P000652

GINEERED BY:

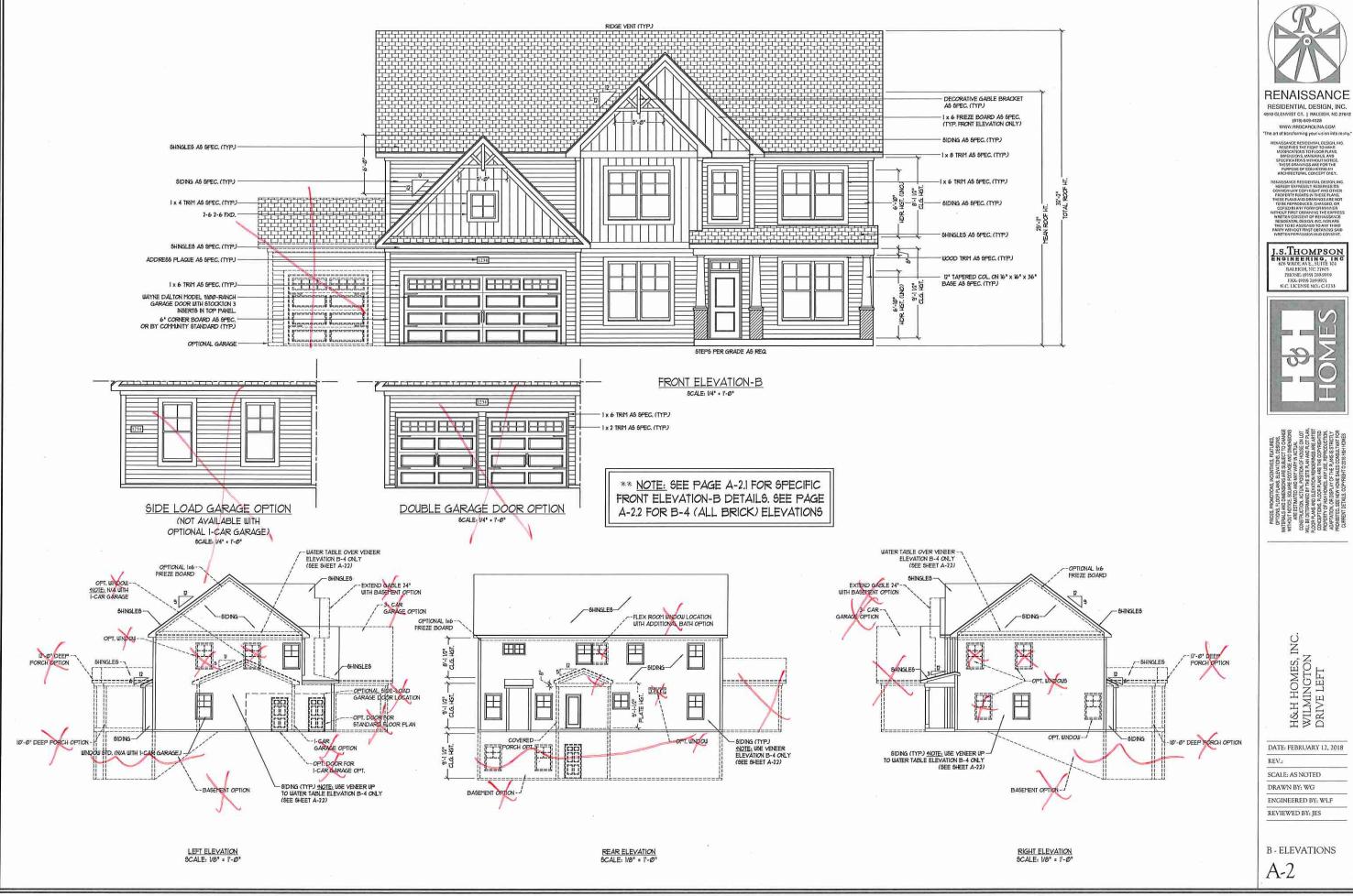
WILMINGTON

WILMINGTON **REVISION LIST - STRUCTURAL:**

- 1.) COMBINED WILMINGTON AND WILMINGTON II PLANS. (2-18)
- 2.) ADDED BRICK OPTION ON SECOND FLOOR. (2-18)
- 3.) CALLED OUT SERIES/SPACING OF I-JOISTS ON BASEMENT. (2-18)

WILMINGTON **REVISION LIST - ARCHITECTURAL:**

- 1.) STAIR TREADS CHANGED TO 10° (6-14)
- 2.) REPLACED CASUAL DINING FLUSH MOUT FIXTURE WITH (2) CAN LIGHTS (9-14)
- 3.) ADDED WATER TABLE OVER GARAGE DOOR (1-15)
- 4.) ADDED OPTION FOR (2) 8-0 7-0 GARAGE DOORS (1-15)
- 5.) ADDED OPTION FOR 12-0 DEEP COVERED PORCH. CHANGED ROOF FROM SHED TO GABLE (1-15)
- 6.) ADDED THIS COVER SHEET (9-14-17). COPIED INFORMATION ABOVE FROM H&H COVER SHEET (9-17)
- 8.) INCREASED DEPTH OF WALL BETWEEN MASTER TUB AND SHOWER BY 6" (9-17)
- 9.) MOVED LVP TO COAT CLOSET OFF OF FOYER (9-17)
- 10.) CHANGED FLUSH MOUNT LIGHT OVER KITCHEN ISLAND TO PENDANT LIGHT AND ADDED SWITCH AT STAIR WALL (9-17)
- 11.) ADDED SWITCH TO FAMILY ROOM LIGHT AT STAIR WALL (9-17)
- 12.) ADDED EXTERIOR WALL MOUNT LIGHTS AT OPT. GARAGE PEDESTRIAN DOORS (9-17)
- 13.) ADDED LIGHT SWITCH TO MEDIA ROOM OUTSIDE OF DOOR IN HALLWAY (9-17)
- 14.) MOVED SWITCHES FOR FAN, TUB AND SHOWER LIGHT IN MASTER BATH (9-17)
- 16.) COMBINED WILMINGTON AND WILMINGTON-II (BASEMENT). (2-18)
- 17.) ADDED ALL BRICK OPTION (A, B AND C ELEVATIONS). (2-18)
- 18.) ADDED THREE CAR GARAGE OPTION. (2-18)
- 19.) UPDATED/ ADDED CUTSHEETS. (2-18)
- 20.) ADDED GOURMET KITCHEN OPTION. (2-18) 21.) CHANGED FIREPLACE FROM 36" TO 32" (3-19)



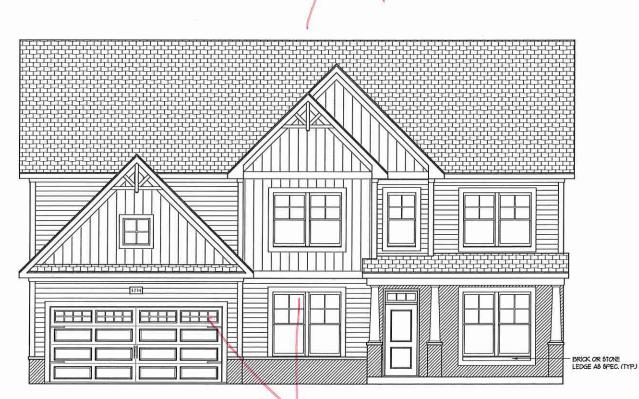




DATE: FEBRUARY 12, 2018

ENGINEERED BY: WLF











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H&H HOMES, INC. WILMINGTON DRIVE LEFT

DATE: FEBRUARY 12, 2018

REV.:

SCALE: AS NOTED

DRAWN BY: WG

ENGINEERED BY: W/LF REVIEWED BY: JES

B - ELEVATION **OPTIONS**

A-2.1

FRONT ELEVATION-B-3

FRONT ELEVATION-B-4

SQUARE FOOTAGE

SQUARE FOOTAGE (OPTIONS)

UNFINISHED BASEMENT:	1300 SQ FT.
Int FLOOR (W/ BASEMENT):	1308 SQ. FT.
2nd FLOOR (W/ BASEMENT):	1601 SQ. FT.
1st FLOOR (ALL BRICK):	1336 8Q FT.
2ND FLOOR (ALL BRICK):	1643 SQ. FT.
GARAGE (ALL BRICK):	449 SQ FT.
I-CAR GARAGE:	240 SQ FT.
1-CAR GARAGE (ALL BRICK):	258 SQ. FT.
3-CAR GARAGE:	601 SQ FT.
3-CAR GARAGE (ALL BRICK):	633 SQ FT.
UNFINISHED BASEMENT (ALL BRICK):	1358 SQ. FT.
1st FLOOR (ALL BRICK W/ BASEMENT):	1361 SQ. FT.
2nd FLOOR (ALL BRICK W/ BASEMENT):	1668 SQ FT.
REAR PORCH (10-0 DEEP):	11Ø SQ. FT.
REAR PORCH (12-Ø DEEP):	132 SQ. FT.
OPT. PATIO/ DECK: (IØ-Ø DEEP):	120 SQ FT.
OPT. PATIO/ DECK: (12-Ø DEEP):	144 SQ. FT.

*NOTE: ALL EXTERIOR WALLS AND ATTIC WALLS ARE TO BE 2 x 6 @ 16" O.C. (UNO). 2 x 4 @ 16" O.C. EXTERIOR WALLS MAY BE CONSTRUCTED IN LIEU OF 2 x 6 WALLS (UNO). ALL INTERIOR LOAD BEARING WALLS ARE TO BE 2 x 4 @ 16" O.C. (UNO) AND NON-LOAD BEARING INTERIOR WALLS ARE TO BE 2 x 4 @ 24" O.C. (UNO).

2x6 WALL

• SHADED WALLS ARE TO BE 2 x 6 @ 16" O.C. (LOAD BEARING) OR 2 x 6 @ 24" O.C. (NON-LOAD BEARING) REGARDLESS OF EXTERIOR WALL CONDITION

> DINING COTTENED CLG (3) 2x1 STACKED

FF STAIRS

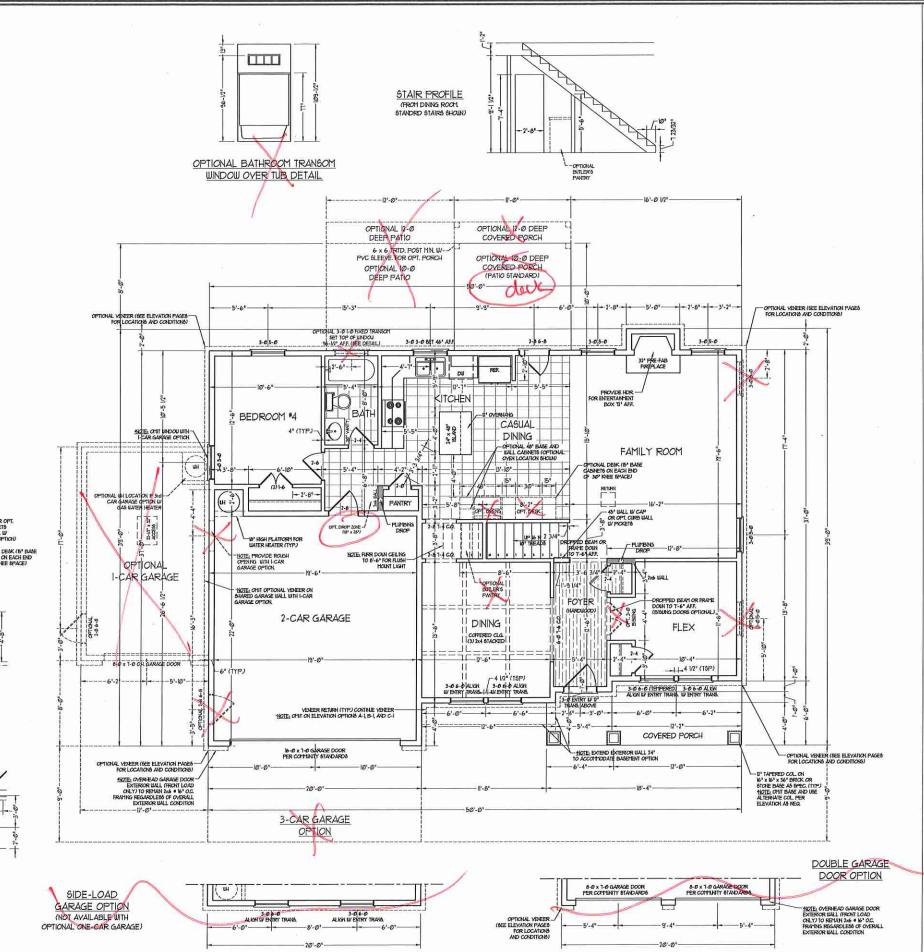
W/ BASEMENT OPTION

SIDE-LOAD

GARAGE OPTION

(NOT AVAILABLE WITH

OPTIONAL ONE-CAR GARAGE)



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H&H HOMES, INC. WILMINGTON DRIVE LEFT

