 psi
   - 6.3. Fv = 400 psi
   - 6.4. Ft = 1075 psi
7. All bearing headers to be 2-2x6 supported with minimum (1) 2x4 jack stud and (1) 2x4 king stud at each end, unless noted otherwise on the plans. Non-load bearing headers shall be minimum 2-2x4.
8. Solid blocking is to be installed at all point load through floor levels to the foundation or to the nearest structural element.
9. All wood structural members that are specified are minimum sizes. Contractor may install larger sizes for ease of construction, if desired.
10. All nails shall be common nails, unless noted otherwise on plans and details.
11. All lag screws are to be predrilled. Drill diameter is to be 60 percent of the shank diameter. In addition, lag screws shall comply with ANSI/ASME standard B18.2.1-1981.
12. All bolt heads and nuts bearing on wood shall have standard cut washers. Holes for bolts shall be bored 1/16" larger than the nominal bolt diameter.
13. Provide full bearing where all beams meet supporting framing members.
14. Unless otherwise noted on plans, size, height, and spacing of wood studs shall be in accordance with section R602.3.1 of the 2018 North Carolina Residential Code. Wood framed walls shall consist of Spruce-Pine-Fir No.2 graded material.
15. Unless otherwise noted, four-ply LVL beams shall have plies fastened together with two rows of 1/2" diameter bolts spaced at 16" o.c. The bolts shall be located a minimum of 2-1/2" and a maximum of 3-1/2" from the top of bottom of the beam.

ROOF FRAMING NOTES:

1. Truss Built Roofs
   - 1.1. All roof trusses must be built in accordance with the truss manufacturer's requirements. Tie-down connections to resist uplift shall be installed where required. When roof truss manufacturers do not provide the required connectors, it is the responsibility of the contractor to notify the roof truss engineer or the EOR to provide an adequate connection.
   - 1.2. Roof truss layouts are to be in compliance with the overall design specified on the plans. All deviations are to be brought to the attention of the EOR prior to installation.
   - 1.3. Roof trusses shall be braced per the manufacturer's instructions and per the SBCA Building Component Safety Information (BCSI) Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Roof Trusses.
   - 1.4. Provide 2x4 ladder framing spaced at 24" o.c. between adjacent roof trusses where false dormers are located.
   - 1.5. Install minimum 7/16" OSB roof sheathing.
   - 1.6. Install roof trusses per section R802.10 in the 2018 NCRC. Where truss heels exceed 9-1/4" and are located over braced wall panels, blocking is to be installed per section R602.10.5 of the 2018 NCRC.
2. Stick Framed Roofs
   - 2.1. Collar ties shall be 2x6 spaced at 48" o.c. at all ridges unless noted otherwise and connected in the upper third of the attic space using (3) 10d common nails.
   - 2.2. Fur down all ridges as needed so that rafters have full contact.
   - 2.3. Ceiling joists when erected parallel to rafters must be sistered to rafters and secured as per table R802.5.1(a) of the 2018 North Carolina Residential Code.
   - 2.4. In addition to the NCRC fastener schedule, unless noted otherwise on the plan, roof members shall be tied down with additional metal connectors. Install a Simpson H2.5A connector at every rafter to fasten the lower end of the rafter to the top plate or beam below.
   - 2.5. Install minimum 7/16" OSB roof sheathing.

QUEEN CITY
CONSULTING AND DESIGN, PLLC

STRUCTURAL PLANS PREPARED FOR:

BIRCH - LH VERSION

PROJECT ADDRESS:
TBD

OWNER:
LGI Homes
7201 Creedmore Rd, Suite 147
Raleigh, NC 27613

DESIGNER:
Queen City Consulting and Design, PLLC.
2039 Jesup Dr
Charlotte, NC 28208

Revision No.	Date	Description

DESIGN SPECIFICATIONS:

Construction Type: Residential
Applicable Building Codes:

- 2018 North Carolina Residential Building Code with All Local Amendments
- ASCE 7-10: Minimum Design Loads for Buildings and Other Structures

Ultimate Design Wind Speed: 130MPH, EXPOSURE B

Assumed Soil Bearing Capacity: 2000psf

Component and Cladding loads shall be derived per Tables R301.2(2) and R301.2(3)

SEAL APPLIES TO STRUCTURAL ONLY

ENGINEERING SEAL APPLIES TO STRUCTURAL COMPONENTS ONLY. QC ASSUMES NO LIABILITY FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, SAFETY PRECAUTIONS, OR DEVIATIONS/DISCREPANCIES THAT MAY OCCUR IN THE PLAN. ANY DEVIATIONS OR DISCREPANCIES ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF QUEEN CITY CONSULTING AND DESIGN, PLLC.

THE ARCHITECTURAL PLANS USED FOR STRUCTURAL DRAWINGS AND ANALYSIS HAVE BEEN PROVIDED BY COX ARCHITECTURE AND DESIGN, PLLC AND HAVE BEEN COMPLETED/REVISED ON 2/13/24. NOTIFY QC OF ANY ALTERATIONS MADE TO THE PLANS AFTER THE DATE SHOWN HEREIN.

	LIVE LOADS
Roof 2x Conventional	20 PSF
Roof Truss	20 PSF
Attic Roof Truss	60 PSF
Floor Live Typ. Dwelling	40 PSF
Sleeping Areas	30 PSF
Decks	40 PSF
Passenger Vehicle Garage	50 PSF
Balconies	40 PSF
Attics with Storage	20 PSF
Attics without Storage	10 PSF
Ground Snow Load	15 PSF

	DEAD LOADS
Roof 2x Conventional	15 PSF
Roof Truss	20 PSF
Conventional 2x Floor	10 PSF
I-Joist	15 PSF
Floor Truss	15 PSF

PAGE LIST:

Page Symbol	Description
CS	Cover Sheet, Specifications, Revisions
F-1m	Monolithic Slab Foundation
S-1	First Floor Framing Plan
S-2	Second Floor Framing Plan
D-1m	Monolithic Slab Details
D-1f	Framing Details

QUEEN CITY CONSULTING AND DESIGN, PLLC

NORTH CAROLINA
QUEEN CITY CONSULTING AND DESIGN, PLLC
No. P-2435
CERTIFICATE OF AUTHORIZATION

NORTH CAROLINA PROFESSIONAL
SEAL 052215
CHRISTOPHER T. BOWELL
ENGINEER
2/14/24

CLIENT:
LGI Homes

SHEET NAME:
COVER SHEET

CLIENT:
LGI Homes

PLAN NAME:
BIRCH - LH VERSION

NEIGHBORHOOD:
TBD

LOT AND ADDRESS:
LOT #
TBD

PROJECT NUMBER:
LGI240014

DRAWN BY:
CTB

DATE:
2/14/2024

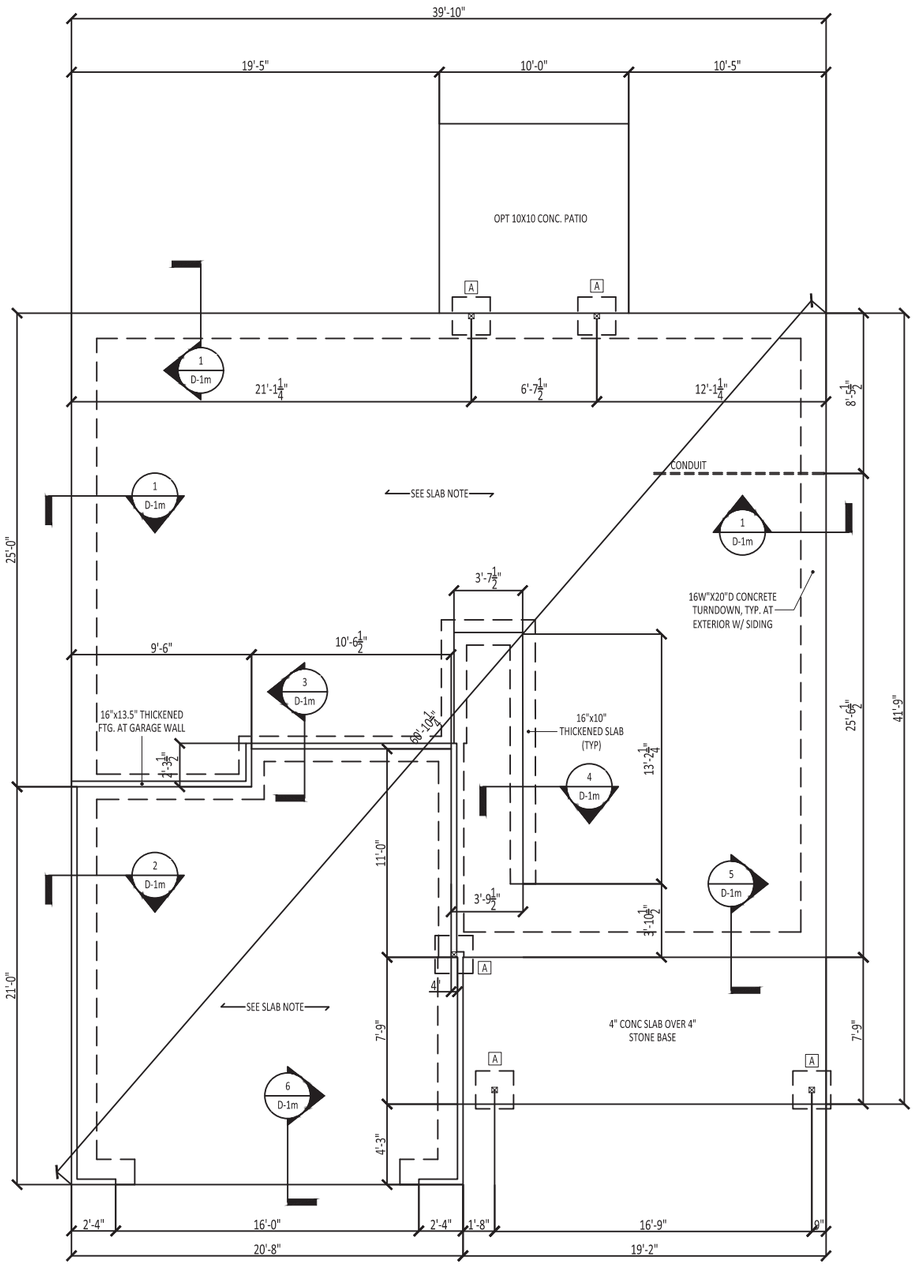
SCALE:
1/4"=1'-0" ON 22"x34"
1/8"=1'-0" ON 11"x17"

PAGE:
CS

MONOSLAB FOUNDATION NOTES:

