

EXPRESS HOMES 40' SFRIFS MODEL - HAYEN 4 BR - LH

> Mason Ridge Lot 18 174 Charlies Bend Way Spring Lake, NC 28390



40' Series

PLAN CHANGES INITIAL PLAN RELEASE 02.22.21 CLIENT REVISIONS CLIENT REVISIONS 04.14.21 CLIENT REVISIONS 12.03.21 CLIENT REVISIONS CLIENT REVISIONS ADDED LIGHT OVER TUB/SHOWER IN BATH 2 04.25.22 CONSULTANTS:

FOR CONSTRUCTION

GENERAL NOTES DESIGNER NORTH CAROLINA:

THESE DOCUMENTS ARE THE PROPERTY OF THE DESIGNER AND SHALL NOT BE COPIED. PROVIDE BLOCKING AND/OR BACKING AT ALL TOMEL BAR. TOMEL RING AND/OR WRITTEN APPROVAL OF THE DESIGNER

CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AT THE SITE AND ALL INCONSISTENCES SHALL BE BROUGHT TO THE ATTENTION OF THE DEVELOPER AND THE DESIGNER BEFORE PROCEEDING WITH WORK.

ANY ERRORS OR OMISSIONS FOUND IN THESE DRAWINGS SHALL BE BROUGHT TO

DO NOT SCALE DRAWINGS. WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALED

ALL DIMENSIONS ARE TO FACE OF STUD OR TO FACE OF FRAMING UNLESS

ALL TRUSS DRAMINGS TO BE REVIEWED AND APPROVED BY THE STRUCTURAL ENGINEER PRIOR TO ISSUANCE OF BUILDING PERMIT.

ALL OR EQUAL SUBSTITUTIONS MUST BE SUBMITTED TO AND APPROVED BY CITY BUILDING OFFICIAL PRIOR TO INSTALLATION.

ALL ANGLED PARTITIONS ARE 45 DEGREES UNLESS OTHERWISE NOTED. PROVIDE FIREBLOCKING. (PER LOCAL CODES.)

ALL ELECTRICAL AND MECHANICAL EQUIPMENT AND METERS ARE SUBJECT TO RELOCATION DUE TO FIELD CONDITIONS, CONTRACTOR TO VERIFY.

BATHROOMS AND POWDER ROOMS, VERIEY LOCATIONS AT FRAMING WALK

ELASTOMERIC SHEET WATERPROOFING: FURNISH AND INSTALL ALL WATERPROOFING COMPLETE. A 40 MIL. SELF-ADHERING MEMBRANE OF RUBBERIZED
ASPHALT INTEGRALLY BONDED TO POLYETHYLENE SHEETING, OR EGUAL.
INSTALL PER MANIFACINES AND TRADE ASSOCIATIONS PRINTED
INSTALL LATION INSTRUCTIONS, 6" MINIMM LAP AT ALL ADJACENT WALL SURFACES.

TO THE BEST OF THE DESIGNER'S KNOWLEDGE THESE DOCUMENTS ARE IN CONFORMANCE WITH THE REQUIREMENTS OF THE BUILDING AUTHORITIES HAVING JURISDICTION OVER THIS TYPE OF CONSTRUCTION AND OCCUPANCY.

SHOP DRAMING REVIEW AND DISTRIBUSTION, ALONG WITH PRODUCT SUBMITTALS, REQUESTED IN THE CONSTRUCTION DOCUMENTS, SHALL BE THE SOLE RESPONSIBILITY OF THE GENERAL CONTRACTOR, UNLESS DIRECTED OTHERWISE UNDER A SEPARATE AGREEMENT

DEVIATIONS FROM THESE DOCUMENTS IN THE CONSTRUCTION PHASE SHALL BE REVIEWED BY THE DESIGNER AND THE OWNER PRIOR TO THE START OF WORK IN QUESTION. ANY DEVIATIONS FROM THESE DOCUMENTS WITHOUT PRIOR REVIEW, SHALL BE THE SOLE RESPONSIBILITY OF THE GENERAL CONTRACTOR

THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK AND MATERIALS REPRESENTED ON THESE DOCUMENTS INCLUDING MATERIALS FURNISHED BY SUBCONTRACTORS AND VENDORS.

SEOTECHNICAL ENGINEER (SOILS REPORT), ON THE STUDY OF THE PROPOSED SITE, TO THE DESIGNER, STRUCTURAL ENGINEER, AND GENERAL CONTRACTOR. IN THE EVENT THE GEOTECHNICAL REPORTS DO NOT EXIST. THE SOILS CONDITION SHALL BE ASSUMED TO BE A MINIMUM DESIGN SOIL PRESSURE STATED BY THE STRUCTURAL ENGINEER OF RECORD FOR THE PURPOSE OF STRUCTURAL DESIGN GENERAL CONTRACTOR SHALL ASSURE THE SOIL CONDITIONS MEET OR EXCEED

ALL WORK PERFORMED BY THE GENERAL CONTRACTOR SHALL COMPLY AND CONFORM WITH LOCAL AND STATE BUILDING CODES, ORDINANCES AND REGULATIONS, ALONG WITH ALL OTHER AUTHORITIES HAVING JURISDICTION. THE GENERAL CONTROATOR IS RESPONSIBLE TO BE AWARE OF THESE REQUIREMENTS AND GOVERNING REGILATIONS

PROVIDE AN APPROVED WASHER DRAIN PAN AT SECOND FLOOR ONLY

WINDOW SUPPLIER TO VERIFY AT LEAST ONE WINDOW IN ALL BEDROOMS TO HAVE A CLEAR OPENABLE AREA OF 4.0 SQ FT. THE MINIMUM NET CLEAR OPENING HEIGHT SHALL BE 22" AND THE MINIMUM NET CLEAR OPENING MIDTH SHALL BE 20", GLAZING TOTAL AREA OF NOT LESS THAN 5.0 SQ FT IN THE CASE OF A GROUND WINDOW AND NOT LESS THAN 5.7 SQ FT IN THE CASE OF AN UPPER STORY WINDOW. (PER NCRC SECTION R3IO.I.)

ALL HANDRAIL BALLUSTERS TO BE SPACED SUCH THAT A 4" SPHERE CANNOT PASS PROVIDE STAIR HANDRAILS AND GUARDRAILS PER LOCAL CODES.

BUILDER SET:

THE SCOPE OF THIS SET OF PLANS IS TO PROVIDE A "BUILDER'S SET" OF CONSTRUCTION DOCUMENTS AND GENERAL NOTES HEREINAFTER REFERRED TO AS "PLANS" THIS SET OF PLANS IS SUFFICIENT TO OBTAIN A BUILDING PERMIT; HOWEVER, ALL MATERIALS AND METHODS OF CONSTRUCTION NECESSARY TO COMPLETE THE PROJECT ARE NOT AND METHODS OF CONSTRUCTION NECESSARY TO COMPLETE THE PROJECT ARE NOT NECESSARILY DESCRIBED. THE PLANS DELINEATE AND DESCRIBE ONLY LOCATIONS, DIMENSIONS, TYPES OF MATERIALS, AND GENERAL METHODS OF ASSEMBLING OR FASTENING. THEY ARE NOT INTENDED TO SPECIFY PARTICULAR PRODUCTS OR OTHER METHODS OF ANY SPECIFIC MATERIALS, PRODUCT OR METHOD. THE IMPLEMENTATION OF THE PLANS REQUIRES A CLIENT / CONTRACTOR THOROUGHLY KNOWLEDSEABLE WITH THE APPLICABLE BUILDING CODES AND METHODS OF CONSTRUCTION SPECIFIC TO THIS PRODUCT TYPE AND TYPE OF CONSTRUCTION.

CONSTRUCTION REQUIREMENTS AND QUALITY: PROVIDE WORK OF THE SPECIFIC QUALITY WHERE QUALITY LEVEL IS NOT INDICATED, PROVIDE WORK OF QUALITY CUSTOMARY IN SIMILAR TYPES OF WORK. WHERE THE PLANS AND SPECIFICATIONS, CODES, LAWS, REGULATIONS, MANUFACTURER'S RECOMMENDATIONS OR INDUSTRY STANDARDS REQUIRE WORK OF HIGHER QUALITY OR PERFORMANCE, PROVIDE WORK COMPLYING WITH THOSE REQUIREMENTS AND QUALIT WITH THE MOST STRINGENT REQUIREMENT; WHERE REQUIREMENTS ARE DIFFERENT BUT APPARENTL' EQUAL, AND WHERE IT IS UNCERTAIN WHICH REQUIREMENT IS MOST STRINGENT, OBTAIN CLARIFICATION FROM THE 6MD DESIGN GROUP BEFORE PROCEEDING

AREA CALCULATIONS:



MODEL 'HAYDEN' SQUARE FOOTAGES 1445 SF

AREA 2nd FLOOR TOTAL LIVING 2511 SF 422 SF GARAGE 109 SF OPT. COVERED PORCH 80 SF 1006 SF **BASEMENT AREA IS TAKEN TO INSIDE OF CONCRETE WALL**

TITLE SHEET

January 22, 2021







Front Elevation 'A' scale: 1/4"=1"-0" at 22"x34" layout 1/8"=1"-0" at 11"x17" layout





Front Elevation 'B' SCALE: I/4"=I'-0" AT 22"X34" LAYOUT I/8"=I'-0" AT II"XI7" LAYOUT

NO: DATE: REVISION:

O4.25.22

PROFESSIONAL SEAL:

40' Series

FOR CONSTRUCTION

CLIENTS NAME:



PROJECT NO: GMD17049

QUICK VIEW

PRINT DATE: January 22, 2021

0.1

AVAILABLE WITH OPTIONAL 9'-1" FIRST FLOOR PLATE

NOTES AT OPT 9'-1" PLT:

- WDW HT SET AT 7'-6"
- INTERIOR SOFFITS AT 8'-0"
- EXTERIOR SOFFITS AT 8'-0'

NOTES:

- GRADE CONDITIONS MAY VARY FOR INDIVIDUAL SITE FROM THAT SHOWN.
 BILLIDER SHALL VERIFY AND COORDINANE PER ACTUAL SITE CONDITIONS.
 HINDOW HEAD HEIGHTS.
 IST FLOOR = 6-6" UNJO. ON ELEVATIONS.
 210 FLOOR = 7-0" UNJO. ON ELEVATIONS.
 ROOPING: PITCHED SHINGLES FER DEVELOPER.

- WINDOWS: MANUFACTURER PER DEVELOPER, DIVIDED LITES AS SHOWN ON THE EXTERIOR ELEVATIONS
- GARAGE DOORS: AS SELECTED BY DEVELOPER, RAISED PANEL AS SHOWN.
- ALL EXTERIOR MATERIALS TO BE INSTALLED PER MANUFACTURER'S WRITTEN INSTRUCTIONS.

- ALL EXTERIOR MATERIALS TO BE INSTALLED PER MANA-ACTURER'S MRITTEN INSTRUCTION PROTECTION ACAINST DISCAY.

 (ALL PORTIONS OF A PORCH, SCREEN PORCH OR DECK FROM THE BOTTOM OF THE HEADER DOWN, INCLIDING POST, RAILS, PICKETS, STEPS AND FLOOR STRUCTURE)

 INSULATION. FER TABLE NICO21.2.

 ENTERIOR MALLS.

 CRUSS OF THE STRUCTURE.

 R-15 BATTS MINMM, VERIFY

 CRANL SPACE FLOORING.

 R-19 BATTS MINMM, VERIFY

 CRANL SPACE FLOORING.

 R-19 BATTS MINMM, VERIFY

KEY NOTES:

MASONRY:

- ADHERED STONE VENEER AS SELECTED BY DEVELOPER, HEIGHT AS NOTED. 2 MASONRY FULL BRICK AS SELECTED BY DEVELOPER, HEIGHT AS NOTED.
- 3 MASONRY FULL STONE AS SELECTED BY DEVELOPER, HEIGHT AS NOTED.
- 4 8" SOLDIER COURSE. 5 ROWLOCK COURSE

- NA
 TYPICALS:
 CORROSION RESISTANT SCREEN LOWERED VENTS, SIZE AS NOTED.
- CODE APPROVED TERMINATION CHIMNEY CAP.
 CORROSION RESISTANT ROOF TO WALL FLASHING, CODE COMPLIANT FLASHING PER NCRC R905.2.6.3
- IO STANDING SEAM METAL ROOF, INSTALL PER MANUFCATURER'S WRITTEN INSTRUCTIONS.
- II DECORATIVE WROUGHT IRON, SEE DETAILS.
- SIDING.

 | VINTIL SHAKE SIDING PER DEVELOPER WITH VINYL CORNER TRIM PER DEVELOPER.
 (AT SPECIFIED LOCATIONS.
 HIBER CEMENT SHAKE SIDING PER DEVELOPER W IX4 CORNER TRIM BOARD.)
- VINYL LAP SIDING PER DEVELOPER WITH VINYL CORNER TRIM PER DEVELOPER.
 (AT SPECIFIED LOCATIONS:
 FIBER CEMENT LAP SIDING PER DEVELOPER W IX4 CORNER TRIM BOARD.)
- | VINYL WAYY SIDING PER DEVELOPER WITH VINYL CORNER TRIM PER DEVELOPER. (AT SPECIFIED LOCATIONS: FIBER CEMENT WAYY SIDING PER DEVELOPER W IX4 CORNER TRIM BOARD.)
- 5 VINYL BOARD AND BATT SIDING PER DEVELOPER WITH VINYL CORNER TRIM PER DEVELOPER.
- AT SPECIFIED LOCATIONS.
 FIBER CHE'NT FAULS JOING W IX3 BATTS AT I2" O.C. FER DEVELOPER W IX4 CORNER TRIM BOARD.

 (AT SPECIFIC LOCATIONS.
 IX FIBER CHENT TRIM OR EQUIA., UN.O. SIZE AS NOTED

- TYPON SHUTTERS, TYPE AS SHOWN, SIZE AS NOTED.

 (AT SPECIFIC LOCATIONS: FALSE VINYL SHUTTERS, TYPE AS SHOWN, SIZE AS NOTED.)
- ALL MINDOMS WHOSE OPENING IS LESS THAN 24" ABOVE THE FINISH FLOOR AND WHOSE OPENING IS GREATER THAN 12" ABOVE THE OUTSIDE WALKING SURFACE MAST HAVE MINDOW OPENING LIMITING DEVICES COMPLYING MITH THE NCRC SECTION R312.21 AND R312.22.



W/Opt Crawl Space Basement Scale: 1/4*=1*-0* AT 22*284* LAYOUT 1/8*=1*-0* AT 11*XIT*LAYOUT



PROJECT TITLE:

40' Series

FOR CONSTRUCTION

CLIENTS NAME:



PROJECT NO: GMD17049

'HAYDEN' **EXTERIOR ELEVATIONS** '4EPF-F'

PRINT DATE: January 22, 2021

1F

ATTIC VENT CALCULATION FOR PLAN 'HAYDEN': 1:150 RATIO.

THE NET FREE VENTILATING AREA SHALL NOT BE LESS THAN THE ACT YELL SYMILATING AND SPACE VENTILATED, PROVIDED THAT AT LEAST 50 PERCENT AND NOT MORE THAN 60 PERCENT OF THE REQUIRED VENTILATING AREA IS PROVIDED BY VENTILATORS LOCATED IN THE UPPER PORTION OF THE SPACE O BE VENTIL ATED AT LEAST 3 FEET ABOVE THE FAVE OR CORNICE VENTS WITH THE BALANCE OF THE REQUIRED VENTILATION PROVIDED BY EAVE OR CORNICE VENTS.

EXCEPTIONS:

1. EXCLOSED ATTIC/RAFTER SPACES REQUIRING LESS THAN

1. SQ FT OF VENTILATION MAY BE VENTED WITH CONTINUOUS

SOFFIT VENTILATION ONLY.

2. ENCLOSED ATTIC/RAFTER SPACES OVER UNCONDITIONED SPACE MAY BE VENTED WITH CONTINUOUS SOFFIT VENT ONLY.

GENERAL CONTRACTOR SHALL VERIFY THE NET FREE GENERAL CONTRACTOR SHALL VERIFY THE NET FREE VENTILATION OF THE VENT PRODUCT SELECTED BY OWNER. VERIFY WITH MANIFACTURER OF HIGH AND LOW VENTS TO BE USED FOR MINIMAN CALCULATED VENTS REGUIRED. THE REGUIRED VENTILATION SHALL BE MAINTAINED. PROVIDE INSULATION STOP SUCH THAT INSULATION DOES NOT OBSTRUCT FREE AIR MOVEMENT AS REGUIRED. BY THE BUILDING OFFICIAL

BY THE BUILDING OFFICIAL.

ALL OVERLAY FRAMED ROOF AREAS SHALL HAVE OPENINGS BETWEEN THE ADJACENT ATTICS IN THE ROOF SHEATHING CAS ALLOWED BY THE STRUCTURAL ENGINEER) TO ALLOW PASSAGE AND ATTIC VENTILATION BETWEEN THE TWO OR ISOLATED ATTIC SPACES SHALL BE VENTED INDEPENDENTLY TO CBC. REQUIREMENTS.

PER DEVELOPER, AT ALL CANTILEVERED FLOORS,
CANTILEVERED ARCHITECTURAL POP-OUTS, AND ANY DOUBLE CANTILEVERED ARCHITECTURAL POP-OUTS, AND ANY DOUT FRAMING PROJECTIONS THAT ARE SEPARATED FROM THE VENTING CALCULATIONS SHOWN ABOVE, PROVIDE A CONTINUOUS 2" CORROSION RESISTANT SOFFIT VENT AT UNDERSIDE OF FRAMED ELEMENT.

(PER SECTION R806.2)

SQUARE INCH VENT FOR EVERY 150 SQUARE INCHES OF CEILING

*144 SQ. IN. = 1 SQ. FT. BLDG. CEILING (SF) X 144 = BLDG (SQ. IN.)

BLDG. (SQ. IN.) / I50 = SQ. IN. OF VENT REQUIRED

ROOF AREA I.= | 1488 SF | 1488 SQ. FT. X 144 = 214272 SQ. IN. | 214272 SQ. IN. / 150 = | 1428.48 SQ. IN. OF VENT REQ'D

ROOF AREA 2:= 34 SF 34 SQ. FT. X I44 = 56I6 SQ. IN. 56I6 SQ. IN. / I50 = 31.44 SQ. IN. *O*F VENT REQ'D

ROOF AREA 3:= 180 SF 180 Sq. FT. X 144 = 25420 Sq. IN. 25420 Sq. IN. / 150 = 172.80 Sq. IN. OF VENT REQ'D

- ALL ROOF DRAINAGE SHALL BE PIPED TO STREET OR APPROVED DRAINAGE FACILITY.

DASHED LINES INDICATE WALL BELOW. - LOCATE GUTTER AND DOWNSPOUTS PER BUILDER. - PITCHED ROOFS AS NOTED.

- TRUSS MANUFACTURER SHALL SUBMIT STRUCTURAL CALCS AND SHOP DRAMINGS TO THE BUILDER'S GENERAL CONTRACTOR AND BUILDING DEPARTMENT FOR REVIEW PRIOR TO FABRICATIONS.

- ALL PLIMBING VENTS SHALL BE COMBINED INTO A MINIMUM AMOUNT OF ROOF PENETRATIONS, ALL ROOF PENETRATIONS SHALL OCCUR TO THE REAR OF THE MAIN RIDGE.

ATTIC VENT CALCULATION FOR PLAN 'HAYDEN': 1:300 RATIO.

AS AN ALTERNATE TO THE 1/150 RATIO LISTED ABOVE. AS AN ALTERNAL TO THE INDORATION AREA MAY BE REDUCED TO 1/300 WHEN A CLASS I OR II VAPOR RETARDER IS INSTALLED ON THE WARM - IN - WINTER SIDE OF THE CEILING.

GENERAL CONTRACTOR SHALL VERIFY THE NET FREE VENTILATION OF THE VENT PRODUCT SELECTED BY OWNER. VERIFY MITH MANUFACTURER OF HIGH AND LOW VENTS TO BE USED FOR MINIMUM CALULALIED VENTS REGUIRED. THE REGUIRED VENTILATION SHALL BE MAINTAINED. PROVIDE INSULATION STOP SUCH THAT INSULATION DOES NOT OBSTRUCT FREE AIR MOVEMENT AS REGUIRED BY THE BUILDING OFFICIAL.

ALL OVERLAY FRAMED ROOF AREAS SHALL HAVE OPENINGS BETWEEN THE ADJACENT ATTICS IN THE ROOF SHEATHING KAS ALLOWED BY THE STRUTURAL ENGINEER) TO ALLOW PASSAGE AND ATTIC VENTILATION BETWEEN THE TWO OR ISOLATED ATTIC SPACES SHALL BE VENTED INDEPENDENTLY TO CBC REQUIREMENTS.

PER DEVELOPER, AT ALL CANTILEVERED FLOORS, CANTILEVERED ARCHITECTURAL POP-OUTS, AND ANY DOUBLE FRAMING PROJECTIONS THAT ARE SEPARATED FROM THE VENTING CALCULATIONS SHOWN ABOVE, PROVIDE A CONTINUOUS 2 CORROSION RESISTANT SOFFIT VENT AT UNDERSIDE OF FRAMED LEMENT.

I SQUARE INCH VENT FOR EVERY 300 SQUARE INCHES OF CEILING *144 SQ IN = 1 SQ FT

BLDG. CEILING (SF) X 144 = BLDG (SQ. IN.) BLDG. (SQ. IN.) / 300 = SQ. IN. OF VENT REQUIRED

SQ. IN. OF VENT REQUIRED / 2 = 50% AT HIGH & 50% AT LOW.

 ROOF AREA I: =
 1488 SF

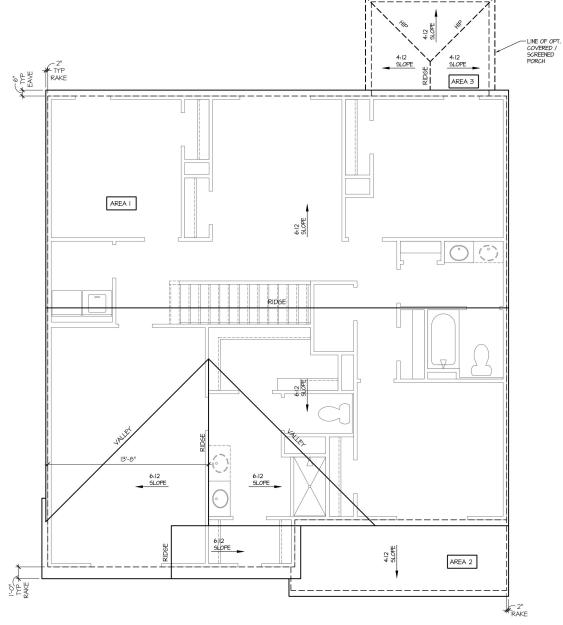
 1486 SQ. FT. X 144 = 2
 50. FT. Z 144 SQ. IN. OF VENT REQ'D

 24272 SQ. IN. Z = 35712 SQ. IN. OF VENT AT HIGH \$ 35712
 50. IN. OF VENT AT HIGH \$ 35712

ROOF AREA 2: 34 55 50. IN. 7 2 60 FT. / 300 5 16/12 50. IN. 7 5 VENT REQUIRED. 18/12 50. IN. 7 5 VENT AT HIGHT 18/35 50. IN. 07 VENT AT HIGHT 18/35 50. IN. 07 VENT AT LOW REQUIRED.