DATE: FEBRUARY 12, 2018

REV.:

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

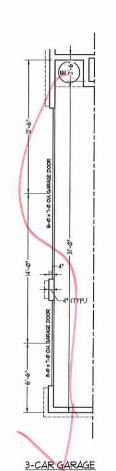
DRAWN BY: WG

ENGINEERED BY: WLF

REVIEWED BY: JES

FIRST FLOOR PLAN

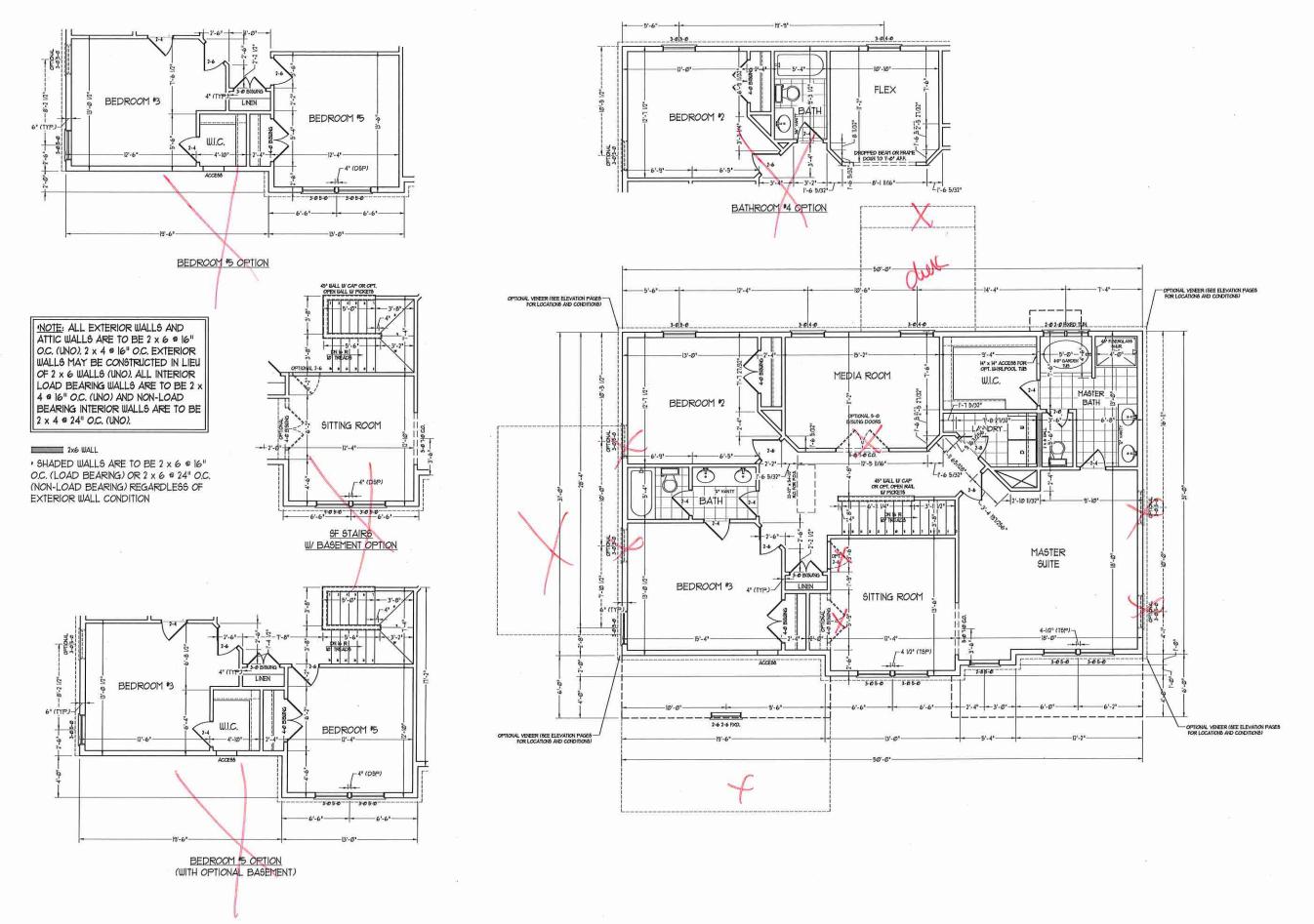
A-5



OPTION

(NOT AVAILABLE WITH

OPTIONAL ONE-CAR GARAGE)





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H&H HOMES, INC. WILMINGTON DRIVE LEFT

DATE: FEBRUARY 12, 2018

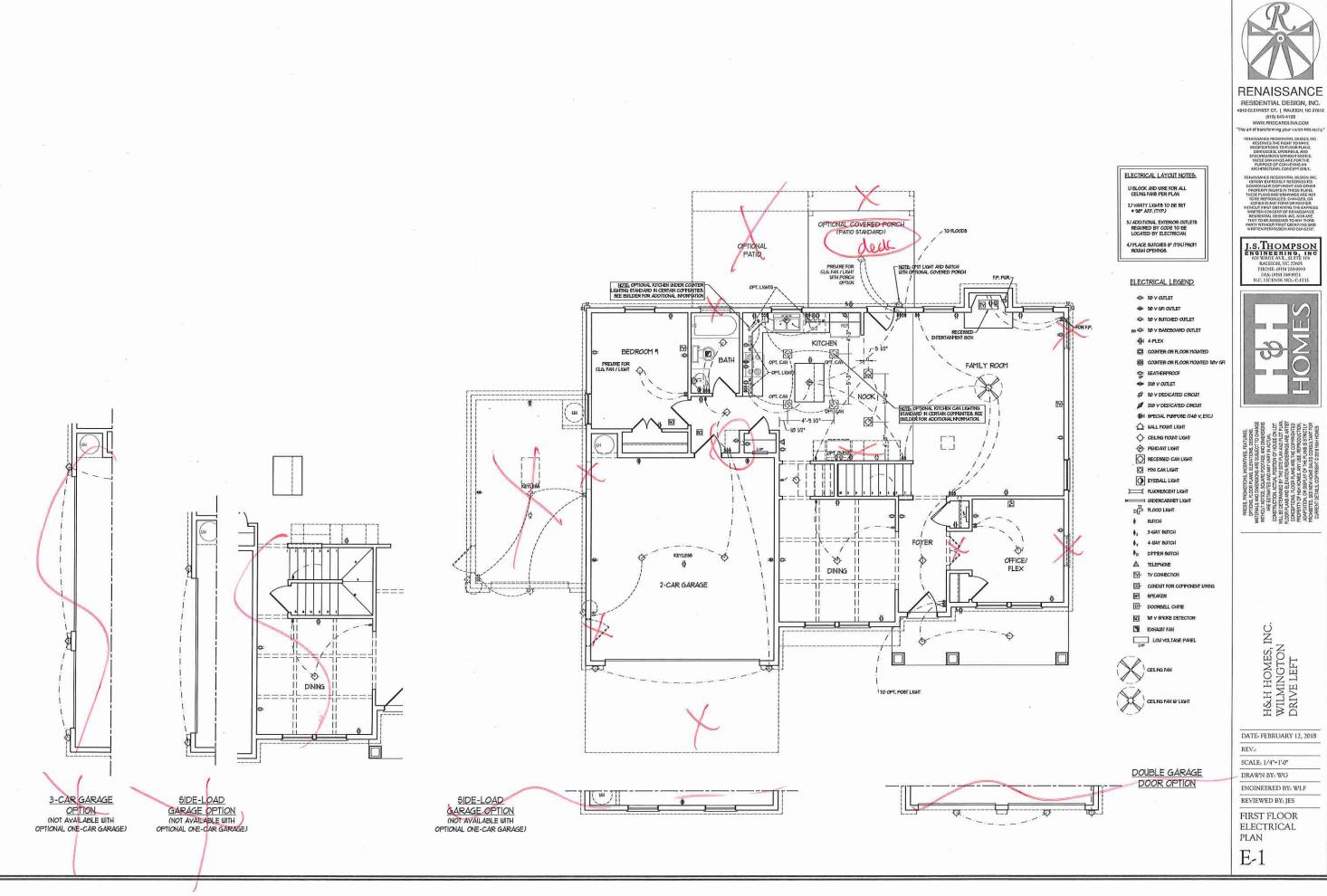
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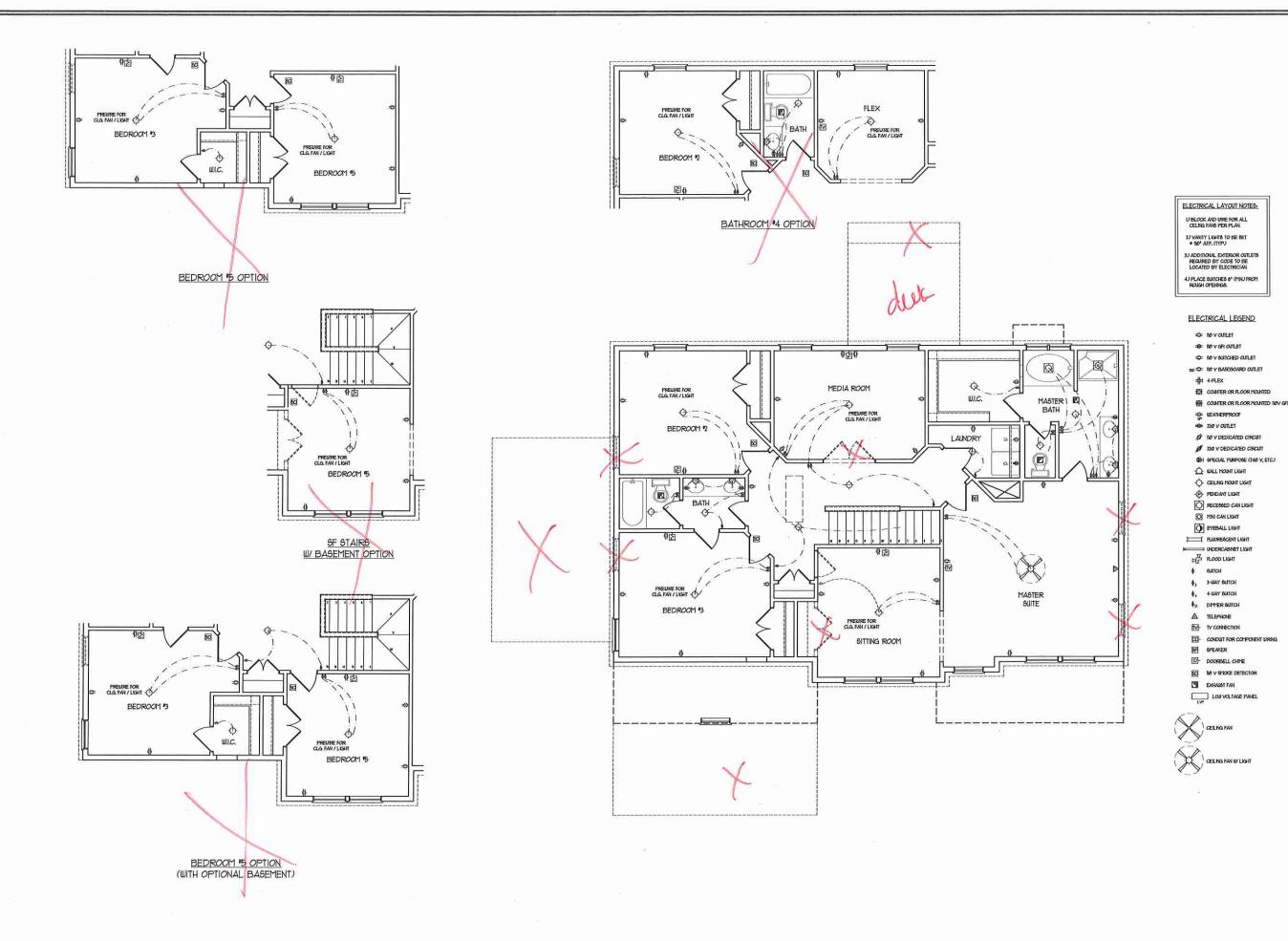
ENGINEERED BY: WLF REVIEWED BY: JES

SECOND FLOOR **PLAN**

A-6









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H&H HOMES, INC. WILMINGTON DRIVE LEFT

DATE: FEBRUARY 12, 2018

REV.:

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

DRAWN BY: WG

ENGINEERED BY: WLF

REVIEWED BY: JES

SECOND FLOOR ELECTRICAL PLAN

E-2

100-MPH WIND ZONE NOTES FOR LESS THAN 30" MEAN ROOF HEIGHT:

DENGNEER'S SEAL AFFLES ONLY TO STRUCTURAL COMPONERS BY MEER'S SEAL DOES NOT CERTIFY DIPENSIONAL ACCURACY ARCHITECTURAL LAYOUT INCLUDING ROOF

876TBL

1) 6TRICURAL DESKA FER NORTH CAROLNA
REDDENTIAL CODE, 100 EDITICAL

3) NOTALL 10" ANCHOR BOLTO 6" OC. AND
UTINN 1"-0" FICH BOLD OF EACH FLATE. ANCHOR
BOLTO HUST EXTERD A HANTIM OF 1" NICO

HASONET OR CONCRETE.

