PROPOSED NEW RESIDENCES FOR:

Habitat for Humanity® of St. Charles County

THE ROE

2041 TRADE CENTER DRIVE
ST. PETERS, MISSOURI 63376
636-978-5712

ARCHITECT

DONNA F. BOXX, ARCHITECT, P.C.

160 MARINE LANE
ST.LOUIS, MISSOURI 63146
(314)434–2333

CONSULTING ENGINEER

KREHER ENGINEERING INC.

208 NORTH MAIN STREET, SUITE H
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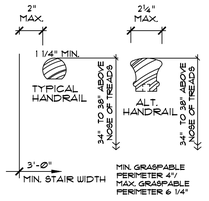
(618) 281–8505



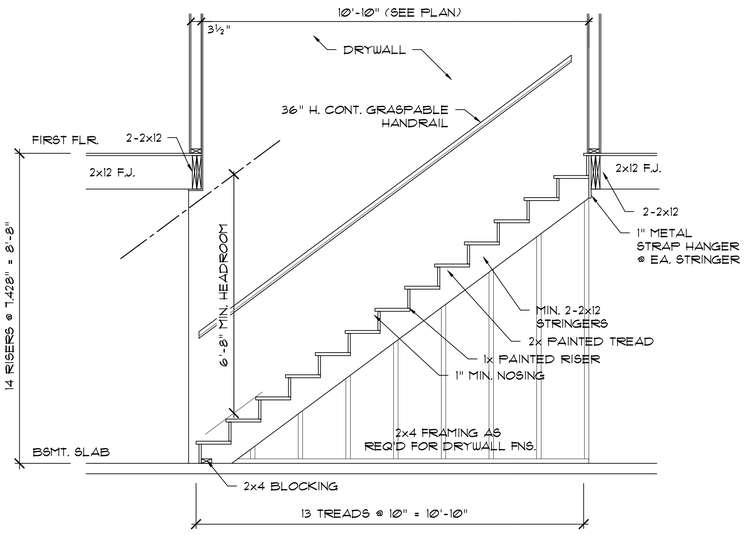
HANDRAIL DETAIL

STAIR NOTES:

(1) HANDRAILS SHALL MEET EITHER OF THE FOLLOWING:
(A) CIRCULAR CROSS SECTION WITH A MINIMUM DIAMETER OF 1 1/4" BUT NOT MORE THAN 2".
(B) OTHER APPROVED SHAPES HAVING A MAXIMUM ALLOWABLE HORIZONTAL WIDTH OF 2 1/4" MAXIMUM GRASPABLE PERIMETER DIMENSION OF 6 1/4" , AND/OR MINIMUM 4" GRASPABLE PERIMETER DIMENSION.

(2) HORIZONTAL RAILS, RAILS PARALLEL TO STAIR TREADS, AND ORNAMENTAL PATTERNS THAT PROVIDE A LADDER EFFECT ARE PROHIBITED.

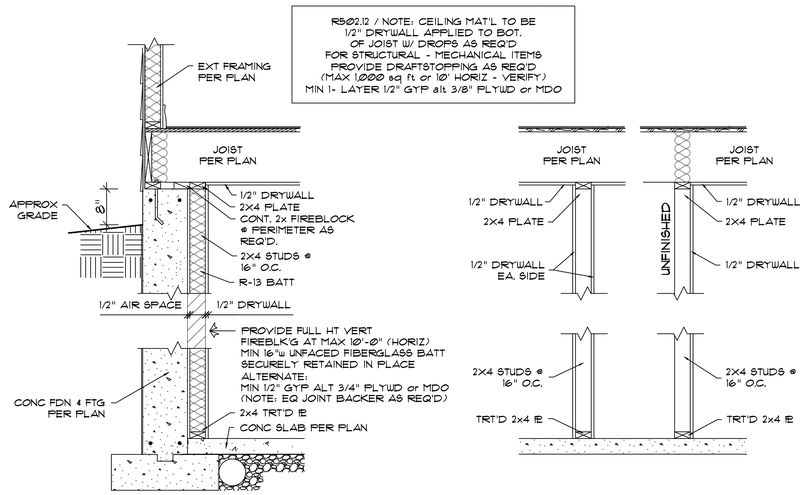
(3) HANDRAIL ENDS SHALL RETURN TO A WALL OR NEWEL.



STAIR SECTION

1/2" = 1'-0"

R502.12 / NOTE: CEILING MAT'L TO BE 1/2" DRYWALL APPLIED TO BOT. OF JOIST W/ DROPS AS REQ'D FOR STRUCTURAL - MECHANICAL ITEMS PROVIDE DRAFTSTOPPING AS REQ'D (MAX 1,000 sq ft or 10' HORIZ - VERIFY) MIN 1- LAYER 1/2" GYP alt 3/8" PLYWD or MDO



OPTIONAL FINISHED LOWER LEVEL WALL SECTIONS

3/4" = 1'-0"

LIST OF DRAWINGS

CO-1	COVER SHEET
GN-1	GENERAL NOTES
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A-3	EXTERIOR ELEVATIONS
A-4	FRONT AND REAR ELEVATIONS WALL SECTIONS AND DETAILS
A-5	LEFT AND RIGHT SIDE ELEVATIONS

ABBREVIATIONS

&	AND	ENCL.	ENCLOSURE	N.I.C.	NOT IN CONTRACT
L	ANGLE	EQ.	EQUAL	NO.	NUMBER
@	AT	EQUIPT.	EQUIPMENT	N.T.S.	NOT TO SCALE
℄	CENTERLINE	E.W.C.	ELECTRIC WATER COOLER		
ø	DIAMETER or ROUND	E.P.	ELECTRIC PANELBOARD		
±	PLUS or MINUS	EXIST.	EXISTING	O.A.	OVERALL
#	POUND or NUMBER	EXPO.	EXPOSURE	O.C.	ON CENTER
℄	PROPERTY LINE	EXP.	EXPANSION	O.D.	OUTSIDE DIAMETER
		EXT.	EXTERIOR	OFF.	OFFICE
				OPNG.	OPENING
ACOUS.	ACOUSTICAL			OPP.	OPPOSITE
A.C.T.	ACOUSTICAL CEILING TILE	F.D.	FLOOR DRAIN		
A.P.	ACCESS PANEL	FDN.	FOUNDATION		
A.D.	AREA DRAIN	F.E.	FIRE EXTINGUISHER	PL.	PLATE
ADJ.	ADJUSTABLE	F.E.C.	FIRE EXTINGUISHER CABINET	P.LAM.	PLASTIC LAMINATE
AGGR.	AGGREGATE	FIN.	FINISH	PLAS.	PLASTER
ALUM.	ALUMINUM	FL.	FLOOR	PLYWD.	PLYWOOD
ANOD.	ANODIZED	FLASH.	FLASHING	PR.	PAIR
APPROX.	APPROXIMATE	FLOUR.	FLOURESCNET	PART.	PARTITION
ARCH.	ARCHITECTURAL	F.O.C.	FACE OF CONCRETE		
ASB.	ASBESTOS	F.O.S.	FACE OF STUDS		
ASPH.	ASPHALT	FPRF.	FIREPROOF	Q.T.	QUARRY TILE
A.F.F.	ABOVE FINISH FLOOR	FT.	FOOT or FEET		
		FTG.	FOOTING		
BD.	BOARD	FURR.	FURRING	R.	RISER
BITUM.	BITUMINOUS	FUT.	FUTURE	RAD.	RADIUS
BLDG.	BUILDING			R.D.	ROOF DRAIN
BLK.	BLOCK	GA.	GAUGE	REF.	REFRIGERATOR
BLK'G.	BLOCKING	GALV.	GALVINIZED	REINF.	REINFORCED
BM.	BEAM	GL.	GLASS	REQD.	REQUIRED
BOT.	BOTTOM	GYP.	GYPSUM	RESIL.	RESILIENT
B.U.R.	BUILT–UP ROOFING			RM.	ROOM
				R.O.	ROUGH OPENING
CAB.	CABINET	H.B.	HOSE BIBB		
C.B.	CATCH BASIN	H.C.	HOLLOW CORE	S.C.	SOLID CORE
CEM.	CEMENT	HDWR.	HARDWARE	SCHED.	SCHEDULE
CER.	CERAMIC	H.M.	HOLLOW METAL	SECT.	SECTION
C.I.	CAST IRON	HORIZ.	HORIZONTAL	SHT.	SHEET
CLG.	CEILING	HR.	HOUR	SIM.	SIMILAR
CLKG.	CAULKING	HT.	HEIGHT	SPECC.	SPECIFICATION
CLO.	CLOSET			SQ.	SQUARE
CLR.	CLEAR	I.D.	INSIDE DIAMETER	S.STL.	STAINLESS STEEL
C.O.	CASED OPENING	INSUL.	INSULATION	S.SK.	SERVICE SINK
COL.	COLUMN	INT.	INTERIOR	STA.	STATION
CONC.	CONCRETE			STD.	STANDARD
CONN.	CONNECTION			STL.	STEEL
CONSTR.	CONSTRUCTION	JAN.	JANITOR	STRGE.	STORAGE
CONT.	CONTINUOUS	JT.	JOINT	STRUCT.	STRUCTURAL
COR.	CORRIDOR			SUSP.	SUSPENDED
CNTR.	COUNTER	KIT.	KITCHEN	SYM.	SYMMETRICAL
CTR.	CENTER				
C.M.U.	CONCRETE MASONRY UNIT	LAB.	LABORATORY	T.	TREAD
		LAM.	LAMINATE	T.C.	TOP OF CURB
DBL.	DOUBLE	LAV.	LAVATORY	TEL.	TELEPHONE
DEPT.	DEPARTMENT	LKR.	LOCKER	T.&G.	TONGUE AND GROOVE
D.F.	DRINKING FOUNTAIN	LT.	LIGHT	T.P.	TOP OF PAVEMENT
DET.	DETAIL			T.W.	TOP OF WALL
DIA.	DIAMETER	MATL.	MATERIAL	TYP.	TYPICAL
DIM.	DIMENSION	MAX.	MAXIMUM	T.O.C.	TOP OF CONCRETE
DISP.	DISPENSER	M.C.	MEDICINE CABINET		
DN.	DOWN	MECH.	MECHANICAL	UNF.	UNFINISHED
DR.	DOOR	MET.	METAL	U.N.O.	UNLESS NOTED OTHERWISE
DWR.	DRAWER	MFR.	MANUFACTURER		
D.S.	DOWNSPOUT	MH.	MANHOLE		
DRWG.	DRAWING	MIN.	MINIMUM	VERT.	VERTICAL
		MIR.	MIRROR	VEST.	VESTIBULE
E.A.	EACH	MISC.	MISCELLANEOUS		
E.J.	EXPANSION JOINT	M.O.	MASONRY OPENING	W/	WITH
EL.	ELEVATION	M.SK.	MOP SINK	WD.	WOOD
ELEC.	ELECTRICAL	MTD.	MOUNTED	W/O	WITHOUT
ELEV.	ELEVATOR	MUL.	MULLION	WP.	WATERPROOF
EMER.	EMERGENCY			WT.	WEIGHT

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PROPOSED NEW RESIDENCES FOR:
2041 TRADE CENTER DRIVE
ST. PETERS, MISSOURI 63376
Habitat for Humanity® of St. Charles County

COVER SHEET
STAIR SECTION
THE ROE

DATE	JOB
3-11-2020	2020-13
REV.	
REV.	
REV.	

SHEET

CO-1

1 OF 1 SHEETS

TABLE R301.2(1) CLIMATIC and GEOGRAPHIC DESIGN CRITERIA											
GROUND SNOW LOAD (lbs/sf)	WIND SPEED (e) (mph)	SEISMIC DESIGN CATAGORY (g)	WEARTH-ING (a)	FROST LINE DEPTH (b)	TERMITE (c) LOAD	DECAY (d)	WINTER DESIGN TEMP (f)	ICE SHIELD UNDERLAY REQ (1)	FLOOD HAZZARD (h)	AIR FREEZE INDEX (j)	MEAN ANNUAL TEMP (k)
20	90	C	SEVERE	30"	MODERATE to HEAVY	SLIGHT to MOD	2 DEG F	YES	8/12/1995	-	56.3 DEG F

GENERAL NOTES

IN FIELD LAYOUT AND SHOP DETAILING THE CONTRACTOR MUST VERIFY AND COORDINATE DIMENSIONS ON ARCHITECTURAL, MECHANICAL AND STRUCTURAL DRAWINGS AND REPORT ANY DISCREPANCIES TO THE ARCHITECT. CONTRACTOR TO ASSUME FULL RESPONSIBILITY, UNRELIEVED BY REVIEW OF SHOP DRAWINGS OR PERIODIC OBSERVATIONS OF CONSTRUCTION FOR COMPLIANCE WITH THE CONTRACT DOCUMENTS, FOR DIMENSIONS TO BE CONFIRMED AND CORRELATED ON THE JOB SITE AND BETWEEN INDIVIDUAL DRAWINGS OR SETS OF DRAWINGS, FOR FABRICATION PROCESSES AND CONSTRUCTION TECHNIQUES (INCLUDING EXCAVATION, SHORING, SCAFFOLDS, BRACING, ERECTION, FORMWORK, ETC.) FOR COORDINATION OF THE VARIOUS TRADES AND FOR SAFE CONDITIONS ON THE JOB SITE. VARIATION IN THE FIELD CONDITIONS RELATIVE TO THE CONTRACT DOCUMENTS SHALL BE REPORTED TO THE ARCHITECT. WORK SHALL NOT PROGRESS UNTIL WRITTEN PERMISSION FROM THE ARCHITECT IS OBTAINED.