BUILDER TO PROVIDE (2) LAYERS OF UNDERLAYMENT AT ANY ROOF W/ A SLOPE FROM 2:12 TO LESS THAN 4:12

> AT SINGLE FAMILY DETACHED PLANS: PREFINISHED VENTED SOFFIT AT EAVE PER MANUFACTURER. (VERIFY FIRE SEPARATION DISTANCE FOR SOFFIT PROTECTION PER NCRC SECTION R302.1.1 AND TABLE R302.1)



SCALE: 1/4"=1"-0" AT 22"X34" LAYOUT 1/8"=1"-0" AT 11"XI7" LAYOUT

NO: DATE: REVISION: 04.25.22 PROFESSIONAL SEAL:

PROJECT TITLE:

40' Series

FOR CONSTRUCTION

CLIENTS NAME:



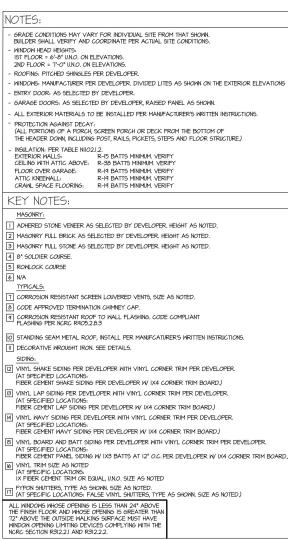
PROJECT NO: GMD17049

'HAYDEN' **ROOF PLAN**

'4EPF-F'

PRINT DATE: January 22, 2021

1.1 F

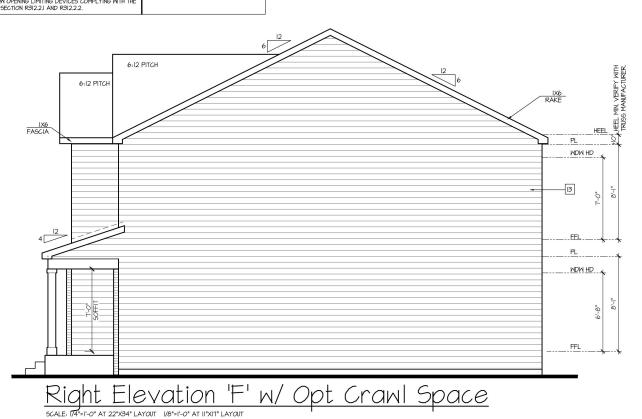


AVAILABLE WITH OPTIONAL 9'-I" FIRST FLOOR PLATE

NOTES AT OPT 9'-1" PLT:

- WDW HT SET AT 7'-6"
- INTERIOR SOFFITS AT 8'-0"
- EXTERIOR SOFFITS AT 8'-0"





Left Elevation F W Opt Crawl Space

NO: DATE: REVISION:

04.25.22

PROFESSIONAL SEAL:

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CLIENTS NAME:



PROJECT NO: GMD17049

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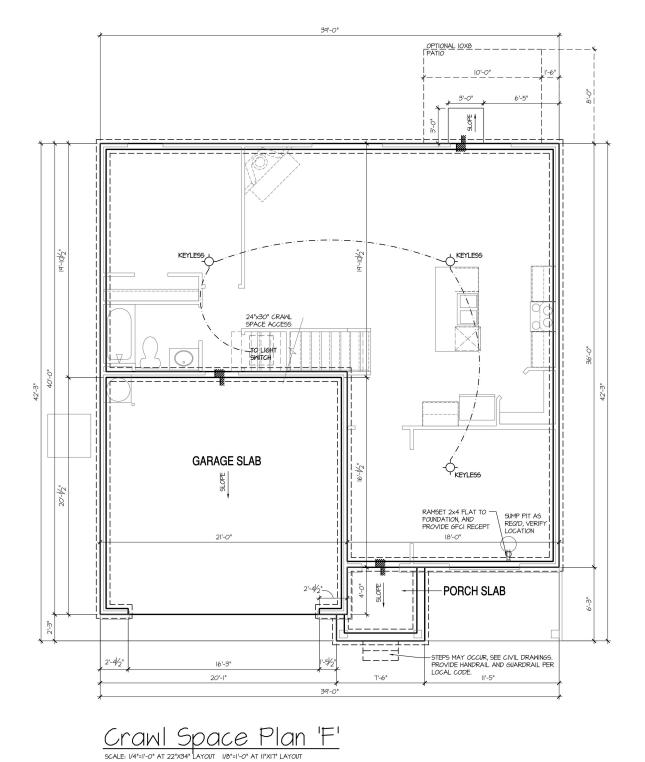
'HAYDEN' EXTERIOR ELEVATIONS '4EPF-F'

PRINT DATE:
January 22, 2021

2.1 F



CRAWL SPACE NOTES NORTH CAROLINA: KEY NOTES: - REFER TO STRUCTURAL DRAWINGS FOR INFORMATION NOT SHOWN ON THIS PLAN. - FOR ADDITIONAL NOTES SEE GENERAL NOTES ON TITLE SHEET AND DETAILS. LINE OF SLAB ABOVE 2 LINE OF FRAMED WALL ABOVE PROVIDE FIREBLOCKING. (PER LOCAL CODES.) 3 16"X8" CRAWL SPACE VENT ALL ELECTRICAL AND MECHANICAL EQUIPMENT AND METERS ARE SUBJECT TO RELOCATION DUE TO FIELD CONDITIONS, CONTRACTOR TO VERIEY. VERIEY ALL DOOR THREADLD HEIGHTS TO HARD SURFACES, 8 1/4* MAX AT INSHING DOORS, (PER NCRC SECTION R31(3.1).) 4 CRAWL SPACE ACCESS PANEL 5 A/C CONDENSER PAD. (VERIFY) [9] NO CONDENSER FAIL (VERTIT) (b) TYPICAL CRAWL FOUNDATION WALL SHALL BE 8" CMU OR A COMBINATION OF 4" CMU WITH NOMINAL 4" BRICK, SEE STRUCTURAL DRAWINGS FOR ALL STRUCTURAL ATTACHMENTS, ALL BLOCK CELLS AND SPACE BETWEEN BLOCK AND BRICK SHALL BE FILLED SOLID WITH CONCRETE. FOUNDATION WALL WITH FULL HEIGHT BRICK VENEER SHALL CONSIST OF 8" CMU WITH NOMINAL 4" BRICK. SEE STRUCTURAL DRAWINGS FOR ALL STRUCTURAL ATTACHMENTS AND BRICK TIE SPACING. FILL VOIDS SOLID TO TOP OF CMU WALL. (MICT COMPLY WITH NORC SECTION REQ4, TABLE R404.1.I(I)) THROUGH R404.1.I(I) AND APPLICABLE SECTIONS OF R606, R607, R609. VERIFY WITH STRUCTURAL DRAWINGS FOR WALL FOOTING SIZE AND DEPTH. - SLOPE ALL STOOPS AND HARDSCAPE MATERIAL AWAY FROM BUILDING - TYPICAL. - SLOPE GARAGE FLOOR I/8" PER FOOT TO GARAGE DOOR OPENING. VERIFY CURB CUT BLOCKOUT WITH GARAGE DOOR MANUFACTURER. REFER TO CIVIL DRAWINGS FOR FINISH SURFACE ELEVATIONS. TYP STOOP AT INSHING/SLIDER DOORS: 36° DEEP BY THE WIDTH OF THE DOOR SERVED, MINIMM (FER NCRC SECTION R3II.3) PROVIDE A SLIP-RESISTANT FINISH. SOILS TREATMENT: BORACARE TERMITE TO BE APPLIED TO FRAMING PER PRODUCT SPECIFICATIONS. (PROVIDE CHEMICAL TREATMENT FOR PROTECTION FROM TERMITE INVESTATION ACCORDING TO LOCAL CODES.) AT VENTED CRAVIL SPACE: APPLY AN APPROVED VAPOR RETARDER OR EQUIVALENT, 6 MIL POLY-VINYL, GROUND COVER OVER FINISH GRADE OR CRAVIL SPACE PER NCRC SECTION 408.2. PROVIDE VENTS SPACED AROUND PERIMETER TO PROMOTE CROSS VENTILATION AT A RATE OF I SF VENT FOR EVERY ISOO SF OF CRANL FLOOR AREA. ONE VENT MUST BE LOCATED MITHIN 3-0" OF EACH CORNER OF THE BUILDING AND LOCATED TO ALLOW FOR CROSS VENTILATION. (PER NCRC SECTION R408.I.I EXCEPTION.) PROVIDE AN ACCESS OPENING, MINIMUM SIZE OF 18"X24" FOR CRAML ACCESS, COORDINATE WITH MECHANICAL CONTRACTOR FOR LARGER SIZE REQUIREMENTS IF MECHANICAL EQUIPEMENT IS LOCATED IN CRAML. (PER NCRC SECTION 408.8) WOOD CONTACTING CONCRETE OR MASONRY OR LESS THAN CODE REQUIRED SEPARATION TO GRADE SHALL BE PRESSURE TREATED OR FOUNDATION GRADE REDWOOD, SET ALL EXTERIOR WALL SILLS IN MASTIC.





PHOFESSIONAL SEAL:

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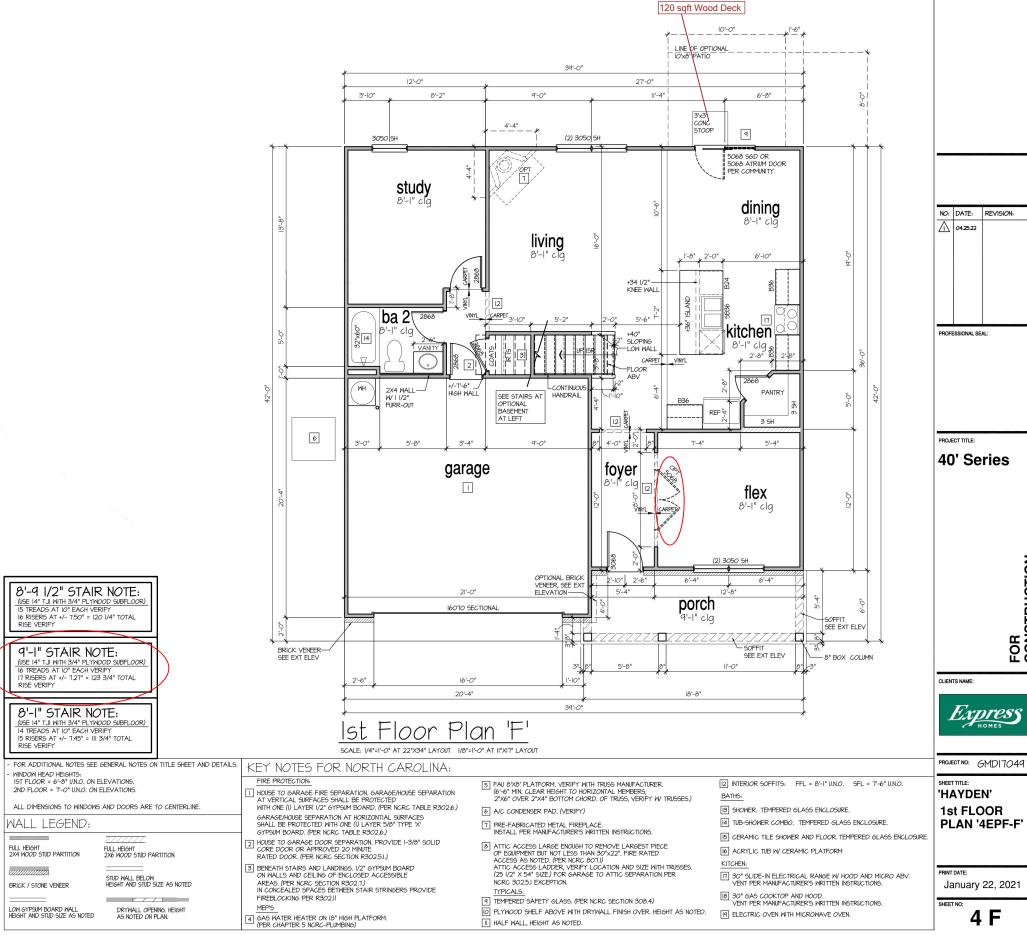
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'HAYDEN' CRAWL SPACE

PLAN '4EPF-F'

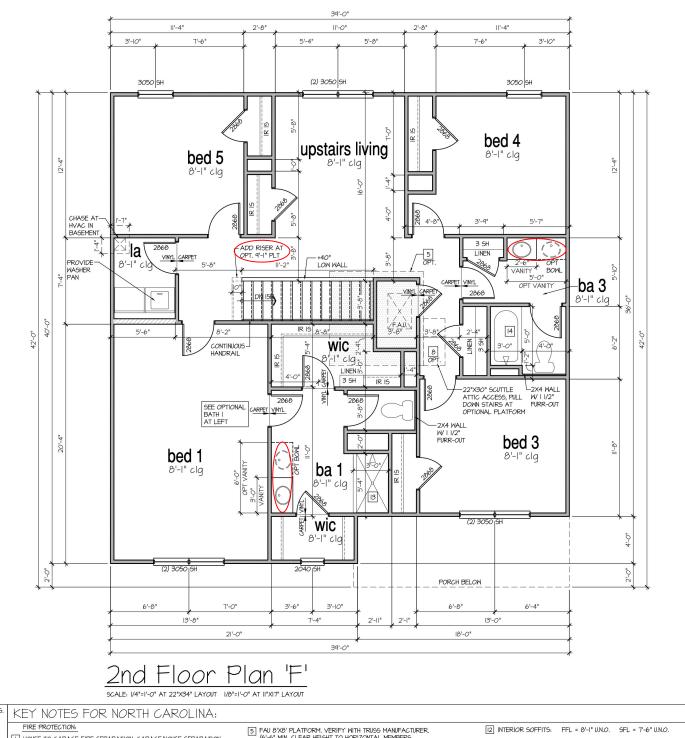
PRINT DATE:
January 22, 2021

3 CS F



FOR CONSTRUCTION





9'-I" STAIR NOTE:

(USE 14" T.JI WITH 3/4" PLYWOOD SUBFLOOR)
16 TREADS AT 10" EACH VERIFY
17 RISERS AT +/- T.2T" = 123 3/4" TOTAL
RISE VERIFY

8'-1" STAIR NOTE: (USE 14" T.JI WITH 3/4" PLYWOOD SUBFLOOR) 14 TREADS AT 10" EACH VERIFY 15 RISERS AT 4"-1.45" = 111 3/4" TOTAL RISE VERIFY

FOR ADDITIONAL NOTES SEE GENERAL NOTES ON TITLE SHEET AND DETAILS. WINDOW HEAD HEIGHTS: IST FLOOR = 6'-8" U.N.O. ON ELEVATIONS. 2ND FLOOR = 7'-0" U.N.O. ON ELEVATIONS.

ALL DIMENSIONS TO WINDOWS AND DOORS ARE TO CENTERLINE.

WALL LEGEND:

FULL HEIGHT 2X4 WOOD STUD PARTITION

FULL HEIGHT 2X6 WOOD STUD PARTITION

BRICK / STONE VENEER

STUD WALL BELOW HEIGHT AND STUD SIZE AS NOTED

LOW GYPSUM BOARD WALL HEIGHT AND STUD SIZE AS NOTED DRYWALL OPENING. HEIGHT AS NOTED ON PLAN.

HOUSE TO GARAGE FIRE SEPARATION, GARAGE/HOUSE SEPARATION AT VERTICAL SURFACES SHALL BE PROTECTED WITH ONE (I) LAYER I/2" GYPSUM BOARD, (PER NCRC TABLE R302,6.) GARAGE/HOUSE SEPARATION AT HORIZONTIAL SURFACES SHALL BE PROTECTED WITH ONE (I) LAYER 5/8" TYPE 'X' GYPSUM BOARD. (PER NCRC TABLE R302.6.)

- 2) HOUSE TO GARAGE DOOR SEPARATION. PROVIDE 1-3/8" SOLID CORE DOOR OR APPROVED 20 MINUTE RATED DOOR. (PER NCRC SECTION R302.5.1.)
- 3 BENEATH STAIRS AND LANDINGS. I/2" GYPSUM BOARD ON WALLS AND CEILING OF ENCLOSED ACCESSIBLE AREAS. (PER NCRC SECTION R302.7.) IN CONCEALED SPACES BETWEEN STAIR STRINGERS PROVIDE FIREBLOCKING PER R302.II
- GAS WATER HEATER ON 18" HIGH PLATFORM. (PER CHAPTER 5 NCRC-PLUMBING)

- 5 FAU 8'X8' PLATFORM, VERIFY WITH TRUSS MANUFACTURER. (6'-6" MIN, CLEAR HEIGHT TO HORIZONTAL MEMBERS. 2"X6" OVER 2"X4" BOTTOM CHORD. OF TRUSS, VERIFY W TRUSSES.)
- 6 A/C CONDENSER PAD. (VERIFY)
- T PRE-FABRICATED METAL FIREPLACE.
 INSTALL PER MANUFACTURER'S WRITTEN INSTRUCTIONS.
- ATTIC ACCESS LARGE ENOUGH TO REMOVE LARGEST PIECE OF EQUIPMENT BUT NOT LESS THAN 30"x22", FIRE RATED ACCESS AS NOTED, (FER NCR. 80"1).

 ATTIC ACCESS LADDER, VERIFY LOCATION AND SIZE WITH TRUSSES, (25 1/2" X 54" SIZE). FOR GARAGE TO ATTIC SEPARATION PER NCR.C 30:25.1 EXCEPTION.
- TYPICALS: TEMPERED SAFETY GLASS. (PER NCRC SECTION 308.4)
- PLYWOOD SHELF ABOVE WITH DRYWALL FINISH OVER, HEIGHT AS NOTED.
- III HALF WALL, HEIGHT AS NOTED.

- 3 SHOWER, TEMPERED GLASS ENCLOSURE.
- 14 TUB-SHOWER COMBO. TEMPERED GLASS ENCLOSURE.
- 15 CERAMIC TILE SHOWER AND FLOOR, TEMPERED GLASS ENCLOSURE.
- 16 ACRYLIC TUB W CERAMIC PLATFORM

KITCHEN:

- II 30" SLIDE-IN ELECTRICAL RANGE W HOOD AND MICRO ABV. VENT PER MANUFACTURER'S WRITTEN INSTRUCTIONS.
- 18 30" GAS COOKTOP AND HOOD. VENT PER MANUFACTURER'S WRITTEN INSTRUCTIONS. 19 ELECTRIC OVEN WITH MICROWAVE OVEN.

Express

FOR CONSTRUCTION

PROJECT NO: GMD17049

NO: DATE: REVISION: 04.25.22

PROFESSIONAL SEAL:

PROJECT TITLE:

40' Series

'HAYDEN'

CLIENTS NAME:

2nd FLOOR PLAN '4EPF-F'

PRINT DATE: January 22, 2021

5 F

9'-|" STAIR NOTE: (USE 14" T.JI WITH 3/4" PLYWOOD SUBFLOOR) 16 TREADS AT 10" EACH VERIFY 17 RISERS AT 4-7 12.7" = 123 3/4" TOTAL RISE VERIFY 8'-1" STAIR NOTE: (USE 14" T.J.I WITH 3/4" PLYWOOD SUBFLOOR) 14 TREADS AT 10" EACH VERIFY 15 RISERS AT +/- 7.45" = 111 3/4" TOTAL RISE VERIFY

NOTES:

- REFER TO FLOOR PLAN NOTES FOR TYPICAL FIRE PROTECTION NOTES AND LOCATIONS.

 THESE BUILDING SECTIONS MAY VARY AT ALTERNATE ELEVATION STYLES AND AT "PLAN OPTION"
 CONDITIONS, REFER TO MAIN FLOOR PLAN AND ALTERNATE FLOOR PLANS FOR INFORMATION NOT SHOWN HERE.

 BUILDING SECTIONS SHOWN HERE DEPICT VOLUMN SPACES WITHIN THE STRUCTURE, REFER TO STRUCTURAL
 DRAWINGS, TRUSS DRAWINGS, STRUCTURAL DETAILS AND CALCULATIONS BY OTHER FOR ALL STRUCTURAL INFO.

 ROOFING: PITCHED SHINGLE ROOF, REFER TO ROOF PLAN FOR TYPICALS.
- WOOD FLOORS: FLOOR SHEATHING OVER FLOOR JOIST.
 REFER TO STRUCTURAL AND TRUSS DRAWINGS BY OTHERS.
- VERIFY STAIRS MINIMUM AND MAXIMUM REQUIREMENTS FOR CONSTRUCTION CLEARANCES WITH LOCAL CODES.
- INSULATION:

- INSULATION:
EXTERIOR WALLS ZONE 3:
R-13 BATTS MINIMUM. VERIFY
EXTERIOR WALLS ZONE 4:
R-15 BATTS MINIMUM. VERIFY
CEILING WITH ATTIC ABOVE COMPRESSED INSULATION.
R-30 BATTS MINIMUM. VERIFY
CEILING WITH ATTIC ABOVE INCOMPRESSED INSULATION (HEELS IN TRUSSES):
R-30 BATTS MINIMUM. VERIFY

R-30 BATTS MINIMUM. VERIFY

R-30 BATTS MINIMUM. VERIFY

R-31 BATTS MINIMUM. VERIFY

R-32 BATTS MINIMUM. VERIFY

R-33 BATTS MINIMUM. VERIFY

R-34 BATTS MINIMUM. VERIFY

R-35 BATTS MINIMUM. VERIFY

R-36 BATTS MINIMUM. VERIFY

R-37 BATTS MINIMUM. VERIFY

R-37 BATTS MINIMUM. VERIFY

R-38 BATTS MINIMUM. VERIFY

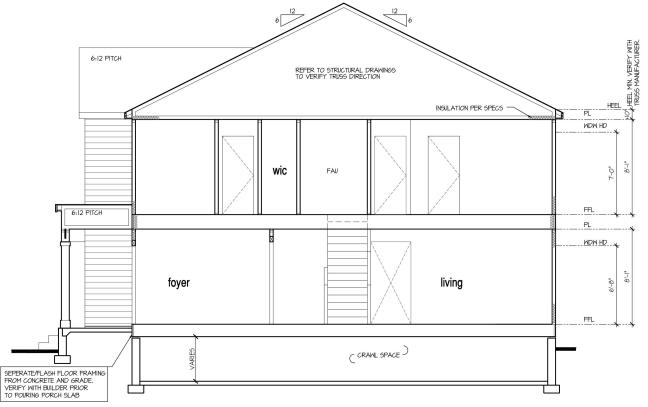
R-38 BATTS MINIMUM. VERIFY

R-39 BATTS MINIMUM. VERI

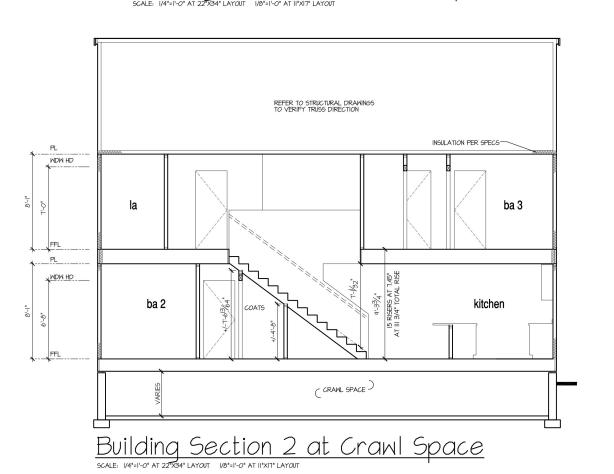
R-19 BATTS MINIMUM, VERIFY R-19 BATTS MINIMUM, VERIFY R-19 BATTS MINIMUM, VERIFY FLOOR OVER GARAGE: ATTIC KNEEWALL: CRAWL SPACE FLOORING:

WINDOW GLAZING "U" FACTOR: 0.35

PER STATE RESIDENTIAL CODE COMPLIANCE METHOD TO BE DETERMINED BY BUILDER.