4) HEAN ROOF HEIGHT IS LESS THAN 36 FEET,
5) EXTERIOR WALLS DESIGNED FOR 100 MPH.

UNDS.

6) UALL CLADONG DESIGNED FOR 241 PSF
(POSITIVE AND NEGATIVE)

6 IULLI CLADONA DEBINED FOR 741 PPF
(FORTIME AND DEBLAMEN)
10 ROCE CLADONA DEBINED FOR 740 PPF
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9) BERGY EFFCENCY COMPLIANCE AND
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ACCORDANCE WITH CHAPTER II OF THE NORC,
200 EDITION.

NO REFER TO NOTES AND DETAIL SHEETS FOR ADDITIONAL STRUCTURAL INFORMATION.

1369-MPH WIND ZONE NOTES FOR LESS THAN 36" MEAN ROOF HEIGHT

OR ARCHITECTURAL LAYOUT NOLUDING

OR AGAITECTRAL LAYOUT NCLIDNS
FOOT \$10911.
30 STRUCTRAL DESIGN FER NORTH
CANGLINA REMOBILIAL CODE, 200 BOTTON
BITH SPECIAL CONDERVATION TO CHAPTER
40 (1460 LOD JOSE'S FOR BO FFIL MODD)
31 BILLDER IS OF PROVIDE FRANCIS
CONSCITION AS FEGURED BY CHAPTER 40

202 EDITION.
4) FOUNDATION ANCHORAGE TO COMPLY
LITH SECTION 4564 OF THE NORTH CAROLINA
RESIDENTIAL CODE, 2012 EDITION. 5) HEAN ROOF HEIGHT IS LESS THAN 30

HET.
6) LIALL CLADDN'S DEBIGNED FOR 40.1
6) LIALL CLADDN'S DEBIGNED FOR 40.1
1) ROCE CLADDN'S DEBIGNED FOR 35.6
PEF (FOSITINE AND NEGATINE) FOR ROCE
PIFICES TO DE DUT AND BALL PEF (FOSITINE AND NEGATINE) FOR ROCE
PIFICES TO DE TO AND AND BALL
AND NEGATINE) FOR ROCE PIFICES 225/10 TO

B) 1/16" 068 SHEATHING IS REQUIRED ON ALL EMERGRA MULA.

SI MULA 10 DE RRACED NA ACCORDANCE
MINI ÉCICIN REMOJO OF THE VORTH

CAPOLINA REMODETURA, CODE, 200 EDITION

NO JERRY FERCIPACY COPE/MASE AND

NOLATION VALLES OF THE BUILDING TO BE

NACORDANCE UTIL CHAPTER II OF THE

NCORO, 200 EDITION. FOUNDATION VENTILATION CALCULATION

1282 SQ. FT. OF CRAILL SPACE DIVIDED BY 1500 EQUALS 0.9 SQ. FT. OF NET FREE AREA REQUIRED. INSTALL 6 MIL POLY TO COVER ENTIRE CRAIL SPACE, LOCATE VENTS WITHN 3'-Ø' OF EACH CORNER OF THE BUILDING TO PROVIDE CROSS-VENTILATION

STRUCTURAL NOTES:

ALL FRAMING LUMBER TO BE 12

ALL FRAMING LUMBER TO BE 9
FF (NO.) ALL TREATED LUMBER
TO BE 9 STP (NO.)
NSTALL AN EXTRA OR DOUBLE
JOST NUMBER WALLE PARALLEL
TO FLOOR JOSTS WERE NOTED
ON THE PLANS.
SOLIARES DENOTE POINT LOADS
WHICH RECUIRE SOLID BLOCKING
TO GIBBER OR FRANDATION

TO GIRDER OR FOUNDATION. SHADED PIERS TO BE FILLED

NSTALL LADDER WIRE • 16' O.C. TO SECURE MILTIPLE WITHE FOUNDATION WALLS TOGETHER REFER TO NOTES AND DETAIL

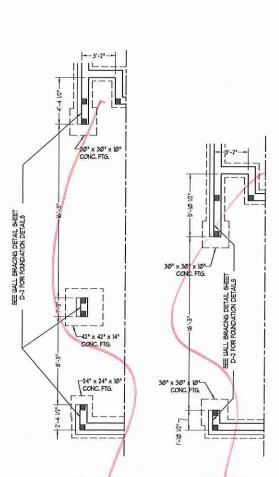
SHEETS FOR ADDITIONAL STRUCTURAL INFORMATION.

SIDE-LOAD

GARAGE OPTION

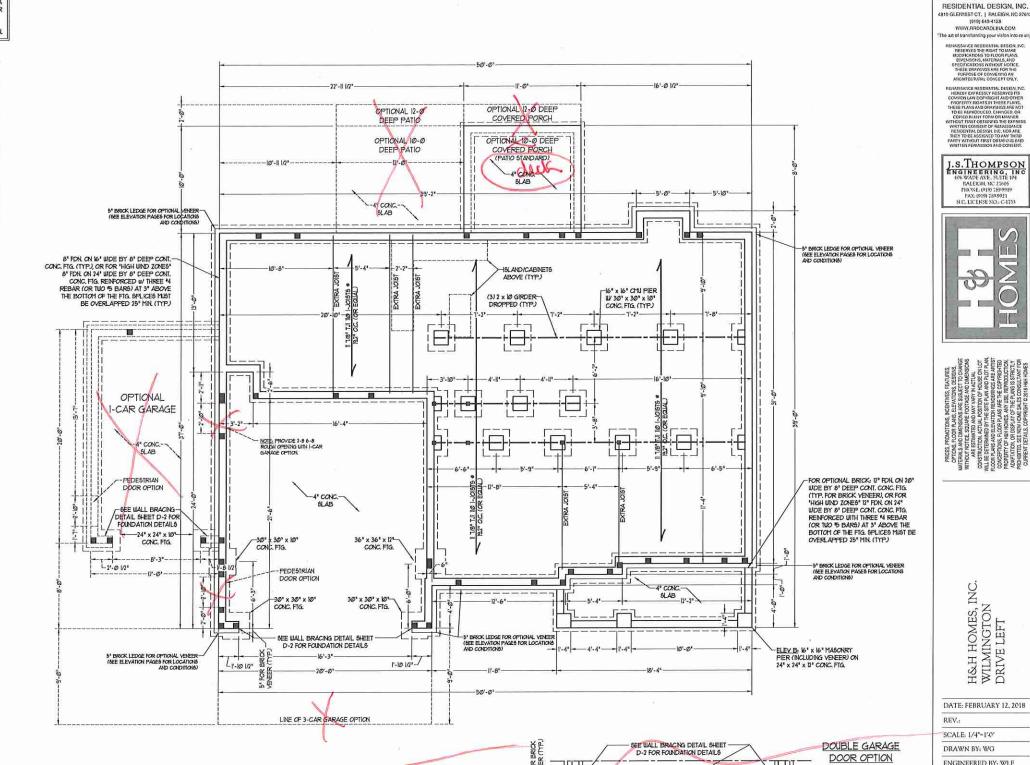
(NOT AVAILABLE WITH

OPTIONAL ONE-CAR GARAGE)



3-CAR GARAGE OPTION (NOT AVAILABLE WITH OPTIONAL ONE-GAR GARAGE)

SIDE-LOAD GARAGE OPTION (NOT AVAILABLE WITH OPTIONAL ONE-CAR GARAGE)



5° BRICK LEDGE FOR OPTIONAL VENEER-(SEE ELEVATION PAGES FOR LOCATIONS AND CONDITIONS)

-24" × 24" × 10"

30" x 38" x 10"

0" x 38" x 10" CONC, FTG

RENAISSANCE

H&H HOMES, INC. WILMINGTON DRIVE LEFT

REVIEWED BY: JES

FOUNDATION

CRAWL

PLAN S-1

LINTEL SCHEDULE FOR STRUCTURAL NOTES: BRICKNATURAL STONE SUPPORT ALL FRAMING LUMBER TO BE 9 SFF (UNO), ALL LENGTH (FT.) SIZE OF LINTEL TREATED LUMBER TO BE \$2 SYP (UNO.) ALL LOAD BEARING HEADERS TO BE (2) 2 x 6 UP TO 4 FT. L 3 1/2 x 3 1/2 x 1/4 ALL BEAMS ARE TO BE SUPPORTED WITH (2) 4-8 L 5 x 3 1/2 x 5/16 LLY JACK STUDS EA END (UNO), WINDOW AND DOOR HEADERS TO BE SUPPORTED W/ (1) 8 AND GREATER L 6 x 4 x 5/16 LLV JACK STUD AND (I) KING STUD EA END (UNO.) FOR HIGH WIND ZONES, PROVIDE (2) KING OTES: LINTEL SCHEDULE APPLIES TO ALL OPENINGS IN BRICK YENEER (UNO), SEE ARCH DIUGS, FOR SIZE AND LOCATION OF STUDS EA SIDE OF EXTERIOR UNDOW AND DOOR HEADERS W CLEAR OFENINGS LESS THAN 6'-0' AND (3) KING STUDS EA SIDE OF HEADERS W/ CLEAR OPENINGS GREATER THAN OPENINGS. (LLV) = LONG LEG VERTICAL FOR HIGH WIND ZONES, ALL EXTERIOR WALLS TO BE SHEATHED WITH TIVE O'O'D SHEATHING WITH JOINTS BLOCKED AND SECURED WITH BO LENGTH = CLEAR OPENING EMBED ALL ANGLE IRONS MIN. 4" EACH PIDE NTO YENER TO PROVIDE BEARN'S FOR ALL HEADERS 8-8" AND GREATER IN LENGTH, ATTACH STEEL ANGLE TO HEADER W W" LAG SCREWS 8 12" O.C. NAILS AT 3" O.C. ALONG EDGES AND 6" O.C. N THE FIFL D. FIGURE ALL EXTERIOR UALL SHEATHING PAVELS TO DOUBLE TOP PLATES, BANDS, JOISTS, AND GIRDERS WITH (2) STAGGERED. FOR ALL BRICK SUPPORT • ROOF LINES ROUG OF 8d NAILS STAGGERED AT 3" O.C. FASTEN A 5" x 3 1/2" x 5/16" STEEL ANGLE TO 2 x 10 BLOCKING INSTALLED BETWEEN PANELS SHALL EXTEND 12" BEYOND WALL STUDS W 1/2" LAG SCREUS 12" O.C. STAGGERED AND IN ACCORDANCE TO SECTION R103.122 OF THE NORTH CAROLINA RESIDENTIAL CODE, 2012 SIRDERS AND DOUBLE SILL PLATES THEIR SQUARES DENOTE POINT LOADS WHICH EDITION. PRECAST REINFORCED CONCRETE REQUIRE SOLID BLOCKING TO GIRDER OR FOUNDATION, ALL SQUARES TO BE (2) STUDS LINTELS ENGINEERED BY OTHERS MAY BE USED IN LIEU OF STEEL LINTELS. ALL 4 x 4 POSTS SHALL BE ANCHORED TO SLABS W/ SIMPSON ABU44 POST BASES (OR EGUAL) AND 6 x 6 POSTS W ARM66 POST BASES (OR EQUAL) (UNO). ALL 4 x 4 AND 6 > 6 POSTS TO BE INSTALLED WITH 100 LB CAPACITY UPLIFT CONNECTORS AT TOP (UNO.) FOR FIBERGLASS, ALUMNUM, OR COLUMN ENG. BY OTHERS, SECURE TO SLAB w/ (2) METAL ANGLES USING 2" CONC. SCREUB FASTEN ANGLES TO COLUMNS W VA" THROUGH BOLTS W/NITS AND WASHERS, LOCATE ANGLES ON OPPOSITE SIDES OF COLUMN. THROUGH BOLTS MUST BE INSTALLED PRIOR TO SETTING COLUNN REFER TO NOTES AND DETAIL SHEETS FOR ADDITIONAL STRUCTURAL INFORMATION. NOTE: TEP DENOTES TRIPLE STUD POCKET (2) 2 x 10

FILL PETITED HEADERS

STRAFI HEADERS TOGETHER W (2) \$ LONG SHIPSON CSIG STRAFS INSTALLED TOP BOTTOM ON THE INSIDE

SIDE-LOAD

GARAGE OPTION

(NOT AVAILABLE WITH

OPTIONAL ONE-CAR GARAGE)

W/ BASEMENT OPTION

GARAGE OPTION

(NOT AVAILABLE WITH

OPTIONAL ONE-CAR GARAGE)

FACE OF THE HEADERS.