- DISCLAIMER: ALL CONSTRUCTION SHALL CONFORM TO THE LATEST REQUIREMENTS OF THE NORTH CAROLINA RESIDENTIAL CODE, 2018 EDITION, PLUS ALL LOCAL CODES AND REGULATIONS.
- THE FOUNDATION HAS BEEN DESIGNED WITH AN ASSUMED 2000 PSF MINIMUM ALLOWABLE SOIL BEARING CAPACITY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE SOIL BEARING CAPACITY PRIOR TO CONCRETE PLACEMENT. CONTACT QC IF DESIRED BEARING CAPACITY IS NOT ACHIEVED.
- ALL POURED CONCRETE IS TO HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS. PLACE CONCRETE IN ACCORDANCE WITH ACI STANDARD 318.
- THE BOTTOM OF ALL FOOTINGS SHALL EXTEND BELOW THE FROST LINE FOR THE REGION, AS SPECIFIED BY THE LOCAL MUNICIPALITY, HOWEVER, THE BOTTOM OF ALL FOOTINGS SHALL BE A MINIMUM OF 12" BELOW GRADE.
- MAXIMUM DEPTH OF UNBALANCED FILL AGAINST MASONRY WALLS IS 4'. FOR GREATER THAN 4', REFER TO SECTION R404.1 OF THE 2018 NORTH CAROLINA RESIDENTIAL BUILDING CODE, OR CONTACT QC FOR ADDITIONAL ENGINEERING.
- PERIMETER INSULATION IS TO BE INSTALLED PER THE 2018 NCRC AND PER LOCAL MUNICIPALITY.
- WOOD SILL PLATES AT LOAD BEARING AND BRACED WALLS SHALL BE ANCHORED TO THE FOUNDATION WITH 1/2" DIAMETER BOLTS SPACED AT A MAXIMUM OF 6' O.C. THERE SHALL BE A MINIMUM OF TWO BOLTS PER PLATE SECTION. BOLTS SHALL EXTEND A MINIMUM OF 7" INTO CONCRETE AND SHALL BE LOCATED WITHIN THE MIDDLE THIRD OF THE PLATE. BOLTS TO BE LOCATED NOT MORE THAN 12" FROM ANY CORNERS OR BREAKS WITHIN THE SILL PLATE.
- ALL FOOTINGS & SLABS ARE TO BEAR ON UNDISTURBED SOIL OR 95% COMPACTED FILL, VERIFIED BY ENGINEER OR CODE OFFICIAL.
- DIMENSIONS SHOWN ON FOUNDATION DRAWINGS ARE TO EDGE OF FRAMING AND NOT TO EDGE OF BRICK VENEER.
- WITH CLASS 1 SOILS (TABLE R405.1), A 4" CRUSHED STONE BASE COURSE IS NOT REQUIRED.
- ALL GRADING AND FOUNDATION WORK MUST BE OBSERVED AND APPROVED PRIOR TO PLACEMENT OF CONCRETE.
- CONCRETE SLABS SHALL BE 4" THICK AND CONSTRUCTED OUT OF 3000 PSI MIN. COMPRESSIVE STRENGTH WITH 6"x6" W1.4xW1.4 WELDED WIRE FABRIC OR FIBERMESH CONCRETE OVER 10 MIL. THICK VAPOR BARRIER ON 95% COMPACTED FILL, VERIFIED BY EITHER ENGINEER OR CODE OFFICIAL.
- CONCRETE CURBS THAT ARE USED TO SUPPORT PORTAL FRAME WALLS SHALL BE A MINIMUM OF 8" WIDE
- 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 = CENTERLINE	PLFA = POINT LOAD FROM ABOVE
COL = COLUMN	NTS = NOT TO SCALE
PT = PRESSURE TREATED	UNO = UNLESS NOTED OTHERWISE
J = JACK STUD	K = KING STUD
CONT = CONTINUOUS	MANUF = MANUFACTURER



ANCHORAGE SCHEDULE

ANCHOR	MIN. SPACING	MIN. CONC. EMBEDMENT
1/2" DIA. A307 BOLTS W/ 90 DEGREE BEND	6'-0"	7"
SIMPSON MASA MUDSILL ANCHOR	6'-0"	4"
1/2" DIAMETER THREADED ROD W/ SET-3G EPOXY	6'-0"	7"
1/2" DIAMETER SIMPSON TITEN CONCRETE SCREWS	6'-0"	4-1/4"

FOOTING SCHEDULE

LABEL	SIZE	REBAR
A	24"x24"x10"	N/A
B	30"X30"X10"	N/A
C	36"X36"X12"	#4 @ 8" O.C. EA WAY
D	42"X42"X12"	#4 @ 8" O.C. EA WAY
E	48"X48"X12"	#5 @ 8" O.C. EA WAY

QUEEN CITY CONSULTING AND DESIGN, PLLC

NORTH CAROLINA CERTIFICATE OF AUTHORIZATION
QUEEN CITY CONSULTING AND DESIGN, PLLC
No. P-2435

NORTH CAROLINA PROFESSIONAL SEAL 052215 ENGINEER
CHRISTOPHER T. BOTTOMLEY
2/14/24

CLIENT:
LGI Homes

SHEET NAME:
MONOLITHIC SLAB FOUNDATION

CLIENT:
LGI Homes

PLAN NAME:
BIRCH - LH VERSION

NEIGHBORHOOD:
TBD

LOT AND ADDRESS:
LOT #
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SCALE:
1/4"=1'-0" ON 22"x34"
1/8"=1'-0" ON 11"x17"

PAGE:
F-1.1m

FRAMING NOTES:

- REFER TO COVER PAGE FOR ADDITIONAL NOTES
- ALL CONSTRUCTION SHALL CONFORM TO THE LATEST REQUIREMENTS OF THE NORTH CAROLINA RESIDENTIAL CODE (NCRC), 2018 EDITION, PLUS ALL LOCAL CODES AND REGULATIONS.
- THE EOR SHALL REVIEW EWP AND TRUSS LAYOUTS FOR ACCURACY PRIOR TO CONSTRUCTION.
- SOLID BLOCKING IS TO BE INSTALLED AT ALL POINT LOADS THROUGH FLOOR LEVELS TO THE FOUNDATION OR TO THE NEAREST STRUCTURAL ELEMENT. BLOCKING SHALL BE EQUAL TO OR GREATER THAN THE SUPPORT ABOVE.
- BUILT-UP WOOD COLUMNS CONSISTING OF MULTIPLE STUDS SHALL HAVE EACH LAMINATION NAILED WITH 16D NAILS SPACED AT 9" O.C. FOR BUILT-UP COLUMNS CONSISTING OF (4) PLIES OR MORE, SECURE PLIES TOGETHER WITH HORIZONTAL SIMPSON CS-16 COIL STRAPS LOCATED AT QUARTER POINTS.
- CONTRACTOR SHALL ENSURE THAT ALL BEAMS, HEADERS, AND STRUCTURAL COMPONENTS ARE FULLY BEARING ON THE SUPPORTING MEMBERS. ANY GAPS IN THE FRAMING SHALL BE SHIMMED APPROPRIATELY WITH EITHER METAL SHIMS OF WOOD SHIMS AS NECESSARY.
- HEADER SIZES SHOWN ON PLANS ARE MINIMUMS. ANY HEADERS INSTALLED THAT ARE GREATER IN SIZE ARE AN ADEQUATE REPLACEMENTS PROVIDED THE MATERIAL IS OF THE SAME OR GREATER STRUCTURAL PROPERTIES.
- WHERE TOP PLATE HAS BEEN CUT TO ACCOMMODATE FLUSH HEADERS/BEAMS, INSTALL A MINIMUM 16" LONG HORIZONTAL CS-16 STRAP EXTENDING 12" PAST THE BREAK ON EACH SIDE.
- UNLESS OTHERWISE NOTED, FOUR-PLY LVL BEAMS SHALL HAVE PLIES FASTENED TOGETHER WITH TWO (2) ROWS OF 1/2" DIAMETER BOLTS SPACED AT 16" O.C. THE BOLTS SHALL BE LOCATED A MINIMUM OF 2-1/2" AND A MAXIMUM OF 3-1/2" FROM THE TOP AND BOTTOM OF THE BEAM.
- ALL LOAD BEARING WALLS TO BE 2X4 U.N.O.
- 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
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PT = PRESSURE TREATED	UNO = UNLESS NOTED OTHERWISE
J = JACK STUD	K = KING STUD
CONT = CONTINUOUS	MANUF = MANUFACTURER

LEGEND:

#J	# OF JACK STUDS
⊠	STUD COLUMN
■	POINT LOAD FROM ABOVE
▭	LOAD BEARING WALL
▭	NON LOAD BEARING WALL

HEADER SCHEDULE:

LABEL	SIZE
A	2x6 W/ (1) JACK STUD E.E.*
B	2x8 W/ (2) JACK STUDS E.E.*
C	2x10 W/ (2) JACK STUDS E.E.*
D	2x12 W/ (2) JACK STUDS E.E.*
E	9-1/4" LVL W/ (3) JACK STUDS E.E.*
F	11-7/8" LVL W/ (3) JACK STUDS E.E. *

*THE AMOUNT OF PLYS FOR THE HEADER IS DETERMINED BY THE WIDTH OF THE WALL (2X4 WALL=2 PLYS, 2X6 WALL=3 PLYS, ETC.). AMOUNT OF JACK STUDS SHOWN ON PLAN TAKE PRECEDENCE OVER TABLE.

KING STUD SCHEDULE:

HEADER SPAN	MINIMUM KING STUDS E.E.
3'-0" OR LESS	(1)
3'-0" TO 6'-0"	(2)
6'-0" TO 9'-0"	(3)
9'-0" TO 12'-0"	(4)
12'-0" TO 16'-0"	(6)

WALL STUD NOTES:

- ALL STRUCTURAL LOAD BEARING WALLS SHALL BE CONSTRUCTED OUT OF 2X4 OR 2X6 STUDS AT 16" O.C. U.N.O. FOR UP TO 10' WALLS
- ALL NON LOAD BEARING WALLS SHALL BE CONSTRUCTED OUT OF 2X4 OR 2X6 STUDS AT 24" O.C. U.N.O. FOR UP TO 10' WALLS
- BALLOON FRAMED WALLS SHALL BE CONSTRUCTED WITH 2X4 STUDS AT 12" O.C. OR 2X6 STUDS AT 16" O.C. WITH CROSS BRACING AT 6'-0" O.C. VERTICALLY OR ACCORDING TO THE CHART BELOW:

HEIGHT (PLATE TO PLATE)	STUD SIZE	SPACING
12'-0"	2X4	12" O.C.
15'-0"	2X6	16" O.C.
17'-0"	(2) 2X4/2X6	12" O.C./12" O.C.
21'-0"	(2) 2X6/2X8	16" O.C./12" O.C.
25'-0"	(2) 2X6	12" O.C.

