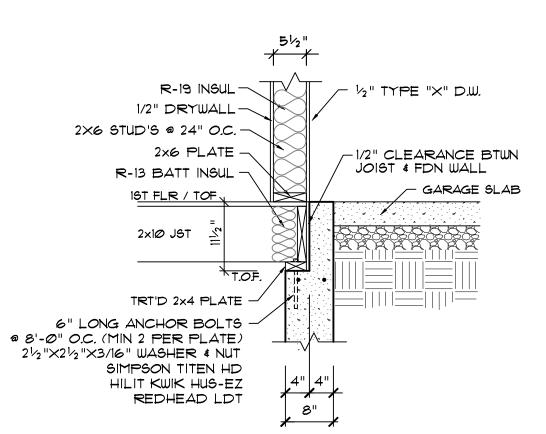
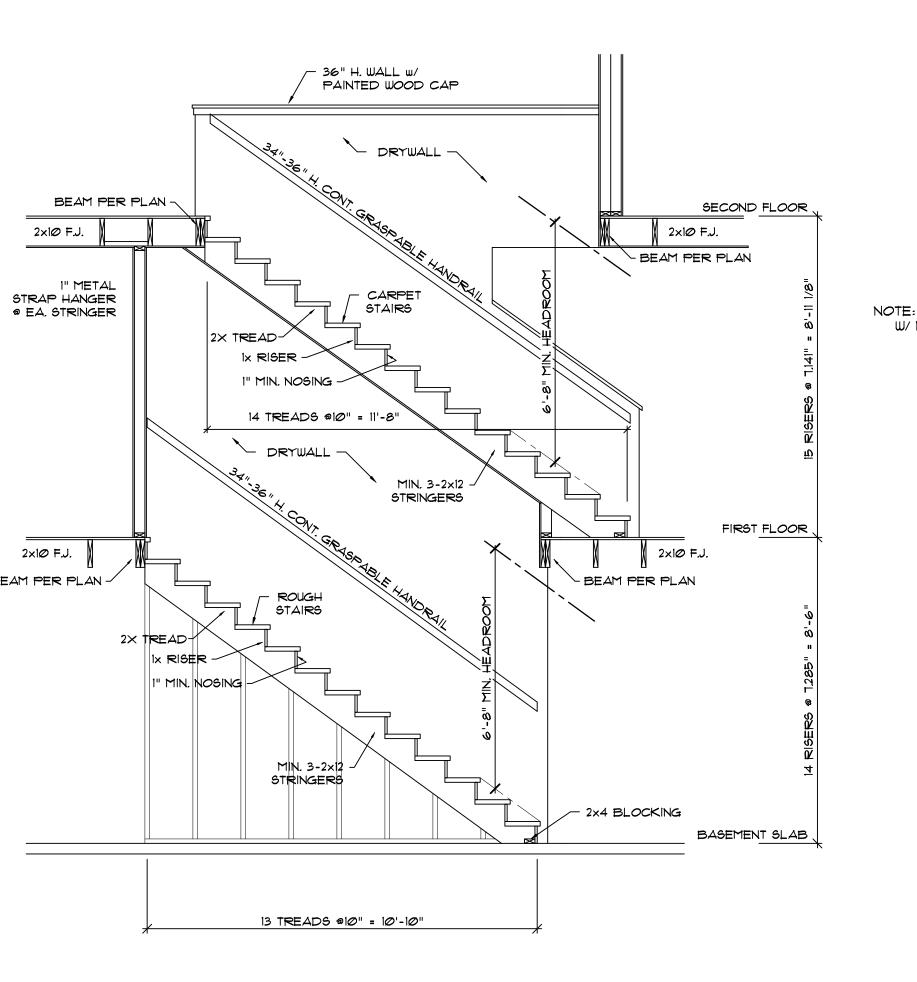


3/4" = 1'-Ø"







* *

TYPICAL HANDRAIL

3/8" = 1'-Ø"

HANDRAIL DETAIL

MIN. GRASPABLE PERIMETER 4"/ MAX. GRASPABL

STAIR NOTES:

(1) HANDRAILS SHALL MEET EITHER OF THE FOLLOWING: (A) CIRCULAR CROSS SECTION WITH A MINIMUM DIAMETER

ALLOWABLE HORIZONTAL WIDTH OF 2 1/4" MAXIMUM

MINIMUM 4" GRASPABLE PERIMETER DIMENSION.

AND ORNAMENTAL PATTERNS THAT PROVIDE A LADDER

(2) HORIZONTAL RAILS, RAILS PARALLEL TO STAIR TREADS,

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

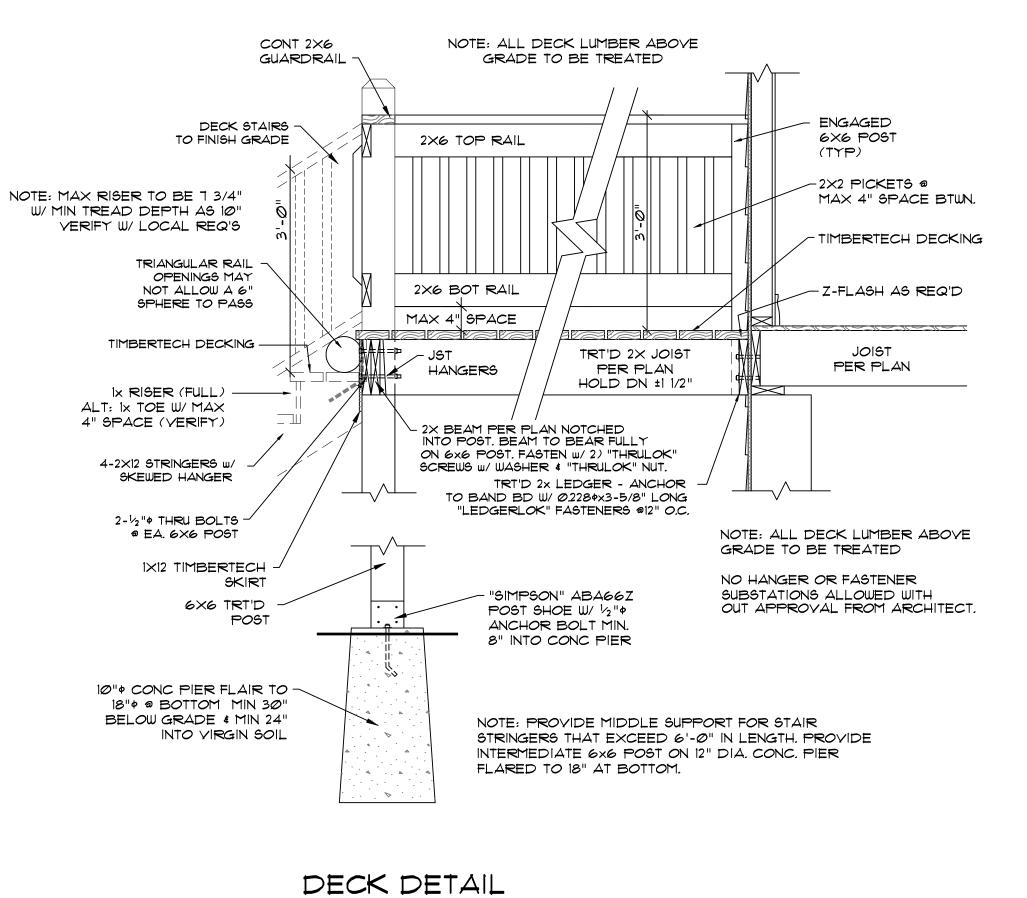
GRASPABLE PERIMETER DIMENSION OF 6 1/4", AND/OR

(B) OTHER APPROVED SHAPES HAVING A MAXIMUM

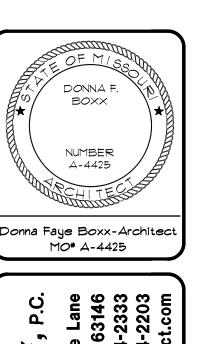
OF 1 1/4" BUT NOT MORE THAN 2".

STAIR SECTION

EFFECT ARE PROHIBITED.



3/4" = 1'-Ø"



: 80 // + Architee
160 Mar
160 Mar
St. Louis, Missou
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41 TRADE CENTER DRIVE
PETERS, MISSOURI 63376

PROPOSED NEW TOWN

Habitat

for Humanity®

of St. Charles Count.