DO NOT SCALE DRAWINGS

CONCRETE

(1) STANDARDS
(A) ACI 318 BUILDING CODE REQUIREMENT FOR REINFORCED CONCRETE.
(B) ACI 315 MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES.
(C) ACI 347 RECOMMENDED PRACTICE FOR CONCRETE FORMWORK.
(D) ACI 304 RECOMMENDED PRACTICE FOR MEASURING, MIXING, TRANSPORTING AND PLACING CONCRETE.
(E) ACI 309 RECOMMENDED PRACTICE FOR CONSOLIDATION OF CONCRETE (ACI 309-72).
(F) ACI 308 RECOMMENDED PRACTICE FOR CURING CONCRETE.
(G) ACI 306 RECOMMENDED PRACTICE FOR COLD WEATHER CONCRETING.
(H) ACI 305 RECOMMENDED PRACTICE FOR HOT WEATHER CONCRETING
(2) ALL DETAILING, FABRICATION AND ERECTION FOR REINFORCING BARS AND THEIR SUPPORT IN THE FORMS WITH ACCESSORIES MUST FOLLOW THE ACI "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES." (ACI 315-LATEST)
(3) ALL POURED IN PLACE CONCRETE SHALL BE READY-MIXED AND HAULED IN ACCORDANCE WITH ASTM C94 WITH A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3000 PSI AT FOUNDATION WALLS, 2500 PSI & BASEMENT SLABS AND FOOTINGS AND 3500 PSI AT EXTERIOR SLABS ON GRADE AND GARAGE SLABS AND A MINIMUM OF 5 1/2 SACKS OF CEMENT PER CUBIC YARD. FOUNDATION WALLS AND FOOTINGS TO HAVE A MAXIMUM SLUMP OF 2" TO 5". SLABS ON GRADE AND WALKS TO HAVE A MAXIMUM SLUMP OF 2" TO 4". USE A WATER REDUCING AGENT (ASTM C494 TYPE A OR D) AND AIR ENTRAINING AGENT (ASTM C260: 6% +/- IN ALL CONCRETE). THE AGENTS MUST BE COMPATIBLE WITH EACH OTHER AND ALL OTHER INGREDIENTS IN THE CONCRETE. FINE AGGREGATE SHALL BE CLEAN, HARD, DURABLE AND FREE OF DELETERIOUS SUBSTANCES AND CONFORM TO ASTM C33. COARSE AGGREGATE SHALL BE CLEAN, HARD AND DURABLE WITHOUT FLAT OR ELONGATED PIECES AND SHALL CONFORM TO ASTM C33 #67. PORTLAND CEMENT SHALL CONFORM TO ASTM C150 TYPE I. WATER SHALL BE POTABLE. FORMS SHALL BE PLYWOOD IN GOOD CONDITION. APPLY A FORM RELEASE AGENT TO ALL FORMS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
(4) CONTINUOUS WALL FOOTINGS HAVE BEEN PROPORTIONED FOR AN ALLOWABLE SOIL BEARING PRESSURE OF 1500 PSF. SPREAD FOOTINGS HAVE BEEN PROPORTIONED FOR A NET ALLOWABLE SOIL BEARING PRESSURE OF 1500 PSF, OR 2000 PSF WITH A SOILS REPORT. BOTTOM OF FOOTINGS MUST EXTEND 1'-6" BELOW PRESENT GRADE OR INTO "ENGINEERED FILL" AND 2'-6" BELOW PROPOSED GRADE AND MUST BE ON UNDISTURBED SOIL OR "ENGINEERED FILL." SOIL BEARING PRESSURE IS ASSUMED BASED ON INFORMATION FURNISHED BY OWNERS AND SHOULD BE VERIFIED AT THE SITE BY A QUALIFIED SOILS ENGINEER.
(5) REINFORCING BARS ARE TO BE ASTM A615-UNCOMMON STOCK NON-GRADE STEEL UNLESS OTHERWISE NOTED, EXCEPT GRADE 60 STEEL AT ALL RETAINING WALLS. WELDED WIRE FABRIC ASTM A185, W1.4xW1.4. WELDED WIRE FABRIC MUST LAP 2" AT SIDE AND 6" AT ENDS AND BE WIRED TOGETHER.
(6) CONCRETE COVER OVER MAIN REINFORCING SHALL BE AS FOLLOWS: FOOTINGS 3", SLABS-ON-GRADE 1 1/2", WALLS 2" WHERE EXPOSED TO ACTION OF WEATHER OR GROUND. ALL BARS INCLUDING TEMPERATURE BARS ARE TO EXTEND WITHIN 3" OF THE OUTER FACES OF THE MEMBER INTO WHICH THEY FRAME.
(7) DOWELS IN WALL FOOTINGS TO BE EQUIVALENT IN SIZE AND NUMBER TO VERTICAL BARS. DOWELS MUST BE IN POSITION BEFORE PLACING CONCRETE. PUSHING BARS INTO FRESHLY POURED CONCRETE IS NOT ACCEPTABLE.
(8) ALL BARS SHALL LAP A MINIMUM OF 36 DIAMETERS WITH 1'-6" MINIMUM LAP. TEMPERATURE BARS IN WALLS SHALL HAVE A 1'-0" MINIMUM LAP. ANY SPLICE OF BARS OTHER THAN SHOWN ON PLANS MUST HAVE PRIOR APPROVAL OF THE STRUCTURAL ENGINEER.
(9) ALL STRUCTURAL STEEL MUST BE PROTECTED BY 3" OF CONCRETE WHERE EARTH WOULD OTHERWISE BE IN CONTACT WITH STEEL.
(10) PROVIDE THE FOLLOWING ADDITIONAL REINFORCING UNLESS OTHERWISE CALLED FOR ON STRUCTURAL PLANS:
(A) CORNER OF ALL CONCRETE WALLS TO MATCH HORIZONTAL REINFORCING.
(B) 2-#5 BARS AROUND ALL OPENINGS IN SLABS AND WALLS - EXTEND 2'-0" PAST FACE OF OPENING EACH SIDE (AT OPENINGS WHICH INTERRUPT 2 OR MORE BARS).
(11) THE MECHANICAL DRAWINGS MUST BE REFERRED TO FOR ALL MECHANICAL FLOOR REQUIREMENTS AND THE VARIOUS TRADES ARE RESPONSIBLE FOR THE PLACING OF SLEEVES, OUTLET BOXES, ANCHORS, ETC., THAT MAY BE REQUIRED.
(12) WHEN FOUNDATION WALLS SPAN FROM GROUND FLOOR TO FIRST FLOOR, BOTH GROUND FLOOR SLAB AND FIRST FLOOR SLAB MUST BE IN PLACE BEFORE BACKFILL IS PLACED.
(13) EXCAVATION FOR TOE RETAINING WALL FOOTINGS MUST BE HAND DUG AND CONCRETE PLACED AGAINST THE EARTH FOR FULL DEPTH OF FOOTING.
(14) CONCRETE WALLS SHALL HAVE CONSTRUCTION JOINTS NOT FURTHER THAN 100'-0" APART.
(15) THE TOP SURFACE OF FOOTING SHALL BE LEVELED. THE BOTTOM SURFACE OF FOOTING SHALL NOT HAVE A SLOPE EXCEEDING 1:10 HORZ. (10% SLOPE). FOOTINGS SHALL BE STEPPED WHERE IT IS NECESSARY TO CHANGE THE ELEVATION OF THE TOP SURFACE OF THE FOOTINGS OR WHERE SLOPE OF THE BOTTOM SURFACE OF THE FOOTING WILL EXCEED 1:10. IF THE FOOTING IS STEPPED TO ACCOMMODATE SLOPE, A VERTICAL STEP SHOULD CONNECT THE UPPER AND LOWER FOOTING WITH A 6" MIN. THICKNESS FOR VERTICAL STEP.
(16) REINFORCEMENT SUPPORT. WHERE PROVIDED IN SLABS-ON-GRADE, REINFORCEMENT SHALL BE SUPPORTED TO REMAIN IN PLACE FROM THE CENTER TO UPPER ONE-THIRD OF THE SLAB FOR THE DURATION OF THE CONCRETE PLACEMENT. PER 2015 IRC SECTION R506.2.4

STRUCTURAL STEEL

(1) ALL STRUCTURAL STEEL DETAILS SHALL COMPLY WITH AISC "SPECIFICATIONS FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDING." ALL STRUCTURAL STEEL SHALL CONFORM TO THE ASTM A992 SPECIFICATIONS.
(2) ALL WELDING WILL BE MADE ONLY BY OPERATORS WHO HAVE BEEN PREVIOUSLY QUALIFIED BY TESTS, AS PRESCRIBED IN THE "STANDARD QUALIFICATIONS PROCEDURE" OF THE AMERICAN WELDING SOCIETY.
(3) ALL COLUMN BASE PLATES SHALL BE SET ON STEEL SHIMS TO TRUE LEVEL LINE. GENERAL CONTRACTOR SHALL RAM A NON-SHRINK GROUT SOLIDLY UNDER THE ENTIRE BASE PLATE AREA. PROVIDE 1" DEPTH GROUT FOR PLATES BELOW 16", AND 1 1/2" DEPTH GROUT FOR PLATES 16" AND OVER MINIMUM DIMENSIONS.
(4) ANCHOR BOLTS SHALL EXTEND INTO CONCRETE NOT LESS THAN 9" WHERE POSSIBLE PLUS 4" +/- HOOK, AND SHALL BE HELD AT 2 1/2" MINIMUM FROM THE OUTSIDE FACE OF CONCRETE. ALL ANCHOR BOLTS SHALL BE HELD 1 1/2" FROM EDGE OF BASE PLATE WHERE POSSIBLE.
(5) ALL SURFACES (INSIDE AND OUTSIDE) OF STEEL COLUMNS SHALL BE GIVEN A SHOP COAT OF RUST INHIBITIVE PAINT, EXCEPT FOR CORROSION-RESISTANT STEEL ANS STEEL TREATED WITH COATINGS TO PROVIDE CORROSION RESISTANCE. PER 2015 IRC SECTION R407.2

WOOD ROOF TRUSSES

(1) REFERENCE STANDARDS:
(A) THE DESIGN AND FABRICATION CRITERIA OF ALL WOOD TRUSSES SHALL COMPLY WITH THE CURRENT IRC, ANSI/AF&PA NDS-2001, AND ANSI/TPI 1-2002.
(2) LUMBER:
(A) ALL LUMBER USED FOR TRUSS MEMBERS SHALL CONFORM TO THE PUBLISHED STRESS RATINGS FOR THE SPECIES AND GRADES AS SET OUT IN THE OFFICIAL GRADING RULES OF THE APPROPRIATE LUMBER ASSOCIATION OR AS LISTED IN THE REFERENCE SPECIFICATIONS, EXCEPT THAT WHERE THESE SPECIFICATIONS OR NOTES ON THE PLANS OR TRUSS ENGINEERING DESIGNS CALL FOR LUMBER WHICH EXCEEDS THE MINIMUM SET FORTH THERIN. THE SPECIFICATIONS AND PLANS SHALL BE APPLICABLE AND INFORMATION STATED OR SHOWN IN ONE SHALL APPLY AS IF IN BOTH.
(B) THE MOISTURE CONTENT OF ALL LUMBER SHALL BE WITHIN THE PROPER LIMITS, AS STATED IN THE REFERENCE SPECIFICATIONS, BUT SHALL NOT IN ANY CASE EXCEED 19%, NOR BE LESS THAN 7% AT THE TIME OF FABRICATION.
(3) CONNECTORS:
(A) ALL TRUSS CONNECTOR PLATES SHALL BE MANUFACTURED FROM ONLY PRIME COMMERCIAL QUALITY GALVINIZED SHEET STEEL NO LESS THAN 20 GAUGE THICKNESS, WHICH HAS A MINIMUM YIELD OF 33,000 PSI AND A MINIMUM UTLIMATE TENSILE STRENGTH OF 48,000 PSI. THE CORROSIVE RESISTANCE COATING SHALL BE 1.25 OZ. PER SQUARE FOOT COMMERCIAL CLASS HOT-DIPPED GALVANIZED OR EQUIVALENT.
(B) THE CONNECTOR PLATES SHALL BE MANUFACTURED SO AS TO HAVE A SERIES OF NAIL-LIKE PROJECTIONS, EACH PROJECTION OF WHICH SHALL HAVE PRACTICALLY PARALLEL SIDES THROUGHOUT ITS LENGTH WITH NO OFFSETS, EXCEPT THAT THE END SHALL BE SHAPED TO A BLUNT POINT OR WEDGE. EACH NAIL-LIKE PROJECTION SHALL BE MANUFACTURED SO ITS LENGTH IS NOT LESS THAN FIVE TIMES THE DIMENSION OF ITS GREATER WIDTH, AND FORMED IN A MANNER WHICH PERMITS THE PROJECTION TO SEPARATE RATHER THAN TO CUT THE WOOD FIBERS IN ACCORDANCE WITH ACCEPTED NAILING TECHNIQUES. EACH PLATE SHALL BEAR THE STAMPED NAME OF ITS MANUFACTURER WHICH SHALL BE THE SAME AS THE COMPANY FURNISHING THE APPROVED TRUSS ENGINEERING DESIGN.
(C) WHERE FIELD CONNECTIONS OF TRUSS SUB-ASSEMBLIES ARE NECESSARY, SPECIAL NAIL-ON SPLICE PLATES ARE ACCEPTABLE PROVIDING THE PLATE SIZES AND POSITIONS ARE SHOWN ON THE TRUSS ENGINEERING DESIGNS AS APPROVED BY A PROFESSIONAL ENGINEER.