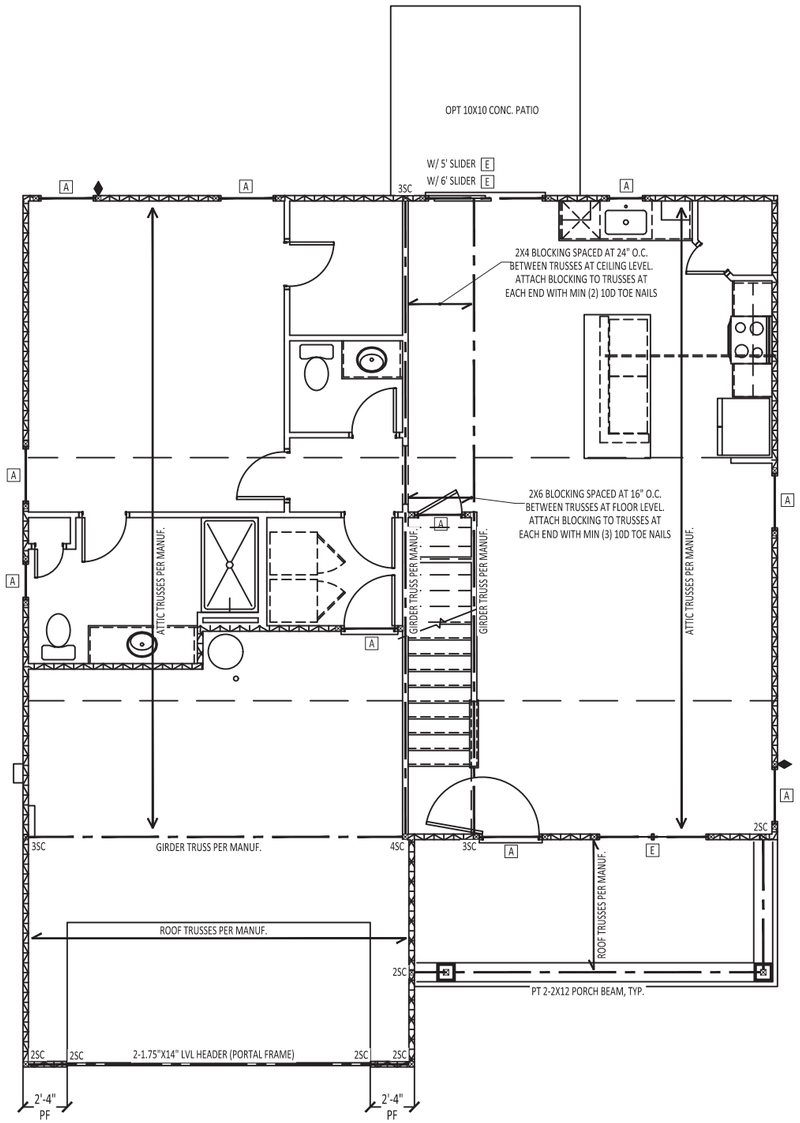
BRICK LINTEL SCHEDULE:

SPAN	HEIGHT OF BRICK	LINTEL
3'-0" OR LESS	20' MAX	L3"x3"x1/4"
3'-0" TO 6'-0"	6' MAX 12' MAX 20' MAX	L3"x3"x1/4" L4"x3"x1/4" L5"x3-1/2"x5/16"
6'-0" TO 12'-0"	6' MAX 12' MAX	L5"x3-1/2"x5/16" L6x3-1/2"x5/16"
12'-0" TO 16'-0"	12' MAX	L8"x4"x1/2"

- ATTACH ALL LINTELS TO THE SUPPORTING HEADER WITH (2) ROWS OF MINIMUM 3.5" LONG 1/2" DIAMETER LAG SCREWS AT 16" O.C.
- ENDS OF LINTEL SHALL BEAR AT LEAST 3.5" IN THE ADJACENT BRICK

NOTE: WALL BRACING HAS BEEN ANALYZED USING CS-WSP PER SECTION R602.10 OF THE 2018 NCRC. MIXED METHODS PER TABLE R602.10.1 ARE DESIGNATED ON THE PLAN.

NOTE: FLOOR JOISTS MAY INCLUDE FLOOR TRUSSES OR I-JOISTS, AS CONTRACTOR DESIRES.



TYPICAL HANGERS FOR JOIST & BEAMS

MEMBERS	SIMPSON: HANGER	USP: HANGER
2x8	LUS28	JUS28
2x10	LUS210	JUS210
2x12	LUS210	JUS210
2-2x8	HUS28-2	JUS28-2
2-2x10	HUS210-2	JUS210-2
2-2x12	HUS212-2	JUS212-2
3-2x8	LUS28-3	JUS28-3
3-2x10	LUS210-3	JUS210-3
3-2x12	HU212-3 MIN.	JUS212-3 MIN.
2-1½"x9½" LVL	HGUS410	THDH410
2-1½"x9½" LVL	HGUS410	THDH410
2-1½"x11⅞" LVL	HGUS412	THDH412
2-1½"x11⅞" LVL	HGUS412	THDH412
2-1½"x14" LVL	HGUS414	THDH414
2-1½"x16" LVL	HGUS414	THDH414
2-1½"x18" LVL	HGUS414	THDH414
2-1½"x24" LVL	HGUS414	THDH414
3-1½"x9½" LVL	HGUS5.50/10	THDH610
3-1½"x9½" LVL	HGUS5.50/10	THDH610
3-1½"x11⅞" LVL	HGUS5.50/12	THDH612
3-1½"x11⅞" LVL	HGUS5.50/12	THDH612
3-1½"x14" LVL	HGUS5.50/14	THDH614
3-1½"x16" LVL	HGUS5.50/14	THDH614
3-1½"x18" LVL	HGUS5.50/14	THDH614
3-1½"x24" LVL	HGUS5.50/14	THDH614
4-1½"x9½" LVL	HGUS7.25/10	THDH7210
4-1½"x9½" LVL	HGUS7.25/10	THDH7210
4-1½"x11⅞" LVL	HGUS7.25/12	THDH7212
4-1½"x11⅞" LVL	HGUS7.25/12	THDH7212
4-1½"x14" LVL	HGUS7.25/14	THDH7214
4-1½"x16" LVL	HGUS7.25/14	THDH7214
4-1½"x18" LVL	HGUS7.25/14	THDH7214

NOTE: ALL HANGERS BY SIMPSON STRONG TIE CO., INC. (BRAND - NAME EQUIVALENTS ACCEPTABLE)

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) MTS20	(2) CS16 (END = 11")	DTT2Z
2900 LBS	(2) HTS20	(2) CS16 (END = 11")	HTT4
3685 LBS	LGT3-SDS2.5	MSTC52	HTT4

1. ALL PRODUCTS LISTED ARE SIMPSON STRONG-TIE. EQUIVALENT PRODUCTS MAY BE USED PER MANUFACTURER'S SPECIFICATIONS.
2. UPLIFT VALUES LISTED ARE FOR SPF #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 QC FOR REQUIRED CONNECTORS WHEN LOADS EXCEED THOSE LISTED ABOVE.

WALL BRACING LEGEND:

- ◆ ATTACH (2) 2X4 STUD COLUMN TO FOUNDATION WITH SST LTTP2 HOLD DOWN, OR EQUIVALENT HARDWARE.
- ▨ BRACED WALL

WALL BRACING NOTES:

- REFER TO COVER PAGE FOR ADDITIONAL NOTES.
- BRACING DESIGN CONFORMS TO THE 2018 NCRC AND ALL LOCAL AMENDMENTS FOR A MAXIMUM WIND SPEED OF 130 MPH AND SEISMIC ZONES A-C
- WALL BRACING HAS BEEN ANALYZED PER SECTION R602.10 OF THE 2018 NCRC. CS-WSP IS THE COMMON BRACING METHOD USED, WHERE APPLICABLE. MIXED METHODS, OTHER THAN CS-WSP, SHOWN WITHIN TABLE R602.10.1 ARE DESIGNATED ON THE PLAN.
- ALL BRACING COMPONENTS SHALL COMPLY TO SECTION R602.10.1 OF THE 2018 NCRC.
- MINIMUM PANEL LENGTH SHALL BE 24" OR THE MINIMUM AS STATED IN R602.10.1 OF THE 2018 NCRC.
- BRACED WALL PANELS SHALL BE WITHIN 12'-0" FROM THE ENDS OF A BRACED WALL LINE AND SPACED NO GREATER THAN 21'.
- INTERIOR OF EXTERIOR BRACED WALLS SHALL BE SHEATHED CONTINUOUSLY WITH 1/2" THICK GYPSUM, U.N.O.
- HOLD DOWNS SHALL BE INSTALLED FOR BRACED WALL END CONDITIONS PER SECTION R602.10.4 AND FIGURE R602.10.3(3) OF THE 2018 NCRC.
- REFER TO THE CHART BELOW FOR BRACED WALL METHODS AND CONNECTIONS.

METHOD	MATERIAL	MIN. THICKNESS	REQUIRED CONNECTION
CONTINUOUS SHEATHING WOOD STRUCTURAL PANEL (CS-WSP)	WOOD STRUCTURAL PANEL	3/8"	6d COMMON NAILS AT 6" O.C. ON EDGE AND 12" O.C. ON FIELD
GYPSUM BOARD (GB)	GYPSUM BOARD	1/2"	5d COOLER NAILS AT 7" O.C. ON EDGE AND FIELD
WOOD STRUCTURAL PANEL (WSP)	WOOD STRUCTURAL PANEL	3/8"	6d COMMON NAILS AT 6" O.C. ON EDGE AND 12" O.C. ON FIELD
PORTAL FRAME (PF)	WOOD STRUCTURAL PANEL	7/16"	SEE DETAIL 1/D-1f

TRUSSED ROOF FRAMING NOTES:

- REFER TO COVER PAGE FOR ADDITIONAL WOOD FRAMING NOTES
- ALL ROOF TRUSSES SHALL BE ATTACHED TO WALL PLATES WITH MINIMUM (1) SIMPSON H2.5A OR PER MANUFACTURER'S INSTRUCTIONS OR PER SECTION R802.11 OF THE 2018 NCRC, WHICHEVER IS GREATER.
- ROOF TRUSSES ARE TO BE INSTALLED PER SECTION R802.10 IN THE 2018 NCRC
- ROOF TRUSSES SHALL BE BRACED PER THE MANUFACTURER'S INSTRUCTIONS AND PER THE SBCA BUILDING COMPONENT SAFETY INFORMATION (BCSI) GUIDE TO GOOD PRACTICE FOR HANDING, INSTALLING & BRACING OF METAL PLATE CONNECTED WOOD TRUSSES.
- DO NOT CUT OR ALTER ROOF TRUSSES.
- ROOF TRUSS MANUFACTURER SHALL VERIFY AND DESIGN FOR POSITION OF PULL DOWN STAIRS AND ATTIC PLATFORM.
- WHERE TRUSS HEELS EXCEED 9-1/4" AND ARE LOCATED OVER BRACED WALL PANELS AS SHOWN ON THE PLANS, BLOCKING SHALL BE INSTALLED PER SECTION R602.10.5 OF THE 2018 NCRC.