SECTIONS / DETAILS
POINT

DATE 2-21-2024 2022-95

REV. 2-29-2024

REV. REV. SHEET

CO-1

			cı	_IMATIC an	TABLE R Id GEOGRAF		N CRITERIA	7			
GROUND SNOW LOAD	WIND SPEED (e)	SEISMIC DESIGN CATAGORY	WEARTH- ING: (a)	FROST LINE DEPTH	TERMITE (c)	DECAY (d)	WINTER DESIGN TEMP	ICE SHIELD UNDERLAY	FLOOD HAZARD (h)	AIR FREEZE INDEX	MEAN ANNUAL TEMP
(lbs/sf) 20	(mph)	(g)	SEVERE	(b) 30"	MODERATE	SLIGHT	(f) 2	REQ (1)	8/12/1995	-	(k) 563
		RA!	N		TG	to MOD	DEG F				DEG F
IN FIELD	LAYOUT	AND SHOT	P DETAILI	NG THE	CONTRACT						
THE AR	CHITECT.	RAL, MECHA CONTRACT ERIODIC O	OR TO AS	BSUME FU	ILL RESPO	NSIBILITY	, UNRELI	EVED BY	REVIEW	OF SHOP	0
INDIVID	UAL DRA	DIMENSION SINGS OR S	SETS OF D	PAWING	S, FOR FAE	BRICATIO	N PROCE	SSES AND	CONSTR	RUCTION	
COORD	INATION	CLUDING EX OF THE VAF DITIONS REL	RIOUS TRA	ADES AN	D FOR SAI	FE CONDI	ITIONS ON	THE JOE	SITE. V	ARIATION	
		RK SHALL N			_		SSION FR	OM THE A	RCHITEC	T IS OBTA	INED.
·	NO SRETE	T SC			< ∠ WII`	CDI					
(1) STA	NDARDS	>									
		318 BUILDII 315 MANUA RES.							ED CONC	RETE	
	(D) ACI	341 RECON 304 RECO					•	•	ORTING A	ND PLAC	ING
		1E. 309 RECO 308 RECO						CONCRE	TE (ACI 3	Ø9-72).	
	(H) ACI	306 RECO 305 RECO ING, FABRI	MMENDED	PRACT	ICE FOR H	OT WEATH	HER CONC	CRETING		N TOO	†⊔ ⊏
FORMS	WITH ACC	ESSORIES NCRETE ST	MUST FOL	LOW THE	E ACI "MAN	iual of s					
ASTM C	94 WITH 4	D IN PLAC A MINIMUM 2 SLABS AN	B DAY C	OMPRES	SIVE STRE	NGTH OF	3000 PS	AT FOUN	IDATION I	NALLS, 25	00
SLABS TO HAY	AND A M E A MAX	INIMUM OF ! IMUM SLUMF	5 1/2 SACK P OF 2" TO	(S OF CE) 5". SL,	MENT PER ABS ON G	ROBIC Y	ARD, FO D WALKS	NDATION TO HAVE	N WALLS , MAXIM A	AND FOO ⁻ 1UM SLUMF	TINGS POF
2" TO 4' C260: 6	". USE A 5% +/- IN	WATER REI ALL CONC THE CONCR	DUCING A RETE). TH	GENT (AS	STM C494 TS MUST BI	TYPE A C E COMPA	OR D) ANI TIBLE WI	D AIR ENT TH EACH (TRAINING OTHER AN	AGENT (A	STM THER
DELETE AND DU	RIOUS SU RABLE U	IBSTANCES JITHOUT FLA	AND CON	NFORM TO ONGATED	O ASTM C3	33. COAR AND SHAI	RSE AGGE LL CONFO	REGATE SI	HALL BE STM C33 ¹	CLEAN, H 167.	ARD
BE PLY	WOOD IN	ENT SHALL GOOD CO' RER'S REC	NDITION.	APPLY,							
(4) CC PRESSU	ONTINUOUS IRE OF 159	WALL FOO OO PSF. St	OTINGS HA	VE BEEN OOTINGS	HAVE BEE	N PROPO	PRTIONED	FOR A N	ET ALLOU	JABLE SO	īL
EXTEND	1'-6" BE	URE OF 150 :LOW PRES! N UNDISTUR!	ENT GRAD	E OR IN	TO "ENGINE	ERED FIL	L" AND 2	2'-6" BEL	OW PROP	OSED GR	ADE
BASED		RMATION FU									FIED
OTHERU	JISE NOTE	NG BARS A Ed, Except Elded Wir	GRADE	60 STEE	L AT ALL	RETAININ	G WALLS.	WELDED	WIRE FA	BRIC AST	
(6) C	ONCRETE	COVER O DE 1 1/2", WA	ÆR MAIN	REINFOR	RCING SHA	LL BE AS	FOLLOW	S: FOOTI	NGS 3",		
WHICH T	HEY FRA										
MUST B		WALL FOOT ITION BEFO _E.									
(8) AL WALLS	L BARS Shall ha	SHALL LAF Ave a 1'-0"	MINIMUM	LAP. AN	NY SPLICE	OF BARS					
(9) AL	L STRUC	PROVAL O TURAL STE! WITH STEEL	EL MUST E				ONCRETE	WHERE E	ARTH WO	JLD OTHE	RWISE
(10) P		THE FOLLO		ONAL	REINFORC	ING UNLE	SS OTHE	RWISE CAI	LLED FOR	R ON	
	(B) 2-#5	RNER <i>o</i> f A 5 BARS AR : EACH SID	ROUND AL	L OPENIN	NGS IN SLA	ABS AND	WALLS -	EXTEND 2		T FACE C	Œ
(II) TH	E MECHA	NICAL DRA IS TRADES	WINGS MU	ST BE R	EFERRED	TO FOR A	ALL MECH	IANICAL F			
ETC., TH	AT MAY I IEN FOUNI	BE REQUIR DATION WA	ED. LLS SPAN	I FROM G	ROUND FL	.00R TO	FIRST FLO	OR, BOTH			
(13) EX	CAVATIO	R SLAB MU ON FOR TO! CED AGAIN	RETAINI	NG WALL	FOOTINGS	MUST BE	HAND D				
(15) TH	IE TOP SI	WALLS SH	FOOTING	SHALL E	BE LEVELE	ED. THE I	BOTTOM :	BURFACE	OF	ART.	
SHALL I	BE STEPF	NOT HAVE PED WHERE : FOOTINGS	IT IS NEC	CESSARY	TO CHAN	IGE THE E	ELEVATIO	N OF THE	TOP		
WILL EX	CEED 1:16 HOULD CO	O. IF THE F ONNECT TH	COTING IS	STEPPE	ED TO ACC	COMMODA	ATE SLOP	E, A VER	TICAL		
(16) R		EMENT SU PI SHALL BE							TO		
UPPER	ONE-THIR	RD OF THE ECTION R50	SLAB FOR								
		AL STE		4 411A11	COMPLY		- IIABECIE	EIC ATIONS	EOR THE	DEGICAL	
FABRIC	ATION AN	URAL STEE ND ERECTION E ASTM AS	ON OF STR	RUCTURAL	_ STEEL FO						
	45 PRESC	IG WILL BE CRIBED IN									
(3) AL	L COLUM	N BASE PL HALL RAM ,									
MINIMUM	I DIMENSI	TH GROUT IONS. OLTS SHAL									
HOOK, A	AND SHAL SHALL BI	L BE HELI E HELD 1 1/3	D AT 2 1/2 2" FROM E	" MINIMUN EDGE OF	1 FROM TH BASE PL	E OUTSID ATE WHER	E FACE (RE POSSI	OF CONCE BLE.	ETE. ALI	ANCHOF	₹
INHIBITI	YE PAINT	ES (INSIDE 7, EXCEPT F OSION RES	OR CORF	ROSION-F	RESISTANT	STEEL A	NS STEEL				
		OF TRUS		-ER 2013	IRC SEC	TION RAD	1.4				
	(A) THE	STANDARI DESIGN A	ND FABR					ISSES SHA	ALL COMF	PLY WITH	
(2) Lui	MBER:	RENT IRC, , LUMBER (•			O THE PL	IBLISHED	STRESS	
	RATINGS APPROP	FOR THE SPRIATE LUM!	SPECIES A BER ASSO	AND GRA	DES AS SI I OR AS LI	ET OUT IN	THE OFF	ICIAL GRA	ADING RU PECIFICA	LES OF TH	CEPT
	CALL FO	ERE THESE R LUMBER HALL BE A	WHICH EX	CEEDS .	THE MINIMU	IM SET FO	ORTH THE	RIN. THE	SPECIFIC	ATIONS A	ND
	IN BOTH. (B) THE	E MOISTURE	CONTENT	F OF ALL	LUMBER	SHALL BE	E WITHIN T	HE PROF	ER LIMITS	3, AS STA	TED IN
		ERENCE SF HE TIME OF RS:			T SHALL N	ot in an'	r case e	XCEED 19	3%, NOR E	BE LESS T	HAN
	(A) ALI	RS: _ TRUSS CC _GALVINIZE									
	YIELD OF	F 33 <i>000</i> F IVE RESIST	SI AND A ANCE CO	MINIMUM ATING SH	1 UTLIMATE HALL BE 1.:	TENSILE	STRENGT	H OF 48,0	000 PSI.	THE	
	(B) THE	PED GALV ECONNECT TIONS, EAC	OR PLATE	S SHALL	BE MANU						LIKE
	THROUGH POINT OF	HOUT ITS LE R WEDGE.	NGTH WITH EACH NAI	H NO OFF L-LIKE F	SETS, EXC PROJECTIO	EPT THA ON SHALL	T THE ENI BE MANU	O SHALL JFACTURE	BE SHAP D SO ITS	ED TO A LENGTH I	SNOT
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	NAME OF APPROV	ITS MANUF ED TRUSS	ACTURER ENGINEER	WHICH S NG DES	HALL BE IGN.	THE SAME	E AS THE	COMPAN	Y FURNISH	ING THE	
	(C) WHE	ERE FIELD PLATES AR	CONNECT	IONS OF TABLE F	TRUSS SUE PROVIDING	THE PLA	TE SIZES	AND POS	BITIONS A		
FABR		35 ENGINEE ION OF				=D R. V	MCVFESS	NUNAL EN	GINEER.		
			IER ROOF	•		PONENTS	SHALL F	RE EARRIC	CATED IN	A PPOPI	

EQUIPPED MANUFACTURING FACILITY OF PERMANENT NATURE. THEY SHALL BE MANUFACTURED BY

INSPECTION BY CONTRACTOR AND ARCHITECT AT ALL TIMES.

CO. OR PER THE NAILING SCHEDULE AS INDICATED ON THE DRAWINGS.