FABRICATION OF WOOD TRUSSES

(1) ALL TRUSSES AND OTHER ROOF STRUCTURAL COMPONENTS SHALL BE FABRICATED IN A PROPERLY EQUIPPED MANUFACTURING FACILITY OF PERMANENT NATURE. THEY SHALL BE MANUFACTURED BY EXPERIENCED WORKMEN, USING PRECISION CUTTING AND TRUSS FABRICATION EQUIPMENT UNDER THE DIRECT SUPERVISION OF A QUALIFIED FOREMAN. ALL TRUSSES SHALL BE FABRICATED UNDER STRICT RULES OF INSPECTION AND QUALITY CONTROL AS THE LOCAL CODE MAY REQUIRE AND BE OPEN TO INSPECTION BY CONTRACTOR AND ARCHITECT AT ALL TIMES.

TRUSS ANCHORS

(1) ANCHOR EACH TRUSS BEARING POINT AT WALL WITH TYPE H1, NO. 18 GAUGE STEEL TIE BY SIMPSON CO. OR PER THE NAILING SCHEDULE AS INDICATED ON THE DRAWINGS.

ENGINEERING DESIGN AND SHOP DRAWINGS

(1) ALL TRUSS DESIGNS SHALL BEAR THE NAME, SEAL AND/OR REGISTERED NUMBER OF A LICENSED PROFESSIONAL ENGINEER.
(2) TRUSS DESIGN SHALL CONTAIN THE FOLLOWING DATA, AND COMPLY WITH REQUIREMENTS OF CURRENT IBC CODE WITH MINIMUM LOADS AS LISTED:
(A) LOADING (UNIFORM)
(1) TOP CHORD: 20 PSF LIVE LOAD, 10 PSF DEAD LOAD, SNOW DRIFT PER CURRENT IBC CODE.
(2) BOTTOM CHORD: 10 PSF DEAD LOAD. 20 PSF DEAD LOAD w/ ATTIC STORAGE. DEAD LOAD MAY BE REDUCED TO 5 PSF OR THE ACTUAL DEAD LOAD WHERE THE CLEAR HEIGHT BETWEEN THE BOTTOM CHORD AND ANY OTHER MEMBER OF THE TRUSS IS LESS THAN 30", OR EXCEEDS 30" FOR NO MORE THAN 12" HORIZONTALLY.
DEAD LOAD PLUS LIVE LOAD OF 20 PSF WHERE TRUSS CONFIGURATION ALLOWS A RECTANGULAR SPACE OF 42" VERTICALLY BY 24" HORIZONTALLY BETWEEN THE WEBS AND BOTTOM CHORD, IF ACCESSIBLE BY A PERMANENT OR PULL-DOWN STAIR AND THE PITCH OF THE BOTTOM CHORD IS LESS THAN 2:12.
EXCEPTION: (1) ATTICS WITH DRYWALL CEILINGS ACCESSED ONLY BY A 22" X 30" SCUTTLE OPENING WITHOUT A STAIR.
(2) WARNING SIGNS ARE ATTACHED TO THE TRUSSES ON EACH SIDE OF THE OPENING AT LEAST 36" ABOVE THE BOTTOM CHORD AND WITHIN 18" OF THE EDGE OF THE OPENING. THE SIGNS SHALL BE CONSTRUCTED OF METAL OR OTHER APPROVED DURABLE MATERIALS SUITABLE FOR THE LOCATION AND BE A MIN. OF 40 SQ.IN. IN AREA WITH 3/4" MIN. HIGH LETTERS ON A CONTRASTING BACKGROUND THAT READS "WARNING - TRUSSES NOT DESIGNED FOR ATTIC STORAGE."
(3) ATTIC AREAS OVER GARAGE AREAS WITH DRYWALL CEILINGS SHALL BE PROVIDED WITH A HORIZONTAL RAILING ATTACHED TO THE TRUSSES ON EACH SIDE OF THE OPENING AT LEAST 24" AND NOT MORE THAN 36" ABOVE THE BOTTOM CHORD. THE RAILING IS INTENDED TO BE AN OBSTRUCTION TO EASY ACCESS FOR STORAGE AND SHALL BE CONSTRUCTED OF EITHER 1x4s, 2x4s OR 3/8"x6" PLYWOOD. IT MAY BE SHOP OR FIELD APPLIED.
(B) METAL CONNECTOR GAUGE SIZES AND NAME OF CONNECTOR'S MANUFACTURER AND CAPACITY OF EACH CONNECTION.
(C) LUMBER SPECIFICATIONS
(D) PITCH, SPAN AND SPACING OF TRUSSES
(E) DESIGN LOADS AND ALLOWABLE STRESS INCREASE, IF ANY
(F) SIZE AND LOCATION OF ALL CONNECTOR PLATES
(G) TRUSS SUPPORTS
(H) CAMBER, IF ANY
(I) PERMANENET BRACING
(J) HANDLING AND ERECTION INSTRUCTIONS
(3) THREE COPIES OF EACH TRUSS DESIGN AND/OR SHOP DRAWINGS SHALL BE SUBMITTED TO THE ARCHITECT FOR REVIEW PRIOR TO THE FABRICATION OF ANY COMPONENTS.
(4) STRUCTURAL ENGINEER'S REVIEW OF DRAWINGS PREPARED BY CONTRACTORS, SUPPLIERS, ETC., ARE ONLY FOR CONFORMANCE WITH DESIGN CONCEPT. CONSTRUCTION SHALL NOT START WITHOUT SAID REVIEW.
(5) TRUSS COMPANY TO VERIFY KNEE HEIGHTS AND ROOF CONFIGURATION, AND TO NOTIFY THE ARCHITECT OF ANY INCONSISTANCIES PRIOR TO FABRICATION.

MASONRY

(1) MASONRY SHALL BE LAID IN A RUNNING BOND UNLESS NOTED OTHERWISE.
(2) BRICK VENEER WALLS REQUIRE WEEPHOLES AT LEAST 3/16" IN DIAMETER SPACED LESS THAN 33" APART.
(3) AT MASONRY VENEER WITH WOOD STUD BACKUP PROVIDE VENEER ANCHORS AS INDICATED BELOW:

ANCHOR REQUIREMENTS FOR SOLID BRICK VENEER ATTACHED TO WOOD STUD WALLS							
TYPE	MINIMUM SIZE	SHAPE	OUTSIDE FACE COVER (MIN)	EMBED-MENT (MIN)	AIR SPACE	PLACEMENT (MAX)	FASTENER SIZE (MIN)
SHEET METAL	7/8"w (MIN) x 22 GA.	CORRUGATED			1" MAX NOMINAL	24" HORIZ (MAX) 16" VERT 2.67 SQ. FT. MAX	8d COMMON

WOOD

(1) STANDARDS: "TIMBER CONSTRUCTION MANUAL" BY AMERICAN INSTITUTE OF TIMBER CONSTRUCTION (LATEST EDITION). "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION" BY THE NATIONAL FOREST PRODUCTS ASSOCIATION (LATEST EDITION).
(2) ALL LUMBER SHALL CONFORM TO THE SPECIES AND FULLY RECOGNIZE NOMINAL SIZES SHOWN ON THE PLANS OR TRUSS ENGINEER'S DESIGNS. ALL MEMBERS SHALL BE CUT FROM LUMBER WHICH BEARS THE PROPER GRADEMARK STAMP OF A RECOGNIZED GRADING ASSOCIATION OR LICENSED LUMBER INSPECTION AGENCY. NO LUMBER SHALL BE USED WHICH DOES NOT APPEAR TO CONFORM TO THE PROPER DIMENSIONS AND/OR GRADE.
(3) PROVIDE 1"x3" OR EQUIVALENT METAL CROSS BRIDGING NOT OVER 8'-0" O.C. FOR ALL WOOD JOISTS AND FLOOR TRUSSES.
(4) CUTTING, NOTCHING AND/OR BORING HOLES IN WOOD BEAMS, JOISTS, RAFTERS, OR STUDS SHALL NOT EXCEED THE LIMITATIONS NOTED IN THE CODE.

(5) NAILING AND FASTENING OF FLOOR, ROOF/CEILING, WALL AND ROOF SHEATHING, AND GYPSUM CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CODE.

(6) PROVIDE MID-HEIGHT BLOCKING AT ALL BEARING WALLS.
(7) PROVIDE DOUBLE JOISTS UNDER NON-BEARING WALLS PARALLEL TO JOISTS.
(8) PROVIDE 2x BLOCKING BETWEEN FLOOR JOISTS AT INTERIOR BEARING WALLS.
(9) PLYWOOD SHALL BE INSTALLED WITH THE FACE GRAIN PERPENDICULAR TO SUPPORT, AND SIZED AS FOLLOWS :
FLOOR - 3/4" THICK, 5-PLY WITH A 48/24 APA SPAN RATING.
ROOF - 1/2" THICK, 4-PLY, OR 3/8" THICK WITH EDGE SUPPORT
(TONGUE-AND-GROOVE, PANEL EDGE CLIPS, OR 2x LUMBER BLOCKING)
(10) WHERE NOTED ON PLAN, USE LUMBER AS MANUFACTURED BY "WEYERHAEUSER" - TRUSS JOIST WITH THE FOLLOWING MINIMUM PROPERTIES:
LSL - (TIMBERSTRAND) LAMINATED STRAND LUMBER: Fb = 2,325 psi, E = 1,550,000 psi, Fv = 310 psi.
LVL - (MICROLAM) LAMINATED VENEER LUMBER: Fb = 2,600 psi, E = 1,900,000 psi, Fv = 285 psi.
PSL - (PARALLAM) PARALLEL STRAND LUMBER: Fb = 2,900 psi, E = 2,000,000 psi, Fv = 290 psi.
(11) PROVIDE WOOD STUDS AS BUILT UP COLUMNS AT EACH END OF BEAM OR HEADER UNLESS OTHERWISE NOTED.
(12) PROVIDE SIMPSON OR EQUAL STANDARD COLUMN BASES, COLUMN CAPS, JOIST HANGERS AND BEAM HANGERS WHERE REQUIRED FOR FLOOR AND ROOF FRAMING.
(13) ALL FLOOR FRAMING SHALL BE DESIGNED TO SUPPORT THE FOLLOWING MINIMUMS:

FLOOR AREAS OTHER THAN SLEEPING ROOMS	L.L. 40 PSF
SLEEPING ROOMS	L.L. 30 PSF
BALCONY (EXTERIOR) LESS THAN 100 SQ. FT.	L.L. 40 PSF
DECK	L.L. 40 PSF

(14) POSTS AND TIMBER FRAMING OF QUALITY TO MEET MINIMUM STRESS REQUIREMENTS GIVEN IN THE TABLE BELOW (19% MAX. M.C.)
(SOUTHERN PINE #1)

Fb BENDING	(psi)	1200
Ft TENSION	(psi)	825
Fv SHEAR	(psi)	170
Fc PERPENDICULAR	(psi)	652
Fc PARALLEL	(psi)	100
E	(psi)	1,600,00

(15) HORZONTAL FRAMING OF QUALITY TO MEET MINIMUM STRESS REQUIREMENTS GIVEN IN THE TABLE BELOW (19% MAX. M.C.)
(SOUTHERN PINE)

		2x8s	2x10s	2x12s
Fb BENDING	(psi)	925	800	750
Ft TENSION	(psi)	550	475	450
Fv SHEAR	(psi)	175	175	175
Fc PERPENDICULAR	(psi)	565	565	565
Fc PARALLEL	(psi)	1350	1300	1250
E	(psi)	1,400,000	1,400,000	1,400,000

(16) WALL STUD FRAMING OF QUALITY TO MEET MINIMUM STRESS REQUIREMENTS GIVEN IN THE TABLE BELOW (19% MAX. M.C.)
(SPRUCE PINE FIR)

		BEARING WALL STUDS SUPPORTING ROOF	BEARING WALL STUDS SUPPORTING ROOF AND FLOOR
Fb BENDING	(psi)	500	875
Ft TENSION	(psi)	250	450
Fv SHEAR	(psi)	70	135
Fc PERPENDICULAR	(psi)	425	425
Fc PARALLEL	(psi)	625	1150
E	(psi)	1,200.000	1,400,000

(17) FOUNDATION ANCHORAGE: MIN 2X4 TRT'D SILL WITH ANCHOR BOLT PER PLAN (MIN 1/2" DIA) EMBEDED TO A DEPTH OF MIN. 8". THERE SHALL BE A MIN. OF 2 ANCHORS PER SECTION OF PLATE WITH ANCHORS LOCATED WITHIN 12" MAX. FROM EITHER END AND SPACED PER PLAN (6'-0" O.C. MAX). VERIFY WITH LOCAL UPLIFT REQUIREMENTS

EXTERIOR WALL SHEATHING

ENTIRE EXTERIOR IS TO BE SHEATHED WITH 1/2" PLYWOOD or 7/16" OSB WITH 6d @ 6" O.C. EDGE NAILING & @ 12" O.C. INTERMEDIATE NAILING. (ALTERNATE 16 GA. 1 3/4" STAPLES @3" O.C. EDGE NAILING & 6" O.C. INTERMEDIATE NAILING PER CODE. ADDITIONAL BRACING MAY BE REQUIRED PER CURRENT 2015 IRC WIND BRACING.
SEE PLANS FOR ADDITIONAL DESIGN / FRAMING CRITERIA.

DRYWALL

(1) DRYWALL INSTALLATIONS MUST BE IN ACCORDANCE WITH THE GYPSUM ASSOCIATION RECOMMENDED PRACTICES. THICKNESS, NAILING AND TAPING OF FIRE RATED TYPES MUST BE INSTALLED ACCORDING TO APPROVED TEST ASSEMBLIES.
(2) PROVIDE APPROVED WATER-RESISTANT GYPSUM BACKER BOARD AS A SUBSTRATUM IN BATHTUB AND SHOWER AREAS AND AT ANY PLUMBING PENETRATION. WATER-RESISTANT GYPSUM BOARD SHALL NOT BE INSTALLED OVER A VAPOR RETARDER IN A SHOWER OR TUB COMPARTMENT. WATER-RESISTANT BACKING BOARD SHALL BE PERMITTED TO BE USED ON CEILINGS WHERE FRAMING SPACING DOES NOT EXCEED 12" O.C. FOR 1/2 THICK OR 16" O.C. FOR 5/8" THICK.