QUEEN CITY CONSULTING AND DESIGN, PLLC

NORTH CAROLINA CERTIFICATE OF AUTHORIZATION
QUEEN CITY CONSULTING AND DESIGN, PLLC
No. P-2435

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 052215 CHRISTOPHER T. BOYLE
2/14/24

CLIENT:
LGI Homes

SHEET NAME:
FIRST FLOOR FRAMING PLAN

CLIENT:
LGI Homes

PLAN NAME:
BIRCH - LH VERSION

NEIGHBORHOOD:
TBD

LOT AND ADDRESS:
LOT #
TBD

PROJECT NUMBER:
LGI240014

DRAWN BY:
CTB

DATE:
2/14/2024

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

PAGE:
S-1.1

FRAMING NOTES:

- REFER TO COVER PAGE FOR ADDITIONAL NOTES
- ALL CONSTRUCTION SHALL CONFORM TO THE LATEST REQUIREMENTS OF THE NORTH CAROLINA RESIDENTIAL CODE (NCRC), 2018 EDITION, PLUS ALL LOCAL CODES AND REGULATIONS.
- THE EOR SHALL REVIEW EWP AND TRUSS LAYOUTS FOR ACCURACY PRIOR TO CONSTRUCTION.
- SOLID BLOCKING IS TO BE INSTALLED AT ALL POINT LOADS THROUGH FLOOR LEVELS TO THE FOUNDATION OR TO THE NEAREST STRUCTURAL ELEMENT. BLOCKING SHALL BE EQUAL TO OR GREATER THAN THE SUPPORT ABOVE.
- BUILT-UP WOOD COLUMNS CONSISTING OF MULTIPLE STUDS SHALL HAVE EACH LAMINATION NAILED WITH 16D NAILS SPACED AT 9" O.C. FOR BUILT-UP COLUMNS CONSISTING OF (4) PLIES OR MORE, SECURE PLIES TOGETHER WITH HORIZONTAL SIMPSON CS-16 COIL STRAPS LOCATED AT QUARTER POINTS.
- CONTRACTOR SHALL ENSURE THAT ALL BEAMS, HEADERS, AND STRUCTURAL COMPONENTS ARE FULLY BEARING ON THE SUPPORTING MEMBERS. ANY GAPS IN THE FRAMING SHALL BE SHIMMED APPROPRIATELY WITH EITHER METAL SHIMS OF WOOD SHIMS AS NECESSARY.
- HEADER SIZES SHOWN ON PLANS ARE MINIMUMS. ANY HEADERS INSTALLED THAT ARE GREATER IN SIZE ARE AN ADEQUATE REPLACEMENTS PROVIDED THE MATERIAL IS OF THE SAME OR GREATER STRUCTURAL PROPERTIES.
- WHERE TOP PLATE HAS BEEN CUT TO ACCOMMODATE FLUSH HEADERS/BEAMS, INSTALL A MINIMUM 16" LONG HORIZONTAL CS-16 STRAP EXTENDING 12" PAST THE BREAK ON EACH SIDE.
- UNLESS OTHERWISE NOTED, FOUR-PLY LVL BEAMS SHALL HAVE PLIES FASTENED TOGETHER WITH TWO (2) ROWS OF 1/2" DIAMETER BOLTS SPACED AT 16" O.C. THE BOLTS SHALL BE LOCATED A MINIMUM OF 2-1/2" AND A MAXIMUM OF 3-1/2" FROM THE TOP AND BOTTOM OF THE BEAM.
- ALL LOAD BEARING WALLS TO BE 2X4 U.N.O.
- 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 = CENTERLINE	PLFA = POINT LOAD FROM ABOVE
COL = COLUMN	NTS = NOT TO SCALE
PT = PRESSURE TREATED	UNO = UNLESS NOTED OTHERWISE
J = JACK STUD	K = KING STUD
CONT = CONTINUOUS	MANUF = MANUFACTURER

LEGEND:

#J	# OF JACK STUDS
⊠	STUD COLUMN
■	POINT LOAD FROM ABOVE
	LOAD BEARING WALL
	NON LOAD BEARING WALL

HEADER SCHEDULE:

LABEL	SIZE
A	2x6 W/ (1) JACK STUD E.E.*
B	2x8 W/ (2) JACK STUDS E.E.*
C	2x10 W/ (2) JACK STUDS E.E.*
D	2x12 W/ (2) JACK STUDS E.E.*
E	9-1/4" LVL W/ (3) JACK STUDS E.E.*
F	11-7/8" LVL W/ (3) JACK STUDS E.E. *

*THE AMOUNT OF PLYS FOR THE HEADER IS DETERMINED BY THE WIDTH OF THE WALL (2X4 WALL=2 PLYS, 2X6 WALL=3 PLYS, ETC.). AMOUNT OF JACK STUDS SHOWN ON PLAN TAKE PRECEDENCE OVER TABLE.

KING STUD SCHEDULE:

HEADER SPAN	MINIMUM KING STUDS E.E.
3'-0" OR LESS	(1)
3'-0" TO 6'-0"	(2)
6'-0" TO 9'-0"	(3)
9'-0" TO 12'-0"	(4)
12'-0" TO 16'-0"	(6)

WALL STUD NOTES:

- ALL STRUCTURAL LOAD BEARING WALLS SHALL BE CONSTRUCTED OUT OF 2X4 OR 2X6 STUDS AT 16" O.C. U.N.O. FOR UP TO 10' WALLS
- ALL NON LOAD BEARING WALLS SHALL BE CONSTRUCTED OUT OF 2X4 OR 2X6 STUDS AT 24" O.C. U.N.O. FOR UP TO 10' WALLS
- BALLOON FRAMED WALLS SHALL BE CONSTRUCTED WITH 2X4 STUDS AT 12" O.C. OR 2X6 STUDS AT 16" O.C. WITH CROSS BRACING AT 6'-0" O.C. VERTICALLY OR ACCORDING TO THE CHART BELOW:

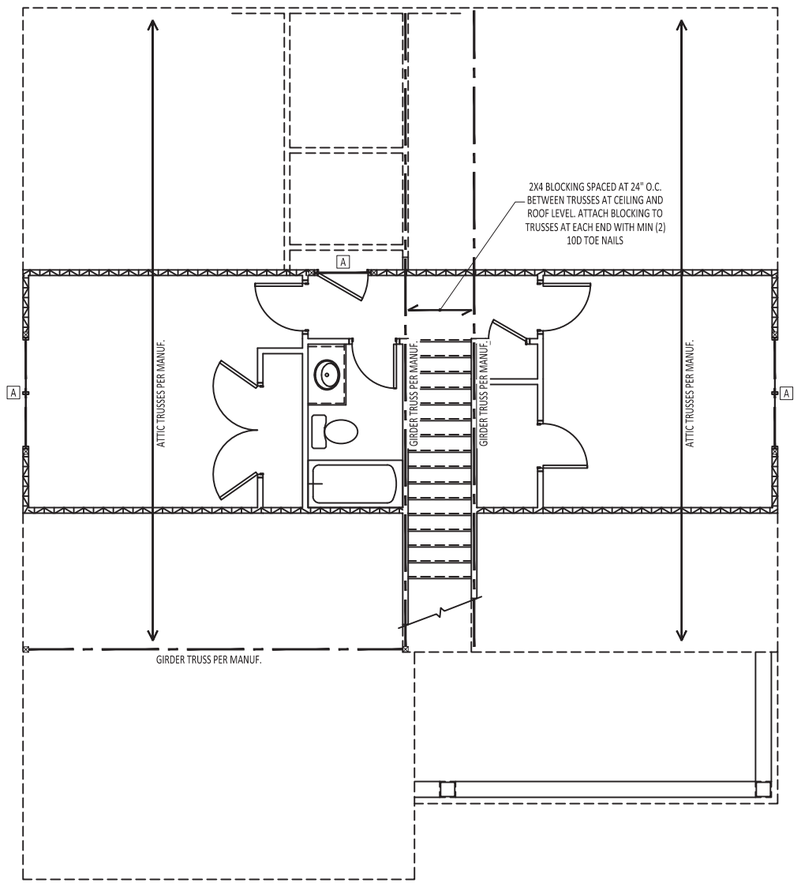
HEIGHT (PLATE TO PLATE)	STUD SIZE	SPACING
12'-0"	2X4	12" O.C.
15'-0"	2X6	16" O.C.
17'-0"	(2) 2X4/2X6	12" O.C./12" O.C.
21'-0"	(2) 2X6/2X8	16" O.C./12" O.C.
25'-0"	(2) 2X6	12" O.C.

BRICK LINTEL SCHEDULE:

SPAN	HEIGHT OF BRICK	LINTEL
3'-0" OR LESS	20' MAX	L3"x3"x1/4"
3'-0" TO 6'-0"	6' MAX 12' MAX 20' MAX	L3"x3"x1/4" L4"x3"x1/4" L5"x3-1/2"x5/16"
6'-0" TO 12'-0"	6' MAX 12' MAX	L5"x3-1/2"x5/16" L6x3-1/2"x5/16"
12'-0" TO 16'-0"	12' MAX	L8"x4"x1/2"

- ATTACH ALL LINTELS TO THE SUPPORTING HEADER WITH (2) ROWS OF MINIMUM 3.5" LONG 1/2" DIAMETER LAG SCREWS AT 16" O.C.
- ENDS OF LINTEL SHALL BEAR AT LEAST 3.5" IN THE ADJACENT BRICK

NOTE: WALL BRACING HAS BEEN ANALYZED USING CS-WSP PER SECTION R602.10 OF THE 2018 NCRC. MIXED METHODS PER TABLE R602.10.1 ARE DESIGNATED ON THE PLAN.