TRUSS ANCHORS

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

(1) ANCHOR EACH TRUSS BEARING POINT AT WALL WITH TYPE HI, NO. 18 GAUGE STEEL TIE BY SIMPSON

ENGINEERING DESIGN AND SHOP DRAWINGS

(1) ALL TRUSS DESIGNS SHALL BEAR THE NAME, SEAL AND/OR REGISTERED NUMBER OF A LICENSED PROFESSIONAL ENGINEER. TRUSS DESIGN SHALL CONTAIN THE FOLLOWING DATA, AND COMPLY WITH REQUIREMENTS OF CURRENT IBC CODE WITH MINIMUM LOADS AS LISTED:

TOP CHORD: 20 PSF LIVE LOAD, 10 PSF DEAD LOAD, SNOW DRIFT PER CURRENT IBC CODE 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 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 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 LUMBER SPECIFICATIONS PITCH, SPAN AND SPACING OF TRUSSES DESIGN LOADS AND ALLOWABLE STRESS INCREASE, IF ANY

SIZE AND LOCATION OF ALL CONNECTOR PLATES (G) TRUSS SUPPORTS (H) CAMBER, IF ANY 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

(5) TRUSS COMPANY TO VERIFY KNEE HEIGHTS AND ROOF CONFIGURATION, AND TO NOTIFY THE ARCHITECT OF ANY INCONSISTANCIES PRIOR TO FABRICATION.

(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" (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 261 SQ. FT. MAX	8d COMMON			

(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). 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. 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

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

(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 BALCONY (EXTERIOR) LESS THAN 100 SQ. FT. L.L. 40 PSF

	DEC	X							L.L. 40	P5F					
14)	POSTS	AND	TIMBER	FRAMING	⊘ F	QUALITY	TO 1	1EET	MINIMUM	STRESS	REQUIREMEN	ITS	GIVEN	IN.	THE
AB	LE BEL	OW (1	9% MAX.	M.C.)											
SOL	JTHERN	PINE	# 1 <i>)</i>												

(0001112141111421)						
F6 BENDING	(ieq)	1200				
Ft TENSION	(ied)	825				
FV SHEAR	(led)	17Ø				
FC PERPENDICULAR	(led)	652				
FC PARALLEL	(jed)	100				
E	(ied)	1,600,00				
(15) HORZONTAL FRAMING OF BELOW (19% MAX. M.C.) (SOUTHERN PINE)	- QUALI	IT IO MEETI	TINIMUM 518	KESS REQUIRE	MENIS GIVEN II	N THE TAB
		2x8s	2×1Øs	2×12s		
F6 BENDING	(psi)	925	800	750		
Ft TENSION	(psi)	55Ø	475	450		
FV SHEAR	(ps1)	175	175	175		
FC PERPENDICULAR	(ps1)	565	565	565		

E	(psi)	1,400,000	1,400,000	1,400,000
	QUALITY	TO MEET M	INIMUM STRESS	REQUIREMENTS GIVEN IN THE TABLE
BELOW (19% MAX, M.C.) (SPRUCE PINE FIR)		BEARING W	JALL STUDS	BEARING WALL STUDS SUPPORTING ROOF AND FLOOR

CE PINE FIR)		BEARING WALL STUDS SUPPORTING ROOF	BEARING WALL STI SUPPORTING ROOF AND FLOOR
Fb BENDING Ft TENSION FV SHEAR FC PERPENDICULAR FC PARALLEL E	(psi) (psi) (psi) (psi) (psi)	500 250 70 425 625 1,200.000	875 450 135 425 1150 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 8d @ 6" O.C. EDGE NAILING & 9 12" O.C. INTERMEDIATE NAILING, ADDITIONAL BRACING MAY BE REQUIRED PER CURRENT IRC WIND SEE PLANS FOR ADDITIONAL DESIGN / FRAMING CRITERIA.

FC PARALLEL

(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. 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

(C) PROVIDE DAMPPROOFING OF FLOOR SLAB OF 6 MIL POLYETHYLENE FILM BELOW SLAB WITH POINTS IN MEMBRANE LAPPED (MIN. 6") AND SEALED WALLS SHALL BE DAMPPROOFED WITH A BITUMINOUS MATERIAL 3 LB, PER \$Q, 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 FOUNDATION TO BE WATERPROOFED WITH 2 PLY HOT-MOPPED FELTS, 6 MIL PVC, 40 M POLYMER MODIFIED ASPHALT, OR 6 MIL POLYETHYLENE. JOINTS TO BE LAPPED AND SEALED PER MANUFACTURER'S INSTALLATION INSTRUCTION. 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". (1) DOWNSPOUTS SHALL DIRECT WATER AWAY FROM THE FOUNDATION, AND NOT BE CONNECTED TO A (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

(A) MINIMUM NET CLEAR OPENING OF 5.7 SQ. FT. IF THE SILL IS 6 FT. OR MORE ABOVE FINISHED (B) MINIMUM NET CLEAR OPENING OF 5 SQ. FT. IF THE SILL IS LESS THAN 6 FT. ABOVE FINISHED

(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 <u>FOLLOWING:</u>

INDIVIDUAL PANE GREATER THAN 9 SQ. FT. BOTTOM EDGE LESS THAN 18" ABOVE FLOOR. TOP EDGE MORE THAN 36" ABOVE FLOOR.

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 OF GUARD RAILS SHALL BE SAFETY GLAZING TYPE II. (6) GLAZING LOCATED WITHIN 36" HORIZ & LESS THAN 60" YERT, ADJACENT TO STAIRWAYS, LANDINGS AND RAMPS & WITHIN 60" HORIZ OF BOT TREAD SHALL BE SAFETY GLAZING TYPE II. SKYLIGHTS AND SLOPED GLAZING:

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.

WIRED GLASS. APPROVED PLASTIC 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.

(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. ALL FOAM PLASTIC OR FOAM PLASTIC CORES IN MANUFACTURED ASSEMBLIES USED IN BUILDING CONSTRUCTION SHALL HAVE A FLAME-SPREAD RATING OF NO MORE THAN 15 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 3E DRAFT STOPPED AT MAXIMUM 1,000 S.F. INTERVALS, PARALLEL TO FRAMING MEMBERS. PROVIDE A IRC APPROVED SELF-CLOSING 22"×30" ACCESS PANEL IN ALL DRAFT STOPPED AREAS WITH A CLEAR HEIGHT OF

(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 NII@2.12 (R4@2.12) 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	EILING WOOD FRAME WALL R-YALUE		FLOOR R-VALUE	BASEMENT WALL R-VALUE (C)	SLAB R-VALUE & DEPTH (d)	CRAWL SPACE WALL R-YALUE (c)	
4 except MARINE	Ø.35	0.55	0.40	49	20 or 13 + 5 (h)	8/13	19	10/13	10, 2 ft	10/13	
(a) R-	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 (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.

(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. (1) THE SECOND R-VALUE APPLIES WHEN MORE THAN HALF THE INSULATION IS ON THE INTERIOR OF THE MASS

MECHANICAL DUCTWORK IN UNHEATED 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 HYAC 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.

HEATING, VENTILATING & AIR CONDITIONING (CONT.) (4) MAKEUP AIR SHALL BE PROVIDED DURING THE OPERATION OF KITCHEN EXHAUSTED SYSTEMS OF 400

(8) GAS PIPING SHALL BE IDENTIFIED AT INTERVALS OF NO MORE THAN 5 FEET

POSSIBLE. VENT AREA SHALL BE AT LEAST 1/150 OF THE AREA SERVED.

45 DEGREE BEND TO THE LENGTH OF THE STRAIGHT RUNS. (PER 2015 IRC)

MOUNTED FLOURESCENT FIXTURES AND RECESSED FIXTURES - 6" MIN.

WITHOUT TRAVERSING ANY STEP OF THE STAIRWAY

TYPE ARC-FAULT CIRCUIT INTERRUPTER(S).

(CABLE TY AND SATELLITE DISHES.)

THE SERVICE PROVIDER DEMARCATION POINT.

NONABSORBENT AND WATERPROOF MATERIALS.

(A) I" SERVICE LINE - UP TO 3 1/2 BATHS

(B) 11/4" SERVICE LINE - UP TO 6 BATHS

FIXTURES SHALL BE INCLUDED IN THE COUNT

) 11/2" SERVICE LINE - MORE THAN 6 BATHS

TYPE I COMMONLY CALLED NO. 15 ASPHALT. PER IRC TABLE R905.1.1(1)

FLASHING AT THE ROOF VALLEY PROVIDED THE SHINGLES ARE INTERLACED.

ASPHALT SHINGLES SHALL NOT BE INSTALLED ON ROOF SLOPES BELOW 2:12.

VENEER WALLS AND 6" MIN. BELOW TOP OF FOUNDATION AT MASONRY WALLS.

FIT OF CABINETS AND SCRIBES TO ASSURE FREE OPERATION OF ALL DOORS.

(10) SEE TABLE RT03.3(1) FOR SIDING MINIMUM ATTACHMENT & MINIMUM THICKNESS

AND A MIN. OF 2'-0" ABOVE ANY PART OF THE BUILDING WITHIN 10'-0".

OR A SMOKE DEVELOPMENT INDEX EXCEEDING 450.

(11) PROVIDE FLASHING PER CODE SECTIONS R703.4 & R703.85.

(9) PROVIDE ADDRESS NUMBERS PER SECTION R319.1.

USEABLE AREA, AND WITHIN 25' OF THE A/C CONDENSING UNIT.

CLEARANCE OF 6'-0" ABOVE THE FLOOR.

ENCLOSED RAFTER SPACE.

ELECTRICAL

SHOWER THRESHOLD

LOCATIONS:

HORIZONTALLY

ROOFING

MAX ULTIMATE DESIGN

HIP FROM EITHER DIRECTION.

EXTERIOR WALL LINE PER CODE.

OF 2% AWAY FROM THE BUILDING

(5) PROVIDE TERMITE TREATMENT.

NOT BE INSTALLED ON ROOF SLOPES BELOW 1:12.

WIND SPEED FROM FIG R301.2(4)A (mph)

NFPA72-07.

HIGHER THAN ANY PART OF THE BUILDING WITHIN 10'-0".

MORE, (ATTICS MAY NOT BE MACHANICALLY VENTILATED.