FLASHING, CAULKING & SEALANTS

(1) FLASHING SHALL BE PROVIDED PER 2015 IRC SECTIONS R703.4 & R703.8.5

(2) EXTERIOR JOINTS AROUND WINDOWS AND DOOR FRAMES, BETWEEN WALL AND PENETRATIONS OR UTILITY SERVICES THROUGH WALL, FLOORS, AND ROOFS, AND ALL OTHER OPENINGS IN THE EXTERIOR ENVELOPE SHALL BE SEALED IN AN APPROVED MANNER. CORROSION RESISTANT FLASHING REQUIRED AT THE TOP AND SIDES OF ALL EXTERIOR DOORS AND WINDOWS AND AT THE INTERSECTION OF ALL MASONRY CONSTRUCTION AND FRAME CONSTRUCTION. (EXCEPTION: NOT REQUIRED WHERE APPROVED WATER RESISTANT SHEATHING AND CAULKING IS USED SO AS TO BE LEAKPROOF.)

DAMPPROOFING AND WATERPROOFING

(1) NO GROUND WATER PRESENT - PROVIDE DRAIN TILE OR PERFORATED PIPE AROUND THE PERIMETER OF THE OUTSIDE OF THE FOUNDATION OR INSIDE THE FOUNDATION UNDER SLAB. DRAIN DISCHARGE SHALL BE BY GRAVITY TO DAYLIGHT OR BE CONNECTED TO A BASEMENT FLOOR SUMP.
(A) AN APPROVED FILTER MEMBRANE SHALL BE PLACED OVER THE TOP OF THE JOINTS/PIPE PERFORATIONS. THE TILE/PIPE SHALL BE PLACED ON 2" MINIMUM GRAVEL OR CRUSHED STONE AND HAVE 6" MINIMUM COVER.
(B) PROVIDE A SUMP (min) 24" IN DIAMETER x 24" DEEP WITH A FITTED COVER CONNECTED TO THE FOUNDATION DRAIN PIPE UNLESS GRAVITY DISCHARGE. A SUMP PUMP SHALL BE PROVIDED IF BASEMENT IS FINISHED OR PARTIALLY FINISHED WITH PUMP DISCHARGE INTO AN APPROVED DISPOSAL SYSTEM.
(C) PROVIDE DAMPPROOFING OF FLOOR SLAB OF 6 MIL POLYETHYLENE FILM BELOW SLAB WITH POINTS IN MEMBRANE LAPPED (MIN. 6") AND SEALED.
(D) WALLS SHALL BE DAMPPROOFED WITH A BITUMINOUS MATERIAL.
3 LB. PER SQ. YD. OF ACRYLIC MODIFIED CEMENT, 1/8" COAT OF SURFACE BONDING MORTAR, OR BY ANY OF THE MATERIALS PERMITTED FOR WATERPROOFING.
(2) GROUNDWATER PRESENT - PROVIDE DRAINAGE SYSTEM INSIDE AND OUTSIDE OF FOUNDATION.
(A) DRAINAGE SYSTEM SHALL DISCHARGE BY GRAVITY TO DAYLIGHT OR BE CONNECTED TO AN APPROVED SUMP (MIN. 24" IN DIAMETER x 24" DEEP WITH FITTED COVER) HAVING A SUMP PUMP THAT DISCHARGES INTO AN APPROVED DISPOSAL SYSTEM.
(B) PROVIDE WATERPROOFING MEMBRANE UNDER FLOOR SLAB OF RUBBERIZED ASPHALT, BUTYLRUBBER, NEOPRENE, OR MINIMUM 6 MIL POLYVINYL CHLORIDE OR POLYETHYLENE WITH JOINTS LAPPED A MINIMUM OF 6" AND SEALED.
(C) FOUNDATION TO BE WATERPROOFED WITH 2 PLY HOT-MOPPED FELTS, 6 MIL PVC, 40 MIL POLYMER MODIFIED ASPHALT, OR 6 MIL POLYETHYLENE. JOINTS TO BE LAPPED AND SEALED PER MANUFACTURER'S INSTALLATION INSTRUCTION.
(D) WATERPROOFING TO BE APPLIED FROM THE BOTTOM OF THE WALL TO AT LEAST 12" ABOVE THE WATER TABLE ELEVATION. THE REMAINDER OF THE WALL TO BE DAMPPROOFED.
(E) ALL JOINTS IN WALLS AND FLOORS TO BE WATER TIGHT.
(3) 4 INCH MINIMUM GRAVEL BASE IS REQUIRED UNDER FLOOR SLAB AND SHALL PROVIDE A CONTINUOUS DRAINAGE TO A SUMP OR "DAYLIGHTED."
(4) SUMP SHALL DISCHARGE TO A STORM SEWER, OR SWALE AT LEAST 10'-0" AWAY FROM PROPERTY LINE, OR TO AN APPROVED WATERCOARSE.
(5) BACKFILL SHOULD BE PROPERLY COMPACTED & MATERIAL SHOULD BE FREE OF DELETERIOUS MATERIALS & LARGE ROCK.
(6) GUTTERS AREA REQUIRED WHERE ROOF OVERHANGS ARE LESS THAN 36".
(7) DOWNSPOUTS SHALL DIRECT WATER AWAY FROM THE FOUNDATION, AND NOT BE CONNECTED TO A SANITARY SEWER.
(8) BASEMENT AREAWAY DRAINS AND FOUNDATION DRAIN TILES ARE NOT TO BE CONNECTED TO A SANITARY SEWER.

GLAZING

ALL BASEMENTS, HABITABLE ATTICS, AND SLEEPING ROOMS SHALL HAVE AT LEAST ONE OPERABLE WINDOW OR EXTERIOR DOOR APPROVED FOR EMERGENCY EGRESS OR RESCUE. WHERE WINDOWS ARE PROVIDED FOR THIS PURPOSE, THE WINDOW SHALL HAVE THE BOTTOM OF THE CLEAR OPENING NOT MORE THAN 44" ABOVE THE FLOOR. ALL EGRESS OR RESCUE WINDOWS SHALL CONFORM TO THE FOLLOWING:
(A) MINIMUM NET CLEAR OPENING OF 5.7 SQ. FT. IF THE SILL IS 6 FT. OR MORE ABOVE FINISHED GRADE.
(B) MINIMUM NET CLEAR OPENING OF 5 SQ. FT. IF THE SILL IS LESS THAN 6 FT. ABOVE FINISHED GRADE.
(C) MINIMUM NET CLEAR OPENING HEIGHT OF 24".
(D) MINIMUM CLEAR OPENING WIDTH OF 20".
(1) GLAZING IN STORM DOORS, EXTERIOR OR INTERIOR DOORS, GUARDS AND RAILINGS, SWINGING / SLIDING PATIO DOORS AND PANELS TO BE SAFETY GLAZING TYPE II, LAMINATED SAFETY, OR APPROVED SHATTER RESISTANT PLASTIC. (SWING DOOR <9 SQ FT TYPE I).
(2) GLAZING IN ANY PORTION OF A BUILDING WALL ENCLOSING BATHTUBS, SHOWERS, HOT TUBS, ETC. WHICH IS LOCATED 60" ABOVE A STANDING SURFACE SHALL BE SAFETY GLAZING TYPE II.
(3) ANY GLAZING MATERIAL ADJACENT TO A DOOR WHERE THE NEAREST VERTICAL EDGE TO THE GLAZING MATERIAL IS WITHIN A 24" ARC OF EITHER VERTICAL EDGE OF A DOOR IN THE CLOSED POSITION, AND IF THE BOTTOM EDGE OF THE GLAZING MATERIAL IS LESS THAN 60" ABOVE THE FLOOR, MUST BE LAMINATED SAFETY GLAZING (<9 SQ FT TYPE I / >9 SQ FT TYPE II) FULLY TEMPERED GLASS OR APPROVED SHATTER RESISTANT PLASTIC.
(4) SAFETY GLAZING TYPE II IS REQUIRED FOR FIXED OR OPERABLE PANELS THAT MEET ALL OF THE FOLLOWING:
(A) INDIVIDUAL PANE GREATER THAN 9 SQ. FT.
(B) BOTTOM EDGE LESS THAN 18" ABOVE FLOOR.
(C) TOP EDGE MORE THAN 36" ABOVE FLOOR.
(D) WALKING SURFACE WITHIN 36" HORIZONTALLY.
EXCEPTION: THE FOLLOWING PRODUCTS AREA SPECIFICALLY EXEMPT FROM THE STANDARD FOR ARCHITECTURAL GLAZING MATERIALS: LOUVERS OF JALOUSIE DOORS, OPENINGS IN DOORS THROUGH WHICH A 3" DIAMETER SPHERE IS UNABLE TO PASS, AND LEADED GLASS OR FACETED GLASS PANELS.
(5) GLAZING IN HAND or GUARD RAILS SHALL BE SAFETY GLAZING TYPE II.
(6) GLAZING LOCATED WITHIN 36" HORIZ & LESS THAN 60" VERT, ADJACENT TO STAIRWAYS, LANDINGS AND RAMPS & WITHIN 60" HORIZ OF BOT TREAD SHALL BE SAFETY GLAZING TYPE II.
SKYLIGHTS AND SLOPED GLAZING:
(A) MULTIPLE LIGHT INSTALLATIONS - EACH LIGHT OR LAYER SHALL CONSIST OF ANY ONE OF THE FOLLOWING MATERIALS:
(1) LAMINATED GLASS WITH 30 MIL POLYVINYL BUTYRAL INTERLAYER.
(2) WIRED GLASS.
(3) APPROVED PLASTIC.
(4) HEAT STRENGTHENED GLASS.
(5) FULLY-TEMPERED GLASS
(B) SCREENS SHALL BE INSTALLED BELOW MULTIPLE LIGHTS WHICH CONTAIN HEAT-STRENGTHENED GLASS, FULL-TEMPERED GLASS AND WIRE GLASS AS THE BOTTOM LAYER. SCREENS SHALL BE NOT MORE THAN 4" BELOW THE GLASS, NOT LESS THAN 12 GAUGE, NOT LARGER THAN 1"x1" MESH, AND SHALL BE DESIGNED TO SUPPORT THE WEIGHT OF THE GLASS.

INSULATION

(1) BATT OR BLANKET INSULATION INCLUDING THE VAPOR RETARDER, BREATHER PAPER, OR OTHER PAPER, OR OTHER COVERINGS SHALL NOT BE LEFT EXPOSED IN UNFINISHED BASEMENTS UNLESS THAT MATERIAL HAS A FLAME SPREAD RATING OF 25 OR LESS AND A SMOKE DEVELOPMENT RATING OF 450 OR LESS.
(2) ALL FOAM PLASTIC OR FOAM PLASTIC CORES IN MANUFACTURED ASSEMBLIES USED IN BUILDING CONSTRUCTION SHALL HAVE A FLAME-SPREAD RATING OF NO MORE THAN 75 AND SHALL HAVE A SMOKE-DEVELOPED RATING OF NOTE MORE THAN 450 WHEN TESTED IN THE MAXIMUM THICKNESS INTENDED FOR USE IN ACCORDANCE WITH ASTM E84.

FIRESTOPPING

(1) ALL PARTITIONS TO BE FIRESTOPPED AT THE TOP AND BOTTOM. ALL BEARING PARTITIONS TO BE FIRESTOPPED AT MIDPOINT. FIRESTOP WALL AT DROPPED SOFFITS AND DROPPED CEILINGS. FIRESTOPPING REQUIRED BETWEEN STAIRWAY STRINGERS AT THE TOP AND BOTTOM OF THE RUN. (THESE ITEMS TO BE VERIFIED WITH THE LOCAL FIRE AUTHORITY.)
(2) ALL DROPPED CEILINGS BELOW WOOD JOISTS OR ATTACHED DIRECTLY TO WOOD FLOOR TRUSSES SHALL BE DRAFT STOPPED AT MAXIMUM 1,000 S.F. INTERVALS, PARALLEL TO FRAMING MEMBERS. PROVIDE A IRC APPROVED SELF-CLOSING 22"x30" ACCESS PANEL IN ALL DRAFT STOPPED AREAS WITH A CLEAR HEIGHT OF OVER 30".
(3) FIREBLOCKING REQUIRED AROUND VENT, PIPE AND DUCT PENETRATIONS OF CEILINGS AND FLOORS .
(4) ALL SPACES BETWEEN THE CHIMNEY AND THE FLOORS AND CEILINGS THE CHIMNE PASSES THROUGH SHALL BE FIRE BLOCKED (1" DEPTH OF BATT OR BLANKET MINERAL WOOL OR GLASS FIBER SUPPORTED BY STRIPS OF METAL OR METAL LATH.)