TYPICAL HANGERS FOR JOIST & BEAMS

MEMBERS	-SIMPSON- HANGER	-USP- HANGER
2x8	LUS28	JUS28
2x10	LUS210	JUS210
2x12	LUS210	JUS210
2-2x8	HUS28-2	JUS28-2
2-2x10	HUS210-2	JUS210-2
2-2x12	HUS212-2	JUS212-2
3-2x8	LUS28-3	JUS28-3
3-2x10	LUS210-3	JUS210-3
3-2x12	HU212-3 MIN.	JUS212-3 MIN.
2-1¾"x9¼" LVL	HGUS410	THDH410
2-1¾"x9½" LVL	HGUS410	THDH410
2-1¾"x11¼" LVL	HGUS412	THDH412
2-1¾"x11¾" LVL	HGUS412	THDH412
2-1¾"x14" LVL	HGUS414	THDH414
2-1¾"x16" LVL	HGUS414	THDH414
2-1¾"x18" LVL	HGUS414	THDH414
2-1¾"x24" LVL	HGUS414	THDH414
3-1¾"x9¼" LVL	HGUS5.50/10	THDH610
3-1¾"x9½" LVL	HGUS5.50/10	THDH610
3-1¾"x11¼" LVL	HGUS5.50/12	THDH612
3-1¾"x11¾" LVL	HGUS5.50/12	THDH612
3-1¾"x14" LVL	HGUS5.50/14	THDH614
3-1¾"x16" LVL	HGUS5.50/14	THDH614
3-1¾"x18" LVL	HGUS5.50/14	THDH614
3-1¾"x24" LVL	HGUS5.50/14	THDH614
4-1¾"x9½" LVL	HGUS7.25/10	THDH7210
4-1¾"x9½" LVL	HGUS7.25/10	THDH7210
4-1¾"x11¼" LVL	HGUS7.25/12	THDH7212
4-1¾"x11¾" LVL	HGUS7.25/12	THDH7212
4-1¾"x14" LVL	HGUS7.25/14	THDH7214
4-1¾"x16" LVL	HGUS7.25/14	THDH7214
4-1¾"x18" LVL	HGUS7.25/14	THDH7214

NOTE: ALL HANGERS BY SIMPSON STRONG TIE CO., INC. (BRAND - NAME EQUIVALENTS ACCEPTABLE)

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) MTS20	(2) CS16 (END = 11")	DTT2Z
2900 LBS	(2) HTS20	(2) CS16 (END = 11")	HTT4
3685 LBS	LGT3-SDS2.5	MSTC52	HTT4

1. ALL PRODUCTS LISTED ARE SIMPSON STRONG-TIE. EQUIVALENT PRODUCTS MAY BE USED PER MANUFACTURER'S SPECIFICATIONS.
2. UPLIFT VALUES LISTED ARE FOR SPF #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 QC FOR REQUIRED CONNECTORS WHEN LOADS EXCEED THOSE LISTED ABOVE.

WALL BRACING LEGEND:

- ◆ ATTACH (2) 2X4 STUD COLUMN TO FOUNDATION WITH SST LTTP2 HOLD DOWN, OR EQUIVALENT HARDWARE.
- BRACED WALL

WALL BRACING NOTES:

- REFER TO COVER PAGE FOR ADDITIONAL NOTES.
- BRACING DESIGN CONFORMS TO THE 2018 NCRC AND ALL LOCAL AMENDMENTS FOR A MAXIMUM WIND SPEED OF 130 MPH AND SEISMIC ZONES A-C
- WALL BRACING HAS BEEN ANALYZED PER SECTION R602.10 OF THE 2018 NCRC. CS-WSP IS THE COMMON BRACING METHOD USED, WHERE APPLICABLE. MIXED METHODS, OTHER THAN CS-WSP, SHOWN WITHIN TABLE R602.10.1 ARE DESIGNATED ON THE PLAN.
- ALL BRACING COMPONENTS SHALL COMPLY TO SECTION R602.10.1 OF THE 2018 NCRC.
- MINIMUM PANEL LENGTH SHALL BE 24" OR THE MINIMUM AS STATED IN R602.10.1 OF THE 2018 NCRC.
- BRACED WALL PANELS SHALL BE WITHIN 12'-0" FROM THE ENDS OF A BRACED WALL LINE AND SPACED NO GREATER THAN 21'.
- INTERIOR OF EXTERIOR BRACED WALLS SHALL BE SHEATHED CONTINUOUSLY WITH 1/2" THICK GYPSUM, U.N.O.
- HOLD DOWNS SHALL BE INSTALLED FOR BRACED WALL END CONDITIONS PER SECTION R602.10.4 AND FIGURE R602.10.3(3) OF THE 2018 NCRC.
- REFER TO THE CHART BELOW FOR BRACED WALL METHODS AND CONNECTIONS.

METHOD	MATERIAL	MIN. THICKNESS	REQUIRED CONNECTION
CONTINUOUS SHEATHING WOOD STRUCTURAL PANEL (CS-WSP)	WOOD STRUCTURAL PANEL	3/8"	6d COMMON NAILS AT 6" O.C. ON EDGE AND 12" O.C. ON FIELD
GYPSUM BOARD (GB)	GYPSUM BOARD	1/2"	5d COOLER NAILS AT 7" O.C. ON EDGE AND FIELD
WOOD STRUCTURAL PANEL (WSP)	WOOD STRUCTURAL PANEL	3/8"	6d COMMON NAILS AT 6" O.C. ON EDGE AND 12" O.C. ON FIELD
PORTAL FRAME (PF)	WOOD STRUCTURAL PANEL	7/16"	SEE DETAIL 1/D-1f

TRUSSED ROOF FRAMING NOTES:

- REFER TO COVER PAGE FOR ADDITIONAL WOOD FRAMING NOTES
- ALL ROOF TRUSSES SHALL BE ATTACHED TO WALL PLATES WITH MINIMUM (1) SIMPSON H2.5A OR PER MANUFACTURER'S INSTRUCTIONS OR PER SECTION R802.11 OF THE 2018 NCRC, WHICHEVER IS GREATER.
- ROOF TRUSSES ARE TO BE INSTALLED PER SECTION R802.10 IN THE 2018 NCRC
- ROOF TRUSSES SHALL BE BRACED PER THE MANUFACTURER'S INSTRUCTIONS AND PER THE SBCA BUILDING COMPONENT SAFETY INFORMATION (BCSI) GUIDE TO GOOD PRACTICE FOR HANDING, INSTALLING & BRACING OF METAL PLATE CONNECTED WOOD TRUSSES.
- DO NOT CUT OR ALTER ROOF TRUSSES.
- ROOF TRUSS MANUFACTURER SHALL VERIFY AND DESIGN FOR POSITION OF PULL DOWN STAIRS AND ATTIC PLATFORM.
- WHERE TRUSS HEELS EXCEED 9-1/4" AND ARE LOCATED OVER BRACED WALL PANELS AS SHOWN ON THE PLANS, BLOCKING SHALL BE INSTALLED PER SECTION R602.10.5 OF THE 2018 NCRC.

QUEEN CITY CONSULTING AND DESIGN, PLLC

NORTH CAROLINA CERTIFICATE OF AUTHORIZATION
QUEEN CITY CONSULTING AND DESIGN, PLLC
No. P-3435

NORTH CAROLINA PROFESSIONAL SEAL 052215 ENGINEER
CHRISTOPHER T. BOSWELL
2/14/24

CLIENT:
LGI Homes

SHEET NAME:
SECOND FLOOR FRAMING PLAN

CLIENT:
LGI Homes

PLAN NAME:
BIRCH - LH VERSION

NEIGHBORHOOD:
TBD

LOT AND ADDRESS:
LOT #
TBD

PROJECT NUMBER:
LGI240014

DRAWN BY:
CTB

DATE:
2/14/2024

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

PAGE:
S-2.1

GENERAL STRUCTURAL NOTES:

1. These drawings and its contents are the property of Queen City Consulting and Design, PLLC, (QC) and the client as noted on this page. Distribution to any other parties for purposes other than those directly concerned with the titled project without prior written consent from QC is strictly prohibited.
2. The engineer's name present on the seal of these drawings is the engineer of record (EOR).
3. Details noted as "Typical" shall be used whenever applicable. Refer to specifications for information not covered by these notes or drawings.
4. It is the responsibility of the contractor to verify all dimensions prior to construction. Furthermore, QC will not be held responsible for the contractor's failure to conform to the construction documents, including this structural set, should any non-conformities occur.
5. The contractor shall assume sole and complete responsibility for job site conditions during the course of construction of this project, including safety of all persons and property.
6. Any omissions and conflicts between the various elements of the structural drawings and/or specifications shall be brought to the attention of, and resolved with, the engineer before proceeding with any work so involved.
7. All construction shall conform to the latest requirements of the North Carolina Residential Code (NCRC), 2018 Edition, plus all local codes and regulations.
8. Seismic design shall be per section R301.2.2 of the 2018 NCRC and is based off of local seismic design categories.

FOOTING AND FOUNDATION NOTES:

1. Foundation Design is based on a minimum allowing bearing capacity of 2,000 PSF. Contact the EOR if bearing capacity is not achieved.
2. No excavation shall occur within a 45 degree line projected from the bottom of the building foundation is permitted, unless it is specifically approved by the EOR.
3. The bottom of all footings shall extend below the frost line for the region, as specified by the local municipality. However, the bottom of all footings shall be a minimum of 12" below grade.
4. Contractor to ensure that all drainage is directed away from the exterior footings (Min. 2% slope).
5. Excavations of footings shall be temporarily protected with a 10 mil polyethylene membrane if concrete is not placed within 24 hours of excavation.
6. Do not place concrete or other cementitious materials against subgrade with any deleterious materials present, including but not limited to: water, ice, frost, or loose material.
7. All footings are to have minimum 2" projection on each side of foundation walls (except for monolithic slab foundations).

CONCRETE:

1. Poured concrete is to have a minimum compressive strength of 3000 psi at 28 days.
2. Aggregates for normal weight concrete shall conform to ASTM C33.
3. All materials used for concrete shall conform to ACI 318, ACI 301, or ASTM C1157.
4. The placing of all concrete shall be in accordance with ACI 318 and ASTM C94 requirements.
5. Admixtures may be used with prior approval of the EOR. Admixtures shall comply with ASTM C494 and C1017.
6. Concrete slabs-on-grade shall be constructed in a manner that complies with ACI 302.1R-96.
7. Control or saw cut joints shall be cut to a minimum of 1/4 of the thickness of the respective concrete element. Control joints located within interior and exterior slabs-on-grade shall be spaced at a maximum of 12' O.C. Control joints shall comply with ACI 301.

CONCRETE REINFORCEMENT:

1. Bar reinforcement shall be conform to ASTM A615, grade 60 steel.
2. The following minimum clear cover shall be provided over reinforcing bars:
   - 2.1. Concrete exposed to earth = 3"
   - 2.2. Concrete exposed to weather = 1-1/2"
   - 2.3. Slabs not exposed to weather = 3/4"
   - 2.4. Concrete Beams & Columns = 1-1/2"
3. Brick and/or porous material shall not be used to support footing steel off the ground. Plastic rebar chairs or precast concrete dobies may be used.
4. Splices in reinforcing steel shall be a minimum of 45x the diameter, up to a #6 rebar. Rebar larger than #6 requires a minimum lap splice of 56x the diameter.
5. All concrete walls shall be doweled to their supporting footings, beams, pads, etc. with bars of the same size and spacing as the vertical bars located within the wall, unless otherwise noted. Anchorage of dowels shall be the equivalent of a bar splice.