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

(6) GAS VENTS SHALL EXTEND A MIN. OF 3'-O" ABOVE THE ROOF AT PENETRATION AND AT LEAST 2'-O"

APPLIANCE AND A GROUND JOINT UNION. A SEDIMENT TRAP IS REQ'D. DOWNSTREAM AT THE APPLIANCE

(7) EACH GAS APPLIANCE SHALL HAVE A GAS SHUTOFF, LOCATED IN THE SAME ROOM AND WITHIN 6' OF THE

(9) ATTIC AND ENCLOSED RAFTER SPACE VENTILATION AREA IS TO BE AT LEAST 1/150 OF THE AREA SERVED.

PROVIDED BY RIDGE OR GABLE VENTS AND 1/2 BY EAVE OR CORNICE VENTS. REQUIRED VENTILATION AREA

FOUNDATION CRAWL SPACES MUST HAVE AT LEAST TWO REMOTE VENTS, AS CLOSE TO THE CORNERS AS

MIN, TWO REMOTE VENTS REQUIRED. WHERE RIDGE OR GABLE VENTS ARE USED, 1/2 OF THE AREA IS TO BE

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

THROUGH A MIN. 4" DIA, SMOOTH DUCT. THE MINIMUM DEVELOPED LENGTH OF THE DUCT SHALL BE

(1) ALL WORK SHALL CONSIST OF ALL SERVICES TYPICALLY KNOWN AS "DESIGN/BUILD" WORK, AND

INSTALL APPROVED SMOKE DETECTORS (AC POWERED AND UL LISTED) ON EACH LEVEL AS

WILL SOUND THROUGHOUT THE DWELLING UNIT. PROVIDE BATTERY BACKUP. INSTALLATION SHALL MEET

(4) KITCHEN AND DINING AREA COUNTER RECEPTACLE SHALL BE SUPPLIED BY AT LEAST 2 DIFFERENT

(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

(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 I FOOTCANDLE

MEASURED ON THE TREAD RUNS. INTERIOR STAIRWAYS SHALL HAVE ILLUMINATED LIGHTING CONTROLS AT

GARAGES, EXCEPT CEILING MOUNTED RECEPTACLE FOR GARAGE DOOR OPENER

RECEPTACLES INTENDED TO SERVE THE COUNTERTOP SURFACES OF A WET BAR THAT ARE

THE NEAREST STORAGE SPACE: SURFACE MOUNTED INCANDESCENT FIXTURES - 12" MIN.± SURFACE

EACH FLOOR LEVEL. SWITCHES MUST BE OPERABLE FROM THE TOP AND BOTTOM OF THE STAIRWAY

1) LIGHTING FIXTURES ABOVE BATHTUBS AND SHOWER SPACES: NO PART OF HANGING/PENDANT FIXTURES, TRACK LIGHTING AND CEILING PADDLE FANS SHALL BE LOCATED WITH 3'-0" HORIZONTALLY

MEASURED FROM THE OUTSIDE EDGE AND 8'-O" VERTICALLY FROM THE TOP OF A BATHTUB RIM OR

(8) GROUND FAULT CIRCUIT-INTERRUPTION PROTECTION SHALL BE PROVIDED IN THE FOLLOWING

UNFINISHED BASEMENTS AND CRAWL SPACES, EXCEPT LAUNDRY CIRCUIT.

(9) AT LEAST I LIGHTING OUTLET IS REQUIRED IN EACH ATTIC, CRAWL SPACE, BASEMENT OR UTILITY

DETAILING THE WIRING FROM THE SERVICE ENTRANCE TO THE SUB PANELS, ELECTRICAL PANELS SHALL

ELECTRICAL PANEL. A MINIMUM OF 3'-0" CLEARANCE IS REQUIRED IN FRONT OF ELECTRICAL PANELS.

(11) RECEPTACLE OUTLETS FOR RANGES AND CLOTHES DRYERS MUST BE THREE-POLE WITH GROUND

IN LIVING SPACES, BEDROOMS, CLOSETS, HALLWAYS, ETC., SHALL BE PROTECTED BY A COMBINATION

NOT BE INSTALLED IN BATHROOMS OR CLOTHES CLOSETS. LIGHTING IS REQUIRED IN THE VICINITY OF THE

(12) ALL BRANCH CIRCUITS THAT SUPPLY 120-VOLT, SINGLE PHASE, 15 \$ 20 AMPERE OUTLETS INSTALLED

(13) EXTERIOR RECEPTACLES ARE TO BE PROVIDED FOR DECKS AND PORCHES WITH 20 SF OR MORE OF

CONNECTION MUST BE MADE TO THE PIPE WITHIN 5'-O" OF THE POINT OF ENTRANCE TO THE BUILDING. A

SUPPLEMENTAL GROUNDING ELECTRODE SHALL BE PROVIDED AS SPECIFIED IN NEC SECTIONS 250-81

(15) INTERSYSTEM BONDING TERMINAL SHALL BE PROVIDED FOR GROUNDING COMMUNICATION SYSTEMS

(16) AT LEAST ONE COMMUNICATION OUTLET SHALL BE INSTALLED WITHIN THE DWELLING AND CABLED TO

(11) AUTOMATIC GARAGE DOOR OPENERS SHALL BE LISTED & LABELED IN ACCORDANCE WITH UL 325.

(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,

(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"

(THIS COUNT INCLUDES ONE KITCHEN SINK, ONE CLOTHES WASHER SUPPLY AND LAUNDRY SINK,

TABLE R905.2.4.1 CLASSIFICATION OF ASPHALT ROOFING SHINGLES

ASTM D 3161 SHINGLE CLASSIFICATION

MAX BASE WIND SPEED
FROM TABLE R3012.13 (mph)
SHINGLE CLASSIFICATION

ALL UNDERLAYMENT TO BE A MINIMUM OF TYPE I PER ASTM D 226 OR TYPE I PER ASTM D 4869.

(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 I UNDERLAYMENT MAY BE SUBSTITUTED FOR

(3) THE UNDERLAYMENT SHALL BE INSTALLED TO EXTEND AT LEAST 18" BEYOND A ROOF VALLEY OR

(5) MINERAL-SURFACED ROLL ROOFING SHALL CONFORM TO ASTM D 224, D 249, D 371, D 3909. IT SHALL

(6) ASPHALT AND FIBERGLASS SHINGLES SHALL BE INSTALLED PER MFG SPECIFICATIONS AND ARE TO

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.

(1) AN ICE SHIELD IS REQUIRED - TWO LAYERS OF TYPE I UNDERLAYMENT CEMENTED TOGETHER OR AN

APPROVED WATERPROOFING MEMBRANE FROM THE EDGE OF THE EAVE TO AT LEAST 24" INSIDE THE

(1) FINISH GRADES AT THE BUILDING TO BE MIN. 8" BELOW TOP OF FOUNDATION AT FRAME OR BRICK

(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.

(3) CABINET SUPPLIER TO FIELD MEASURE AREA OF WORK AFTER ROUGH FRAMING TO ASSURE EXACT

(6) MASONRY CHIMNEY OUTLETS SHALL BE LOCATED A MIN. 3'-0" ABOVE POINT OF ROOF PENETRATION,

(7) LOCKS WITH THUMB TURNS ON THE INSIDE ARE PERMITTED. INSIDE KEY OPERATION IS PERMITTED

(8) ALL WORK SHALL BE DONE IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL

(4) INTERIOR FINISH MATERIALS SHALL NOT HAVE A FLAME SPREAD RATING EXCEEDING 200

PROVIDED THE KEY CANNOT BE REMOVED FROM THE LOCK WHEN LOCKED FROM THE INSIDE.

(4) MIN. ROOF SLOPE TO BE 1/4:12 WITH APPROVED LOW-SLOPE ROOF COVERING MATERIALS.

BE APPROVED SELF-SEALING TYPES OR HAND SEALED. A MINIMUM OF ONE LAYER OF TYPE I

(4) THE WATER SERVICE PIPE AND THE BUILDING SEWER ARE TO BE A MIN. OF 10'-0" APART

ABOVE THE ROOM FLOOR LEVEL. SHOWER FLOOR SURFACES TO BE SMOOTH NONCORROSIVE,

EQUIPMENT AND TOOLS TO PROVIDE A COMPLETE SYSTEM OF PLUMBING AND SEWERING.

(2) ALL HOSE BIBS TO BE FREEZE-PROOF AND PREVENT BACK-FLOW...

(6) WATER SERVICE LINE SHALL BE IN ACCORDANCE WITH THE FOLLOWING:

AND TWO 1/2" EXTERIOR CONTINUOUS USE HOSE BIBS. ROUGHED-IN

(1) AN EXPANSION TANK IS REQUIRED FOR WATER HEATERS OF MORE THAN 30 GALLONS.

(3) LEAD-FREE SOLDER IS REQUIRED ON ALL COPPER WATER SUPPLY PIPING.

(10) ELECTRICAL SERVICES 600 AMPS OR ABOVE REQUIRE SUBMISSION OF RISER DIAGRAMS

(14) IF THE UNDERGROUND METAL WATER PIPE IS USED AS THE GROUNDING ELECTRODE. THE

RECEPTACLES INTENDED TO SERVE COUNTERTOP SURFACES.

ROOM THAT IS USED FOR STORAGE OR CONTAINS HVAC EQUIPMENT REQUIRING SERVICING.

LOCATED WITHIN 6'-0" OF THE OUTSIDE EDGE OF THE SINK.

