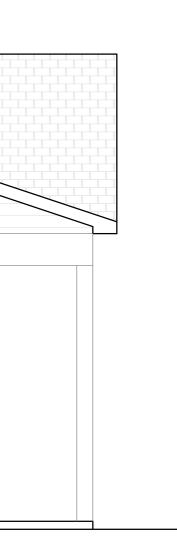
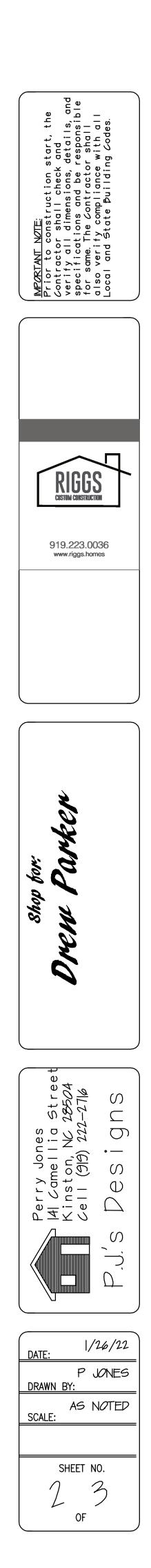


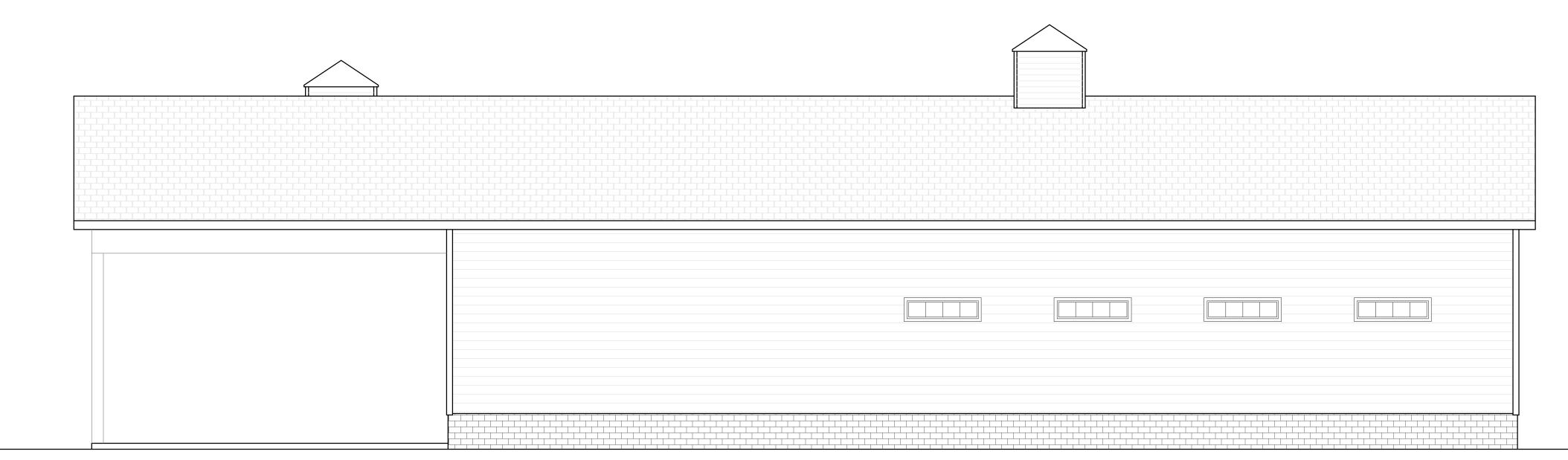


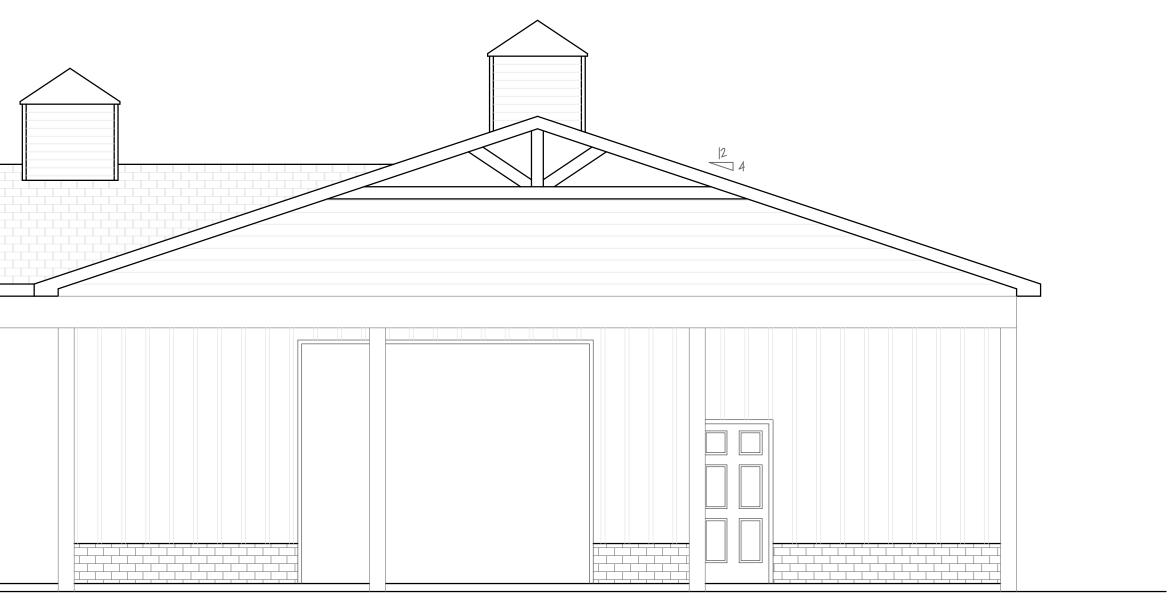
FRONT ELEVATION SCALE: 1/4" = 1'-0"





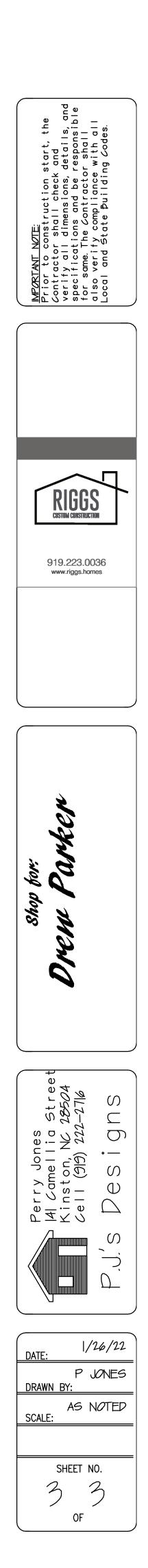