GENERAL WOOD FRAMING:

1. All wood framing members are designed to be Spruce-Pine-Fir (SPF) #2, unless otherwise noted on the plan. Grade marks shall be made by a recognized grading agency.
2. Framing members exposed to weather or in direct contact with soil, concrete, or masonry shall be pressure treated Spruce-Pine-Fir #2 and shall comply with the AWPA standard C-15.
3. All fasteners such as nails, bolts, screws, anchor bolts, etc. attaching pressure treated or fire-retardant treated wood shall be hot-dipped zinc coated galvanized or stainless steel (ASTM A153).
4. LVL engineered wood shall have the following minimum design values:
   - 4.1. E = 1,900,000 psi
   - 4.2. Fb = 2600 psi
   - 4.3. Fv = 285 psi
   - 4.4. Ft = 1555 psi
5. PSL engineered wood shall have the following minimum design values:
   - 5.1. E = 2,000,000 psi
   - 5.2. Fb = 2900 psi
   - 5.3. Fv = 290 psi
   - 5.4. Ft = 1755 psi
6. LSL engineered wood shall have the following minimum design values:
   - 6.1. E = 1,550,000 psi
   - 6.2. Fb = 2250 psi
   - 6.3. Fv = 400 psi
   - 6.4. Ft = 1075 psi
7. All bearing headers to be 2-2x6 supported with minimum (1) 2x4 jack stud and (1) 2x4 king stud at each end, unless noted otherwise on the plans. Non-load bearing headers shall be minimum 2-2x4.
8. Solid blocking is to be installed at all point load through floor levels to the foundation or to the nearest structural element.
9. All wood structural members that are specified are minimum sizes. Contractor may install larger sizes for ease of construction, if desired.
10. All nails shall be common nails, unless noted otherwise on plans and details.
11. All lag screws are to be predrilled. Drill diameter is to be 60 percent of the shank diameter. In addition, lag screws shall comply with ANSI/ASME standard B18.2.1-1981.
12. All bolt heads and nuts bearing on wood shall have standard cut washers. Holes for bolts shall be bored 1/16" larger than the nominal bolt diameter.
13. Provide full bearing where all beams meet supporting framing members.
14. Unless otherwise noted on plans, size, height, and spacing of wood studs shall be in accordance with section R602.3.1 of the 2018 North Carolina Residential Code. Wood framed walls shall consist of Spruce-Pine-Fir No.2 graded material.
15. Unless otherwise noted, four-ply LVL beams shall have plies fastened together with two rows of 1/2" diameter bolts spaced at 16" o.c. The bolts shall be located a minimum of 2-1/2" and a maximum of 3-1/2" from the top of bottom of the beam.

ROOF FRAMING NOTES:

1. Truss Built Roofs
   - 1.1. All roof trusses must be built in accordance with the truss manufacturer's requirements. Tie-down connections to resist uplift shall be installed where required. When roof truss manufacturers do not provide the required connectors, it is the responsibility of the contractor to notify the roof truss engineer or the EOR to provide an adequate connection.
   - 1.2. Roof truss layouts are to be in compliance with the overall design specified on the plans. All deviations are to be brought to the attention of the EOR prior to installation.
   - 1.3. Roof trusses shall be braced per the manufacturer's instructions and per the SBCA Building Component Safety Information (BCSI) Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Roof Trusses.
   - 1.4. Provide 2x4 ladder framing spaced at 24" o.c. between adjacent roof trusses where false dormers are located.
   - 1.5. Install minimum 7/16" OSB roof sheathing.
   - 1.6. Install roof trusses per section R802.10 in the 2018 NCRC. Where truss heels exceed 9-1/4" and are located over braced wall panels, blocking is to be installed per section R602.10.5 of the 2018 NCRC.
2. Stick Framed Roofs
   - 2.1. Collar ties shall be 2x6 spaced at 48" o.c. at all ridges unless noted otherwise and connected in the upper third of the attic space using (3) 10d common nails.
   - 2.2. Fur down all ridges as needed so that rafters have full contact.
   - 2.3. Ceiling joists when erected parallel to rafters must be sistered to rafters and secured as per table R802.5.1(a) of the 2018 North Carolina Residential Code.
   - 2.4. In addition to the NCRC fastener schedule, unless noted otherwise on the plan, roof members shall be tied down with additional metal connectors. Install a Simpson H2.5A connector at every rafter to fasten the lower end of the rafter to the top plate or beam below.
   - 2.5. Install minimum 7/16" OSB roof sheathing.

QUEEN CITY
CONSULTING AND DESIGN, PLLC

STRUCTURAL PLANS PREPARED FOR:

STANDARD DETAILS

PROJECT ADDRESS:
TBD

OWNER:
LGI Homes

DESIGNER:
QUEEN CITY CONSULTING AND DESIGN, PLLC.
2459 WILKINSON BLVD SUITE 300
CHARLOTTE, NC 28208

DESIGN SPECIFICATIONS:

Construction Type: Residential

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

Ultimate Design Wind Speed: 130MPH, EXPOSURE B

Assumed Soil Bearing Capacity: 2000psf

Component and Cladding loads shall be derived per Tables R301.2(2) and R301.2(3)

	LIVE LOADS
Roof 2x Conventional	20 PSF
Roof Truss	20 PSF
Attic Roof Truss	60 PSF
Floor Live Typ. Dwelling	40 PSF
Sleeping Areas	30 PSF
Decks	40 PSF
Passenger Vehicle Garage	50 PSF
Balconies	40 PSF
Attics with Storage	20 PSF
Attics without Storage	10 PSF
Ground Snow Load	15 PSF

	DEAD LOADS
Roof 2x Conventional	15 PSF
Roof Truss	20 PSF
Conventional 2x Floor	10 PSF
I-Joist	15 PSF
Floor Truss	15 PSF

SEAL APPLIES TO STRUCTURAL ONLY

ENGINEERING SEAL APPLIES TO STRUCTURAL COMPONENTS ONLY. QC ASSUMES NO LIABILITY FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, SAFETY PRECAUTIONS, OR DEVIATIONS/DISCREPANCIES THAT MAY OCCUR IN THE PLAN. ANY DEVIATIONS OR DISCREPANCIES ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF QUEEN CITY CONSULTING AND DESIGN, PLLC.

PAGE LIST:

Revision No.	Date	Description
0	12.26.23	ORIGINAL ENGINEERING
1	05.05.24	Added Stem Wall Details
2	05.16.24	ADDED BRICK CRAWL SPACE DETAILS
3	08.30.24	ADDED STAIR DETAIL AND TURNDOWN DETAIL

QUEEN CITY CONSULTING AND DESIGN, PLLC

NORTH CAROLINA
QUEEN CITY CONSULTING AND DESIGN, PLLC
No. P-0935
CERTIFICATE OF AUTHORIZATION

NORTH CAROLINA
PROFESSIONAL
SEAL
056484
ENGINEER
MATTHEW S. BENFIELD

08.30.24

STANDARD DETAILS

CLIENT:
LGI HOMES

DRAWN BY:
CTB

DATE:
05/16/2024

SCALE:
DETAILS ARE N.T.S.

PAGE:
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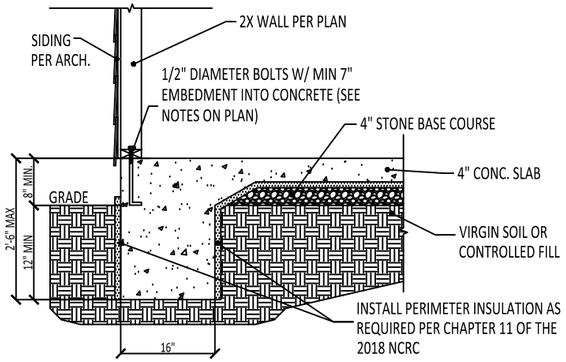
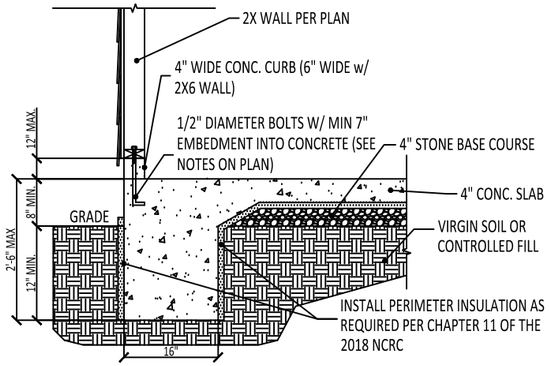


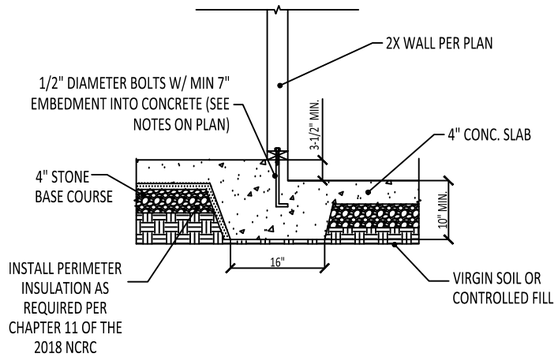
1 / D–1m TYPICAL TURNDOWN SLAB DETAIL

N.T.S. - BRICK VENEER AND SIDING OPTIONS SHOWN ABOVE



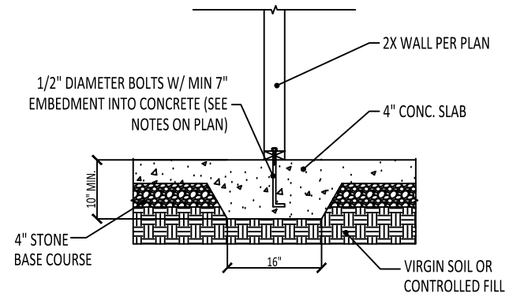
2 / D–1m TYPICAL GARAGE CURB DETAIL

N.T.S. - BRICK VENEER AND SIDING OPTIONS SHOWN ABOVE



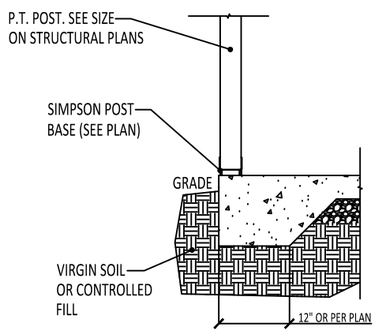
3 / D–1m TYPICAL GARAGE STEP DETAIL

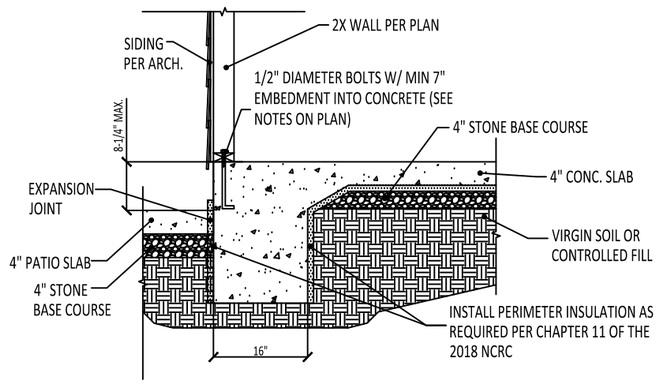
N.T.S.