Building Section Lat Crawl Space Scale: 1/4*=1-0* AT 22*\$34* LAYOUT 1/8*=1-0* AT 11*XIT* LAYOUT



NO: DATE: REVISION: 04.25.22 PROFESSIONAL SEAL:

PROJECT TITLE:

40' Series

FOR CONSTRUCTION

CLIENTS NAME:

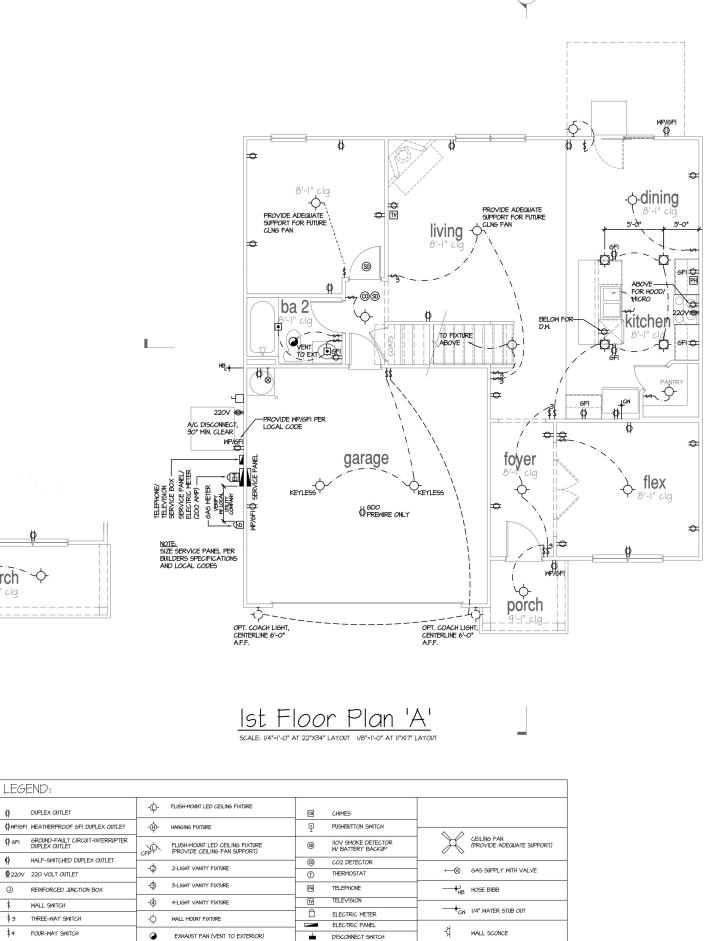


PROJECT NO: GMD17049

'HAYDEN' **BUILDING** SECTIONS

PRINT DATE: January 22, 2021

1.1.2A S



NO: DATE: REVISION: 04.25.22 PROFESSIONAL SEAL:

PROJECT TITLE:

40' Series

FOR CONSTRUCTION

CLIENTS NAME:



PROJECT NO: GMD17049

'HAYDEN' 1st FLOOR UTILITY PLAN

PRINT DATE: January 22, 2021

SWITCH AND RECEPTACLE BOXES OVER BATH CABINETS

30" HIGH VANITY

STANDARD ELECTRICAL BOX HEIGHTS

SWITCH AND RECEPTACLE BOXES OVER KITCHEN CABINETS

BASE CABINET

NOTE: SIZE SERVICE PANEL PER BUILDERS SPECIFICATIONS AND LOCAL CODES

OPT. COACH LIGHT, CENTERLINE 6'-0" A.F.F.

NOTES:

Ist Floor Plan 'B

PROVIDE GROUNDING ELECTRICAL ROD PER LOCAL CODES. PROVIDE AND INSTALL ARC FAULT CIRCUIT-INTERRIPTERS (AFCI) AS REQUIRED BY NATIONAL ELECTRICAL CODE (NEC) AND MEETING THE REQUIREMENTS OF ALL GOVERNING CODES.

OPT. COACH LIGHT, CENTERLINE 6'-O" A.F.F.

ALL EXHAUST FANS SHALL HAVE BACKDRAFT DAMPERS.

FAN/LIGHTS IN WET/DAMP LOCATIONS SHALL BE LABLED "SUITABLE FOR WET OR DAMP LOCATIONS."

- ELECTRICAL SYSTEMS ARE SHOWN FOR INTENT ONLY. THESE SYSTEMS SHALL BE ENGINEERED BY OTHERS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER INSTALLATION AND PLACEMENT.
- PROVIDE AND INSTALL LOCALLY CERTIFIED SMOKE DETECTORS AND CO2 DETECTORS AS REQUIRED BY NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) AND MEETING THE REQUIREMENTS OF ALL GOVERNING CODES.
- PROVIDE AND INSTALL GROUND FAULT CIRCUIT-INTERRIPTERS (6FI) AS REQUIRED BY NATIONAL ELECTRICAL CODE (NEC) AND MEETING THE REQUIREMENTS OF ALL GOVERNING CODES.

ELECTRICAL CONTRACTOR TO PROVIDE REQUIRED DIRECT HOOK-UPS/CUTOFFS. HVAC CONTRACTOR TO VERIFY THERMOSTAT LOCATIONS.

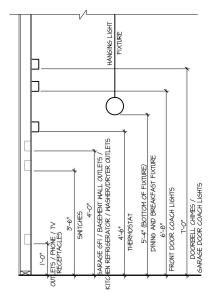
ALL ELECTRICAL AND MECHANICAL EQUIPMENT (FIRMACES, A/C UNITS, ELECTRICAL PANELS, SANITARY SUMP PI DRAIN TILE SUMP, AND WATER HEATERS) ARE SUBJECT TO RELOCATION DUE TO FIELD CONDITIONS. PROVIDE POWER, LIGHT AND SMITCH AS REQUIRED FOR ATTIC FURNACE PER CODE AND MANUFACTURER'S WRITTEN INSTRUCTIONS. THREE-WAY SWITCH FOUR-WAY SWITCH

LEGEND:

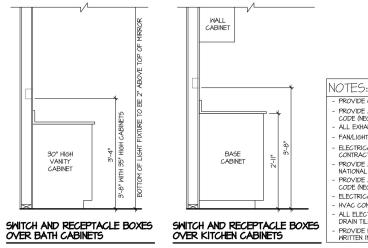
DUPLEX OUTLET

\$220V 220 VOLT OUTLET

WALL SWITCH

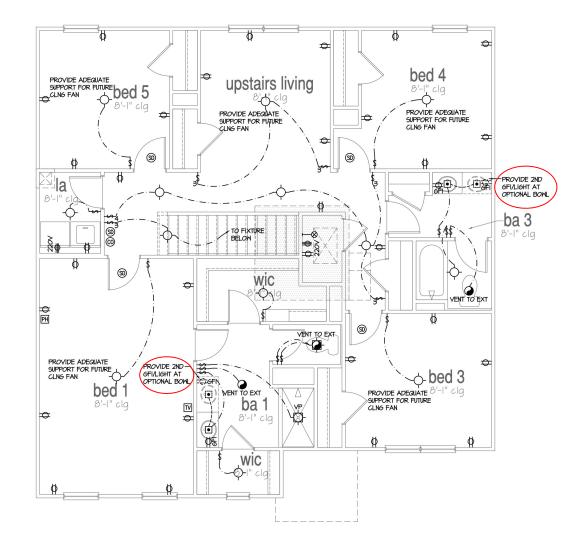


STANDARD ELECTRICAL BOX HEIGHTS



PROVIDE GROUNDING ELECTRICAL ROD PER LOCAL CODES. PROVIDE ORGANIZATE ELECTRICAL ROD FLE COME. COLORS.

PROVIDE AND INSTALL ARC FAULT CIRCUIT-INTERRUPTERS (AFCI) AS REQUIRED BY NATIONAL ELECTRICAL CODE (NEC) AND MEETING THE REQUIREMENTS OF ALL GOVERNING CODES. ALL EXHAUST FANS SHALL HAVE BACKDRAFT DAMPERS. FAN/LIGHTS IN WET/DAMP LOCATIONS SHALL BE LABLED "SUITABLE FOR WET OR DAMP LOCATIONS." - ELECTRICAL SYSTEMS ARE SHOWN FOR INTENT ONLY THESE SYSTEMS SHALL BE ENGINEERED BY OTHERS. T CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER INSTALLATION AND PLACEMENT.
- PROVIDE AND INSTALL LOCALLY CERTIFIED SMOKE DETECTORS AND CO2 DETECTORS AS REQUIRED BY NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) AND MEETING THE REQUIREMENTS OF ALL GOVERNING CO - PROVIDE AND INSTALL GROUND FAULT CIRCUIT-INTERRIPTERS (6FI) AS REQUIRED BY NATIONAL ELECTRICAL CODE (NEC) AND MEETING THE REQUIREMENTS OF ALL GOVERNING CODES. - ELECTRICAL CONTRACTOR TO PROVIDE REQUIRED DIRECT HOOK-UPS/CUTOFFS. - HVAC CONTRACTOR TO VERIFY THERMOSTAT LOCATIONS. ALL ELECTRICAL AND MECHANICAL EQUIPMENT (FURNACES, A/C UNITS, ELECTRICAL PANELS, SANITARY SUMP DRAIN TILE SUMP, AND WATTER HEATERS) ARE SUBJECT TO RELOCATION DUE TO FIELD CONDITIONS. PROVIDE POWER, LIGHT AND SWITCH AS REQUIRED FOR ATTIC FURNACE PER CODE AND MANUFACTURER'S WRITTEN INSTRUCTIONS.



2nd Floor Plan 'A' scale: 1/4*=1'-0" at 22*x34" LAYOUT 1/8*=1'-0" at 11*x17" LAYOUT

	LEG	END:						
AT.	ф	DUPLEX OUTLET	ф	FLUSH-MOUNT LED CEILING FIXTURE	СН	CHIMES		
	Фир/бР	I WEATHERPROOF GFI DUPLEX OUTLET	ф-	HANGING FIXTURE	9	PUSHBUTTON SWITCH	\ \ \ \ \	
5. THE	∯ 6FI	GROUND-FAULT CIRCUIT-INTERRUPTER DUPLEX OUTLET	CFP	FLUSH-MOUNT LED CEILING FIXTURE (PROVIDE CEILING FAN SUPPORT)	99	IIOV SMOKE DETECTOR W BATTERY BACKUP	\times	CEILING FAN (PROVIDE ADEQUATE SUPPORT)
	ф	HALF-SWITCHED DUPLEX OUTLET		O LIGHT VANITY FIVERE	@	CO2 DETECTOR		
CODES.	\$ 220∨	220 VOLT OUTLET	Ψ_	2-LIGHT VANITY FIXTURE	①	THERMOSTAT	⊢⊗	GAS SUPPLY WITH VALVE
CAL	0	REINFORCED JUNCTION BOX	-\$	3-LIGHT VANITY FIXTURE	PH	TELEPHONE	→ } HB	HOSE BIBB
	\$	WALL SWITCH	-49	4-LIGHT VANITY FIXTURE	īv	TELEVISION		
MP PITS,	\$3	THREE-WAY SWITCH	-0	WALL MOUNT FIXTURE		ELECTRIC METER	TOM	I/4" WATER STUB OUT
5	+.	EGID HAY CHITCH				ELECTRIC PANEL	K	HALL CCONCE
,	\$4	FOUR-WAY SWITCH	•	EXHAUST FAN (VENT TO EXTERIOR)	=	DISCONNECT SWITCH	Я	WALL SCONCE

NO: DATE: REVISION: 04.25.22

PROFESSIONAL SEAL:

PROJECT TITLE:

40' Series

FOR CONSTRUCTION

CLIENTS NAME:



PROJECT NO: GMD17049

'HAYDEN' 2nd FLOOR UTILITY PLAN

PRINT DATE: January 22, 2021

Construction Type: Commerical ☐ 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

Design Loads:

1.	KOOI	LIVE LOAGS		
	1.1.	Conventional 2x	20	PE
	1.2.	Truss	20	PE
		1.2.1. Attic Truss	60	P
2.	Roof	Dead Loads		
	2.1.	Conventional 2x	10 F	-SF
	2.2.	Truss	20	PS
3.	Snow		15 F	SF
	3.1.	Importance Factor	1.0	
4.	Floor	Live Loads		
	4.1.	Typ. Dwelling	40	P

42. Sleeping Areas . 40 PSF 5. Floor Dead Loads Conventional 2x 10 PSF

6. Ultimate Design Wind Speed (3 sec. gust) ...
6.1. Exposure 6.2. Importance Factor... 6.3. Wind Base Shea

6.3.1. VX = 6.32. 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	17.6,-18.9	18.3,-19.7	18.8,-20.2
ZONE 2	16.7,-21.0	17.6,-22.1	18.3,-22.9	18.8,-23.6
ZONE 3	16.7,-21.0	17.6,-22.1	18.3,-22.9	18.8,-23.6
ZONE 4	18.2,-19.0	19.2,-20.0	19.9,-20.8	20.4,-21.3
ZONE 5	18.2,-24.0	19.2,-25.2	19.9,-26.2	20.4,-26.9

8. Seismic

00151111	_	
8.1.	Site Class	D
82.	Design Category	C
8.3.	Importance Factor	1.0
0.1	Catanta Han Canada	1

Spectral Response Acceleration
 S.S.I. Sms = %g
 S.S.2.Sml = %g

86 Seismic Base Shea

8.62.Vu = 8.7. Basic Structural Sustem (check one) Bearing Wall
Building Frame
Moment Frame

Dual w/ Special Moment Frame Dual w/ Intermediate R/C or Special Steel

Inverted Pendulum

Wind 🖂 9. Assumed Soil Bearing Capacity 20000sf

HAYDEN LH

PROJECT ADDRESS

DR Horton, Inc. 8001 Arrowridge Blvd. Charlotte, NC 28273

DESIGNER: GMD Design Group 102 Fountain Brook Circle Suite C Cary, NC 27511

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 4 Testing, P.C. before construction begins.

PLAN ABBREVIATIONS

AB	ANCHOR BOLT	PT	PRESSURE TREATED
AFF	ABOVE FINISHED FLOOR	RS	ROOF SUPPORT
CJ	CEILING JOIST	9C	STUD COLUMN
CLR	CLEAR	SJ	SINGLE JOIST
DJ	DOUBLE JOIST	SPF	SPRUCE PINE FIR
DSP	DOUBLE STUD POCKET	SST	SIMPSON STRONG-TIE
EE	EACH END	SYP	SOUTHERN YELLOW PINE
ΕW	EACH WAY	TJ	TRIPLE JOIST
NTS	NOT TO SCALE	TSP	TRIPLE STUD POCKET
oc	ON CENTER	TYP	TYPICAL
P6F	POUNDS PER SQUARE FOOT	UNO	UNLESS NOTED OTHERWISE
P5I	POUNDS PER SQUARE INCH	WWF	WELDED WIRE FABRIC

Roof truss and floor joist layouts, and their corresponding loading details, were not provided to SUMMIT Engineering, Laboratory 4 Testing, P.C. (SUMMIT) prior to the initial design. Therefore, truss and joist directions were assumed based on the information provided by D.R. Horton, Inc., Subsequent plan revisions based on roof truss and floor joist layouts shall be noted in the revision list, indicating the date the layouts were provided. Should any discrepancies become apparent, the contractor shall notify SUMMIT immediately.

SHEET LIST:

REVISION LIST:

Sheet No.	Description
C9I	Cover Sheet, Specifications, Revisions
S1.Øm	Monolithic Slab Foundation
S1.Øs	Stem Wall Foundation
51.0c	Crawl Space Foundation
S1.0b	Basement Foundation
52.0	Basement Framing Plan
63.0	First Floor Framing Plan
54.0	Second Floor Framing Plan
S5.Ø	Roof Framing Plan
S6.Ø	Basement Bracing Plan
ST.Ø	First Floor Bracing Plan
58.0	Second Floor Bracing Plan

Revision No.	Date	Project No.	Description
1	4.19.21	TØ177	Updated elevation names
			Added Stem Wall, Crawlspace, and Basement Foundations
2	6.14.21	TØ177	Added OX-15 option and table for framing
3	11.23.21	TØ177	Updated framing in the first floor
		1	

DR HORTON PROJECT SIGN-OFF:

Manager	Signature
Operations	
Operations System	
Operations Product Development	

SUMMIT



DR Horton, Inc. 8001 Arrowridge Blv. Charlotte, NC 28213



DATE: IV23/2002 9CALE: 22x34 1/4"+1"-@" |kd1 1/8"+1"-@"

CHECKED BY: CTB

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

STRUCTURAL MEMBERS ONL

PROJECT 4 528-TØITT DRAWN BY: JCEF

GENERAL STRUCTURAL NOTES:

The design professional whose seal appears on these drawings is the structural engineer of record (SER) for this project. The SER bears the responsibility of the primary structural elements and the performance of this structure. No other party may revise, and the periormance 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 4 Testing, P.C. (SUMMIT) or the SER. For the purposes of these construction documents the SER and SUMMIT shall be considered the same entity.

The structure is only stable in its completed form. The contractor

shall provide all required temporary bracing during construction to stabilize the structure.

The SER is not responsible for construction sequences, methods, or techniques in connection with the construction of this structure. The SER will not be held responsible for the contractor's failure to conform to the contract documents.

should any non-conformities occur.

Any structural elements or details not fully developed on the construction drawings shall be completed under the direction o 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 i relates to the structural design of this project. Verification of the shop drawings for dimensions, or for actual field conditions, is not the responsibility of the SER or SUMMIT. Verification of assumed field conditions is not the responsibility.

of the SER. The contractor shall verify the field conditions for accuracy and report any discrepancies to SUMMIT before

construction begins.

The SER is not responsible for any secondary structural elements or non-structural elements, except for the elements specifically

noted on the structural drawings.

This structure and all construction shall conform to all applicable sections of the international residential code.

of the current local building code.

This structure and all construction shall conform to all applicable sections of local building codes.

All structural assemblies are to meet or exceed to requirements

The structural engineer has not performed a subsurface investigation. Verification of this assumed value is the responsibility of the owner or the contractor. Should any adverse soil condition be encountered the SER must be contacted before proceeding

The bottom of all footings shall extend below the frost line for rise portion of all rootings and extend below the frost line for the region in which the structure is to be constructed. However, the bottom of all footings shall be a minimum of 12" below grade. Any fill shall be placed under the direction or recommendation of a licensed professional engineer.

The resulting soil shall be compacted to a minimum of 95% extending the control of the procession of the provider of the control of the provider of t

maximum dry density.

Excavations of footings shall be lined temporarily with a 6 mil polysthylene membrane if placement of concrete does not occur within 24 hours of excavation.

No concrete shall be placed against any subgrade containing water, ice, frost, or loose materia

STRUCTURAL STEEL

Structural steel shall be fabricated and erected in accordance with the American institute of Steel Construction "Code of Standard Practice for Steel Buildings and Bridges" and the manual of Steel Construction "Load Resistance Factor Design"

Structural steel shall receive one coat of shop applied rust-inhibitive paint. All steel shall have a minimum yield stress $\langle F_u \rangle$ of 36 ksi unless

otherwise noted.

Welding shall conform to the latest edition of the American Welding Society's Structural Welding Code AWS DIL. Electrodes for shop and field welding shall be class ETØXX. All welding shall be performed by a certified welder per the above

<u>ICREIE:</u>

Concrete shall have a normal weight aggregate and a minimum compressive strength (f'_c) at 28 days of 3000 psi, unless otherwise noted on the plan.

Concrete shall be proportioned, mixed, and placed in accordance with the latest editions of ACI 318: "Building Code Requirements for Reinforced Concrete" and ACI 301:

"Specifications for Structural Concrete for Buildings".

Air entrained concrete must be used for all structural elements exposed to freeze/thaw cycles and deicing chemicals. Air entrainment amounts (in percent) shall be within -1% to +2% of target values as follows:

3.1. Footings: 5% 32.Exterior Slabs: 5%

No admixtures shall be added to any structural concrete without written permission of the SER.

Concrete slabs-on-grade shall be constructed in accordance with ACI 302.IR-96: "Guide for Concrete Slab and Slab

The concrete slab-on-grade has been designed using a subgrade modulus of k=250 pcl and a design loading of 200 psf. The SER is not responsible for differential settlement, slab cracking or other future defects resulting from unreported conditions not in accordance with the above assumptions

Control or saw cut joints shall be spaced in interior slabs-on-grade at a maximum of 15'-0" O.C. and in exterior slabs-on-grade at a maximum of 10'-0" unless otherwise noted. Control or saw cut joints shall be produced using conventional process within 4 to 12 hours after the slab has been finished

Reinforcing steel may not extend through a control joint.

Reinforcing steel may extend through a saw cut joint.

All welded wire fabric (W.W.F.) for concrete slabs-on-grade shall be placed at mid-depth of slab. The WWF, shall be securely supported during the concrete pour.

CONCRETE REINFORCEMENT:

Fibrous concrete reinforcement, or fibermesh, specified in concrete slabs-on-grade may be used for control of cracking due to shrinkage and thermal expansion/contraction, lowered

aue to strinkage and tremal expansionicontraction, lowered water migration, an increase in impact capacity, increased abrasion resistance, and residual strength.
Filoemesh reinforcing to be 100% virgin polygropylene fibers containing no reprocessed olefin materials and specifically manufactured for use as concrete secondary reinforcement.
Application of fibermesh per cubic yard of concrete shall equal

a minimum of 0.1% by volume (1.5 pounds per cubic yard)
Fibermesh shall comply with ASTM CIII6, any local building code
requirements, and shall meet or exceed the current industry

Steel reinforcing bars shall be new billet steel conforming to ASTM A615, grade 60.

Detailing, fabrication, and placement of reinforcing steel shall be in accordance with the latest edition of ACI 315: "Manual of Standard Practice for Detailing Concrete Structures"

Horizontal footing and wall reinforcement shall be continuous and shall have 90° bends, or corner bars with the same size/spacing as the horizontal reinforcement with a class B

tension splice. Lap reinforcement as required, a minimum of 40 bar diameters for tension or compression unless otherwise noted. Splices in masonru shall be a minimum of 48 bar diameters.

Where reinforcing dowels are required, they shall be equivalent in size and spacing to the vertical reinforcement. The dowel shall extend 48 bar diameters vertically and 20 bar diameters into the footing.

 Where reinforcing steel is required vertically, dowels shall be provided unless otherwise noted

WOOD FRAMING Solid sawn wood framing members shall conform to the specifications listed in the latest edition of the "National Design Specification for Wood Construction" (NDS). Unless otherwise noted, all wood framing members are designed to be Southern-Yellow-Pine (SYP) #2.

LVL or PSL engineered wood shall have the following minimum

design values: 2.1. E = 1,900,000 psi 22. Fb = 2600 psi 23. Fv = 285 psi

2.4.Fc = 700 psi Wood in contact with concrete, masonry, or earth shall be pressure treated in accordance with AUPA standard C-I5. All other moisture exposed wood shall be treated in accordance

with AWPA standard C-2 Nails shall be common wire nails unless otherwise noted. Lag screws shall conform to ANSI/ASME standard B182.1-1981. Lead holes for lag screws shall be in accordance with NDS specifications

All beams shall have full bearing on supporting framing members unless otherwise noted.

Exterior and load bearing stud walls are to be 2x4 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.

Ning studs shall be continuous, individual studs forming a column shall be attached with one lod nail 6 6" OC. 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 transfe Multi-ply beams shall have each ply attached with (3) 10d nails @

Four and five ply beams shall be bolted together with (2) rows of 12^n diameter through bolts staggered e [6" OC. unless noted otherwise.

WOOD TRUSSES:

The wood truss manufacturer/fabricator is responsible for the design of the wood trusses. Submit sealed shop drawings and supporting calculations to the SER for review prior to fabrication. The SER shall have a minimum of five (5) days for review. The review by the SER shall review for overall compliance with the design documents. The SER shall assume no responsibility for the correctness for the structural design for

the wood trusses.

The wood trusses shall be designed for all required loadings as specified in the local building code, the ASCE Standard "l'Inlimm 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 folloads shown on these drawings including but not limited to HVAC equipment, piping, and architectural fixtures attached to

The trusses shall be designed, fabricated, and erected in accordance with the latest edition of the "National Design Specification for Wood Construction." (NDS) and "Design Specification for Metal Plate Connected Wood Trusses."

The truss manufacturer shall provide adequate bracing information in accordance with "Commentary and Recommendations for Handling, Installing, and Bracing Metal Plate Connected Wood Trusses" (HIB-91). This bracing, both temporary and permanent, shall be shown on the shop drawings. Also, the shop drawings shall show the required attachments for the trusses.

And 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: 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:

Fabrication and placement of structural wood sheathing shall be in accordance with the APA Design/Construction Guide "Residential and Commercial" and all other applicable APA

standards.
All structurally required wood sheathing shall bear the mark of

the long direction perpendicular to framing. Sheathing shall have a span rating consistent with the framing spacing. Use suitable edge support by use of plywood clips or lumber blocking unless otherwise noted. Panel end joints shall occur over fraining. Apply building paper over the sheathing as required by the state Building Code.