ENERGY CONSERVATION

TABLE N1102.1.2 (R402.1.2) INSULATION AND FENESTRATION REQUIRMENTS BY COMPONENET (a)										
CLIMATE ZONE	FENESTRATION U-FACTOR (b)	SKYLIGHT U-FACTOR (b)	GLAZED FENESTRATION SHGC (b,e)	CEILING R-VALUE	WOOD FRAME WALL R-VALUE	MASS WALL R-VALUE (i)	FLOOR R-VALUE	BASEMENT WALL R-VALUE (c)	SLAB R-VALUE & DEPTH (d)	CRAWL SPACE WALL R-VALUE (c)
4 except MARINE	0.35	0.55	0.40	49	20 or 13 + 5 (h)	8/13	19	10/13	10, 2 ft	10/13

(a) R-VALUES ARE MINIMUMS. U-FACTORS ARE MAXIMUMS. WHEN INSULATION IS INSTALLED IN A CAVITY WHICH IS LESS THAN THE LABEL OR DESIGN THICKNESS OF THE INSULATION, OR INSTALLED R-VALUE OF THE INSULATION SHALL NOT BE LESS THAN THE R-VALUE SPECIFIED IN THE TABLE.
(b) THE FENESTRATIN U-FACTOR COLUMN EXCLUDES SKYLIGHTS. THE SHGC COLUMN APPLIES TO ALL GLAZED FENESTRATION.
(c) "10/13" MEANS R-10 CONTINUOUS INSULATION ON THE INTERIOR OR EXTERIOR OF THE HOME OR R-13 CAVITY INSULATION AT THE INTERIOR OF THE BASEMENT WALL. INSULATION SHALL EXTEND FROM TOP OF FOUNDATION WALL DOWN 10' BELOW GRADE OR TO THE BASMENT SLAB.
(d) R-5 SHALL BE ADDED TO THE REQUIRED SLAB EDGE R-VALUE FOR HEATED SLABS.
(e) N/A
(f) N/A
(g) N/A
(h) THE FIRST VALUE IS CAVITY INSULATION, THE SECOND VALUE IS CONTINUOUS INSULATION, SO "13+5" MEANS R-13 CAVITY INSULATION PLUS R-5 CONTINUOUS INSULATION.
(i) THE SECOND R-VALUE APPLIES WHEN MORE THAN HALF THE INSULATION IS ON THE INTERIOR OF THE MASS WALL.

MECHANICAL DUCTWORK IN UNHEATED CRAWL AND ATTIC SPACES — MIN. R-8 (SUPPLY) MIN. R-6 (ALL OTHERS)

HEATING, VENTILATING & AIR CONDITIONING

WORK SHALL CONSIST OF ALL SERVICES TYPICALLY KNOWN AS "DESIGN/BUILD" WORK, AND SHALL INCLUDE THE FURNISHING OF CONSTRUCTION DOCUMENTS, SPECIFICATIONS, ALL MATERIALS, LABOR, EQUIPMENT AND TOOLS REQUIRED TO PROVIDE A COMPLETE HVAC SYSTEM. ALL HVAC EQUIPMENT AND DUCTWORK SHALL COMPLY WITH THE 2015 IRC MECHANICAL SECTIONS AND INSTALLED PER SMACNA RECOMMENDATIONS.
(1) THERMOSTATS USED FOR HEATING AND COOLING SHALL BE CAPABLE OF BEING SET FROM 55° F TO 85° F AND SHALL BE CAPABLE OF OPERATING THE SYSTEM'S HEATING AND COOLING SEQUENCES. AT LEAST ONE THERMOSTAT SHALL BE PROVIDED FOR EACH HVAC SYSTEM. PROVIDE PROGRAMMABLE THERMOSTAT.
(2) DRYER VENTS AND BATH FANS SHALL BE 50 CFM MIN. AND VENT TO THE EXTERIOR (HALF BATHS WITH NO TUB OR SHOWER MAY VENT TO AN ATTIC GABLE VENT OR SOFFIT VENT). KITCHEN RANGE WITH HOOD AND DOWNDRAFT COOKTOP FANS SHALL BE 100 CFM MIN. AND VENT TO THE EXTERIOR.
(3) EXHAUST SYSTEMS SHALL BE INSTALLED WITH THE CAPACITY TO EXHAUST A MINIMUM AIR FLOW OF 50 CFM INTERMITTENT OR 20 CFM CONTINUOUS. DETAILS TO BE PROVIDED BY THE MECHANICAL SUBCONTRACTOR.
(4) MAKEUP AIR SHALL BE PROVIDED DURING THE OPERATION OF KITCHEN EXHAUSTED SYSTEMS OF 400 CFM OR GREATER EXHAUST FLOW. THE AMOUNT OF MAKE UP AIR SHALL BE APPROXIMATELY EQUAL TO THE AMOUNT OF EXHAUST AIR. MAKEUP AIR SHALL BE PROVIDED BY GRAVITY OR MECHANICAL MEANS OR BOTH. FOR MECHANICAL MAKEUP AIR SYSTEM, THE EXHAUST AND MAKEUP AIR SYSTEMS SHALL BE ELECTRICALLY INTERLOCKED TO ENSURE MAKEUP AIR IS PROVIDED WHENEVER THE EXHAUST SYSTEM IS IN OPERATION.
(5) MIN. CLEARANCE TO COMBUSTIBLES IS 18", UNLESS THE LISTED MANUFACTURER'S INSTALLATION INSTRUCTIONS ALLOW AN ALTERNATE CLEARANCE DIMNESION. A MINIMUM OF 30" OF CLEARANCE IS REQUIRED AT THE FRONT OF THE APPLIANCE FOR SERVICE. FUEL BURNING APPLIANCES IN A PRIVATE GARAGE SHALL HAVE A CLEARANCE OF 30" MIN. (OR HIGHER IF REQ'D. BY MANUF.) BETWEEN FINISHED FLOOR LEVEL AND THE COMBUSTION CHAMBER, AND BE PROTECTED FROM DAMAGE BY PIPE BOLLARDS OR OTHER APPROVED METHOD. SUSPENDED FUEL BURNING APPLIANCES IN PRIVATE GARAGES SHALL BE INSTALLED WITH A MIN. CLEARANCE OF 6'-0" ABOVE THE FLOOR.
(6) GAS VENTS SHALL EXTEND A MIN. OF 3'-0" ABOVE THE ROOF AT PENETRATION AND AT LEAST 2'-0" HIGHER THAN ANY PART OF THE BUILDING WITHIN 10'-0".
(7) EACH GAS APPLIANCE SHALL HAVE A GAS SHUTOFF, LOCATED IN THE SAME ROOM AND WITHIN 6' OF THE APPLIANCE AND A GROUND JOINT UNION. A SEDIMENT TRAP IS REQ'D. DOWNSTREAM AT THE APPLIANCE SHUTOFF.
(8) GAS PIPING SHALL BE IDENTIFIED AT INTERVALS OF NO MORE THAN 5 FEET.
(9) ATTIC AND ENCLOSED RAFTER SPACE VENTILATION AREA IS TO BE AT LEAST 1/150 OF THE AREA SERVED. MIN. TWO REMOTE VENTS REQUIRED. WHERE RIDGE OR GABLE VENTS ARE USED, 1/2 OF THE AREA IS TO BE PROVIDED BY RIDGE OR GABLE VENTS AND 1/2 BY EAVE OR CORNICE VENTS. REQUIRED VENTILATION AREA MAY BE REDUCED TO 1/300 WHERE A VAPOR RETARDER IS PROVIDED ON THE CONDITIONED SIDE OF THE INSULATION, OR WHERE THE GABLE OR RIDGE VENTS ARE LOCATED IN THE UPPER 1/3 OF THE ATTIC OR ENCLOSED RAFTER SPACE.
(10) FOUNDATION CRAWL SPACES MUST HAVE AT LEAST TWO REMOTE VENTS , AS CLOSE TO THE CORNERS AS POSSIBLE. VENT AREA SHALL BE AT LEAST 1/150 OF THE AREA SERVED.
(11) IN CRAWL SPACES POWER VENTS MAY BE SUBSTITUTED FOR NATURAL VENTILATION. POWER VENTS MUST EQUAL 0.02 CFM MIN. PER SF. OF AREA AND COME ON AUTOMATICALLY WHEN HUMIDITY REACHES 60% OR MORE. (ATTICS MAY NOT BE MACHANICALLY VENTILATED.)
(12) CLOTHES DRYER VENTS SHALL BE INDEPENDENT OF ALL OTHER SYSTEMS AND EXHAUST TO THE EXTERIOR THROUGH A MIN. 4" DIA. SMOOTH DUCT. THE MINIMUM DEVELOPED LENGTH OF THE DUCT SHALL BE 25'(M1502.4.4.1) OR 35'(G2439.5.5.1). OBTAINED BY ADDING 5' FOR EACH 90 DEGREE BEND AND 2'-6" FOR EACH 45 DEGREE BEND TO THE LENGTH OF THE STRAIGHT RUNS. (PER 2015 IRC)

ELECTRICAL

(1) ALL WORK SHALL CONSIST OF ALL SERVICES TYPICALLY KNOWN AS "DESIGN/BUILD" WORK, AND SHALL INCLUDE THE FURNISHING OF CONSTRUCTION DOCUMENTS AS REQUIRED, MATERIALS, LABOR, EQUIPMENT AND TOOLS TO INSTALL A COMPLETE SYSTEM OF ELECTRIC, POWER AND LIGHTING.
(2) INSTALL APPROVED SMOKE DETECTORS (AC POWERED AND UL LISTED) ON EACH LEVEL AS INDICATED ON THE DRAWINGS. ALL SMOKE DETECTORS SHALL BE INTERCONNECTED SO THAT AN ALARM WILL SOUND THROUGHOUT THE DWELLING UNIT. PROVIDE BATTERY BACKUP. INSTALLATION SHALL MEET NFPA72-07.
(3) RECESSED LIGHT FIXTURES INSTALLED IN INSULATED CEILINGS AND/OR ATTICS SHALL BE TYPE "I.C." NON-"I.C." TYPE FIXTURES ARE NOT ACCEPTABLE IN INSULATED CEILINGS, EVENWITH BOXES BUILT AROUND THEM.
(4) KITCHEN AND DINING AREA COUNTER RECEPTACLE SHALL BE SUPPLIED BY AT LEAST 2 DIFFERENT CIRCUITS.
(5) IN CLOTHES CLOSETS, INCANDESCENT FIXTURES WITH OPEN OR ONLY PARTIALLY ENCLOSED LAMPS AND PENDANT FIXTURES ARE PROHIBITED. FIXTURES MUST MEET THE FOLLOWING MIN. CLEARANCES TO THE NEAREST STORAGE SPACE: SURFACE MOUNTED INCANDESCENT FIXTURES - 12" MIN.± SURFACE MOUNTED FLOURESCENT FIXTURES AND RECESSED FIXTURES - 6" MIN.
(6) INTERIOR STAIRWAYS TO BE PROVIDED WITH A MINIMUM OF 10 FOOTCANDLES MEASURED AT EVERY TREAD NOSING. ALL EXTERIOR STAIRWAYS SERVING THE DWELLING TO HAVE A MINIMUM 1 FOOTCANDLE MEASURED ON THE TREAD RUNS. INTERIOR STAIRWAYS SHALL HAVE ILLUMINATED LIGHTING CONTROLS AT EACH FLOOR LEVEL. SWITCHES MUST BE OPERABLE FROM THE TOP AND BOTTOM OF THE STAIRWAY WITHOUT TRAVERSING ANY STEP OF THE STAIRWAY.
(7) GROUND FAULT CIRCUIT-INTERRUPTION PROTECTION SHALL BE PROVIDED IN THE FOLLOWING LOCATIONS:
(A) BATHROOMS
(B) GARAGES, EXCEPT CEILING MOUNTED RECEPTACLE FOR GARAGE DOOR OPENER.
(C) OUTDOORS
(D) UNFINISHED BASEMENTS AND CRAWL SPACES, EXCEPT LAUNDRY CIRCUIT.
(E) RECEPTACLES INTENDED TO SERVE COUNTERTOP SURFACES.
(F) RECEPTACLES INTENDED TO SERVE THE COUNTERTOP SURFACES OF A WET BAR THAT ARE LOCATED WITHIN 6'-0" OF THE OUTSIDE EDGE OF THE SINK.
(8) AT LEAST 1 LIGHTING OUTLET IS REQUIRED IN EACH ATTIC, CRAWL SPACE, BASEMENT OR UTILITY ROOM THAT IS USED FOR STORAGE OR CONTAINS HVAC EQUIPMENT REQUIRING SERVICING.
(9) ELECTRICAL SERVICES 600 AMPS OR ABOVE REQUIRE SUBMISSION OF RISER DIAGRAMS DETAILING THE WIRING FROM THE SERVICE ENTRANCE TO THE SUB PANELS. ELECTRICAL PANELS SHALL NOT BE INSTALLED IN BATHROOMS OR CLOTHES CLOSETS. LIGHTING IS REQUIRED IN THE VICINITY OF THE ELECTRICAL PANEL. A MINIMUM OF 3'-0" CLEARANCE IS REQUIRED IN FRONT OF ELECTRICAL PANELS.
(10) RECEPTACLE OUTLETS FOR RANGES AND CLOTHES DRYERS MUST BE THREE-POLE WITH GROUND TYPE.
(11) ALL BRANCH CIRCUITS THAT SUPPLY 120-VOLT, SINGLE PHASE, 15 & 20 AMPERE OUTLETS INSTALLED IN LIVING SPACES, BEDROOMS, CLOSETS, HALLWAYS, ETC., SHALL BE PROTECTED BY A COMBINATION TYPE ARC-FAULT CIRCUIT INTERRUPTER(S).
(12) EXTERIOR RECEPTACLES ARE TO BE PROVIDED FOR DECKS AND PORCHES WITH 20 SF OR MORE OF USEABLE AREA, AND WITHIN 25' OF THE A/C CONDENSING UNIT.
(13) IF THE UNDERGROUND METAL WATER PIPE IS USED AS THE GROUNDING ELECTRODE, THE CONNECTION MUST BE MADE TO THE PIPE WITHIN 5'-0" OF THE POINT OF ENTRANCE TO THE BUILDING. A SUPPLEMENTAL GROUNDING ELECTRODE SHALL BE PROVIDED AS SPECIFIED IN NEC SECTIONS 250-81 OR 250-83.
(14) INTERSYSTEM BONDING TERMINAL SHALL BE PROVIDED FOR GROUNDING COMMUNICATION SYSTEMS (CABLE TV AND SATELLITE DISHES.)
(15) AT LEAST ONE COMMUNICATION OUTLET SHALL BE INSTALLED WITHIN THE DWELLING AND CABLED TO THE SERVICE PROVIDER DEMARCATION POINT.