3-CAR GARAGE

OPTION

(NOT AVAILABLE WITH

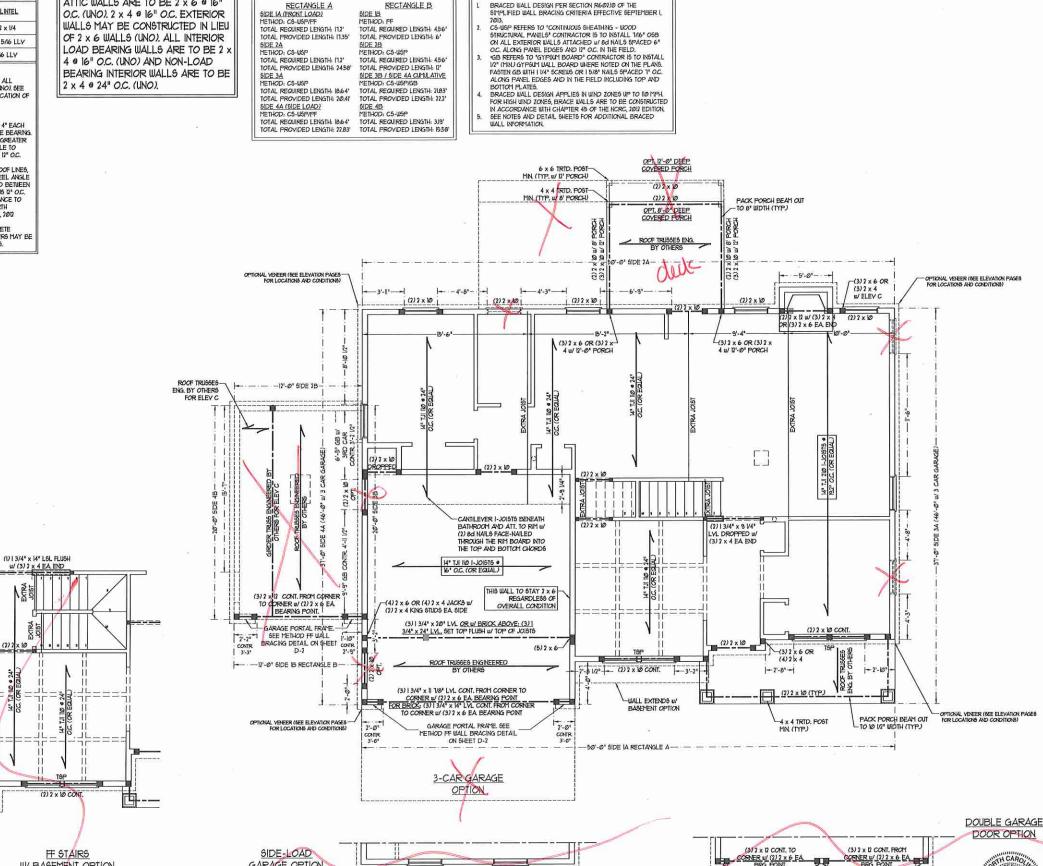
OPTIONAL ONE-CAR GARAGE)

SOLID W KING STUDS.

NOTE: ALL EXTERIOR WALLS AND

ATTIC WALLS ARE TO BE 2 x 6 9 16"

BRACED WALL DESIGN



CONTRIBUTES 2'-0"

GARAGE PORTAL FRAME, SEE METHOD FF WALL BRACING DETAIL

ON SHEET D-2

FILL BETWEEN HEADERS SOLID W/ KING-

STUDS STRAP HORS TOGETHER u/ (2) 5' LONG SIMPSON CSIG COIL STRAPS INSTALLED TOP AND BOTTOM ON INSIDE FACE OF HORS.

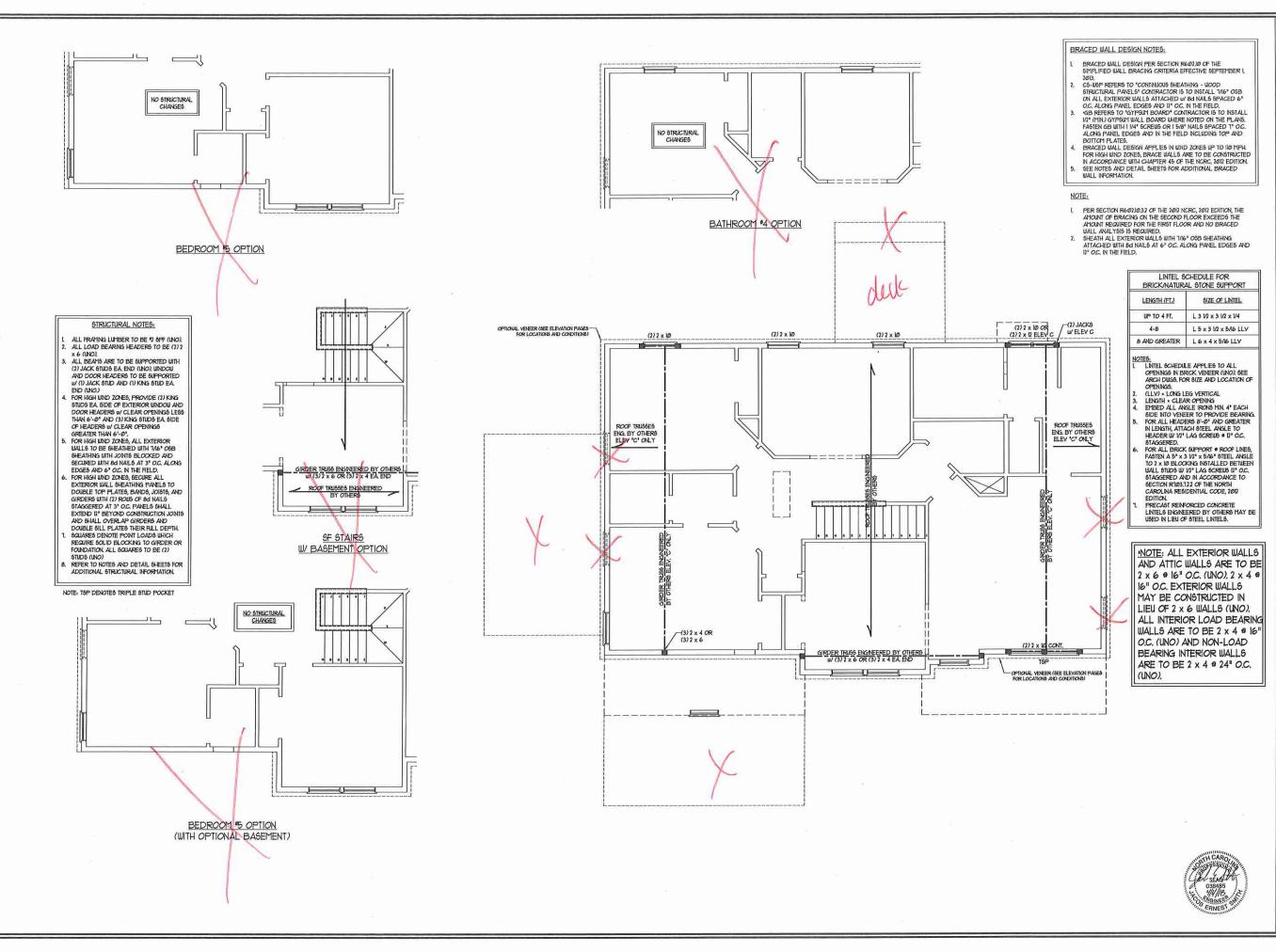
BRACED WALL DESIGN NOTES:

BRACED WALL DESIGN PER SECTION R60210 OF THE



FRAMING PLAN

S-2





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J.S.THOMPSON ENGINEERING, INC (66 WADE AVE, SUITE 104 RALEIGH, NC 27605 FHONE (019) 7899919



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H&H HOMES, INC. WILMINGTON DRIVE LEFT

DATE: FEBRUARY 12, 2018

REV.:

SCALE: 1/4"-1'0"

DRAWN BY: WG

ENGINEERED BY: WLF
REVIEWED BY: 1ES

CEILING FRAMING PLAN

S-3

ATTIC VENT CALCULATION:

1994 60, FT, OF ATTIC DIVIDED BY 1500 REQUIRES 133 60, FT, OF NET FREE VENTILATING AREA (MIN).

STRUCTURAL NOTES:

- ALL FRAMING LUMBER TO BE 12 SFF (UNO)
- SFF (IMO).
 CIRCLES DENOTE (3) 2 x 4 POSTS
 FOR ROOF SUPPORT.
 FRAME DORMER WALLS ON TOP
 OF DOUBLE OR RIPHE RATTERS,
 HIP SPLICES ARE TO BE SPACED
 A MIN. OF 8'-0". FASTEN MEMBERS
- WITH THREE ROUS OF EIGHAILS .

 16" O.C. (TYP)

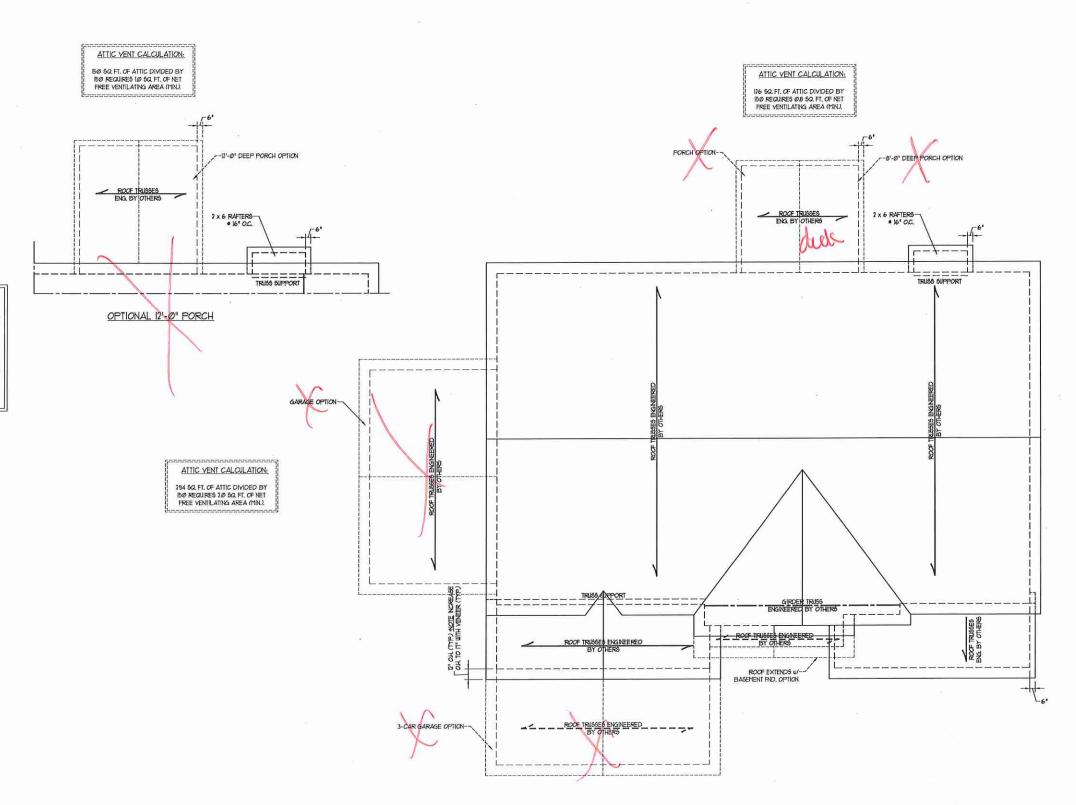
 STICK FRAME OVER-FRAMED
- SILCK TRAVIE OVER-TRAVIEU
 PROCE SECTIONS W 2 x 8 RICKES,
 2 x 6 RAFTERS 16 * O.C. AND
 H.AT 2 x 10 VALLETS OR USE
 VALLET TRUSSES.
 FASTER H.AT VALLETS TO
 RAFTERS OR TRUSSES WITH
 SRIPSON V.D.S. ARRICANE TIES SIMPSON HOSA HIRRICANE TIES OF 37° OC. MAY PASS HIRRICANE TIES THROUGH NOTCH IN ROOF SHEATHING. EACH RAFTER IS TO BE FASTENED TO THE HAT VALLEY WITH A MIN. OF (6) DID TOE MAILS.

 REFER TO NOTES AND DETAIL SHEETS FOR ADD

BRICK SUPPORT NOTE:

- L FOR BRICK SUPPORT # ROOF LINES, BOLT A 5" x 3 1/2" x 5/6" 5/TEL AVALE TO 2 x 1/2" ELOCKING INSTALLED BETWEEN WALL. STUDS W 1/2" LAG SCREUB 1" O.C.. STAGGERED AND IN ACCORDANCE WITH SECTION TRUST 122 CF THE NORTH CAROLINA RESIDENTIAL CODE, 2/2/2 EDITION.
- CAROLINA RESIDENTIAL COME, 2012
 EDITION.

 UNIFIER ROOF 6LOFES EXCEED 1-12, NSTALL
 3* x 3* x 1/4* STEEL FLATE STOPS AT 24*
 OC. FER SECTION R103.121 OF THE NORTH
 CAROLINA RESIDENTIAL CODE, 20/2
 EDITION.