4 / D–1m TYPICAL THICKENED SLAB DETAIL

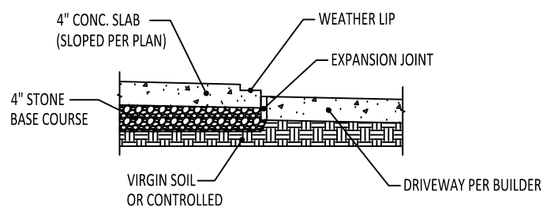
N.T.S.





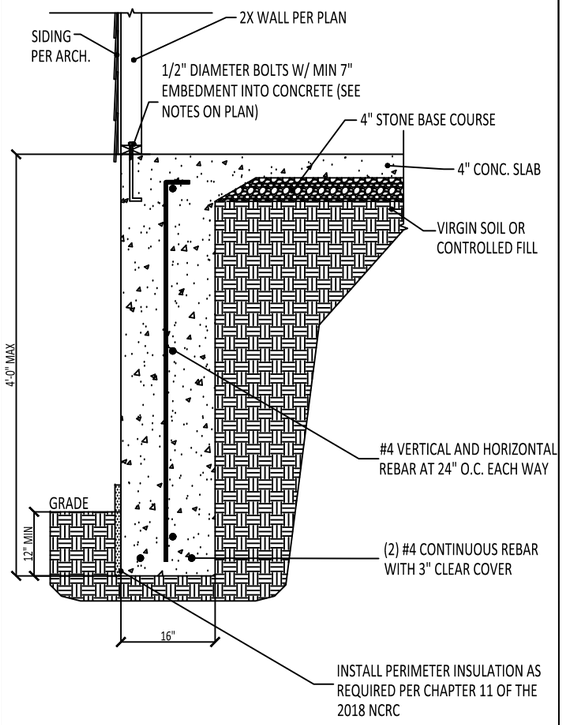
5 / D–1m TYPICAL PATIO SLAB DETAIL

N.T.S. - BRICK VENEER AND SIDING OPTIONS SHOWN ABOVE



6 / D–1m SLAB AT GARAGE DOOR

N.T.S.



7 / D–1m 4' MAX OVERSIZED TURNDOWN SLAB DETAIL

N.T.S.

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No. P0938
CERTIFICATE OF AUTHORIZATION

NORTH CAROLINA
PROFESSIONAL
SEAL
056484
ENGINEER
MATTHEW S. BENFIELD

08.30.24

STANDARD DETAILS

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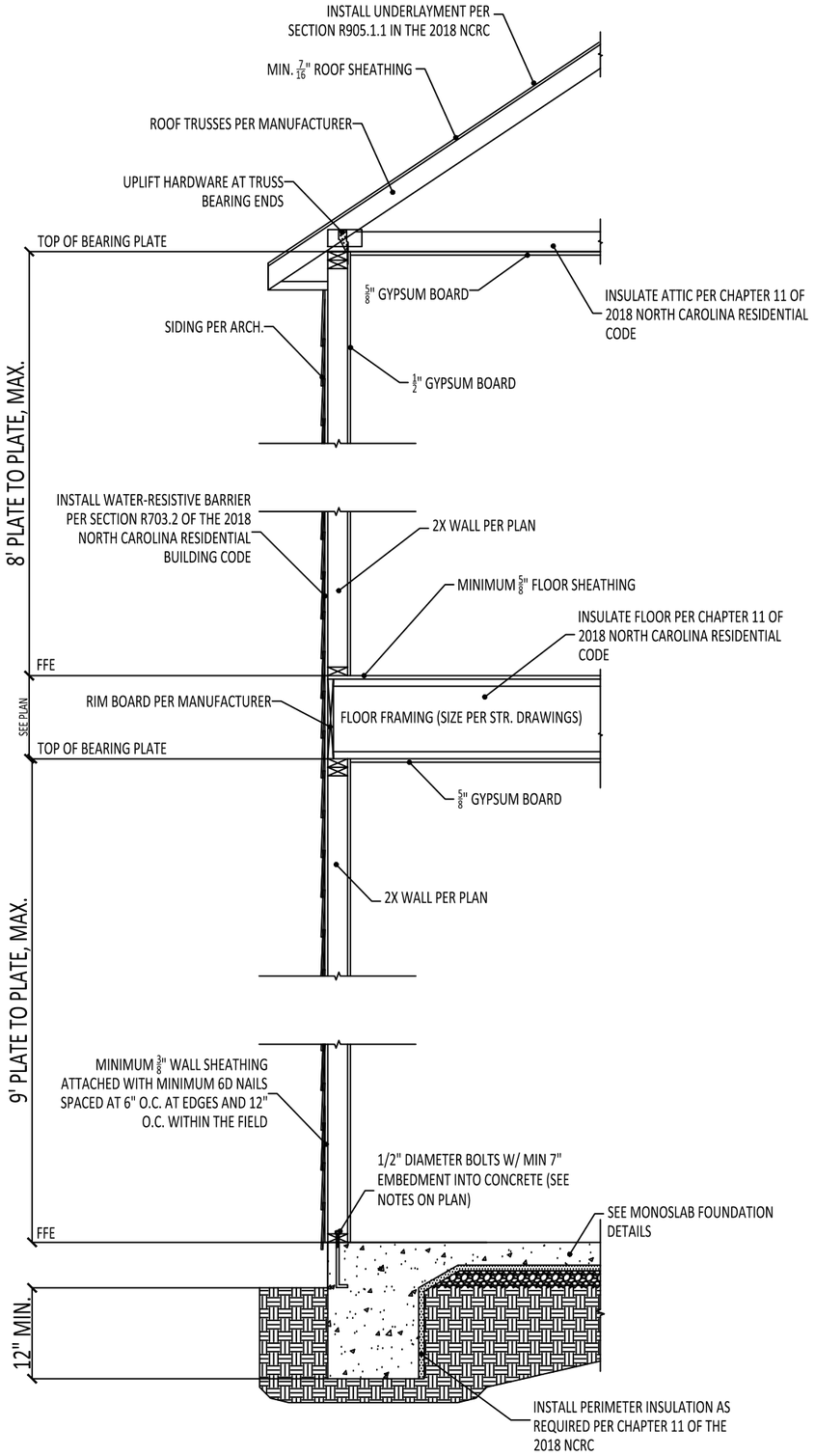
LGI HOMES

DRAWN BY:
CTB

DATE:
05/16/2024

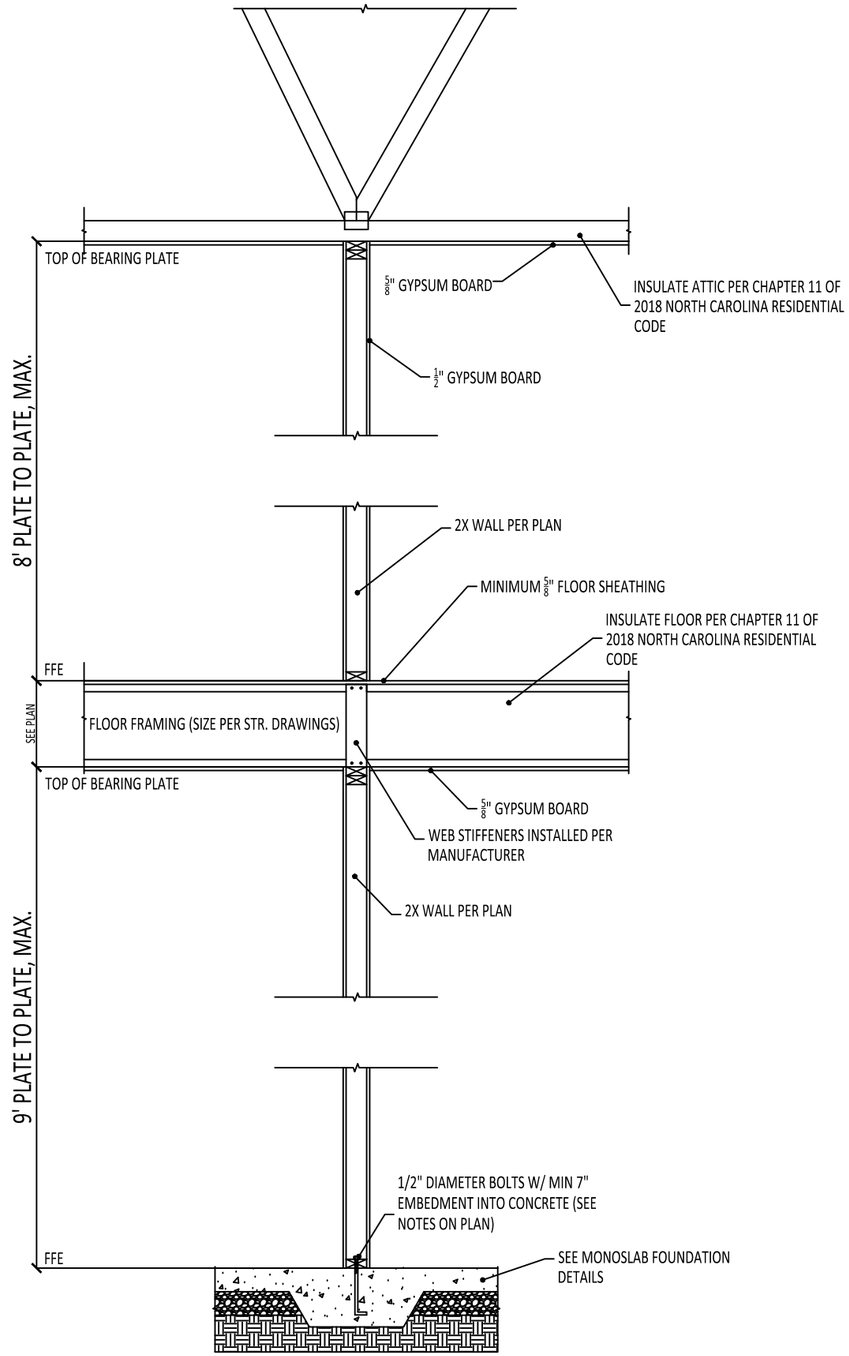
SCALE:
DETAILS ARE N.T.S.