PLUMBING

(1) ALL WORK SHALL CONSIST OF ALL SERVICES TYPICALLY KNOWN AS "DESIGN/BUILD" WORK, AND SHALL INCLUDE THE FURNISHING OF CONSTRUCTION DOCUMENTS AS REQUIRED, MATERIALS, LABOR, EQUIPMENT AND TOOLS TO PROVIDE A COMPLETE SYSTEM OF PLUMBING AND SEWERING.
(2) ALL HOSE BIBS TO BE FREEZE-PROOF AND PREVENT BACK-FLOW..
(3) LEAD-FREE SOLDER IS REQUIRED ON ALL COPPER WATER SUPPLY PIPING.
(4) THE WATER SERVICE PIPE AND THE BUILDING SEWER ARE TO BE A MIN. OF 10'-0" APART HORIZONTALLY.
(5) SHOWERS AND BATHTUB/SHOWER ENCLOSURES SHALL HAVE WALLS CONSTRUCTED OF SMOOTH, NONCORROSIVE, NONABSORBENT AND WATERPROOF MATERIALS TO A HEIGHT OF NOT LESS THAN 6'-0" ABOVE THE ROOM FLOOR LEVEL. SHOWER FLOOR SURFACES TO BE SMOOTH NONCORROSIVE, NONABSORBENT AND WATERPROOF MATERIALS.
(6) WATER SERVICE LINE SHALL BE IN ACCORDANCE WITH THE FOLLOWING:
(A) 1" SERVICE LINE - UP TO 3 1/2 BATHS
(B) 1 1/4" SERVICE LINE - UP TO 6 BATHS
(C) 1 1/2" SERVICE LINE - MORE THAN 6 BATHS
(THIS COUNT INCLUDES ONE KITCHEN SINK, ONE CLOTHES WASHER SUPPLY AND LAUNDRY SINK, AND TWO 1/2" EXTERIOR CONTINUOUS USE HOSE BIBS. ROUGHED-IN FIXTURES SHALL BE INCLUDED IN THE COUNT.
(7) AN EXPANSION TANK IS REQUIRED FOR WATER HEATERS OF MORE THAN 30 GALLONS.

ROOFING

TABLE R905.2.4.1 CLASSIFICATION OF ASPHALT ROOFING SHINGLES			
MAX ULTIMATE DESIGN WIND SPEED FROM FIG R301.2(4)A (mph)	MAX BASE WIND SPEED FROM TABLE R301.2.1.3 (mph)	ASTM D 7158 SHINGLE CLASSIFICATION	ASTM D 3161 SHINGLE CLASSIFICATION
116	90	D, G or H	A, D or F

(1) ALL UNDERLAYMENT TO BE A MINIMUM OF TYPE 1 PER ASTM D 226 OR TYPE 1 PER ASTM D 4869. TYPE 1 COMMONLY CALLED NO. 15 ASPHALT. PER 2015 IRC TABLE R905.1.1(1)
(2) PROVIDE CORROSION RESISTANT METAL FLASHING AT ALL ROOF INTERSECTIONS, ROOF AND WALL INTERSECTIONS, INTERSECTION WITH CHIMNEYS, INTERSECTION OF EXTERIOR WALLS AND PORCHES AND DECKS, ETC. ROLLED ROOFING OR TWO LAYERS OF TYPE 1 UNDERLAYMENT MAY BE SUBSTITUTED FOR FLASHING AT THE ROOF VALLEY PROVIDED THE SHINGLES ARE INTERLACED.
(3) THE UNDERLAYMENT SHALL BE INSTALLED TO EXTEND AT LEAST 18" BEYOND A ROOF VALLEY OR HIP FROM EITHER DIRECTION.
(4) MIN. ROOF SLOPE TO BE 1/4:12 WITH APPROVED LOW-SLOPE ROOF COVERING MATERIALS.
(5) MINERAL-SURFACED ROLL ROOFING SHALL CONFORM TO ASTM D 224, D 249, D 371, D 3909. IT SHALL NOT BE INSTALLED ON ROOF SLOPES BELOW 1:12.
(6) ASPHALT AND FIBERGLASS SHINGLES SHALL BE INSTALLED PER MFG SPECIFICATIONS AND ARE TO BE APPROVED SELF-SEALING TYPES OR HAND SEALED. A MINIMUM OF ONE LAYER OF TYPE 1 UNDERLAYMENT IS REQUIRED OVER THE ENTIRE ROOF FOR ALL ROOF PITCHES EQUALING OR EXCEEDING 4:12. SLOPES OF 2:12 TO LESS THAN 4:12 SHALL BE PROTECTED WITH 2-LAYERS OF UNDERLAYMENT. ASPHALT SHINGLES SHALL NOT BE INSTALLED ON ROOF SLOPES BELOW 2:12.
(7) AN ICE SHIELD IS REQUIRED - TWO LAYERS OF TYPE 1 UNDERLAYMENT CEMENTED TOGETHER OR AN APPROVED WATERPROOFING MEMBRANE FROM THE EDGE OF THE EAVE TO AT LEAST 24" INSIDE THE EXTERIOR WALL LINE PER CODE.

MISCELLANEOUS

(1) FINISH GRADES AT THE BUILDING TO BE MIN. 8" BELOW TOP OF FOUNDATION AT FRAME OR BRICK VENEER WALLS AND 6" MIN. BELOW TOP OF FOUNDATION AT MASONRY WALLS.
(2) FINISHED GRADE SHALL SLOPE AWAY FROM THE FOUNDATION A MIN. OF 6" WITHIN THE FIRST 10' OR TO A SWALE. IMPERVIOUS SURFACES WITHIN 10' OF THE BUILDING FOUNDATION SHALL BE SLOPED A MIN. OF 2% AWAY FROM THE BUILDING.
(3) CABINET SUPPLIER TO FIELD MEASURE AREA OF WORK AFTER ROUGH FRAMING TO ASSURE EXACT FIT OF CABINETS AND SCRIBES TO ASSURE FREE OPERATION OF ALL DOORS.
(4) INTERIOR FINISH MATERIALS SHALL NOT HAVE A FLAME SPREAD RATING EXCEEDING 200 OR A SMOKE DEVELOPMENT INDEX EXCEEDING 450.
(5) PROVIDE TERMITE TREATMENT.
(6) MASONRY CHIMNEY OUTLETS SHALL BE LOCATED A MIN. 3'-0" ABOVE POINT OF ROOF PENETRATION, AND A MIN. OF 2'-0" ABOVE ANY PART OF THE BUILDING WITHIN 10'-0".
(7) LOCKS WITH THUMB TURNS ON THE INSIDE ARE PERMITTED. INSIDE KEY OPERATION IS PERMITTED PROVIDED THE KEY CANNOT BE REMOVED FROM THE LOCK WHEN LOCKED FROM THE INSIDE.
(8) ALL WORK SHALL BE DONE IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL CODES.
(9) AUTOMATIC GARAGE DOOR OPENERS SHALL BE LISTED & LABELED IN ACCORDANCE WITH UL 325.
(10) PROVIDE ADDRESS NUMBERS PER SECTION R319.1.
(11) SEE TABLE R703.3(1) FOR SIDING MINIMUM ATTACHMENT & MINIMUM THICKNESS
(12) PROVIDE FLASHING PER CODE SECTIONS R703.4 & R703.8.5.

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PROPOSED NEW RESIDENCES FOR:
Habitat for Humanity® of St. Charles County
2041 TRADE CENTER DRIVE
ST. PETERS, MISSOURI 63376

GENERAL NOTES

THE ROE

DATE 3-11-2020	JOB 2020-13
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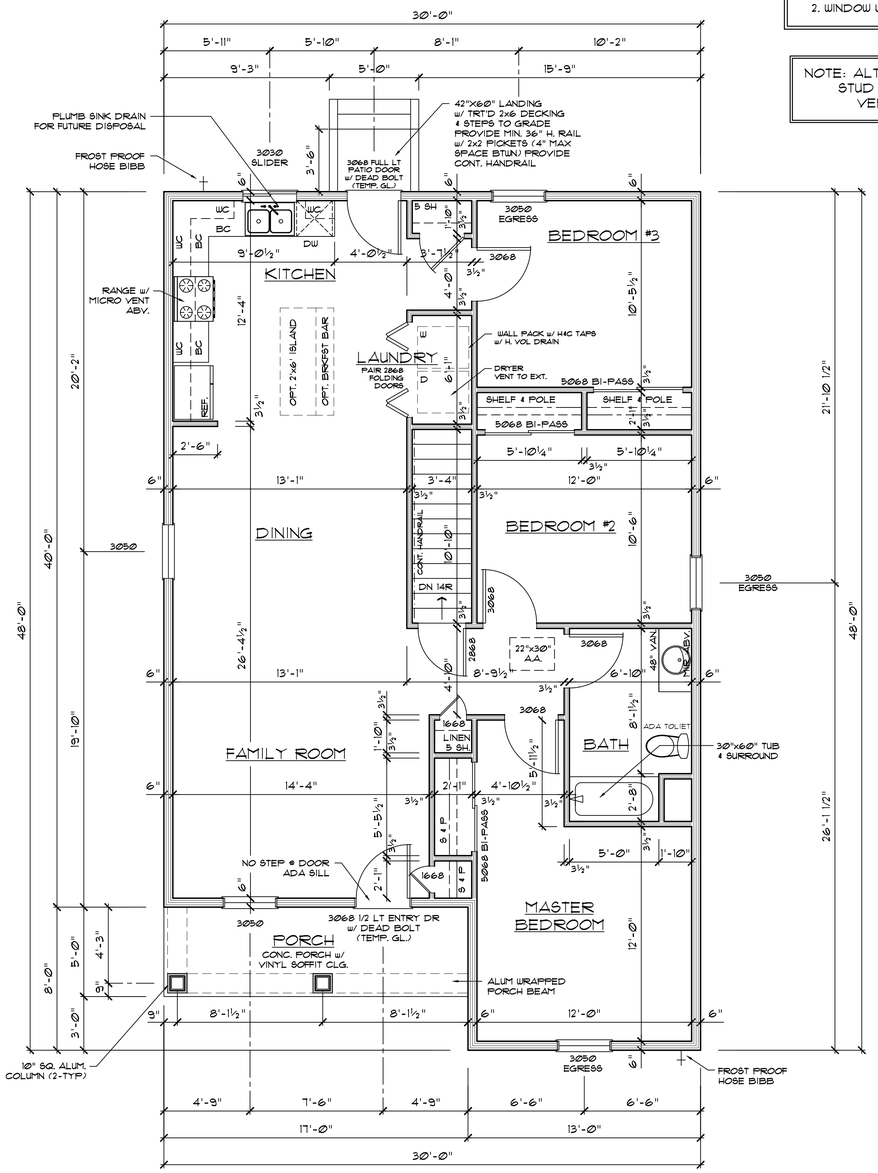
NOTE: PROVIDE 2x BLOCKING
@ TOILET AND TUB AREAS
FOR FUTURE GRAB BARS.

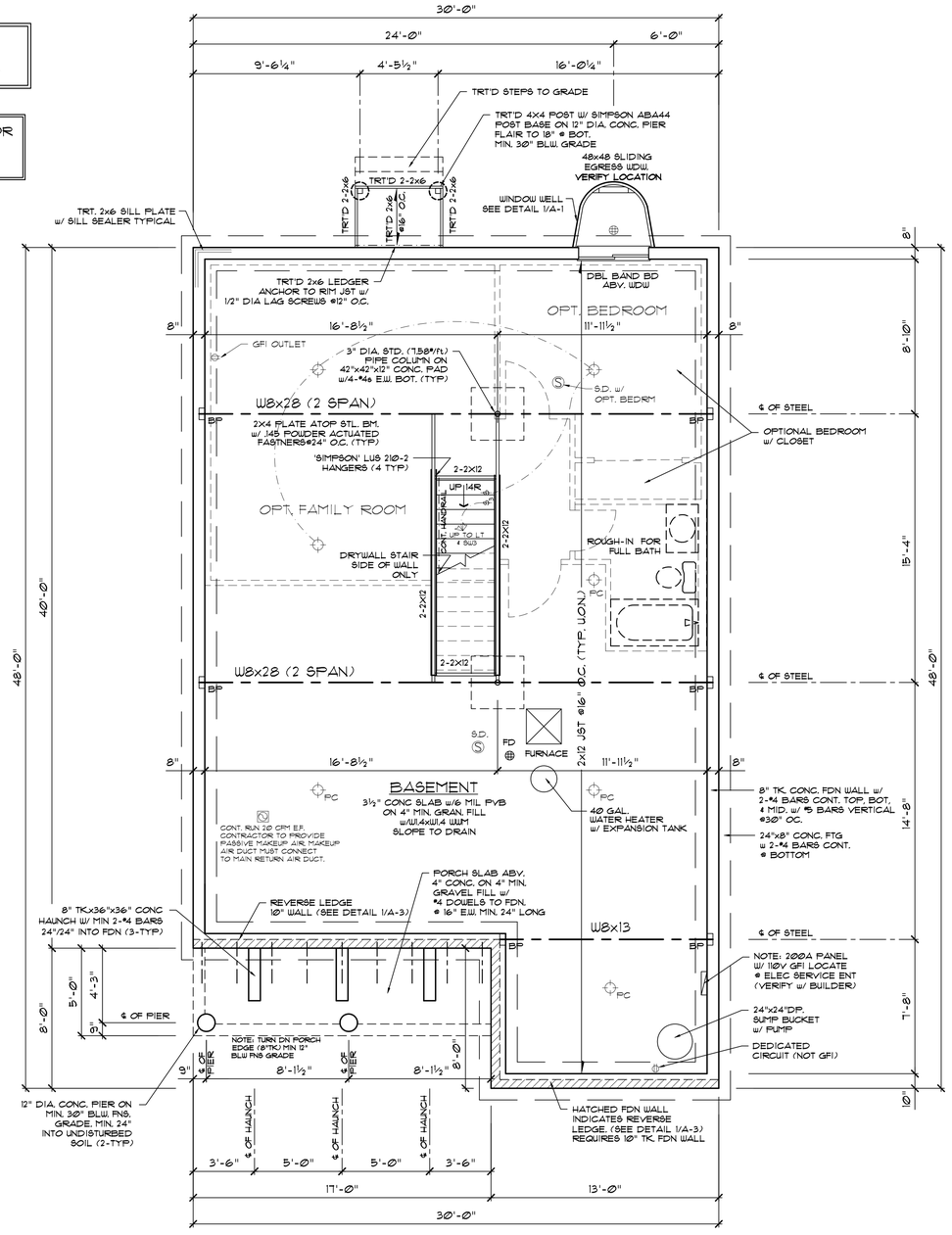
NOTES:
1. STD. 8'Ø WALL HEIGHT @ 1FL.
2. WINDOW UNITS BY "JEN-WELD" U.O.N.