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H&H HOMES, INC. WILMINGTON DRIVE LEFT

DATE: FEBRUARY 12, 2018

REV.:

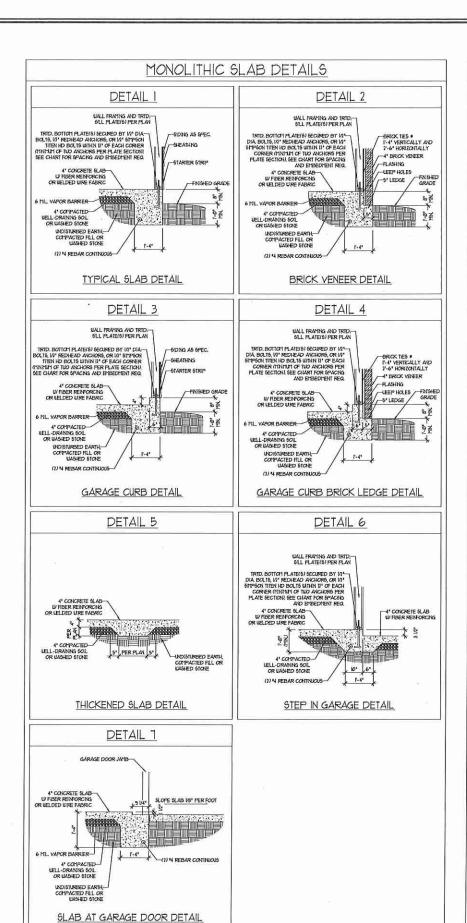
SCALE: 1/4"=1'-0" DRAWN BY: WG

ENGINEERED BY: WLF

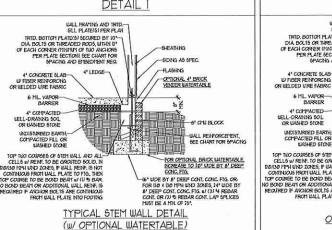
REVIEWED BY: JES

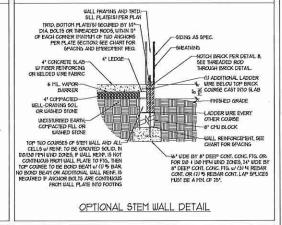
ROOF PLAN **ELEVATIONS** A&B

S-4

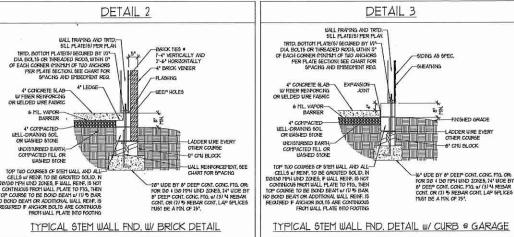


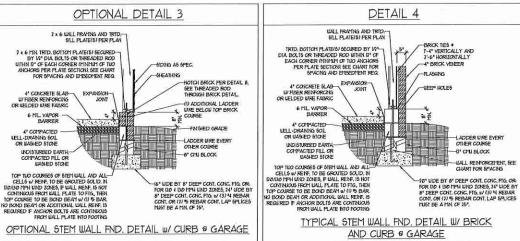
STEMWALL DETAILS DETAIL I

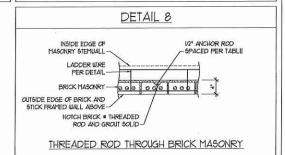




OPTIONAL DETAIL









MASONRY STEMWALL SPECIFICATIONS MASONRY WALL TYPE WALL HEIGHT 4" BRICK AND 4" 4" BRICK AND 8" 12' CMU 8' CMI CMU 2 AND BELOW UNGROUTED GROUT SOLID UNGROUTED UNGROUTED GROUT SOLID UNGROUTED UNGROUTED 3 UNGROUTED GROUT SOLID W/ 44 REBAR # 48" O.C. GROUT SOLID w/ 44 REBAR # 64* O.C. GROUT SOLID GROUT SOLID GROUT SOLID u/ 14 GROUT SOLID w/ 14 GROUT SOLID w/ 14 NOT APPLICABLE REBAR # 36" OC REBAR # 36" OC. REBAR # 64" OC GROUT SOLID u/ 14 REBAR # 24" O.C. REBAR # 64" O.C. GROUT SOLID w/ 4 NOT APPLICABLE REBAR # 24" O.C. AND GREATER ENGINEERED DESIGN BASED ON SITE CONDITIONS

STRUCTURAL NOTES:

WALL HEIGHT MEASURED FROM TOP OF FOOTING TO TOP OF THE WALL.

TIE MULTIFILE WYTHES TOGETHER WITH LADDER WIRE AT 16" O.C. VERTICALLY.
CHART APPLICABLE FOR HOUSE FOUNDATION ONLY, CONSULT ENGINEER FOR DESIGN OF GARAGE FOUNDATION NOT COMMON TO HOUSE

POINDATION NOT COMPON TO HOUSE
4. BACKFILL OF LIELD 1517 161 WASHED STONE IS ALLOWABLE.
4. BACKFILL OF URLL DRAINDE OR SAND - GRAVEL MIXTURE SOILS (45 PSF/FT BELOW GRADE)
CLASSFIED AS GROUP I ACCORDING TO INFIED SOILS CLASSFICATION SYSTEM IN ACCORDING
UTIH 1/ADE RAMS) OF THE 2012 INFERNATIONAL RESIDENTIAL CODE REAL ALLOWABLE.
6. FREP \$LAB PER 1526621 AND 1526612 BASE OF THE 2012 INTERNATIONAL RESIDENTIAL CODE.
ININIMI 147 LAP SPILICE LENGTH.
1. LOCATE REDAR IN CENTER OF FOUNDATION WALL.
8. WHERE REGUIRED, FILL BLOCK SOLID WITH TYPE 151 MORTAR OR 2020 PSI GROUT, USE OF "LOW
LIFE GROUNGS" INSTITUD REGUIRED WERE ILLING WALL IS WITH GROUN AT LEIGHTS OF 51 AND

LIFT GROUTING" METHOD REQUIRED WHEN FILLING WALLS WITH GROUT AT HEIGHTS OF 5' AND

ANCH	OR SPACING AND	EMBEDMENT
WND ZONE	IØØ MPH	IIØ MPH
SPACING	6'-0" O.C. 3'-0" O.C. FOR STRAPS	4'-0' O.C. 2'-0" O.C. FOR STRAPS
EMBEDMENT	7*	IS" INTO MASONRY T" INTO CONCRETE
WIND ZONE	120 MPH	130 MPH
5PACING	6'-0" O.C. w/ DBL. SILL FLATE OR 4'-0" O.C w/ 5'NGLE SILL FLATE w/ 2' x 2" x 1/8" WASHERS	6'-0" O.C. u/ DBL. SILL FLATE OR 4'-0" O.C. u/ SINGLE SILL PLATE u/ 2" x 2" x 1/8" WASHERS
EMBEDMENT	15" INTO MASONRY 1" INTO CONCRETE	15" INTO MASONRY 1" INTO CONCRETE

NOTE: HORIZONTAL FOOTING REBAR REQUIRED IN HIGH WIND ZONES ONLY (120 MPH - 130 MPH)

DATE: DECEM	MRER 22, 2017
SCALE: NTS	
DRAWN BY: J	ST.

D-1 FOUNDATION DETAILS



Zlo S MPS NO. CITAL OITE 10 H GINE AVE.

S S

DETAILS FOUNDATION

AND FIGURES REFERENCED ARE FROM THE 2012 NORCE ARD FORMER NETBERNEED ARE FROM THE 1804 N.C.C.,
SEE THIS SHEET FOR GENERAL DETAILS, FEFER TO THE 200 N.CRC FOR ADDITIONAL INFORMATION AS NEEDED.
SEE STRUCTURAL SHEETS FOR BRACED WALL LOCATIONS, DIMENSIONS, HOLD DOWN TYPE AND LOCATIONS, BRACED WALL LINE
KEY WITH WALL DESIGN SUMMARY OF REQUIRED/PROVIDED TOTALS FOR EACH WALL LINE AND ANY SPECIAL NOTES OR

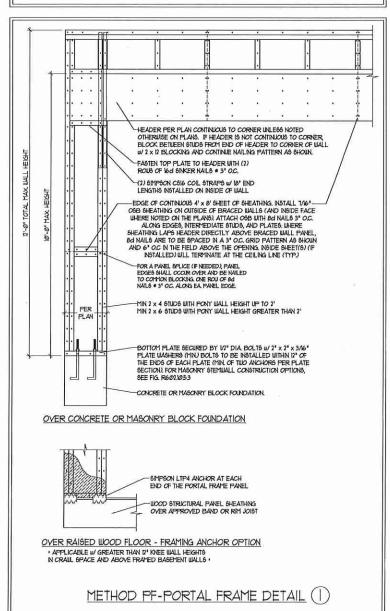
ALL EXTERIOR WALLS ARE TO BE SHEATHED WITH CS-USP IN ACCORDIANCE WITH SECTION R602.103 UNLESS NOTED

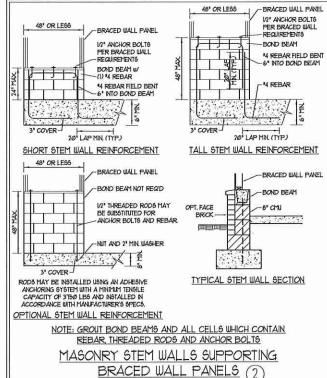
ALL EXTERIOR AND INTERIOR WALLS TO HAVE VZ" GYPSM INSTALLED. WHEN NOT USING METHOD "SIB" GYPSM TO BE

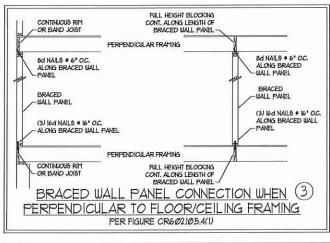
. ALL EXTERIOR AND RITERIOR WALLS TO HAVE 1/2" GYPEUN INSTALLED, WEN NOT USING METHOD "GB", GYPEUM TO BE FASTINED FER TALLE RIGIAS). METHOD SO BY THE FASTINED FER TALLE RIGIAS. METHOD. THIS 'OSB SHEATHING : WOOD STRUCTURAL PAYELS" WALL BRACING METHOD. THIS 'OSB SHEATHING IS TO BE INSTALLED ON ALL EXPERIENCE WALLS ATTACHED WE OF CONTINUALS OF 8d (2 V/2" LONG X Ø18") DIAMETERO NAILS FOR EACED 6" OC. ALONG PAYEL EDGES AND 12" OC. IN THE FIELD (WALD).

CHE RETER'S TO THE "GYPEUM BOARD" WALL BRACING METHOD. V/2" (MIN) GYPEUM WALL BOARD IS TO BE INSTALLED ON BOTH SIDES OF THE BRACED WALL FASTENED WITH 1 I/4" SCREWS OR 1 5/6" NAILS SPACED T" OC. ALONG PAYEL EDGES INCLUDING FOR AND BOTTOM PLATES AND INTERNEDIATE SUPPORTS (UND.), VERIFY ALL FASTENER OPTIONS FOR I/21 AND 5/8" GYPSUM PRIOR TO CONSTRUCTION. FOR INTERIOR FASTENER OPTIONS SEE TABLE R10735. FOR EXTERIOR FASTENER OPTIONS SEE TABLE R6023(I). EXTERIOR GB TO BE INSTALLED VERTICALLY.

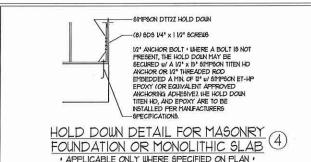
OFTILING SEE TABLE REMARK. EXTERIOR OF THE ROLL THE THE THE TABLE ARE NITERPOLATED PER TABLE REGISTED PROTESTED TO SUPPORT THE REGISTED PROTESTED TO SUPPORT THE REGISTED PROTESTED TO SUPPORT THE ACTUAL LENGTH, PETHOD GO CONTRIBUTES 5 THE ACTUAL LENGTH, AND PETHOD FOR CONTRIBUTES IS THE SITE ACTUAL LENGTH.