SHALL INCLUDE THE FURNISHING OF CONSTRUCTION DOCUMENTS AS REQUIRED, MATERIALS, LABOR,

NON-"I.C." TYPE FIXTURES ARE NOT ACCEPTABLE IN INSULATED CEILINGS, EVENWITH BOXES BUILT

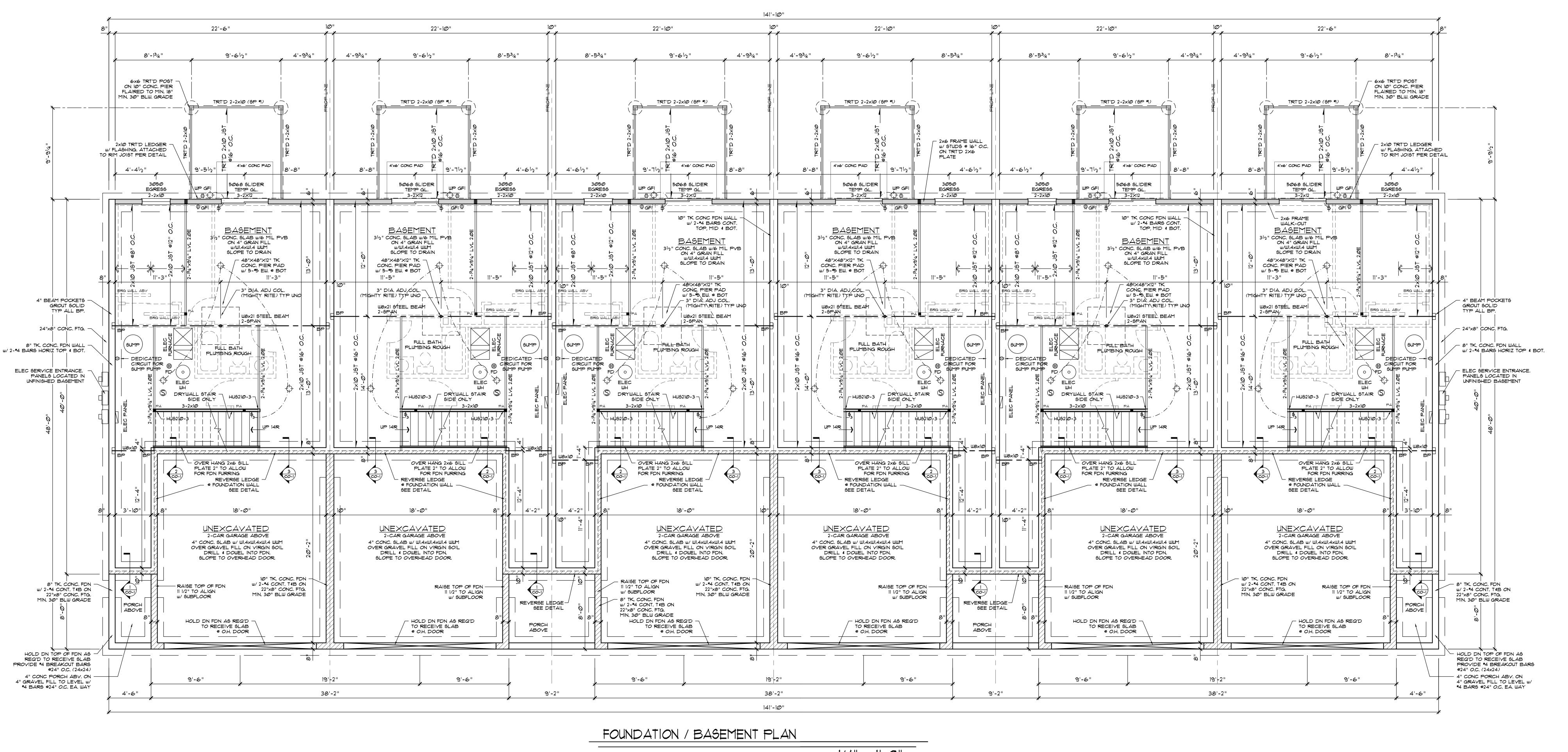
EQUIPMENT AND TOOLS TO INSTALL A COMPLETE SYSTEM OF ELECTRIC, POWER AND LIGHTING.

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. NUMBER (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 A-4425 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

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(11) IN CRAWL SPACES POWER VENTS MAY BE SUBSTITUTED FOR NATURAL VENTILATION. POWER VENTS MUST EQUAL 0.02 CFM MIN. PER S.F. OF AREA AND COME ON AUTOMATICALLY WHEN HUMIDITY REACHES 60% OR (12) CLOTHES DRYER VENTS SHALL BE INDEPENDENT OF ALL OTHER SYSTEMS AND EXHAUST TO THE EXTERIOR 25'(MI502.4.4.1) OR 35'(G2439.5.5.1). OBTAINED BY ADDING 5' FOR EACH 90 DEGREE BEND AND 2'-6" FOR EACH INDICATED ON THE DRAWINGS. ALL SMOKE DETECTORS SHALL BE INTERCONNECTED SO THAT AN ALARM (3) RECESSED LIGHT FIXTURES INSTALLED IN INSULATED CEILINGS AND/OR ATTICS SHALL BE TYPE "I.C."

DATE 2-21-2024 JOB 2022-95



1/4" = 1'-0"

FOUNDATION NOTES:

1. 8'-0" FDN POUR. 2. STEP FOOTING AND FOUNDATION TO 30" MIN. BELOW GRADE WHERE WALKOUT CONDITION OCCURS.

4. BASEMENT SLAB & FIRST FLOOR FRAMING, INCLUDING SUBFLOOR, MUST BE IN PLACE PRIOR TO BACKFILL

3. PROVIDE 2-*5 REBAR AROUND ALL OPENINGS IN THE FOUNDATION, EXTENDING 24" MIN. BEYOND THE CORNERS OF THE OPENINGS. SEE DETAILS

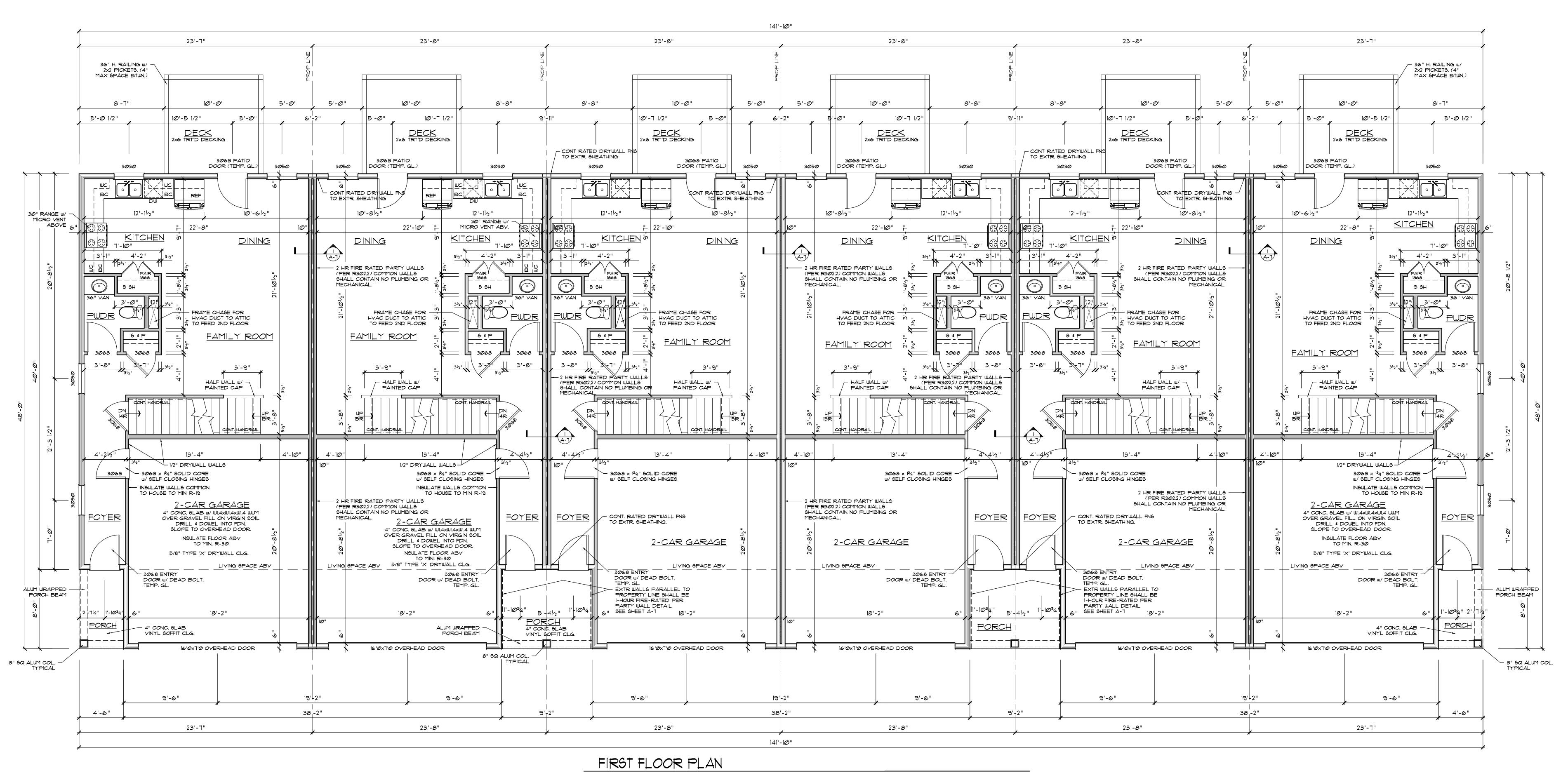
5. PROVIDE "ZIP STRIP" INSOLATION JOINTS AS REQUIRED. HABITABLE FINISHED SPACE IN THE BASEMENT SHALL REQUIRE EMERGENCY EGRESS AND RESCUE OPENINGS.

NUMBER A-4425 onna Faye Boxx-Architect MO# A-4425

Habitat for Humanity® of St. Charles Count

DATE 2-21-2024 JOB 2022-95

A-1 1 OF 8 SHEETS



TRADE CENTER DRIVE

TERS, MISSOURI 63376

DONNA E. BOXX, Architect, P.C. Mww.boxxarchitect.com

TRADE CENTER DRIVE

160 Marine Lane

160 Marine Lane

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ITAT 2041 TRADE CENTER ST. PETERS, MISSOURI

PROPOSED NEW
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of St. Charles County

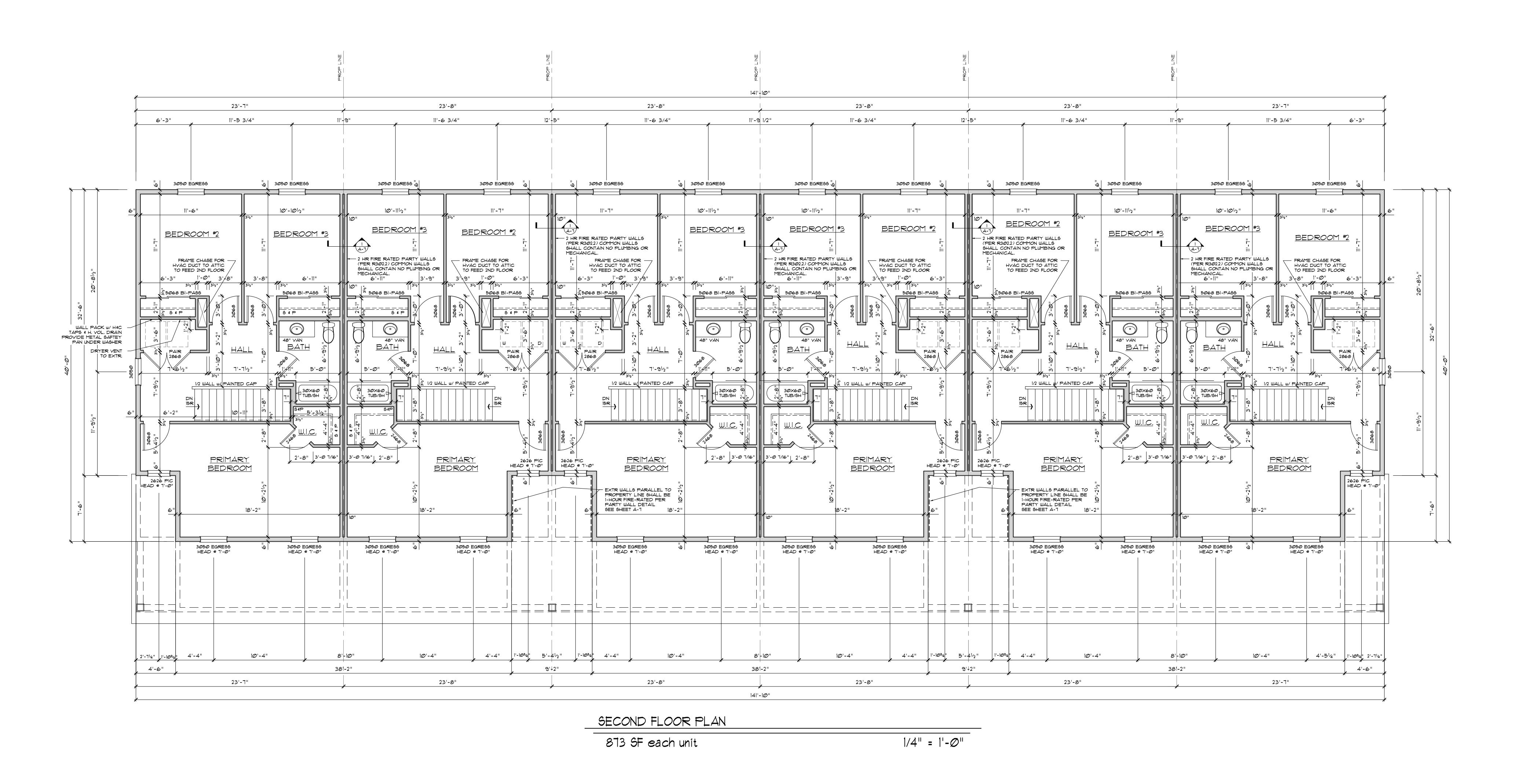
EN POINT TZVILLE, MISSOURI 63385

DATE 2-21-2024 JOB 2022-95

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A-2
2 of 8 SHEETS

698 SF each unit 1/4" = 1'-0"



Donna Faye Boxx-Architect
MO* A-4425

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JEW TOWNHOMES FOR:

2041 TRADE CENTER DRIVE
ST. PETERS, MISSOURI 6337

PROPOSED NEW
Habitat

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of St. Charles County

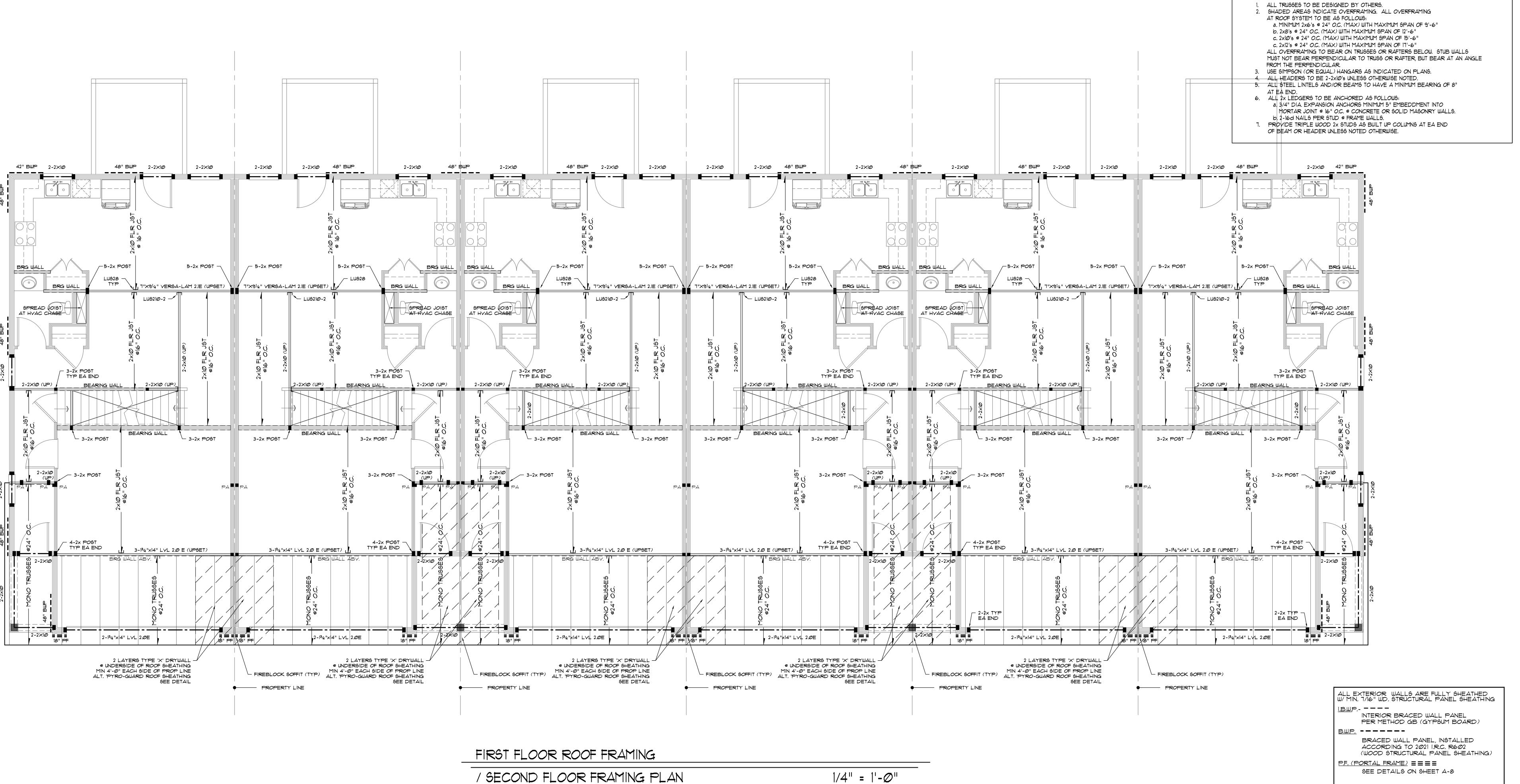
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DATE 2-21-2024 JOB 2022-95

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A-3



DONNA F.

NUMBER

A-4425

A-4425

FRAMING & ROOF FRAMING NOTES

Donna Faye Boxx-Architect MO# A-4425

rehitelt, P.C.
160 Marine Lane
St. Louis, Missouri 63146
[314] 434-2333
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160 160 St. Louis, M 13 13

NEW TOWNHOMES FOR:

Lat 2041 TRADE CENTER DRIVE ST. PETERS, MISSOURI 6337

Habitat for Humanity of St. Charles County

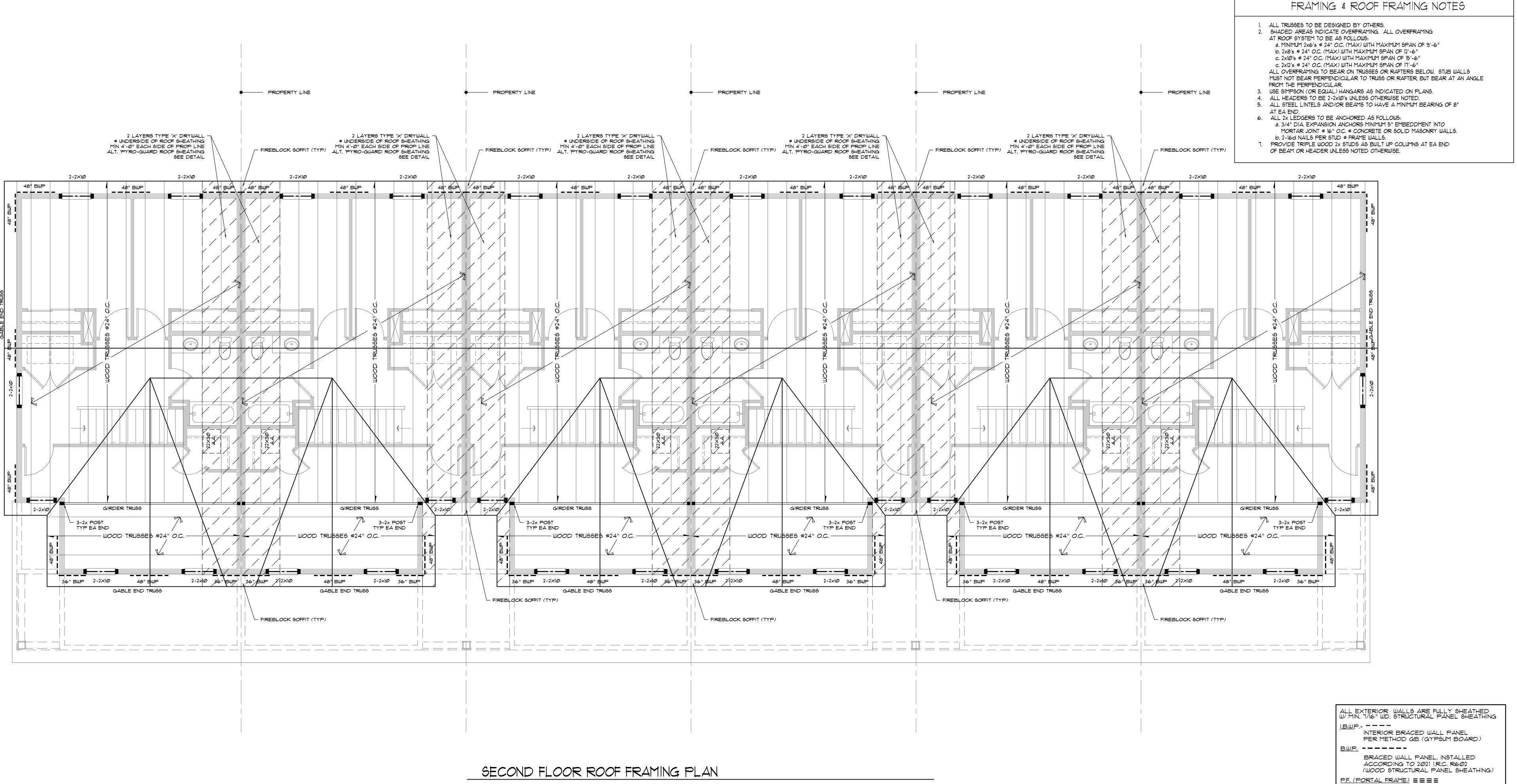
D FLOOR FRAMING PLAN

SECOND FLOOR F
HAVEN POINT

DATE 2-21-2024 JOB 2022-95

REV.

A-4



1/4" = 1'-0"

DONNA F. NUMBER A-4425

onna Faye Boxx-Architect MO# A-4425

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DATE 2-21-2024 JOB 2022-95

SEE DETAILS ON SHEET A-8

A-5



Donna Faye Boxx-Architect

F.BOKK, Architect 160 Marine St. Louis, Missouri (314) 434

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Itat 2041 TRADE CENTER DRIVE ST. PETERS, MISSOURI 63376

PROPOSED NEW TOWNF for Humanity ST. PETI

EXTERIOR ELEVATIONS

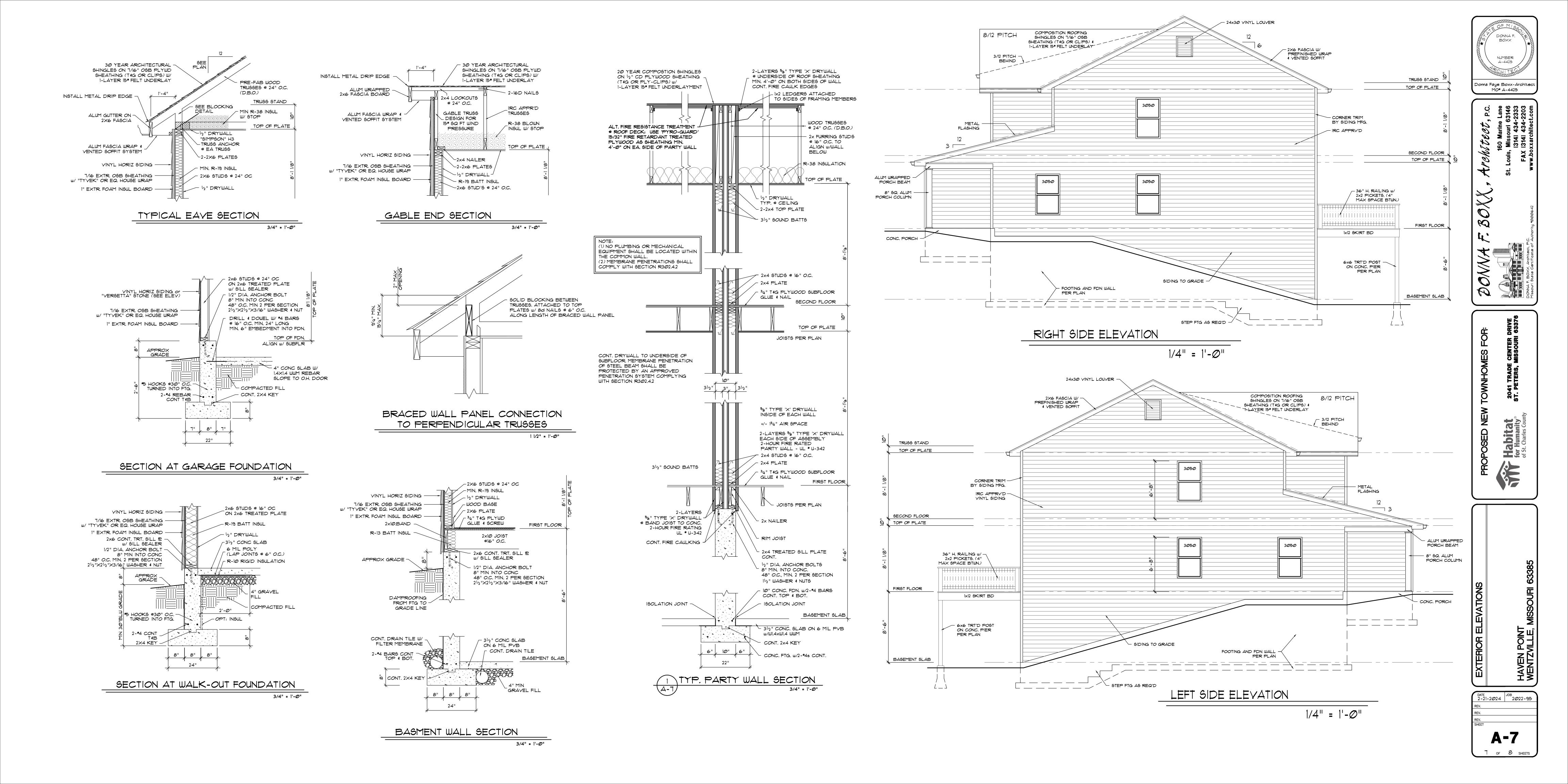
AVEN POINT

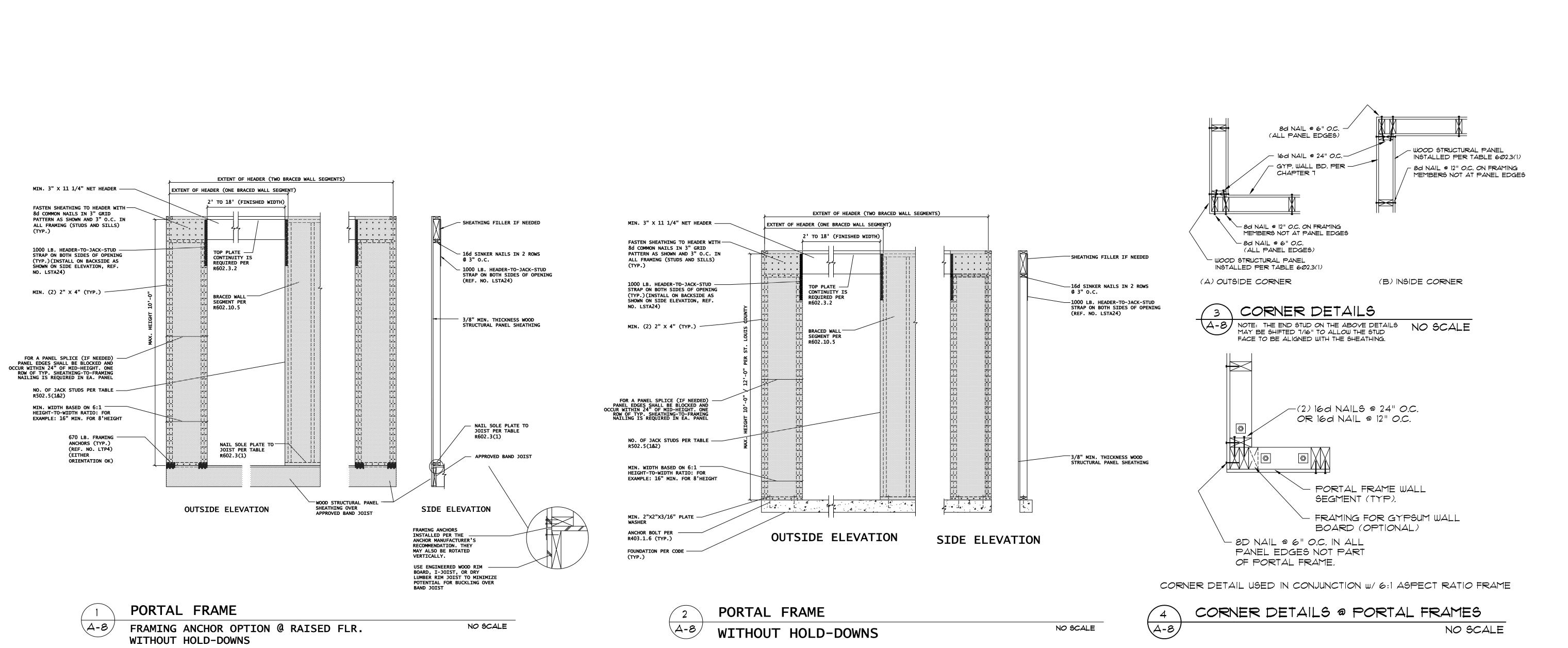
DATE 2-21-2024 2022-95

REV. 2-29-2024

REV. REV. SHEET

A-66 OF 8 SHEETS



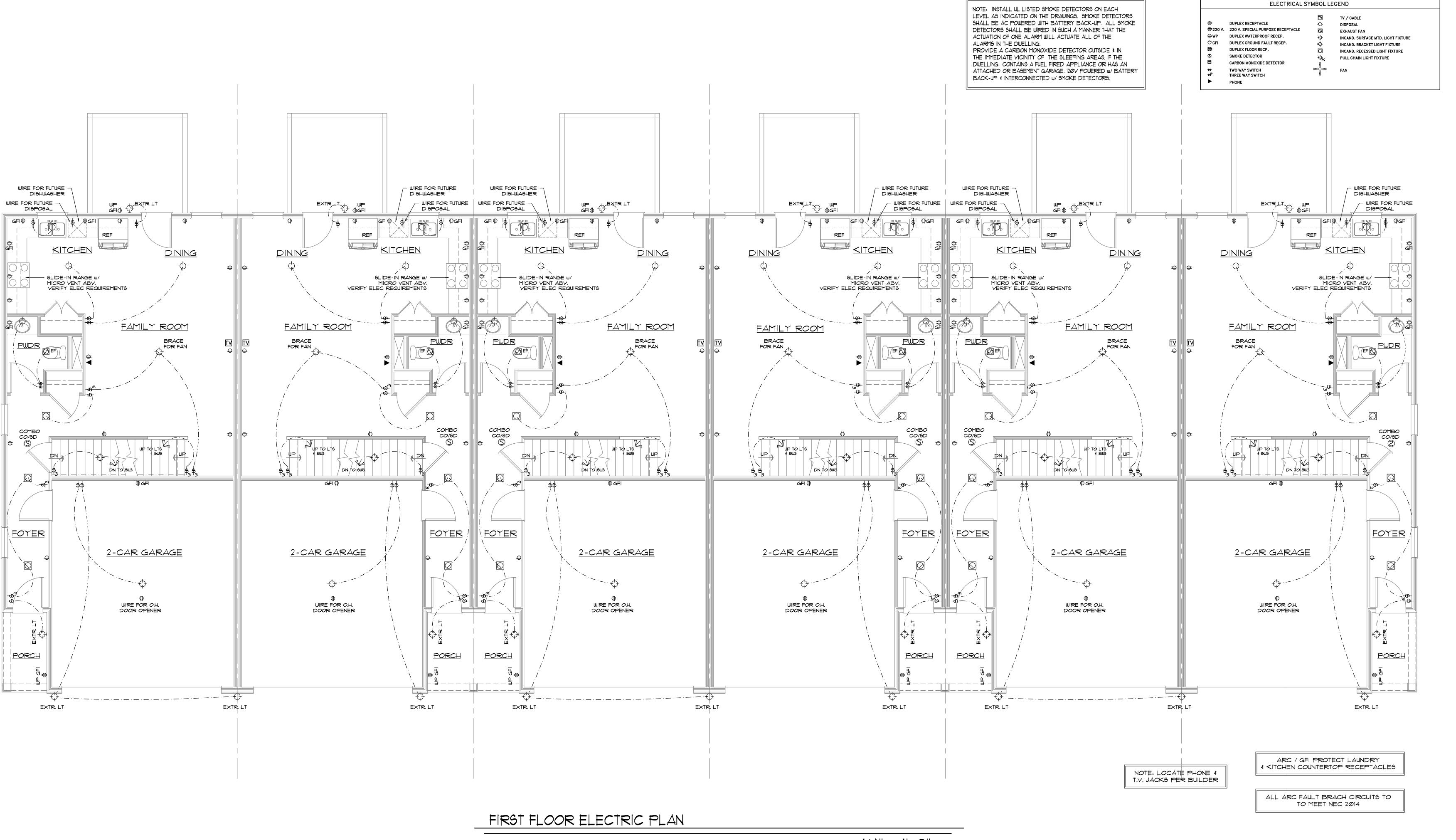


Donna Faye Boxx-Architect MO# A-4425

Habit for Human of St. Charles

DATE 2-21-2024 JOB 2022-95

8 OF 8 SHEETS



DONNA F.
BOXX

NUMBER
A-4425

Donna Faue Boxy Architect

Donna Faye Boxx-Architect MO# A-4425

2041 TRADE CENTER DRIV ty® ST. PETERS, MISSOURI 633

Habitat for Humanity of St. Charles County

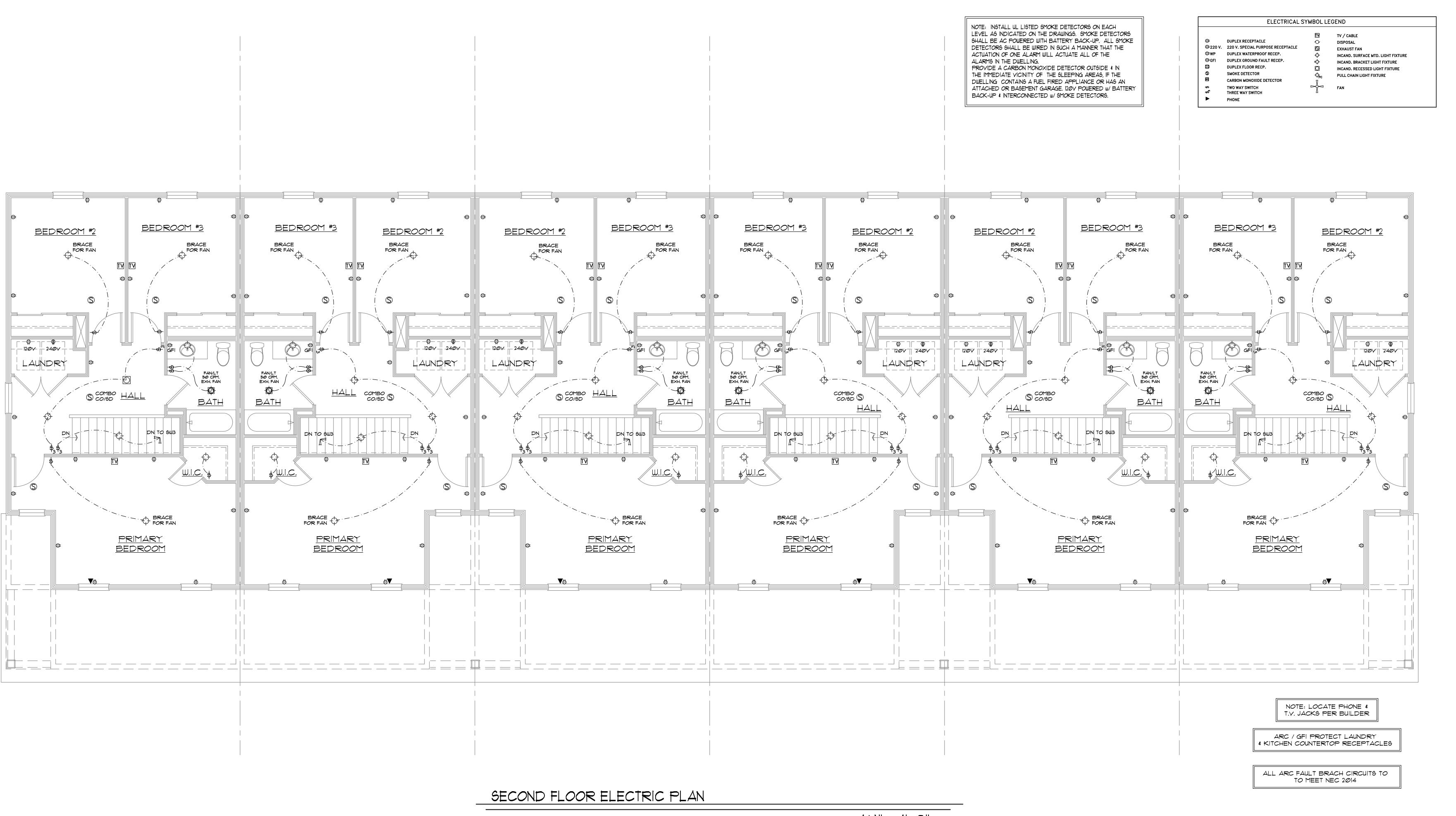
HAVEN POINT WENTZVILLE, MISSO

DATE 2-21-2024 JOB 2022-95

REV. REV.

REV.
SHEET

E-1



NUMBER A-4425 onna Faye Boxx-Architect

MO# A-4425

Habitat for Humanity® of St. Charles County

DATE 2-21-2024 JOB 2022-95

E-2

1/4" = 1'-0"