NOTE: ALTERNATE 2X6 EXTERIOR
STUD MATERIAL @24" OC
VERIFY W/ BUILDER



FIRST FLOOR PLAN

1304 SQ 1/4" = 1'-Ø"



FOUNDATION / BASEMENT PLAN

1/4" = 1'-Ø"

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PROPOSED NEW RESIDENCES FOR:
2041 TRADE CENTER DRIVE
ST. PETERS, MISSOURI 63376
Habitat for Humanity® of St. Charles County

FOUNDATION / FOUNDATION PLAN
FIRST FLOOR PLAN

THE ROE

DATE 3-11-2020 | JOB 2020-13
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REV.
SHEET A-1
1 OF 4 SHEETS

FRAMING & ROOF FRAMING NOTES

1. ALL TRUSSES TO BE IBC-IRC APPROVED & DESIGNED BY OTHERS.
2. SHADED AREAS INDICATE OVERFRAMING. ALL OVERFRAMING AT ROOF SYSTEM TO BE AS FOLLOWS:
   a. MINIMUM 2X6'S @ 24" O.C. (MAX) WITH MAXIMUM SPAN OF 10'-0"
   b. 2X8'S @ 24" O.C. (MAX) WITH MAXIMUM SPAN OF 14'-0"
   c. 2X10'S @ 24" O.C. (MAX) WITH MAXIMUM SPAN OF 18'-0"
   ALL OVERFRAMING TO BEAR ON TRUSSES OR RAFTERS BELOW. STUB WALLS MUST NOT BEAR PERPENDICULAR TO TRUSS OR RAFTER, BUT BEAR AT AN ANGLE FROM THE PERPENDICULAR.
3. USE SIMPSON (OR EQUAL) HANGARS AS INDICATED ON PLANS.
4. ALL HEADERS TO BE 2-2X10'S UNLESS OTHERWISE NOTED.
5. ALL STEEL LINTELS AND/OR BEAMS TO HAVE A MINIMUM BEARING OF 8" AT EA END.
6. ALL 2X LEDGERS TO BE ANCHORED AS FOLLOWS:
   a. 3/4" DIA. EXPANSION ANCHORS MINIMUM 5" EMBEDDMENT INTO MORTAR JOINT @ 16" O.C. @ MASONRY WALLS.
   b. 2-16d NAILS PER STUD @ FRAME WALLS.
7. PROVIDE TRIPLE WOOD 2X STUDS AS BUILT UP COLUMNS AT EA END OF BEAM OR HEADER UNLESS NOTED OTHERWISE.

STRUCTURE BRACED PER 2015 IRC SIMPLIFIED METHOD (R602.12)

ALL EXTERIOR WALLS ARE FULLY SHEATHED W/ MIN. 7/16" WD. STRUCTURAL PANEL SHEATHING

B.W.P. - - - - - - -
BRACED WALL PANEL, INSTALLED ACCORDING TO 2015 I.R.C. R602 (WOOD STRUCTURAL PANEL SHEATHING)

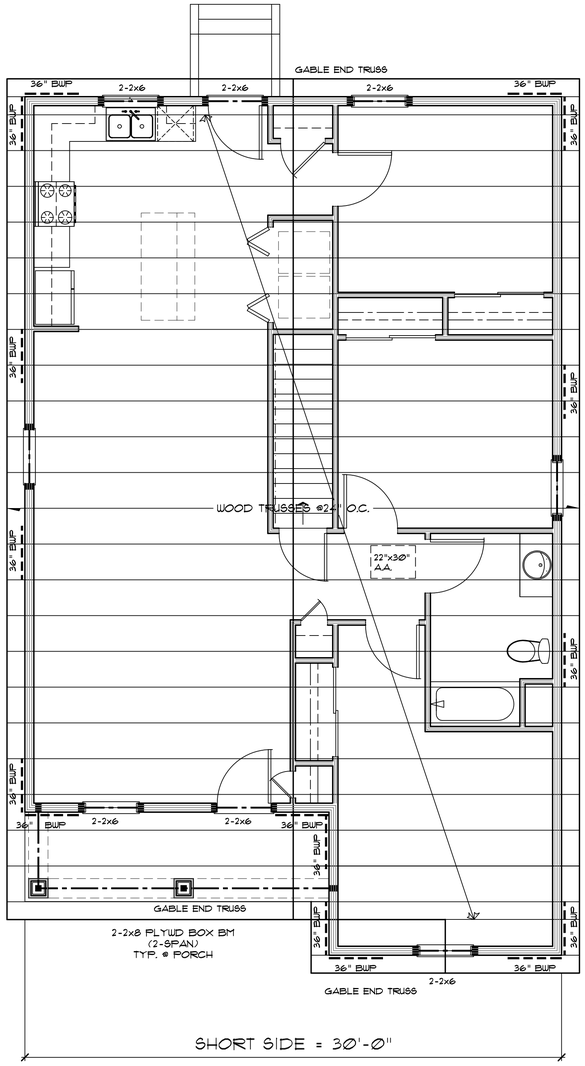
P.F. (PORTAL FRAME)
SEE DETAIL SHEETS

NOTE: BRACED WALL LINE TOTALS ARE BASED ON TABLE R602.12.4

NOTE: FINAL TRUSS DESIGN BY SUPPLIER TO BE COORDINATED WITH THE PROJECT ARCHITECT TO VERIFY REQUIRED STRUCTURAL VARIATIONS

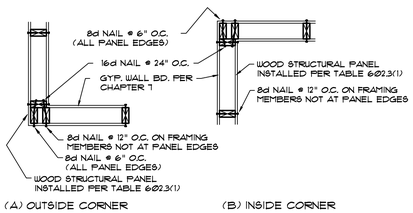
TABLE R602.7.5
MIN. NUMBER OF FULL HEIGHT STUDS AT EACH END OF HEADERS IN EXTR. WALLS

HEADER SPAN (FEET)	MAX STUD SPACING PER TABLE R602.3(5)	
	16"	24"
≤ 3'	1	1
4'	2	1
8'	3	2
12'	5	3
16'	6	4



ROOF FRAMING/ WALL BRACING PLAN

1/4" = 1'-0"



1/A-2 TYP. CORNER DETAILS

3/4" = 1'-0"

NOTE: INSTALL UL LISTED SMOKE DETECTORS ON EACH LEVEL AS INDICATED ON THE DRAWINGS. SMOKE DETECTORS SHALL BE AC POWERED WITH BATTERY BACK-UP. ALL SMOKE DETECTORS SHALL BE WIRED IN SUCH A MANNER THAT THE ACTUATION OF ONE ALARM WILL ACTUATE ALL OF THE

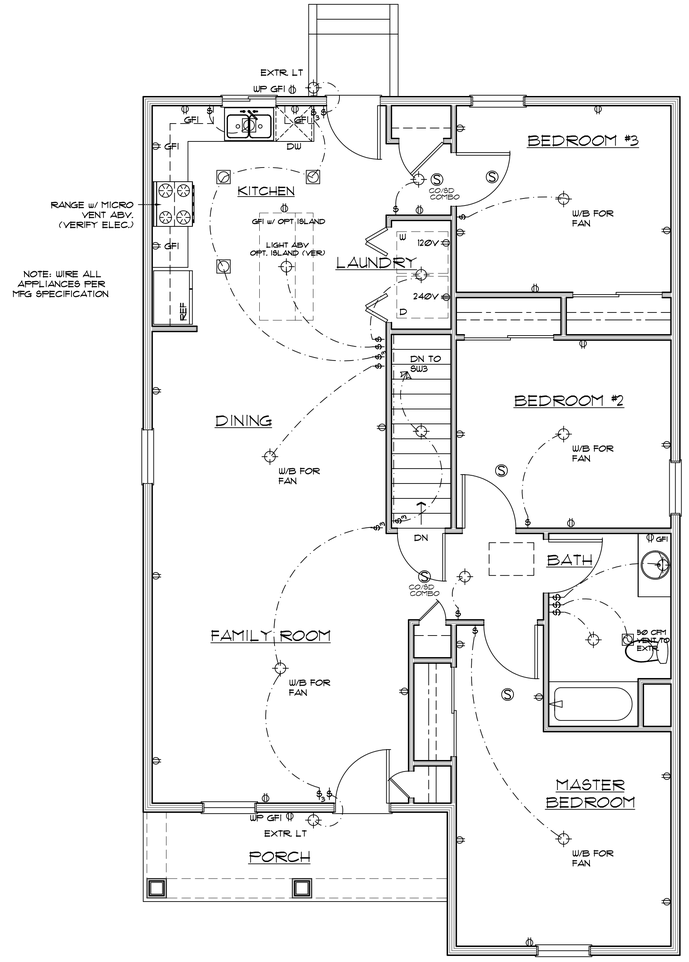
PROVIDE A CARBON MONOXIDE DETECTOR OUTSIDE & IN THE IMMEDIATE VICINITY OF THE SLEEPING AREAS, IF THE DWELLING CONTAINS A FUEL FIRED APPLIANCE OR HAS AN ATTACHED OR BASEMENT GARAGE. 120V POWERED W/ BATTERY BACK-UP & INTERCONNECTED W/ SMOKE DETECTORS.

ELECTRICAL SYMBOL LEGEND

⊖	DUPLEX RECEPTACLE	TV	TV / CABLE
⊖220 V.	220 V. SPECIAL PURPOSE RECEPTACLE	⊖	DISPOSAL
⊖WP	DUPLEX WATERPROOF RECEP.	⊠	EXHAUST FAN
⊖GFI	DUPLEX GROUND FAULT RECEP.	⊖	INCAND. SURFACE MTD. LIGHT FIXTURE
⊟	DUPLEX FLOOR RECP.	⊖	INCAND. BRACKET LIGHT FIXTURE
S	SMOKE DETECTOR	⊡	INCAND. RECESSED LIGHT FIXTURE
CM	CARBON MONOXIDE DETECTOR	⊖PC	PULL CHAIN LIGHT FIXTURE
$ $3	TWO WAY SWITCH THREE WAY SWITCH	✕	FAN
▶	PHONE		

ARC / GFI PROTECT LAUNDRY & KITCHEN COUNTERTOP RECEPTACLES

ALL ARC FAULT BRACH CIRCUITS TO TO MEET NEC 2014



NOTE: LOCATE PHONE & T.V. JACKS PER BUILDER

LOCATE (1) W/P GFI WITHIN 25' OF A/C CONDENSING UNITS

ELECTRIC PLAN

1/4" = 1'-0"

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PROPOSED NEW RESIDENCES FOR:
Habitat for Humanity® of St. Charles County
2041 TRADE CENTER DRIVE
ST. PETERS, MISSOURI 63376

ROOF FRAMING PLAN
ELECTRIC PLAN
THE ROE

DATE 3-11-2020 | JOB 2020-13
REV.
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SHEET
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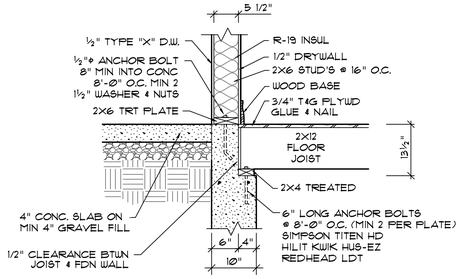
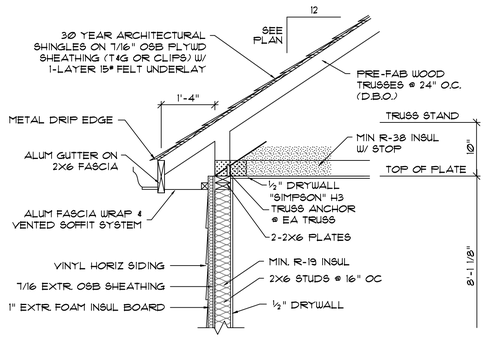
2 OF 4 SHEETS