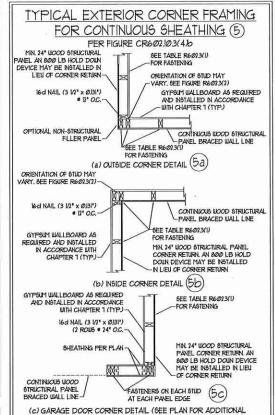




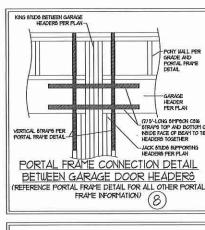


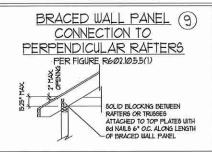
PER FIGURE R602 1053

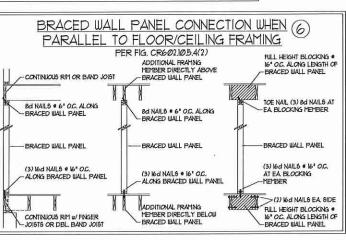


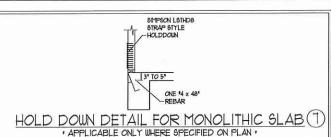


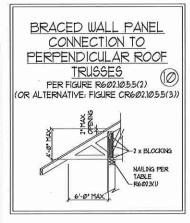
STRUCTURAL INFORMATION OR ALTERNATE CONFIGURATIONS)













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YANYANYANYANYANY

DETAILS BRACING NOTES AND WALL 1

DATE: MARCH 19, 2018 SCALE: NONE

CONFERED BY IST

EXTENSED BY JES

D-2 BRACED WALL

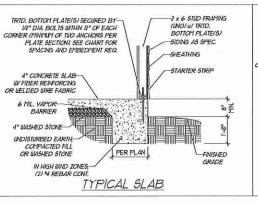
AND PORTAL FRAME DETAILS

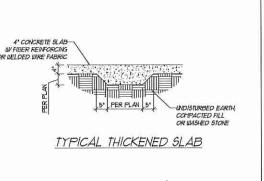
NOTE: LOCATE REBAR MIN 3 ABOVE BOTTOM OF FOOTING w/ MIN. 25" LAP SPLICE

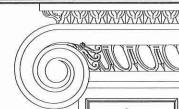
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	ANO	CHOR SPACING A	AND EMBEDMENT	
WIND ZONE	IDD MPH	IIØ MPH	120 MPH	BØ MPH
SPACING	6'-0" O.C. 3'-0" O.C. FOR STRAPS	4'-0" O.C. 2'-0" O.C. FOR STRAPS	6'-0" O.C. W DBL. SILL FLATE OR 4'-0" O.C W SINGLE SILL FLATE W 1" x 1" x Vo" WASHERS	6'-0' O.C. W DBL. SILL FLATE OR 4'-0" O.C W SINGLE SILL FLATE W 2" x 2" x VO" WASHERS
EMBEDMENT	7:	7'	7*	7*

TRTD. BOTTOM PLATE(S) SECURED BY -2 x 6 STUD FRAMING (UNO) W TRID, BOTTOM PLATE IA" DIA. BOLTS WITHIN II" OF EACH CORNER (MINIMM) OF TWO ANCHORS PER BRICK TIES # I'-4" VERTICALLY AND 2'-6" HORIZONTALLY PLATE SECTION), SEE CHART FOR SPACING AND EMBEDMENT REQ. -4" BRICK VENEER -FI ASHING 4' CONCRETE SI AR -UEFP HOLES 5' LEDGE 6 MIL VAFOR 4" WASHED STONE INDISTINGED EARTH OR WASHED STONE [PER PLAN FINISHED GRAD IN HIGH WIND ZONES. TYPICAL SLAB W/ BRICK VENEER LEDGE







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0 ETAILS L FOUNDATION DE STRUCTURAL

DATE: DECEMBER 22, 201 DRAWN BY WIF

GINEERED BY: JES

D-3 FOUNDATION DETAILS AND STRUCTURAL NOTES

GENERAL NOTES

- ENGINEER'S SEAL APPLIES ONLY TO STRUCTURAL COMPONENTS INCLUDING ROOF RAFTERS, HIPS, VALLEYS, RIDGES, FLOORS, MALLS, BEAMS, HEADERS, COLUMNS, CANTILEVERS, OFFSET LOAD BEARING WALLS, PIERS, GIRDER SYSTEM AND FOOTING. ENGINEER'S SEAL DOES NOT CERTIFY DIMENSIONAL ACCURACY OF ARCHITECTURAL LAYOUT INCLUDING ROOF. ENGINEER'S SEAL DOES NOT APPLY TO 1-JOIST OR FLOOR/ROOF TRUSS LAYOUT DESIGN AND ACCURACY
- ALL CONSTRUCTION SHALL CONFORM TO THE LATEST REQUIREMENTS OF THE NORTH CAROLINA RESIDENTIAL CODE (NORC.), 2012 EDITION, PLUS ALL LOCAL CODES AND REGULATIONS. THE STRUCTURAL ENGINEER IS NOT RESPONSIBLE FOR, AND WILL NOT HAVE CONTROL OF, CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, OR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE CONSTRUCTION WORK. NOR WILL THE ENSINEER BE RESPONSIBLE FOR THE CONTRACTORS FAILURE TO CARRY OUT THE CONSTRUCTION WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- 3. STRUCTURAL DESIGN BASED ON THE PROVISIONS OF THE NORG, 2012 EDITION (R3014 R3017)

DESIGN CRITERIA:	LIVE LOAD (PSF)	DEAD LOAD (PSF)	DEFLECTION (I	
ATTIC WITH LIMITED STORAGE	20	Ø	L/140	
ATTIC WITHOUT STORAGE	10	1Ø	L/360	
DECKS	40	lØ	L/360	
EXTERIOR BALCONIES	40	10	L/360	
FIRE ESCAPES	40	10	L/360	
HANDRAILS/GUARDRAILS	200 LB OR 50 (PLF.		L/360	
PASSENGER VEHICLE GARAGE	50	100	LB60	
ROOMS OTHER THAN SLEEPING	3 ROO 40	10	L/360	
BLEEPING ROOMS	30	10	L/36Ø	
STAIRS	40	lø.	L/360	
WND LOAD	(BASED ON FIGURE F	(BASED ON FIGURE R3Ø12(4) WIND ZONE AND EXPOSURE)		
GROUND SNOW LOAD: Pa	2Ø (PSF)			

- I-JOIST SYSTEMS DESIGNED WITH IZ PSF DEAD LOAD AND DEFLECTION (IN) OF L/480
- 4. FOR 90 AND 100 MPH WIND ZONES, FOUNDATION ANCHORAGE IS TO COMPLY WITH SECTION R40316 OF THE NORC, 2012 EDITION. FOR 110 MPH, 120 MPH, AND 130 MPH WIND ZONES, FOUNDATION ANCHORAGE IS TO COMPLY WITH SECTION 4504 OF THE NORC, 2012 EDITION.
- 5. ENERGY EFFICIENCY COMPLIANCE AND INSULATION VALUES OF THE BUILDING TO BE IN ACCORDANCE WITH CHAPTER II OF THE NORC. 2012

FOOTING AND FOUNDATION NOTES

- I FOUNDATION DESIGN BASED ON A MINIMUM ALLOWABLE BEARING CAPACITY OF 2000 PSF. CONTACT GEOTECHNICAL ENGINEER IF BEARING
- 2. FOR ALL CONCRETE SLABS AND FOOTNGS, THE AREA WITHIN THE PERMETER OF THE BUILDING BINELOPE SHALL HAVE ALL VEGETATION, TOP SOIL AND FOREIGN MATERIAL REPOYED. FILL MATERIAL SHALL BE FREE OF VEGETATION AND FOREIGN MATERIAL. THE FILL SHALL DE COMPACTED TO ASSURE UNFORM SUPPORT OF THE SLAS, AND EXCEPT UNFORM THE FILL DEPTHS SHALL NOT EXCEED AN FOR CLEAN SAND OR GRAVEL. A 4" THICK DASED CONSISTING OF CLEAN GRADED SAND OR GRAVEL SHALL BE PLACED. A BASE COURSE IS NOT REQUIRED UNFOR SAND-GRAVEL MALL BE PLACED. A BASE COURSE IS NOT REQUIRED UNFOR A CONCRETE SLAB IS INSTALLED ON WELL-DRANED OR SAND-GRAVEL MIXTURE SOILS CLASSIFIED AS GROUP L ACCORDING TO THE UNITED SOIL CLASSFICATION SYSTEM IN ACCORDANCE WITH TABLE R4951 OF THE NORC. 2012 EDITION
- 3. PROPERLY DEMATER EXCAVATION PRIOR TO POURNG CONCRETE WHEN BOTTOM OF CONCRETE \$LAB IS AT OR BELOW WATER TABLE. II APPLICABLE, 3/4" - I" DEEP CONTROL JOINTS ARE TO BE SAUED WITHIN 4 TO 12 HOURS OF CONCRETE FINISHING AND WALL LOCATIONS HAVE
- 4. CONCRETE SHALL CONFORM TO SECTION R4092 OF THE NORC, 2010 EDITION. CONCRETE REINFORCING STEEL TO BE ASTM A65 GRADE 60°, WELDED WIRE FABRIC TO BE ASTM A65. MANTAIN A MINIMUM CONCRETE COVER AROUND REINFORCING STEEL OF 3" IN FOOTINGS AND 1 12" IN SLABS, FOR POURCED CONCRETE WALLS, CONCRETE COVER FOR REINFORCING STEEL MEASURED FROM THE INSIDE FACE OF THE WALL SHALL NOT BE LESS THAN 91", CONCRETE COVER FOR REINFORCING STEEL HEASURED FROM THE OUTSIDE FACE OF THE WALL SHALL NOT BE LESS THAN 1 12" FOR 15 BARS OR SMALLER, AND NOT LESS THAN 2" FOR 15 BARS OR LARGER
- 5. MASONRY UNITS TO CONFORM TO ACE 530/ASCE 5/IMS 402. MORTAR SHALL CONFORM TO ASTM C210.
- 6. THE UNSUPPORTED HEIGHT OF MASONRY PIERS SHALL NOT EXCEED FOUR TIMES THEIR LEAST DIMENSION FOR UNFILLED HOLLOW CONCRETE MASONRY UNITS AND TEN THE'S THEIR LEAST DIMENSION FOR SOLID OR SOLID FILLED PIERS, FERS MAY BE FILLED SOLID WITH CONCRETE OR TYPE I OR 8 MORTAR PIERS AND WALLS BHALL BE CAPPED WITH 8" OF SOLID MASONRY.
- 1. THE CENTER OF EACH OF THE PIERS SHALL BEAR IN THE MIDDLE THIRD OF ITS RESPECTIVE FOOTING, EACH GIRDER SHALL BEAR IN THE
- 8. ALL CONCRETE AND MASCHRY FOUNDATION WALLS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH THE PROVISIONS OF SECTION R464 OF ALL CORRECTE AND TRACKET PROTOCOLOGY AND TO A CONTROLLED IN ACCORDANCE WITH THE PROVINCE OF SECTION 442 MEDICAL THE MORE AND A CONTROLLED WITH ACCORDANCE WITH HE PROVINCE OF SECTION ACCORDANCE WITH HE PROVINCE STATES AND A CELEBRATIC STATES AND A CONCRETE FOUNDATION WALLS ARE TO BE REINFORCED FER TABLE R4041X5) OF THE MORE, 2012 EDITION. STEP CONCRETE FOUNDATION WALLS AT

FRAMING NOTES

- ALL FRAMING LUMBER SHALL BE 12 SFF MINIMUM (FID = 815 PS), FV = 315 PS), E = 16000000 PS)) UNLESS NOTED OTHERWISE (UNO). ALL TREATED LUMBER SHALL BE 12 SYP MINIMUM (Fb = 915 P8), Fy = (15 P8), E = 16000000 P8) UNLESS NOTED OTHERUISE (UNO).
- LAMINATED VENEER LUMBER (LVL) SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES: Fb =2600 PSI, Fv = 265 PSI, E = 1900000 PSI. LAMINATED STRAND LUMBER (LSL) SHALL HAVE THE FOLLOWING MINIMM PROPERTIES: HD = 1935 PSI, Fv = 310 PSI, E = 1550000 PSI.
 PARALLEL STRAND LUMBER (PSL) UP TO 1" DEPTH SHALL HAVE THE FOLLOWING MINIMM PROPERTIES: FC = 2500 PSI, E =1000000 PSI. PARALLEL STRAND LUMBER (PSL) MORE THAN "1" DEPTH SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES: FG = 2900 PSI, E = 20000000 PSI. INSTALL ALL CONNECTIONS PER MANUFACTURER'S SPECIFICATIONS.
- 3. STRICTURAL STEEL SHALL CONFORM TO THE FOLLOWING ASTM SPECEICATIONS
 - W AND WT SHAPES:

CHANNELS AND ANGLES:

PLATES AND BARS

- ASTM A36
- ASTM ASA
- ASTM A500 GRADE B HOLLOW STRUCTURAL SECTIONS: ASTM A53 GRADE B. TYPE F OR S.