Wood floor sheathing shall be APA rated sheathing exposure 1

Wood wall sheathing shall comply with the requirements of local

building codes for the appropriate state as indicated on these drawings. Refer to wall bracing notes in plan set for more information. Sheathing shall be applied with the long direction

perpendicular to framing, unless noted otherwise.
Roof sheathing shall be APA rated sheathing exposure 1 or 2.
Roof sheathing shall be continuous over two supports and

attached to its supporting roof framing with (1)-8d CC nail at

6"o/c at panel edges and at 12"o/c in panel field unless otherwise noted on the plans. Sheathing shall be applied with

or 2. Attach sheathing to its supporting framing with (1)-8d CC ringshark 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 T4G plywood or lumber blocking unless otherwise noted. Panel end joints shall occur over framing. Apply building paper over the sheathing as required by th

Sheathing shall have a 1/8" gap at panel ends and edges as

STRUCTURAL FIBERBOARD PANELS:

Fabrication and placement of structural fiberboard sheathing shall be in accordance with the applicable AFA standards. All structurally required fiberboard sheathing shall bear the

mark or the AFA.

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 interesting the property of the property of

Sheathing shall have a 1/8" gap at panel ends and edges are

STRUCTURAL MEMBERS ONLY

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

STRUCTURAL ANALYSIS BASED ON 2018 NCRC.

CRAWL SPACE FOUNDATION PLAN
SCALE: 1/4*1"-0" ON 22"334" OR 109"1"-0" ON 11"11"

ELEVATION B.F.K





DR Horton, Inc. 8001 Arrowidge Blvd. Charlotte, NC 28213

Hayden LH Crawl Space Foundation



22869 5/5/9 REFER TO COVER 9-EET FOR A COMPLETE LIST OF REVISIONS

S1.1c

REQUIRED BRACED WALL PANEL CONNECTIONS							
			REQUIRED CONNECTION				
METHOD	MATERIAL	MIN. THICKNESS	@ PANEL EDGES	© INTERMEDIATE SUPPORTS			
CS-WSP	WOOD STRUCTURAL PANEL	3/8"	6d COMMON NAILS	6d COMMON NAILS @ 12" O.C.			
GB	GYPSUM BOARD	1/2"	5d COOLER NAILS** ⊕ T" O.C.	5d COOLER NAILS** © 7" O.C.			
WSP	WOOD STRUCTURAL PANEL	3/8"	6d COMMON NAILS 9 6" O.C.	6d COMMON NAILS 8 12" O.C.			
PF	WOOD STRUCTURAL PANEL	7/16"	PER FIGURE R602.10.6.4	PER FIGURE R602.10.6.4			
		"OR EQUIVALEN	T PER TABLE R10235				

BRACED WALL NOTES:

- WALLS SHALL BE DESIGNED IN ACCORDANCE WITH SECTION R602.10 FROM THE 2018
- NORTH CAROLINA RESIDENTIAL CODE WITH ALL LOCAL AND STATE AMENDMENTS. WALLS ARE DESIGNED FOR SEISMIC ZONES A-C AND MAXIMUM WIND SPEEDS UP TO
- REFER TO ARCHITECTURAL PLAN FOR DOOR/IJINDOULOPENING SIZES
- BRACING MATERIALS, METHODS AND FASTENERS SHALL BE IN ACCORDANCE WITH TABLE R602.10.1
- TABLE ROUSINI.
 ALL BRACED WALL PANELS SHALL BE FULL WALL HEIGHT AND SHALL NOT EXCEED
 OFFET FOR ISOLATED PANEL METHOD AND 12 FEET FOR CONTINUOUS SHEATHING
 METHOD WITHOUT ADDITIONAL ENGINEERING CALCULATIONS.
- MINIMUM PANEL LENGTH SHALL BE PER TABLE R602.10.1.
- THE INTERIOR SIDE OF EXTERIOR WALLS AND BOTH SIDES OF INTERIOR WALLS SHALL BE SHEATHED CONTINUOUSLY WITH MINIMUM 1/2" GYPSUM BOARD (UNO). FOR CONTINUOUS SHEATHING METHOD, EXTERIOR WALLS SHALL BE SHEATHED ON FOR COMMISSION OFFICIALS (INCLUDING INFILL AREAS BETWEEN BRACED WALL PANELS, ABOVE AND BELOW WALL OPENINGS, AND ON GABLE END WALLS, FLOORS SHALL NOT BE CANTILEVERED MORE THAN 24" BEYOND THE FOUNDATION
- OR BEARING WALL BELOW WITHOUT ADDITIONAL ENGINEERING CALCULATIONS.

 10. A BRACED WALL PANEL SHALL BE LOCATED WITHIN 12 FEET OF EACH END OF A BRACED WALL LINE
- THE MAXIMUM EDGE DISTANCE BETWEEN BRACED WALL PANELS SHALL NOT EXCEED 21 FEET.
- 12. MASONRY OR CONCRETE STEM WALLS W/ A LENGTH OF 48" OR LESS SUPPORTING A BRACED WALL PANEL SHALL BE DESIGNED IN ACCORDANCE WITH FIGURE R602:10.43 OF THE 2018 NCRC.
 BRACED WALL PANEL CONNECTIONS TO FLOOR/CEILING SHALL BE CONSTRUCTED IN
- ACCORDANCE WITH SECTION R602/10/44

 14. BRACED WALL PANEL CONNECTIONS TO ROOF SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION R602/10/45

- 15. CRIPPLE WALLS AND WALK OUT BASEMENT WALLS SHALL BE DESIGNED IN ACCORDANCE WITH SECTION R602.104.6
- PORTAL WALLS SHALL BE DESIGNED IN ACCORDANCE WITH FIGURE R602.10.1 (UNO)

GB = GYPSUM BOARD

WSP = WOOD STRUCTURAL PANEL

GENERAL STRUCTURAL NOTES:

- CONSTRUCTION SHALL CONFORM TO 2018 NORTH CAROLINA RESIDENTIAL
- BUILDING CODE WITH ALL LOCAL AND STATE AMENDMENTS.
 CONTRACTOR SHALL VERIFY ALL DIMENSIONS, CONTRACTOR SHALL
 COMPLY WITH THE CONTENTS OF THE DRAWING FOR THIS SPECIFIC PROJECT, ENGINEER IS NOT RESPONSIBLE FOR ANY DEVIATIONS FROM
- 3 CONTRACTOR IS RESPONSIBLE FOR PROVIDING TEMPORARY BRACING
- REQUIRED TO RESIST ALL FORCES ENCOUNTERED DURING ERECTION PROPERTIES USED IN THE DESIGN ARE 45 FOLLOWS: PROPERTIES USED IN THE DESIGN ARE AS FOLLOWS:
 MICROLLAM (LVL), F_B = 1600 PSI, F₁ = 285 PSI, E = 1.9x10⁶ PSI
 PARALLAM (PSI), F₁ = 2900 PSI, F₂ = 290 PSI, E = 1.25x10⁶ PSI
 ALL WOOD MEMBERS SHALL BE '2 SYP UNLESS NOTED ON PLAN, ALL
 STUD COLUMNS AND JOISTS SHALL BE '2 SYP (WO).
 ALL BEAM'S SHALL BE SUPPORTED WITH A (2) 2x4 '2 SYP STUD COLUMN
 AT EACH END UNLESS NOTED OTHERWISE.
 ALL REINFORCING STEEL SHALL BE GRADE 60 BAR'S CONFORMING TO
 ASTM AGE AND SAULK LUGGE A MINIMARY COURSE DE 31⁸

- ASTM AGIS AND SHALL HAVE A MINIMUM COVER OF 3".

 8. CONTRACTOR TO PROVIDED LOOKOUTS WHEN CEILING JOISTS SPAN
- PERPENDICULAR TO RAFTERS.
- FERT-ENDIQUAR TO PATIEND.

 FLITCH BEANS, 4-PLY LVLS AND 3-PLY SIDE LOADED LVLS SHALL BE BOLTED TOGETHER WITH I/2" DIA. THRU BOLTS SPACED AT 24" O.C. (MAX) STAGGERED OR EQUIVALENT CONNECTIONS PER DETAIL I/D3f. MIN EDGE DISTANCE SHALL BE 2" AND (2) BOLTS SHALL BE LOCATED MINIMUM 6" FROM EACH END OF THE BEAM.

 10. ALL NON-LOAD BEARING HEADERS SHALL BE (1) FLAT 2x4 SYP 72,
- 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 6YP 12, DROPPED. (UNLESS NOTED OTHERWISE)

THESE PLANS ARE DESIGNED IN ACCORDANCE WITH ARCHITECTURAL PLANS PROVIDED BY DR HORTON
COMPLETED/REVISED ON 4/15/21. IT IS THE RESPONSIBILITY OF THE CLIENT TO NOTIFY SUMMIT ENGINEERING LABORATORY 4 TESTING PRIOR TO CONSTRUCTION. SUMMIT ENGINEERING, LABORATORY & TESTING, P.C. CANNOT GUARANTEE THE ADEQUACY OF THESE STRUCTURAL PLANS WHEN USED WITH ARCHITECTURAL PLANS DATED DIFFERENTLY THAN THE DATE LISTED ABOVE.

STRUCTURAL MEMBERS ONLY

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.

FIRST FLOOR BRACING (FT)

CONTINUOUS SHEATHING METHOD

11.6

BWL 1-1

BWL 1-2 BWL 1-A REQUIRED PROVIDED

24.8

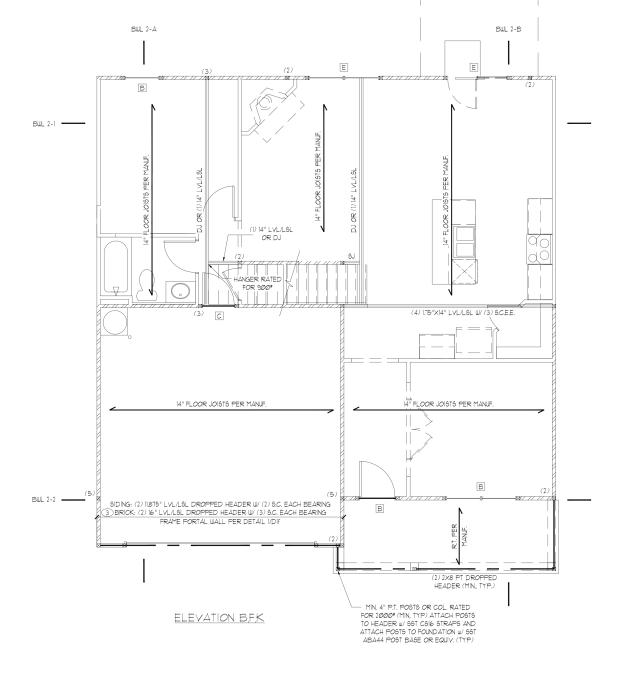
15.0

40.0

STRUCTURAL ANALYSIS BASED ON 2018 NCRC.

FIRST FLOOR FRAMING PLAN

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



HEADER SCHEDULE						
TAG	SIZE	JACKS (EACH END)				
Д	(2) 2x6	(1)				
В	(2) 2x8	(2)				
С	(2) 2xlØ	(2)				
D	(2) 2x12	(2)				
E	(2) 9-1/4" LSL/LVL	(3)				
F	(3) 2x6	(1)				
G	(3) 2x8	(2)				
Н	(3) 2xlØ	(2)				
	(3) 2xl2	(2)				

HEADER SIZES SHOWN ON PLANS ARE MINIMUMS. GREATER HEADER SIZES MAY BE USED FOR EASE OF CONSTRUCTION. 2. ALL HEADERS TO BE DROPPED (UN.O.). 3. STUD COLUMNS NOTED ON PLAN OVERRIDE STUD

COLUMNS LISTED ABOVE (UN.O.).

KING STUD	SCHEDULE
MAXIMUM HEADER SPAN	MINIMUM KING STUDS E.E.
4'-Ø"	(D
6'-0"	(2)
8'-Ø"	(2)
10'-0"	(3)
12'-0"	(3)
14'-⊘"	(3)
16'-0"	(4)
18'-Ø"	(4)

WALL STUD SCHEDULE (10 FT HEIGHT)							
STUD SIZE		STUD SPACING (O.C.)					
	ROOF ONLY	ROOF &	ROOF & 2 FLOORS	NON-LOAD BEARING			
2×4	24"	16"	12"	24"			
2x6	24"	24"	16"	24"			

NOTES:

1. BRACED WALLS STUDS SHALL BE A MAX. OF 16" O.C.

2. STUDS SUPPORTS OPTIONAL WALK-UP ATTIC SHALL BE

3, TWO STORY WALLS SHALL BE FRAMED W/ 2x4 STUDS @ 12" O.C. OR 2x6 STUDS @ 16" O.C. BALLOON FRAMED W/ HORIZ. BLOCKING @ 6'-0" O.C. VERTICALLY.

	LINTEL SCHED	PULE		
TAG	SIZE	OPENING SIZE		
	L3x3x1/4"	LESS THAN 6'-0"		
2	L5x3x1/4"	6'-0" TO 10'-0"		
3	L5x3-1/2x5/16"	GREATER THAN 10'-0		
4 L5x3-1/2x5/16" ALL ARCHED ROLLED OR EQUIV. OPENINGS				
SECURE LINTEL TO HEADER w/ (2) 1/2" DIAMETER LAG				

SCREWS STAGGERED @ 16" O.C. (TYP FOR ALL HEADERS WHERE BRICK IS USED, TO BE:

SHADED WALLS INDICATED LOAD BEARING WALLS

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

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

___ DESIGNATES JOIST SUPPORTED LOAD BEARING WALL ABOVE. PROVIDE BLOCKING UNDER JOIST SUPPORTED LOAD BEARING WALL.

NOTE: MEMBERS NOTED AS PRESSURE TREATED MAY BE FRAMED WITH NON-PRESSURE TREATED LUMBER PROVIDED THE ENTIRETY OF THE MEMBER IS WRAPPED TO PREVENT MOISTURE INTRUSION.

INSTALL HOLD-DOWNS FOR BRACED WALL END CONDITIONS PER SECTION R602.10.8 & FIG. R602.10.7 OF THE 2018 NCRC.

NOTE: WALL SHEATHING AND FASTENERS HAVE BEEN DESIGNED TO RESIST THE CONTINUOUS WIND UPLIET LOAD PATH IN ACCORDANCE WITH METHOD 3 OF SECTION R602.3.5 OF THE 2018 NCRC.

CLIBARAL
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DR Horton, Inc. 8001 Arrowridge E Charlotte, NC 2821

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DATE: 11/23/20/2 PROJECT 4 528-TØITT CHECKED BY: CTB

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

	REQUIRED BRACED WALL PANEL CONNECTIONS					
REQUIRED CONNECTION						
METHOD	MATERIAL	MIN. THICKNESS	@ PANEL EDGES	@ INTERMEDIATE SUPPORTS		
CS-USP	WOOD STRUCTURAL PANEL	3/8"	6d COMMON NAILS @ 6" O.C.	6d COMMON NAILS # 12" O.C.		
GB	GYPSUM BOARD	1/2"	5d COOLER NAILS** ⊕ 1" O.C.	5d COOLER NAILS** @ T" O.C.		
WOOD STRUCTURAL 6d COMMON NAILS 6d COMMON NAILS 9 6" O.C. 9 12" O.C. 9 12" O.C.						
PF	WOOD STRUCTURAL PANEL	7/16"	PER FIGURE R602.10.6.4	PER FIGURE R602.10.6.4		
	"OR EQUIVALENT PER TABLE RT0235					

BRACED WALL NOTES:

- WALLS SHALL BE DESIGNED IN ACCORDANCE WITH SECTION R602.10 FROM THE 2018 NORTH CAROLINA RESIDENTIAL CODE WITH ALL LOCAL AND STATE AMENDMENTS
- WALLS ARE DESIGNED FOR SEISMIC ZONES A-C AND MAXIMUM WIND SPEEDS UP TO
- REFER TO ARCHITECTURAL PLAN FOR DOOR/JUNDOULOPENING SIZES
- BRACING MATERIALS, METHODS AND FASTENERS SHALL BE IN ACCORDANCE WITH TABLE R602.10.1
- ALL BRACED WALL PANELS SHALL BE FULL WALL HEIGHT AND SHALL NOT EXCEED 10 FEET FOR ISOLATED PANEL METHOD AND 12 FEET FOR CONTINUOUS SHEATHING METHOD WITHOUT ADDITIONAL ENGINEERING CALCULATIONS.
- MINIMUM PANEL LENGTH SHALL BE PER TABLE R602.10.1.
- THE INTERIOR SIDE OF EXTERIOR WALLS AND BOTH SIDES OF INTERIOR WALLS SHALL BE SHEATHED CONTINUOUSLY WITH MINIMUM 1/2" GYPSUM BOARD (UNO), FOR CONTINUOUS SHEATHING METHOD, EXTERIOR WALLS SHALL BE SHEATHED ON ALL SHEATHABLE SURFACES NCLUDING INFILL AREAS BETWEEN BRACED WALL
 PANELS, ABOVE AND BELOW WALL OPENINGS, AND ON GABLE END WALLS.

 9. FLOORS SHALL NOT BE CANTILEVERED MORE THAN 24" BEYOND THE FOUNDATION
- OR BEARING WALL BELOW WITHOUT ADDITIONAL ENGINEERING CALCULATIONS. A BRACED WALL PANEL SHALL BE LOCATED WITHIN 12 FEET OF EACH END OF A BRACED WALL LINE.
- THE MAXIMUM EDGE DISTANCE BETWEEN BRACED WALL PANELS SHALL NOT
- 12. MASONRY OR CONCRETE STEM WALLS W/ A LENGTH OF 48" OR LESS SUPPORTING A 12. MASONRY OR CONCRETE STEM WALLS W/A LENGTH OF 48" OR LESS SUPPORTING A
 BRACED WALL PANEL SHALL BE DESIGNED IN ACCORDANCE WITH FIGURE
 R602.10.4.3 OF THE 2010 NCRC.

 13. BRACED WALL PANEL CONNECTIONS TO FLOOR/CEILING SHALL BE CONSTRUCTED IN
 ACCORDANCE WITH SECTION R602.10.4.4

 14. BRACED WALL PANEL CONNECTIONS TO ROOF SHALL BE CONSTRUCTED IN
 ACCORDANCE WITH SECTION R602.10.4.5

 COORDANCE WITH SECTION R602.10.4.5

- 15. CRIPPLE WALLS AND WALK OUT BASETHENT WALLS SHALL BE DESIGNED IN ACCORDANCE WITH SECTION R602.104.6
- PORTAL WALLS SHALL BE DESIGNED IN ACCORDANCE WITH FIGURE R602.10.1 (UNO) 17. ABBREVIATIONS:

GB = GYPSUM BOARD

WSP = WOOD STRUCTURAL PANEL GB = GYP5UM BOARD

C6-XXX = CONT. SHEATHED

FF = PORTAL FRAME

WOT = WOOD VIRULIANAL | AND VIRULIANAL | AND

GENERAL STRUCTURAL NOTES:

- CONSTRUCTION SHALL CONFORM TO 2018 NORTH CAROLINA RESIDENTIAL
- BUILDING CODE WITH ALL LOCAL AND STATE AMENDMENTS.

 CONTRACTOR SHALL VERIFY ALL DIMENSIONS, CONTRACTOR SHALL

 COMPLY WITH THE CONTENTS OF THE DRAWING FOR THIS SPECIFIC PROJECT, ENGINEER IS NOT RESPONSIBLE FOR ANY DEVIATIONS FROM
- 3 CONTRACTOR IS RESPONSIBLE FOR PROVIDING TEMPORARY BRACING
- REQUIRED TO RESIST ALL FORCES ENCOUNTERED DURING ERECTION. PROPERTIES USED IN THE DESIGN ARE AS FOLLOWS: PROPERTIES USED IN THE DESIGN ARE AS FOLLOWS:
 MICROLLAM (LVL): F_B = 2600 PSI, Fv = 238 PSI, E = 1.9x10⁶ PSI
 PARALLAM (19L): F_B = 2900 PSI, Fv = 239 PSI, E = 1.25x10⁶ PSI
 ALL WOOD MEMBERS SHALL BE 12 SYP UNLESS NOTED ON PLAN, ALL
 STUD COLUMNS AND JOISTS SHALL BE 12 SYP (UND).
 ALL BEAYIS SHALL BE SUPPORTED WITH A (2) 2x4 12 SYP STUD COLUMN
 AT EACH END UNLESS NOTED OTHERWISE.
 ALL RENFORCING STEEL SHALL BE GRADE 60 BARS CONFORMING TO
 ASTMACKER AND SHALL USES AND MISSING COLUMN COLUMN.

- ASTM A615 AND SHALL HAVE A MINIMUM COVER OF 3".

 8. CONTRACTOR TO PROVIDED LOCKOUTS WHEN CEILING JOISTS SPAN PERPENDICULAR TO RAFTERS.
- PERFENDICULAR 10 RAFIERD.
 FLITCH BEAMS, 4-PLY LYLS AND 3-PLY SIDE LOADED LYLS SHALL BE
 BOLTED TOGETHER WITH I/2" DIA. THRU BOLTS SPACED AT 24" O.C.
 (MAX.) STAGGERED OR EQUIVALENT CONNECTIONS PER DETAIL I/D3f. MIN EDGE DISTANCE SHALL BE 2" AND (2) BOLTS SHALL BE LOCATED MINIMUM 6" FROM EACH END OF THE BEAM.

 10. ALL NON-LOAD BEARING HEADERS SHALL BE (1) FLAT 2x4 SYP 12,
- 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 6YP 12, DROPPED. (UNLESS NOTED OTHERWISE)

THESE PLANS ARE DESIGNED IN ACCORDANCE WITH ARCHITECTURAL, PLANS PROVIDED BY DR HORTON
COMPLETED/REVISED ON 4/15/21, IT IS THE RESPONSIBILITY OF THE CLIENT TO NOTIFY SUMMIT ENGINEERING LABORATORY 4 TESTING PC. IF ANY CHANGES ARE MADE TO THE ARCHITECTURAL PLANS PRIOR TO CONSTRUCTION. SUMMIT ENGINEERING, LABORATORY & TESTING, P.C. CANNOT GUARANTEE THE ADEQUACY OF THESE STRUCTURAL PLANS WHEN USED WITH ARCHITECTURAL PLANS DATED DIFFERENTLY THAN THE DATE LISTED ABOVE.

STRUCTURAL MEMBERS ONLY

ENGINEERING SEAL APPLIES ONLY TO STRUCTURAL COMPONENTS ON THIS DOCUMENT, SEAL DOES NOT INCLUDE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES OR SAFETY PRECAUTIONS.

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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.

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

SECOND FLOOR FRAMING PLAN

BWL 2-1 6.0 BWL 2-2 6.0 BWL 2-A

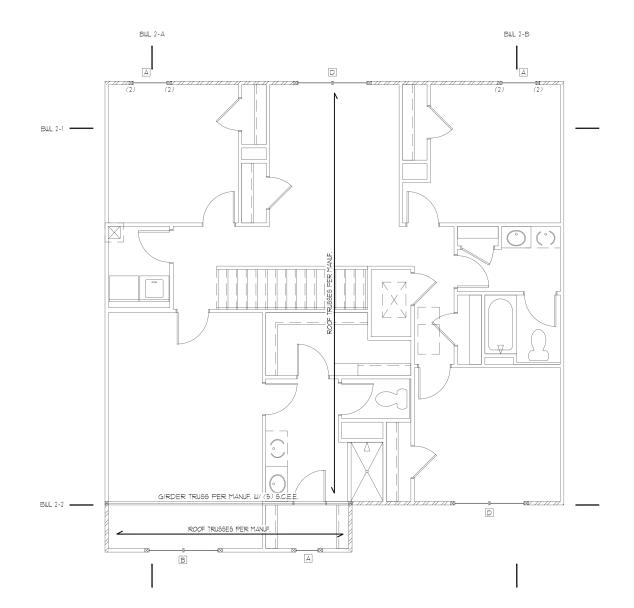
SECOND FLOOR BRACING (FT)

CONTINUOUS SHEATHING METHOD REQUIRED

27.0

25.0

40.0



ELEVATION B.F.K.