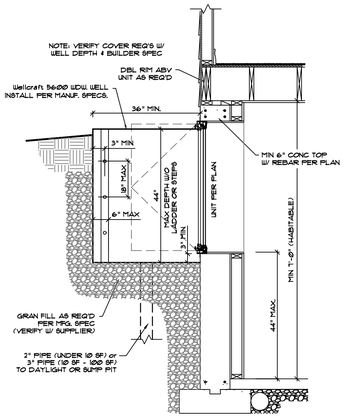
1 / A-3 SECTION @ REVERSE LEDGE

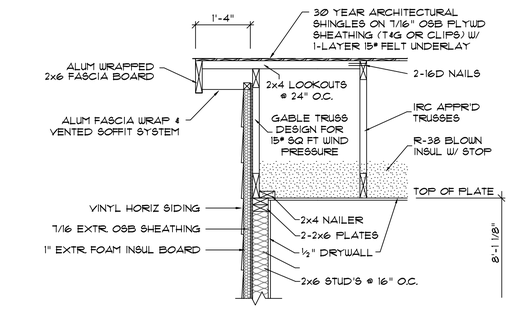
3/4" = 1'-Ø"



TYPICAL EAVE SECTION

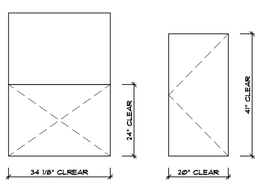
3/4" = 1'-Ø"





GABLE END SECTION

3/4" = 1'-Ø"



EXAMPLE HEIGHT & WIDTH COMBINATIONS

MINIMUM OPENING REQUIREMENTS:

1) MIN. OPENING AREA = 5.7 sq ft (ALT 5.0 @ GRADE FLOOR OPNG)
2) MIN. OPENING HEIGHT = NET CLEAR OPENING HEIGHT SHALL BE 24"
3) MIN. OPENING WIDTH = NET CLEAR OPENING WIDTH SHALL BE 20"
NOTE: UNIT SHALL BE OPERABLE FROM THE INSIDE WITHOUT THE USE OF A KEY OR TOOL

OPENING BELOW GRADE REQUIREMENTS:

THE USE OF A WINDOW WELL SHALL BE PROVIDED SUCH THAT THE EMERGENCY OPENING SHALL BE FULLY OPERABLE TO PROVIDE THE MINIMUM NET OPENING REQUIREMENTS. THE HORIZONTAL DIMENSION OF THE WELL SHALL BE A MINIMUM OF 9 SQ. FEET WITH A MINIMUM HORIZONTAL PROJECTION OF 36" + WIDTH OF MIN 36".
EXCEPTION: THE REQUIRED LADDER OR STEPS SHALL BE PERMITTED TO ENCROACH A MAXIMUM OF 6" INTO THE REQUIRED DIMENSION OF THE WELL (WITHOUT INTERFERING WITH OPENING OPERATION).

LADDER AND STEP REQUIREMENTS:

WELLS WITH A VERTICAL DEPTH GREATER THAN 44" BELOW THE ADJACENT GRADE SHALL BE EQUIPPED WITH A PERMANENT LADDER OR STEPS USABLE WITH THE OPENING IN FULL OPERATION. THE LADDER OR STEPS SHALL BE EXEMPT AND ONLY BE REQUIRED TO HAVE A MIN WIDTH OF 12" SHALL PROJECT AT LEAST 3" FROM THE WALL AND SHALL BE SPACED NOT MORE THAN 18" O.C. VERTICALLY FOR THE FULL HEIGHT OF THE WELL.

BARS, GRILLS, COVERS AND SCREENS:

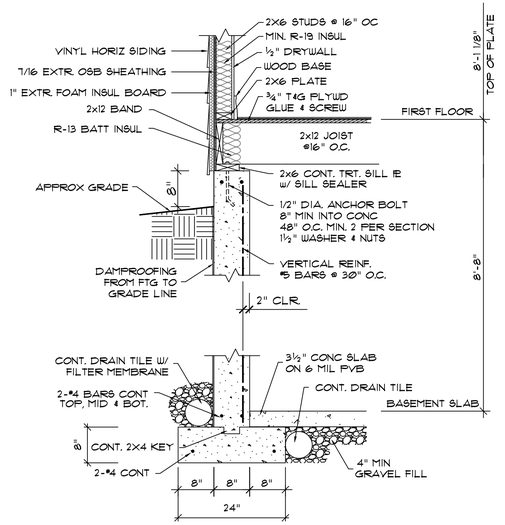
BARS, GRILLS, COVERS, SCREENS OR SIMILAR DEVICES SHALL BE REQUIRED WHEN A WELL DEPTH OF 44" OR GREATER EXIST. THESE COVERS SHALL BE ADHERE TO THE MINIMUM NET CLEAR OPENING REQUIREMENTS AND SHALL BE OPERABLE WITHOUT FROM THE INSIDE WITH THE USE OF A KEY, TOOL OR FORCE GREATER THAT THAT REQUIRED TO OPERATE THE RESCUE OPENING.

A 36" HIGH GUARD WITH NO OPENINGS GREATER THAN 4" IS REQUIRED TO SEPARATE A PATH, DRIVE, OR WALKING SURFACE WITH IN 24" OF THE HIGH SIDE OF A WINDOW WELL GREATER THAN 48" IN VERTICAL DEPTH. WINDOW WELLS ADJACENT TO A PATIO SLAB OR DECK SHALL BE PROTECTED WITH THIS GUARDRAIL IF THE VERTICAL DEPTH OF THE WELL EXCEEDS 30 INCHES. WINDOW WELLS SHALL BE PLACED IN LOCATIONS THAT DO NOT REQUIRE A GUARD COMPLETELY AROUND THE WELL.

NOTE: WINDOW WELLS IN EXCESS OF 48" IN DEPTH REQUIRE STRUCTURAL CALCULATIONS OR AN ICC-ES RESEARCH REPORT ADDRESSING THE THE STRUCTURAL ADEQUACY OF THE WALLS, AND ARE NOT IN THE SCOPE OF THIS DRAWING PACKAGE.

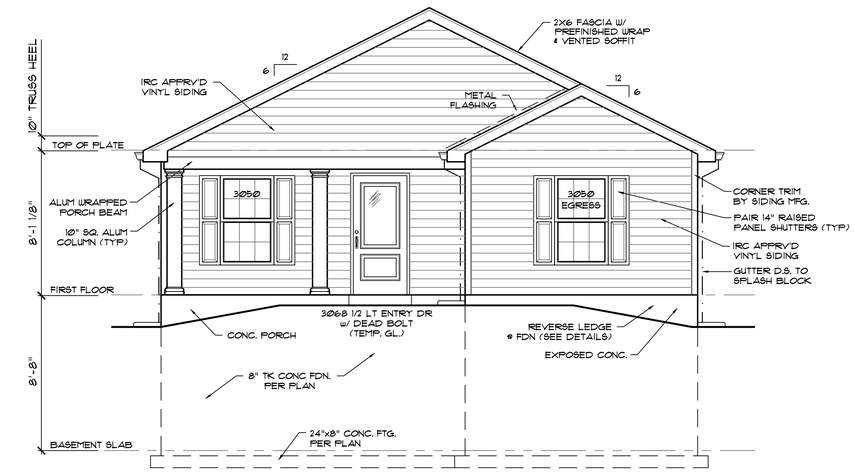
EMERGENCY ESCAPE OPENINGS

N.T.S.



BASMENT WALL SECTION

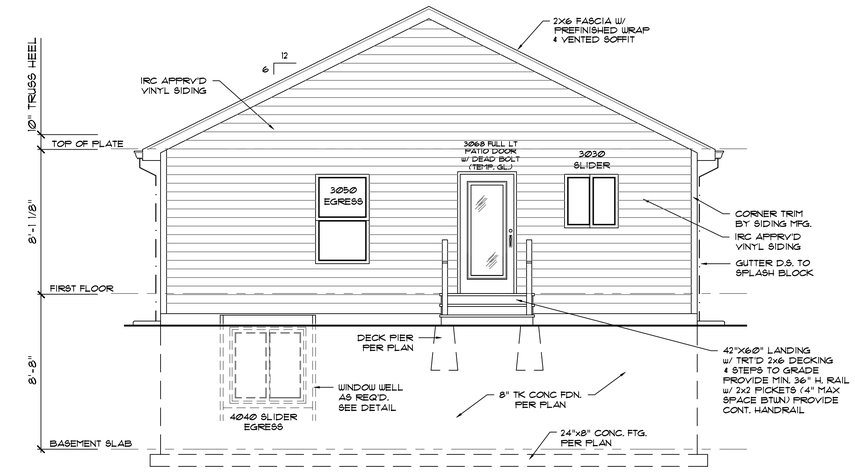
3/4" = 1'-Ø"



FRONT ELEVATION

1/4" = 1'-Ø"

NOTE: FURNACE AND FIREPLACE FLUES SHALL EXTEND 3'-Ø" ABOVE THE ROOF AND AND AT LEAST 2'-0" HIGHER THAN ANY PART OF THE ROOF WITHIN 10'-Ø"



REAR ELEVATION

1/4" = 1'-Ø"

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PROPOSED NEW RESIDENCES FOR:

Habitat for Humanity® of St. Charles County

2041 TRADE CENTER DRIVE
ST. PETERS, MISSOURI 63376

FRONT AND REAR ELEVATIONS
WALL SECTIONS AND DETAILS

THE ROE

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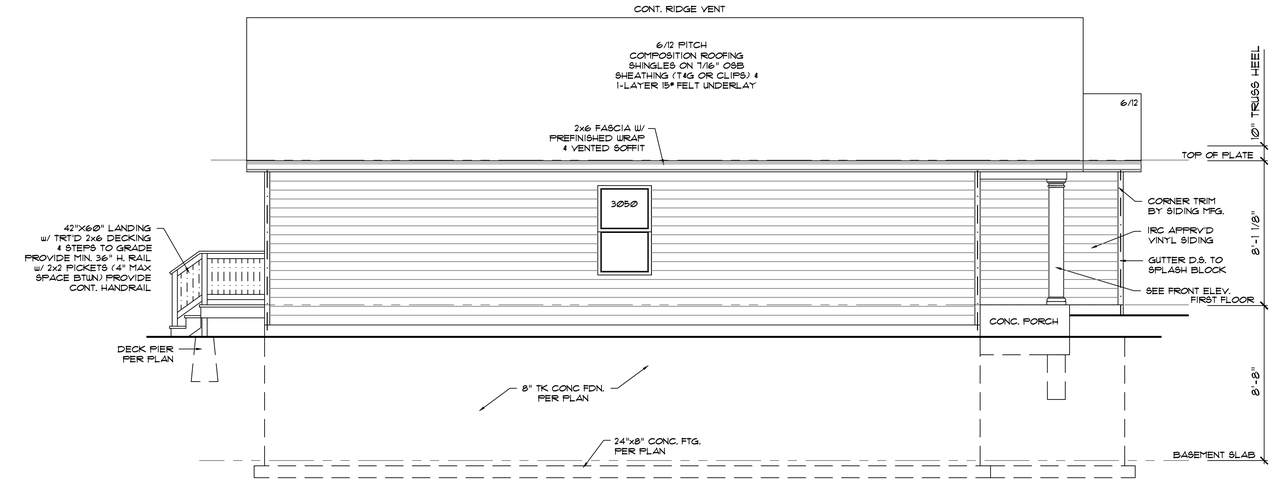
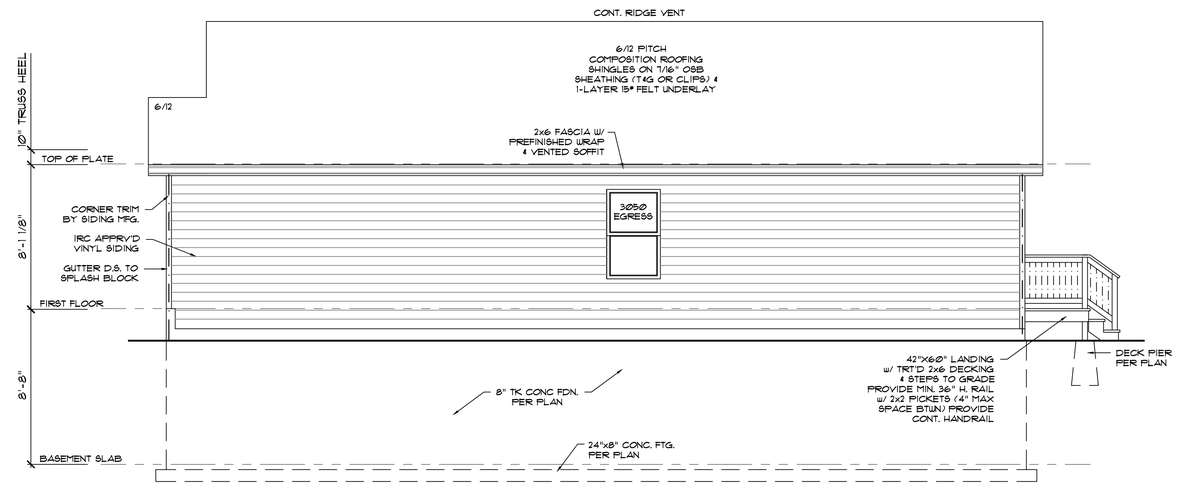
SHEET A-3
3 OF 4 SHEETS



LEFT SIDE ELEVATION

1/4" = 1'-Ø"

NOTE: FURNACE AND FIREPLACE FLUES SHALL EXTEND 3'-Ø" ABOVE THE ROOF AND AND AT LEAST 2'-Ø" HIGHER THAN ANY PART OF THE ROOF WITHIN 10'-Ø"



RIGHT SIDE ELEVATION

1/4" = 1'-Ø"

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PROPOSED NEW RESIDENCES FOR:

2041 TRADE CENTER DRIVE
ST. PETERS, MISSOURI 63376

Habitat for Humanity of St. Charles County

EXTERIOR ELEVATIONS

THE ROE

DATE	JOB
3-11-2020	2020-13
REV.	
REV.	
REV.	

SHEET

A-4

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