PAGE:
D-1m



1 D–2m TYP. EXTERIOR LOAD BEARING WALL

SIDING SHOWN - SEE DETAILS FOR BRICK VENEER



2 D–2m TYP. INTERIOR LOAD BEARING WALL

N.T.S.

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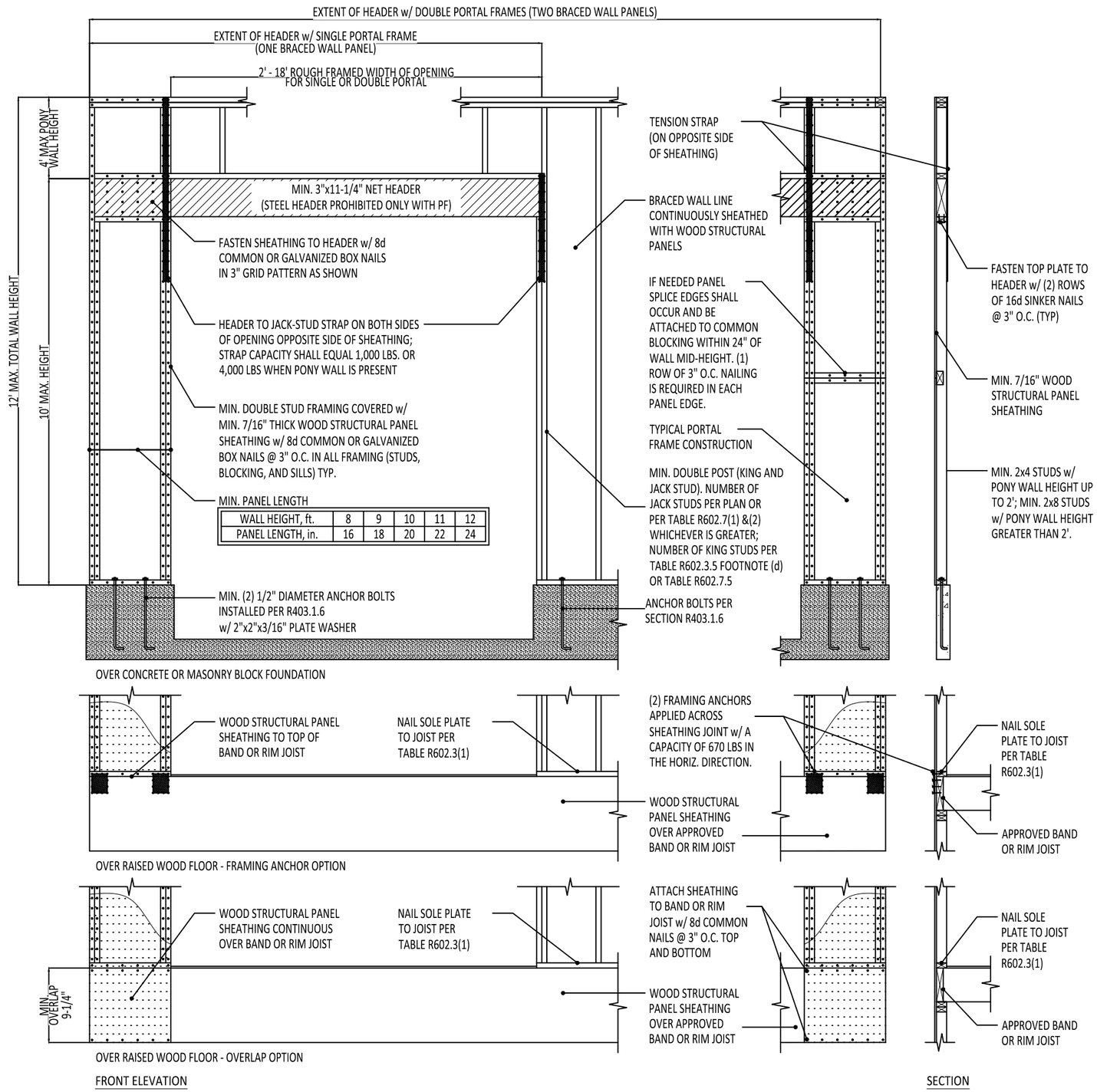

1 / D−1f N.T.S

METHOD PF: PORTAL FRAME DETAIL

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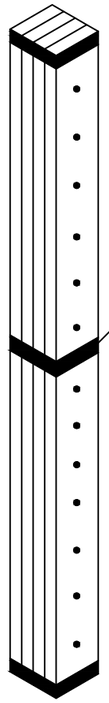
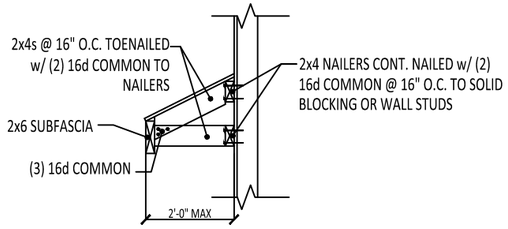


WRAP COLUMN WITH HORIZONTAL CS-16 STRAPS AT TOP, MIDDLE, AND BOTTOM. NAIL EACH LAMINATION WITH 16D NAILS SPACED AT 9" O.C. (EXTERIOR COLUMNS WITH SHEATHING ON OUTSIDE SHALL ONLY BE WRAPPED ON THREE SIDES)

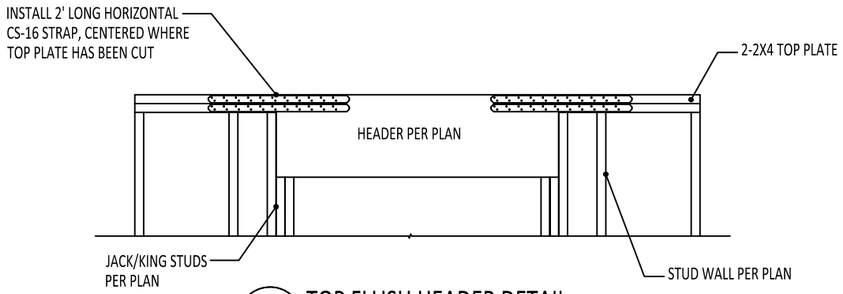
1 / D-2f — BUILT-UP COLUMN DETAIL

4 OR MORE PLIES



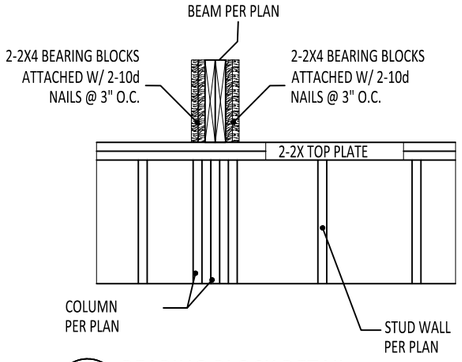
2 / D-2f — SHED ROOF DETAIL

N.T.S

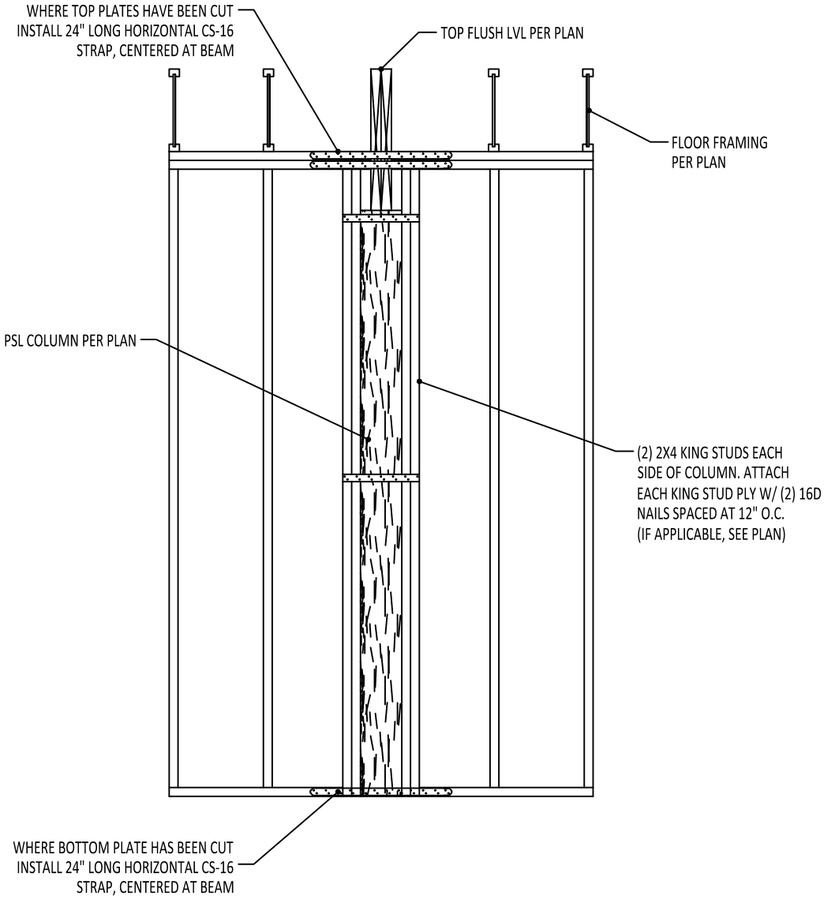


3 / D-2f — TOP FLUSH HEADER DETAIL

TOP PLATE CUT FOR HEADER INSTALL

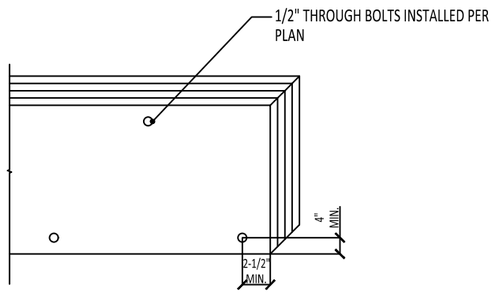


6 / D-2f — BEARING BLOCK DETAIL



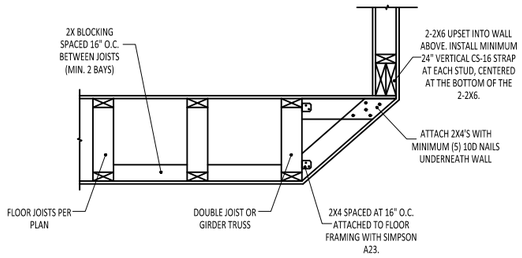
5 / D-2f — DIRECT BEARING DETAIL

SEE NOTES ON PLAN FOR MORE INFO



4 / D-2f — MULTI-PLY BEAM FASTENING DETAIL

SEE NOTES ON PLAN FOR MORE INFO



7 / D-2f — STAIR CEILING DETAIL

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