HE	ADER SCHED	JLE
TAG	SIZE	JACKS (EACH END
А	(2) 2x6	(1)
В	(2) 2x8	(2)
С	(2) 2xlØ	(2)
D	(2) 2x12	(2)
E	(2) 9-1/4" LSL/LVL	(3)
F	(3) 2x6	(1)
G	(3)2x8	(2)
Н	(3) 2xlØ	(2)
	(3) 2xl2	(2)

I. HEADER SIZES SHOWN ON PLANS ARE MINIMUMS, GREATER HEADER SIZES MAY BE USED FOR EASE OF CONSTRUCTION. 2. ALL HEADERS TO BE DROPPED (UN.O.). 3. STUD COLUMNS NOTED ON PLAN OVERRIDE STUD

COLUMNS LISTED ABOVE (UN.O.).

KING STUD	SCHEDULE
MAXIMUM HEADER SPAN	MINIMUM KING STUDS E.E.
4'-Ø"	(1)
6'-0"	(2)
8'-0"	(2)
10'-0"	(3)
12'-Ø"	(3)
14'-Ø"	(3)
16'-0"	(4)
18'-0"	(4)

WALL 9	STUD SCI	HEDULE	(10 FT H	HEIGHT)
STUD SIZE		STUD SPA	CING (0.C.)	
	ROOF ONLY	ROOF \$ 1 FLOOR	ROOF \$ 2 FLOORS	NON-LOAD BEARING
2×4	24"	16"	12"	24"
2x6	24"	24"	16"	24"
NOTES				

I. BRACED WALLS STUDS SHALL BE A MAX. OF 16" O.C. 2. STUDS SUPPORTS OPTIONAL WALK-UP ATTIC SHALL BE SPACED A MAX OF 16" OC

3. TWO STORY WALLS SHALL BE FRAMED W/ 2x4 STUDS @ 12" O.C. OR 2x6 STUDS @ 16" O.C. BALLOON FRAMED W/ HORIZ. BLOCKING @ 6'-0" O.C. VERTICALLY.

	LINTEL SCHED	ULE
TAG	SIZE	OPENING SIZE
\bigcirc	L3x3x1/4"	LESS THAN 6'-0"
2	L5x3x1/4"	6'-0" TO 10'-0"
3	L5x3-1/2x5/16"	GREATER THAN 10'-0"
4	L5x3-1/2x5/16" ROLLED OR EQUIV.	ALL ARCHED OPENINGS
SECURE LINTE	TO HEADER #1/ (2) 1/2"	DIAMETER I AG

9CREWS STAGGERED @ 16" O.C. (TYP FOR 3) ALL HEADERS WHERE BRICK IS USED, TO BE:

SHADED IIIALLS INDICATED LOAD BEARING IIIALLS

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

NOTE: MEMBERS NOTED AS PRESSURE TREATED MAY BE FRAMED WITH NON-PRESSURE TREATED LUMBER PROVIDE THE ENTIRETY OF THE MEMBER IS WRAPPED TO PREVENT MOISTURE INTRUSION.

INSTALL HOLD-DOWNS FOR BRACED WALL END CONDITIONS PER SECTION R602:10.8 4 FIG. R602:10.7 OF THE 2018 NCRC.

NOTE: WALL SHEATHING AND FASTENERS HAVE BEEN DESIGNED TO RESIST THE CONTINUOUS WIND UPLET LOAD PATH IN ACCORDANCE WITH METHOD 3 OF SECTION R60235 OF THE 2018 NCRC.



SUMMIT



DR Horton, Inc. 8001 Arrowridge E Charlotte, NC 2821;

Qi 00 Ĭ σ Hayden LH Secon



DATE: 11/23/20/2 8CALE: 22x34 |/4"=|'-@" |bd7 |/8"=|'-@" PROJECT 9 528-TØTT DRAWN BY: JCEF CHECKED BY: CTB

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

S4.1

TRUS:	TRUSS UPLIFT CONNECTOR SCHEDULE		
MAX. UPLIFT	ROOF TO WALL	FLOOR TO FLOOR	FLOOR TO FND
600 LBS	H2.5A	PER WALL SHEATHIN	NG & FASTENERS
1200 LBS	(2) H2.5A	CSI6 (END = II")	DTT2Z
145Ø LBS	HT52Ø	CSI6 (END = II")	DTT2Z
2000 LBS	(2) MTS2Ø	(2) CSI6 (END = II")	DTT2Z
2900 LBS	(2) HTS2Ø	(2) CSI6 (END = II")	HTT4
3685 LBS	LGT3-5D62.5	MSTC52	HTT4

JOBB LBS LEGIS-505/5 MSICS2

1. ALL PRODUCTS LISTED ARE SIMPSON STRONG-TIE. EQUIVALENT PRODUCTS MAY BE USED PER MANUFACTURER'S SPECIFICATIONS.

2. UPLIFT VALUES LISTED ARE FOR STP TO GRADE MEMBERS.

3. REFER TO TRUISS LATOUT PER MANUF, FOR UPLIFT VALUES AND TRUSS TO TRUSS CONNECTIONS. CONNECTOR'S SPECIFIED BY TRUSS MANUFACTURER OVERRIDE THOSE LISTED ABOVE.

4. CONTACT SUMMIT FOR REQUIRED CONNECTOR'S UHEN LOADS EXCEED THOSE LISTED ABOVE.

NOTE: 19T PLY OF ALL SHOWN GIRDER TRUSSES TO ALIGN WITH INSIDE FACE OF WALL (TYP, WNO)

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

REFER TO DETAIL 5/D3F FOR EYEBROW, RETURN OR SHED ROOF FRAMING REQUIREMENTS, (TYP FOR ROOFS PROTRUDING MAXIMUM 24" FROM STRUCTURE)

NOTE: TRUSS UPLIFT LOADS SHALL BE DETERMINED PER TRUSS MANUFACTURER IN ACCORDANCE WITH SECTION REOZIILI. WALL SHEATHING AND FASTENERS HAVE BEEN DESIGNED TO RESIST THE WIND UPLIFT LOAD PATH IN ACCORDANCE WITH METHOD 3 OF SECTION REOZI35 OF THE 2018 NCRC. REFER TO BRACED WALL PLANS FOR SHEATHING AND FASTENER REQUIREMENTS.

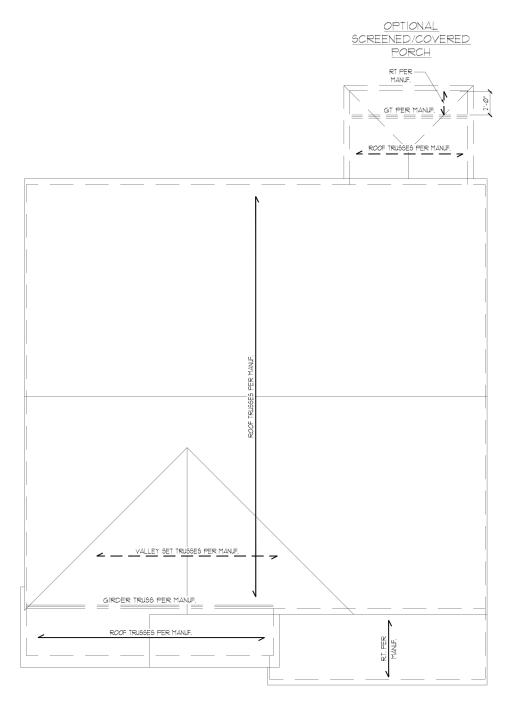
THESE PLANS ARE DESIGNED IN ACCORDANCE WITH ARCHITECTURAL, PLANS PROVIDED BY DR. HORTON COMPLETED/REVISED ON A/B/2/. IT IS THE RESPONSIBILITY OF THE CLIENT TO NOTIFY SUMMIT ENGINEERING, LABORATORY & TESTING, P.C., IF ANY CHANGES ARE MADE TO THE ARCHITECTURAL PLANS PRIOR TO CONSTRUCTION. SUMMIT ENGINEERING, LABORATORY & TESTING, P.C. CANNOT GUARANTEE THE ADEQUACY OF THESE STRUCTURAL PLANS WHEN USED WITH ARCHITECTURAL PLANS DATED DIFFERENTLY THAN THE DATE LISTED ABOVE.

STRUCTURAL MEMBERS ONLY

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.

ROOF FRAMING PLAN SCALE: 1/4"=1'-@" ON 22"x34" OR 1/8"=1'-@" ON 11"x17"



ELEVATION B.F.K.





Framing



DATE: 1/23/2021 8CALE: 22x34 1/4"=1"-@" lkd1 1/8"=1"-@" PROJECT 9 528-TØITT DRAWN BY: JOEF CHECKED BY: CTB

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

S5.1

Applicable Building Codes:

• 2018 North Carolina Residential Building Code with All Local Amendments 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			
	3.1. Importance Factor	1.0		

4. Floor Live Loads 4.1. Typ. Dwelling 40 PSF 30 PSF 4.2. Sleeping Areas . 40 PSF 4.3. Decks 50 PSF 4.4. Passenger Garage 5. Floor Dead Loads 10 PSF 5.1. Conventional 2x 5.2. I-Joist 15 PSF

7.1. Importance Factor.. 8. Component and Cladding (in PSF)

6. Ultimate Wind Speed (3 sec. gust) .

5.3. Floor Truss .

7. Exposure

•	,	•		
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

9. Seismic

9.1. Site Class . 9.2. Design Category . 9.3. Importance Factor

9.4. Seismic Use Group. 9.5. 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

9.6. Arch/Mech Components Anchored. 9.7. Lateral Design Control: Seismic ☐ Wind⊠ 10. Assumed Soil Bearing Capacity 2000psf



UES PROFESSIONAL SOLUTIONS 29, INC

FORMERLY SUMMIT ENGINEERING, LABORATORY, & TESTING INC.

STRUCTURAL PLANS PREPARED FOR:

STANDARD DETAILS (OX-IS)

PROJECT ADDRESS:

. 15 PSF

. PER PLAN

DR Horton Carolinas Division 8001 Arrowridge Blvd Charlotte, NC 28273

ARCHITECT/DESIGNER: GMD Design Group 1845 Satellite Blvd. Duluth, GA 30097

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 UES Professional Solutions 29, Inc. (UES) before construction begins.

<u>PLAN ABBREVIATIONS:</u>

AB	ANCHOR BOLT	PT	PRESSURE TREATED
AFF	ABOVE FINISHED FLOOR	RS	ROOF SUPPORT
CJ	CEILING JOIST	SC	STUD COLUMN
CLR	CLEAR	SJ	SINGLE JOIST
DJ	DOUBLE JOIST	SPF	SPRUCE PINE FIR
DSP	DOUBLE STUD POCKET	SST	SIMPSON STRONG-TIE
EE	EACH END	SYP	SOUTHERN YELLOW PINE
ΕW	EACH WAY	TJ	TRIPLE JOIST
NTS	NOT TO SCALE	TSP	TRIPLE STUD POCKET
OC	ON CENTER	TYP	TYPICAL
PSF	POUNDS PER SQUARE FOOT	UNO	UNLESS NOTED OTHERWISE
PSI	POUNDS PER SQUARE INCH	WWF	WELDED WIRE FABRIC

Roof truss and floor joist layouts, and their corresponding loading details, were not provided to UES Professional Solutions 29, Inc. (UES) prior to the initial design. Therefore, truss and joist directions were assumed based on the information provided by <u>DR Horton</u>, <u>Inc</u>. Subsequent plan revisions based on roof truss and floor joist layouts shall be noted in the revision list, indicating the date the layouts were provided. Should any discrepancies become apparent, the contractor shall notify UES immediately.

SHEET LIST:

CS1 Cover Sheet, Specifications, Revisions D1m Monolithic Slab Foundation Details D1s Stem Wall Foundation Details D1c Crawl Space Foundation Details D1b Basement Foundation Details D1f Framing Details	Sheet No.	Description
D1s Stem Wall Foundation Details D1c Crawl Space Foundation Details D1b Basement Foundation Details	CS1	Cover Sheet, Specifications, Revisions
D1c Crawl Space Foundation Details D1b Basement Foundation Details	D1m	Monolithic Slab Foundation Details
D1b Basement Foundation Details	D1s	Stem Wall Foundation Details
Business Foundation Bottom	D1c	Crawl Space Foundation Details
D1f Framing Datails	D1b	Basement Foundation Details
Truming Details	D1f	Framing Details

DR HORTON PROJECT SIGN-OFF:

Manager	Signature
Operations	
Operations System	
Operations Product Development	

SOLUTIONS 29, INC.

10121 Pineville Distribution St Pineville, NC 28134 Office: 704.504.1717 Fax: 704.504.1125

REVISION LIST:

Revision No.	Date	Project No.	Description
1	5.11.17		Added box bay detail (2/D2f). Added deck options with basement. Revised deck options with stem wal and crawl space foundations
2	7.12.17		Revised stem wall insulation note.
3	2.15.18		Revised garage door detail, NC only
4	2.28.18		Added high—wind foundation details
5	12.19.18		Revised per 2018 NCRC
6	2.19.19		Revised per Mecklenburg County Comments
7	3.1.19		Revised stem wall deck attachment and roof sheathing on wall sections.
8	3.6.19		Corrected dimensions at perimeter footings
9	3.2.20		Added tall turndown detail
10	3.18.20		Added balloon framing detail
11	10.20.20		Added alternate two-pour detail for slab and added note for crawl girder above grade
12	3.1.21		Added OX-IS Standard Details
13	5.18.21		Updated OX—IS Standard Details
14	02.14.23		Added 4/D2m — Tall Slab Detail w/ Siding
15	08.10.23		Updated (Hit HY150 Adhesive) for HY200 Adhesive
16	04.01.24		Added Hilti Kwik Bolt KBI 1/2-5 TO Wall Anchor Schedule
17	4.26.24		Update Wall Anchor Schedule
18	5.06.24		Update Wall Anchor Schedule

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05.06.2024

STRUCTURAL MEMBERS ONLY

DATE: 05/06/2024 SCALE: 22x34 1/4"=1'-0" 11x17 1/8"=1'-0" PROJECT #: A21117.00066.000 DRAWN BY: MGC CHECKED BY: GWS

ORIGINAL INFORMATION PROJECT # DATE 1/31/2017

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

GENERAL STRUCTURAL NOTES:

- The design professional whose seal appears on these drawings is the structural engineer of record (SER) for this project. The SER bears the responsibility of the primary structural elements and the performance of this structure. No other party may revise, alter, or delete any structural aspects of these construction documents without written permission of UES Professional Solutions 29, Inc. (UES) or the SER. For the purposes of these construction documents the SER and UES shall be considered the
- ?. 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 UES 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 UES. 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 UES 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.
- . This structure and all construction shall conform to all applicable sections of the international residential code. 8. This structure and all construction shall conform to all applicable
- sections of local building codes. 9. All structural assemblies are to meet or exceed to requirements of the current local building code.

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.

- 2. 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
- 3. Any fill shall be placed under the direction or recommendation of a licensed professional engineer. 4. The resulting soil shall be compacted to a minimum of 95%
- maximum dry density. 5. 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. 6. No concrete shall be placed against any subgrade containing water, ice, frost, or loose material.

STRUCTURAL STEEL:

- . Structural steel shall be fabricated and erected in accordance with the American Institute of Steel Construction "Code of Standard Practice for Steel Buildings and Bridges" and the manual of Steel Construction "Load Resistance Factor Design" latest editions.
- 2. Structural steel shall receive one coat of shop applied rust-inhibitive paint.
- 3. All steel shall have a minimum yield stress (F_v) of 36 ksi unless otherwise noted.
- 4. 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 shall have a normal weight aggregate and a minimum compressive strength (f'c) at 28 days of 3000 psi, unless otherwise noted on the plan.
- Concrete shall be proportioned, mixed, and placed in accordance with the latest editions of ACI 318: "Building Code Requirements for Reinforced Concrete" and ACI 301: "Specifications for Structural Concrete for Buildings".
- 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 otherwise noted.
- 8. Control or saw cut joints shall be produced using conventional process within 4 to 12 hours after the slab has been finished
- 9. Reinforcing steel may not extend through a control joint. Reinforcing steel may extend through a saw cut joint. 10. 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

CONCRETE REINFORCEMENT:

supported during the concrete pour.

- 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
- 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
- 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.

shall have 90° bends, or corner bars with the same size/spacing

- 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
- 10. Where reinforcing steel is required vertically, dowels shall be provided unless otherwise noted. 11. Unless otherwise specified, concrete reinforcing is not required.

- 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
- Spruce-Yellow-Pine (SYP) #2. 2. LVL or PSL engineered wood shall have the following minimum design values:
 - 2.1. E = 1,900,000 psi2.2. $F_{b} = 2600 \text{ psi}$
- 2.3. $F_v = 285 \text{ psi}$ 2.4. $F_c = 700 \text{ psi}$ 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) 10d nails @ 24" 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. per schedule 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:

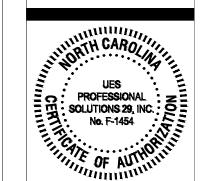
- 1. The wood truss manufacturer/fabricator is responsible for the design of the wood trusses. Submit sealed shop drawings and supporting calculations to the SER for review prior to fabrication. The SER shall have a minimum of five (5) days for review. The review by the SER shall review for overall compliance with the design documents. The SER shall assume no responsibility for
- the correctness for the structural design for the wood trusses. 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 7-05), 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. 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."
- 4. 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
- 5. 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
- 2. All structurally required wood sheathing shall bear the mark of
- 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 end 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.



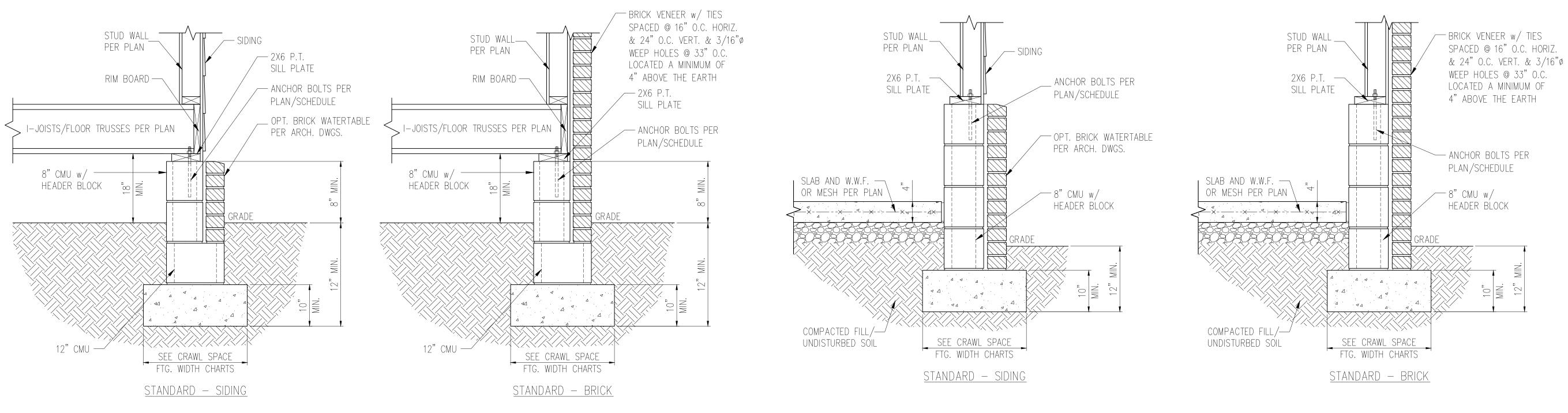


DRAWING DATE: 05/06/2024 SCALE: 22x34 1/4"=1'-0" 11x17 1/8"=1'-0" PROJECT #: A21117.00066.000 DRAWN BY: MGC CHECKED BY: GWS

ORIGINAL INFORMATION PROJECT # DATE 1/31/2017

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

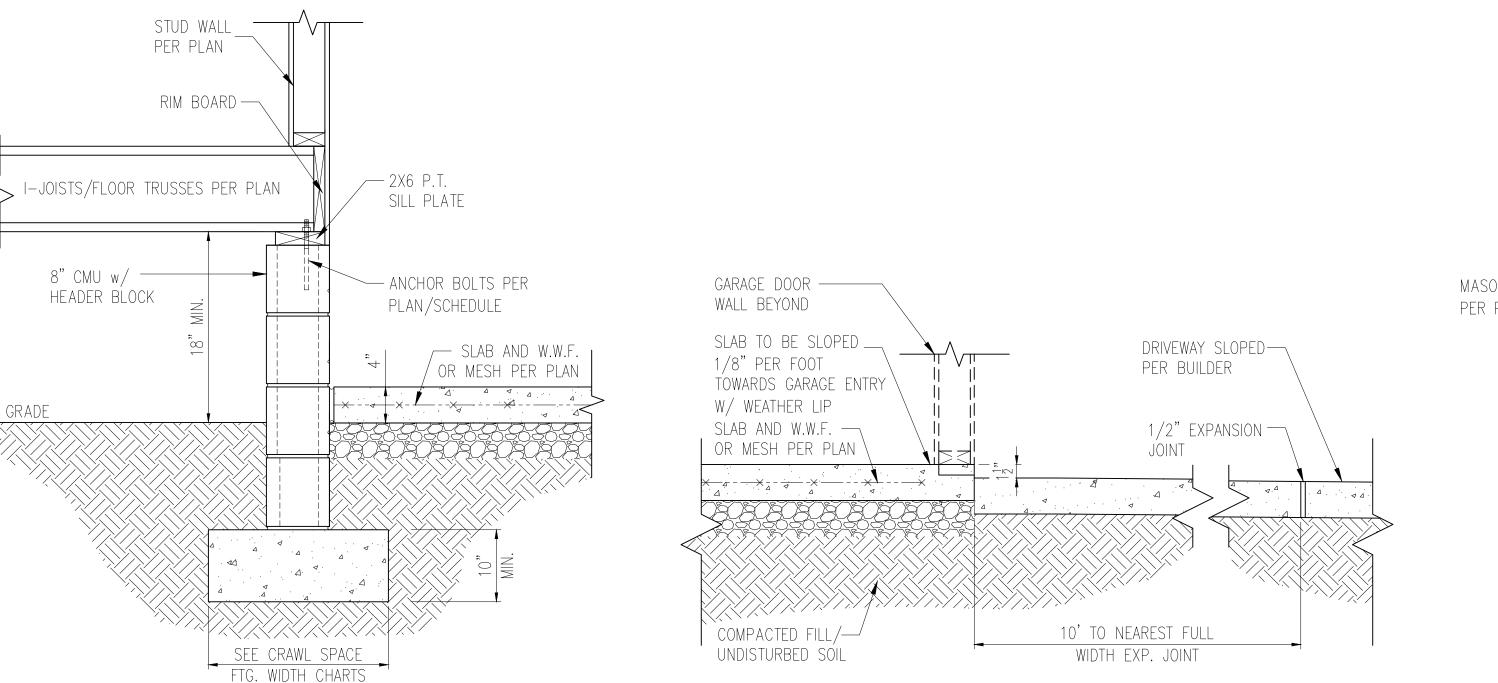
D1c



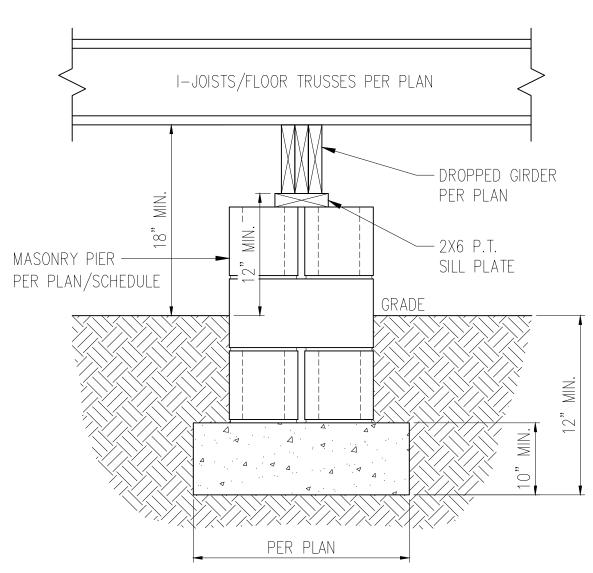
1 TYP. FOUNDATION WALL DETAIL

3 HOUSE/GARAGE WALL DETAIL

TYP. GARAGE CURB DETAIL



4 SLAB AT GARAGE DOOR



5 TYP. PIER & GIRDER DETAIL

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 64" HEIGHT	UP TO 12'-0" HEIGHT*			
	I .	UP TO 12'-0" HEIGHT*			
*(4) #4 CONT. REBAR w/ #3 STIRRUPS @ 16" O.C.					
AND 24" MIN. LAP JOINTS					

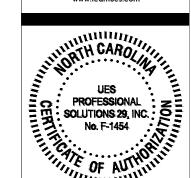
CRAWL SPACE FOOTING WIDTH

7710 111					
WIDTH BASED	ON SOIL BEARIN	IG CAPACITY			
1500 PSF	2000 PSF	2500 PSF			
16"	16"	16"			
21"*	21"*	21"*			
16"	16"	16"			
21"*	21"*	21"*			
23"	18"	18"			
32"*	24"*	24"*			
*5" BRICK LEDGE HAS BEEN ADDED TO THE CRAWL SPACE					
FOOTING WIDTH FOR BRICK SUPPORT					
	WIDTH BASED 1500 PSF 16" 21"* 16" 21"* 23" 32"* ADDED TO THE	WIDTH BASED ON SOIL BEARING 1500 PSF 2000 PSF 16" 16" 21"* 21"* 16" 16" 21"* 21"* 23" 18" 32"* 24"* ADDED TO THE CRAWL SPACE			

WALL ANCHOR SCHEDULE				
TYPE OF ANCHOR	MIN. CONC.	SPACING	INTERIOR	EXTERIOR
	EMBEDMENT		WALL	WALL
1/2"ø A307 BOLTS w/	7"	6'-0"	YES	YES
STD. 90° BEND				
SST - MAS	4"	5'-0"	NO	YES
SIMPSON TITEN HD 1/2"ø - 8"	6-1/2"	6'-0"	YES	YES
1/2"ø HILTI THREADED ROD	7"	6'-0"	YES	YES
w/ HIT HY150 ADHESIVE				
1/2"ø HILTI KWIK BOLT,	7"	6'-0"	YES	YES -2
SST WEDGE-ALL, OR EQUIVALENT				
WEDGE ANCHORE				

NOTE: 1. INSTALL ALL ANCHORS 12" MAX. FROM ALL BOTTOM PLATE ENDS AND JOINTS. 2. EXPANSION ANCHORS MAY BE INSTALLED ONLY AS ALLOWED PER MANUFACTURE SPECIFICATIONS.