- STEEL BEAMS SHALL BE SUPPORTED AT EACH END WITH A MINIMUM BEARING LENGTH OF 3 VZ* AND FULL FLANGE WIDTH (UND), PROVIDE SOLID BEARING FROM BEAM SUPPORT TO FOUNDATION. BEAMS SHALL BE ATTACHED AT THE BOTTOM FLANGE TO EACH SUPPORT AS

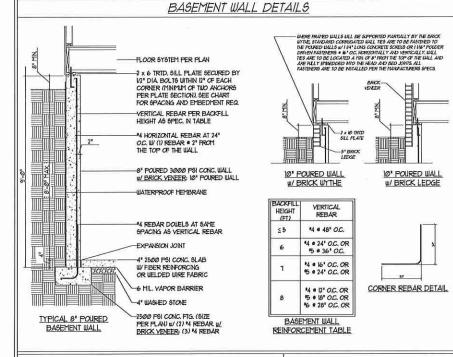
A LLOOD FRAMING B. CONCRETE

(2) 1/2" DIA x 4" LONG LAG SCREUS (2) V2" DIA x 4" WEDGE ANCHORS

C. MASONRY (FULLY GROUTED) (2) I/2" DIA x 4" LONG SIMPSON TITEN HD ANCHORS

LATERAL SUPPORT IS CONSIDERED ADEQUATE PROVIDING THE JOISTS ARE TOO NAILED TO THE 2X NAILER ON TOP OF THE STEEL BEAM, AND THE 2x NAILER IS SECURED TO THE TOP OF THE STEEL BEAT W (2) ROUS OF SELF TAPPING SCREUS . IG* O.C. OR (2) ROUS OF IZ* DIAMETER BOLTS . IS OC. IF I/2" BOLTS ARE USED TO FASTEN THE NAILER, THE STEEL BEAM SHALL BE FABRICATED W (2) ROUS OF 9/16" DIAMETER

- EQUARES DENOTE POINT LOADS WHICH REQUIRE SOLID BLOCKING TO GIRDER OR FOUNDATION, SHADED EQUARES DENOTE POINT LOADS FROM ABOVE WHICH REQUIRE SOLID BLOCKING TO SUPPORTING MEMBER BELOW.
- ALL LOAD BEARING HEADERS TO CONFORM TO TABLE R5/025(1) AND R5/025(2) OF THE NCRC, 2/012 EDITION OR BE (2) 2 x 6 WITH (1) JACK AND (I) KING \$TUD EACH END (UNO), UHICHEVER IS GREATER ALL HEADERS TO BE SECURED TO EACH JACK STUD WITH (4) Bd NAILS. ALL BEAMS TO BE SUPPORTED WITH (2) STUDS AT EACH BEARING POINT (UNO).
- ALL BEAYS, HEADERS, OR GIRDER TRUSSES PARALLEL TO WALL ARE TO BEAR FULLY ON (1) JACK OR (2) STUDS MINIMUM OR THE INTIBER OF JACKS OR STUDS NOTED. ALL BEAYS OR GIRDER TRUSSES PERPENDICULAR TO WALL AND SUPPORTED BY (3) STUDS OR LESS ARE TO HAVE LIVE MINIMUM BEARING (INC). ALL PEAMS OR GIRDER TRUSSES PERPENDICULAR TO HALL AND SUPPORTED BY MORE THAN (3) STUDS OTHER NOTED COLUMN ARE TO BEAR FULLY ON SUPPORT COLUMN FOR ENTIRE WALL DEPTH (UNO). BEAM ENDS THAT BUTT INTO ONE ANOTHER ARE TO EACH BEAR EQUAL LENGTHS (UNO).
- FLITCH BEAMS SHALL BE BOLTED TOGETHER USING 1/2" DIAMETER BOLTS (ASTM A3/01) WITH WASHERS PLACED AT THREADED END OF BOLT. BOLTS SHALL BE SPACED AT 24" CENTERS (MAXIMUM), AND STAGGERED AT TOP AND BOTTOM OF BEAM (2" EDGE DISTANCE), WITH (2) BOLTS LOCATED AT 6" FROM EACH END (UNO).
- 9. ALL 1-JOIST OR TRUSS LAYOUTS ARE TO BE IN COMPLIANCE WITH THE OVERALL DESIGN SPECIFIED ON THE PLANS. ALL DEVIATIONS ARE TO BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD PRIOR TO INSTALLATION
- BRACED WALL PANELS SHALL BE CONSTRUCTED ACCORDING TO THE CURRENT NORTH CAROLINA RESIDENTIAL CODE WALL BRACING CRITERIA THE AMOUNT, LENGTH, AND LOCATION OF BRACING SHALL COMPLY WITH ALL APPLICABLE TABLES IN SECTION RE0010.
- PROVIDE DOUBLE JOIST UNDER ALL WALLS PARALLEL TO FLOOR JOISTS. PROVIDE SUPPORT UNDER ALL WALLS PARALLEL TO FLOOR TRUSSES OR I-JOISTS PER MANUFACTURER'S SPECIFICATIONS. INSTALL, BLOCKING BETWEEN JOISTS OR TRUSSES FOR POINT LOAD SUPPORT FOR ALL POINT LOADS ALONG OFFSET LOAD LINES.
- FOR ALL HEADERS SUPPORTING BRICK VENEER THAT ARE LESS THAN 8"-0" IN LENGTH, REST A 6" x 4" x 5//6" STEEL, ANGLE WITH 6" MINIMUM EPBEDPENT AT SIDES FOR BRICK SUPPORT. FOR ALL HEADERS 8"-0" AND GREATER IN LENGTH, BOLT A 6" x 4" x 5% "5" STELL AYSLE TO HEADER WITH 12" LAG SCREUS AT 12" OC. STAGGERED FOR BRICK SUPPORT. FOR ALL BRICK SUPPORT AT ROOF LINES, BOLT A 6" x 4" x 5//6" STEEL ANGLE TO 2 x 1/0 BLOCKING INSTALLED BETWEEN WALL STUDS WITH 1/0" LAG SCREUS AT 10" O.C. STAGGERED AND IN
- FOR STICK FRAMED ROOFS, CIRCLES DENOTE (3) 2 x 4 POSTS FOR ROOF MEMBER SUPPORT, HIP SPLICES ARE TO BE SPACED A MINIMUM OF 8'-0", FASTEN MEMBERS WITH THREE ROUS OF 12d NAILS AT 16" O.C. FRAME DORFER WALLS ON TOP OF DOUBLE OR TRIPLE RAFTERS AS SHOUN (UNO)
- FOR TRUSSED ROOFS: FRAME DORMER WALLS ON TOP OF 2 x 4 LADDER FRAMING AT 24" O.C. BETWEEN ADJACENT ROOF TRUSSES. STICK FRAME OVER-FRAMED ROOF SECTIONS WITH 2 x 8 RIDGES, 2 x 6 RAFTERS AT 16" O.C. AND FLAT 2 x 10 VALLEYS (UNO).
- ALL 4 x 4 AND 6 x 6 POSTS TO BE INSTALLED WITH 100 LB CAPACITY UPLIFT CONNECTORS TOP AND BOTTOM (INO.) POSTS MAY BE SECURED USING ONE SIMPSON HE OR LIBU UPLIFT CONNECTOR FASTENED TO THE BAND AT THE BOTTOM AND THE BEAM AT THE TOP OF EACH POST, ONE IS SECTION OF SIMPSON CSIG COIL STRAPPING WITH (8) 84 HDG NAILS AT EACH END MAY BE USED IN LIEU OF EACH TUIST STRAP IF DESIRED. FOR MASONRY OR CONCRETE FOUNDATION USE SIMPSON POST BASE.



STRUCTURAL NOTES:

- FOR "4 REBAR, 24" HINIMIM REBAR LAP SPLICE LENGTH, FOR "5 REBAR, 33" MINIMIM REBAR LAP SPLICE LENGTH, FOR "6 REBAR, 38" MINIMIM REBAR LAP SPLICE LENGTH, FEBAR TO MAINTAIN A MINIMIM CONCRETE COVER TO SOLLS OF 3" AND TO FORTHLORK OF

- AIR GE? (1800).
 REBARTIO BE ASTIM ASIS GRADE 6:0.
 SOIL BEARRIS CAPACITY IS REQUIRED TO BE 2000 PSF HIN.
 RISTALL M L-BARS AT ALL WALL CORNERS AT SAFE SPACING AS HORIZ STEEL. SEE
- DETAIL
 THE FLOOR PRAYING IS TO BE INSTALLED AND A MIN. OF SEVEN DAYS IS REQUIRED TO
 ALLOUTHE CONCRETE TO CIRC BEFORE THE BACKFILL CAN BE INSTALLED. THE BACKFILL
 IS RECONTRIBUTED TO BE PLACED IN D' LIFTS AND CAREFULLY TAYFFED.
 A 4"LEDGE IS TO BE PROVIDED FOR THE FORCH SLAB. THE WILLS ARE REQUIRED TO DE
 BONDED TO THE SLABS USING 14 x 36" REBAR DOUBLS 33" OC. BYDEDDED 4" INTO THE
 CONC. USING BEPOXY.
- COME, ISMS EPOXT.

 WHERE THE FLOOR JOISTS ARE PARALLEL TO THE WALLS, 2 x 4 BLOCKINS IS TO BE
 NISTALLED 74" O.C. BETWEEN THE BOTTOM FLANGES OF THE FLOOR SYSTEM FOR A MIN. OF
 6-09" MAINT FROM THE WALL OR DIASCANE, 2 x 6 BLOCKS MAY BE NISTALED 74" O.C.
 FROM THE EDGE OF THE SILL FLATE TO THE TOP FLANGE AND SUBFLOORING, ATTACHED W (3) 12d NAILS FACH FND

NOTE TO FOUNDATION CONTRACTOR:

ALTERNATE REINFORCED CONCRETE POURED WALL DESIGNS ENGINEERED BY OTHERS MAY BE CONSTRUCTED, NO CONTINUOUS FOOTINGS OR LUG



GENERAL NOTES

- ENGINEER'S SEAL APPLIES ONLY TO STRUCTURAL COMPONENTS INCLUDING ROOF RAFTERS, HIPS, VALLEYS, RIDGES, FLOORS, WALLS, BEAMS, HEADERS, COLUMS, CANTILEVERS, OFFSET LOAD BEARING WALLS, PIERS, GIRDER SYSTEM AND FOOTING. ENGINEER'S SEAL DOES NOT CERTIFY DIMENSIONAL ACCURACY OF ARCHITECTURAL LAYOUT INCLUDING ROOF, ENGINEER'S SEAL DOES NOT APPLY TO 1-JOIST OR FLOOR/ROOF TRUSS LAYOUT DESIGN AND ACCURACY.
- ALL CONSTRUCTION SHALL CONFORM TO THE LATEST REQUIREMENTS OF THE NORTH CAROLINA RESIDENTIAL CODE (NCRC), 2011 EDITION, PLUS ALL LOCAL CODES AND REGULATIONS. THE STRUCTURAL ENGINEER IS NOT RESPONSIBLE FOR AND WILL NOT HAVE CONTROL OF CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, OR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE CONSTRUCTION WORK. NOR WILL THE ENGINEER BE RESPONSIBLE FOR THE CONTRACTORS FAILURE TO CARRY OUT THE CONSTRUCTION WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- 3. STRUCTURAL DESIGN BASED ON THE PROVISIONS OF THE NCRC, 2012 EDITION (R3014 R3011)

DESIGN CRITERIA	LIVE LOAD (PSF)	DEAD LOAD (POF)	DEFLECTION (
ATTIC WITH LIMITED STORAGE	20	10	L/240	
ATTIC WITHOUT STORAGE	100	10	L/360	
DECKS	40	10	L/360	
EXTERIOR BALCONIES	40	10	L/360	
FIRE ESCAPES	40	10	L/360	
HANDRAILS/GUARDRAILS	200 LB OR 50 (FLF)	ю	L/360	
PASSENGER VEHICLE GARAGE	5Ø	10	L/360	
ROOMS OTHER THAN SLEEPING ROO	40	10	L/360	
SLEEPING ROOMS	3∅	10	L/360	
STAIRS	40	Ø	L/360	
WND LOAD	(BASED ON FIGURE R3/012	(BASED ON FIGURE R3Ø12(4) WIND ZONE AND EXPOSURE)		
GROUND SHOW LOAD: Pa	20 (PSF)			

- 1-JOIST SYSTEMS DESIGNED WITH 12 PSF DEAD LOAD AND DEFLECTION (IN) OF L/480
- FLOOR TRUSS SYSTEMS DESIGNED WITH IS PSF DEAD LOAD
- FOR 90 AND 100 MFH WIND ZONES, FOUNDATION ANCHORAGE IS TO COMPLY WITH SECTION R403.16 OF THE NCRC, 7017 EDITION. FOR 110 MFH, 120 MPH, AND 130 MPH WIND ZONES, FOUNDATION ANCHORAGE IS TO COMPLY WITH SECTION 4504 OF THE NORC, 2012 EDITION
- 5. ENERGY EFFICIENCY COMPLIANCE AND INSULATION VALUES OF THE BUILDING TO BE IN ACCORDANCE WITH CHAPTER II OF THE NORC, 2012 **EDITION**

FOOTING AND FOUNDATION NOTES

- L FOUNDATION DESIGN BASED ON A MINIMUM ALLOWABLE BEARING CAPACITY OF 2000 PSF, CONTACT GEOTECHNICAL ENGINEER IF BEARING
- 2. FOR ALL CONCRETE SLABS AND FOOTINGS, THE AREA WITHIN THE PERINETER OF THE BUILDING BINELOPE SHALL HAVE ALL VEGETATION, TOP SOIL AND FOREIGN MATERIAL. REMOVED, FILL MATERIAL SHALL BE FREE OF VEGETATION AND FOREIGN MATERIAL. THE FILL SHALL BE COMPACTED TO ASSURE INFORM SUPPORT OF THE SLAB, AND EXCEPT WHERE APPROVED, THE FILL DEPTHS SHALL NOT EXCEED 24° FOR CLEAN GRAD OR GRAVEL A 4° THICK BLASED COURSE CONSISTING OF CLEAN GRADED SAND OR GRAVEL SHALL BE FLACED. A BASE COURSE IS NOT REQUIRED WHERE A CONCRETE SLAB IS INSTALLED ON WELL-DRAINED OR SAND-GRAVEL MIXTURE SOILS CLASSIFIED AS GROUP I, ACCORDING TO THE UNITED BOIL CLASSIFICATION SYSTEM IN ACCORDANCE WITH TABLE R405J OF THE NORC, 2012 EDITION.
- PROPERLY DEWATER EXCAVATION PRIOR TO POURN'S CONCRETE WHEN BOTTOM OF CONCRETE SLAB 16 AT OR BELOW WATER TABLE. IF APPLICABLE, 3/4" 1" DEEP CONTROL JOINTS ARE TO BE SAUED WITHIN 4 TO 12 HOURS OF CONCRETE FINISHING AND WALL LOCATIONS HAV BEEN MARKED. ADJUST WHERE NECESSARY.
- 4. CONCRETE SHALL CONFORM TO SECTION R4022 OF THE NORC, 2012 EDITION. CONCRETE REINFORCING STEEL TO BE ASTM A615 GRADE 60 WELDED WIRE FABRIC TO BE ASTIM AND, MAINTAIN A HINNIAM CONCRETE COVER AROUND REINFORCING STEEL OF 3" N FOOTINGS AND I VI" N SLABS, FOR POWER CONCRETE WALLS, CONCRETE COVER FOR REINFORCING STEEL MEASURED FROM THE INDIOE FACE OF THE WALL SHALL NOT BE LESS THAN 34". CONCRETE COVER FOR REINFORCING STEEL PRESAMED FROM THE CUITISDE FACE OF THE WALL. SHALL NOT BE LESS THAN I 1/2" FOR 15 BARS OR SMALLER, AND NOT LESS THAN 2" FOR 16 BARS OR LARGER
- MASONRY UNITS TO CONFORM TO ACE 530/ASCE 5/IMS 401. MORTAR SHALL CONFORM TO ASIM C210.
- 6. THE UNSUPPORTED HEIGHT OF MASONRY PIERS SHALL NOT EXCEED FOUR TIMES THEIR LEAST DIMENSION FOR UNFILLED HOLLOW CONCRETE MASONRY INITS AND TEN TIMES THEIR LEAST DIMENSION FOR SOLID OR SOLID FILLED PIERS, FERS MAY BE FILLED SOLID WITH CONCRETE OR TYPE H OR S HORTAR PIERS AND WALLS SHALL BE CAPPED WITH 8" OF SOLID MASONRY.
- THE CENTER OF EACH OF THE PIERS SHALL BEAR IN THE MIDDLE THIRD OF 116 RESPECTIVE FOOTING, EACH GIRDER SHALL BEAR IN THE MIDDLE THIRD OF THE PIERS.
- 8. ALL CONCRETE AND MASONRY FOUNDATION WALLS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 14/04 OF THE NCRC, 20/02 EDITION OR IN ACCORDANCE WITH ACI 319, ACI 339, NCYAL TRISH-A OR ACE 55/04/SCE 5/TIYS 40/21. MASONRY FOUNDATION WALLS ARE TO BE REINFORCED PER TABLE REVOLLEY, REVOLUEZ, REVOLUEZ, OR REVOLLEY, OF THE NCRC, 2012 EDITION, CONCRETE FOUNDATION WALLS ARE TO BE REINFORCED FER TABLE R4041X5) OF THE NORC, 2012 EDITION. STEP CONCRETE FOUNDATION WALLS TO 2 x 6 FRAMED WALLS AT 16" OC. WHERE GRADE PERMITS (UNO).

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FRAMING NOTES

- L ALL FRAMING LUMBER SHALL BE 12 SPF MINIMUM (Fb = 815 PS), Fv = 315 PS), E = 16/00/00/00 PSI) UNLESS NOTED OTHERUISE (UNO). ALL TREATED LUMBER SHALL BE 12 SYP MINIMUM (Fb = 915 P3), Fv =115 P3), E = 16000000 P3() UNLESS NOTED OTHERWISE (UNC
- 2. LAMINATED VENEER LIMBER (LVL) SHALL HAVE THE FOLLOWING MINIMM PROPERTIES: Po +2600 PSI, Fy + 285 PSI, E + 19000000 PSI LAMINATED STRAND LUMBER (LSL) SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES: Ho = 2325 PSI, Fy = 350 PSI, E = 5500000 PSI. PARALLEL STRAND LUMBER (PSL) UP TO 1" DEPTH SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES. FG = 2500 PSI, E = 18000000 PSI, PARALLEL STRAND LUMBER (PSL) MORE THAN 1" DEPTH SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES; FG = 2900 PSI, E = 20000000 PSL INSTALL ALL CONNECTIONS PER MANUFACTURER'S SPECIFICATIONS.
- 3. STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING ASTM SPECIFICATIONS

W AND WT SHAPES: CHANNELS AND ANGLES: ASTM A992 ASTM A36 PLATES AND BARS: ASTM A36 HOLLOW STRUCTURAL SECTIONS: ASTM A500 GRADE B ASTM A53, GRADE B. TYPE E OR S STEEL PIPE:

4. STEEL BEAMS SHALL BE SUPPORTED AT EACH END WITH A MINIMUM BEARING LENGTH OF 3 1/2" AND RULL FLANGE WIDTH (UNO), PROVIDE SOLID BEARNS FROM BEAM SUPPORT TO FOUNDATION. BEAMS SHALL BE ATTACHED AT THE BOTTOM FLANGE TO EACH SUPPORT AS

A WOOD FRAMING (2) 1/2" DIA x 4" LONG LAG SCREUS (2) I/2" DIA x 4" WEDGE ANCHORS (2) I/2" DIA x 4" LONG 9MPSON TITEN HD ANCHORS B. CONCRETE

C. MASONRY (FULLY GROUTED)

LATERAL SUPPORT IS CONSIDERED ADEQUATE PROVIDING THE JOISTS ARE TOO NAILED TO THE 2X NAILER ON TOP OF THE STEEL BEAM, AND THE 2x NAILER IS SECURED TO THE TOP OF THE STEEL BEAM w/ (2) ROUS OF SELF TAPPING SCREUS . IS OC. OR (2) ROUS OF V2" DIAMETER BOLTS . IG* O.C. F 1/2" BOLTS ARE USED TO FASTEN THE NAILER, THE STEEL BEAM SHALL BE FABRICATED W/ (2) ROUS OF 9/16" DIAMETER

- 5. SQUARES DENOTE POINT LOADS WHICH REQUIRE SOLID BLOCKING TO GIRDER OR FOUNDATION, SHADED SQUARES DENOTE POINT LOADS FROM ABOVE WHICH REQUIRE SOLID BLOCKING TO SUPPORTING MEMBER BELOW.
- 6. ALL LOAD BEARING HEADERS TO CONFORM TO TABLE R50/25(1) AND R50/25(2) OF THE NORC, 20/2 EDITION OR BE (2) 2 x 6 WITH (I) JACK AND (1) KING STUD EACH END (UNO), UHICHEVER IS GREATER ALL HEADERS TO BE SECURED TO EACH JACK STUD WITH (4) 8d NAILS. ALL BEAMS TO BE SUPPORTED WITH (2) STUDS AT EACH BEARING POINT (UNO).
- 1. ALL BEAMS, HEADERS, OR GIRDER TRUSSES PARALLEL TO WALL ARE TO BEAR FULLY ON (1) JACK OR (2) STUDS MINIMUM OR THE NUMBER OF JACKS OR STUDS NOTED. ALL BEAMS OR GIRDER TRUSSES PERPENDICILLAR TO WALL AND SUPPORTED BY (3) STUDS OR LESS ARE TO HAVE I IV. MINIMA BEARING (INO), ALL BEAMS OR GIRDER TRUSSES FERPENDICILLAR TO WALL AND SUPPORTED BY MORE THAN (3) STUDS OR OTHER NOTED COLUMN ARE TO BEAR FULLY ON SUPPORT COLUMN FOR ENTIRE WALL DEPTH (UNO), BEAM ENDS THAT BUTT INTO ONE ANOTHER ARE TO EACH BEAR EQUAL LENGTHS (UNO).
- 8. FLITCH BEAMS SHALL BE BOLTED TOGETHER USING IO* DIAMETER BOLTS (ASTM ASOT) WITH WASHERS PLACED AT THREADED END OF BOLT. BOLTS SHALL BE SPACED AT 24" CENTERS (MAXIMUM), AND STAGGERED AT TOP AND BOTTOM OF BEAM (2" EDGE DISTANCE), WITH (2) BOLTS LOCATED AT 6" FROM EACH END (UNO).
- 9. ALL I-JOIST OR TRUSS LAYOUTS ARE TO BE IN COMPLIANCE WITH THE OVERALL DESIGN SPECIFIED ON THE PLANS, ALL DEVIATIONS ARE TO BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD PRIOR TO INSTALLATION
- 10. BRACED WALL PANELS SHALL BE CONSTRUCTED ACCORDING TO THE CURRENT NORTH CAROLINA RESIDENTIAL CODE WALL BRACING CRITERIA THE AMOUNT, LENGTH, AND LOCATION OF BRACING SHALL COMPLY WITH ALL APPLICABLE TABLES IN SECTION RE
- PROVIDE DOUBLE JOIST INDER ALL WALLS PARALLEL TO FLOOR JOISTS, PROVIDE SUPPORT INDER ALL WALLS PARALLEL TO FLOOR TRUSSES OR 1-JOISTS PER MANUFACTURER'S SPECIFICATIONS, INSTALL BLOCKING BETWEEN JOISTS OR TRUSSES FOR POINT LOAD SUPPORT FOR ALL POINT LOADS ALONG OFFSET LOAD LINES.
- 12. FOR ALL HEADERS SUPPORTING BRICK YENEER THAT ARE LESS THAN 8".0" IN LENGTH, REST A 6" x 4" x 5//6" STEEL ANGLE WITH 6" MINIMUM EMBEDMENT AT BIDES FOR BRICK SUPPORT. FOR ALL HEADERS 8'-0' AND GREATER IN LENGTH, BOLT A 6' x 4" x 51/6" STEEL ANGLE TO HEADER WITH 1/1" LAG SCREWS AT 12" O.C. STAGGERED FOR BRICK SUPPORT. FOR ALL BRICK SUPPORT AT ROOF LINES, BOLT A 6' x 4" x 5/16" STEEL ANGLE TO 2 x 10 BLOCKING INSTALLED BETWEEN WALL STUDS WITH V2" LAG SCREWS AT 12" O.C. STAGGERED AND IN
- 13. FOR STICK FRAMED ROOFS: CIRCLES DENOTE (3) 2 x 4 FOSTS FOR ROOF MEMBER SUPPORT. HIP SPLICES ARE TO BE SPACED A MINIMUM CF 8'-0". FASTEN MEMBERS WITH THREE ROUS OF 12d NAILS AT 16" O.C. FRAME DORMER WALLS ON TOP OF DOUBLE OR TRIPLE RAFTERS AS
- 14. FOR TRUSSED ROOFS: FRAME DORMER WALLS ON TOP OF 2 x 4 LADDER FRAMING AT 24" O.C. BETWEEN ADJACENT ROOF TRUSSES. STICK FRAME OVER-FRAMED ROOF SECTIONS WITH 2 x 8 RIDGES, 2 x 6 RAFTERS AT 16" O.C. AND FLAT 2 x 10" VALLEYS (UNO).
- IS. ALL 4 x 4 AND 6 x 6 POSTS TO BE INSTALLED WITH 100 LB CAPACITY UPLIFT CONNECTORS TOP AND BOTTOM (UNO.) POSTS MAY BE SECURED USING CHE SIMPSON HE OR LITSU UPLET CONNECTOR FASTENED TO THE BAND AT THE BOTTOM AND THE BEAM AT THE TOP OF EACH POST, CASE IS SECTION OF SIMPSON CSIS COIL STRAPPING WITH (8) BUT HOW NAILS AT EACH END MAY BE USED IN LIEU OF EACH TRUST STRAP IF DESIRED. FOR MASONRY OR CONCRETE FOUNDATION USE SIMPSON POST BASE.



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NOTES STANDARD STRUCTURAL

DATE: DECEMBER 22, 2017

SCALE N/A

GINEERED BY: IES REVIEWED BY, IST

S-0 STRUCTURAL NOTES