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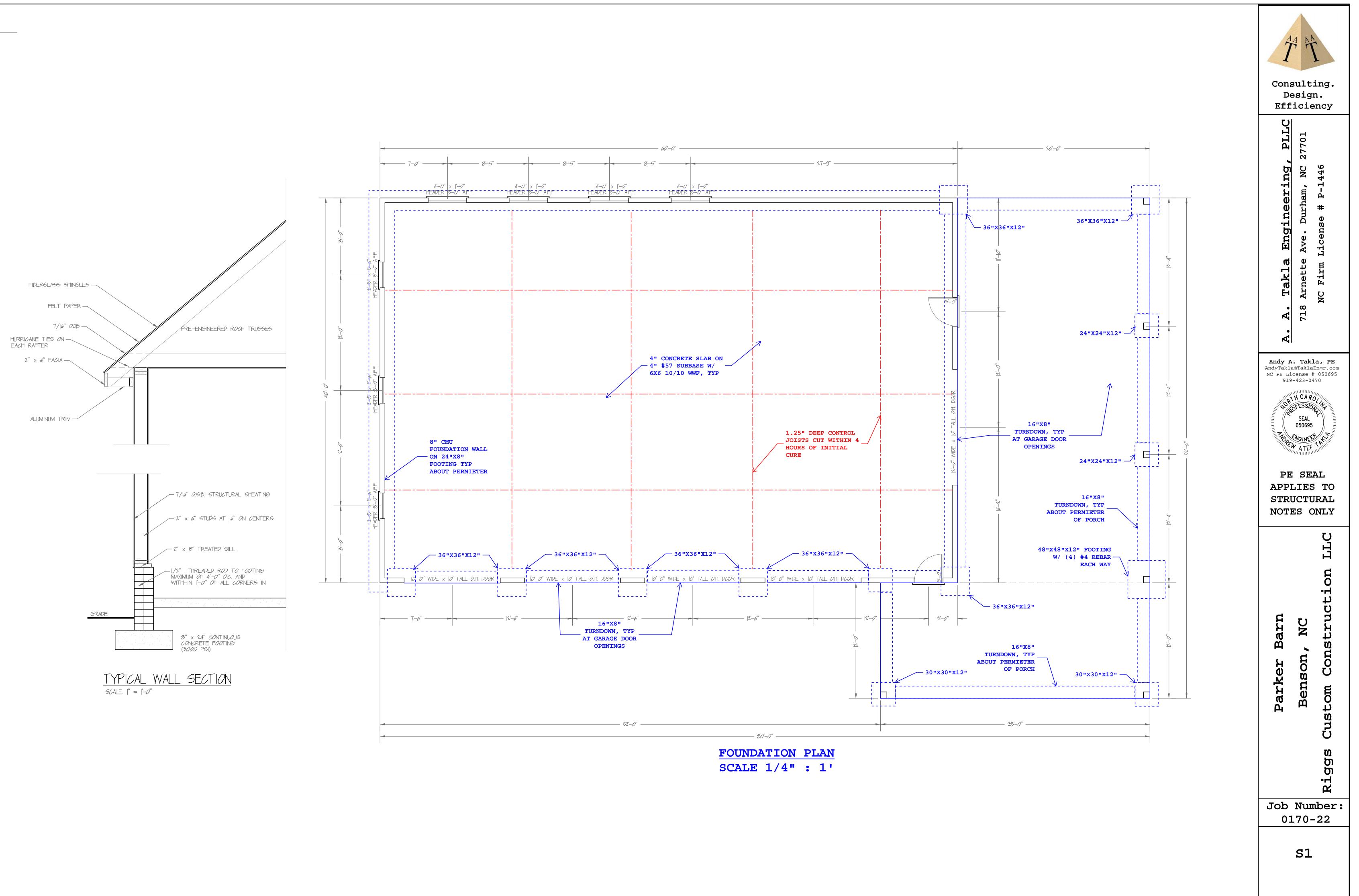


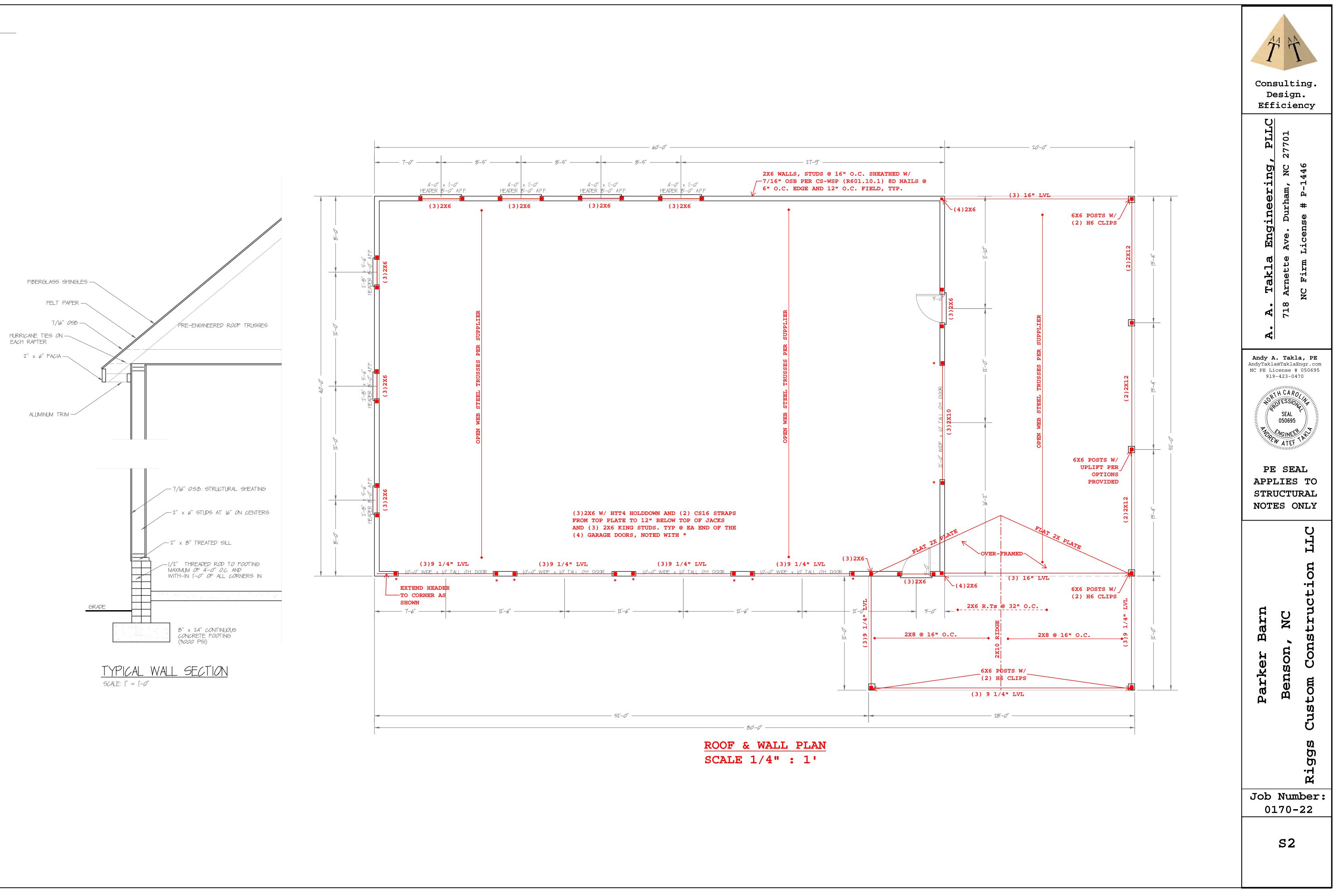


RIGHT ELEVATION scale: 1/4" = 1'-0"









1. Typically, Engineer's notes are in red,	Framing Notes:	Wood Deck Notes:			
blue or green ink for clarity.					
2. These general notes shall apply unless		2. Band atta			
otherwise noted in handwriting.	studs to match stud schedule in remainder of wall UNO. Strap	M (AM 104			
3. Noted dimensions shall take priority.		3. Install 1			
General Construction Notes:		4. Install h			
1. All temporary shoring, means and methods are the	(Fb) of: LVL= 2600 psi, LSL = 2325 psi. PSL (columns) shall	not be no			
responsibility of the contractor.		5. Max Post			
2. All dimensions to be verified by the contractor in the field.	-	6. Stair Str	-		
	5. All Wall framing per NCRC 2018 CH6.				
	6. All I-joists and floor truss framing per supplier's	Screened in a			
4. Any questions pertaining to structural components should be	specifications and layout.	1. All wood			
immediately brought to the attention of engineer.	7. All structural steel shall be ASTM A-36; Fy= 36 KSI.	2. Posts to			
5. Limitations: Services provided are in accordance with the standard of practice for structural engineering and within the limits	8. All weld material shall be 70 KSI material.	using ABU			
imposed by scope, schedule and budget. Sequencing, shoring, means	9. All welds to be installed by a certified AWS welder.	(2) RPBZ			
and methods of construction are considered beyond the scope of this	10. Install double joist under all walls parallel with joists.	3. Uplift fo	_		
design.	11. Typically, load bearing walls (LBW) are shown hatched in	LCE4, (2)			
design.	red. Nearby girders and beams should be assumed to be	¼" diamete			
Design Loads	directly supporting these LBWs, UON.	angle to			
Meet/exceeds minimum per NCRC 2018	12. All interior LVL beams of 3 ply or more shall be fastened	LedgerLok			
Live Dead Deflection	with $\frac{1}{2}''$ dia bolts at 16" o.c. staggered w/ 2" min edge	4. Uplift fo	—		
All Floors 40 10 L/360	distance from top/bottom edge UON. 2 ply LVLs shall be	(2)Simpso			
Attic Platforms 25 10 L/360	fastened with (4) #9 3" long wood screws UON.	diameter,	, 4.5"		
Ceiling 10 10 L/360	13. All side loaded steel beams should be packed out with dbl 2x	angle to	each s		
Decks/Porches 60 10 L/240	material and bolted thru to web with $\frac{1}{2}$ dia thru bolts at				
Roof 20 15 L/240	24" o.c. staggered.	Abbreviatio	.ons: Coi		
Windload 115(MPH) 115(MPH) L/240	14. All beam bearings shall be no less than 3". All other	CONC	Coi		
	bearing to be 2" min.	CONT.			
	15. All hangers shall be standard, appropriately sized face	C.J	Ce		
Footing Schedule: Header Schedule:	mounted UON. Consult Simpson catalog or local supplier. High	CMU	Col		
A = 16"x16"x8" $A = 2x6 w/(1) Jack @ EE$	capacity hangers will be load rated on plans. Install	CS-WSP	She		
B = 20"x20"x8" $B = 2x8 w/(2) Jack @ EE$	hardware per manufacturer guidelines.	DIA	Dia		
C = 24"x24"x10" $C = 2x10 w/(2) Jack @ EE$	naraware per manaracearer garacrines.	DBL	Doi		
D = 30"x30"x12" $D = 2x12 w/(3) Jack @ EE$	Lateral Bracing:	DJ / DR	Doi		
$E = 36^{\circ}x36^{\circ}x12^{\circ}$ $E = 9 1/4^{\circ}LVL w/(3) Js @ EE$	1. Unless otherwise noted, lateral bracing is found sufficient	EQ	Equ		
F = 40"x40"x12" w/(3) #4 EW $F = 11 7/8" LVL w/(3) Js @ EE$	and compliant with minimum requirements set forth in NCRC	EE	Ea		
G = 48"x48"x12" w/(4) #4 EW * Headers to match width of wall.	2018 Table R602.10.2 provided all exterior walls are	FJ	Flo		
*All rebar in footings to have * Stud size to match width of wall.	sheathed at the exterior per CS-WSP, R602.10.3 which	FND	Fo		
3" cover from sides, bottoms and King Stud Schedule:	includes 2x4 (min) studs at 16" o.c. sheathed with 7/16"	FT	Flo		
	OSB w/ (1)8d nail at 6" o.c. edge and (1)8d nail at 12"	FTG	Fo		
	o.c. field.	GB	Gy]		
3'-6' wide = (2)2x4 @ EE	2. Typically, required length of CS-WSP at each designated	GRT	Gi		
6'-9' wide = (3)2x4 @ EE	shear walls are shown on plans.	HGR	Hai		
* King stud size to match width of wall.	3. All noted Portal Frame (P-F) shall be compliant with	HD	Ho		
	R602.10.1	LBW	Loa		
	4. All locations noted with "HD" shall be 800 lbs min	MANUF	Mai		
Foundation Notes:	capacity. Option include 20" long CS16 straps fully	NTS	No		
1. Assumed soil load bearing capacity = 2000 PSF	populated with 10d nails, centered at bottom of stud,	0.C.	On		
2. Minimum 28 day f'c of concrete = 3000 PSI	extending to bottom of band below, Builder may install	O.F.	Ove		
3. Foundations to be built in accordance with NCRC 2018, CH 4	straps on the exterior of the walls. Several other hardware	PF	Po		
4. "Tie-In"s shall be (2) 16" long #4 epoxy bonded dowels half embedded	are available for use.	PL	Po		
mid-depth into existing footings. If no footing exists, omit Tie-in	5. Walls noted as GB shall be framed in accordance with	P.T.	Pre		
5. Install anchor bolts per R403.1.6.	R602.10.2	R.T.	Ro		
6. All slabs shall be 4" thick, 3000 psi concrete slab on 4" of #57	R002.10.2	SC	St		
sub-base w/ a 6 mil vapor barrier (if used in an interior or garage		SIM	Sin		
application) w/ 10/10 6x6 welded wire fabric UON.	Roof Framing Notes:	STGR	Sta		
7. All slabs shall be on compacted fill or full depth self consolidated	1. All roof framing shall comply with NCRC 2018 CH 9.	SUP	Suj		
structural fill (#57) (at porches, garages and stem wall slabs UON.	2. All dimensional lumber to be SYP or SPF No.2 or better.	TYP.	Tyj		
8. All suspended slabs on metal pans shall utilize 16GA type B UON.	Sheath with 7/16" OSB w/ 8d nails at 6" o.c. edge and 12"	UON	Un		
9. Max unreinforced, unbalanced condition of any CMU wall shall be 36".	o.c. field.				
Any foundation wall subjected to 24" of unbalanced fill or more	3. All rafter ties to be installed no higher than 1/3rd height				
shall be fully grouted.	eave to ridge up from eave nailed with (5) 10d nails at				
10. Top course of all foundation walls shall be fully grouted.	each end, UON				
11. All piers shall be in the middle 1/3rd of the footing. Min 2"	4. Roof trusses per others; installation per supplier				
The many process share we are included to the concerning. Man 2	guidelines.				
footing projection at each side Max projection shall be the depth					
footing projection at each side. Max projection shall be the depth of the footing.	5. When structural ridge is used, collar ties may be omitted				

mber to be pressure treated SYP or SPF No.2. tachments to be installed per NCRC 2018, Appendix 104.1(1)) lateral bracing AM109.1 Consulting. handrails per AM111.1. Note, 4x4 handrails shall Design. notched. Efficiency st Heights per AM 108.1 Stringers per AM 110.1 PLLC 701 and Covered Porch Notes: od deck notes apply. 27 to be attached to footings, slab or CMU piers yineering, 446 ABU44 or ABU66 post base (or applicable size) or BZ base connector. Ч for posts to headers may be either (2) Simpson Д (2)Simpson GA1 clips with 3" long #9 screws or (4) # eter, 4.5" long LedgerLoks driven at a 45" degree Ð to each side of posts or notched 50% width w/ (2) Eng Li C Âν for posts to floor framing may be either pson GA1 clips with 3" long #9 screws or (4) $\frac{1}{4}$ " Takla Firm er, 4.5" long LedgerLoks driven at a 45" degree to each side of posts. NC A **A**. 718 Concrete Continuous Ceiling Joists **A** Conc Masonry Unit Sheathing per R602.10.3 Andy A. Takla, PE AndyTakla@TaklaEngr.com NC PE License # 050695 919-423-0470 Diameter Double Double Joist / Rafter TH CAROLINA Equal Each End SEAL Floor Joist 050695 Foundation THE FAGINEER W Floor Truss PEW ATEF Footing Gypsum Board (shear wall) PE SEAL Girder Roof Truss APPLIES TO Hanger Holddowns STRUCTURAL Load Bearing Wall NOTES ONLY Manufacturer Not: To Scale LLC On Center Over-framed (roof) Portal Frame ЧО Point Load Pressure Treated Roof Truss truct Stud Column Barn Similar NC Staggered Supplier Const Typical Benson Parker Unless Otherwise Noted tom Cus . 998 8 Ri Job Number: 0170-22

> STRUCTURAL NOTES PAGE