- 1. REFER TO GENERAL NOTES & SPECIFICATIONS ON COVERSHEET FOR ADDITIONAL INFORMATION.
- 2. PROVIDE 6 MIL VAPOR BARRIER UNDER ALL SLABS-ON-GRADE. 3. SEE ARCH. DWGS. FOR ALL TOP OF THE SLAB ELEVATIONS, SLOPES AND DEPRESSIONS.
- 4. REFER TO STRUCTURAL PLANS AND FRAMING DETAILS FOR BRACED WALL PANEL LAYOUT, DIMENSIONS, ATTACHMENT AND CONNECTIONS
- 5. REFER TO LOCAL AND STATEWIDE CODES FOR ADDITIONAL AMENDMENTS AND REQUIREMENTS NOT SHOWN
- 6. PERIMETER INSULATION SHOWN AS REQUIRED BY LOCAL CLIMATE ZONE. INSTALL PER TABLE N1102.1.2 OF THE 2018 NCRC



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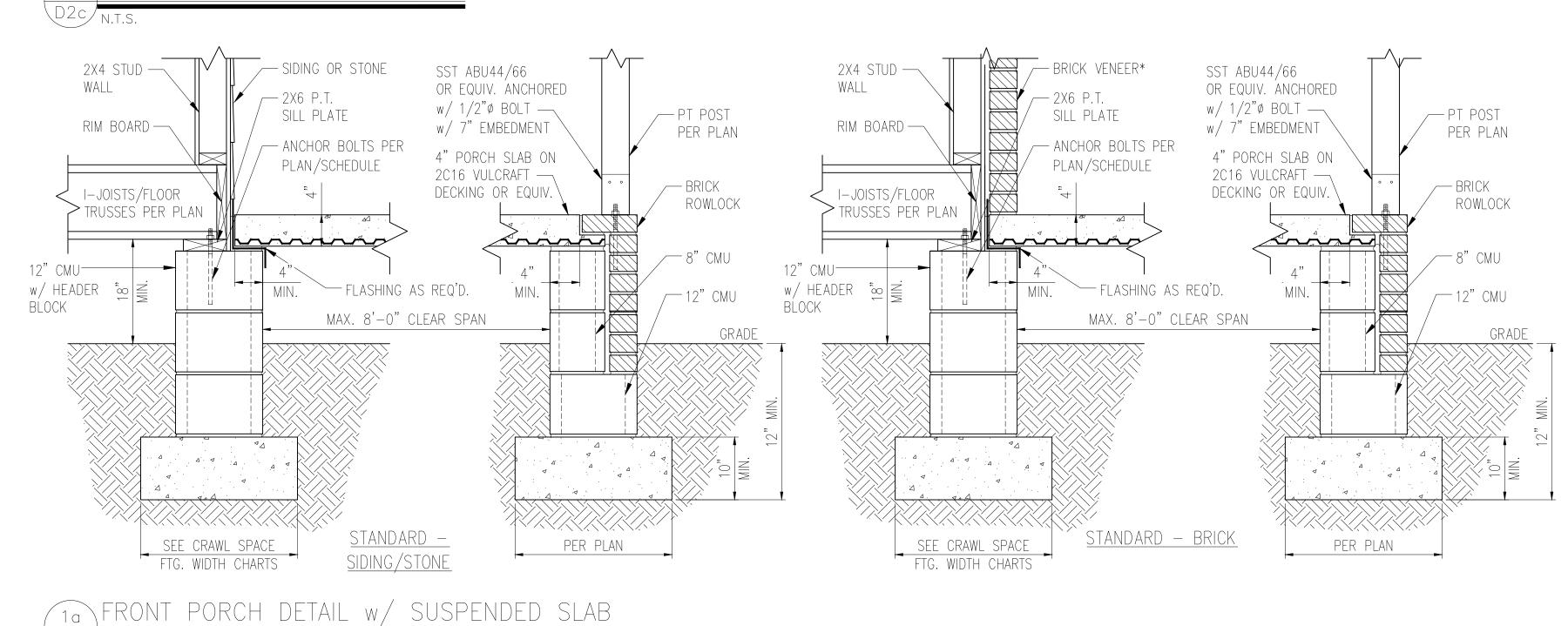
DATE: 05/06/2024 SCALE: 22x34 1/4"=1'-0" 11x17 1/8"=1'-0" PROJECT #: A21117.00066.000 DRAWN BY: MGC CHECKED BY: GWS

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SIDING OR STONE BRICK VENEER* 2X4 STUD — 2X4 STUD — SST ABU44/66 SST ABU44/66 WALL OR EQUIV. ANCHORED OR EQUIV. ANCHORED SILL PLATE PT POST SILL PLATE PT POST w/ 1/2"ø BOLT w/ 1/2"ø BOLT — RIM BOARD — RIM BOARD — PER PLAN PER PLAN w/ 7" EMBEDMENT w/ 7" EMBEDMENT — ANCHOR BOLTS PER — ANCHOR BOLTS PER PLAN/SCHEDULE PLAN/SCHEDULE PORCH SLAB — PORCH SLAB — /— BRICK PER PLAN PER PLAN I-JOISTS/FLOOR I-JOISTS/FLOOR ROWLOCK ROWLOCK TRUSSES PER PLAN TRUSSES PER PLAN ∕—8"CMU ∕—8"CMU 8" CMU -8"CMU ____12" CMU ____12" CMU w/ HEADER [™] ₩ w/ HEADER °∞ \ BĹOCK BLOCK GRADE COMPACTED FILL/ UNDISTURBED SOIL COMPACTED FILL/ UNDISTURBED SÓIL <u>Standard —</u> STANDARD - BRICK PER PLAN SEE CRAWL SPACE PER PLAN SIDING/STONE FTG. WIDTH CHARTS FTG. WIDTH CHARTS

FRONT PORCH DETAIL



	· · · · · · · · · · · · · · · · · · ·
MAX. 8'-0" JOIST	MAX. 16'-0" JOIST
SPAN	SPAN
(1) @ 3'-6" O.C.	(1) @ 1'-8" O.C.
AND	AND
(2) @ 8" O.C.	(3) @ 6" O.C.
	SPAN (1) @ 3'-6" O.C. AND

DECK ATTACHMENT SCHEDULE (ALL STRUCTURES EXCEPT BRICK)

- a. ATTACHMENT INTERPOLATION BETWEEN 8' AND 16' JOIST SPANS IS ALLOWED.
- b. MINIMUM EDGE DISTANCE FOR BOLTS IS $2\frac{1}{2}$ ".
- c. NAILS MUST PENETRATE THE SUPPORTING STRUCTURE BAND A MINIMUM OF $1\frac{1}{2}$ "

DECK ATTACHMENT SCHEDULE (BRICK STRUCTURES)

FASTENERS	MAX. 8'-0" JOIST	MAX. 16'-0" JOIST
	SPAN	SPAN
5/8" GALV. BOLTS w/ NUT & WASHER b	(1) @ 2'-4" O.C.	(1) @ 1'-4" O.C.

- a. ATTACHMENT INTERPOLATION BETWEEN 8' AND 16' JOIST SPANS IS ALLOWED.
- b. MINIMUM EDGE DISTANCE FOR BOLTS IS $2\frac{1}{2}$ ".

CRAWL SPACE FOOTING WIDTH

FOOTING WIDTH FOR BRICK SUPPORT

WIDTH BASED ON SOIL BEARING CAPACITY				
1500 PSF	2000 PSF	2500 PSF		
16"	16"	16"		
21"*	21"*	21"*		
16"	16"	16"		
21"*	21"*	21"*		
23"	18"	18"		
32"*	24"*	24"*		
	1500 PSF 16" 21"* 16" 21"* 23"	1500 PSF 2000 PSF 16" 16" 21"* 21"* 16" 16" 21"* 21"* 23" 18"		

*5" BRICK LEDGE HAS BEEN ADDED TO THE CRAWL SPACE

*BRICK TIES SPACED @ 16" O.C. HORIZ. & 24" O.C. VERT. AND 3/16"Ø WEEP HOLES @ 33" O.C. LOCATED A MINIMUM OF 4" ABOVE THE EARTH

2 DECK ATTACHMENT DETAIL

SEE CRAWL SPACE FTG. WIDTH CHARTS

STANDARD - SIDING/STONE

ANCHOR BOLTS PER PLAN SCHEDULE —

2X6 P.T. -

SILL PLATE

8" CMU w/ —

HEADER BLOCK

12" CMU -

RIM BOARD —

I-JOISTS/FLOOR TRUSSES PER PLAN

____ SIDING OR STONE

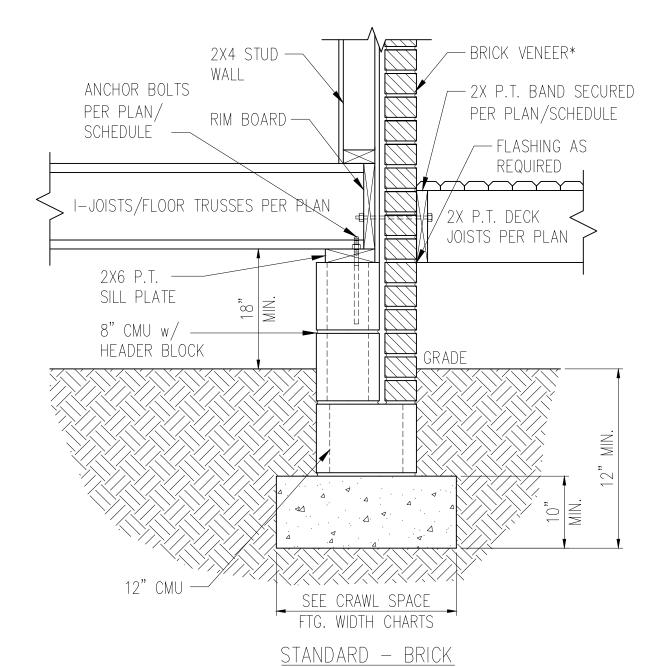
— 2X P.T. BAND SECURED

FLASHING AS

REQUIRED

PER PLAN/SCHEDULE

2X P.T. DECK JOISTS PER PLAN



3 DECK ATTACHMENT DETAIL W/ BRICK

- 1. REFER TO GENERAL NOTES & SPECIFICATIONS ON COVERSHEET FOR ADDITIONAL INFORMATION.
- 2. PROVIDE 6 MIL VAPOR BARRIER UNDER ALL SLABS-ON-GRADE. 3. SEE ARCH. DWGS. FOR ALL TOP OF THE SLAB ELEVATIONS, SLOPES AND DEPRESSIONS.
- 4. REFER TO STRUCTURAL PLANS AND FRAMING DETAILS FOR BRACED WALL PANEL LAYOUT, DIMENSIONS, ATTACHMENT AND CONNECTIONS
- 5. REFER TO LOCAL AND STATEWIDE CODES FOR ADDITIONAL AMENDMENTS AND REQUIREMENTS NOT SHOWN
- 6. PERIMETER INSULATION SHOWN AS REQUIRED BY LOCAL CLIMATE ZONE. INSTALL PER TABLE N1102.1.2 OF THE 2018 NCRC

D2c

10121 Pineville Distribution St Pineville, NC 28134 Office: 704.504.1717 Fax: 704.504.1125 www.teamues.com

DRAWING

DATE: 05/06/2024

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

PROJECT #: A21117.00066.000

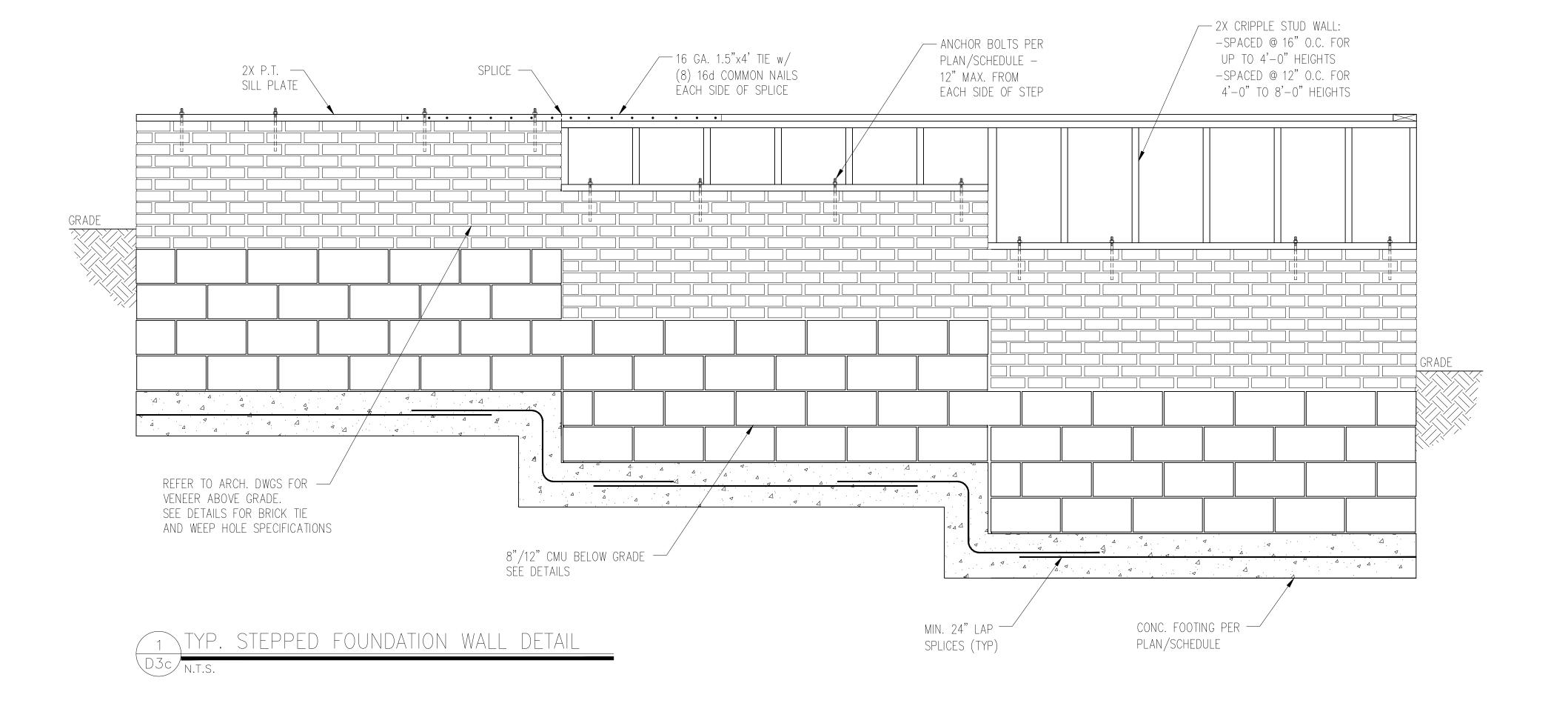
DRAWN BY: MGC

CHECKED BY: GWS

ORIGINAL INFORMATION
PROJECT # DATE
1/31/2017

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

D3c



NOTE

1. REFER TO GENERAL NOTES & SPECIFICATIONS ON COVERSHEET FOR ADDITIONAL INFORMATION.

 PROVIDE 6 MIL VAPOR BARRIER UNDER ALL SLABS—ON—GRADE.
 SEE ARCH. DWGS. FOR ALL TOP OF THE SLAB ELEVATIONS, SLOPES AND DEPRESSIONS.

4. REFER TO STRUCTURAL PLANS AND FRAMING DETAILS FOR BRACED WALL PANEL LAYOUT, DIMENSIONS, ATTACHMENT AND CONNECTIONS

5. REFER TO LOCAL AND STATEWIDE CODES FOR ADDITIONAL AMENDMENTS AND REQUIREMENTS NOT SHOWN

6. PERIMETER INSULATION SHOWN AS REQUIRED BY LOCAL CLIMATE ZONE. INSTALL PER TABLE N1102.1.2 OF THE 2018 NCRC



Details

05.06.2024

DRAWING DATE: 05/06/2024 SCALE: 22x34 1/4"=1'-0" 11x17 1/8"=1'-0" PROJECT #: A21117.00066.000 DRAWN BY: MGC CHECKED BY: GWS

1. REFER TO GENERAL NOTES & SPECIFICATIONS ON COVERSHEET

2. PROVIDE 6 MIL VAPOR BARRIER UNDER ALL SLABS-ON-GRADE.

BRACED WALL PANEL LAYOUT, DIMENSIONS, ATTACHMENT AND

6. PERIMETER INSULATION SHOWN AS REQUIRED BY LOCAL CLIMATE

ZONE. INSTALL PER TABLE N1102.1.2 OF THE 2018 NCRC

3. SEE ARCH. DWGS. FOR ALL TOP OF THE SLAB ELEVATIONS,

4. REFER TO STRUCTURAL PLANS AND FRAMING DETAILS FOR

5. REFER TO LOCAL AND STATEWIDE CODES FOR ADDITIONAL

AMENDMENTS AND REQUIREMENTS NOT SHOWN

FOR ADDITIONAL INFORMATION.

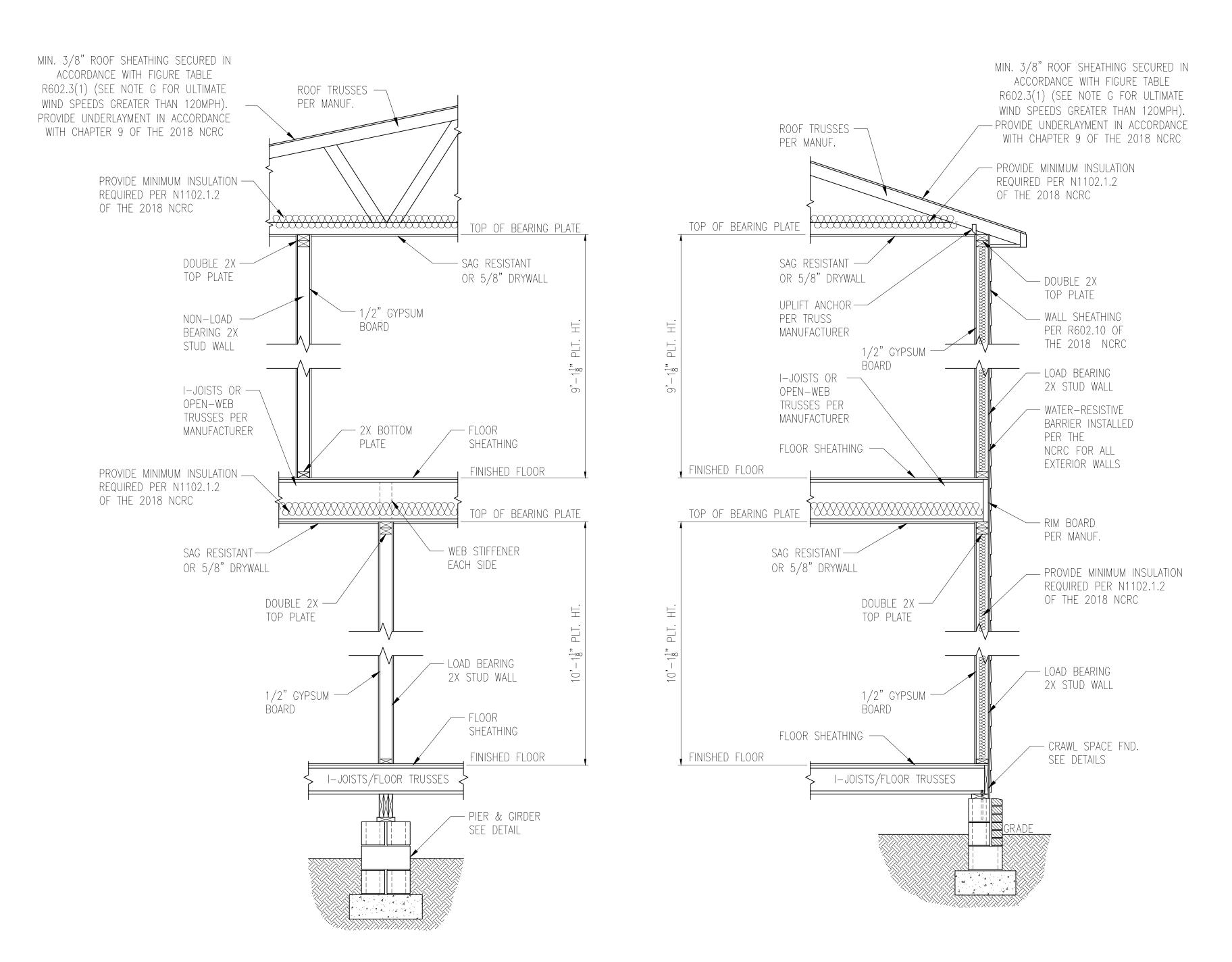
SLOPES AND DEPRESSIONS.

CONNECTIONS

ORIGINAL INFORMATION PROJECT # DATE 1/31/2017

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

D4c



1 TYP. INTERIOR LOAD BEARING WALL SECTION

2 TYP. EXTERIOR LOAD BEARING WALL SECTION

-SIMILAR w/ BRICK AND STONE

-BRICK TIES SPACED @ 16" O.C. HORIZ. & 24" O.C. VERT. -MIN. 3/16"ø WEEP HOLES @ 33" O.C.

<u>SECTION</u>



OVER RAISED WOOD FLOOR - OVERLAP OPTION

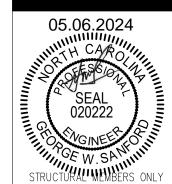
FRONT ELEVATION





CLIENI: DR Horton Carolina Divis 8001 Arrowridge Blvd. Charlotte, NC 28273

Standard Details (OX-IS)
Framing Details



DATE: 05/06/2024

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

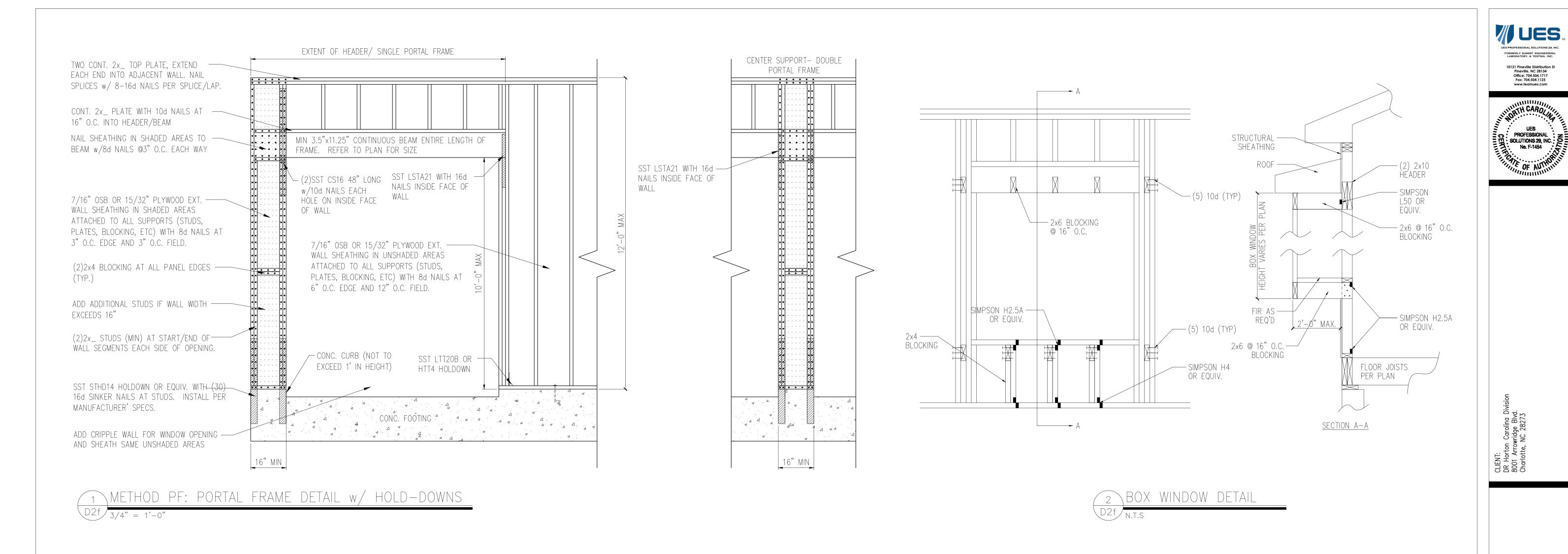
PROJECT #: A21117.00066.000

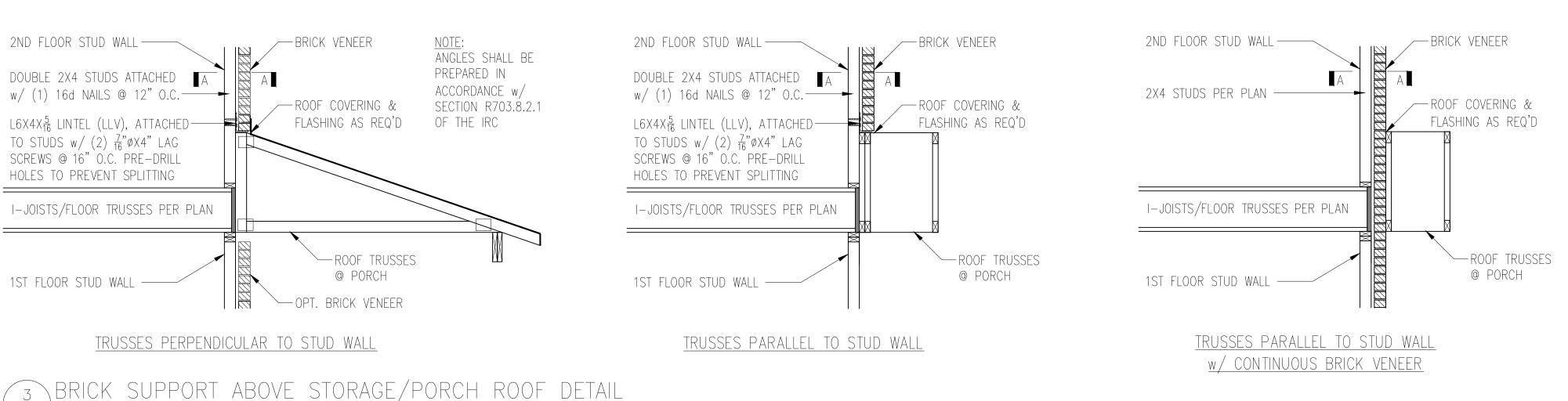
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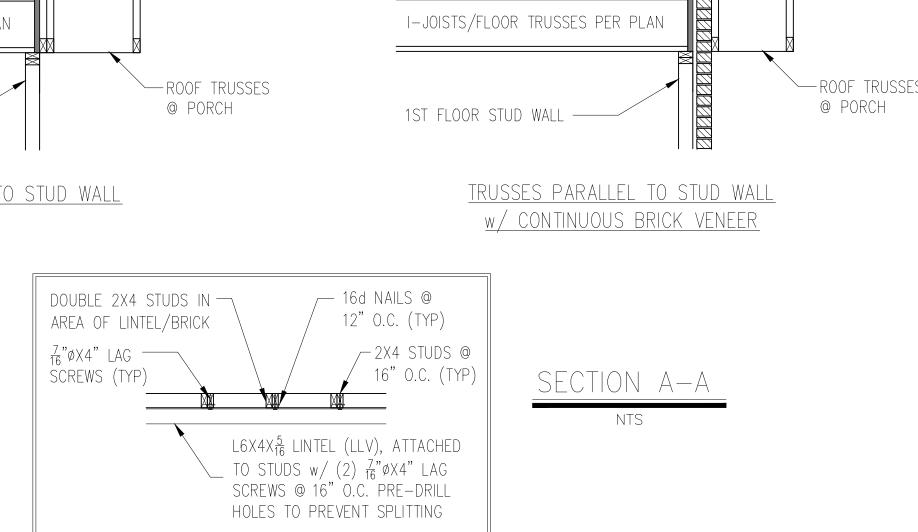
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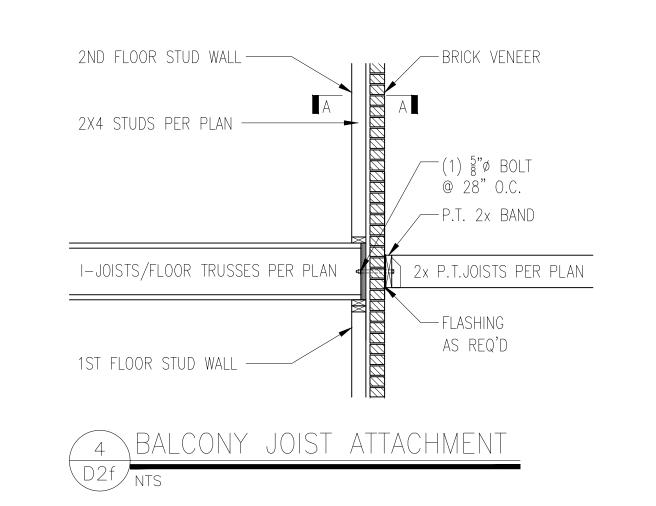
ORIGINAL INFORMATION
PROJECT # DATE
1/31/2017

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS











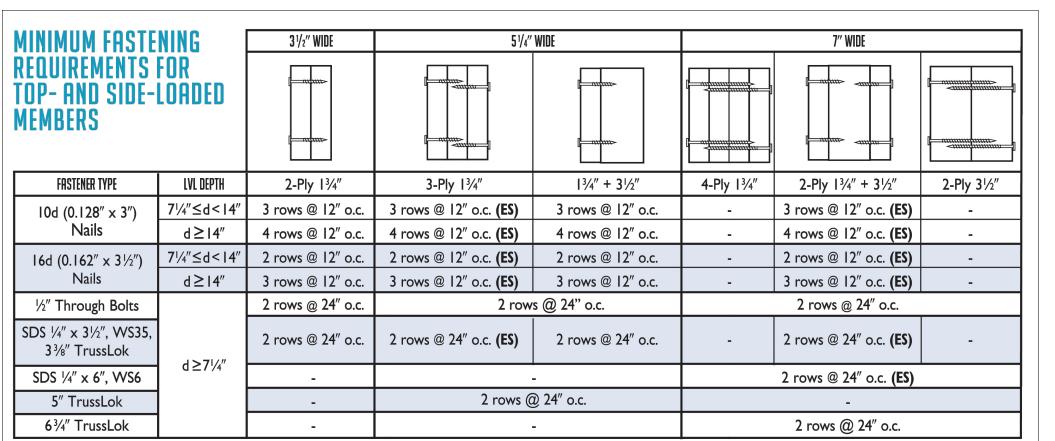
(ox-IS) Details

STRUCTURAL MEMBERS ONLY

DATE: 05/06/2024 SCALE: 22x34 1/4"=1'-0" 11x17 1/8"=1'-0" PROJECT #: A21117.00066.000 DRAWN BY: MGC CHECKED BY: GWS

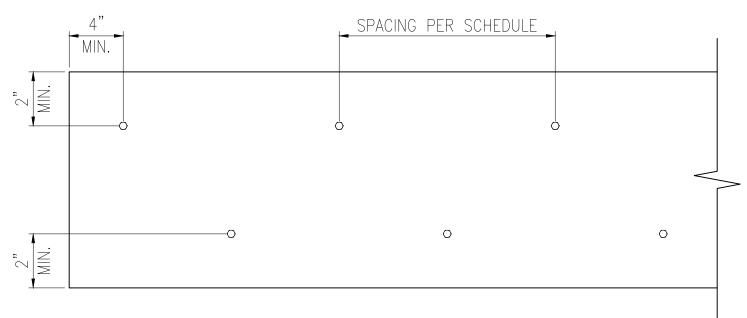
ORIGINAL INFORMATION

PROJECT # DATE 1/31/2017 REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS



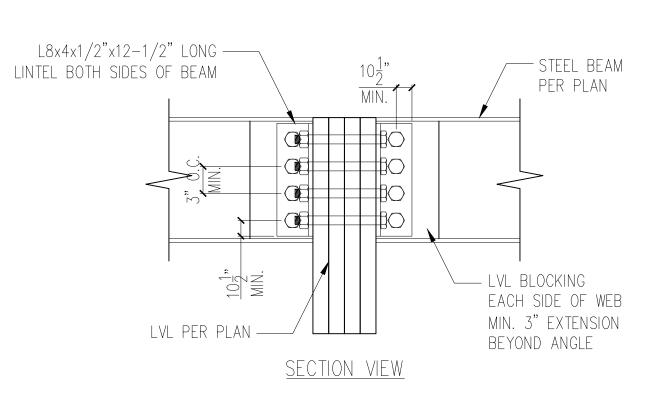
NOTES:

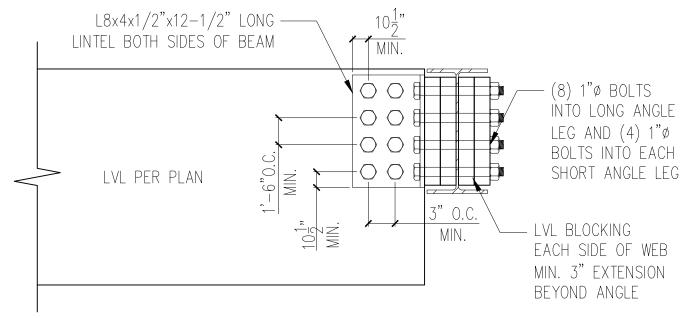
- I.All fasteners must meet the minimum requirements in the table above. Side-loaded multiple-ply members must meet the minimum fastening and side-loading capacity requirements given on page 48.
- 2. Minimum fastening requirements for depths less than $7\frac{1}{4}$ " require special consideration. Please contact your technical representative.
- 3. Three general rules for staggering or offsetting for a certain fastener schedule:
- (I) if staggering or offsetting is not referenced, then none is required; (2) if staggering is referenced, then fasteners installed in adjacent rows on the front side are to be staggered up to one-half the o.c. spacing, but maintaining the fastener
- clearances above; and (3) if "ES" is referenced, then the fastener schedule must be repeated on each side, with the fasteners on the back side offset up to one-half the o.c. spacing of the front side (whether or not it is staggered).



ELEVATION VIEW

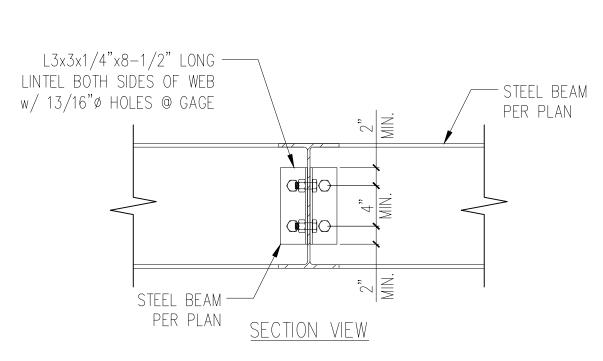
MULTI-PLY BEAM CONNECTION DETAIL

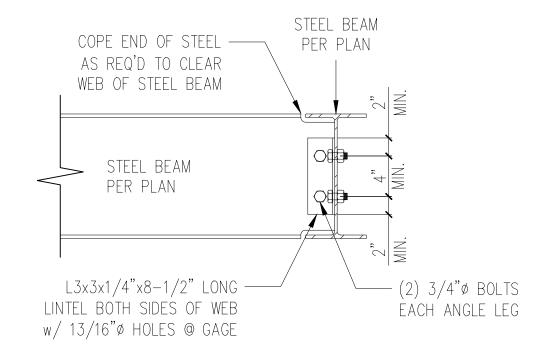




ELEVATION VIEW

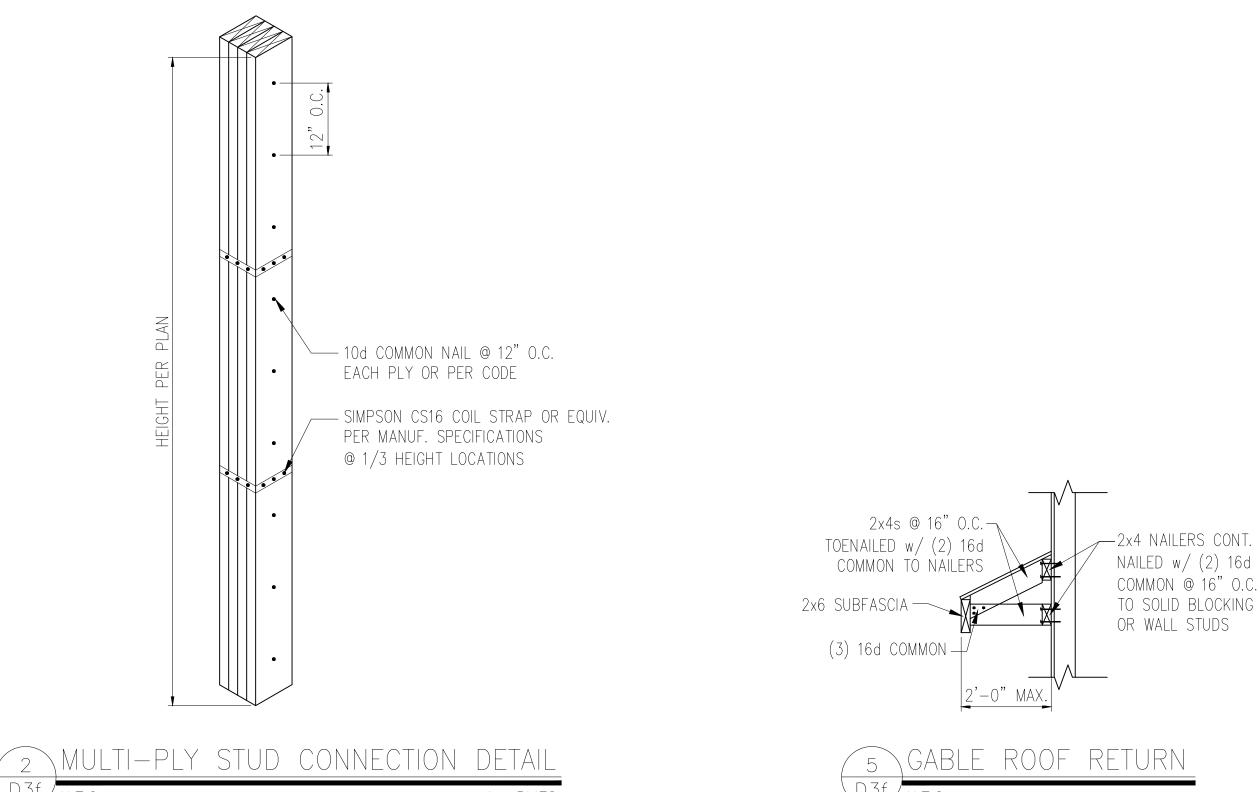


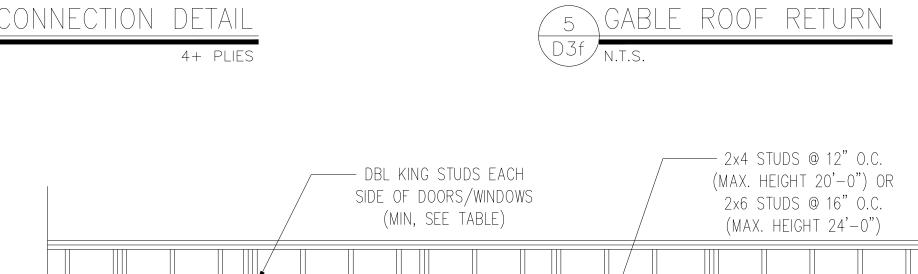


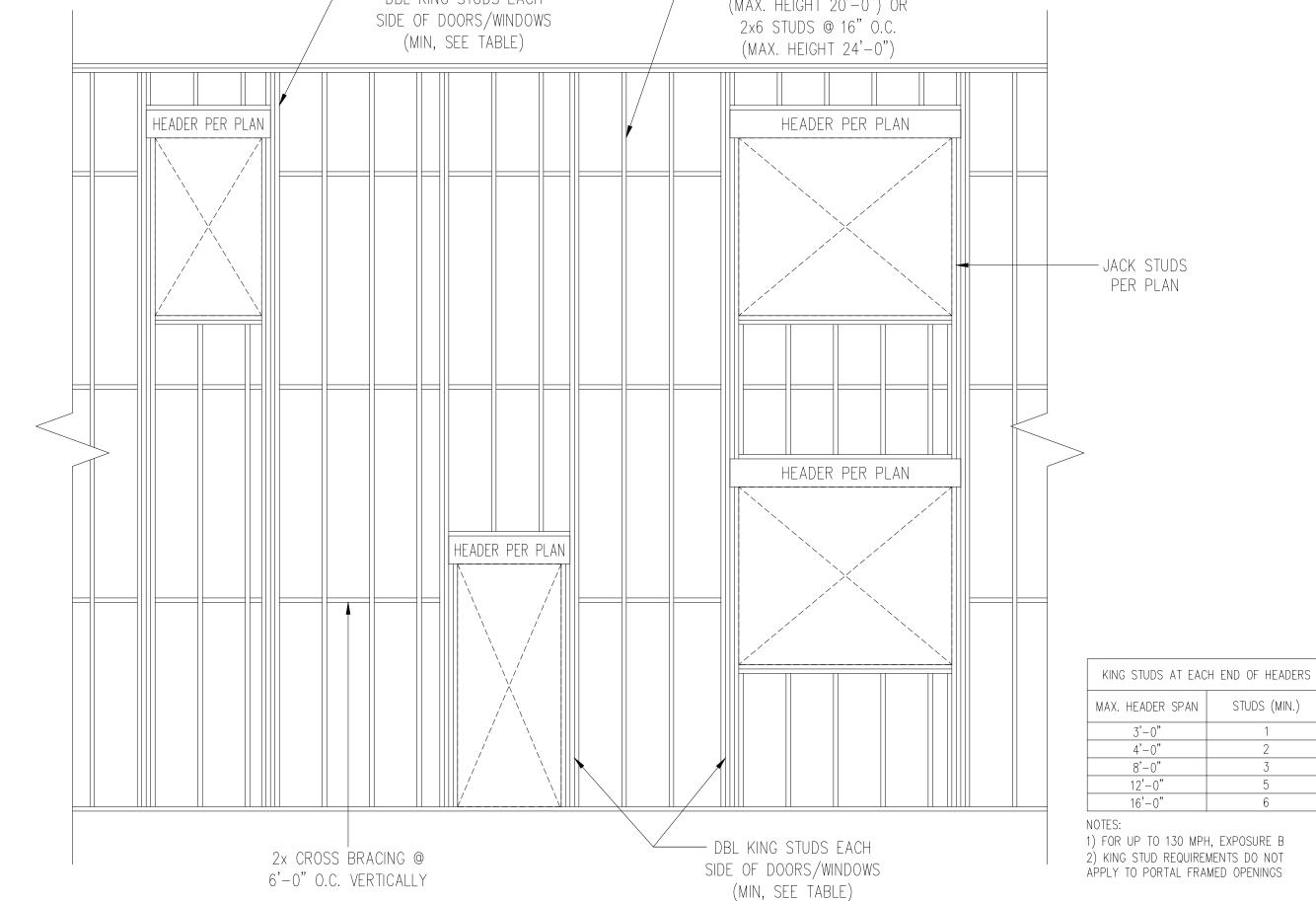


ELEVATION VIEW









TYP. BALLOON FRAMING DETAIL





Details (0X-IS)



DATE: 05/06/2024 SCALE: 22x34 1/4"=1'-0" 11x17 1/8"=1'-0" PROJECT #: A21117.00066.000 DRAWN BY: MGC CHECKED BY: GWS

4'-0" 8'-0"

> ORIGINAL INFORMATION PROJECT # DATE 1/31/2017

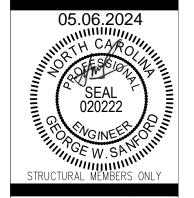
REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

YP. EXTERIOR CORNER ATTACHMENT

WUES FORMERLY SUMMIT ENGINEERING, LABORATORY, & TESTING, INC. 10121 Pineville Distribution St Pineville, NC 28134 Office: 704.504.1717 Fax: 704.504.1125 www.teamues.com



Details (0X-IS)

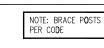


DATE: 05/06/2024 DRAWN BY: MGC CHECKED BY: GWS

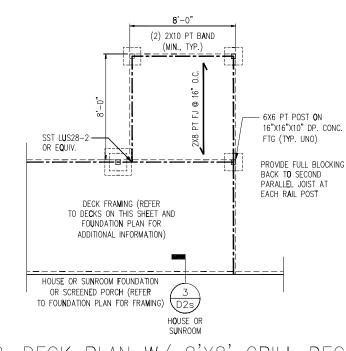
> ORIGINAL INFORMATION PROJECT # DATE 1/31/2017

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

D4f



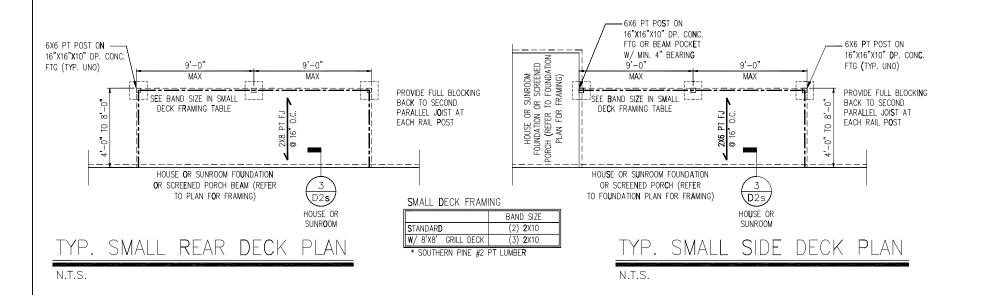
SÜMMIT



PROVIDE FULL BLOCKING

TYP. DECK PLAN W/ 8'X8' GRILL DECK

N.T.S.



- SEE INT**E**RMEDIATE

FRAMING TABLE

MAX

DECK FRAMING TABLE

R SUNROOM
OR SCREENED
TO FOUNDATION
R FRAMING)

HOUSE OR FOUNDATION O ORCH (REFER T

INTERMIEDIATE FOOTING

16"x16"x10

24"x24"x10"

6X6 PT POST ON-

HOUSE OR S FOUNDATION OF ORCH (REFER TO PLAN FOR F

BAND SIZE* INTERMIEDIATE FOOTING

16**"x**16"x10

(2) 2X10

(3) 2X10

16"X16"X10" DP. CQNC.

FTG OR BEAM POCKET

W/ MIN. 4" BEARING

SEE BAND SIZE IN

HOUSE OR SUNROOM FOUNDATION

OR SCREENED PORCH (REFER

TO FOUNDATION PLAN FOR FRAMING)

N.T.S.

SEE BAND SIZE IN

DECK FRAMING TABLE

HOUSE OR SUNROOM FOUNDATION

OR SCREENED PORCH (REFER TO FOUNDATION PLAN FOR FRAMING)

N.T.S.

FOOTING IN LARGE DECK

MAX

D2s/

HOUSE OR

SUNR**O**OM

- SEE INTERMEDIATE

FOOTING IN DECK

D2s

HOUSE OR

SUNROOM

SIDE DECK PLAN

FRAMING TABLE

<u>- t</u>

LARGE SIDE DECK PLAN

- 6X6 PT POST ON

16"X16"X10" DP. CONC. FTG (TYP. UNO)

PROVIDE FULL BLOCKING BACK TO SECOND

- 6X6 PT POST ON

FTG (TYP. UNO)

BACK TO SECOND PARALLEL JOIST AT

EACH RAIL POST

16"X16"X10" **D**P. CON**C**.

PROVIDE FULL BLOCKI**N**G

PARALLEL JOIST AT

EACH RAIL POST

- SEE INTERMEDIATE

FRAMING TABLE

MAX

D2s

HOUSE OR

SUNROOM

SEE INTERMEDIATE

FOOTING IN DECK

MAX

HOUSE OR

FRAMING TABLE

PROVIDE FULL BLOCKING BACK TO SECOND

LARGE DECK FRAMING

W/ 8'X8' GRILL DECK

PROVIDE FULL BLOCKING

BACK TO SECOND

EACH RAIL POST

DECK FRAMING

W/ 8'X8' GRILL DECK

* SOUTHERN PINE #2 PT LUMBER

STANDARD

PARALLEL JOIST AT

PARALLEL JOIST AT

EACH RAIL POST

MAX

(MIN., TYP.)

2) **2**X12 PT BAND

HOUSE OR SUNROOM FOUNDATION

OR SCREENED PORCH (REFER

TO FOUNDATION PLAN FOR FRAMING)

LARGE REAR DECK PLAN

SEE BAND SIZE IN

DECK FRAMING TABLE

HOUSE OR SUNROOM FOUNDATION

OR SCREENED PORCH BEAM (REFER

TO PLAN FOR FRAMING)

REAR DECK PLAN

FTG (TYP. UNO)

N.T.S.

6X6 PT POST ON

FTG (TYP. UNO)

N.T.S.

16"X16"X10" DP. CONC.

FOOTING IN LARGE DECK



- $\underline{\text{NOTES:}}$ 1. Refer to general notes & Specifications on Coversheet FOR ADDITIONAL INFORMATION.
- 2. PROVIDE 6 MIL VAPOR BARRIER UNDER ALL SLABS-ON-GRADE. 3. SEE ARCH. DWGS. FOR ALL TOP OF THE SLAB ELEVATIONS,
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- 6. PERIMETER INSULATION SHOWN AS REQUIRED BY LOCAL CLIMATE ZONE. INSTALL PER TABLE N1102.1.2 OF THE IRC

Details Wall PROJECT: Standard I Stem STRUCTURAL MEMBERS ONLY

Details

Foundation

CLIENT: DR Hort 8001 A

DATE: 3/2/2010 8CALE: 22±34 1/4"∗1"-**6**" Ibd1 1/8"∗1"-**6**" PROJECT & 528-Ø6R

DRAWN BY: LAG

CHECKED BY: WAJ ORIGINAL INFORMATION
PROJECT * DATE
1/31/2011

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

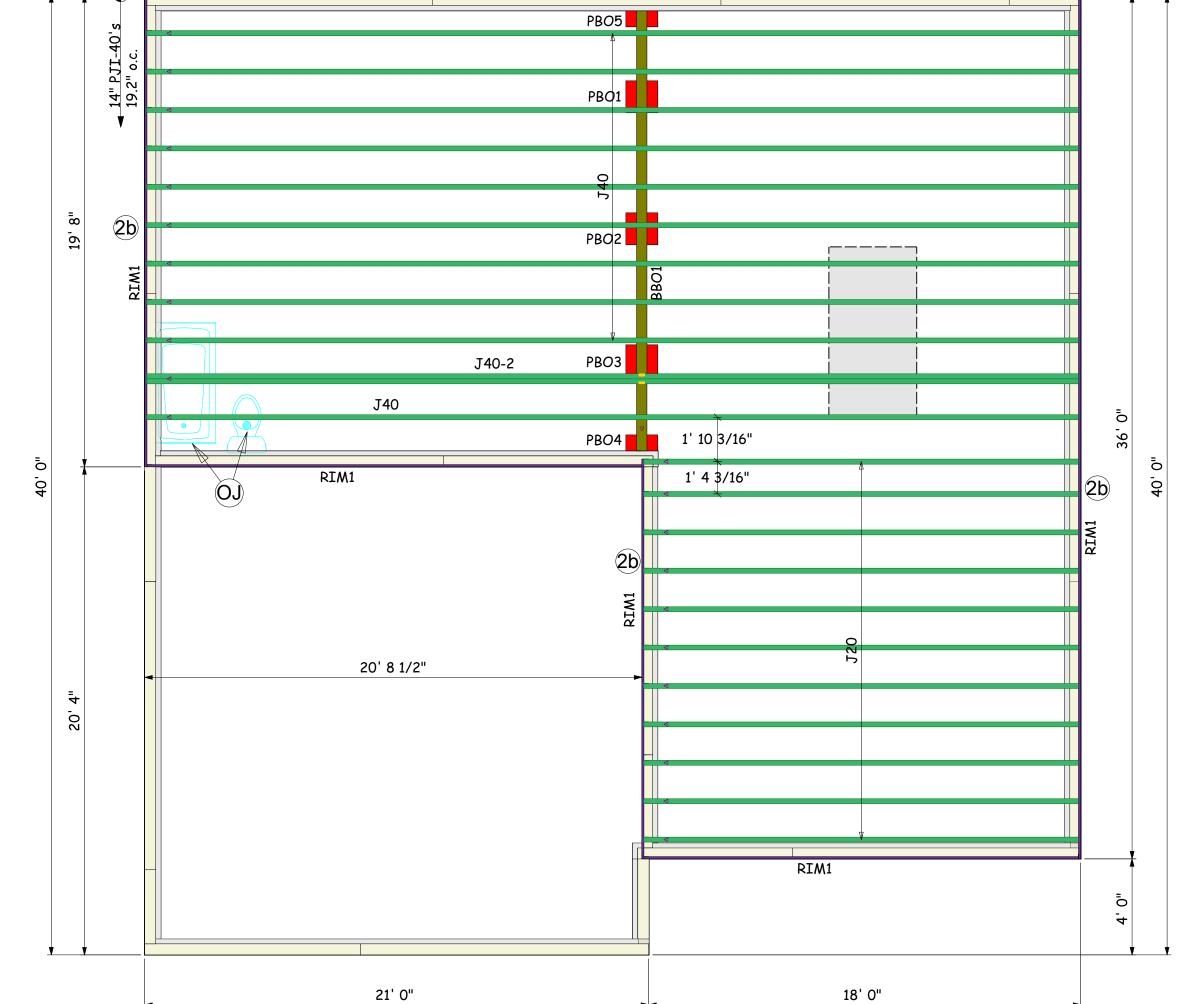
D3s

Products PlotID Length Plies Net Qty Product 40-00-00 14" PJI-40 40-00-00 14" PJI-40 20-00-00 14" PJI-40

	Accessories					
PlotID	Length	Product	Plies	Net Qty		
		3/4" 4x8 OSB	1	34		

12-00-00 1 1/8" x 14" APA Rim Board 1

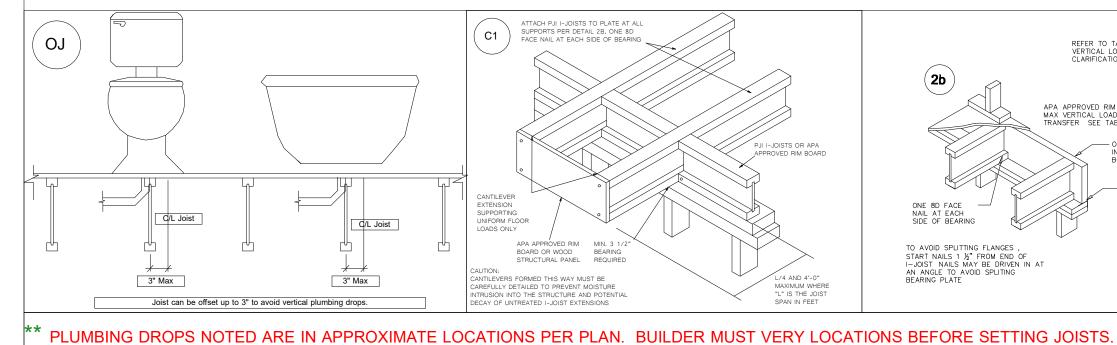
KEMPSVILLE BUILDING MATERIALS IS NOT RESPONSIBLE FOR THE DESIGN OR CALCULATION OF ANY AND ALL I-JOIST AND LVL/PSL BEAM MATERIAL. ALL ENGINEERING AND INFORMATION FOR THIS MATERIAL IS TO BE PROVIDED BY THE ENGINEER OF RECORD MARKED ON APPROVED SET OF PLANS. ALL BEAM PLACEMENTS ARE PER THE ENGINEERING RECEIVED. ALL CONNECTION DETAILS TO BE PROVIDED BY ENGINEER OF RECORD. REFER TO ENGINEER OR RECORD FOR ALL MULTI-PLY LVL/ I-JOIST CONNECTION PATTERNS. BUILDER TO VERIFY ALL MATERIAL LENGTHS, QUANTITIES, AND SIZES PRIOR TO ORDERING.



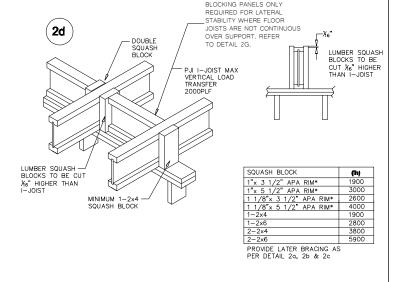
39' 0"

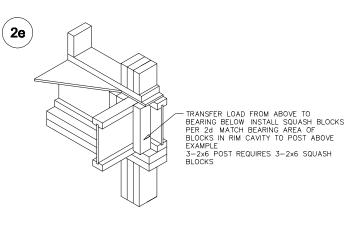
39' 0"

1ST FLOOR LAYOUT

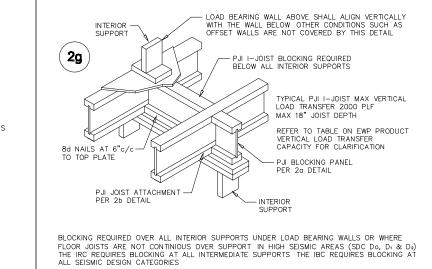


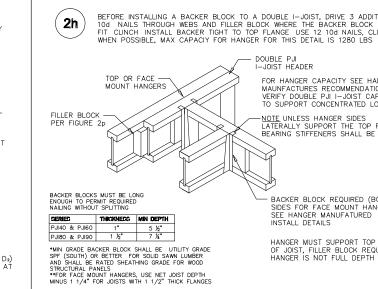
REFER TO TABLE ON EWP PRODUCT VERTICAL LOAD TRANSFER CAPACITY FOR CLARIFICATION **2b** — ATTACH RIM BOARD TO TOP PLATE USING 8d BOX TOENAILS @ 6" c/c TO AVOID SPLITTING FLANGES , START NAILS 1 ½" FROM END OF I-JOIST NAILS MAY BE DRIVEN IN AT AN ANCLE TO AVOID SPLITING BEARING PLATE





** ALL POINT LOADS FROM ABOVE MUST BE TRANSFERRED TO BEARING FROM UNDER SIDE OF SHEATHING.





FOR HANGER CAPACITY SEE HANGER MAUNFACTURES RECOMMENDATIONS VERIFY DOUBLE PJI I-JOIST CAPACITY TO SUPPORT CONCENTRATED LOADS SB = Squash Blocks HANGER MUST SUPPORT TOP FLANGE OF JOIST, FILLER BLOCK REQUIRED IF HANGER IS NOT FULL DEPTH OF JOST

LABEL LEGEND

BBO = Beam by Others **PBO** = Post by Others **GBO** = Girder by Others $\mathbf{J} = \mathbf{I} - \mathbf{Joist}$

FB = Flush Beam **DB** = Dropped Beam **RB** = Roof Beam

BP = Blocking Panels

** REFER TO INSTALLATION GUIDE FOR PLY TO PLY CONNECTIONS.

Revisions

DW

Name

Name

Name

Name

09/20/23

00/00/00

00/00/00

00/00/00

00/00/00

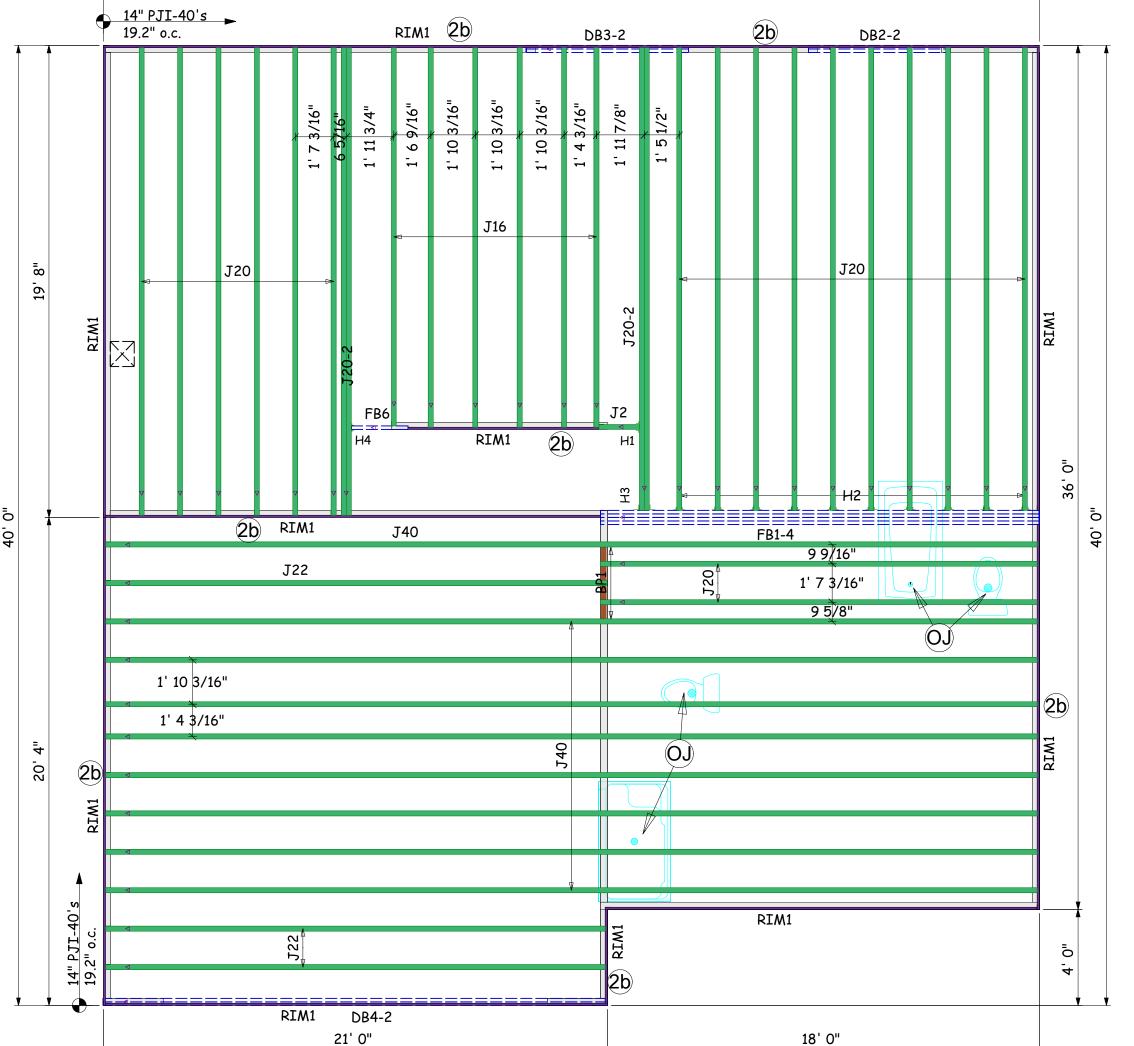
ge Rid Horton Mason SIOC Hay DR .00R

Scale: **1/4" = 1'-0"**

 ∞

Date: // 10/23/25 Designer: **DW**

> Project #: **25100129** Sheet Number:



39' 0"

39' 0"

		Products		
PlotID	Length	Product	Plies	Net Qty
J40	40-00-00	14" PJI-40	1	9
J22	22-00-00	14" PJI-40	1	3
J20	20-00-00	14" PJI-40	1	18
J20-2	20-00-00	14" PJI-40	2	4
J16	16-00-00	14" PJI-40	1	6
J2	2-00-00	14" PJI-40	1	1
DB3-2	8-00-00	2.1 RigidLam SP LVL 1-3/4 x 9-1/4	2	2
DB2-2	6-00-00	2.1 RigidLam SP LVL 1-3/4 x 9-1/4	2	2
FB1-4	20-00-00	2.1 RigidLam SP LVL 1-3/4 \times 14	4	4
FB6	4-00-00	2.1 RigidLam SP LVL 1-3/4 \times 14	1	1
DB4-2	22-00-00	2.1 RigidLam SP LVL 1-3/4 \times 16	2	2
RIM1	12-00-00	1 1/8" × 14" APA Rim Board	1	16
BP1	2-00-00	14" PJI-40	1	2

		3/4" 4:	x8 OSB 1	46	
		C	Connector Su	mmary	
PlotID	Qty	Manuf	Product	Backer Bloc	ks Web Stiff
H1	1	Simpson	IUS2.56/1	4 2 and Filler	No
H2	10	Simpson	IUS2.56/1	4 No	No
Н3	1	Simpson	MIU5.12/1	4 No	No

Simpson HUS1.81/10 No

Plies Net Qty

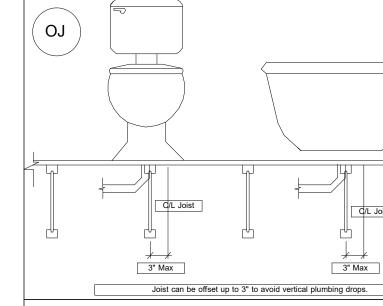
No

Accessories

PlotID Length Product

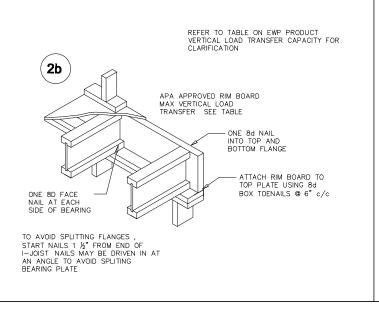
KEMPSVILLE BUILDING MATERIALS IS NOT RESPONSIBLE FOR THE DESIGN OR CALCULATION OF ANY AND ALL I-JOIST AND LVL/PSL BEAM MATERIAL. ALL ENGINEERING AND INFORMATION FOR THIS MATERIAL IS TO BE PROVIDED BY THE ENGINEER OF RECORD MARKED ON APPROVED SET OF PLANS. ALL BEAM PLACEMENTS ARE PER THE ENGINEERING RECEIVED. ALL CONNECTION DETAILS TO BE PROVIDED BY ENGINEER OF RECORD. REFER TO ENGINEER OR RECORD FOR ALL MULTI-PLY LVL/ I-JOIST CONNECTION PATTERNS. BUILDER TO VERIFY ALL MATERIAL LENGTHS, QUANTITIES, AND SIZES PRIOR TO ORDERING.

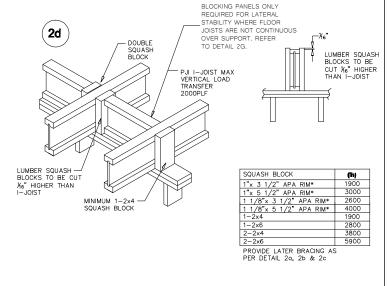
2ND FLOOR LAYOUT

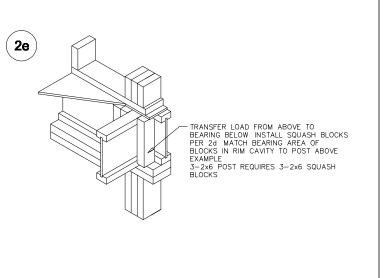


C1 ATTACH PJI I-JOISTS TO PLATE AT ALL SUPPORTS PER DETAIL 2B, ONE 8D FACE NAIL AT EACH SIDE OF BEARING

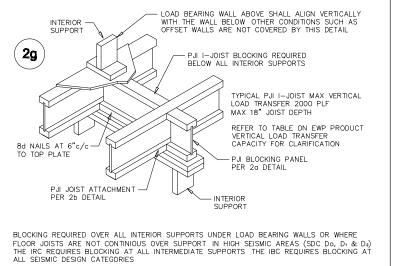
PLUMBING DROPS NOTED ARE IN APPROXIMATE LOCATIONS PER PLAN. BUILDER MUST VERY LOCATIONS BEFORE SETTING JOISTS.

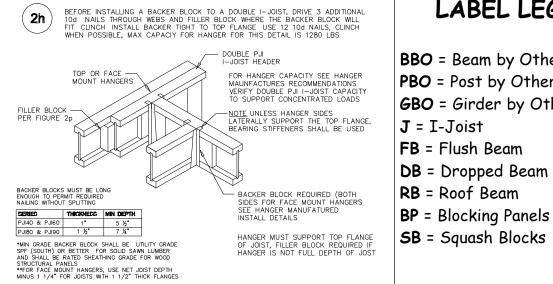






** ALL POINT LOADS FROM ABOVE MUST BE TRANSFERRED TO BEARING FROM UNDER SIDE OF SHEATHING.





** REFER TO INSTALLATION GUIDE FOR PLY TO PLY CONNECTIONS.

LABEL LEGEND BBO = Beam by Others

PBO = Post by Others **GBO** = Girder by Others $\mathbf{J} = \mathbf{I} - \mathbf{Joist}$

FB = Flush Beam **DB** = Dropped Beam RB = Roof Beam **BP** = Blocking Panels

Revisions

Name

Name

Name

Name

09/20/23

00/00/00

00/00/00

00/00/00

00/00/00

ge Horton Rid F den Mason SIOC Hay DR .00R ∞

Scale: 1/4" = 1'-0"

Date: // 10/23/25 Designer: **DW**

> Project #: **25100129** Sheet Number: