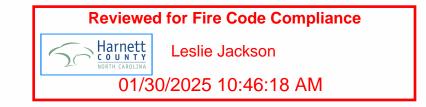


# MATTHEWS RIDGE AMENITY

BATHHOUSE & POOL HARNETT COUNTY, NORTH CAROLINA







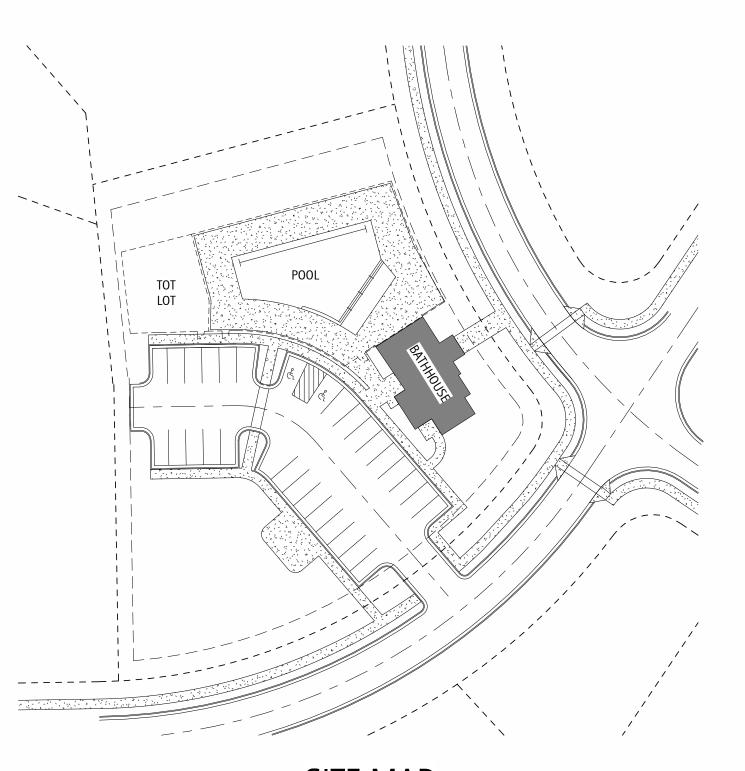




2506 RELIANCE AVE. APEX, NC 27539 (P) 919.629.7290 WWW.DCLUGSTON.COM



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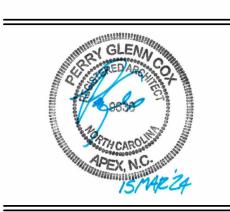


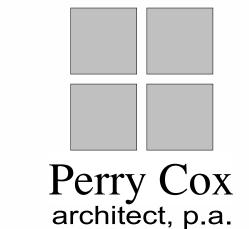
SITE MAP

	DRAWING INI		T	I	T	1				
SHEET NUMBER	CLIEFT NAME	REV	REV 02	REV	REV	REV 05				
0-GENERAL	SHEET NAME	01	02	03	04	05				
G0.1	COVER SHEET				1					
G0.2	BUILDING CODE SUMMARY									
G0.3	LIFE SAFETY PLAN									
G0.4	GENERAL NOTES									
1-ARCHITECTI	IRAI									
A1.0	FOUNDATION PLAN									
A1.1	FIRST FLOOR PLAN									
A1.2	REFLECTED CEILING PLAN									
A1.3	ROOF PLAN									
A2.0	EXTERIOR ELEVATIONS									
A2.1	EXTERIOR ELEVATIONS									
A3.0	BUILDING SECTIONS									
A3.1	WALL SECTIONS & DETAILS									
A4.0	ENLARGED PLANS & DETAILS									
A5.0	GENERAL BUILIDNG DETAILS									
A6.0	SCHEDULES & DETAILS									
S1 S2 S3 S4	SLAB AND FOUNDATION PLAN  CEILING FRAMING PLAN  ROOF FRAMING PLAN  STRUCTURAL NOTES AND DETAILS									
13-PLUMBING	PLANS				1					
P1	PLUMBING NOTES AND SCHEDULES									
P2	PLUMING PLANS AND RISERS									
15-MECHANI										
M1	MECHANICAL NOTES & SCHEDLES									
40 FLEOTOLOA										
16-ELECTRICA										
E1	ELECTRICAL NOTES AND SCHEDULES									
E2	ELECTRICAL PLANS AND SCHEDULES									
17-P00L										
SP1.0	POOL DIMENSION & CONTROL JOINT PLAN									
SP2.0	OVERALL POOL LAYOUT									
SP3.0	PIPING & ELECTRICAL PLAN									
SP4.0	SECTIONS & DETAILS									
SP4.1	SECTIONS & DETAILS									
SP5.0	SPECIFICATIONS									
٥.٥ اح										
SP5.1	SPECIFICATIONS			SPECIFICATIONS SPECIFICATIONS						









NO. REVISION DATE

PROJECT #: 2023043

DATE ISSUED: 03/13/2024

DRAWING BY: JGN

SHEET DISCRIPTION

COVER

SHEET

MATTHEWS RIDGE
KB HOMES
BATHHOUSE
HARNETT COUNTY, NC

## APPENDIX B BUILDING CODE SUMMARY

Name of Project: Matthews Ridge Amenity  Address: Lillington NC 27546		THIS SEC	BUILDING D		IECTS		
Address: Lillington, NC Zip Code: 27546  Owner or Authorized Agent: John Moxley Phone #: 919-691-1170	Construction Type:	☐ I-A ☐ I-B ☐ II-				V-A □ V-B	
nail:brian@dclugston.comFax #: wned By: Privately City/County State	Mixed cons	struction: Yes I	lo	Types			_
ode Enforcement Jurisdiction:	Sprinklers: Ye	s No NFPA 13	☐ NFPA 13R				ession
ROJECT SUMMARY: A-3 New Building	Standpipes: Ye. Fire District: Ye. Building Height: 23.	s No s No (Appen .66' Feet 1 S	Class: ☐ I ☐ dix D) ☐ Floor I	⊥ II L. III I Hazard	∟ Wet ∟ Dry	1	
uilding Description: A-3, Seasonal Drain Down bath house Pool Amenity	Building Height: 2 <u>3.</u> Basement: Yeight: Yeigh: Yeight: Yeigh: Y	s No	tory				
cope of Work: New Building full scope of architectural, structural, plumbing, mechanical, electrical, and pool plans	<u> </u>	s No Life Sa	ety Plan Sheet #	(if provided):	:G0.3		
Lead Design Professional/Project Coordinator: John Moxley 919-691-1170	_		NIE\A	//COET)	CII	D TOTAL	
DESIGNER FIRM NAME LICENSE # TELEPHONE #  Architectural: Perry Cox Architect, PA Perry Cox, AIA 9630 919-393-5411	FLOOR First Floor	EXISTING (SQFT)		/ (SQFT) 1,722	SU	B-TOTAL 1,722	
lectrical: Kilian Engineering Jacob L. Hamilton 048012 <u>252-438-8778</u>							
re Alarm:   umbing: Kilian Engineering Jacob L. Hamilton 048012 252-438-8778							
lechanical: Kilian Engineering Jacob L. Hamilton 048012 252-438-8778 prinkler-Standpipe	Area of Project Tena	ant/Alteration/Renovatio	n:				
tructural: Ross Linden Engineers Brian Ross, PE 25539 919-832-5680 recast:	Area of Construction	n:					
russes: Truss Builders Eric A Gilbert, PE 036322 919-467-9988 letaining Walls >5' High	THE SECTION BE		ROTECTIO	N REQUI	<u>REMENTS</u>		
Other: Pool: Kilian Engineering Jacob L. Hamilton 048012 252-438-8778 Note:		QUIRED FOR ALL PRO	0.3				
	Life Safety Plan She	50t #, II 1 10thada	<del></del>	T			
uilding Code: 2018 North Carolina State Building Code (NCSBC) 2009 North Carolina State Building Code		SEPARATION BEGINS	PROVIDED	DETAIL #	DESIGN # FOR RATED	SHEET # FOR RATED	SHEET # FOR RATE
<ul> <li>2009 NC Rehab</li> <li>2006 NC Rehab</li> <li>2006 North Carolina Building Code</li> <li>2009 Chapter 34</li> <li>2006 Chaper 34</li> <li>1995 Existing Building Code</li> </ul>		NCE (FEET) REQ'D*	(W/* REDUCTION)	SHEET #	ASSEMBLY	PENETRATION	JOINTS
ew Building: New Building Shell Building First Time Interior Completion	Bearing Walls E	0	0				
	East West	0	0				
Reconstruction Repair Alteration to Shell	South Interior Bering wal	0 Ils 0	0				
☐ Change of Use Tenant ☐ Change of Occupancy  Note: Zoning Review May Be Required for Change of Use or Occupancy	Nonbearing Wal	· · · · · · · · · · · · · · · · · · ·	0				
Original Occupancy: (A-3) Assembly (A-3) Assembly	East West	0	0				
OCCUPANCY INFORMATION	South	0	0				
rimary Occupancies:	Interior Bering wal	including	U				
Assembly: A-1 A-2 A-3 A-4 A-5	columns, girders Floor construction,	including					
Hazardous: H-1 H-2 H-3 H-4 H-5	supporting beams a List construction ty		0				
Institutional:	Floor Ceiling Asser Columns Supporting		0				
☐ I-3 Condition ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 Factory: ☐ F-1 ☐ F-2	Roof construction, supporting beams						
☐ <b>I-4</b>	Roof Ceiling Assen	mbly 0	0				
Mercantile:   Recidential:   Reciden	Shafts- Exit Enclos	sures N/A	N/A N/A				
Residential: R-1 R-2 R-3 R-4  Storage: S-1 Moderate S-2 Low High-piled	Shafts- Other (deso	n N/A	N/A				
Parking Garage: Open Enclosed Repair Garage	Occupancy Separa Party/ Fire Wall Se	eparation N/A	N/A N/A				
Utility and Miscellaneous	Incidental Use Sep Dwelling/ sleeping		N/A N/A				
pecial Occupancies: 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421	Separation Smoke Barrier Sep		N/A N/A				
lixed Occupancy: No Yes Separation: Hr. Exception:	Tenant Separation						
Non-Separated Mixed Occupancy (508.3)- The required type of construction for the building shall be		number permitting reduce g Table 601 Note C exc					
determined by applying the height and area limitations for each of the applicable occupancies to the entire building.		PERCENTAC	SE OF WAL	L OPENII	NG CALCU	<u>JLATIONS</u>	
The most restrictive type of construction, so determined, shall apply to the entire building.		EPARATION DISTANCE					N PLANS
Separated Mixed Occupancy (508.3.3) - See below for area calculations for each story, the area of	(FEET) F	From Propery Lines PF N/A	OTECTION (TABL	E 705.8	(%)	(%)	
the occupancy shall be such that the sum of the ratios of the actual floor area of each use divided by the allowable			WALL LE	GENDS			
floor area for each use shall not exceed 1.	THIS SECTION I	REQUIRED FOR ALL		<u> </u>			
Actual Area of Occupancy A + Actual Area of Occupancy B < 1.	CHECK IF THE F	OLLOWING ARE PRES	ENT AND INDIC	CATE BY A	WALL LEGE	ND ON ALL PLA	NS
Allowable Area of Occupancy A Allowable Area of Occupancy B	☐ Fire Partitions			ire Barriers 7	06	noke Partitions 7	10
++ =< 1	☐ Smoke Barrie	rs 709	sure 707				
ALLOWABLE AREA AND HEIGHT CALCULATIONS  HIS SECTION FOR NEW, ADDITION, CHANGE OF USE, AND INTERIOR COMPLETIONS		LIFE SAFE	TY SYSTE	MS REQL	JIREMENT	<u> </u>	
Exterior Wall Actual Length Open Length North South East West Total	THIS SECTION IS	REQUIRED FOR ALL I	PROJECTS				
North South	Emergency Lightin Exit Signs:	g: Yes I					
South East NO INCREASE NEW YORK	Fire Alarm: Smoke Detection S	☐ Yes ☐ N Systems: ☐ Yes ☐ N	lo lo				
West P F W	Panic Hardware:	Yes	lo				
NCREASE FRONTAGE% PRINKLERS %		LIFE SAFE	TY PLAN F	REQUIRE	<u>MENTS</u>		
RONTAGE INCREASE FORMULA ALLOWABLE AREA FORMULA	Life Safety Plan She						
$= 100(\underline{F} - 0.25) \frac{W}{30}$	•		ions (Chart T)				
OTH BUILDING AND TENANT MUST BE INDICATED ON CHART BELOW    DISCRIP.   BLDG AREA TABLE 506.2   AREA FOR   SPRINKLER   ALLOWABLE   RATE OF   MAXIMUM SEPARATION	Assumed a	or smoke rated wall locat and real property line loo	cations (if not on			OF 0)	
Story No.  8 USE PER STORY ALLOWABLE INCREASE INCREASE INCREASE INCREASE AREA ALLOWABLE AREA REQUIRED	Occupancy	vall opening area with re y Use for each area as it					
Main Level A-3 1,722 6000 N/A N/A N/A 0.287 6000 SF N/A	Exit acces	loads for each area s travel distance (1017)					
		path of travel distances lenghts (1020.4)	Tables 1006.2.1	& 1006.3.2(1)	)		
	Clear exit	widths for each exit doo calculated occupant loa		exit door can	accommodate h	pased on earess w	idth (1005
Frontage area increases from Section 506.3 are computed thus:	Actual occ	cupant load for each exi e schematic plan indicat	door			_	
<ul> <li>a. Perimeter which fronts a public way or open space having 20 feet minimum width =</li></ul>	purposes o	of occupancy separation			.g anufut 1001 S	aracture is provid	Cu IUI
c. Ratio $(F/P) = \underline{\hspace{1cm}}(F/P)$ d. $W = Minimum width of public way = \underline{\hspace{1cm}}(W)$	Location o	of doors with panic hard of doors with delayed erg	jess locks and the	e amount of d		7)	
e. Percent of frontage increase $I^{\dagger} = 100 \text{ [F/P - 0.25]} \times \text{W/30} = $ (%) Unlimited area applicable under conditions of Section 507.	Location o	of doors with electromag of doors equipped with h	old-open devices				
Maximum Building Area = total number of stories in the building $x$ D (maximum 3 stories) (506.2)	Location o	of emergency escape wir e footage of each fire ar	dows (1030)				
The maximum area of open parking garages must comply with Table 406.5.4 Frontage increase is based on the unsprinklered area value in Table 506.2	The square	e footage of each smoke code exceptions or table	compartment fo				
ALLOWABLE HEIGHT	======	· · · · · · · · · · · · · · · · · · ·					
MOST RESTRICTIVE (GROUP)  ALLOWABLE BUILDING INCREASE FOR SPRINKLERS  ACTUAL BUILDING HEIGHT AS SHOWN ON PLANS  CODE REFERENCE PLANS	NUMB	EXIT REQUIREN BER AND ARRANGE	MENTS MENT OF EXI	1. Cor I <b>TS</b> 2. Sin	rridor dead ends gle exits (Sectio	(Section 1017.3) on 1015.1; Section gress Travel (Sect	1

403.3.1

403.3.1

403.3.1

FLOOR, ROOM

AND/OR SPACE

DESIGNATION

POOL DECK

BATHHOUSE

PLANS

Type<u>VB</u>

H= <u>23-8"</u>

Type of Construction

Building Height in Feet

Building Height in Stories

Type\_\_VB\_

H = 40'-0"

N/A

			BUILDING DA	ATA			
		THIS SEC	CTION REQUIRED F		ECTS		
	Type: 🗌 I-A					V-A V-B	
Mixo s:	ed construction:	Yes 🔲 I NFPA 13	No NFPA 13R	Types Partially	_	Special Suppre	— ession
es:	☐ Yes ☐ No		Class:	]    □    [			
	ht: 23.66' Feet	(Appen _1_ S	idix D)	lazard			
t: e:	Yes No	1 : 5 - 0 -	fata Dian Obaatii	(: <b>f</b>	00.0		
: uilc	☐ Yes ☐ No ling Area:	Life Sa	fety Plan Sheet #	(it provided):	G0.3	<del></del>	
00	R EXIST	ING (SQFT	) NEW	(SQFT)	SUI	B-TOTAL	
t Fl	oor	0	1	,722		1,722	
	ct Tenant/Alteratio		on:			· · · · · · · · · · · · · · · · · · ·	_
ons	truction:						-
. —			ROTECTION	N REQUIE	<u>REMENTS</u>		
	ON REQUIRED FO						
у Р	an Sheet #, if Prov	videdG	60.3				
G	FIRE SEPARATION		RATING PROVIDED	DETAIL #	DESIGN #	SHEET # FOR	SHEET #
T	DISTANCE (FEET)	REQ'D*	(W/* REDUCTION)	SHEET #	FOR RATED ASSEMBLY	RATED PENETRATION	FOR RATED JOINTS
y۷	alls Exterior	-	•				
		0	0				
		0	0				
	ing walls	0	0				
rir	g Walls Exterior	0	0				
		0	0				
D -	ing wells	0	0				
ral	ing walls Frame, including	0	0				
	girders, trusses uction, including						
ng b	peams and joists.	0	0				
ilin	g Assembly	0	0				
str	pporting Floors uction, including	0	0				
	eams and joists**  Assembly	0	0				
Sı	pporting Roof						
	Enclosures er (describe)	N/A N/A	N/A N/A				
	paration Separation	N/A N/A	N/A N/A				
re \	Vall Separation	N/A	N/A				
	se Separation eeping unit	N/A	N/A				
on Sarr	ier Separation	N/A	N/A				
	aration	N/A	N/A				
	ection number per if using Table 601						
	DED	CENTA	GE OF WAL	OPENIA	IC CALCII	PIONS	
Ĩ	FIRE SEPARATION					TUAL SHOWN ON	N PLANS
	(FEET) FROM PROP				(%)	(%)	VILANS
ŀ	N/A						
			WALL LE	<u>GENDS</u>			
EC	TION REQUIRED	FOR ALL	PROJECTS				
	THE FOLLOWING					<b>ND</b> ON ALL PLA	
		Fire Walls 7		re Barriers 70	06	noke Partitions 71	10
ке	Barriers 709	Shaft Enclo	sure /U/				
	LI	FE SAFE	ETY SYSTEM	IS REQU	<u>IREME</u> NTS	<u> </u>	
СТ	ION IS REQUIREI						
су	Lighting:	Yes 🔲 I	No				
s: m:		Yes 🔲 I	No No				
	ection Systems: vare:		No No				
	<u>LI</u>	FE SAFE	<u>ETY PLAN R</u>	<u>EQUIREN</u>	<u>MENTS</u>		
ty F	lan Sheet #	G0.3					
Fire	e and/or smoke rate	ed wall locat	tions (Chapter 7)				
Ass	sumed and real pro erior wall opening	perty line lo	cations (if not on		ronerty lines (70	ns 8)	
0с	cupancy Use for ea	ch area as it					
	cupant loads for ea t access travel dist						
Со	mmon path of trav	el distances	(Tables 1006.2.1 8	t 1006.3.2(1))			
Cle	ad end lenghts (10: ar exit widths for e	each exit do					. 121 - 41
	ximum calculated and occupant load	•		exit door can a	accommodate b	ased on egress w	ridth (1005.3)
A s	eparate schematic	plan indicat	ing where fire rate	ed floor/ceilin	g and/or roof st	tructure is provid	ed for
Loc	rposes of occupance ation of doors with	h panic hard	ware (1010.1.10)				
	ation of doors with ation of doors with				elay (1010.1.9.7	")	
Loc	ation of doors equ	ipped with h	old-open devices				
The	ation of emergence square footage of	each fire ar	ea (202)	0		\	
	e square footage of te any code except						
		REQUIREN					
1	NUMBER AND .			TS 2. Sing	gle exits (Sectio	(Section 1017.3) n 1015.1; Section	n 1019.2)
•			FOR ALL PROJECTS	3 Con		gress Travel (Sect	

ASSEMBLY OCCUPANCY INFORMATION								
			Occupancy		Exit Width	Exit		
Name	Туре	Area	Load Factor	Load Count	(inches)	Quantity		
COVERED PORCH	Assembly - Unconcentrated (tables and chairs)	627 SF	15 SF	42	8.4			
POOL	Swimming Pool water surface	2938 SF	50 SF	59	11.8			
POOL DECK 8' CLEAR	Swiming Pool Deck	2042 SF	15 SF	137	27.4			
POOL DECK	Swiming Pool Deck	2797 SF	15 SF	187	37.4			
3rand total 425 85 1. See Table 1004.1.1 to determine whether net or gross area is applicable								

2. Minimum stairway width (Section 1009.1); min. corridor width (Section 1017.2); min. door width (Section 1008.1.1) 3. Minimum width of exit passageway (Section 1021.2)

4. The loss of 1 means of egress shall not reduce the available capacity to less than 50% of the total required (Section 1005.1) 5. Assembly occupancies (Section 1025)

		0ccu	Occupancy		Width per nt(1005.3)	Requ Wid		Actual Sho	
Room Name	Area	Load Factor	Load Count	Level	Stair	Level	Stair	Level	Stair
ENTRY	87 SF	0 SF		0.2				96	
COVERED PORCH	627 SF	15 SF	42	0.2		8.4			
WOMENS	171 SF	0 SF		0.2					
MENS	123 SF	0 SF		0.2					
CHEM.	34 SF	300 SF	1	0.2		0.2			
STORAGE	189 SF	300 SF	1	0.2		0.2			
CLST.	9 SF	300 SF	1	0.2		0.2			
PUMP ROOM	174 SF	300 SF	1	0.2		0.2			
VESTIBULE	55 SF	0 SF		0.2					
FAMILY	39 SF	0 SF		0.2					
CLST	13 SF								
Grand total	1521 SF		46	2		9.2		96	0

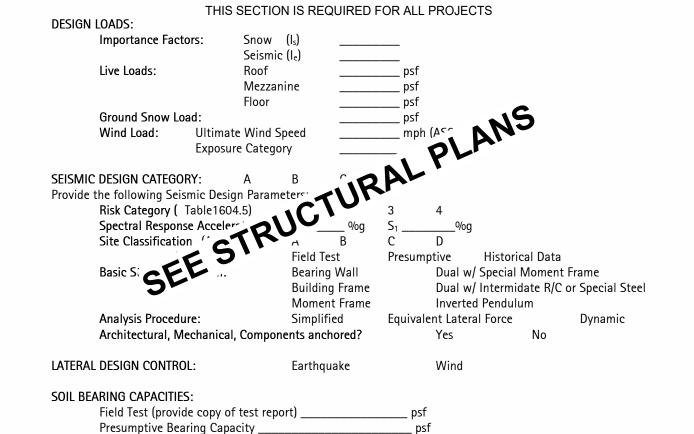
				Faress	Width per	Regu	uired	Actual	Width
		Occu	pancy		nt(1005.3)	Wic		Sho	
Room Name	Area	Load Factor	Load Count	Level	Stair	Level	Stair	Level	Stair
								•	
POOL	2938 SF	50 SF	59	0.2		11.8			
POOL DECK 8' CLEAR	2042 SF	15 SF	137	0.2		27.4			
POOL DECK	2797 SF	15 SF	187	0.2		37.4		92	
Grand total	7778 SF		383			76.6	•	92	

#### PLUMBING FIXTURE REQUIREMENTS THIS SECTION IS REQUIRED FOR ALL DROJECTS

			IH	IS SECTION	ON IS REQ	UIRED F	OR ALL	PROJECT	S		
		WATERCLOSETS				LAVATORIES			RINSE	DRINKING FOUNTAINS	
U	SE	Male	Female	Unisex	URINALS	Male	Female	Unisex	SHOWERS	REGULAR	ACCESSIBLE
SPACE	EXIST'G										
	NEW	2	3	1	2	2	2	1	1	1	1
otal R	equired	2	3	1	1	1	1	1	1	1	1
Total	Provided	2	3	1	2	2	2	1	1	1	1

383 PERSONS / 2 = 192 M / 192 F WATERCLOSETS: <u>192</u> MALE / 125 = <u>2</u> WC = <u>2</u> WC & <u>2</u> URINAL <u>192</u> FEMALE /65 = <u>4</u> WC = <u>3</u> WC <u>192</u> MALE / 200 = <u>1</u> LAV. = <u>2</u> LAV <u>192</u> FEMALE / 200 = <u>1</u> LAV. = <u>2</u> LAV

#### STRUCTURAL DESIGN LOADS



Pile size, type, and capacity	
MECHANICAL SUMMARY	
MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT	

THIS SECTION FOR NEW, ADDITION, CHANGE O	F USE, AND INTERIOR COMPLETION
ermal Zone:	. 15
Winter Dry Bulb:	" VIA"
Summer Dry Bulb:	PLI
terior Design Conditions:	CAL'
Winter Dry Bulb:	
Summer Dry Bulb:	I DIA.
Relative Humidity:	HANGAL PLANS
illding Heating Load:	
Unitary <b>CL</b>	
Description of Unit.	
Heating Efficiency:	
Cooling Efficiency:	
Size Category of Unit:	
Boiler	
Size Category. If oversized, state reason:	
Chiller	

Size Category. If oversized, state reason:



#### **ELECTRICAL SUMMARY**

ELECTRICAL SYSTEM AND EQUIPMENT

Method of Compliance: Energy Code

**Lighting Schedule** (each fixture type)

ASHRAE 90.1

Prescriptive

Prescriptive

Lamp type required in fixture Number of lamps in fixture Ballast type used in the fixture Number of ballasts in fixture

Total wattage per fixture

C406.5 On-site Renewable Energy C406.6 Dedicated Outdoor Air System C406.7 Reduced Energy Use in Service Water Heating

#### **ENERGY SUMMARY**

THIS SECTION FOR NEW, ADDITION, CHANGE OF USE, AND INTERIOR COMPLETION

#### **SEASONAL DRAIN DOWN** BUILDING

#### **SPECIAL APPROVALS**

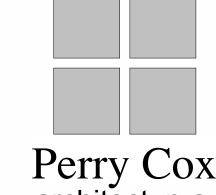
(Local Jurisdiction, Department of Insurance, OSC, DPI, DHHS, etc., describe below)

HARNETT COUNTY HEALTH DEPARTMENT

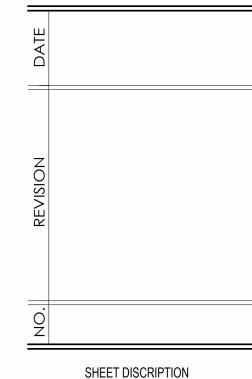








architect, p.a. 124 Salem Towne Court, Apex, NC 27502 P: 919.363.5411 www.pcoxdesign.com



BUILDING

PROJECT #: 2023043 DATE ISSUED: 03/13/2024 DRAWING BY: CHECKED BY:

MATTHEWS RIDGE KB HOMES COUNTY, **BATHHOUS** HARNETT

SHOWN ON BETWEEN EXIT SHOWN ON

75'-6"

ALLOWABLE ACTUAL TRAVEL REQUIRED

(TABLE 1016.1) PLANS DOORS

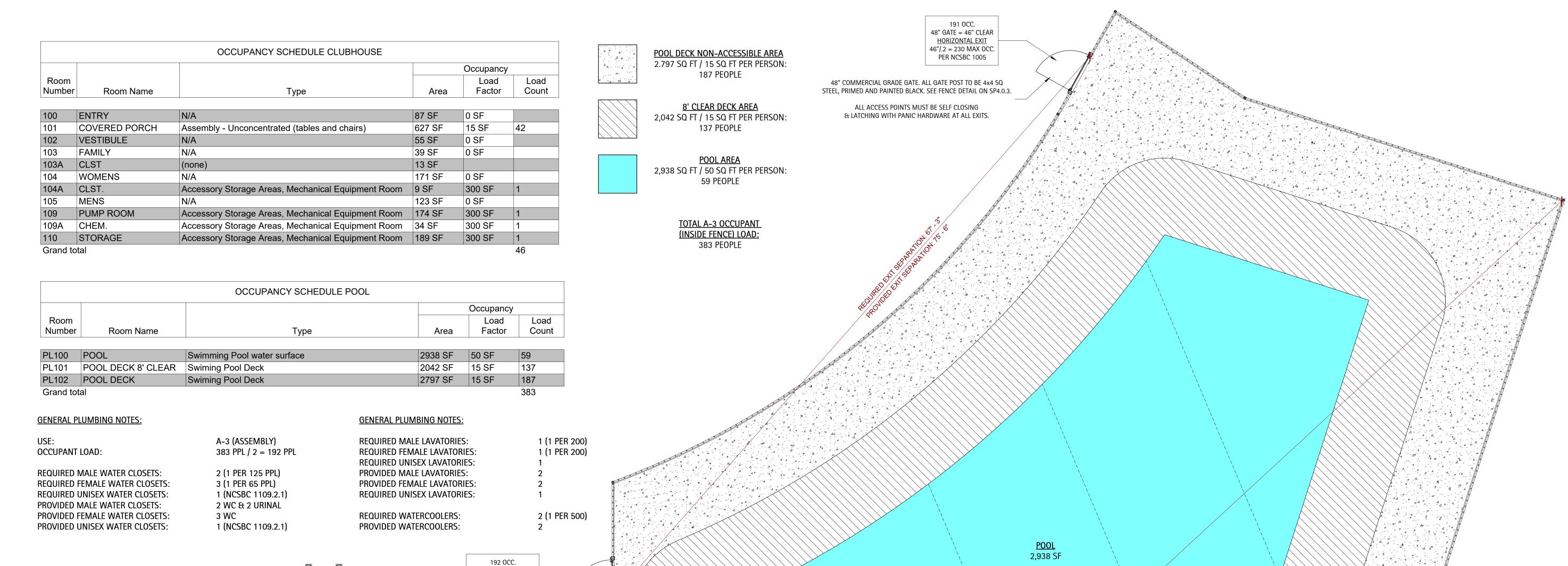
75'-0" 58'-8" N/A

200'-0" 158'-8" 67'-3"

DISTANCE DISTANCE

TRAVEL

DISTANCE



48" GATE = 46" CLEAR **HORIZONTAL EXIT** 

46"/.2 = 230 MAX OCC.

PER NCSBC 1005

48" COMMERCIAL GRADE GATE. ALL GATE POST TO BE 4x4 SQ STEEL, PRIMED AND PAINTED BLACK. SEE FENCE DETAIL ON SP4.0.3.

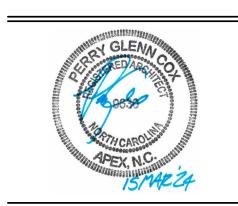
> ALL ACCESS POINTS MUST BE SELF CLOSING & LATCHING WITH PANIC HARDWARE AT ALL EXITS.

RINSE -

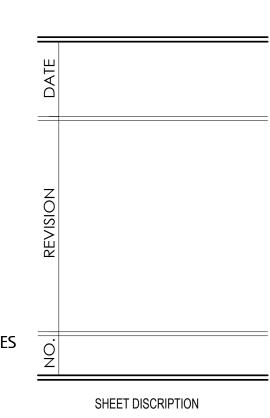
SHOWER











LIFE SAFETY PLAN

PROJECT #:	2023043
DATE ISSUED:	03/13/2024
DRAWING BY:	JGM
CHECKED BY:	PGC / DSC
<u> </u>	

SS ISE VTY, NC				
SS ISE VITY,				
	שוי	ES	JSE	VTY,

ВАТНН 00 HARNETT

**MATTHEWS** 

**GENERAL BUILDING LIFE SAFETY NOTES:** A-3 (ASSEMBLY) — 911 PHONE PRIMARY LOAD FACTOR: UNCONCENTRATED TABLES FEX & CHAIRS (15 SF) OCCUPANT LOAD: 46 PPL **CONSTRUCTION TYPE:** V-B SPRINKLERS: **REQUIRED EXITS:** PROVIDED EXITS: **BATHHOUSE DIAGONAL DISTANCE:** 1,722 SF N/A - ONE EXIT REQUIRED REQUIRED EXIT SEPARATION PROVIDED EXIT SEPARATION: **REQUIRED EGRESS WIDTH:** PROVIDED EGRESS WIDTH: 75'-0" MAXIMUM COMMON PATH OF TRAVEL: MAXIMUM ALLOWABLE TRAVEL DISTANCE: 75'-0" 58'-8" **ACTUAL MAX TRAVEL DISTANCE** -----**GENERAL POOL LIFE SAFETY NOTES:** A-3 (ASSEMBLY) PRIMARY LOAD FACTOR: UNCONCENTRATED TABLES & CHAIRS (15 SF) OCCUPANT LOAD: 383 PPL **CONSTRUCTION TYPE:** V-B SPRINKLERS: **REQUIRED EXITS:** PROVIDED EXITS: LIFE SAFETY SYMBOL LEGEND **DIAGONAL DISTANCE:** 134'-6" **EMERGENCY EXIT** 134'-6"/2 = 67' -3" REQUIRED EXIT SEPARATION FEX | SEMI-RECESSED 'ABC' TYPE FIRE EXTINGUISHER PROVIDED EXIT SEPARATION: 75'-6" TO MEET NFPA-10 STANDARDS. MOUNT @ 15" MIN. - 48" MAX A.F.F. 76.6" **REQUIRED EGRESS WIDTH:** PROVIDED EGRESS WIDTH: 92" FEX-C BRACKET MOUNTED WATER TYPE FIRE Life Safety Plans
3/16" = 1'-0" EXTINGUISHER TO MEET NFPA-10 STANDARDS. MAXIMUM COMMON PATH OF TRAVEL: 75'-0" MOUNT @ 15" MIN. - 48" MAX A.F.F. MAXIMUM ALLOWABLE TRAVEL DISTANCE: 200'-0" --> INDICATES TRAVEL DIRECTION **ACTUAL MAX TRAVEL DISTANCE:** 158'-8" Copyright D CLUGSTON, INC. 2023 - Unless otherwise indicated, all Materials, Ideas & Design on these pages are copyrighted by D. Clugston Inc. All rights reserved. No part of these pages, either text or image may be used for any other third parties is strictly prohibited without prior written permission, in any form or by any means, electronic, modification, storage in retrieval system or retransmission, in any form or by any means, electronic, modification, storage in retrieval system or retransmission, in any form or by any means, electronic, modification, storage in retrieval system or retransmission, in any form or by any means, electronic, modification, storage in retrieval system or retransmission, in any form or by any means, electronic, modification, storage in retrieval system or retransmission, in any form or by any means, electronic, modification, storage in retrieval system or retransmission, in any form or by any means, electronic, modification, storage in retrieval system or retransmission, in any form or by any means, electronic, modification, storage in retrieval system or retransmission, in any form or by any means, electronic, modification, storage in retrieval system or retransmission, in any form or by any means, electronic, modification, storage in retrieval system or retransmission, in any form or by any means, electronic, modification, storage in retrieval system or retransmission, in any form or by any means, electronic, modification, storage in retrieval system or retransmission, in any form or by any means, electronic, modification, storage in retrieval system or retrieval

#### **GENERAL NOTES**

- The General Contractor shall be both licensed and bonded in North Carolina and shall provide documents upon the Architect's request.
- The Work shall be done in accordance with all rules and regulations of the North Carolina State Building Code 2018 along with city, county, and state regulations. The General Contractor is responsible for securing and paying for all permits required for the Work and for the scheduling of all required inspections during the course of the Work.
- General Contractor shall be responsible for the provisions for job safety. These drawoings do not contain provisions for job safety.
- Dimensions are to to face of framing unless otherwise noted.
- Do not scale drawings. Stated & written dimensions govern. The General Contractor shall verify all dimensions in the field and shall be responsible for their accuracy. No extra charge or compensation shall be allowed because of difference between actual dimensions and those indicated on the drawings, unless they contribute to a change in the scope of the Work. Any difference which may be found shall be submitted to the Architect for decision prior to ordering, manufacturing, or proceeding with the Work. Horizontal dimensions indicated are to/from face of finish, unless noted otherwise. Vertical dimensions are from top of floor slab except where noted to be above finished floor (AFF). Dimensions are not adjustable without approval of Architect unless noted +/-.
- General Contractor shall be responsible for comparing all dimensions in the construction documents and existing conditions in the field.
- Framing Subcontractor shall coordinated framing with locations of HVAC vents, plumbing and light fixtures so as to avoid conflict
- The General Contractor shall provide protection and be responsible for any existing finishes to remain and shall repair or replace any damaged areas as a result of the work. All existing finishes to remain shall be cleaned at the completion of construction.
- All materials and systems shall be installed as per manufacturer's specifications and all construction shall be of industry standard or better. The Architect shall be ultimate judge of quality.
- Only new items of recent manufacture, of standard quality, free from defects, will be permitted in the Work, unless otherwise noted. Rejected items shall be removed immediately form the Work and replaced with items of the quality specified. Failure to remove rejected materials and equipment shall not relieve the General Contractor from the responsibility for quality of items used nor from any other obligation imposed on him by the Contract.
- General Contractor shall be responsible for notifying the Architect immeditely of construction deviating from depicted or implied information here-in. In the event of conflict between data shown on drawings and data shown in the specification, the specification shalls govern. Detail drawings take precedent over drawings of larger scope. Should the General Contractor at any time discover an error in a drawing or specification, or any discrepancy, or variation between dimensions on the drawings and measurements at site, or lack of dimensions or other information, the Contractor shall not proceed with the work affected until clarification has been made by the Architect. In case of an inconsistency between Drawings and Specifications or within either Document, not clarified by addendum, the more specific provision will take precedence over less specific; more specific will take precedence over less stringent; more expensive item will take precedence over less expensive. Better quality or greater quantity of Work shall be provided in accordance with Architect's interpretation. On Drawings, figures take precedence over scaled dimensions. Scaling of dimensions, if done, is done at the Contractor's own risk.
- General Contractor shall verify that no conflicts exist in locations of any and all mechanical, telephone, electrical, plumbing and sprinkler equipment (to include all piping, duct work, sprinklers structural members and conduit) and that clearances for installation and maintenance of above equipment is provided. Elements in conflict shall be determined and reviewed with the Architect prior to work proceeding. Contractor to coordinate new work with existing conditions.
- The General Contractor shall provide shop drawings for the Architect's review and approval for the following: All shop fabricated millwork, carpet layout, flooring, light fixtures, doors, misc. steel, metal fabrication, glass/glazing, sprinkler layouts, hardware. Shop drawings shall be submitted in the form of 3 sets of prints. Shop drawings shall not be reproductions of Contract Documents. Material Submittals (3 samples) shall be provided for wood, fasteners, acrylic, carpet, tile, base, paint, laminate and any other materials indicated in the shop drawing.
- The General Contractor shall provide the Architect with manufacturer's cut sheets and specifications for all equipment including but not limited to: light fixtures, plumbing equipment, electrical equipment, fans, supplementary heating and cooling elements, all hardware and security equipment. General contractor shall be responsible for verifying all field dimensions prior to ordering equipment and/or
- The General Contractor shall not proceed with work for which he expects additional compensation beyond the contract amount with out written authorization from the Architect and Owner. Failure to obtain such authorization shall invalidate a claim for extra compensation. The Contractor shall not proceed with work which, if completed in strict conformance with the Construction Documents, will result in additional work beyond the scope of the Contract without written authorization from the Architect and Owner. Any field conditions that significantly vary from the Contract Documents or will result in additional work, shall be brought to the attention of the Architect prior to
- Contractor shall include all x-ray and core drill costs. All core drilling of the slab shall be approved by the Landlord's Structural Engineer prior to proceeding with the Work. Contractor shall submit proposed locations to Architect and Structural Engineer for review prior to
- Patch, repair and install all fireproofing as required by code. Fireproof any new penetrations required by the work.
- General Contractor to coordinate and review size and location of all slab penetrations. All required penetrations shall be made in accordance with the Owner's standard approval procedures and methods. All penetrations shall be properly sealed according to the Architect and the Owner's requirements and applicable codes.
- The General Contractor shall continuously check architectural and structural clearances for accessibility of equipment and mechanical and electrical systems. No allowances of any kind will be made for the General Contractor's negligence to foresee means of installing
- The finished work shall be firm, well-anchored, in true alignment, plumb, level, with smooth, clean, uniform, appearance without waves, distortions, holes, marks cracks, stains, or discoloration. Jointing shall be close fitting, neat and well scribed. The finished work shall have no exposed unsightly anchors or fasteners and shall not present hazardous, unsafe corners. All work shall have the provision for expansion, contraction and shrinkage as necessary to prevent cracks, buckling, and warping due to temperature and humidity conditions.
- Attachments, connections or fasteners of any nature are to properly and permanently be secured in conformance with best practice and the General Contractor is responsible for improving them accordingly. The drawings highlight special conditions only and by no means illustrate every connection. The Contractor is responsible for improving connection accordingly.
- General Contractor shall waive "Common Practice" and "Common Usage" as construction criteria wherever details and Contract Documents of governing codes, ordinances, etc. require quantity or better quality than common practice or common usage would require.
- The General Contractor shall submit shop drawings and submittals order and schedule delivery of materials in ample time to avoid delays in construction. If an item is found to be unavailable or to have a long lead time, the General Contractor shall notify Architect immediately with a proposed alternative.
- The General Contractor shall notify the Owner, the Landlord, and the Architect in writing of any deficiencies, errors, conflicts or omissions found in the construction documents and/or specifications prior to the commencement of the work in this area. Any unreported deficiencies will become the responsibility of the General Contractor to correct.

#### **GENERAL NOTES**

The General Contractor shall exercise extreme care and precaution during the construction of the Work, and schedule work, to minimize disturbances to adjacent spaces and /or structures and their occupants, property, public thoroughfares, etc. The General Contractor shall take precautions and be responsible for the safety of all building occupants from construction procedures. The General Contractor shall be responsible for any overtime costs incurred thereby.

All debris shall be removed from the site on a daily basis when possible. Upon completion of the work, remove all debris from the building created by the work provided under this Contract and leave all areas clean. Trash is not permitted to be burned on site.

All abandoned miscellaneous nails, hangers, staples, wires, conduits and debris shall be removed from the walls and areas of exposed ceilings. Remove all abandoned pipe sleeves in floor slabs. Patch existing slab as req. to maintain UL fire rating of floor slab where

Slab penetrations less than 2" around new and existing piping, conduit, ductwork, etc. shall be filled with acoustic foam and/or sealant to ensure acoustical separation between floor slabs. Slab penetrations greater than 2" around new and exiting piping, conduit, ductwork, etc. shall be filled with concrete. All piping, conduit, ductwork, etc. shall be wrapped with expansion material prior to filling with concrete. Expansion material shall be approved by the MEP Engineer.

Contractor shall provide the Team with a construction schedule showing the proposed phasing. Any long lead items that will affect the Substantial Completion date shall be brought to the Architect's attention immediately.

Provide protection for existing finishes to remain, including restrooms, lobbies and corridors and repair damages as a result of construction. Document any existing conditions or damages prior to the start of construction

General Contractor shall be responsible for providing exhaust for dryers, bathrooms, and ranges to exterior with proper terminus (not to be located on street side elevation). Verify terminus type and laction with owner prior to installation.

The Architect shall not be responsible for constructed variations from the information contained here-in unless reviewed and approved by

Do not scale drawings, but rather inquire of Architect. Reproduction of these drawings is prohibited unless written permission is obtained

All Trades to caulk with Manicapality Approved "Fire Caulk" at all top plate penitrations.

#### **WALL SECTION NOTES**

1 Bituminous Damp Proofing shall be applied to exterior foundations of all habitable spaces.

c. Wood exposed to weather.

- All treated lumber shall bear the designation AWPA C22. Pressure treated lumber shall be used in the following locations: a. Wood in contact with concrete or masonry; b.Siding within 6" of the ground;
- Install 5/8" Densglass sheathing behind all tub and shower walls, use water-resistant GWB for all bathroom ceilings UNO.

#### **INTERIOR FINISH NOTES**

- Refer to Finish Schedule and Finish Plan for extent and type. All wall surfaces, metal frames, and trim shall be painted, UON. All surfaces to be painted shall be prepared for priming in accordance with the manufacturer's specifications.
- All painted surfaces shall receive 1 prime and 2 finish coats as follows: GWB surfaces - Interior eggshell latex paint GWB ceiling surfaces - Interior flat latex paint Hollow Metal/Wood - Odorless interior semi-gloss alkyd latex
- Paint is to be applied by a roller or brush on all surfaces. Only the prime coat may be spray applied. Provide a 12"x12" GWB sample for each color for Owner's approval prior to the start of the Work.
- Toilet and bathing room floors shall have a smooth, hard, non-absorbant surface that extends upward onto the walls at least 6"
- Walls within 2' of urinals and waterclosets shall have a smooth, hard, non-absorbant surface to the hieght of 4' above the finish floor. Verify material with room schedule and/or Architect

#### **FLOOR FINISH NOTES**

- Refer to Finish Plan & Schedule for extent and type of all floor finishes.
- GC to flashpatch floor to provide a level surface that shall not exceed 1/4± over 10 feet cumulative. At floor finish transitions flash patch to smooth transition of finished material to maintain level finished floor surface.
- All floors to slope to floor drains 1/4" per 1'-0" U.N.O
- All exterior floor slabs to recieve a light broom concrete finish. U.N.O.
- SEE STRUCTURAL DRAWINGS FOR ALL FOUNDATION SPECIFICATIONS.

**SYMBOLS** 

ACOUSTIC

**ADHESIVE** 

**ADJUSTABLE** 

ALTERNATE

ALUMINUM

ASPHALT

BOARD

BRICK

**BRONZE** 

CEMENT

CERAMIC

CEILING

CLEAR

CAST IRON

CONCRETE

CORRIDOR

CARPET

CROWN

BITUMINOUS

CERAMIC TILE BASE

CORNER GAURD

COMPOSITE MARBLE

CONCRETE SEALER

DOORSTOP/ DOWNSPOUT

CERAMIC TILE

ASPHALT TILE

ACOUSTIC PANEL

ACOUSTICAL PLASTER

ACOUSTICAL CEILING TILE

ACOUSTIC PANEL CEILING

EGG SHELL

**EXPOSED** 

**EXPANSION** 

EXTERIOR

FRAMELESS

FIBRE REINFORCED PLASTIC

FIRE RESISTANT TREATMENT

FABRIC WALL PANEL/PAPER

FIXED (INOPERABLE)

GAUGE, GAGE

GLASS (GLAZING)

**GLASS-LAMINATED** 

**GLASS TEMPERED** 

GRANITE

GLAZED TILE

**HEAVY DUTY** 

INTERIOR

HARDWARE (SET)

HOLLOW METAL

**GLASS PANEL SYSTEM** 

GYPSUM WALLBOARD

GYPSUM CEILING PANEL

INSULATED GLASS UNIT

INSULATING/ INSULATION

GLASS STOREFRONT SYSTEM

GLASSFIBRE REINFORCED GYPSUM

GALVANIZED

FINISH

**FLOOR** 

FRAME

EXP

FWP

FXD

GALV

GLS

GL-L

GL-PS

GL-SS

GL-T

HDW

HM

IGU

EXPN

**ACPL** 

ADH

ADJT

ASPH

CB

CEM

CER

CLG

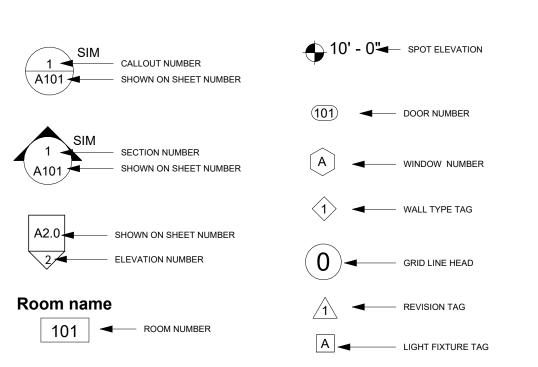
CLR

C-MAR

CONC

CPT

ACT



PARTICLE BOARD

PLASTIC LAMINATE

PAPER TOWL DISPENSER

PAPER TOWEL RECEPTOR

RECESS-MOUNTED CABINET

REFLECTED CEILING PLAN

POLYVINYL CHLORIDE

PORCELIN WALL TILE

PLATE GLASS

PLASTER

POINT/ PAINT

PARTITION

PLYWOOD

**QUARRY TILE** 

RUBBER BASE

REFRIGERATOR

SEALED CONCRETE

SPORT FLOORING

SPECIFICATION(S)

STAINLESS STEE

SERVICE SINK

STEEL

STONE

SUSPENDED

SEAMLESS FLOORING /

SURFACE-MOUNTED CABINET

SOLID SURFACE MATERIAL

RESILIENT

ROOFING

ROOM

REVEAL

PANEL

PRECAST CONCRETE

PATTERNED GLASS - LAMINATED

TACK BOARD

THICK(NEDD)

**TYPICAL** 

**TERRAZZO** 

UNFINISHED

VENEER

VARIES

**VESTIBULE** 

WALL ART

WOOD

WINDOW

WIRE GLASS

WALL HUNG

WAINSCOT

WOOD BASE

WALL COVERING

WOOD VENEER

WOOD PANEL SYSTE,

WALL-MOUNTED BRACKET

WINDOW TREATMENT

VENEER PLASTER

TONGUE AND GROOVE

THRESHOLD (SADDLE)

TRAVERTINE MARBLE

TOILET PARTITION

TERRAZZO BASE

THERMOPLASTIC POLYEFIN

**UNLESS OTHERWISE NOTED** 

UNLESS NOTED OTHERWISE

T&G

THK

TPTN

TYP

TZB

UNF

UON

UNO

VEST

**VPLAS** 

WB

WD

WDV

WG

WH

WMB

**WSCT** 

WT

WDW

WD-PS

PBD

PGL-L

PLAM

PLAS

PNL

PTD

PTN

PTR

PVC

PWT

RCP

REFR

RES

RFG

RM

RVL

SPEC

SSK

SSM

STL

SUSP

STN

**BUILDING: ENERGY:** FIRE: PLUMBING: **MECHANICAL ELECTRICAL**: ACCESSIBILITY: POOL:

**ABBREVIATIONS** 

LAM

LCQ

LTG

LVR

MAS

MAT

MH

MIN

MLDG

MP

MTL

MWK

N/A

NOM

NR

NTS

OPNG

OPS

UNDER THE LAVATORY

LT WT

KITCHEN

LAMINATE

LACQUER

LIGHTING

LOUVER

MASONRY

MATERIAL

MANHOLE

MINIMUM

MIRROR

LIGHT WEIGHT

MILLWORK (TYPE)

MISCELLANEOUS

MILLWORK-PLASTIC LAMINATE

MILLWORK-WOOD VENEER

OFFICE PARTITION SYSTEM

METAL LATH

MARBLE TILE

METAL

MULLION

MILLWORK

NO FINISH

NOT RATED

NOT TO SCALE

NOMINAL

**OPENING** 

NOT APPLICABLE

MOULDING

LIGHT

KICKPLATE

2018 NORTH CAROLINA STATE BULDING CODE 2018 NORTH CAROLINA FIRE PREVENTION CODE 2018 NORTH CAROLINA STATE PLUMBING CODE 2018 NORTH CAROLINA STATE MECHANICAL CODE 2020 NATIONAL ELECTRICAL CODE 2009 ANSI A117.1

NCDENR - 15A NCAC 18A.2500

### REFERENCED BUILIDNG CODES

2018 NORTH CAROLINA ENERGY CONSERVATION CODE 2015 INTERNATIONAL SWIMMING POOL AND SPA CODE

Perry Cox

architect, p.a.

124 Salem Towne Court, Apex, NC 27502

P: 919.363.5411

www.pcoxdesign.com

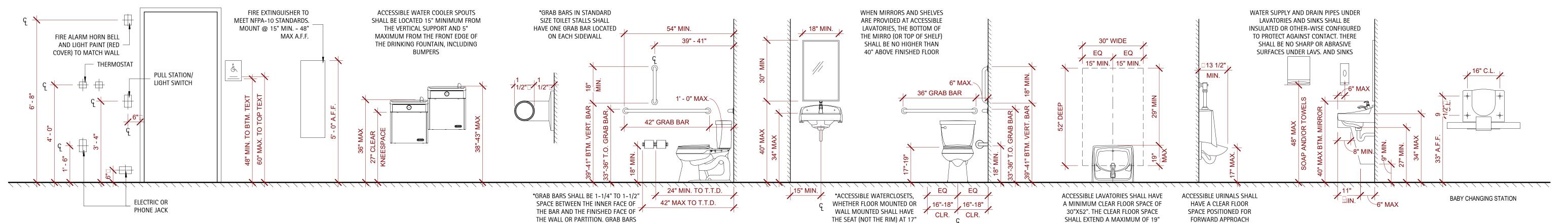
**J.CLUGSTON** 

SHEET DISCRIPTION **GENERAL** 

PROJECT #: 2023043 DATE ISSUED: 03/13/2024 DRAWING BY: CHECKED BY: PGC / DSC

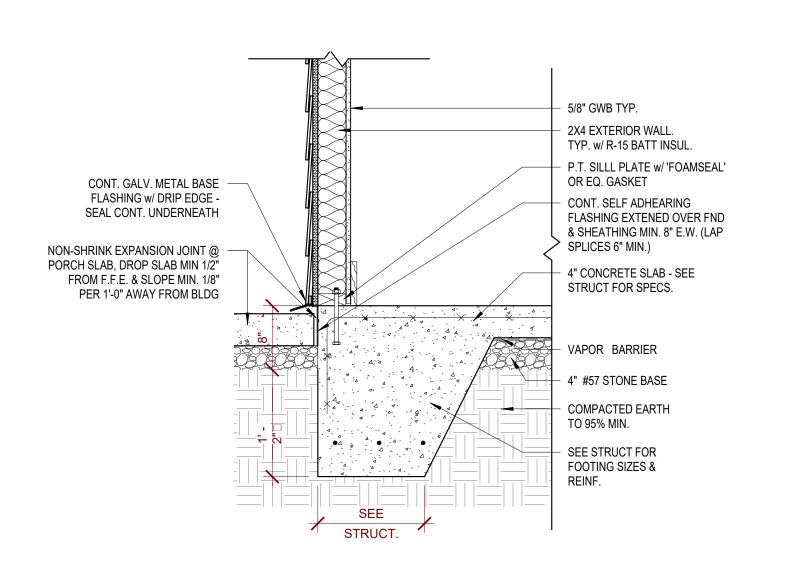
RID COUNTY **BATHHOUS** HARNETT

SHALL SUPPORT A LOAD OF 250 LBS.



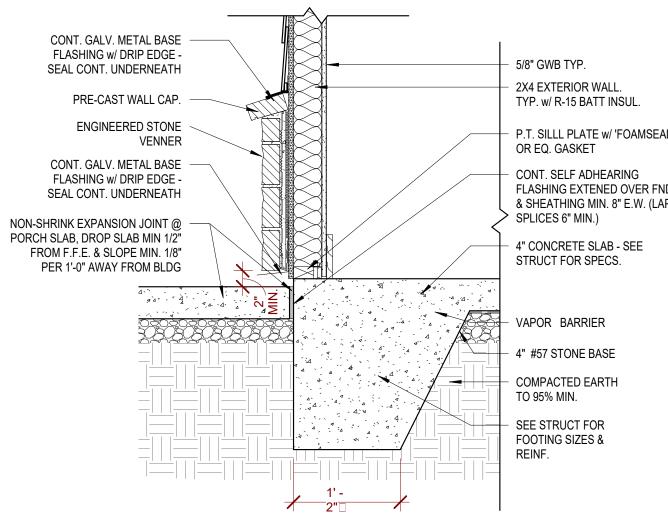
#### **TYPICAL MOUNTING HEIGHTS**

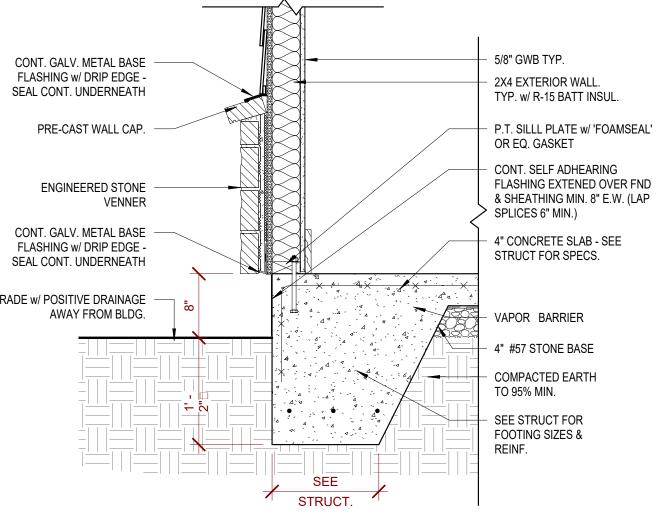
MIN. AND 19" MAX ABOVE THE

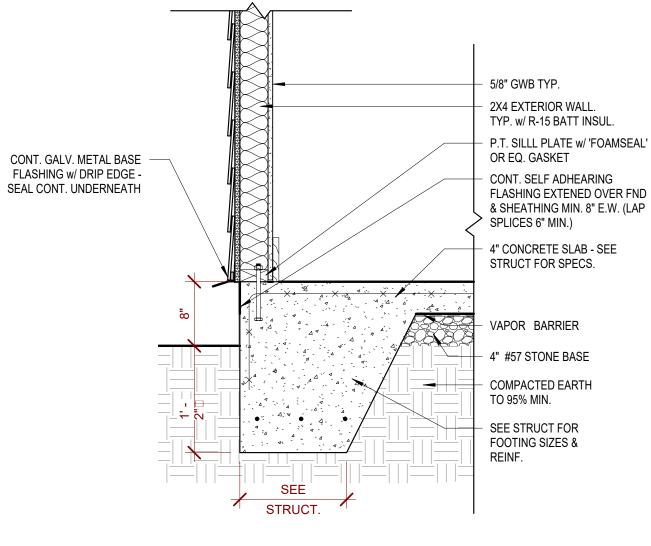


Detail - Sump Pit

1/2" = 1'-0"







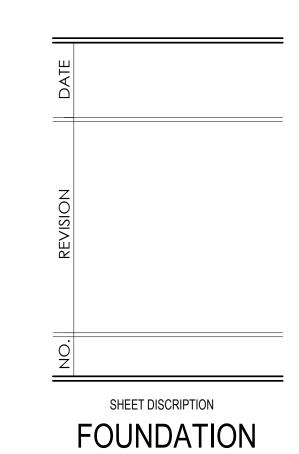










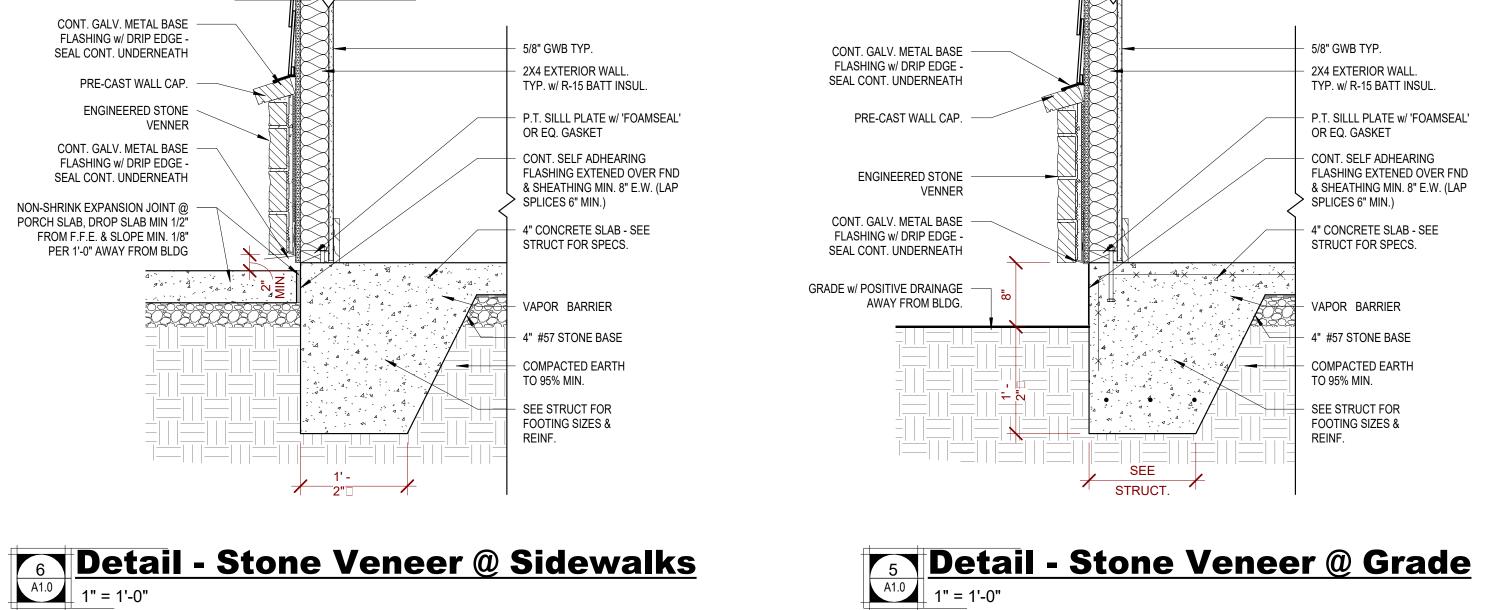


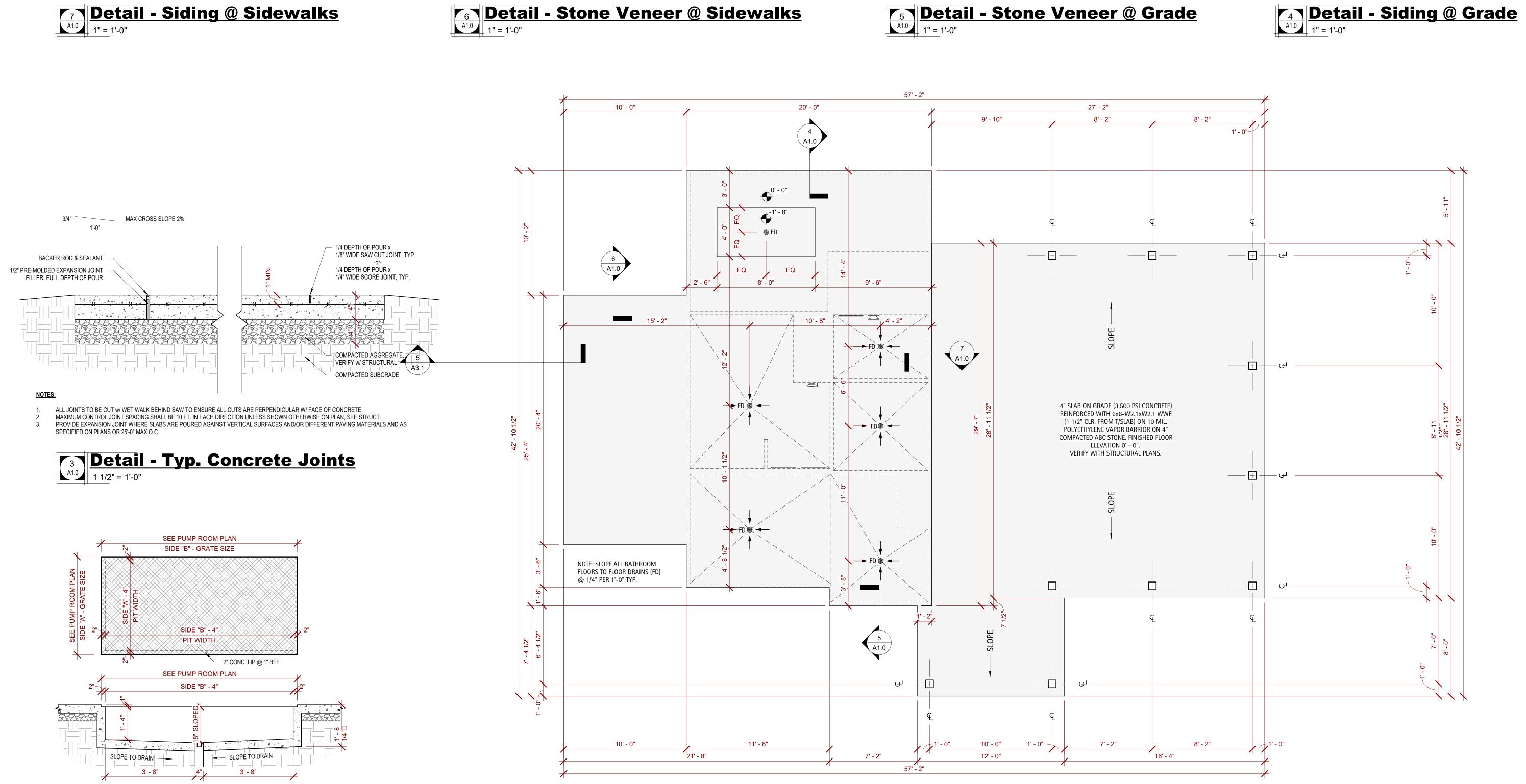
ROJECT #:	2023043
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RAWING BY:	JGM

PLAN

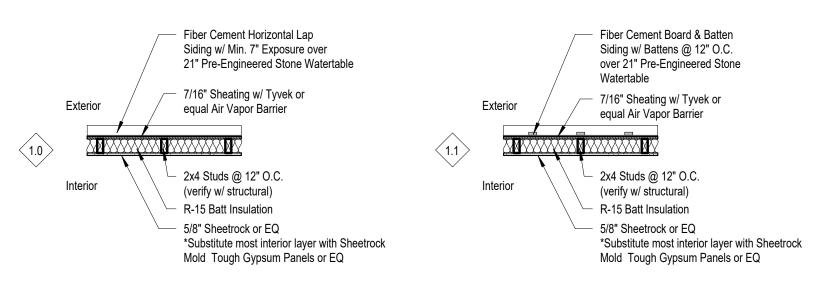
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IHEWS RIDGE	KB HOMES	BATHHOUSE	TT COUNTY N
	<b>Y</b>	B'	

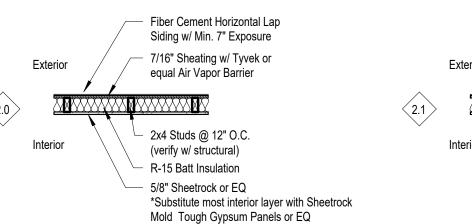
HARN

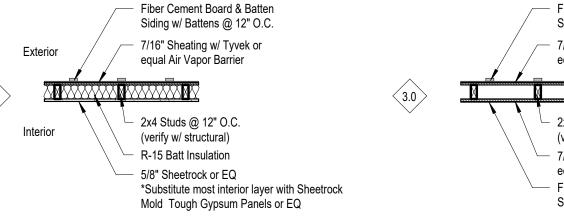


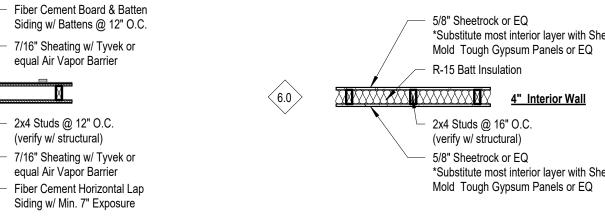


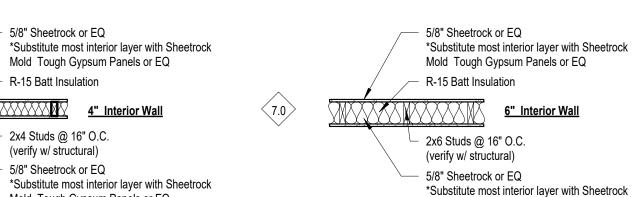
#### **WALL TYPE DETAILS**









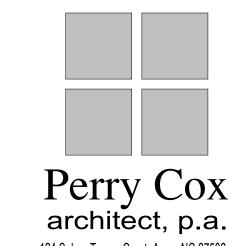


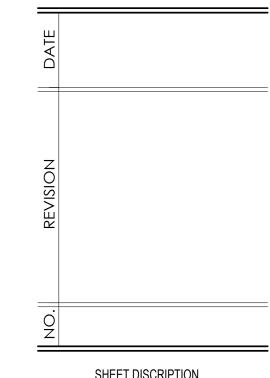
Mold Tough Gypsum Panels or EQ



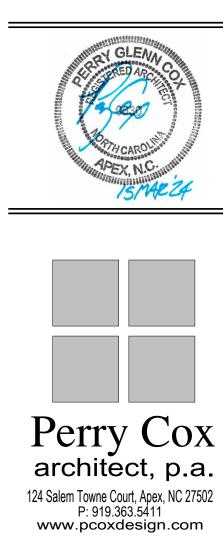








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	DATE ISSUED:	03/13/2024
	DRAWING BY:	JGM
_	CHECKED BY:	PGC / DSC



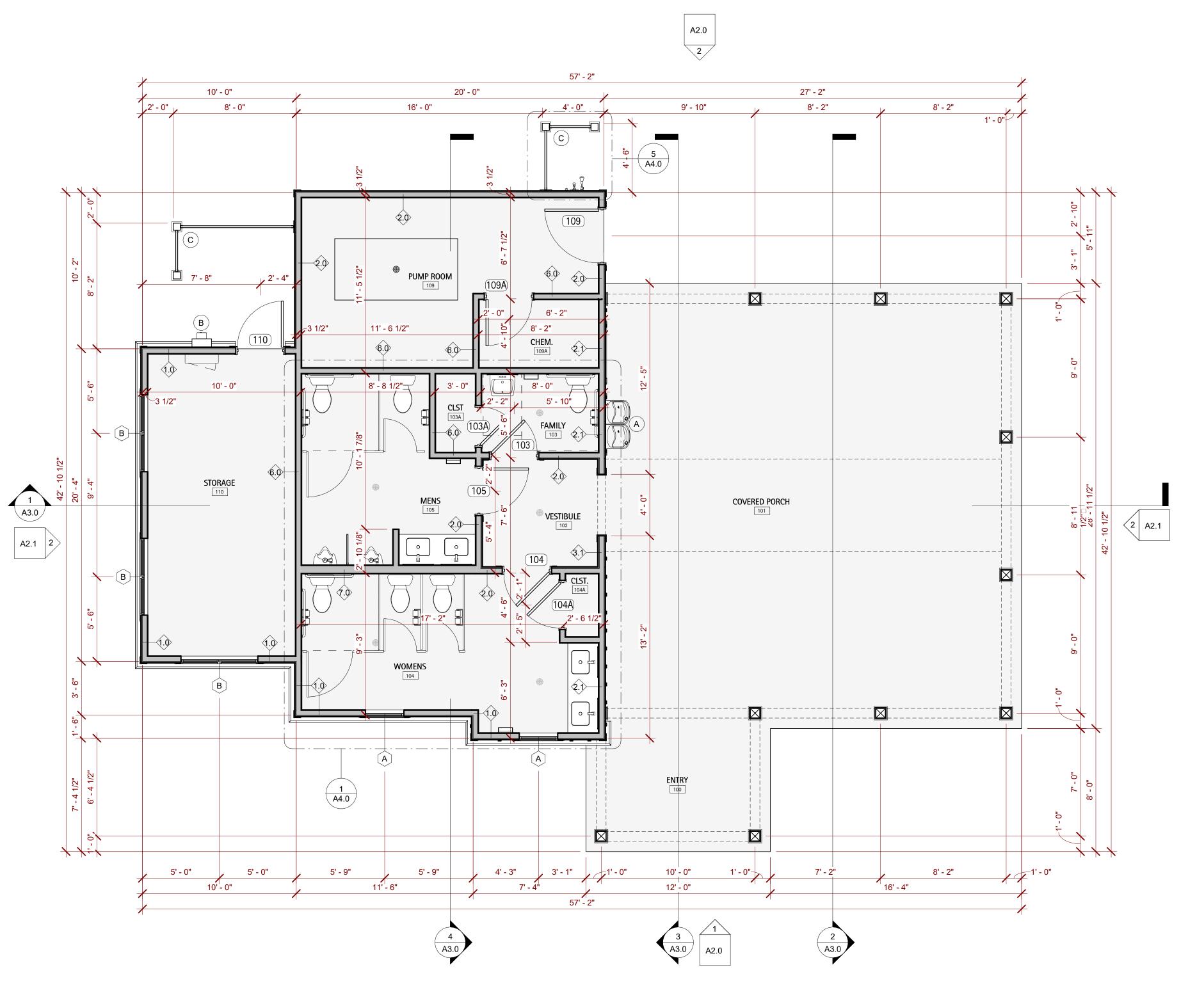
	SHEET DISCRIPTION FIRST FLOOR PLAN
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REVISI	

DATE ISSUED: 03/13/2024	
	2023043
DRAWING BY: JGN	03/13/2024
	JGM
CHECKED BY: PGC / DSC	PGC / DSC
CHECKED BY:	

First Floor Plan

1/4" = 1'-0"

**KEYNOTES** 

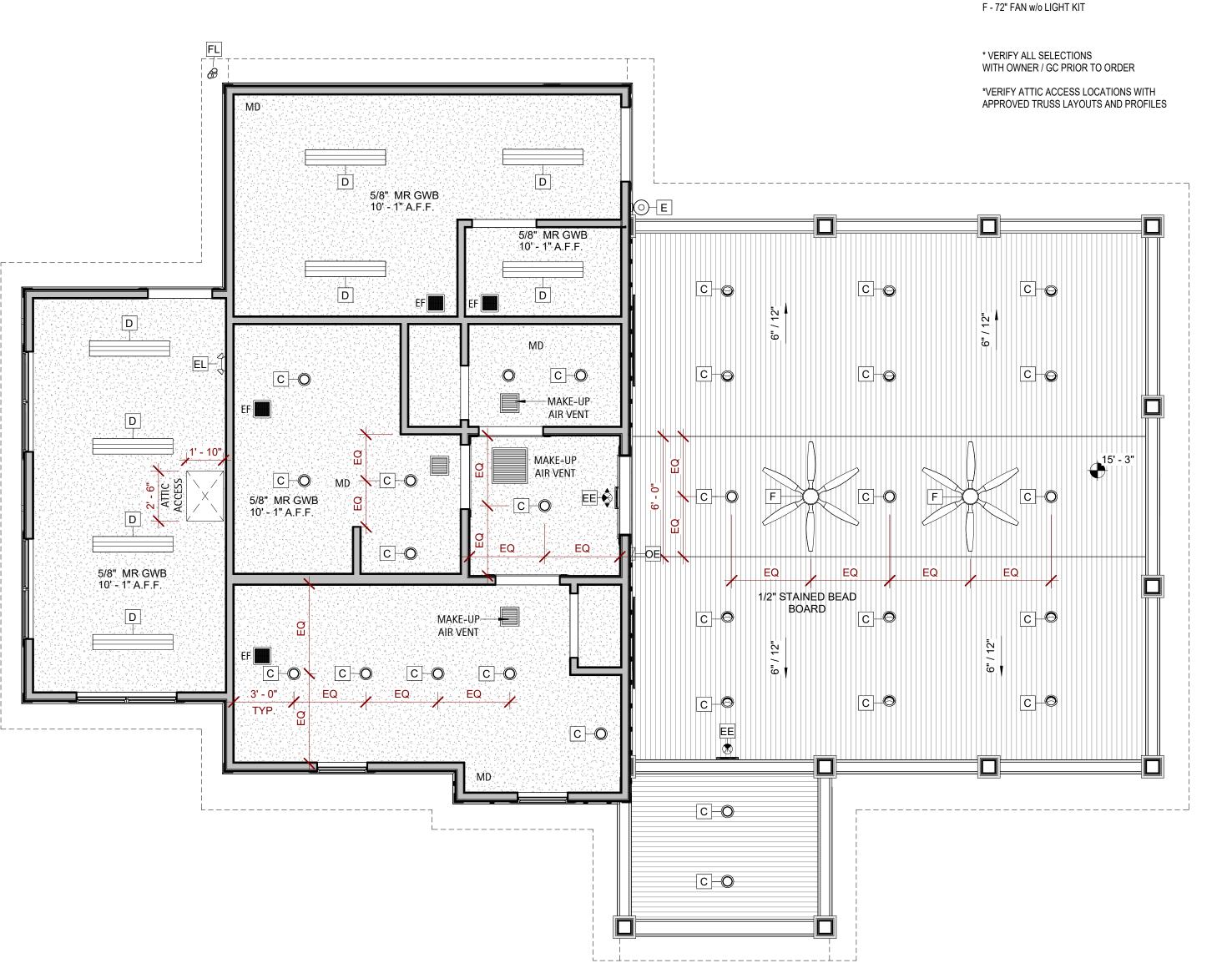


#### REFLECTIVE CEILING NOTES

- 1. 5/8" GWB typical U.N.O Mold tough in Wet areas
- 2. Height of ceilings shall be measured from top of slab to finish face of GWB or face of ceiling grid as indicated on the Reflected Ceiling Plan, UON.
- 3. All light fixtures are to be installed according to the Electrical Plans.
- 4. Light fixture types, quantities and locations only are noted on Architectural Reflected Ceiling Plans. Specifications, switching, exit lights, emergency lighting, life safety equipment, and circuiting are noted on Engineering documents.
- 5. Dimensioned light fixtures are from finished face of partitions to centerline of fixture and from centerline of fixture to centerline of fixture. All fixtures shall be installed in center of ceiling tile unless noted otherwise. Any discrepancies with light fixtures, switches, thermostats, or diffusers as to location between architectural and engineering drawings or between the drawings and existing field conditions shall be clarified with the Architect before proceeding with installation.

#### **CEILING LEGEND**

MD - MOTION DETECTOR
LOCATE IN CEILING
FL - EXTERIOR FLOOD LIGHT
EE - EMERGENCY EXIT SIGN w/ SPOTLIGHTS
EL - EMERGENCY LIGHT w/ BATTERY BACK-UP
OE - EXTERIOR EMERGENCY LIGHT
EF - EXHAUST FAN
A - NOT USED
B - NOT USED
C - 6" L.E.D. CAN LIGHT
D - 1'x4' TROFFER LIGHT
E - EXTERIOR WALL SCONCE





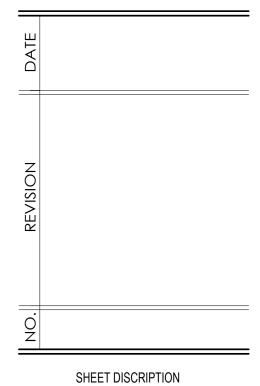
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REFLECTED

CEILING

PLAN

PROJECT #: 2023043

DATE ISSUED: 03/13/2024

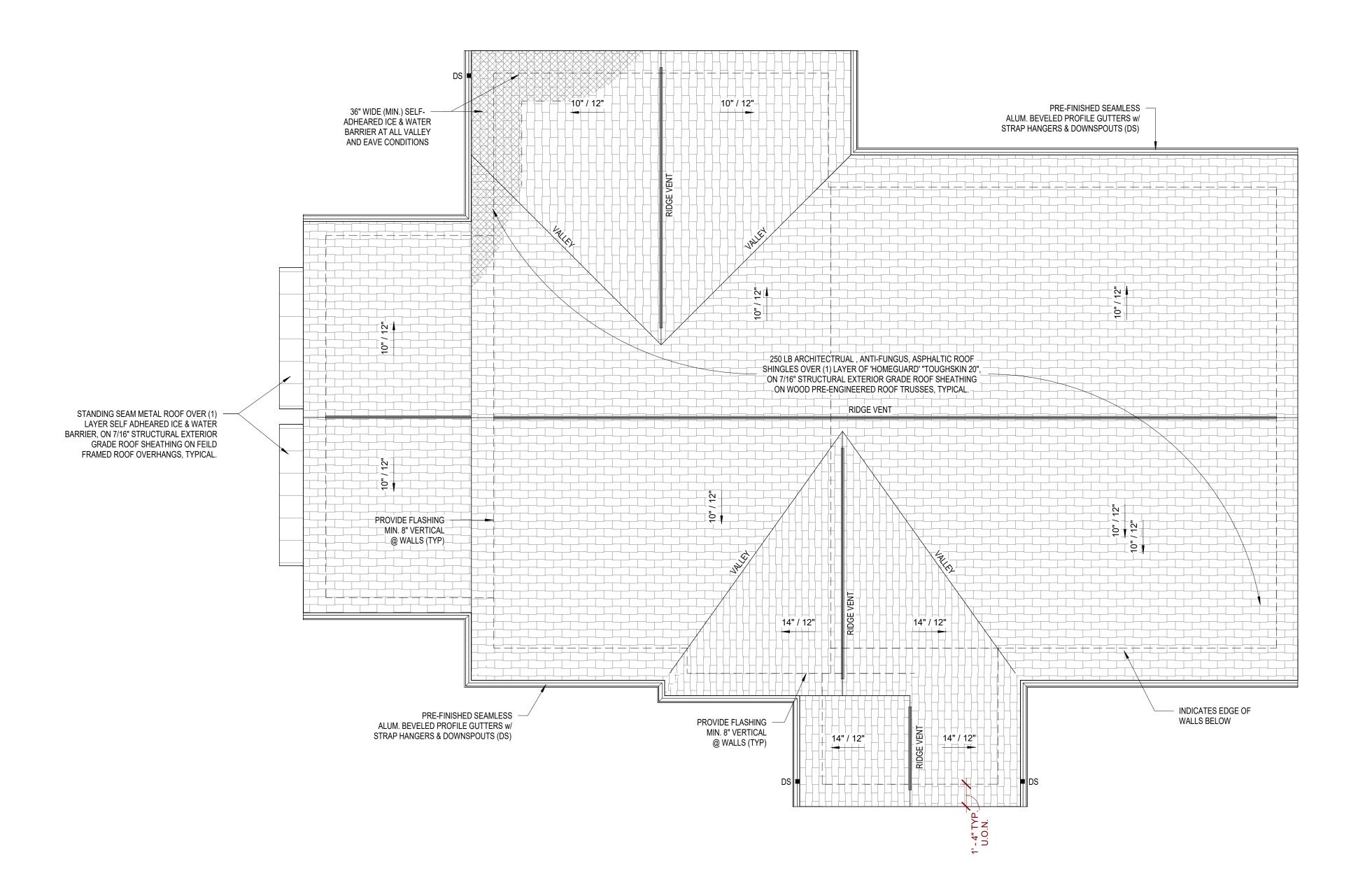
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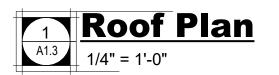
MATTHEWS RIDGE
KB HOMES
BATHHOUSE
HARNETT COUNTY, NC

#### **ROOF NOTES**

- 1. Roof decks shall be covered with approved roof coverings secured to the building or structure in accordance with the NCSBC. Roof coverings shall be designed and installed in accordance with the building code and the approved manufacturer's instructions.
- 2. Crickets or saddles shall be installed on the ridge side of any chimney or penetration greater than 30 inches wide as measured perpendicular to the slope. Cricket or saddle coverings shall be sheet metal or of the same material as the roof covering.
- 3. Asphalt shingles shall only be used on roof slopes of 2:12 or greater.
- 4. Roof slopes from 2:12 to 4:12, underlayment shall be two layers applied in the following manner. Apply a minimum 19' wide strip of underlayment felt parallel with and starting at the eaves, fastened sufficiently to hold in place. Starting at the eave, apply 36-inch-wide sheets of underlayment overlapping successive sheets 19 inches minimum and fasten in place.
- 5. Roof slopes from 4:12 or greater, underlayment shall be a minimum of one layer.
- 6. Flashing shall be installed at the wall and roof intersections, at gutters, and wherever there is a change in roof slope or direction and around roof openings. Where flashing is of metal, the metal shall be corrosion resistant with a thickness of not less than 0.019in (No. 26 galvanized sheet)
- 7. Areas prone to ice formation along eaves causing a backup of water shall have an ice barrier that consists of at least (2) two layers of underlayment cemented together or of a self-adhering polymer-modified bitumen sheet. Extend ice barrier min. 18" each side of valleys and other ice prone areas.
- 8. Overhangs: Truss manufacturer to provide shorter gable end trusses where overhangs exceed 1'-0" to allow for outriggers to be framed over the top cord of the end truss and attached to the top cord of the secondary truss towards the interior of the gable. GC to verify prior to manufacturing of trusses.
- 9. Light Location: Truss manufacturere to cooridinate truss layout with reflected ceiling plans, electrical plans, and mechical plans to avoid conflicts



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DATE	
REVISION	
ÖZ	
	SHEET DISCRIPTION

**ROOF PLAN** 

	PROJECT #:	2023043
	DATE ISSUED:	03/13/2024
	DRAWING BY:	JGM
	CHECKED BY:	PGC / DSC
=		

#### **MATERIAL LEGEND**

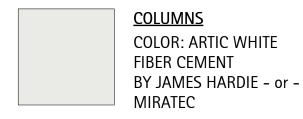


HORIZONTAL SIDING
COLOR: ARTIC WHITE
BY JAMES HARDIE



B&B SIDING COLOR: ARTIC WHITE BY JAMES HARDIE







<u>DOORS</u> COLOR: TRICORN BLACK SW 6258



WINDOWS

COLOR: BLACK
PLY-GEM 1500 SERIES
2 OVER 2 GRID



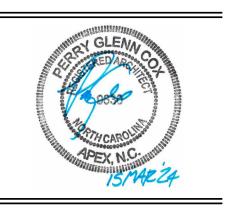
GUTTERS & DOWNSPOUT
COLOR: BLACK
BEVELED PROFILE



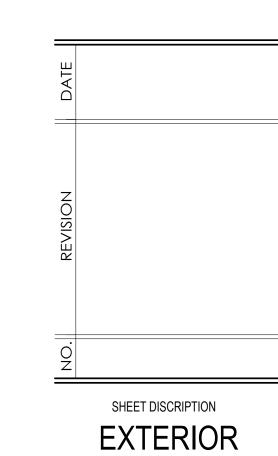
ROOFING ASPHALT SHINGLE
COLOR: CAMBRIDGE WEATHERWOOD
BY IKO



**D.CLUGSTON** 



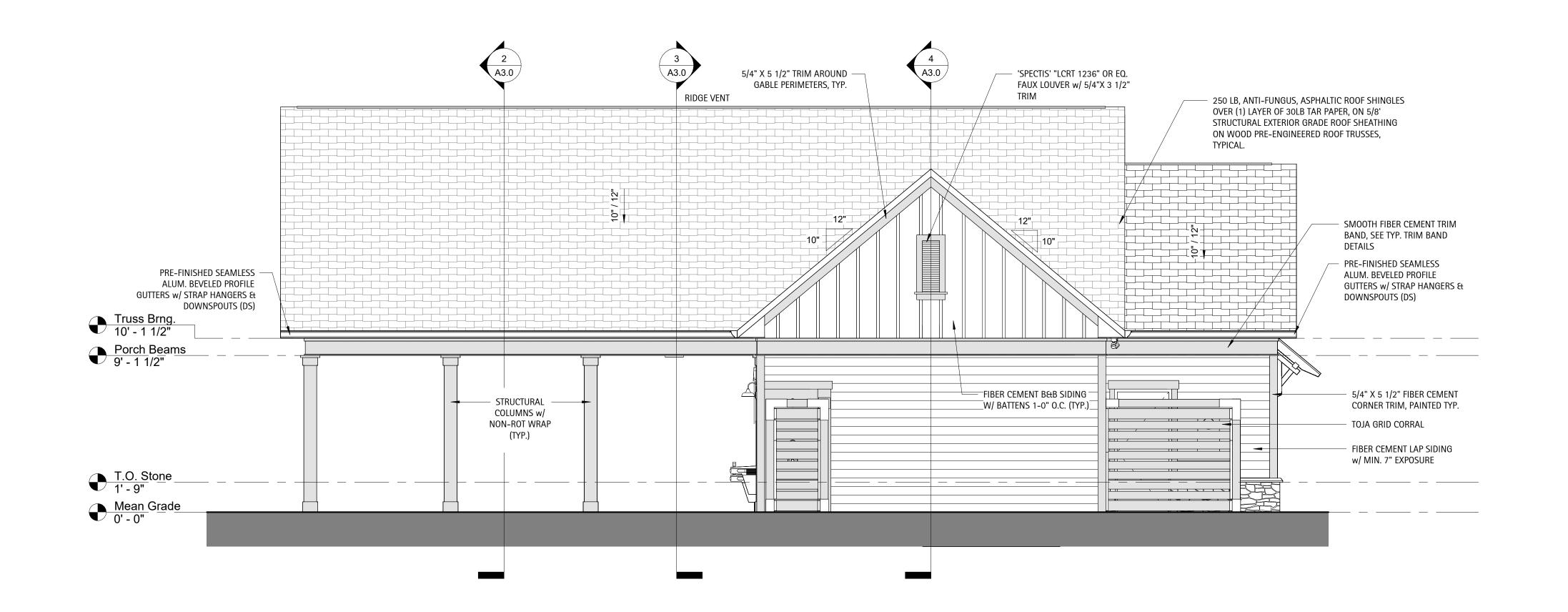




	PROJECT #:	2023043
	DATE ISSUED:	03/13/2024
	DRAWING BY:	JGM
	CHECKED BY:	PGC / DSC
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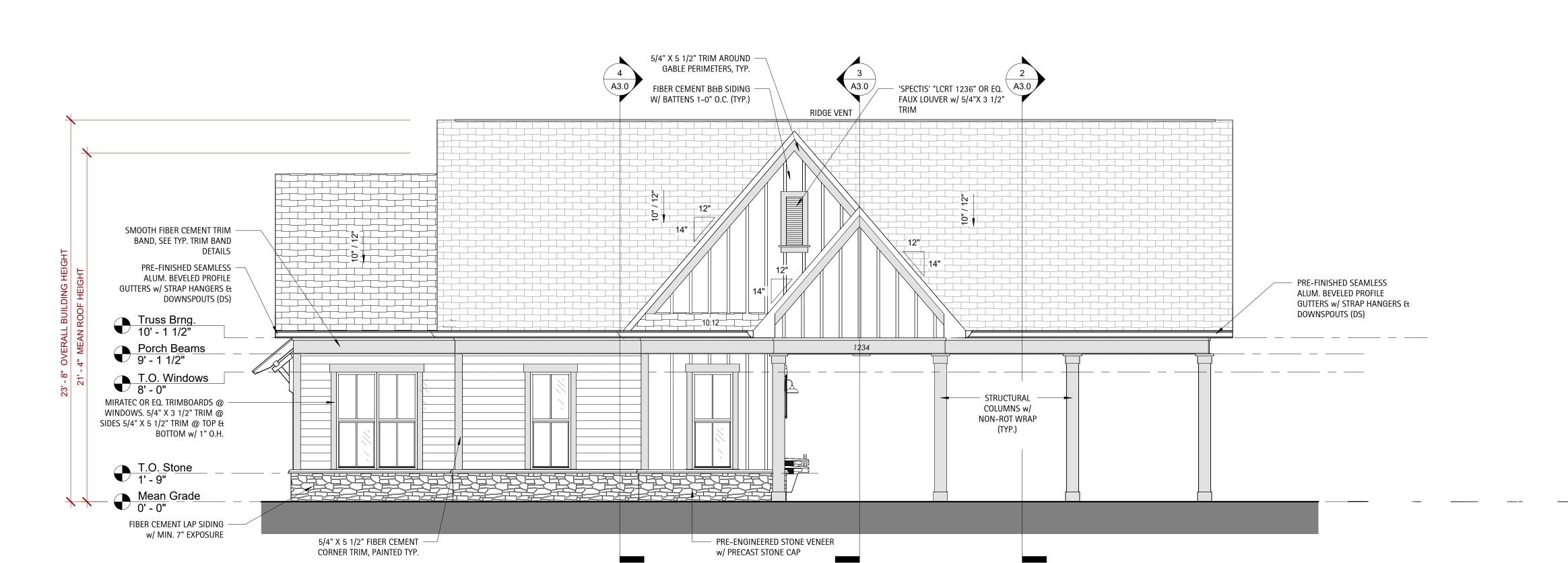
**ELEVATIONS** 

MATTHEWS RIDGE
KB HOMES
BATHHOUSE
HARNETT COUNTY, NC

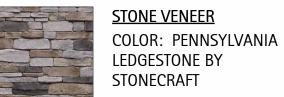


Elevation - West

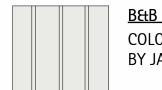
1/4" = 1'-0"





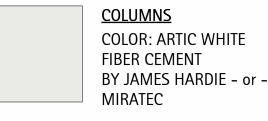


ER
NSYLVANIA
BY
HORIZONTAL SIDING
COLOR: ARTIC WHITE
BY JAMES HARDIE



B&B SIDING
COLOR: ARTIC WHITE
BY JAMES HARDIE







<u>DOORS</u> COLOR: TRICORN BLACK SW 6258



WINDOWS
COLOR: BLACK
PLY-GEM 1500 SERIES
2 OVER 2 GRID



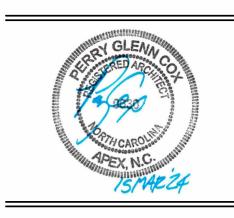
GUTTERS & DOWNSPOUT COLOR: BLACK BEVELED PROFILE



ROOFING ASPHALT SHINGLE
COLOR: CAMBRIDGE WEATHERWOOD
BY IKO

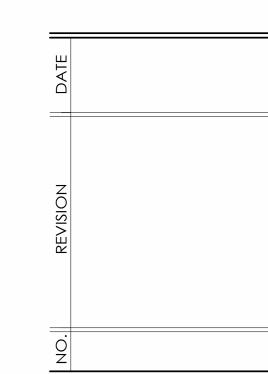








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SHEET DISCRIPTION

EXTERIOR

ELEVATIONS

PROJECT #: 2023043

DATE ISSUED: 03/13/2024

DRAWING BY: JGM

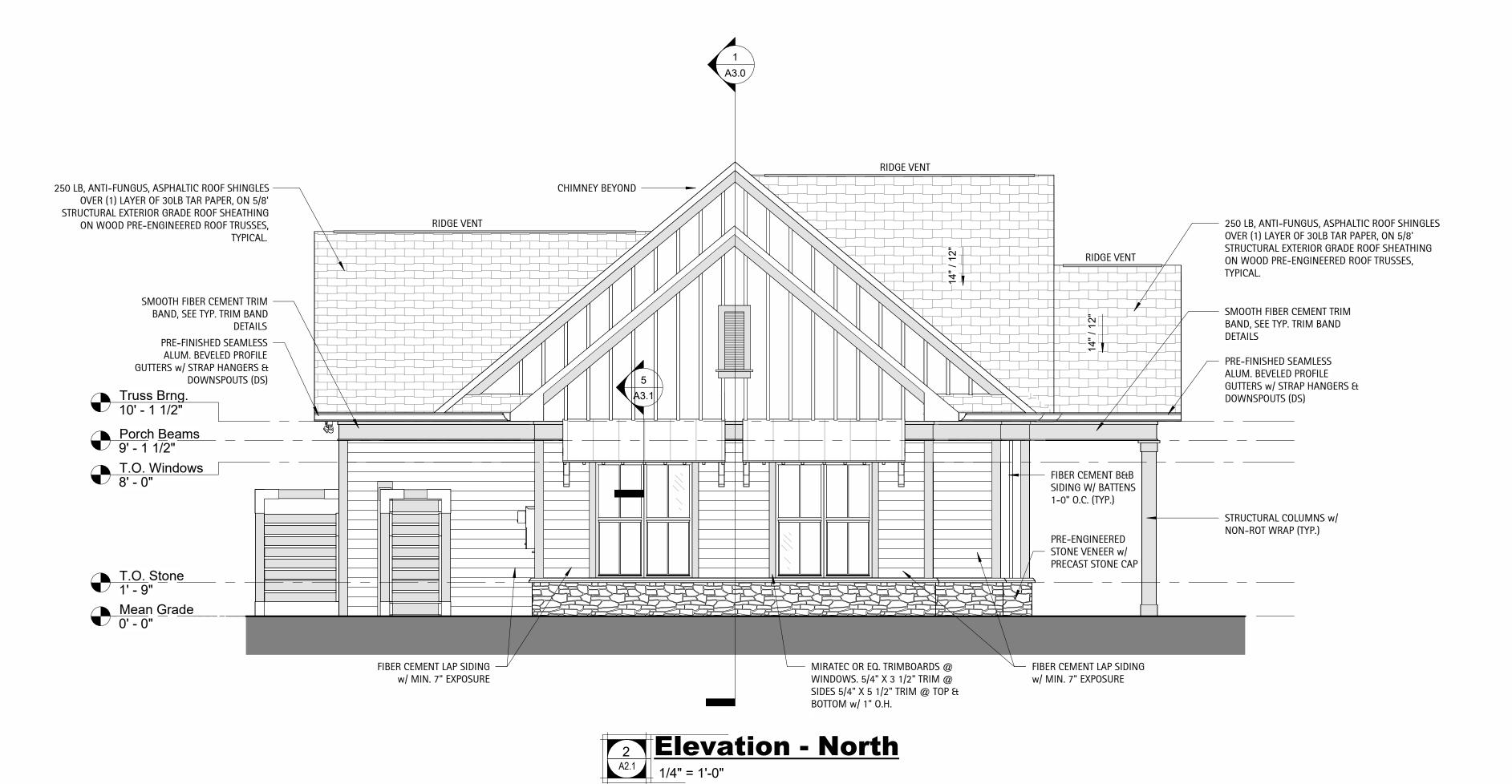
CHECKED BY: PGC / DSC

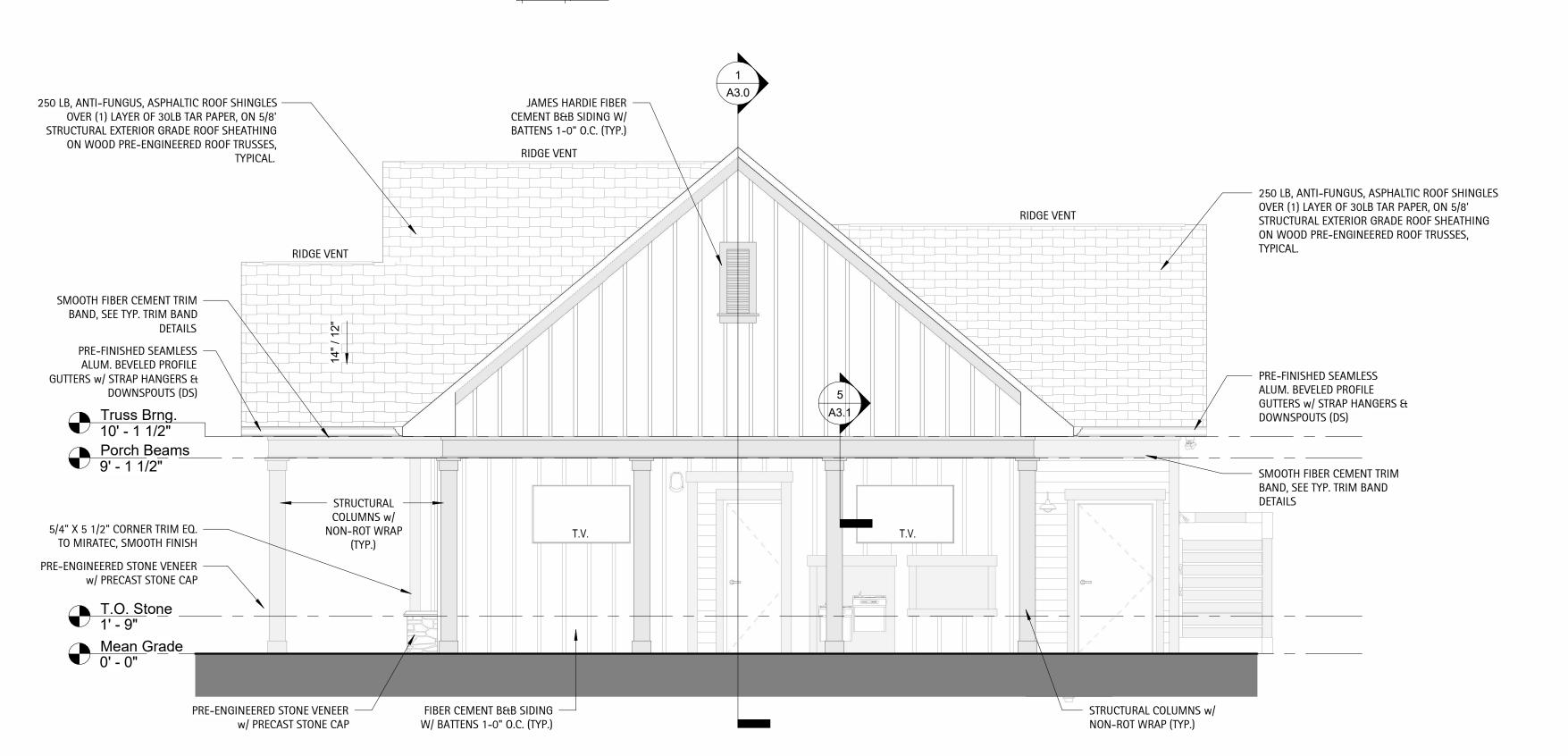
MATTHEWS RIDGE
KB HOMES
BATHHOUSE
HARNETT COUNTY, NC

Elevation - South

1/4" = 1'-0"

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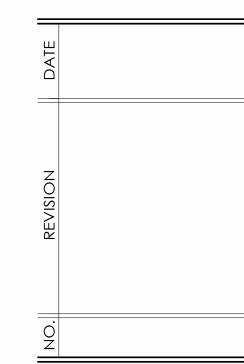
Truss Brng. 10' - 1 1/2"

T.O. Stone 1' - 9"

Mean Grade 0' - 0"

Porch Beams 9' - 1 1/2"





SHEET DISCRIPTION BUILDING SECTIONS

PROJECT #: 2023043 DATE ISSUED: PGC / DSC

MATTHEWS RIDGE KB HOMES HARNETT COUNTY, **BATHHOUSE** 

Section - Through Main Ridge

1/4" = 1'-0"

FIBER CEMENT LAP SIDING w/ --MIN. 7" EXPOSURE ABOVE TRIM--BAND

COVERED PORCH

Section - Through Entry

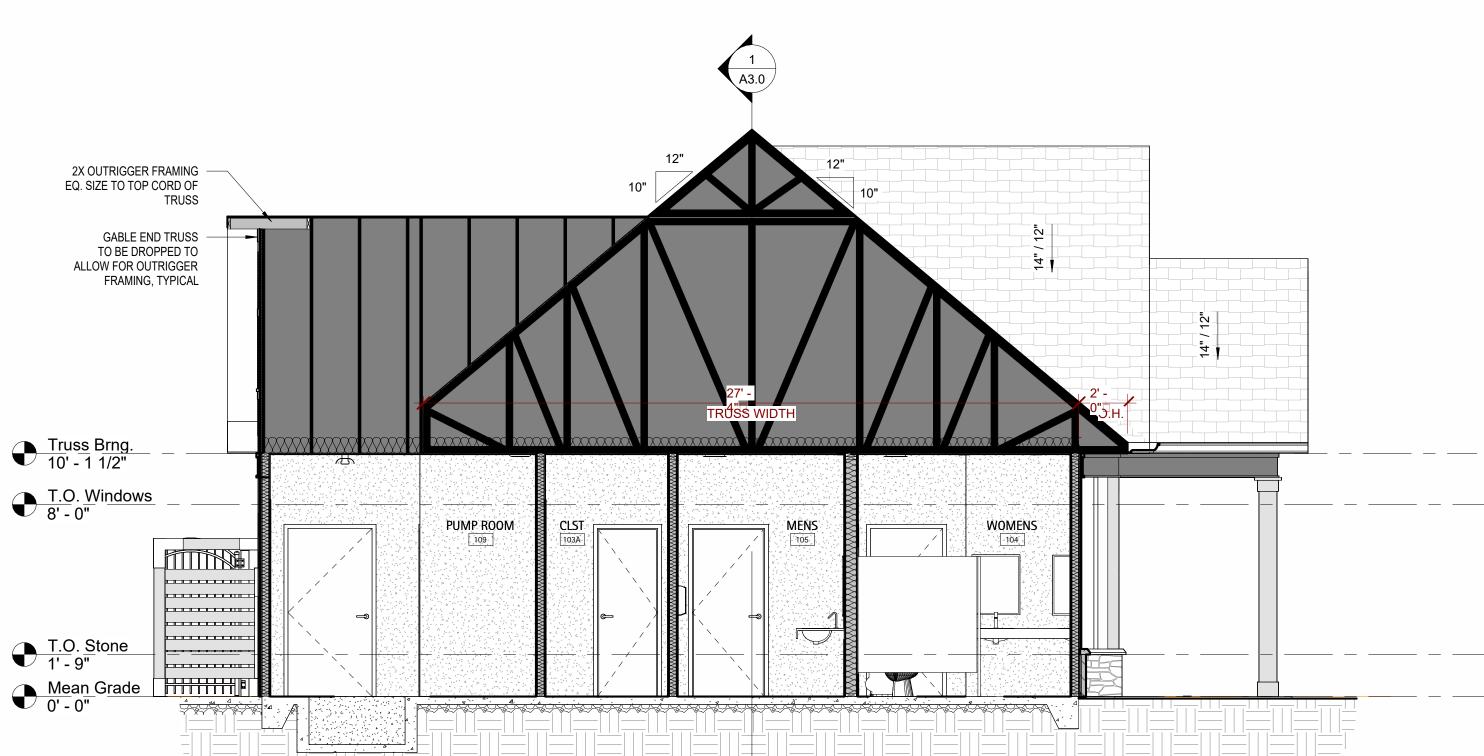
1/4" = 1'-0"

OPTIONAL

OPTIONAL T.V.

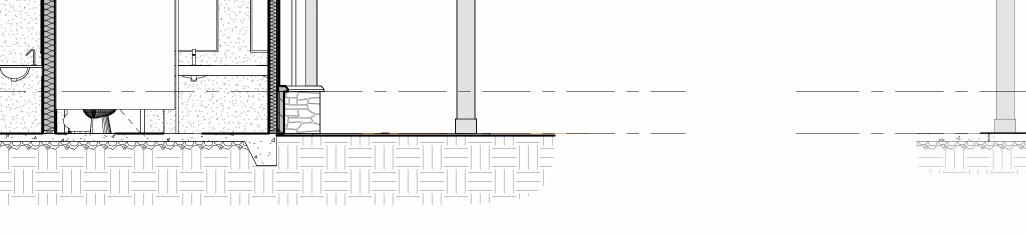
FIBER CEMENT B&B SIDING

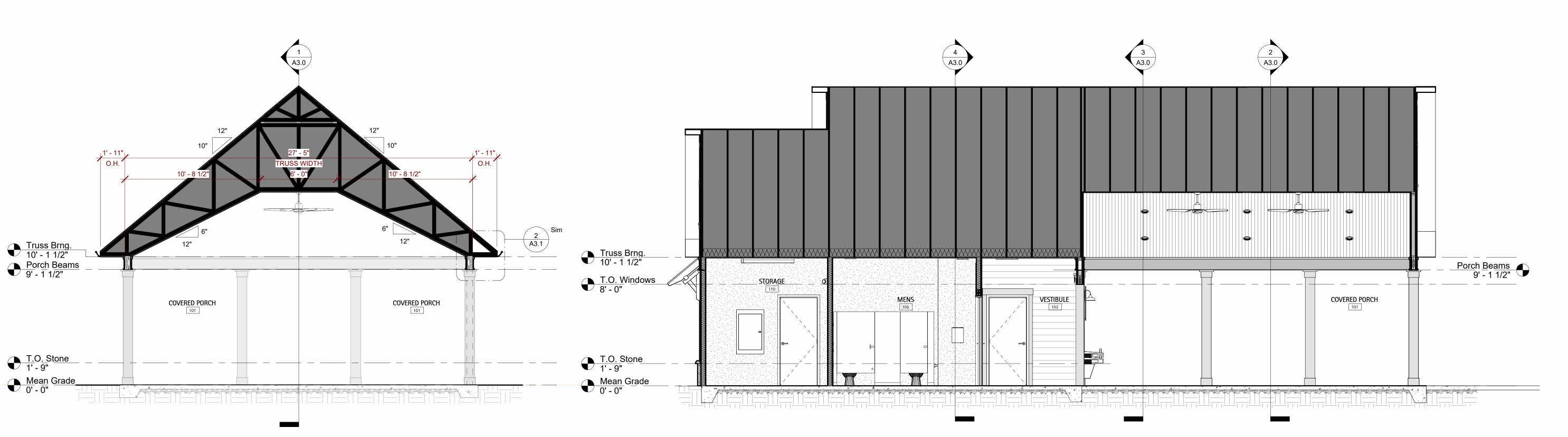
W/ BATTENS 1-0" O.C. (TYP.)



Section - Through Restrooms

1/4" = 1'-0"





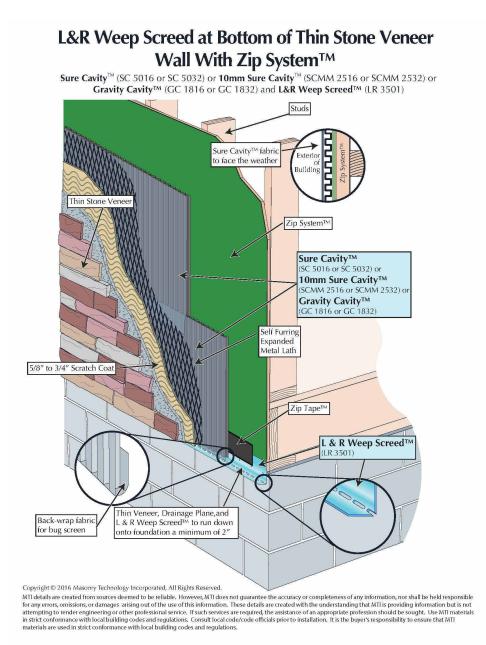
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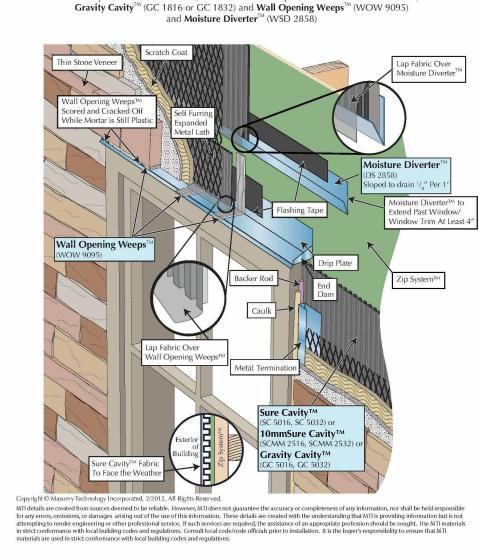
2X OUTRIGGER FRAMING EQ. SIZE TO TOP CORD OF

GABLE END TRUSS TO BE DROPPED TO ALLOW FOR OUTRIGGER FRAMING, TYPICAL

Section - Through Porch

1/4" = 1'-0"





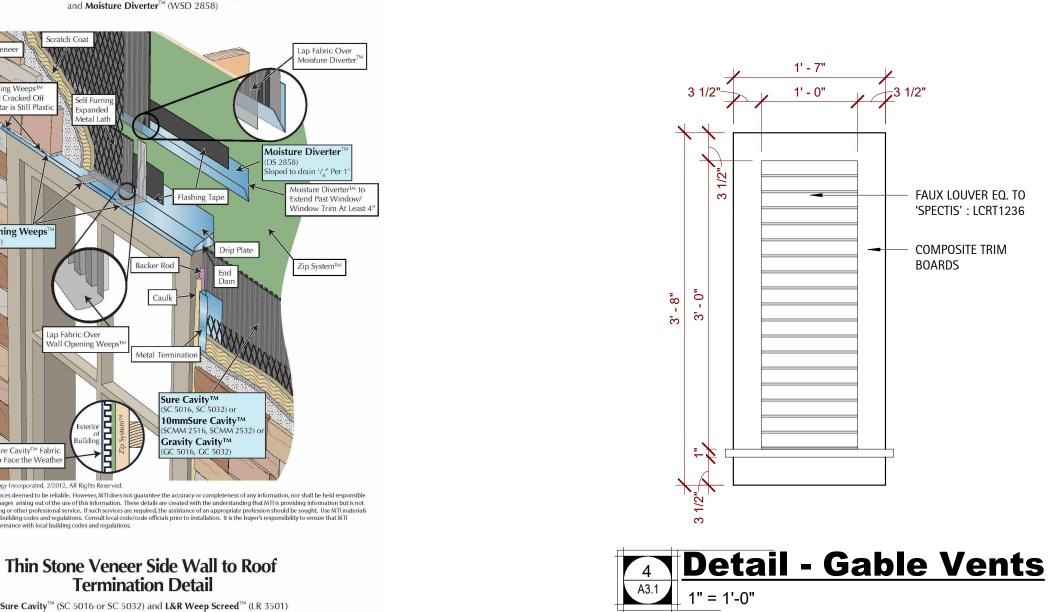
**Termination Detail** 

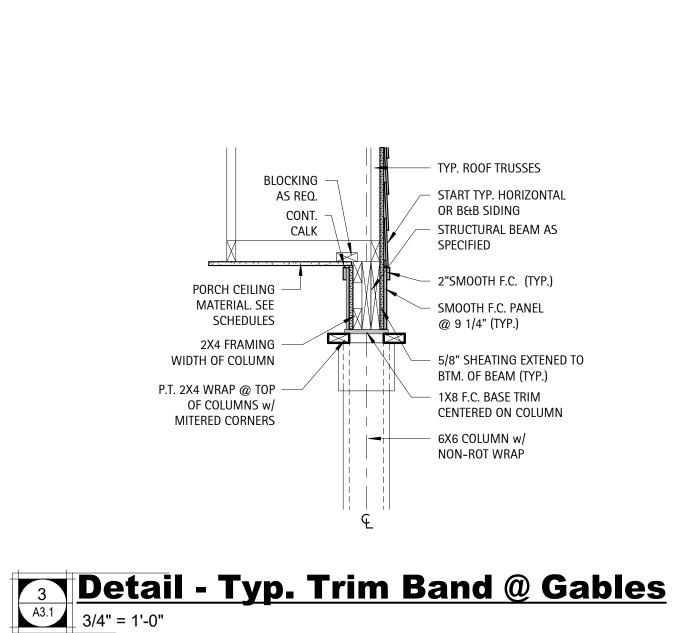
Sure Cavity<sup>™</sup> (SC 5016 or SC 5032) and L&R Weep Screed<sup>™</sup> (LR 3501)

Thin Stone Veneer with Drainage Plane and Weeps on Zip System™

with Moisture Diverter<sup>™</sup> at Top of Window

Sure Cavity<sup>™</sup> (SC 5016 or SC 5032) or 10mm Sure Cavity<sup>™</sup> (SCMM 2516 or SCMM 2532) or



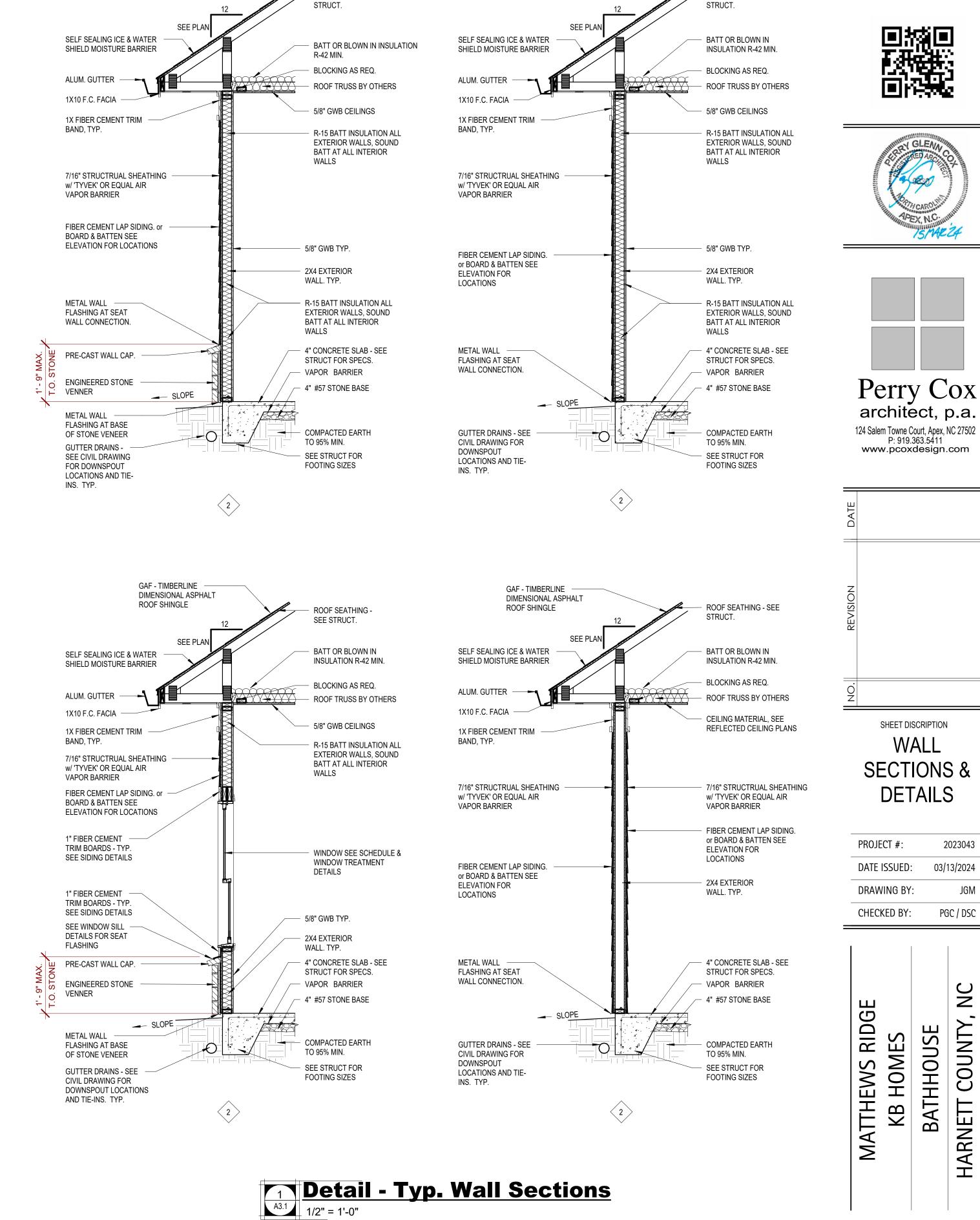


FAUX LOUVER EQ. TO

'SPECTIS' : LCRT1236

COMPOSITE TRIM

**BOARDS** 



GAF - TIMBERLINE

ROOF SHINGLE

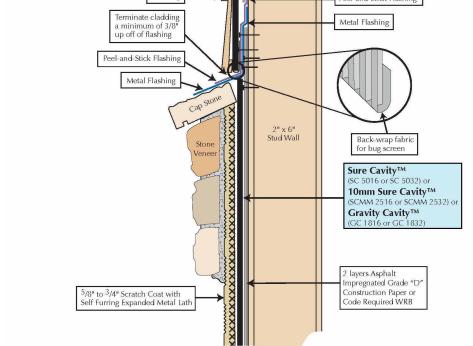
DIMENSIONAL ASPHALT

GAF - TIMBERLINE

ROOF SHINGLE

DIMENSIONAL ASPHALT

- ROOF SEATHING - SEE



**Cladding Systems to Thin Stone Veneer Installation** 

Sure Cavity™ (SC 5016 or SC 5032) or 10mm Sure Cavity™ (SCMM 2516 or SCMM 2532)

or Gravity Cavity™ (GC 1816 or GC 1832)

Sure Cavity™

10mm Sure Cavity™

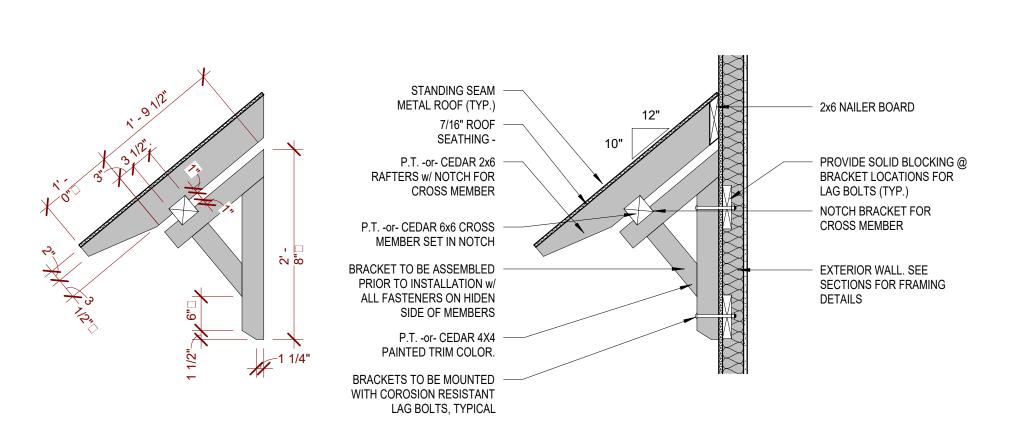
**Gravity Cavity™** 



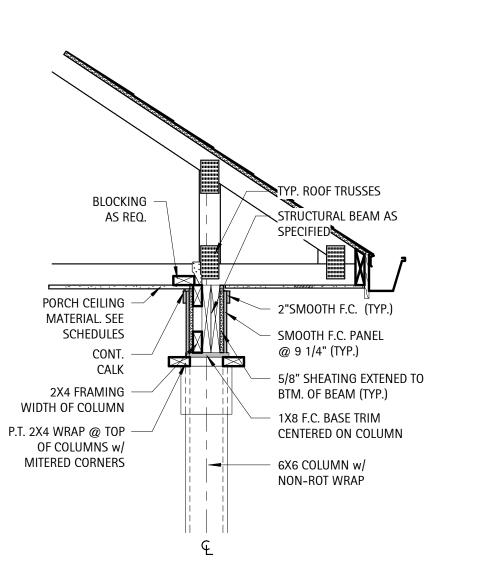
Peel & Stick Flashing

2 layers Asphalt Impregnated Grade "I Construction Paper or Code Required WRB

Sure Cavity<sup>™</sup> (SC 5016 or SC 503







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**J.CLUGSTON** 

P: 919.363.5411

www.pcoxdesign.com

SHEET DISCRIPTION

WALL

SECTIONS &

**DETAILS** 

2023043

03/13/2024

PGC / DSC

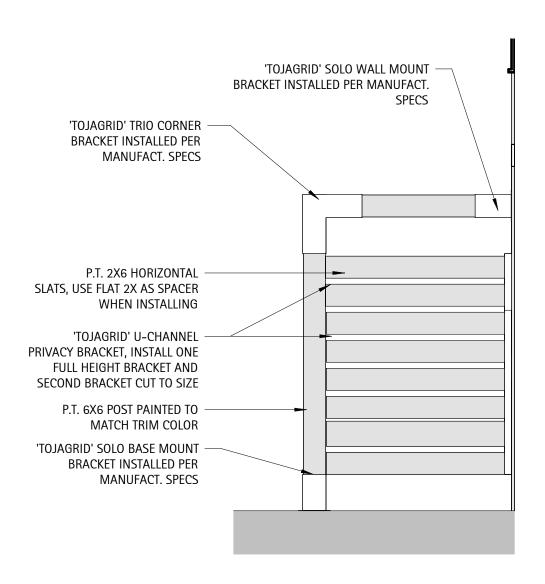
COUNTY,

HARNETT

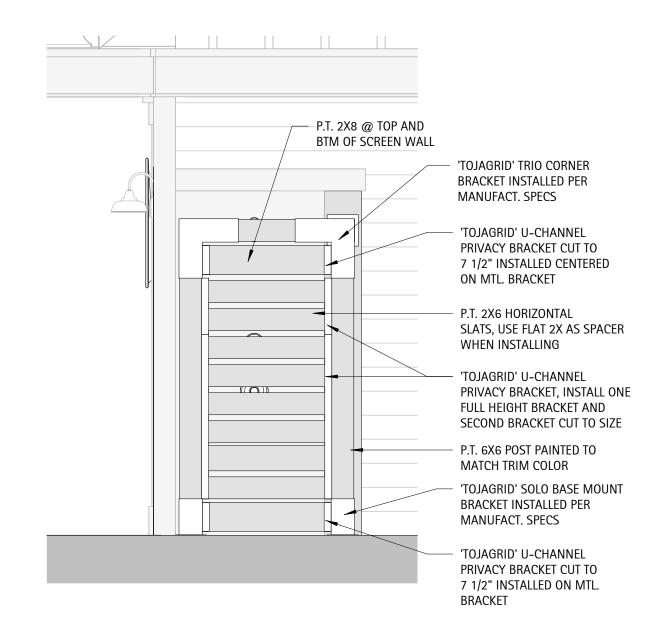
**BATHHOUSE** 

HOME

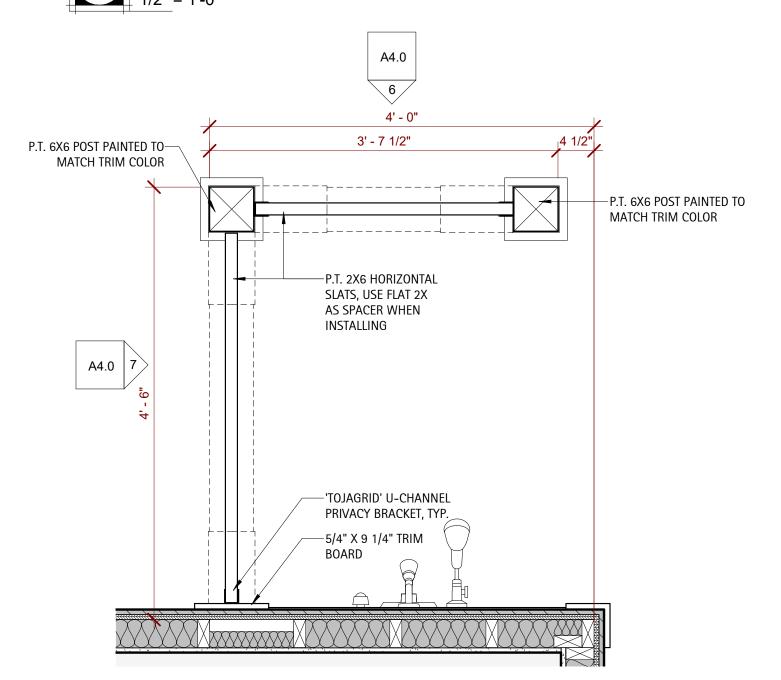
ROOF SEATHING - SEE



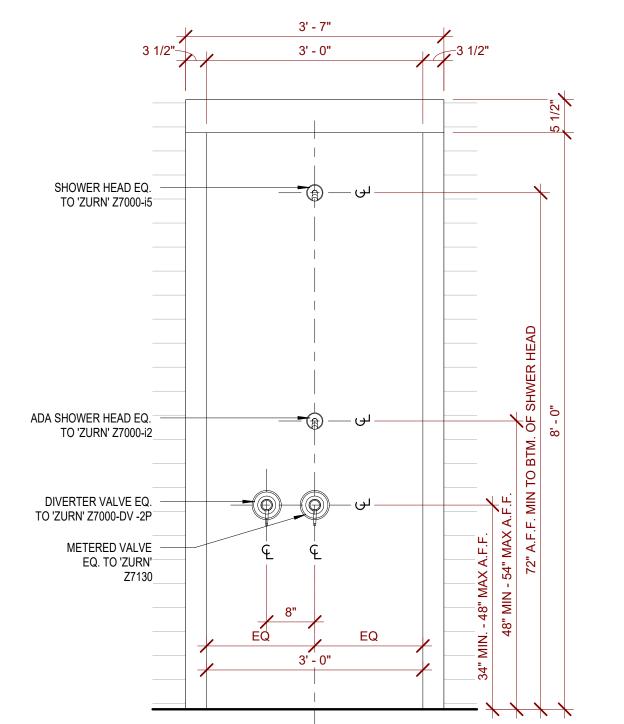
## Flevation - Shower Corral Side 1/2" = 1'-0"



## Elevation - Shower Corral Front 1/2" = 1'-0"

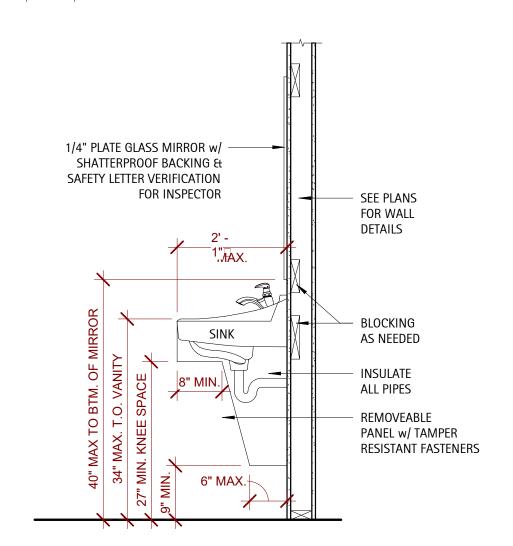




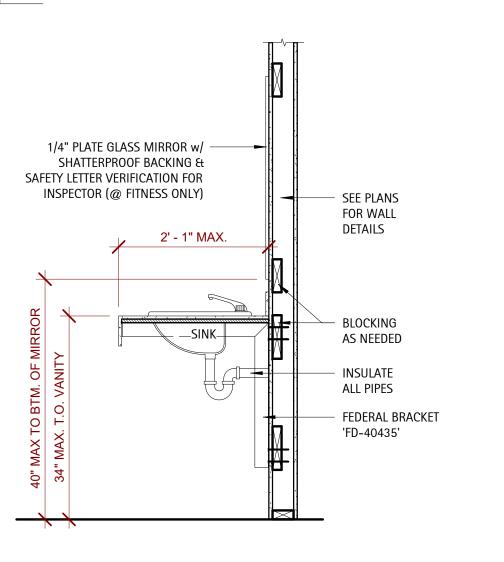


1011.7 OUTDOOR RINSE SHOWERS. OUTDOOR RINSING SHOWERS SHALL PROVIDE AT LEAST TWO FIXED SHOWER HEADS. ONE FIXED SHOWER HEAD SHALL BE 48 INCHES (1220 MM) MINIMUM AND 54 INCHES (1370 MM) MAXIMUM ABOVE THE GROUND SURFACE, AND ONE FIXED SHOWER HEAD SHALL BE 72 INCHES (1830 MM) MINIMUM ABOVE THE GROUND SURFACE. EXCEPTION: A HAND HELD SHOWER SPRAY UNIT COMPLYING WITH 608.6 SHALL BE PERMITTED INSTEAD OF THE FIXED SHOWER HEAD 48 INCHES (1220 MM) MINIMUM AND 54 INCHES (1370 MM) MAXIMUM ABOVE GROUND SURFACE

## Detail - Rinse Shower 3/4" = 1'-0"



## Detail - Typical Wall Hung Sink 3/4" = 1'-0"

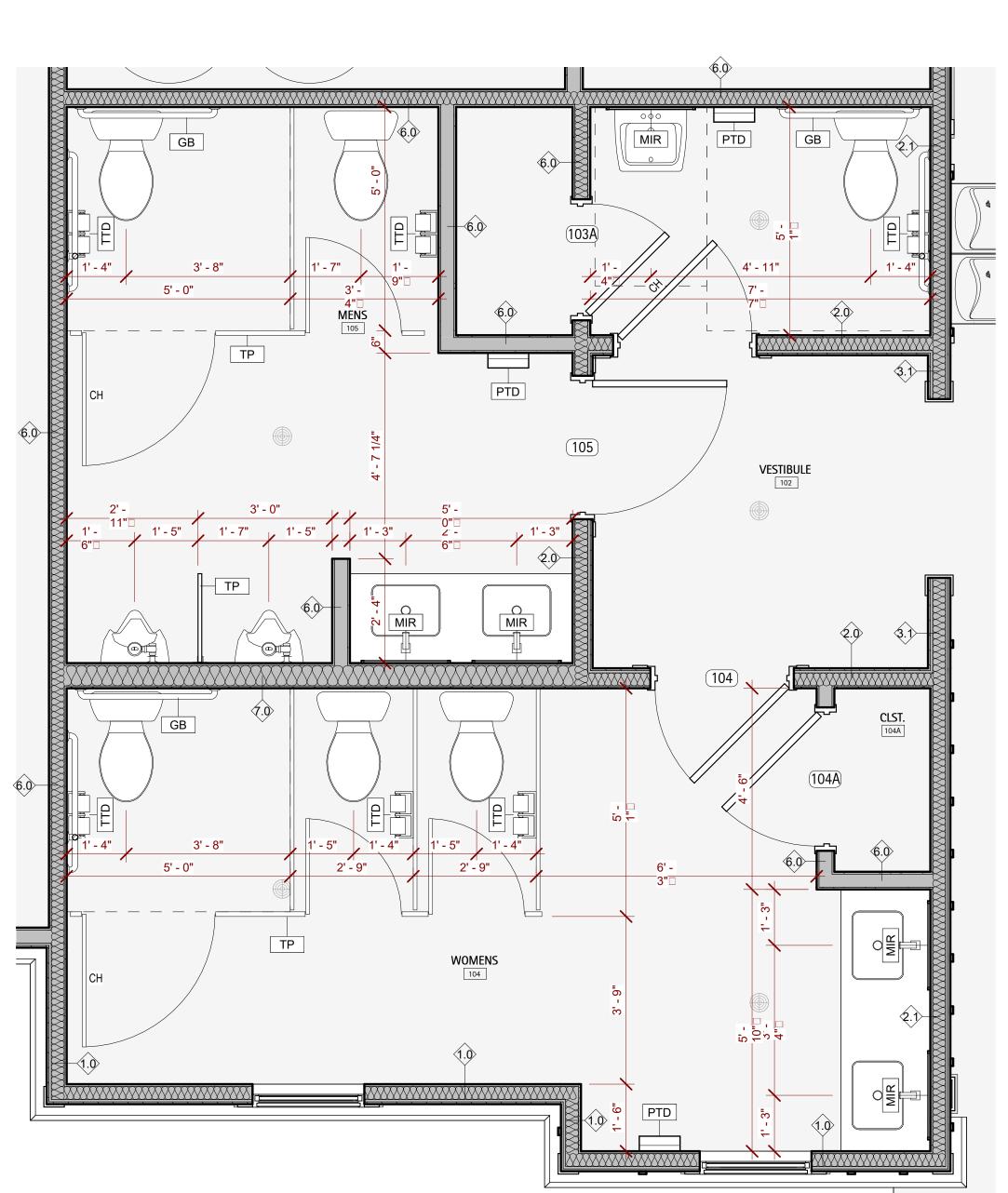


Detail - Typical Vanity Section

3/4" = 1'-0"

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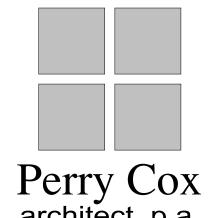




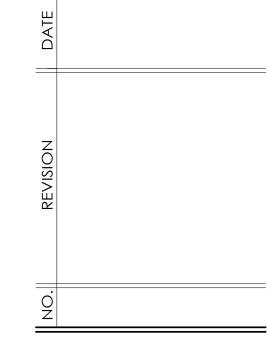
**D.CLUGSTON** 







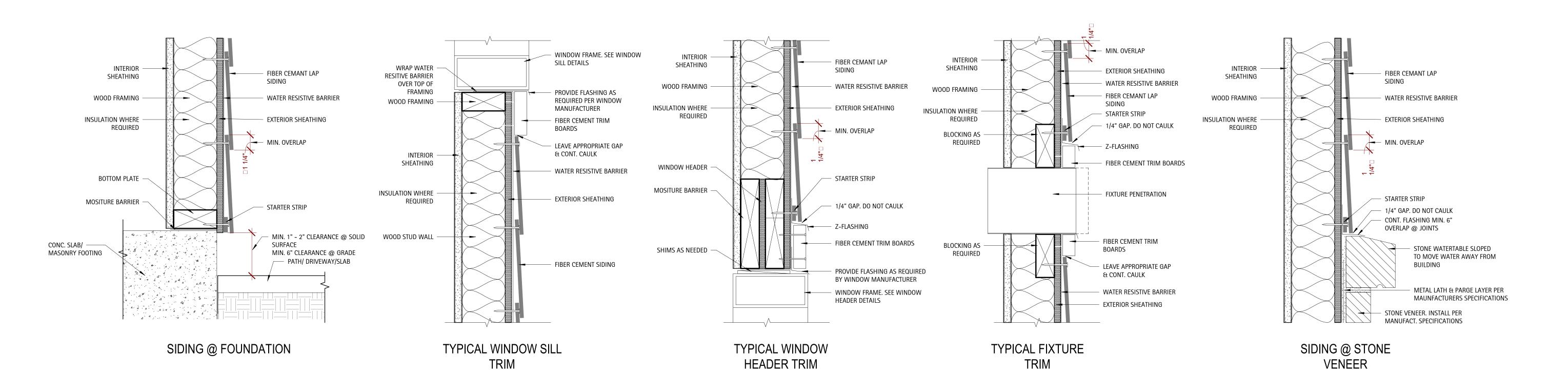
Perry Cox architect, p.a. 124 Salem Towne Court, Apex, NC 27502 P: 919.363.5411 www.pcoxdesign.com



SHEET DISCRIPTION **ENLARGED** PLANS & **DETAILS** 

PROJECT #: 2023043 DATE ISSUED:

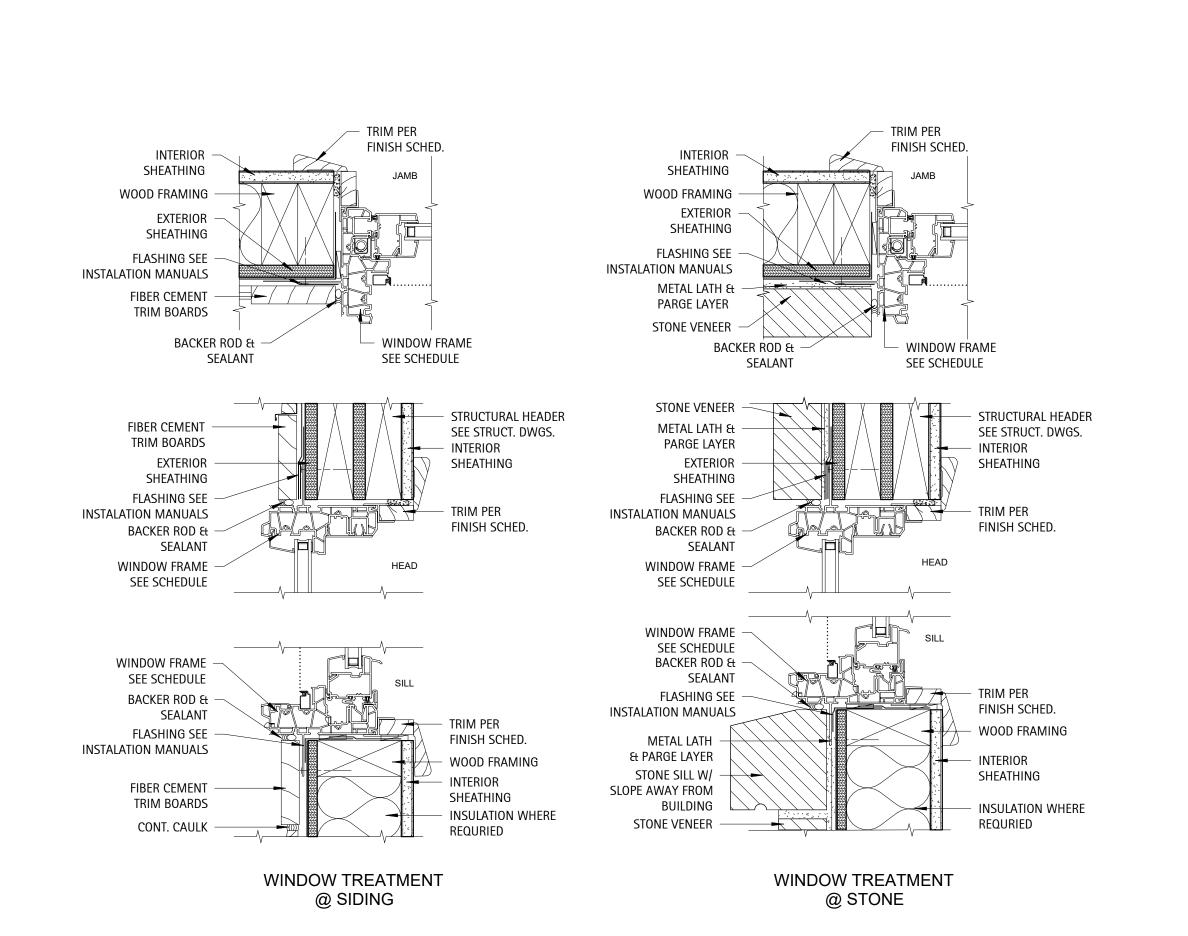
MATTHEWS RIDGE KB HOMES HARNETT COUNTY, **BATHHOUSE** 

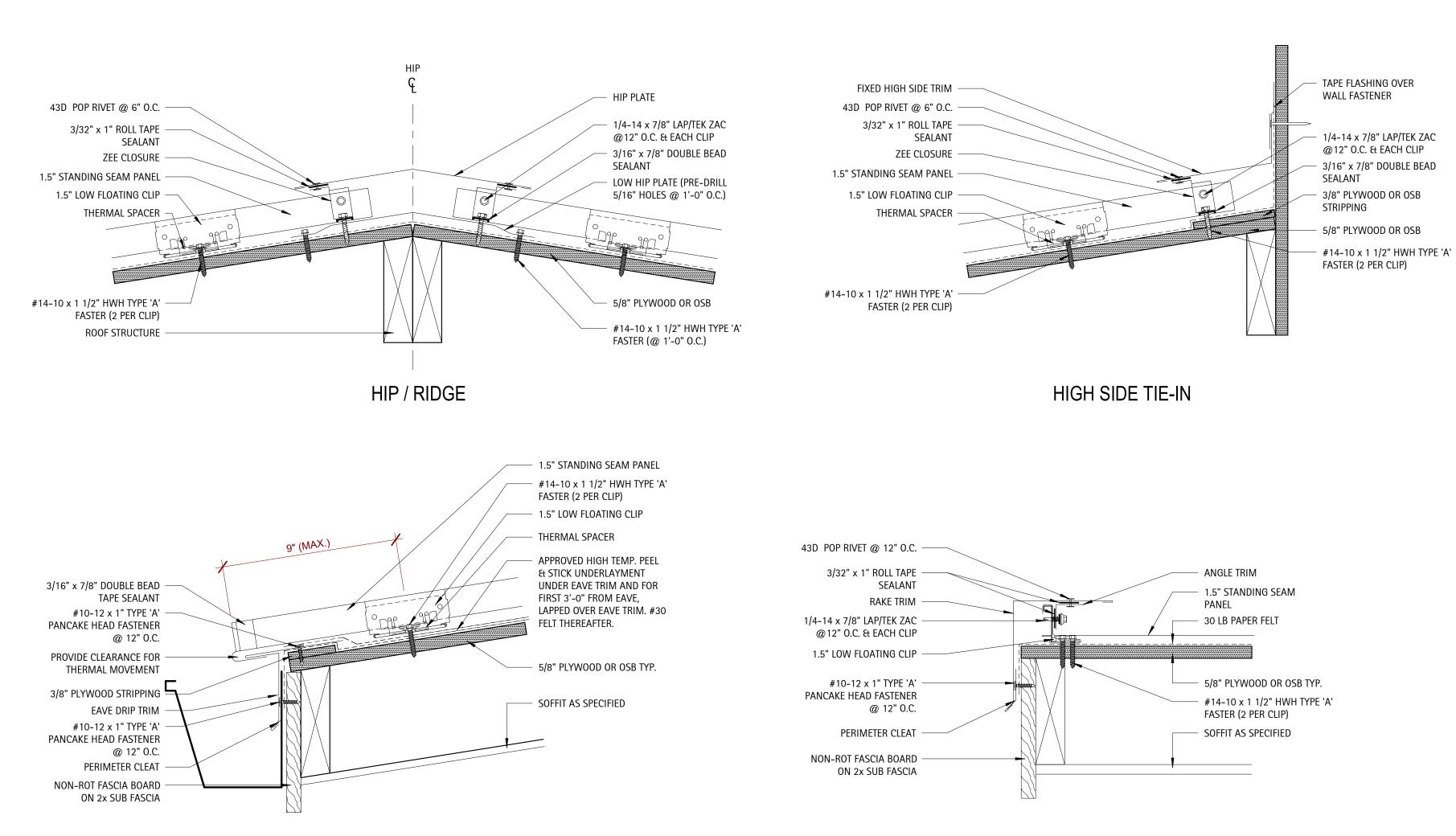


## 

**EAVE WITH GUTTER** 

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Detail - Window Treatments

3" = 1'-0"

Detail - Standing Seam Roof

3" = 1'-0"

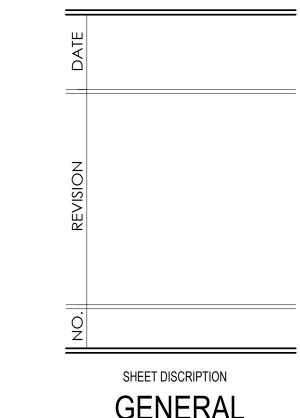
TYPICAL RAKE TRIM











SHEET DISCRIPTION

GENERAL

BUILIDNG

DETAILS

PROJECT #: 2023043

DATE ISSUED: 03/13/2024

DRAWING BY: JGM

CHECKED BY: PGC / DSC

MATTHEWS RIDGE
KB HOMES
BATHHOUSE
HARNETT COUNTY, NC

#### DOORS, FRAMES, HARDWARE NOTES

- Refer to Door and Hardware Schedule for extent, type and additional notes. Acceptable wood door manufacturers to be Weyerhaeuser, Eggers, Mohawk or Architect approved equal. General Contractor shall provide a hardware schedule and catalogue cuts for all finish hardware for approval by the Architect indicating location of hardware set, cross-referenced to indications on Drawings, manufacturer's name and product number, finish, and other similar information describing hardware to be provided. Items of hardware not definitely specified, but needed for satisfactory installation of hardware shall be provided. Such items shall be of type and quality suitable for service needed and comparable to adjacent hardware.
- All doors shall be set 6" off adjacent perpendicular wall, UON. Doors shall not be undercut, UON. All levers, pulls, and locks are to be provided per the schedule. All hinges and other miscellaneous exposed hardware shall be in similar and compatible finishes as indicated on Hardware Schedule.
- General Contractor shall coordinate keying system with Owner (Building Management), Landlord, and Architect. General Contractor shall coordinate security system with system vendor and scheduled hardware and the submittal of all security hardware specifications and cut sheets to the proper authorities for review and approval during building permit process
- 4 Provide hardware, door pulls, hinges, closers, electromagnetic devices, etc. needed to provide a full and complete installation. Provide silencers at metal frame doors. Provide floor mounted door stops unless existing conditions require wall mounted. Ensure adequate blocking for wall mounted stops. Submit to Architect for approval.
- Provide 4 1/2 x 4 1/2, full mortise, template, 5-knuckle, heavy duty, button tip hinges with non-rising loose pins and anti-friction, ball type bearing. Doors with locksets shall be furnished with non-removable pins hinges. Provide 1-1/2" pair hinges for doors up to 90" in height. Add 1 hinge for every additional 30" in height.
- Heavy duty cylindrical locksets and latchsets shall conform to ANSI A156.2, Series 4000, Grade 1. Functions as listed in schedule. Heavy duty mortise locksets and latchsets, levers shall conform to ANSI A156.13 Series, 1000, Grade 1. Overhead Closers shall be surface mounted or concealed overhead as noted in the hardware schedule and shall be heavy duty, fully hydraulic, rack and pinion action and sized to be in compliance with requirements for accessibility for handicapped and recommendations of manufacturer. Furnish complete with all necessary hardware. Furnish 2 keys per lock with a maximum of 8 keys per keyed alike set. Before final completion, adjust hardware so that doors operate in perfect order. Test and adjust hardware for quiet, smooth operation and adjust closers for proper operation. At final completion, properly tag and identify keys and deliver to Owner.
- 7 All Hardware shall be medium grade commercial if not otherwise noted or specified. See allowance per door.
- 8 All interior egress doors and a minimum of one exterior egress door shall be readible openalbe from the egress side without use of a key or special knowledge.
- 9 All Glazing within 24" of either side of a door in a closed position, and on the same wall plane shall be tempered. Tempered glass shall be installed by code in the following locations:

  a. Door Glazing;
  - b. Glazingfor bathroom fixture enclosures(showers, etc)
  - c. Glazing less than 60" above tub and shower drains;d. Glazing within24" of an adjacent door w/ sill less than 60 degrees;
  - e. Individual panels of Glazing greater than 9 sqft and sill less than 18" above floor and top edge greater than 36".
- 10 Provide an interior door signage allowance of \$25.00 per door.
- Fire Extinusisher cabinets shall be similar to JL Industries Mod. Clear VU 1525F26 with a clear bubble and A#10 S/S Finish. ADA approved and mounted. Place where shown on plans (FX)
- 12 Door closers shall be LCN series 4040 or equivalent

				CLU	JBHOUSE ROOM SCHED	ULE			
Room Number	Room Name	Floor Finish	Base Finish	Wall Finish	Ceiling Finish	Ceiling Height	Crown	Millwork Finish	Comments
100	ENTRY	Concrete - Light Broom	1x8 Fiber Cement - Painted	M.R. GWB - Painted	Bead Board - Painted	10' - 1"	No	N/A	Slope all floors away from building walls at min 1/8" per 1'-0"
101	COVERED PORCH	Concrete - Light Broom	1x8 Fiber Cement - Painted	M.R. GWB - Painted	Bead Board - Painted	Vaulted	No	N/A	Slope all floors away from building walls at min 1/8" per 1'-0"
102	VESTIBULE	Concrete - Light Broom	1x8 Fiber Cement - Painted	N/A	Bead Board - Painted	10' - 1"	No	N/A	Slope floors to drain
103	FAMILY	Acrylic Chip - Broadcast	1x8 Fiber Cement - Painted	M.R. GWB - Painted	M.R. GWB - Painted	10' - 1"	No	N/A	Slope floors to drain
103A	CLST	Acrylic Chip - Broadcast	1x8 Fiber Cement - Painted	M.R. GWB - Painted	M.R. GWB - Painted	10' - 1"	No	N/A	
104	WOMENS	Acrylic Chip - Broadcast	1x8 Fiber Cement - Painted	M.R. GWB - Painted	M.R. GWB - Painted	10' - 1"	No	Cultured Marble	Slope floors to drain
104A	CLST.	Concrete - Light Broom	1x8 Fiber Cement - Painted	M.R. GWB - Painted	M.R. GWB - Painted	10' - 1"	No	N/A	Provide 5 shelves
105	MENS	Acrylic Chip - Broadcast	1x8 Fiber Cement - Painted	M.R. GWB - Painted	M.R. GWB - Painted	10' - 1"	No	Cultured Marble	Slope floors to drain
107	SHOWERS	Concrete - Light Broom	1x8 Fiber Cement - Painted	Hardie Panel - Painted	Hardie Soffit - Painted	10' - 1"	No	N/A	Slope floors to drain
108	TRASH CORRAL	Concrete - Light Broom	1x8 Fiber Cement - Painted	N/A	M.R. GWB - Painted	10' - 1"	No	N/A	Slope all floors away from building walls at min 1/8" per 1'-0"
109	PUMP ROOM	Concrete - Light Broom	1x8 Fiber Cement - Painted	M.R. GWB - Painted	M.R. GWB - Painted	10' - 1"	No	N/A	Slope floors to drain
109A	CHEM.	Concrete - Light Broom	1x8 Fiber Cement - Painted	M.R. GWB - Painted	M.R. GWB - Painted	10' - 1"	No	N/A	Provide non-rot chemical shelf @ 16" A.F.F.
110	STORAGE	Concrete - Light Broom	1x8 Fiber Cement - Painted	M.R. GWB - Painted	M.R. GWB - Painted	10' - 1"	No	N/A	

CLUBHOUSE DOOR SCHEDULE																								
			Do	or				)oor	Frame								На	ırdware						
Door					Rough	Rough				Frame	Fire	Push /	Passage	Privacy	Office	Storage		Panic		Weather		FOB	Time	
Number	Style	Width	Height	Thickness	Width	Height	Material	Finish	Material	Finish	Rating	Pull	Set	Set	Set	Set	Deadbolt	Hardware	Closer	strip	Threshold	Access	Lock	Comments
		_									_	_				_								
103	Type A	3' - 0"	7' - 0"	0' - 1 3/4"	3' - 2 1/2"	7' - 1 1/4"	HM	Painted	Metal	Painted	N/A	No	No	Yes	No	No	No	No	Yes	Yes	Yes	Yes	No	
103A	Type A	2' - 6"	7' - 0"	0' - 1 3/4"	2' - 8 1/2"	7' - 1 1/4"	НМ	Painted	Metal	Painted	N/A	No	No	No	No	Yes	No	No	No	No	No	No	No	
104	Type A	3' - 0"	7' - 0"	0' - 1 3/4"	3' - 2 1/2"	7' - 1 1/4"	HM	Painted	Metal	Painted	N/A	No	Yes	No	No	No	Yes	No	Yes	Yes	Yes	Yes	No	
104A	Type A	3' - 0"	7' - 0"	0' - 1 3/4"	3' - 2 1/2"	7' - 1 1/4"	НМ	Painted	Metal	Painted	N/A	No	No	No	No	Yes	No	No	No	No	No	No	No	
105	Type A	3' - 0"	7' - 0"	0' - 1 3/4"	3' - 2 1/2"	7' - 1 1/4"	НМ	Painted	Metal	Painted	N/A	No	Yes	No	No	No	Yes	No	Yes	Yes	Yes	Yes	No	
109	Type B	3' - 6"	7' - 0"	0' - 1 3/4"	3' - 8 1/2"	7' - 1 1/4"	НМ	Painted	Metal	Painted	N/A	No	No	No	No	Yes	No	No	Yes	Yes	Yes	No	No	Placards per NFPA 704
109A	Type B	3' - 0"	7' - 0"	0' - 1 3/4"	3' - 2 1/2"	7' - 1 1/4"	НМ	Painted	Metal	Painted	N/A	No	Yes	No	No	No	No	No	Yes	No	No	No	No	Placards per NFPA 704
110	Type A	3' - 0"	7' - 0"	0' - 1 3/4"	3' - 2 1/2"	7' - 1 1/4"	НМ	Painted	Metal	Painted	N/A	No	No	No	No	Yes	No	No	Yes	Yes	Yes	No	No	
G100	Type C	4' - 0"	6' - 0"				Alum.	Painted	Metal	Painted	N/A	No	No	No	No	No	No	Yes	Yes	No	No	Yes	Yes	Gate: See Pool Details
G101	Type C	4' - 0"	6' - 0"				Alum.	Painted	Metal	Painted	N/A	No	No	No	No	No	No	Yes	Yes	No	No	Yes	Yes	Gate: See Pool Details

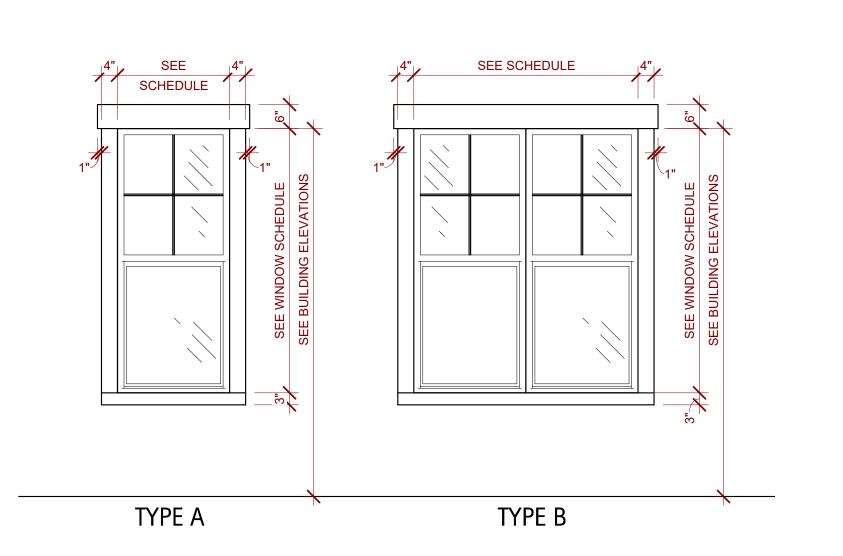
CONT. SEALANT BOTH SIDES

ALUM. THRESHOLD IN FULL BED OF MASTIC SEALANT

SUBFLOOR

EXTERIOR DOORS THRESHOLD

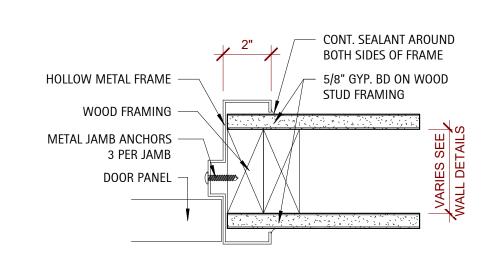


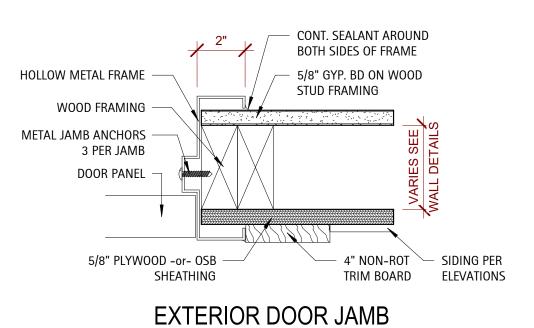


Grand total: 10





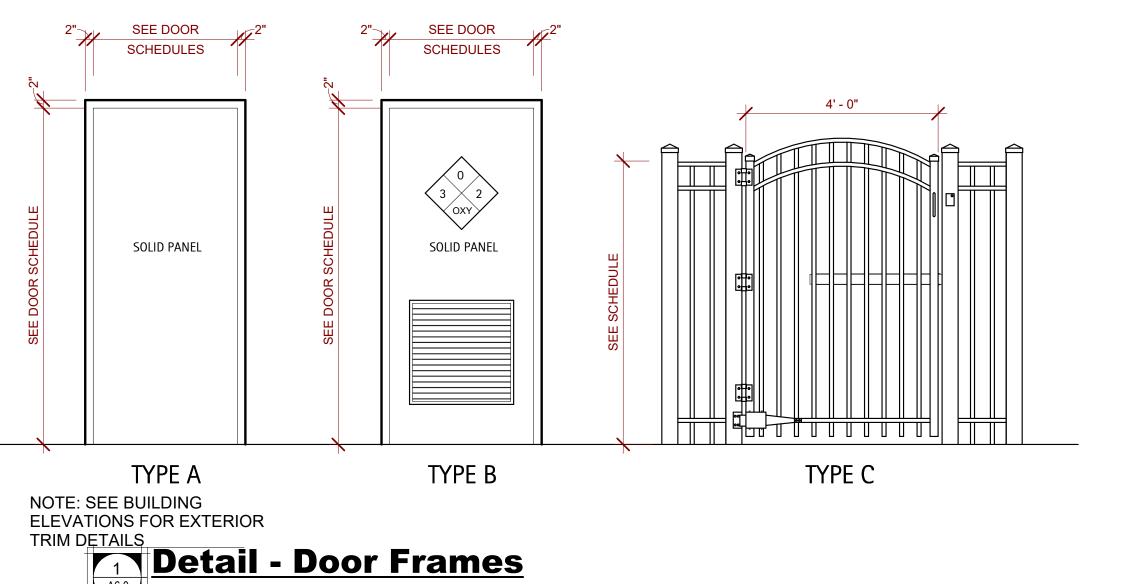




INTERIOR DOOR JAMB

Detail - Typ. Door Jambs

3" = 1'-0"

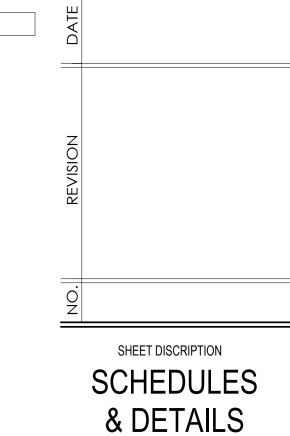


J.CLUGSTON









PROJECT #: 2023043

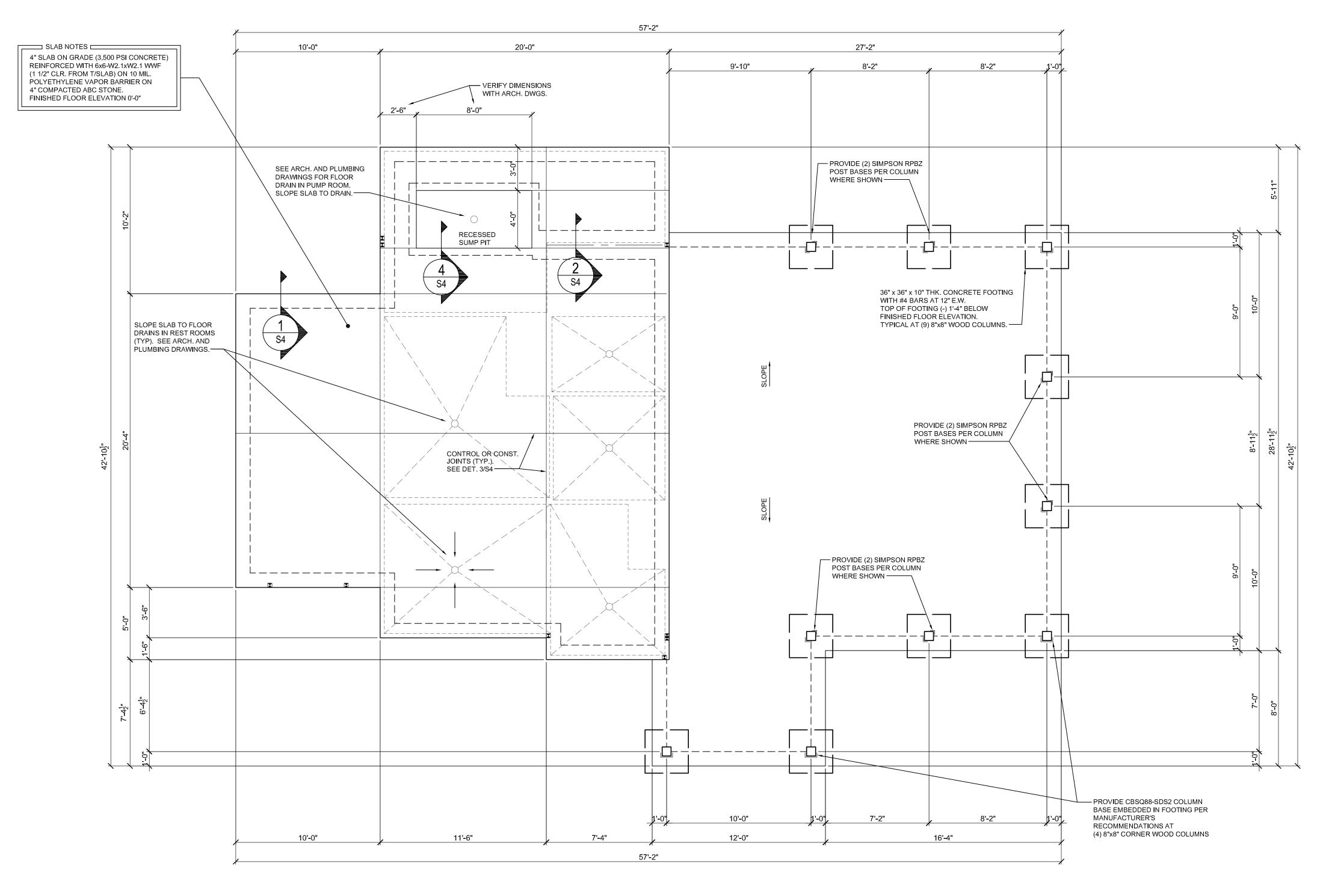
DATE ISSUED: 03/13/2024

DRAWING BY: JGM

CHECKED BY: PGC / DSC

MATTHEWS RIDGE
KB HOMES
BATHHOUSE
HARNETT COUNTY, NC





SLAB AND FOUNDATION PLAN

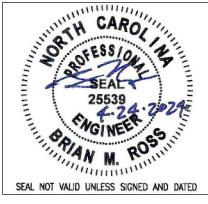
1/4" = 1'-0"



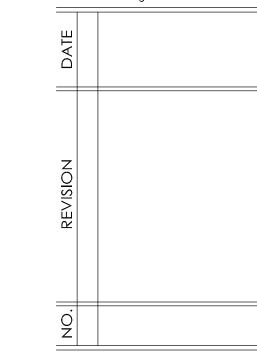
ROSS LINDEN

E N G I N E E R S P C

709 W. JONES STREET RALEIGH, NC 27603
TEL 919.832.5680 FAX 919.832.5675
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SHEET DISCRIPTION
SLAB AND
FOUNDATION
PLAN

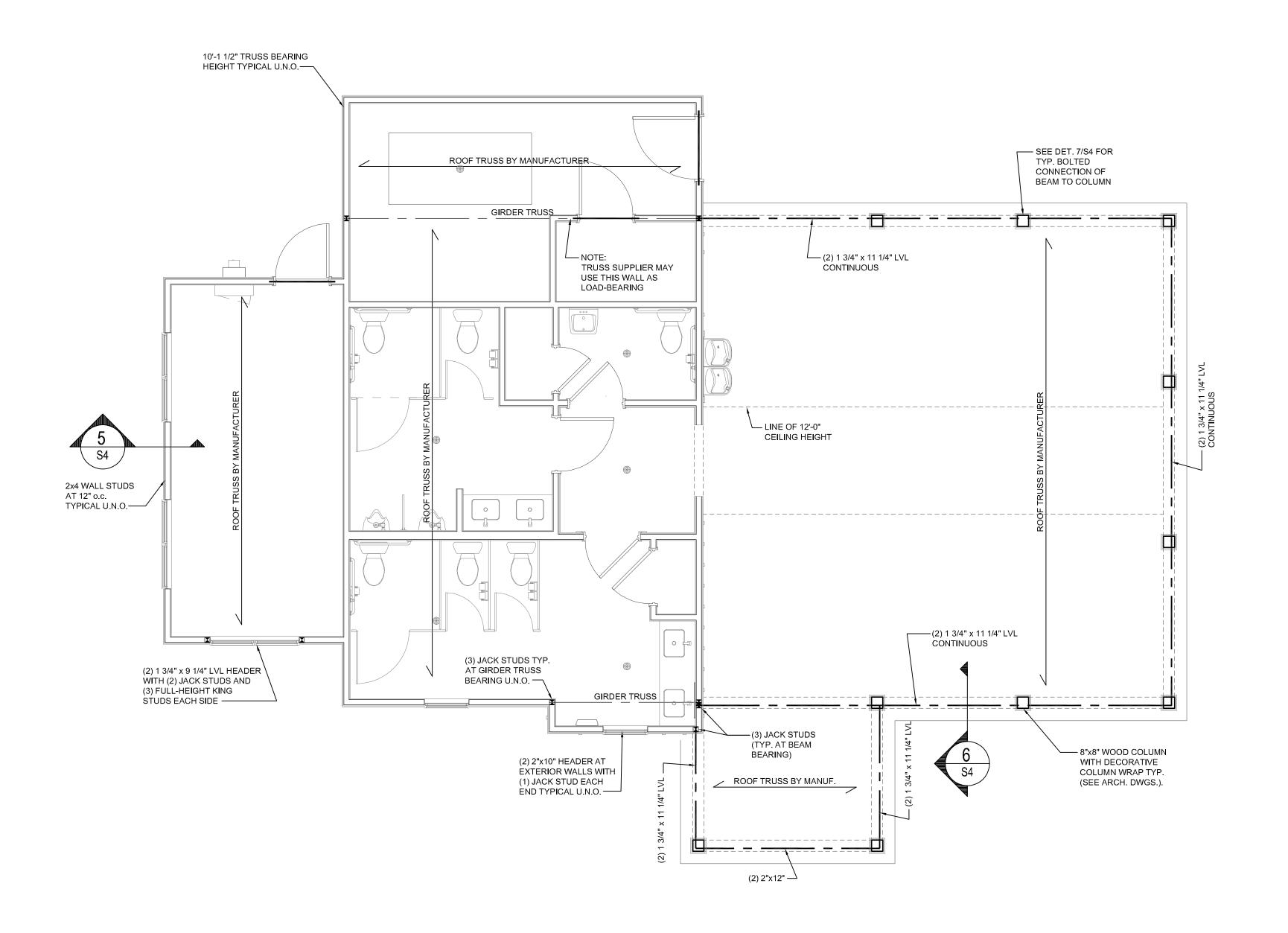
PROJECT #: C240109

DATE ISSUED: 4/24/2024

DRAWING BY:
CHECKED BY:

MATTHEWS RIDGE KB HOMES BATH HOUSE HARNETT COUNTY, NC

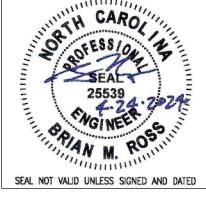




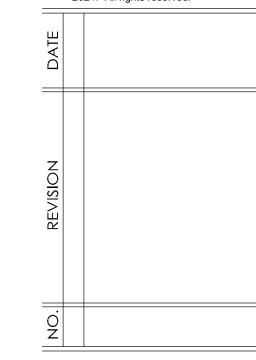
1 WALL AND CEILING FRAMING PLAN
S2 1/4" = 1'-0"



## ROSS LINDEN E N G I N E E R S P C 709 W. JONES STREET RALEIGH, NC 27603 TEL 919.832.5680 FAX 919.832.5675 WWW.ROSSLINDEN.COM NC LICENSE NO. C-2364



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## SHEET DISCRIPTION CEILING FRAMING PLAN

PROJECT #: C240109

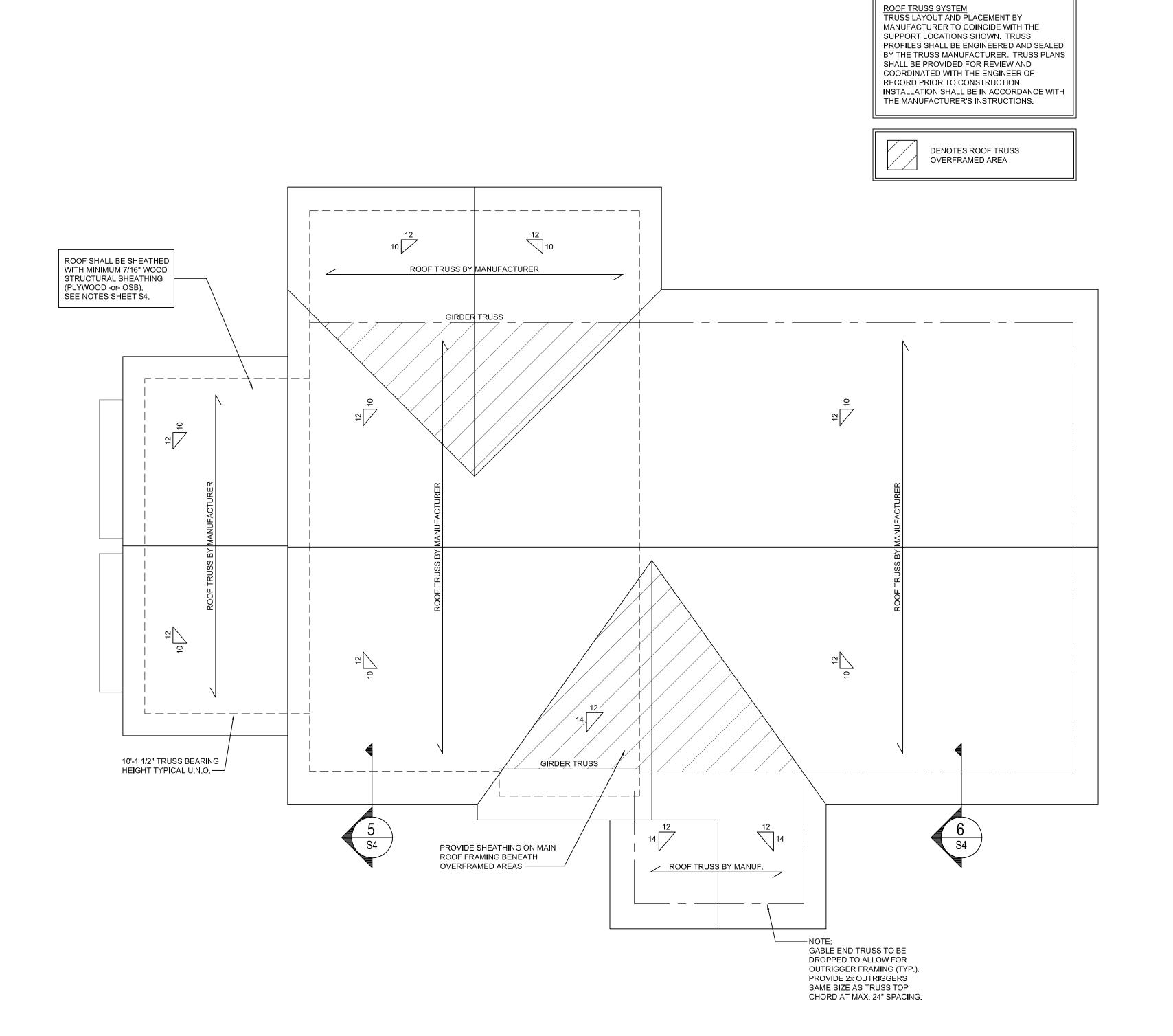
DATE ISSUED: 4/24/2024

DRAWING BY:

CHECKED BY:

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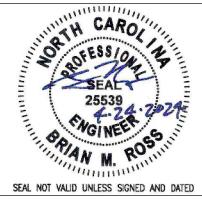




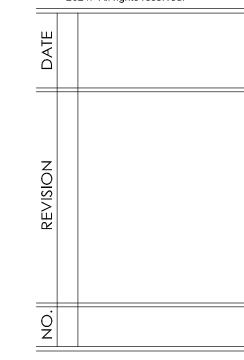




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ROOF FRAMING PLAN

PROJECT #: C240109

DATE ISSUED: 4/24/2024

DRAWING BY:
CHECKED BY:

MATTHEWS RIDGE
KB HOMES
BATH HOUSE
HARNETT COUNTY, NC

#### I. GENERAL

DESIGN CODES

NORTH CAROLINA BUILDING CODE, 2018 EDITION (AMENDED 2015 INTERNATIONAL BUILDING CODE)

ACI BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE

AISC MANUAL OF STEEL CONSTRUCTION - ALLOWABLE STRESS DESIGN

NINTH EDITION

ASCE 7-10 MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES

#### DESIGN LOADS

LIVE LOADS: FLOOR: 100 PSF

#### ULTIMATE DESIGN WIND SPEED: 117 MPH

GROUND SNOW LOAD 15 PSF

SEISMIC DESIGN CATEGORY C

SITE CLASS D Ss = 0.178

S1 = 0.085

3. ALL ELEVATIONS ARE REFERENCED FROM FINISHED FLOOR ELEVATION OF 0'-0". SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION.

4. DETAILED SHOP DRAWINGS SHALL BE PROVIDED FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.

5. ENGINEER'S SEAL APPLIES TO STRUCTURAL COMPONENTS ONLY AND DOES NOT CERTIFY ARCHITECTURAL LAYOUT OR DIMENSIONAL ACCURACY.

6. ROSS LINDEN ENGINEERS PC ASSUMES NO LIABILITY FOR CHANGES OR MODIFICATIONS MADE TO THESE DRAWINGS BY OTHERS, OR FOR CONSTRUCTION METHODS, OR FOR ANY DEVIATION FROM THESE DRAWINGS.

#### II. CONCRETE

1. UNLESS OTHERWISE NOTED, ALL CONCRETE SHALL HAVE THE FOLLOWING STRENGTH AND SLUMP REQUIREMENTS: 3,500 PSI 28-DAY COMPRESSIVE STRENGTH, MAX. 5" SLUMP.

2. ALL CONCRETE SHALL BE MOIST CURED PER ACI 301 OR CURED WITH AN APPROVED CURING COMPOUND. CONTRACTOR SHALL VERIFY THAT THE CURING COMPOUND IS COMPATIBLE WITH FLOOR COVERING ADHESIVES, COATINGS, OR TOPPINGS TO BE USED. CONCRETE SHALL BE CURED FOR A MINIMUM OF 7 DAYS.

3. UNLESS OTHERWISE NOTED, ALL REINFORCING STEEL SHALL BE NEW BILLET STEEL, CONFORMING TO ASTM A-615, GRADE 60, DEFORMED.

4. UNLESS OTHERWISE NOTED, ALL DETAILING, FABRICATION, AND PLACING OF REINFORCING STEEL SHALL CONFORM TO THE MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES. (ACI 315)

5. ALL BAR SPLICES SHALL BE CLASS "B" TENSION SPLICES PER ACI 318-08, UNLESS OTHERWISE SHOWN.

#### 6. ANCHOR BOLTS TO BE ASTM A36 OR A307.

7. CONTRACTOR SHALL REFER TO DRAWINGS OF OTHER TRADES AND VENDOR DRAWINGS FOR EMBEDDED ITEMS AND RECESSES NOT SHOWN ON THE STRUCTURAL DRAWINGS.

8. ALL SPREAD FOOTINGS BEARING ON NATIVE SOIL OR STRUCTURAL FILL ARE DESIGNED FOR AN ALLOWABLE BEARING PRESSURE OF 2,500 PSF. A GEOTECHNICAL REPRESENTATIVE SHALL INSPECT ALL FOOTING EXCAVATIONS TO CONFIRM ALLOWABLE BEARING PRESSURES.

9. PROVIDE TWO (2) #5 x 4'-0" LONG DIAGONAL BARS IN TOP FACE OF ALL SLABS (1" CLEAR) AT ALL RE-ENTRANT CORNERS. SEE PLAN FOR LOCATIONS.

 CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING, PROTECTING, AND RELOCATING AS REQUIRED ALL SERVICE AND UTILITY LINES IN VICINITY OF THE

11. CONTRACTOR SHALL VERIFY ALL SIZES AND LOCATIONS OF ALL MECHANICAL AND ELECTRICAL OPENINGS AND EQUIPMENT PADS WITH THE MECHANICAL AND ELECTRICAL DETAILS AND SHOP DRAWINGS BY OTHERS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ALL OPENINGS AND SLEEVES FOR PROPER DISTRIBUTION FOR ALL UTILITIES THROUGHOUT THE BUILDING.

12. ALL DOWELS WHICH ARE TO BE DRILLED AND GROUTED INTO EXISTING CONCRETE SHALL BE DONE WITH AN EPOXY GROUT. DRILL HOLE WITH DIAMETER 1/8" LARGER THAN DOWEL OR AS RECOMMENDED BY GROUT SUPPLIER. USE HIT-RE 500 V3 BY HILTI OR APPROVED EQUAL.

#### III. WOOD

1. FRAMING LUMBER SHALL BE #2 SPRUCE PINE FIR (SPF) WITH THE FOLLOWING MINIMUM DESIGN PROPERTIES:

2. FRAMING LUMBER EXPOSED TO WEATHER OR IN CONTACT WITH THE GROUND, CONCRETE OR MASONRY SHALL BE #2 SOUTHERN YELLOW PINE (SYP) TREATED IN ACCORDANCE WITH AWPA C22 WITH THE FOLLOWING DESIGN PROPERTIES:

3. ENGINEERED WOOD BEAMS SHALL BE LAMINATED VENEER LUMBER (LVL) OR PARALLEL STRAND LUMBER (PSL) WITH THE FOLLOWING MINIMUM DESIGN Fb = 2600 PSI Fv = 285 PSI E = 1.9E6 PSI

4. ENGINEERED WOOD BEAMS SHALL BE INSTALLED WITH ALL CONNECTIONS PER MANUFACTURER'S INSTRUCTIONS.

5. SOLID BLOCKING SHALL BE PROVIDED AT ALL POINT LOADS TO TRANSFER LOADS THROUGH FLOOR LEVELS. COLUMNS SHALL BE CONTINUOUS TO THE

6. WOOD SILL PLATES SHALL BE ANCHORED TO THE FOUNDATION WITH 1/2" DIAMETER ANCHOR BOLTS SPACED A MAXIMUM OF 2'-8" o.c. AND WITHIN 12" FROM THE ENDS OF EACH PLATE SECTION. PROVIDE 1/2" DIAMETER HILTI HIT-RE 500 V3 INJECTION ADHESIVE ANCHORS WITH MINIMUM 4 1/2" EMBEDMENT INTO THE

7. ALL EXTERIOR WALLS SHALL BE SHEATHED WITH MINIMUM 7/16" WOOD STRUCTURAL SHEATHING (PLYWOOD -or- OSB) WITH BLOCKING AT ALL JOINTS. FASTEN ALL PANELS WITH 8d NAILS AT 3" o.c. AT ALL EDGES AND AT 6" o.c. AT INTERMEDIATE FRAMING. AT DOUBLE TOP PLATE, FASTEN PANELS WITH A 1 3/8" PENETRATION INTO THE FRAMING MEMBERS.

8. PROVIDE MINIMUM 1/2" GYPSUM BOARD ON BOTH SIDES OF FULL-HEIGHT INTERIOR WALLS WITH INTERMEDIATE SUPPORT AT ALL JOINTS. FASTEN ALL PANELS WITH 1 1/4" SCREWS AT 7" o.c. AT TOP AND BOTTOM PLATES AND ALL STUDS. GYPSUM SHALL BE APPLIED PERPENDICULAR TO FRAMING.

9. SEE TYPICAL WALL SECTION FOR ADDITIONAL INFORMATION.

#### IV. WOOD TRUSSES

ON THE PLAN.

1. ENGINEERED ROOF TRUSS SYSTEMS SHALL BE PROVIDED FOR REVIEW AND COORDINATED WITH THE ENGINEER OF RECORD. INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. ROOF TRUSS DRAWINGS SHALL BE SIGNED AND SEALED BY THE MANUFACTURER AND REVIEWED BY THE ENGINEER OF RECORD PRIOR TO CONSTRUCTION.

PLATE CONNECTED WOOD TRUSSES."

3. THE TOP CHORD OF ALL ROOF TRUSSES SHALL BE SHEATHED WITH MINIMUM 7/16" WOOD STRUCTURAL SHEATHING (PLYWOOD -or- OSB). PROVIDE PLYWOOD EDGE CLIPS BETWEEN PANELS.

TEMPORARY BRACING" AND BCSI-B3 "WEB MEMBER PERMANENT BRACING/WEB REINFORCEMENT."

#### **ABBREVIATIONS**

	•
CONC	CONCRETE
CONT	CONTINUOUS
DBL	DOUBLE
DJ	DOUBLE JOIST
DSP	DOUBLE STUD POCKET
EA	EACH
FL PT	FLAT PLATE
FTG	FOOTING
HGR	HANGER
LVL	LAMINATED VENEER LUMBER
NTS	NOT TO SCALE
OC	ON CENTER
PT	PRESSURE TREATED
RS	RAFTER SUPPORT
SC	STUD COLUMN
SP	STUD POCKET
TJ	TRIPLE JOIST
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE

Soil Bearing Capacities:

**DESIGN LOADS:** 

Field Test (provide copy of test report) Presumptive Bearing capacity 2500 psf Pile size, type, and capacity \_\_\_\_

Fb = 800 PSI Fv = 175 PSI E = 1.4E6 PSI

FOUNDATION OR TO OTHER STRUCTURAL ELEMENTS.

FOUNDATION AT ALL EXTERIOR, LOAD-BEARING, AND SHEAR WALLS AS SHOWN

DOUBLE ROW OF 8d NAILS STAGGERED AT 3" o.c. ALL FASTENERS SHALL HAVE

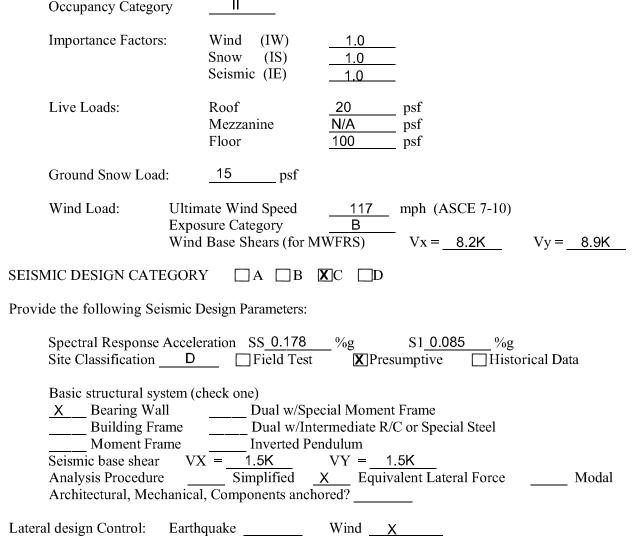
2. ALL TRUSSES SHALL BE DESIGNED AND INSTALLED IN ACCORDANCE WITH BCSI 1-03 "GUIDE TO GOOD PRACTICE FOR HANDLING, INSTALLING & BRACING OF METAL

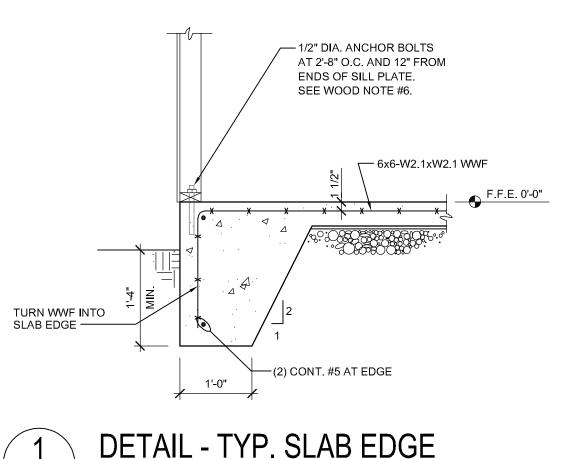
4. PROVIDE PERMANENT BOTTOM CHORD TRUSS BRACING AND WEB MEMBER PLANE BRACING IN ACCORDANCE WITH BCSI-B2 "TRUSS INSTALLATION AND

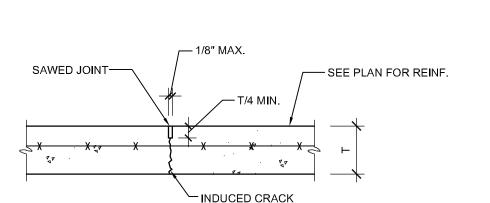
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CONC	CONCRETE
CONT	CONTINUOUS
DBL	DOUBLE
DJ	DOUBLE JOIST
DSP	DOUBLE STUD POCKET
EA	EACH
FL PT	FLAT PLATE
FTG	FOOTING
HGR	HANGER
LVL	LAMINATED VENEER LUMBER
NTS	NOT TO SCALE
OC	ON CENTER
PT	PRESSURE TREATED
RS	RAFTER SUPPORT
SC	STUD COLUMN
SP	STUD POCKET
TJ	TRIPLE JOIST
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE

EXTRA JOIST

#### STRUCTURAL DESIGN

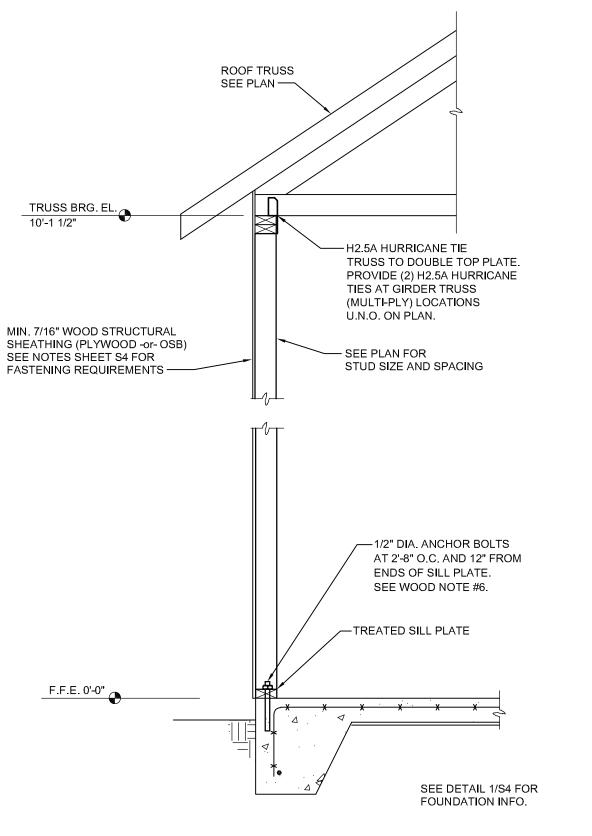




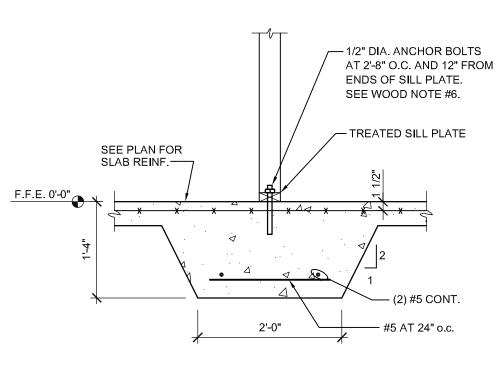


NOTES: 1. SAW JOINTS AS SOON AS CONCRETE WILL NOT RAVEL UNDER SAW BLADE. 2. ADD 20" LONG SMOOTH DOWELS WITH INSERTS AT ALL CONSTRUCTION JOINTS (IF USED). 3. CONTRACTOR'S OPTION TO CUT ALTERNATING WIRES AT JOINTS FOR ADDITIONAL CRACK

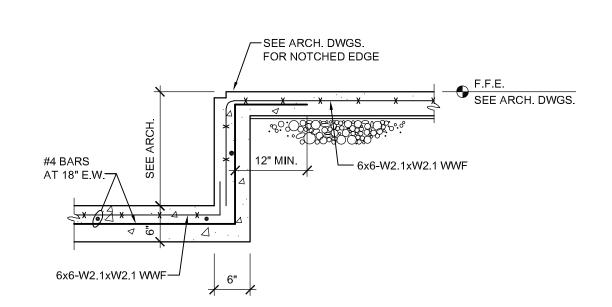
## DETAIL - TYP. SLAB CONTROL JOINT



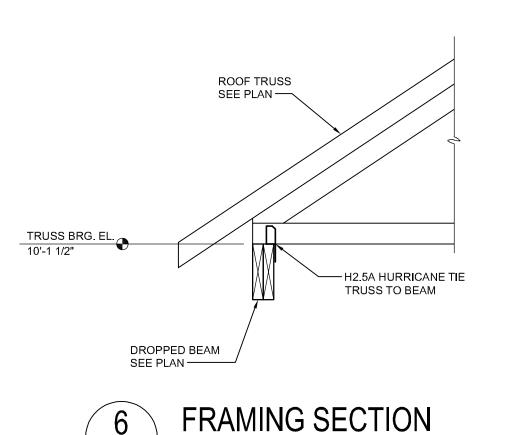


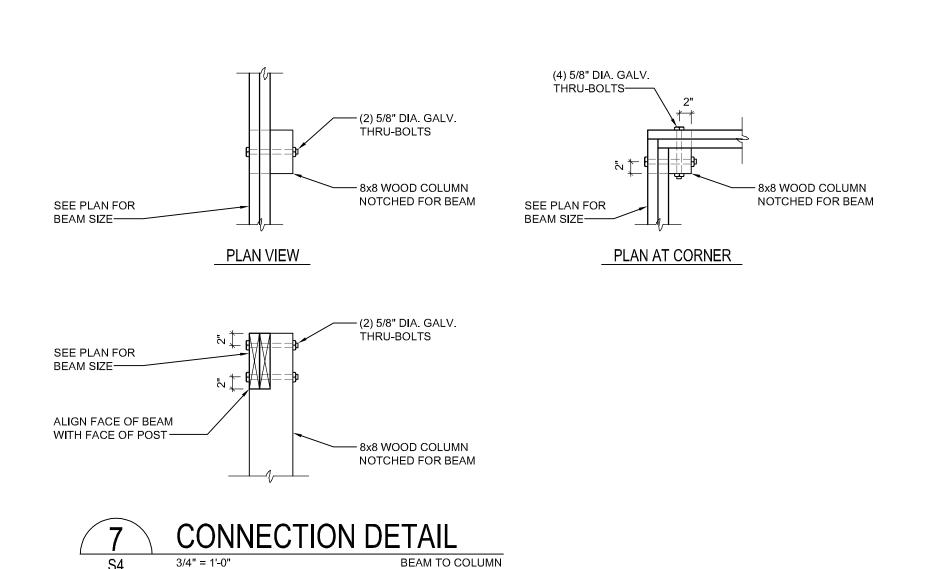






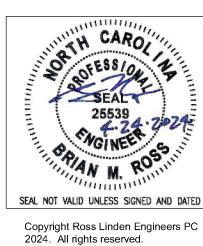












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### **STRUCTURAL NOTES AND DETAILS**

PROJECT #:	C240109
DATE ISSUED:	4/24/2024
DRAWING BY:	BR
CHECKED BY:	BR/JM

RIDG COUNTY BATH HOUS HARNETT

#### GENERAL PLUMBING NOTES:

#### ADMINISTRATIVE:

- 1. THE FOLLOWING ABBREVIATIONS SHALL APPLY TO NOTES AND PLANS:
  PC PLUMBING CONTRACTOR, EC ELECTRICAL CONTRACTOR,
  MC MECHANICAL CONTRACTOR, GC GENERAL CONTRACTOR,
  FASC FIRE ALARM SYSTEM CONTRACTOR.
- FASC FIRE ALARM SYSTEM CONTRACTOR.

  2. "PROVIDE" MEANS TO FURNISH AND INSTALL. THE PLUMBING
  CONTRACTOR SHALL ALSO INSTALL MATERIALS FURNISHED BY OTHERS
- AND THE GENERAL CONTRACTOR.

  3. THE PC SHALL BE RESPONSIBLE FOR A COMPLETE AND OPERATIONAL
- SYSTEM AS DESCRIBED BY THESE PLANS AND SPECIFICATIONS.

  4. ALL MATERIALS AND EQUIPMENT SHALL BE DELIVERED TO THE SITE AND UNLOADED AT AN APPROVED LOCATION. PC SHALL PROTECT ALL MATERIALS AND EQUIPMENT FROM BREAKAGE, THEFT, AND THE ELEMENTS. ALL MATERIALS AND EQUIPMENT SHALL REMAIN THE PROPERTY OF THE PC UNTIL THE PROJECT HAS BEEN COMPLETED AND TURNED OVER TO THE OWNER.
- 5. ALL MATERIALS USED SHALL BE NEW AND FREE OF DEFECTS. ANY MATERIALS FOUND TO BE DEFECTIVE SHALL BE REPLACED AT NO EXPENSE TO THE OWNER. ALL MATERIALS AND EQUIPMENT SHALL BEAR APPROVAL FROM UL OR AN APPROVED THIRD PARTY AGENCY. WHERE A MANUFACTURER AND MODEL NUMBER IS GIVEN, IT IS TO ESTABLISH A STANDARD OF QUALITY AND NOT TO LIMIT PRODUCTS TO A PARTICULAR MANUFACTURER. PRODUCTS DETERMINED TO BE EQUAL BY THE ENGINEER WILL BE ACCEPTED.
- 6. THE PLUMBING SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE 2018 NORTH CAROLINA PLUMBING CODE AND ANY APPLICABLE LOCAL CODES. WHERE A CONFLICT EXISTS BETWEEN THE ABOVE REQUIREMENTS, THE CONTRACTOR SHALL OBTAIN CLARIFICATION FROM THE ENGINEER OR IN THE EVENT ANY PART OF THESE PLANS CONFLICTS WITH THE ABOVE
- REQUIREMENTS.

  7. THE PC SHALL OBTAIN AND PAY FOR ALL PERMITS, FEES, AND INSPECTIONS NECESSARY FOR THE COMPLETION OF THE WORK UNDER
- THIS CONTRACT.

  8. DO NOT SCALE THESE DRAWINGS-REFER TO ARCHITECTURAL SHEETS FOR
- 9. THESE PLANS ARE DIAGRAMMATIC. THE PC SHALL ADJUST THE LOCATIONS OF EQUIPMENT, FIXTURES, PIPING, ETC, TO ACCOMMODATE PLANNED AND ENCOUNTERED INTERFERENCES. THE DRAWINGS DO NOT SHOW ALL BENDS, OFFSETS, AND FITTINGS THAT MAY BE REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM. THE PC SHALL MAKE ALLOWANCES FOR SUCH DEVIATIONS AND CONTINGENCIES IN BID TO IMPLEMENT THEM WITHOUT ADDITIONAL COST TO THE OWNER. THE PC SHALL VISIT THE SITE PRIOR TO BIDDING TO BECOME FAMILIAR WITH EXISTING CONDITIONS. CONTRACTOR SHALL CONTACT THE ENGINEER TO RESOLVE ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS AND THESE PLANS. TO AVOID POTENTIAL CONFLICTS, COORDINATE WITH OTHER TRADES PRIOR TO THE START OF CONSTRUCTION. ALL UNDERGROUND UTILITIES SHALL BE LOCATED PRIOR TO ANY DIGGING.
- 10. TRENCHING, COMPACTION, AND BACKFILL SHALL BE BY PC AND SHALL BE IN ACCORDANCE WITH SECTION 306 OF THE NC PLUMBING CODE.
  UNDERGROUND LINES SHALL BE LOCATED SUCH THAT THEY DO NOT ENDANGER FOOTINGS OR FOUNDATION WALLS.
- 11. THE PC SHALL PROVIDE FIRESTOPPING AT ALL PENETRATIONS OF RATED FLOOR/CEILING ASSEMBLIES AND RATED WALL ASSEMBLIES TO PRESERVE OR RESTORE THE FIRE RESISTANCE RATING. SEAL ALL PENETRATIONS USING A UL LISTED SYSTEM FOUND IN THE UL DIRECTORY SPECIFIC TO THE UL LISTING OF THE ASSEMBLY BEING PENETRATED. SEE ARCHITECTURAL PLANS FOR UL RATED ASSEMBLIES SPECIFIC TO THE
- 12. SYSTEM TESTING SHALL BE PERFORMED BY PLUMBING CONTRACTOR IN ACCORDANCE WITH NORTH CAROLINA PLUMBING CODE, SECTIONS 312.2, 312.3, AND 312.5.
- 13. PC SHALL DISINFECT THE ENTIRE DOMESTIC WATER PIPING SYSTEM IN ACCORDANCE WITH THE AMERICAN WATER WORKS ASSOCIATION'S SPECIFICATIONS AND LOCAL HEALTH DEPARTMENT REGULATIONS.
- 14. AT THE COMPLETION OF WORK AND PRIOR TO ACCEPTANCE BY OWNER, THE PC SHALL CLEAN ALL EXPOSED FIXTURES, MATERIALS, AND EQUIPMENT UNDER THIS CONTRACT.
- 15. PC SHALL COORDINATE WITH THE GENERAL CONTRACTOR TO ENSURE ALL APPLICABLE CONSTRUCTION WASTE IS RECYCLED DURING THE CONSTRUCTION PHASE OF THE PROJECT.

#### MATERIAL 1. ALL

- 1. ALL OVERHEAD DOMESTIC WATER PIPING SHALL BE TYPE L COPPER WITH 95/5 LEAD FREE SOLDER, AND ALL BELOW GRADE WATER PIPING SHALL BE TYPE K COPPER WITH NO JOINTS. ALL PIPING SHALL HAVE MANUFACTURER'S NAME AND THE APPLICABLE STANDARD TO WHICH IT WAS MANUFACTURED CLEARLY MARKED ON EACH LENGTH. PIPING SHALL COMPLY WITH ASTM B-88. USE BRAZED JOINTS ON ALL COPPER PIPING 1-1/2 INCH AND LARGER. \*\*\* PC MAY USE PEX (ASTM F 877) WITH APPROVED FITTINGS (ASTM F 1807) WITH OWNER'S APPROVAL. \*\*\* CPVC PIPING (ASTM D 2846 OR ASTM F 441) WITH APPROVED FITTINGS (ASTM D 2846. ASTM F 438. OR ASTM F 439) MAY ALSO BE USED WHERE NOT LOCATED IN PLENUMS. ALL PLASTIC PIPE, FITTINGS, AND COMPONENTS SHALL BE THIRD PARTY CERTIFIED AS CONFORMING TO NSF 14. ALL PIPE AND PIPE FITTINGS, INCLUDING VALVES AND FAUCETS, USED IN THE WATER DISTRIBUTION SYSTEM SHALL HAVE A MAXIMUM LEAD CONTENT OF .25-PERCENT AND SHALL CONFORM TO NSF 61. HOT WATER DISTRIBUTION PIPE AND TUBING SHALL HAVE A MINIMUM PRESSURE RATING OF 100 PSI AT 180°F. COLD WATER DISTRIBUTION PIPE AND TUBING SHALL HAVE A MINIMUM PRESSURE RATING OF 160 PSI AT
- 73.4°F. DO NOT INSTALL PEX OR CPVC PIPING IN RETURN AIR PLENUMS.
   BALL VALVES SHALL HAVE BRASS BODY, FULL PORT, CHROME PLATED BALL, WITH TEFLON SEATS, 150 PSI WSP, AND COMPLY WITH MSS SP-110. GATE VALVES SHALL HAVE BRONZE BODY, CLASS 150, AND COMPLY WITH MSS SP-80, TYPE 2 STANDARD. VALVE BODY SHALL BE ASTM B 62, BRONZE WITH INTEGRAL SEAT AND UNION RING BONNET. ENDS SHALL BE THREADED OR SOLDER WITH COPPER-SILICON BRONZE STEM AND SOLID-WEDGE BRONZE DISC. INSTALL VALVES IN LOCATIONS THAT PERMIT EASY ACCESS WITHOUT DAMAGE TO BUILDING OR FINISHED MATERIALS; PROVIDE ACCESS DOORS IF REQUIRED. VALVES SHALL BE BY NIBCO, WATTS, OR STOCKHAM.
- 3. COLD WATER LINES SHALL BE INSULATED WITH 1/2 INCH THICK FIBROUS GLASS INSULATION WITH A FLAME DENSITY RATING LESS THAN 25 AND A SMOKE DENSITY RATING LESS THAN 50 WHEN TESTED IN ACCORDANCE WITH ASTM E 84. HOT WATER LINES UP TO 2 INCHES DIAMETER SHALL HAVE 1 INCH THICK INSULATION CONFORMING TO THE SAME STANDARD. PIPING LARGER THAN 2 INCHES SHALL RECEIVE 1-1/2 INCH THICK INSULATION. CLOSED CELL RUBBER INSULATION MEETING THE SMOKE AND FLAME RATINGS ABOVE MAY BE SUBSTITUTED FOR FIBROUS GLASS TYPE IF SO DESIRED. INSULATION INSTALLED ON PIPING OPERATING BELOW AMBIENT TEMPERATURES MUST HAVE A CONTINUOUS VAPOR RETARDER. ALL JOINTS, SEAMS AND FITTINGS MUST BE SEALED. ON SYSTEMS OPERATING ABOVE AMBIENT, THE BUTT JOINTS SHOULD NOT BE SEALED. ON COLD SURFACES WHERE A VAPOR SEAL MUST BE MAINTAINED, INSULATION SHALL BE APPLIED WITH A CONTINUOUS, UNBROKEN MOISTURE AND VAPOR RETARDER. ALL HANGERS, SUPPORTS, ANCHORS, OR OTHER PROJECTIONS SECURED TO COLD SURFACES SHALL BE INSULATED AND VAPOR SEALED TO PREVENT CONDENSATION. ALL PIPE INSULATION SHALL BE CONTINUOUS THROUGH WALLS, CEILING OR FLOOR OPENINGS, OR SLEEVES EXCEPT WHERE FIRESTOP OR FIRESAFING MATERIALS ARE REQUIRED. INSULATION SHALL HAVE A FACTORY APPLIED

ALL-SERVICE JACKET WITH SELF-SEALING LAP. WHITE-KRAFT PAPER

- BONDED TO ALUMINUM FOIL AND REINFORCED WITH GLASS FIBERS; CONFORMING TO ASTM C 1136 TYPE 1; VAPOR RETARDER; WITH A SELF-SEALING ADHESIVE. VERIFY THAT PIPING HAS BEEN TESTED, SURFACES ARE CLEAN AND DRY, AND ALL FOREIGN MATERIALS ARE REMOVED BEFORE APPLYING INSULATION MATERIALS. INSULATION SHALL BE BY KNAUF, ARMACELL, JOHNS-MANVILLE, OR OWENS-CORNING.
- 4. ALL INSULATION CONTAINING FIBROUS MATERIALS EXPOSED TO AIRFLOW SHALL BE RATED FOR THAT EXPOSURE OR SHALL BE ENCAPSULATED. INSULATING PROPERTIES FOR ALL MATERIALS SHALL MEET OR EXCEED INDUSTRY STANDARDS. POLYSTYRENE PRODUCTS SHALL MEET ASTM C578 91. ALL INSULATION SHALL BE LOW-EMITTING WITH NOT GREATER THAN 0.05 PPM FORMALDEHYDE EMISSIONS. THE MAXIMUM FLAME SPREAD AND SMOKE DEVELOPED INDEX FOR INSULATION SHALL MEET THE REQUIREMENTS OF THE LOCAL CODES AND ORDINANCES ADOPTED BY THE JURISDICTION IN WHICH THE BUILDING IS LOCATED.
- 5. FAUCETS AND FIXTURE FITTINGS SHALL CONFORM TO ASME A112.18.1.
  FAUCETS AND FIXTURE FITTINGS THAT SUPPLY DRINKING WATER FOR
  HUMAN CONSUMPTION SHALL CONFORM TO THE REQUIREMENTS OF NSF
  61, SECTION 9. FIXTURE FITTINGS, FAUCETS, AND DIVERTERS SHALL BE
  INSTALLED AND ADJUSTED SO THAT THE FLOW OF HOT WATER FROM THE
  FITTINGS CORRESPONDS TO THE LEFT HAND SIDE OF THE FIXTURE FITTING.
- 6. BACKFLOW PREVENTION SHALL BE IN ACCORDANCE WITH SECTION 608.13 OF THE NC PLUMBING CODE AND THE LOCAL AUTHORITY HAVING JURISDICTION. REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTERS SHALL CONFORM TO ASSE 1013 OR AWWA C511. THE RELIEF OPENING SHALL DISCHARGE BY AIR GAP. AIR GAPS SHALL COMPLY WITH ASME A112.1.1 AND AIR GAP FITTINGS WITH ASME A112.1.3. DOUBLE CHECK VALVE ASSEMBLIES SHALL CONFORM TO ASSE 1015 OR AWWA C510. ACCESS TO BACKFLOW PREVENTERS SHALL BE PROVIDED AS SPECIFIED BY
- THE INSTALLATION INSTRUCTIONS OF THE APPROVED MANUFACTURER.

  7. FOR BELOW GRADE SANITARY WASTE PIPING, PC SHALL USE SERVICE WEIGHT CAST IRON PIPE WITH COMPRESSION JOINTS (ASTM A 74). USE MINIMUM 2 INCH SIZE UNDERGROUND. SOLID WALL SCHEDULE 40 PVC (ASTM D 2665) WITH SCHEDULE 40 SOCKET TYPE PIPE FITTINGS (ASTM D 3311) MAY ALSO BE USED. DO NOT USE PVC PIPE FOR APPLICATIONS WHERE THE WASTE WATER TEMPERATURE EQUALS OR EXCEEDS 140°F OR
- IF THE BUILDING HEIGHT EXCEEDS 75 FEET.

  8. FOR ABOVE GRADE SANITARY WASTE AND VENT PIPING, USE SERVICE WEIGHT CAST IRON NO-HUB TYPE WITH COUPLINGS (CISPI 301). SOLID WALL SCHEDULE 40 PVC (ASTM D 2665) WITH SCHEDULE 40 SOCKET TYPE FITTINGS (ASTM D 3311) MAY BE USED IF PERMITTED BY LOCAL CODE, EXCEPT IN BUILDINGS EXCEEDING 75 FEET IN HEIGHT. DO NOT INSTALL PVC IN RETURN AIR PLENUMS. ALL VENT AND BRANCH VENT PIPES SHALL BE SO GRADED AND CONNECTED AS TO DRAIN BACK TO THE DRAINAGE PIPE BY GRAVITY. BRANCH VENTS EXCEEDING 40 FEET IN DEVELOPED LENGTH SHALL BE INCREASED BY ONE NOMINAL SIZE FOR THE ENTIRE DEVELOPED LENGTH OF THE PIPE.
- PC SHALL PROVIDE ALL WATER HEATERS (WATTAGE/INPUT AND CAPACITY
  AS NOTED IN SCHEDULE). ALL WATER HEATERS SHALL BE THIRD PARTY
  CERTIFIED; PROVIDE PANS FOR WATER HEATERS IN ACCORDANCE WITH
  504.7 OF THE NC PLUMBING CODE. ELECTRICAL CONNECTIONS SHALL BE
  BY ELECTRICAL CONTRACTOR, PC SHALL COORDINATE WITH EC ON
  ELECTRICAL CHARACTERISTICS OF THE EQUIPMENT PROVIDED.
   ALL PUMPS SHALL BE RATED FOR TRANSPORT OF POTABLE WATER. PUMPS
  IN AN INDIVIDUAL WATER SUPPLY SYSTEM SHALL BE CONSTRUCTED AND
  INSTALLED SO AS TO PREVENT CONTAMINATION FROM ENTERING THE

#### METHODS:

WATER SUPPLY SYSTEM.

- 1. EXTEND DOMESTIC WATER PIPE FROM FIVE (5) FEET OUTSIDE THE BUILDING INTO THE BUILDING AS INDICATED ON THE PLANS AND INSTALL DOMESTIC WATER DISTRIBUTION PIPING TO ALL FIXTURES AND EQUIPMENT REQUIRING THE SAME. WATER SERVICE PIPE AND THE BUILDING SEWER SHALL BE SEPARATED BY 5 FEET OF UNDISTURBED OR COMPACTED EARTH IN ACCORDANCE WITH 603.2. PROVIDE ALL FITTINGS, VALVES, AND OTHER ACCESSORIES AS NECESSARY FOR A COMPLETE INSTALLATION. ALL DOMESTIC WATER PIPING SHALL BE CONCEALED IN FINISHED AREAS. ANY OPEN ENDS SHALL BE PROTECTED UNTIL FINAL CONNECTIONS ARE MADE.
- 2. ABOVE GRADE DOMESTIC WATER PIPING SHALL BE SLOPED AT A MINIMUM OF 1/32 INCH PER FOOT AND ARRANGED TO DRAIN AT LOW POINTS. INSTALL PIPING TO ALLOW FOR EXPANSION AND CONTRACTION WITHOUT STRESSING PIPE, JOINTS, OR CONNECTED EQUIPMENT. ROUTE PIPING IN AN ORDERLY MANNER-PARALLEL OR PERPENDICULAR TO WALLS WHEN POSSIBLE-AND MAINTAIN GRADIENT. EACH SUPPLY BRANCH LINE SERVING MORE THAN ONE FIXTURE SHALL HAVE A SHUTOFF VALVE INSTALLED TO ISOLATE ALL FIXTURES AND PIECES OF EQUIPMENT SUPPLIED BY THE BRANCH LINE. THE SHUTOFF VALVE SHALL BE LABELED AND LOCATED AS CLOSE TO THE CONNECTION TO THE SUPPLY MAIN AND RISER AS POSSIBLE. PROVIDE A FULL-OPEN VALVE ON THE BASE OF EVERY WATER RISER PIPE AND ON THE TOP OF EVERY WATER DOWN-FEED PIPE. PROVIDE VALVE HANDLE EXTENSIONS AS NECESSARY FOR INSULATION.
- 3. IT SHALL BE THE RESPONSIBILITY OF THE PC TO SUSPEND AND SUPPORT ALL PIPING SYSTEMS FOLLOWING RECOGNIZED ENGINEERING PRACTICES AND USING STANDARD, COMMERCIALLY ACCEPTED PIPE HANGERS AND SUSPENSION EQUIPMENT. ALL FIXTURES, DEVICES, AND EQUIPMENT SHALL BE SECURELY MOUNTED TO THE BUILDING STRUCTURE AND SHALL NOT RELY ON CEILING OR WALL SURFACES FOR SUPPORT. THE SUPPORT ATTACHMENT SHALL SUPPORT THE WEIGHT OF THE FIXTURE OR EQUIPMENT PLUS THE WEIGHT OF THE SUPPORT ATTACHMENT ITSELF. SUPPORT FROM THE TOP CHORD OF THE ROOF JOISTS, GIRDERS, AND BEAMS. THE BOTTOM CHORD IS NOT TO BE USED FOR EQUIPMENT AND PIPING SUPPORT. HANGERS SHALL NOT BE ATTACHED TO CORRUGATED STEEL DECKING. USE STEEL HANGERS FOR STEEL AND PLASTIC PIPE AND COPPER OR COPPER-PLATED HANGERS FOR COPPER PIPE. PROVIDE PROTECTION FOR COPPER PIPING IN CONTACT WITH DISSIMILAR METALS. WHERE COPPER PIPING IS SUPPORTED ON HANGERS WITH OTHER PIPING, PROVIDE A PERMANENT ELECTROLYTIC ISOLATION MATERIAL TO PREVENT CONTACT WITH OTHER METALS. IN GENERAL, HANGERS SHALL BE CLEVIS TYPE, STANDARD WEIGHT. FOR PIPING, HANGER SPACING SHALL BE IN ACCORDANCE WITH TABLE 308.5 OF THE NC PLUMBING CODE. HANGERS
- AND ACCESSORIES SHALL BE GRINNEL, MASON, OR B-LINE. 4. SLEEVE ALL PIPES PASSING THROUGH PARTITIONS, WALLS, AND FLOORS. SLEEVES IN FLOORS AND INTERIOR WALLS OF POURED IN PLACE CONCRETE, BRICK, TILE, OR MASONRY SHALL BE SCHEDULE 40 STEEL PIPE MACHINE CUT. SLEEVES IN GYPSUM BOARD WALLS SHALL BE 22 GAUGE, ROLLED GALVANIZED SHEET METAL. TACK WELD ON THE LONGITUDINAL SEAM. PROVIDE SLEEVES WHERE PIPES PASS THROUGH FLOORS AND WALLS ABOVE AND BELOW CEILINGS. PROVIDE SPLIT PIPE SLEEVES IN NEW WALLS BUILT UP AROUND EXISTING PIPES. TACK WELD SPLIT SLEEVES TOGETHER. SLEEVES IN WALLS SHALL BE INSTALLED FLUSH WITH THE WALL. SLEEVES IN FLOORS SHALL EXTEND 3/4 INCH ABOVE THE FLOOR-EXCEPT THEY SHALL BE FLUSH FOR 2 HOUR RATED FLOORS-AND SHALL BE FLUSH WITH THE STRUCTURE BELOW. EACH SLEEVE SHALL HAVE AN INSIDE DIAMETER 1 INCH LARGER THAN THE OUTSIDE DIAMETER OF THE COVERING OF EACH COVERED PIPE TO ALLOW CONTINUOUS INSULATION-BUT NOT LESS THAN TWO PIPE SIZES LARGER THAN EACH UNCOVERED. ANNULAR SPACES BETWEEN SLEEVES AND PIPES SHALL BE FILLED OR CAULKED IN AN APPROVED MANNER.
- 5. THE TOP OF WATER PIPES INSTALLED BELOW GRADE OUTSIDE THE
  BUILDING SHALL BE BELOW THE FROST LINE OR A MINIMUM OF 12
  INCHES BELOW FINISHED GRADE WHICHEVER IS GREATER. WATER PIPING
  INSTALLED IN A WALL EXPOSED TO THE EXTERIOR SHALL BE LOCATED ON

- THE HEATED SIDE OF THE WALL INSULATION. WATER PIPING INSTALLED IN AN UNCONDITIONED UTILITY ROOM OR UNCONDITIONED ATTIC SHALL BE INSULATED TO A MINIMUM OF R6.5 DETERMINED IN ACCORDANCE WITH ASTM C 177.
- 6. HOT WATER PROVIDED TO PUBLIC HAND-WASHING FACILITIES/LAVATORIES SHALL BE TEMPERED WATER DELIVERED THROUGH AN APPROVED WATER-TEMPERATURE LIMITING DEVICE THAT CONFORMS TO ASSE 1070 OR CSA B125.3.
- INSULATE ALL EXPOSED WASTE AND SUPPLY PIPING UNDER LAVATORIES, SINKS, AND ELECTRIC WATER COOLERS WITH THE HANDI-LAV GUARD INSULATION KIT BY TRUEBRO OR EQUAL.
- 8. POTABLE WATER OUTLETS SHALL BE PROTECTED FROM BACKFLOW IN ACCORDANCE WITH 608.15. PRESSURE TYPE VACUUM BREAKERS SHALL CONFORM TO ASSE 1020 AND SPILPROOF VACUUM BREAKERS SHALL COMPLY WITH ASSE 1056. HOSE-CONNECTION VACUUM BREAKERS SHALL CONFORM TO ASSE 1011, ASSE 1019, ASSE 1035, OR ASSE 1052. CONNECTIONS TO BEVERAGE DISPENSERS, COFFEE MACHINES, AND NON-CARBONATED BEVERAGE DISPENSERS SHALL BE PROTECTED BY A BACKFLOW PREVENTER IN ACCORDANCE WITH ASSE 1022.
- 9. THE PC SHALL INSTALL WATER HAMMER ARRESTORS ON BRANCH LINES WITH QUICK CLOSING VALVES PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. WATER HAMMER ARRESTORS SHALL CONFORM TO ASSE
- 10. THE PC SHALL PROVIDE CHECK VALVES AT ALL FIXTURES WITH THREADED OUTLETS AS REQUIRED BY CODE. TRAP PRIMERS SHALL BE PROVIDED AS SHOWN ON THE PLANS OR AS REQUIRED.
   11. ADJUST STOPS AND VALVES FOR INTENDED FLOW RATE TO FIXTURES
- WITHOUT SPLASHING, NOISE, OR OVERFLOW.

  12. BEFORE COMMENCING WORK, CHECK INVERT ELEVATIONS REQUIRED FOR SEWER CONNECTIONS, CONFIRM INVERTS, AND VERIFY THESE CAN BE PROPERLY CONNECTED TO WITH SLOPE FOR DRAINAGE AND COVER TO AVOID FREEZING. ONCE INVERTS AND FALL HAVE BEEN ESTABLISHED, EXTEND SANITARY SEWER PIPING TO 5 FEET OUTSIDE THE BUILDING AND INSTALL ALL DRAINS, STACKS, VENTS, FLOOR DRAINS, AND CLEANOUTS NECESSARY FOR A COMPLETE INSTALLATION.
- 13. ALL SANITARY SEWER PIPING IS BELOW GRADE OR WITHIN WALLS UNLESS OTHERWISE NOTED. ALL SANITARY VENT PIPING IS ABOVE THE CEILING OR WITHIN WALLS UNLESS OTHERWISE NOTED. SOIL AND WASTE PIPING SHALL BE INSTALLED TO PROVIDE PROTECTION AGAINST FREEZING PER 305.6.1. WASTE AND SOIL LINES LEAVING THE BUILDING MUST HAVE A MINIMUM COVER OF 3 INCHES.
- 14. SOIL AND WASTE LINES 2-1/2 INCHES AND SMALLER SHALL BE SLOPED AT 1/4 INCH PER FOOT MINIMUM. SOIL AND WASTE LINES 3 INCHES TO 6 INCHES IN DIAMETER SHALL BE SLOPED AT 1/8 INCH PER FOOT MINIMUM. 15. FOR WATER CLOSET WASTE CONNECTIONS, A 4 INCH BY 3 INCH CLOSET
- BEND SHALL BE ACCEPTABLE. WHERE A 3 INCH BEND IS UTILIZED ON WATER CLOSETS, A 4 INCH BY 3 INCH FLANGE SHALL BE INSTALLED TO RECEIVE THE FIXTURE HORN.

  16. FOR PLASTIC PIPE SIZES GREATER THAN 6 INCHES, AND OTHER PIPE SIZES GREATER THAN 4 INCHES, RESTRAINTS SHALL BE PROVIDED FOR DRAIN PIPES AT ALL CHANGES IN DIAMETER.
- GREATER THAN 4 INCHES, RESTRAINTS SHALL BE PROVIDED FOR DRAIN PIPES AT ALL CHANGES IN DIRECTION AND AT ALL CHANGES IN DIAMETER GREATER THAN TWO PIPE SIZES. BRACES, BLOCKS, RODDING, BACKFILL AND OTHER SUITABLE METHODS AS SPECIFIED BY THE COUPLING MANUFACTURER SHALL BE UTILIZED.
- 17. BASES OF STACKS SHALL BE SUPPORTED BY THE BUILDING STRUCTURE, VIRGIN OR COMPACTED EARTH, OR OTHER SUITABLE MATERIAL TO SUPPORT THE WEIGHT OF THE PIPING.
- 18. HORIZONTAL DRAIN PIPES SHALL HAVE CLEANOUTS IN ACCORDANCE WITH 708.10. EXTEND CLEANOUTS TO FINISHED FLOOR OR WALL SURFACE. LUBRICATE THREADED CLEANOUT PLUGS WITH A MIXTURE OF GRAPHITE AND LINSEED OIL. ENSURE CLEARANCE AT ALL CLEANOUTS FOR RODDING OF DRAINAGE SYSTEM. INSTALL FLOOR CLEANOUTS AT AN ELEVATION TO ACCOMMODATE FINISHED FLOOR. EVERY CLEANOUT SHALL BE INSTALLED TO ALLOW CLEANING IN THE DIRECTION OF FLOW OF THE DRAINAGE PIPE OR AT RIGHT ANGLES THERETO. CLEANOUTS ON 6 INCH AND SMALLER PIPES SHALL BE PROVIDED WITH A CLEARANCE OF NOT
- LESS THAN 18 INCHES FOR RODDING.

  19. DRAINAGE PIPING FOR FUTURE FIXTURES SHALL TERMINATE WITH AN APPROVED CAP OR PLUG.
- 20. AIR ADMITTANCE VALVES SHALL BE INSTALLED AFTER THE DWV TESTING REQUIRED BY SECTIONS 312.2 AND 312.3. PROVIDE ACCESS TO ALL AIR ADMITTANCE VALVES PER CODE. INSTALLATION OF ALL AIR ADMITTANCE VALVES SHALL CONFORM TO SECTION 917 OF THE NC PLUMBING CODE. AIR ADMITTANCE VALVES SHALL CONFORM TO ASSE 1050 OR 1051.
- 21.INDIRECT WASTE PIPING THAT EXCEEDS 2 FEET IN DEVELOPED LENGTH MEASURED HORIZONTALLY, OR 4 FEET IN TOTAL DEVELOPED LENGTH, SHALL BE TRAPPED. THE AIR GAP BETWEEN THE INDIRECT WASTE PIPE AND THE FLOOD LEVEL RIM OF THE WASTE RECEPTOR SHALL BE A MINIMUM OF TWICE THE EFFECTIVE OPENING OF THE INDIRECT WASTE
- 22. THE PC SHALL PROVIDE UNIONS FOR DISASSEMBLY AND SERVICE OF ALL FIXTURES AND OTHER RELEVANT PLUMBING EQUIPMENT. UNIONS SHALL BE GROUND-JOINT WITH BRASS SEAT. PROVIDE INSULATING UNIONS AT EACH JUNCTION OF DISSIMILAR MATERIALS.
- 23. THE PC SHALL ACCURATELY ROUGH-IN ALL FIXTURES ACCORDING TO MANUFACTURER'S INSTALLATION DIMENSIONS AND INSTRUCTIONS.

  OFFSET ADAPTERS AND FLEXIBLE CONNECTORS ARE NOT ACCEPTABLE.
  FLUSH HANDLES SHALL BE MOUNTED ON THE WIDE SIDE OF TOILET AREAS FOR ADA COMPLIANCE. INSTALL EACH FIXTURE WITH TRAP EASILY REMOVABLE FOR SERVICING AND CLEANING. SEAL FIXTURES TO WALL AND FLOOR SURFACES WITH SEALANT. SOLIDLY ATTACH WATER CLOSETS TO FLOOR WITH LAG SCREWS. SEAL ALL SELF-RIMMING LAVATORIES AND SINKS (VITREOUS CHINA AND STAINLESS STEEL) WITH A COMMERCIAL GRADE PLUMBER'S PUTTY OR ACRYLIC LATEX CAULK APPLIED TO THE UNDERSIDE OF THE FIXTURE RIM IN A GENEROUS AMOUNT SO THAT
- WHEN FIXTURE IS SET, SEALANT SHALL OOZE OUT.

  24. ALL VENT THRU THE ROOF (VTR) PENETRATIONS SHALL BE COORDINATED WITH THE GENERAL CONTRACTOR. PC SHALL PROVIDE FLASHING MATERIAL REQUIRED FOR VTRS. JOINTS AT THE ROOF AND AROUND VENT PIPES, SHALL BE MADE WATER TIGHT BY THE USE OF LEAD, COPPER, GALVANIZED STEEL, ALUMINUM, OR OTHER APPROVED FLASHINGS OR FLASHING MATERIAL. MAINTAIN MINIMUM 10 FEET FROM ALL OUTSIDE AIR INTAKES.

			PLUMBING FIXTURE SCHEDULE			
SYMBOL	FIXTURE	MANUFACTURER	FITTING	HW	CW	WASTE
P1	TWO PIECE TANK TYPE WATER CLOSET	KOHLER 4369 OR EQUAL BY AMERICAN STANDARD OR TOTO	TWO-PIECE VITREOUS CHINA TOILET WITH HIGH-PROFILE TANK, KOHLER K-5309 ELONGATED FRONT BOWL AND CHROME TRIP LEVER. 1.28 GPF. PROVIDE SC534 OPEN FRONT SEAT LESS COVER. ASME 112.19.2 COMPLIANCE.	-	1/2"	3"
P1H	TWO PIECE TANK TYPE ADA WATER CLOSET	KOHLER 4369 OR EQUAL BY AMERICAN STANDARD OR TOTO	TWO-PIECE VITREOUS CHINA TOILET WITH HIGH-PROFILE TANK, KOHLER K-5309 ELONGATED FRONT BOWL AND CHROME TRIP LEVER. 1.28 GPF. PROVIDE SC534 OPEN FRONT SEAT LESS COVER. ASME 112.19.2 COMPLIANCE. TOP OF SEAT SHALL BE 17-19 INCHES AFF FOR ADA. LEVER MOUNTED ON WIDE SIDE FOR ADA	-	1/2"	3"
P2	WALL MOUNT LAVATORY	AMERICAN STANDARD 9024001EC.020 OR EQUAL	VITREOUS CHINA LAVATORY WITH BACKSPLASH COMPLYING WITH ASME 112.19.2. TOP OF RIM SHALL BE 34 INCHES AFF FOR ADA. PROVIDE WITH LAV-GUARD PROTECTORS FOR SUPPLY AND DRAIN LINES. PROVIDE JR SMITH 0700 (CONCEALED ARMS) WITH 19" ARMS 0800 (WALL SUPPORT PLATE). USE A METERING TYPE FAUCET SIMILAR TO CHICAGO 3300-E280SAB (VERIFY EXACT FAUCET WITH OWNER).	1/2"	1/2"	2"
P2A	UNDER MOUNT LAVATORY	KOHLER K-20000 OR EQUAL BY AMERICAN STANDARD OR TOTO	VITREOUS CHINA SELF-RIMMING LAVATORY COMPLYING WITH ASME 112.19.2. MOUNT SO RIM IS 34 INCHES AFF AND 2 INCHES FROM FRONT EDGE FOR ADA. PROVIDE WITH LAV-GUARD PROTECTORS SUPPLY AND DRAIN LINES. USE A KOHLER K-103L77-SANL FAUCET (COORDINATE WITH EC FOR FAUCET POWER).	1/2"	1/2"	2"
P3	URINAL	KOHLER K-4991-ET OR EQUAL BY AMERICAN STANDARD OR TOTO	VITREOUS CHINA, WALL-MOUNTED, ADA COMPLIANT, LOW CONSUMPTION WASHOUT URINAL COMPLYING WITH ASME 112.19.2. 1 GPF. KOHLER K-76319 FLUSHOMETER VALVE OR EQUAL BY ZURN OR TOTO. TOP OF RIM SHALL BE 17 INCHES AFF FOR ADA.	-	3/4"	2"
P4	HAND SHOWER	AMERICAN STANDARD 1660.766 OR EQUAL	1.5 GPM 3-FUNCTION SHOWER W/ PAUSE FEATURE MEETING ADA AND ANSI 117.1, 90° WALL SUPPLY (AMERICAN STANDARD 8888.068), 59" MIN METAL SHOWER HOSE (AMERICAN STANDARD 8888.035), METERED SHOWER VALVE (SYMMONS 4-420), WALL SHOWER HEAD & DIVERTER (ZURN Z70000-12)(Z7000-DV-2P), AND ADJUSTABLE VERTICAL VALVE ROD. COORDINATE FINISH WITH OWNERS.	1/2"	1/2"	-
P5	DRINKING FOUNTAIN	ELKAY VRCTL8SC	ADA COMPLIANT FOR ADULT AND CHILD. 8.0 GPH OF 50°F WATER AT 90°F AMBIENT. PROVIDE ACCESSORY APRON FOR ADA COMPLIANCE AS NECESSARY. VANDAL AND FROST RESISTANT.	-	3/8"	2"
P6	FLOOR DRAIN	WATTS FD-200-A OR EQUAL BY ZURN OR JR SMITH	ON GRADE EPOXY COATED CAST IRON FLOOR DRAIN WITH ANCHOR FLANGE, WEEP HOLES, ADJUSTABLE ROUND NICKEL BRONZE STRAINER, AND NO HUB OUTLET. PROVIDE TRAP PRIMER CONNECTION OPTION IF NOTED.	-	-	3"
P7	FREEZEPROOF HOSE BIBB	ZURN Z1346 OR EQUAL BY WOODFORD OR MIFAB	EXPOSED NON-FREEZE ANTI-SIPHON AUTOMATIC DRAINING WALL FAUCET COMPLETE WITH EXTERIOR CHROME FINISH, BRASS CASING, ALL BRONZE INTERIOR PARTS, Z1399-VB ANTI-SIPHON INTEGRAL VACUUM BREAKER, OPERATING ROD WITH FREE FLOATING COMPRESSION CLOSURE VALVE, REPLACEABLE SEAT WASHER, COMBINATION 1/2 FEMALE SOLDER INLET AND 1/2 MALE IP INLET CONNECTION STANDARD, AND 3/4 MALE HOSE CONNECTION.	-	1/2	-
P8	INTERIOR HOSE BIBB	ZURN Z1341-BFP OR EQUAL BY MIFAB OR WOODFORD	PROVIDE CHECK VALVE AND ANTI-SIPHON PROTECTION IF NOT INTEGRAL TO UNIT		1/2"	
P9	3/4" RPZ BACKFLOW PREVENTER	WATTS LF909 QT OR EQUAL BY CONBRACO OR WILKINS	RPZ ASSEMBLY CONSISTING OF A PRESSURE DIFFERENTIAL RELIEF VALVE LOCATED IN A ZONE BETWEEN TWO POSITIVE SEATING CHECK VALVES. THE ASSEMBLY SHALL INCLUDE TWO TIGHTLY CLOSING SHUTOFF VALVES BEFORE AND AFTER THE ASSEMBLY, TEST COCKS AND A PROTECTIVE STRAINER UPSTREAM OF THE FIRST SHUTOFF VALVE. THE ASSEMBLY SHALL MEET THE REQUIREMENTS OF ASSE 1013 AND AWWA C511	-	3/4"	-
P10	1" RPZ BACKFLOW PREVENTER	WATTS LF909 QT OR EQUAL BY CONBRACO OR WILKINS	RPZ ASSEMBLY CONSISTING OF A PRESSURE DIFFERENTIAL RELIEF VALVE LOCATED IN A ZONE BETWEEN TWO POSITIVE SEATING CHECK VALVES. THE ASSEMBLY SHALL INCLUDE TWO TIGHTLY CLOSING SHUTOFF VALVES BEFORE AND AFTER THE ASSEMBLY, TEST COCKS AND A PROTECTIVE STRAINER UPSTREAM OF THE FIRST SHUTOFF VALVE. THE ASSEMBLY SHALL MEET THE REQUIREMENTS OF ASSE 1013 AND AWWA C511	-	1"	-
P11	EXPANSION TANK	AMTROL ST-5 OR EQUAL BY WATTS OR BELL & GOSSETT	INSTALL ON COLD WATER LINE BETWEEN WATER HEATER AND RPZ	-	3/4"	_
P12	THERMOSTATIC MIXING VALVE	WATTS LFMMV OR EQUAL BY LAWLER OR LEONARD VALVE	ASSE STANDARD 1069 OR 1070 APPROVED WITH 1/2 INCH FEMALE NPT INLET AND OUTLET CONNECTIONS, BRASS BODY, AND INTEGRAL MOUNTING HOLES. TAMPER RESISTANT THERMOPLASTIC ENCLOSURE. SINGLE REPLACEABLE CARTRIDGE DESIGN.	1/2"	1/2"	-
FC0	FLOOR CLEANOUT	ZURN, WATTS, JR SMITH	EPOXY COATED CAST IRON FLOOR CLEANOUT WITH ROUND ADJUSTABLE GASKETED NICKEL BRONZE TOP, REMOVABLE GAS TIGHT GASKETED BRASS CLEANOUT PLUG, AND NO HUB INLET.	_	-	4"
WC0	WALL CLEANOUT	ZURN, WATTS, OR JR SMITH	CAST IRON CLEANOUT FERRULE WITH THREADED BRASS COUNTERSUNK CLEANOUT PLUG, STAINLESS STEEL ACCESS COVER, AND VANDAL PROOF STAINLESS STEEL SCREW	_	-	4"

		PLUI	MBING LINES SIZ	ING TABLE					
FIXTURE TYPE	OCCUPANCY	QTY	DRAINAGE FIX	XTURE UNITS WATER SUPPLY FIXTURE UNITS		WATER SUPPLY FIXT			
			EACH	TOTAL	CW	HW	CW & HW	HW TOTAL	TOTAL
WATER CLOSET (FLUSH TANK)	PUBLIC	6	4.00	24.00	5.00	0.00	5.00	0.00	30.00
SHOWER	PUBLIC	1	2.00	2.00	3.00	3.00	4.00	3.00	4.00
LAVATORY	PUBLIC	5	1.00	5.00	1.50	1.50	2.00	7.50	10.00
URINAL (¾" FLUSH VALVE)	PUBLIC	1	2.00	2.00	5.00	0.00	5.00	0.00	5.00
DRINKING FOUNTAIN	PUBLIC	1	0.50	0.50	0.25	0.00	0.25	0.00	0.25
DEMAND FIXTURE	GPM	YTD	TOTAL GPM				TOTAL DFU	33	.5
HOSE BIBBS	5	4	20.00			T	OTAL WFSUs	10.5	49.3
							GPM	15.40	29.10
					(	OTHER FIX	TURES' GPM	0.00	20.00
							TOTAL GPM	15.40	49.10
	•								
MINIMUM BUILDING DRAIN SIZE	4"								
MINIMUM WATER LINE SIZE	1"								

ELECTRIC WATER HEATER SCHEDULE											
MARK MFG MODE			TANK VOL	INPUT	RECOVERY	SET POINT	POW	ER	CONNE	CTIONS	OPTIONS
	IVIFU	INIODEL	GALS	kW	GPH @ 60°ΔT	°F	VOLTAGE	PHASE	НОТ	COLD	UPITONS
WH-1	STATE	ES6-20-SOMS	20	4.5	30	110	240	1	3/4	3/4	1-5

- 1. PROVIDE GALVANIZED STEEL SAFETY PAN
- 2. UL 174 LISTED
- PROVIDE ASME LISTED TEMPERATURE AND PRESSURE RELIEF VALVE
   MEET OR EXCEED ENERGY FACTOR REQUIREMENTS OF ASHRAE 90.1-2007
- MEET OR EXCEED ENERGY FACTOR REQUIREMENTS OF AS
   OR EQUAL BY A.O. SMITH, BRADFORD WHITE, OR STATE

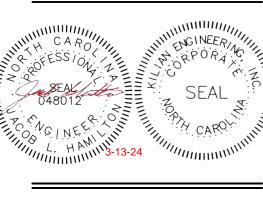
SHOWER HEAD EQ.— TO 'ZURN' 66186	-@
1" X 4" BUILT-UP E.I.F.S. TRIM AROUND SHOWER	
E.I.F.S SIDING w/ SMOOTH- FINISH @ SHOWER	
ADA SHOWER HEAD EQ. TO 'ZURN' Z7000-i2	<del>-</del> @
DIVERTER VALVE EQ. TO 'ZURN' Z7000-DV -2P	
METERED VALVE— EQ. TO 'ZURN' Z7130	

1011.7 OUTDOOR RINSE SHOWERS. OUTDOOR RINSING SHOWERS SHALL PROVIDE AT LEAST TWO FIXED SHOWER HEADS. ONE FIXED SHOWER HEAD SHALL BE 48 INCHES (1220 MM) MINIMUM AND 54 INCHES (1370 MM) MAXIMUM ABOVE THE GROUND SURFACE, AND ONE FIXED SHOWER HEAD SHALL BE 72 INCHES (1830 MM) MINIMUM ABOVE THE GROUND SURFACE.

EXCEPTION: A HAND HELD SHOWER SPRAY UNIT COMPLYING WITH 608.6 SHALL BE PERMITTED INSTEAD OF THE FIXED SHOWER HEAD 48 INCHES (1220 MM) MINIMUM AND 54 INCHES (1370 MM) MAXIMUM ABOVE GROUND SURFACE

D.CLUGSTON





Engineering, Inc.

DATE DATE

PLUMBING
NOTES AND
SCHEDULES

PROJECT #: 230949

DATE ISSUED: 02/19/2024

DRAWING BY: JH

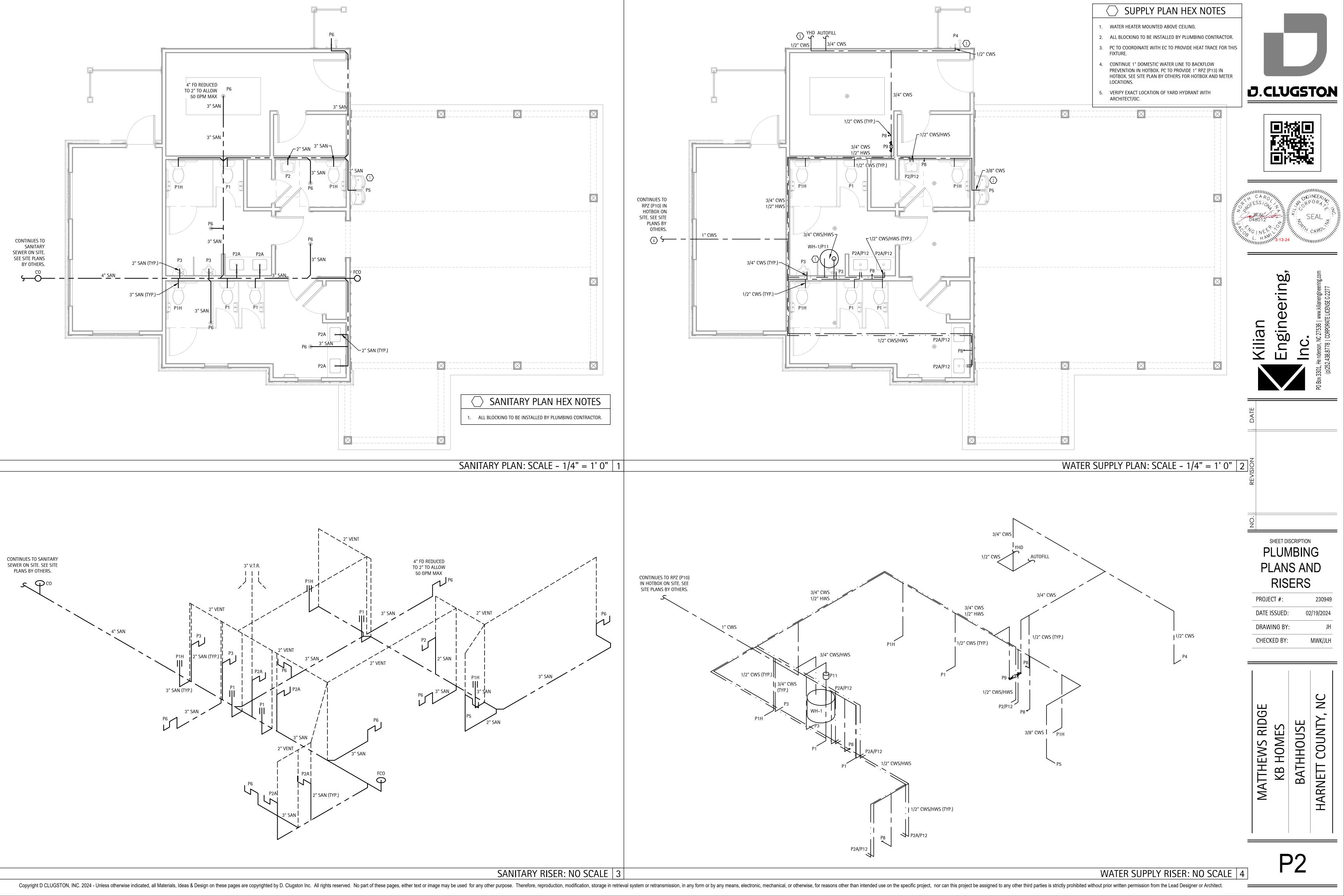
CHECKED BY: MWK/JLH

KB HOMES

BATHHOUSE

RNETT COUNTY, NC

P1



#### **GENERAL MECHANICAL NOTES:**

- 1. THE FOLLOWING ABBREVIATIONS SHALL APPLY TO NOTES AND PLANS: PC - PLUMBING CONTRACTOR, EC - ELECTRICAL CONTRACTOR, MC - MECHANICAL CONTRACTOR, GC - GENERAL CONTRACTOR, FASC - FIRE ALARM SYSTEM CONTRACTOR.
- 2. "PROVIDE" MEANS TO FURNISH AND INSTALL, MC SHALL ALSO INSTALL MATERIALS FURNISHED BY OTHERS AND GENERAL CONTRACTOR AS SHOWN
- ON THE PLANS OR NECESSARY FOR A COMPLETE INSTALLATION. 3. THE MC SHALL BE RESPONSIBLE FOR A COMPLETE AND OPERATING SYSTEM
- AS DESCRIBED BY THESE PLANS AND SPECIFICATIONS. 4. ALL MATERIALS AND EQUIPMENT SHALL BE DELIVERED TO THE SITE AND UNLOADED BY THE CONTRACTOR AT AN APPROVED LOCATION. THE MC SHALL PROTECT ALL MATERIALS AND EQUIPMENT FROM BREAKAGE, THEFT, AND THE ELEMENTS. ALL MATERIALS AND EQUIPMENT SHALL REMAIN THE PROPERTY OF THE MC UNTIL THE PROJECT HAS BEEN COMPLETED AND
- TURNED OVER TO THE OWNER. THE MC SHALL INSTALL ALL MATERIALS AND EQUIPMENT IN ACCORDANCE WITH THE 2018 NORTH CAROLINA MECHANICAL AND BUILDING CODES AND ANY APPLICABLE LOCAL CODES. WHERE A CONFLICT EXISTS BETWEEN THE ABOVE REQUIREMENTS, THE MC SHALL OBTAIN CLARIFICATION FROM THE ENGINEER OR IN THE EVENT ANY PART OF THESE PLANS CONFLICTS WITH THE ABOVE REQUIREMENTS.
- 6. THE MC SHALL OBTAIN AND PAY FOR ALL PERMITS, FEES, AND INSPECTIONS NECESSARY FOR THE COMPLETION OF THE WORK UNDER THIS CONTRACT.
- 7. DO NOT SCALE THESE DRAWINGS-REFER TO ARCHITECTURAL SHEETS FOR DIMENSIONS.
- 8. THE MC SHALL VISIT THE SITE PRIOR TO BIDDING TO BECOME FAMILIAR WITH EXISTING CONDITIONS. THE MC SHALL CONTACT THE ENGINEER TO RESOLVE ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS AND THESE PLANS. THE MC SHALL COORDINATE WITH OTHER TRADES PRIOR TO THE START OF CONSTRUCTION.
- 9. ALL MECHANICAL MATERIALS SHALL BE NEW AND FREE OF DEFECT AND LISTED AND LABELED BY UL OR AN APPROVED THIRD PARTY AGENCY. ANY MATERIALS FOUND TO BE DEFECTIVE SHALL BE REPLACED BY THE MC WITHOUT ADDITIONAL COST TO THE OWNER. WHERE A MANUFACTURER AND MODEL NUMBER IS GIVEN, THE CITED EXAMPLE IS INTENDED TO ESTABLISH A STANDARD OF QUALITY AND NOT TO LIMIT PRODUCTS TO A PARTICULAR MANUFACTURER. SUCH EXAMPLES ARE USED TO CONVEY A GENERAL STYLE, TYPE, CHARACTER, AND QUALITY OF THE PRODUCT DESIRED; PRODUCTS DETERMINED TO BE EQUAL BY THE ENGINEER WILL BE
- 10. THESE PLANS ARE DIAGRAMMATIC. THE MC SHALL ADJUST THE LOCATIONS OF EQUIPMENT, DUCTS, REGISTERS, GRILLES, ETC, TO ACCOMMODATE PLANNED AND ENCOUNTERED INTERFERENCES. THE DRAWINGS DO NOT SHOW ALL BENDS, OFFSETS, AND FITTINGS THAT MAY BE REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM. THE MC SHALL MAKE ALLOWANCES FOR SUCH DEVIATIONS AND CONTINGENCIES IN BID TO IMPLEMENT THEM WITHOUT ADDITIONAL COST TO THE OWNER.
- 11. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL POWER CONNECTIONS TO THE MECHANICAL EQUIPMENT. MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONTROL WIRING.
- 12. IT IS THE MC'S RESPONSIBILITY TO VERIFY THAT ITEMS FURNISHED FOR THIS CONTRACT WILL FIT IN THE SPACE AVAILABLE. THE MC SHALL MAKE FIELD MEASUREMENTS AS NECESSARY TO DETERMINE SPACE REQUIREMENTS. IF THE MC MUST ALTER EQUIPMENT DUE TO SPACE CONSIDERATIONS, THE MC SHALL PROVIDE SIZES AND SHAPES THAT FIT THE INTENT OF THESE
- DRAWINGS AND SPECIFICATIONS. 13. MC SHALL COORDINATE WITH THE ELECTRICAL CONTRACTOR REGARDING THE ELECTRICAL REQUIREMENTS OF ALL EQUIPMENT BEING PROVIDED.
- 14. MAINTAIN CLEARANCES FOR ALL EQUIPMENT ACCORDING TO MANUFACTURER'S RECOMMENDATIONS FOR SERVICEABILITY. ALL ROOFTOP EQUIPMENT MUST BE A MINIMUM OF 10 FEET FROM ROOF EDGE.
- 15. MC SHALL FURNISH A BOUND SFT OF OPERATING AND MAINTENANCE INSTRUCTIONS FOR ALL EQUIPMENT TO THE OWNER UPON COMPLETION OF THE PROJECT. MC SHALL PROVIDE ALL DOCUMENTATION TO THE OWNER AS NECESSARY TO SUBMIT FOR FACTORY WARRANTIES.
- 16. CONTRACTOR SHALL PROTECT ALL HVAC EQUIPMENT FROM CONSTRUCTION AND SHEET ROCK DUST DURING CONSTRUCTION. ALL FILTERS SHALL BE REPLACED WITH NEW AT THE COMPLETION OF THE PROJECT.
- 17. ALL FOUIPMENT INSTALLED ON ROOF MUST BE WITHIN THE ROOF SCREEN. 18. IF A ROOF PENETRATION IS REQUIRED AND THE ROOF IS UNDER WARRANTY, USE THE AUTHORIZED ROOFER, PROVIDE DOCUMENTATION.
- 19. ALL PIPING, WIRING, CONDUIT, INSULATION, EQUIPMENT, SUPPORTS, ETC. SHALL BE SUITABLE FOR INSTALLATION IN A RETURN PLENUM AS NECESSARY. COORDINATE WITH OTHER TRADES ON LOCATIONS OF ALL
- 20. MC SHALL COORDINATE WITH THE GENERAL CONTRACTOR TO ENSURE ALL APPLICABLE CONSTRUCTION WASTE IS RECYCLED DURING THE CONSTRUCTION PHASE OF THE PROJECT.

#### MATERIALS:

- 1. THE MC SHALL PROVIDE ALL DX UNITARY HEATING AND COOLING EQUIPMENT AS SCHEDULED ON THE DRAWINGS. THE MC SHALL PROVIDE FACTORY AND FIELD INSTALLED ACCESSORIES AS SCHEDULED OR AS NECESSARY FOR A COMPLETE AND OPERATIONAL HVAC SYSTEM. THE MC SHALL PROVIDE ALL EXHAUST AND SUPPLY FANS AS SCHEDULED.
- FANS SHALL BE BY GREENHECK, LOREN COOK, TWIN CITY, OR PENNBARRY. 3. DUCTWORK IS SHOWN WITH FREE AREA DIMENSIONS. ALL DUCTWORK SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH SMACNA
- LOW PRESSURE DUCT STANDARD, 2 INCH S.P. 4. EXTERNAL DUCT INSULATION AND FACTORY-INSULATED FLEXIBLE DUCT SHALL BE LEGIBLY PRINTED OR IDENTIFIED AT INTERVALS NOT GREATER THAN 36 INCHES WITH THE NAME OF THE MANUFACTURER, THE THERMAL RESISTANCE R-VALUE AT THE SPECIFIED INSTALLED THICKNESS AND THE FLAME SPREAD AND SMOKE-DEVELOPED INDEXES OF THE COMPOSITE MATERIALS. ALL DUCT INSULATION PRODUCT R-VALUES SHALL BE BASED ON INSULATION ONLY, EXCLUDING AIR FILMS, VAPOR RETARDERS OR OTHER DUCT COMPONENTS, AND SHALL BE BASED ON TESTED C-VALUES AT 75°F MEAN TEMPERATURE AT THE INSTALLED THICKNESS, IN ACCORDANCE WITH RECOGNIZED INDUSTRY PROCEDURES. THE INSTALLED THICKNESS OF DUCT
- FOLLOWS: 4.1. FOR DUCT BOARD, DUCT LINER AND FACTORY-MADE RIGID DUCTS NOT NORMALLY SUBJECTED TO COMPRESSION, THE NOMINAL INSULATION THICKNESS SHALL BE USED
- 4.2. FOR DUCT WRAP, THE INSTALLED THICKNESS SHALL BE ASSUMED TO BE 75 PERCENT (25-PERCENT COMPRESSION) OF NOMINAL

INSULATION USED TO DETERMINE ITS R-VALUES SHALL BE DETERMINED AS

FOR FACTORY-MADE FLEXIBLE AIR DUCTS, THE INSTALLED THICKNESS SHALL BE DETERMINED BY DIVIDING THE DIFFERENCE BETWEEN THE ACTUAL OUTSIDE DIAMETER AND NOMINAL INSIDE DIAMETER BY TWO. 5. DUCT LINER MAY BE SUBSTITUTED FOR EXTERIOR DUCT WRAP. DUCT LINER

AND ASTM G 21. EXTERIOR DUCT R-VALUE SHALL BE R-8 AND INTERIOR R-VALUE SHALL BE R-6 IN ACCORDANCE WITH THE 2018 NORTH CAROLINA ENERGY CONSERVATION CODE. NOMINAL DUCT SIZES SHALL BE ADJUSTED AS NECESSARY SO THAT FREE AREA DIMENSIONS ARE PRESERVED AS SHOWN ON THE PLANS. FABRICATION AND INSTALLATION SHALL CONFORM TO THE MANUFACTURER'S INSTALLATION RECOMMENDATIONS AND TO THE REQUIREMENTS OF THE LATEST EDITION OF THE NORTH AMERICAN INSULATION MANUFACTURERS ASSOCIATION FIBROUS GLASS DUCT LINER STANDARDS AND/OR SMACNA HVAC DUCT CONSTRUCTION STANDARDS. DUCT LINER SHALL HAVE A BLACK PIGMENTED MAT ON THE AIRSTREAM

INSULATION MATERIALS SHALL MEET THE REQUIREMENTS OF ASTM C 1071,

SIDE TO RESIST DAMAGE DURING INSTALLATION AND SERVICE. EDGES SHALL BE FACTORY COATED WITH BLACK PIGMENTED COATING TO COMPLY WITH SMACNA DCS REQUIREMENTS. ALL PORTIONS OF DUCT DESIGNATED TO RECEIVE DUCT LINER SHALL BE COMPLETELY COVERED WITH DUCT LINER. TRANSVERSE JOINTS SHALL BE NEATLY BUTTED AND THERE SHALL BE NO INTERRUPTIONS OR GAPS. THE BLACK PIGMENTED OR MAT FACED SURFACES SHALL FACE THE AIRSTREAM. DUCT LINER SHALL BE ADHERED TO THE SHEET METAL WITH 90 PERCENT COVERAGE OF ADHESIVE COMPLYING WITH REQUIREMENTS OF ASTM C 916. ALL EXPOSED LEADING EDGES AND TRANSVERSE JOINTS SHALL BE FACTORY COATED OR COATED WITH ADHESIVE DURING FABRICATION. DUCT LINER SHALL BE ADDITIONALLY SECURED WITH MECHANICAL FASTENERS. EITHER WELD-SECURED OR IMPACT DRIVEN, WHICH SHALL COMPRESS THE DUCT LINER SUFFICIENTLY TO HOLD IT FIRMLY IN PLACE. ADHESIVE BONDED PINS ARE NOT PERMITTED DUE TO LONG-TERM ADHESIVE AGING CHARACTERISTICS. LININGS SHALL BE INTERRUPTED AT THE AREA OF OPERATION OF A FIRE DAMPER AND AT A

MINIMUM OF 6 INCHES UPSTREAM AND 6 INCHES DOWNSTREAM OF

ELECTRIC RESISTANCE AND FUEL-BURNING HEATERS IN A DUCT SYSTEM.

METAL NOSINGS OR SLEEVES SHALL BE INSTALLED OVER EXPOSED DUCT

COMPLETION OF INSTALLATION OF DUCT LINER AND BEFORE OPERATION IS

LINER IS PROPERLY INSTALLED. OPEN ALL SYSTEM DAMPERS AND TURN ON

TO COMMENCE, VISUALLY INSPECT SYSTEM AND VERIFY THAT THE DUCT

LINER THAT FACE OPPOSITE THE DIRECTION OF AIRFLOW. UPON

- FANS TO BLOW ALL SCRAPS AND OTHER LOOSE PIECES OF MATERIAL OUT OF THE DUCT SYSTEM. ALLOW FOR A MEANS OF REMOVAL OF SUCH MATERIAL 6. ALL INSULATION CONTAINING FIBROUS MATERIALS EXPOSED TO AIRFLOW SHALL BE RATED FOR THAT EXPOSURE OR SHALL BE ENCAPSULATED. INSULATING PROPERTIES FOR ALL MATERIALS SHALL MEET OR EXCEED INDUSTRY STANDARDS. POLYSTYRENE PRODUCTS SHALL MEET ASTM C578. ALL INSULATION SHALL HAVE FORMALDEHYDE EMISSIONS NOT GREATER THAN 0.05 PPM. THE MAXIMUM FLAME SPREAD AND SMOKE DEVELOPED INDEX FOR INSULATION SHALL MEET THE REQUIREMENTS OF THE LOCAL
- CODES AND ORDINANCES ADOPTED BY THE JURISDICTION IN WHICH THE BUILDING IS LOCATED. 7. MASTIC USED TO SEAL DUCTWORK SHALL BE LISTED AND LABELED IN ACCORDANCE WITH UL 181A-95 OR UL 181B-98. MAINTAIN AMBIENT TEMPERATURES AND CONDITIONS REQUIRED BY MANUFACTURER OF ADHESIVES, MASTICS, AND INSULATION CEMENTS. DO NOT INSTALL DUCT SEALANT WHEN TEMPERATURES ARE LESS THAT THOSE RECOMMENDED BY
- THE SEALANT MANUFACTURER. 8. ALL ADHESIVES AND SEALANTS SHALL HAVE VOC CONTENT BELOW 20 GRAMS PER LITER AND WHICH MEET THE REQUIREMENTS OF THE MANUFACTURER OF THE PRODUCTS BEING ADHERED OR INVOLVED. ADHESIVES AND SEALANTS SHALL CONTAIN NO HEAVY METALS OR FORMALDEHYDE.
- 9. FACTORY-MADE AIR DUCTS AND CONNECTORS SHALL COMPLY WITH UL 181-96.
- 10. FLEXIBLE DUCT SHALL BE UL LISTED CLASS 0 OR CLASS 1, INSULATED, AND COMPLY WITH UL 181. FLEXIBLE DUCT SHALL BE FACTORY FORMED, COMPOSED OF SPIRAL WOUND CORROSION RESISTANT WIRE BONDED TO AN INNER FABRIC LINER. DUCT SHALL BE FACTORY INSULATED WITH A FOIL VAPOR BARRIER JACKET. CONNECT TO RIGID DUCT WITH SPIN-IN FITTING AND DAMPER. FLEXIBLE DUCTS AND AIR CONNECTORS SHALL NOT PASS
- 11. THE MC SHALL PROVIDE ALL DIFFUSERS GRILLES, LOUVERS, AND OTHER AIR DISTRIBUTION OUTLETS AND INLETS. LOUVERS, GRILLES, AND DIFFUSERS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. FOR LAY-IN CEILINGS, INSTALL SUPPORT FROM THE STRUCTURE FOR EACH DIFFUSER OR DAMPER. AIR DISTRIBUTION OUTLETS AND INLETS SHALL BE BY HART & COOLEY, PRICE, METAL-AIRE, NAILOR, OR CARNES. 12. AIR FILTERS SHALL BE INSTALLED IN ACCORDANCE WITH SECTION 605 OF
- THE 2018 NC MECHANICAL CODE
- 13. THE MC SHALL PROVIDE ALL REFRIGERATION PIPING. ALL PIPE AND FITTINGS SHALL BE TYPE ACR HARD COPPER TUBING WITH SWEAT FITTINGS. REFRIGERATION LINES SHALL BE RUN NEATLY. WHERE A GROUP OF LINES ARE RUN. TRAPEZE HANGERS MAY BE USED. DO NOT USE CHAIN OR WIRE HANGERS. WRAP TUBING WITH RUBBER TAPE AT EACH CLAMP OR HANGER. FOR COVERED PIPES, HANGERS SHALL FIT AROUND THE OUTSIDE OF THE COVERING WITH 12 GAUGE GALVANIZED STEEL SHIELDS OF A LENGTH EQUAL TO THE OUTSIDE DIAMETER OF THE INSULATION AND COVERING 3/4 OF THE CIRCUMFERENCE OF THE INSULATION. SAGS SHALL NOT BE PERMISSIBLE. HORIZONTAL LINES SHALL PITCH DOWN NOT LESS THAN 1 INCH IN 40 FEET. INSULATE WITH 1 INCH CLOSED CELL ARMAFLEX TYPE INSULATION WITH A FLAME DENSITY RATING LESS THAN 25 AND A SMOKE DENSITY RATING LESS THAN 50. ALL JOINTS AND SPLICES IN INSULATION SHALL BE TAPED AND AIR TIGHT. SOLDER REFRIGERATION LINES USING 15 PERCENT SILVER SOLDER AND EVACUATE LINES TO 300 MICRONS. PROVIDE MOISTURE INDICATING SIGHT GLASS AND FILTER DRYER IN LIQUID LINE. PROVIDE OIL TRAPS AND DOUBLE RISERS IN REFRIGERANT SUCTION AND HOT GAS LINES WHERE REQUIRED TO PREVENT OIL SLUGGING AT THE COMPRESSOR AND INSURE PROPER LUBRICATION. MC SHALL BE RESPONSIBLE FOR SEALING LINE SET PENETRATIONS OF ANY RATED ASSEMBLIES IN ACCORDANCE WITH A SYSTEM LISTED IN THE UL DIRECTORY FOR THE SPECIFIC ASSEMBLY BEING PENETRATED. SEE ARCHITECTURAL PLANS FOR A LIST OF ALL UL FIRE RATED ASSEMBLIES.

1. INSULATE DUCTWORK WITH FIBERGLASS DUCT WRAP; INSTALLED R-VALUE SHALL BE A MINIMUM R-6. COVERINGS AND LININGS, INCLUDING ADHESIVES WHEN USED, SHALL HAVE A FLAME SPREAD INDEX NOT MORE THAN 25 AND A SMOKE-DEVELOPED INDEX NOT MORE THAN 50 WHEN TESTED IN ACCORDANCE WITH ASTM E 84. ALL NEW DUCTWORK SHALL RECEIVE INSULATION ON THE OUTSIDE. INSTALL DUCT WRAP INSULATION WITH FACING OUTSIDE SO THAT TAPE FLAP OVERLAPS INSULATION AND FACING OF ADJACENT PIECE OF DUCT WRAP. INSULATION SHALL BE TIGHTLY BUTTED. FOR RECTANGULAR DUCTS, INSTALL SO INSULATION IS NOT EXCESSIVELY COMPRESSED AT DUCT CORNERS. STAPLE SEAMS APPROXIMATELY 6 INCHES ON CENTER WITH OUTWARD CLINCHING STAPLES. SEAL SEAMS WITH PRESSURE SENSITIVE TAPE MATCHING THE FACING. FOR RECTANGULAR DUCTS 24 INCHES IN WIDTH OR GREATER, SECURE DUCT WRAP TO THE BOTTOM OF THE DUCT WITH MECHANICAL FASTENERS SPACED 18 INCHES ON CENTER TO PREVENT SAGGING OF

- INSULATION. ADJACENT SECTIONS OF DUCT WRAP SHALL BE TIGHTLY BUTTED WITH THE 2 INCH TAPE FLAP OVERLAPPING. ALL TEARS, PUNCTURES, ETC. OF THE DUCT WRAP INSULATION SHALL BE SEALED WITH TAPE OR MASTIC TO PROVIDE A VAPOR TIGHT SYSTEM. INSULATION SHALL BE BY KNAUF INSULATION, OWENS CORNING CORP, OR CERTAINTEED
- CORPORATION 2. VERIFY THAT DUCTS HAVE BEEN TESTED BEFORE APPLYING INSULATION MATERIALS. VERIFY THAT DUCT SURFACES ARE CLEAN. DRY AND FREE OF FOREIGN MATERIAL PRIOR TO INSULATING. DUCT COVERINGS SHALL NOT PENETRATE A WALL OR FLOOR REQUIRED TO HAVE A FIRE-RESISTANCE
- RATING OR REQUIRED TO BE FIRE BLOCKED. 3. WHERE DUCTS ARE CONNECTED TO EXTERIOR WALL LOUVERS AND DUCT OUTLET IS SMALLER THAN LOUVER FRAME, PROVIDE BLANK-OUT PANELS SEALING LOUVER AREA AROUND DUCT. USE SAME MATERIAL AS DUCT, PAINTED BLACK ON EXTERIOR SIDE; SEAL TO LOUVER FRAME AND DUCT. 4. PROVIDE DUCT ACCESS DOORS FOR INSPECTION AND CLEANING BEFORE
- COMBINATION FIRE AND SMOKE DAMPERS 5. CONSTRUCT T's, BENDS, AND ELBOWS WITH RADII OF NOT LESS THAN 1-1/2 TIMES THE WIDTH OF THE DUCT ON CENTERLINE. WHERE NOT POSSIBLE AND WHERE RECTANGULAR ELBOWS MUST BE USED, PROVIDE TURNING

AND AFTER FILTERS, COILS, FANS, AUTOMATIC DAMPERS, AT FIRE DAMPERS,

- 6. INCREASE DUCT SIZES GRADUALLY, NOT EXCEEDING 15 DEGREES DIVERGENCE; MAXIMUM OF 30 DEGREES DIVERGENCE UPSTREAM OF EQUIPMENT AND 45 DEGREES CONVERGENCE DOWNSTREAM.
- 7. IT SHALL BE THE RESPONSIBILITY OF THE MC TO SUSPEND AND SUPPORT ALL EQUIPMENT, DUCTWORK, DIFFUSERS, AND OTHER MATERIALS FOLLOWING RECOGNIZED ENGINEERING PRACTICES AND USING STANDARD, COMMERCIALLY ACCEPTED HANGERS AND SUSPENSION EQUIPMENT. ALL HVAC EQUIPMENT SHALL BE SECURELY MOUNTED TO THE BUILDING STRUCTURE AND SHALL NOT RELY ON CEILING OR WALL SURFACES FOR SUPPORT. THE SUPPORT ATTACHMENT SHALL SUPPORT THE WEIGHT OF THE EQUIPMENT PLUS THE WEIGHT OF THE SUPPORT ATTACHMENT ITSELF. SUPPORT FROM THE TOP CHORD OF THE ROOF JOISTS, GIRDERS, AND BEAMS. THE BOTTOM CHORD IS NOT TO BE USED FOR EQUIPMENT OR PIPING SUPPORT. HANGERS SHALL NOT BE ATTACHED TO CORRUGATED
- 8. DUCTS SHALL BE SUPPORTED IN ACCORDANCE WITH SMACNA AT INTERVALS NOT EXCEEDING 10 FEET. DUCTS 36 INCHES OR LARGER SHALL HAVE TRAPEZE TYPE HANGERS SUSPENDED WITH THREADED ROD. SUPPORT DUCTS FROM BAR JOISTS, GIRDERS, OR BEAMS.
- 9. CHECK LOCATIONS OF AIR OUTLETS AND INLETS AND MAKE NECESSARY ADJUSTMENTS IN POSITION TO CONFORM WITH ARCHITECTURAL FEATURES, SYMMETRY, AND LIGHTING ARRANGEMENT. COORDINATE WITH SPRINKLER CONTRACTOR IF APPLICABLE.
- 10. PROVIDE BALANCING DAMPERS AT POINTS ON SUPPLY WHERE BRANCHES ARE TAKEN FROM LARGER DUCTS AS REQUIRED FOR AIR BALANCING. INSTALL MINIMUM 2 DUCT WIDTHS FROM DUCT TAKE-OFF. PROVIDE BALANCING DAMPERS ON DUCT TAKE-OFFS TO DIFFUSERS, AND REGISTERS, REGARDLESS OF WHETHER DAMPERS ARE SPECIFIED AS PART OF THE DIFFUSER OR REGISTER ASSEMBLY. ADJUST AIR HANDLING AND DISTRIBUTION SYSTEMS TO PROVIDE DESIGN SUPPLY, RETURN, AND EXHAUST AIR QUANTITIES AT SITE ALTITUDE.
- 11. MC SHALL INSTALL FIRE DAMPERS AT EACH PENETRATION OF A RATED WALL AS INDICATED ON THE DRAWINGS OR AS REQUIRED BY THE AUTHORITY HAVING JURISDICTION. FIRE DAMPERS SHALL BE UL LABELED (UL 555), CURTAIN TYPE, WITH INTEGRAL FACTORY SLEEVE AND BLADES LOCATED OUTSIDE THE AIR STREAM. INSTALLATION OF ALL FIRE DAMPERS SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND SECTION 607 OF THE 2018 NC MECHANICAL CODE. PROVIDE ACCESS PANELS FOR TESTING AND SERVICE AS NECESSARY. MC SHALL PROVIDE RADIATION DAMPERS AND THERMAL BLANKETS FOR ALL PENETRATIONS OF RATED CEILING ASSEMBLIES. RADIATION DAMPERS SHALL BE UL LABELED (UL 555C) AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFIC INSTALLATION INSTRUCTIONS. FIRE DAMPERS, COMBINATION FIRE/SMOKE DAMPERS, AND CEILING RADIATION
- DAMPERS SHALL BE BY RUSKIN, NAILOR, OR LLOYD INDUSTRIES. 12. MC SHALL INSTALL PROGRAMMABLE THERMOSTATS AS SHOWN ON THE PLANS. THERMOSTAT SHALL BE MOUNTED AT 48 INCHES AFF. THERMOSTATS SHALL MEET THE REQUIREMENTS OF SECTION C403.2.4 OF THE 2018 NORTH CAROLINA ENERGY CONSERVATION CODE.
- 13. FRESH AIR INTAKES SHALL BE INSTALLED ON ALL UNITS AS SHOWN ON DRAWINGS. MAINTAIN 10 FEET OF DISTANCE BETWEEN FRESH AIR INTAKES AND ALL EXHAUST TERMINATIONS AND PLUMBING VENT THRU ROOFS.
- 14. MC SHALL INSTALL ALL EXHAUST FANS AND VENT TO THE BUILDING'S EXTERIOR. EC SHALL SWITCH FANS WITH LIGHTS OR ON SEPARATE SWITCH 15. P-TRAPS MUST BE INSTALLED ON ALL UNITS. MC SHALL INSTALL AUXILIARY
- DRAIN PANS UNDER OVERHEAD AIR HANDLERS AND AN AUTOMATIC CUT-OFF FLOAT SWITCH FOR EACH. P-TRAPS AND CONDENSATE LINES SHALL BE 1 INCH. P-TRAPS AND CONDENSATE LINES MAY BE PVC WHERE NOT LOCATED IN PLENUMS: OTHERWISE, THEY SHALL BE TYPE M COPPER.
- 16. INSTALL BACKDRAFT DAMPERS ON FRESH AIR AND EXHAUST DUCTS WHERE THEY PENETRATE THE THERMAL ENVELOPE PER NORTH CAROLINA ENERGY CONSERVATION CODE C402.5.5

#### VENTILATION CALCS

#### CHEMICAL STORAGE:

34 SQFT X 10' HIGH CEILING = 340 CU. FT @ 10 ACH = 57 CFM \*60 CFM PROVIDED

174 SQFT X 10'-1" HIGH CEILING = 1755 CU. FT @ 10 ACH = 292 CFM

⟨ ⟩ HEX PLAN NOTES

EXHAUST DUCT TO TURTLEBACK VENT ON ROOF. PROVIDE

2. LOUVERED EXHAUST GRILLE INSTALLED IN GYPSUM

3. SUSPENDED INLINE EXHAUST FAN TO BE INSTALLED IN

4. DOOR WITH WEATHER PROOF LOUVER BY G.C. LOUVER TO

5. GRILLES AND DUCTWORK TO ALLOW FOR OUTSIDE AIR TO

MC TO COMBINE BATHROOM EXHAUST TO SINGLE 14"

7. DUCTWORK FOR EF-4 TO BE CORROSION RESISTANT/PROOF.

REDUCE NEGATIVE PRESSURE WHEN BATHROOM EXHAUST

EXHAUST DUCT THROUGH ROOF TO TURTLEBACK VENT. MC

TO FURNISH BACKDRAFT DAMPER AT EACH EXHAUST FAN

ATTIC. ENSURE ALL MANUFACTURER CLEARANCES ARE

MAINTAINED. COORDINATE WITH G.C. TO PROVIDE ACCESS

CEILING. TURN LOUVERED BLADES TOWARDS WALL.

FOR MAINTENANCE.

FANS ARE IN OPERATION.

PRIOR TO COMBINING DUCTS.

BE 18"X18".

WITH INSECT SCREEN. COORDINATE EXACT LOCATION WITH

#### \*295 CFM PROVIDED

#### EXHAUST FAN SCHEDULE MFG / MODEL # TYPE | ESP (in WG) | CFM | VOLT/PH | FLA | SONES | NOTES GREENHECK SP-B110 | CEILING | 1.14 | 2.0 | 1-3 0.40 120/1 GREENHECK SP-A410 | CEILING | 0.40 265 3.5 364 | 120/1 | 3.30 | 4.0 | 1-3 EF-3 GREENHECK SP-A510 CEILING 0.40 355 | 120/1 | 1.42 | 4.1 | 1-6 EF-4 | GREENHECK CSP-A390 | INLINE | 0.41 PROVIDE WITH PITCHED ROOF CURB & CAP FOR FLAT OR SLOPED ROOF, OR HOODED WALL

- WITH BACKDRAFT DAMPER CAP AS APPLICABLE.
- 2. PROVIDE WITH SQUARE TO ROUND DUCT ADAPTER AS NECESSARY
- 3. OR EQUAL BY LOREN COOK OR PENNBARRY OR TWIN CITY
- INTEGRAL DISCONNECT SWITCH
- 5. CORROSION RESISTANT 6. CONTINUOUS OPERATION

REGISTER & GRILLE SCHEDULE								
MARK	MFG	MODEL #	SIZE	MOUNTING	DESCRIPTION	NOTES		
Α	NAILOR	5145H	12X12	CEILING	ALUMINUM LOUVERED RETURN GRILLE	1		
R	HART & COOLEY	RH45	12X12	SURFACE	ALUMINUM SURFACE MOUNT RETURN GRILLE	1		
R1	HART & COOLEY	RH45	18X18	SURFACE	ALUMINUM SURFACE MOUNT RETURN GRILLE	1		
	-				-			

1. OR EQUAL BY PRICE, METAL-AIRE, CARNES, TITUS, HART AND COOLEY, OR NAILOR.

ELECTRIC UNIT HEATER SCHEDULE									
MARK	MFG / MODEL #	HEATER	VOLT/PH	HEAT	МОСР	NOTES			
		KW		KW	AMPS				
UH-1	MARKEL / E3313T2SRPW	1.5	120/1	1.5	20.0	1-5			
UH-2,3	MARKEL / HF3315T2RPW	3.0	240/1	3.0	20.0	1-5			
UH-4	MARKEL / H3317T2RPW	4.8	240/1	4.8	20.0	1-5			

- BUILT-IN THERMOSTAT. BUILT-IN DISCONNECT SWITCH.
- PROVIDE WITH SURFACE MOUNTING SLEEVE KIT (BATHROOMS ONLY)
- 4. BUILT IN SUMMER FAN SWITCH (BATHROOMS ONLY) 5. CORROSION RESISTANT (PUMP ROOM ONLY)

#### MECHANICAL SYSTEM, SERVICE SYSTEMS, AND EQUIPMENT

METHOD OF COMPLIANCE THERMAL ZONE	PRESCRIPTIVE ZONE 4A
EXTERIOR DESIGN CONDITIONS	
HEATING DESIGN DRY BULB	23.1°F
COOLING DESIGN DRY BULB	91.7°F
COOLING DESIGN WET BULB	75.6°F
INTERIOR DESIGN CONDITIONS	
HEATING DESIGN DRY BULB	50°F
COOLING DESIGN DRY BULB	75°F
COOLING RELATIVE HUMIDITY	50%
FAMILY DESTROOM	

#### FAMILY RESTROOM 3,596 BTU/H HEATING LOAD: MENS RESTROOM

11,053 BTU/H HEATING LOAD: WOMENS RESTROOM

9,267 BTU/H HEATING LOAD:

PUMP ROOM (HEATING DESIGN DRY BULB 50°F) HEATING LOAD: 9,775 BTU/H

MECHANICAL SPACING CONDITIONING SYSTEM AIR COOLED DX DESCRIPTION OF UNIT(S) UNIT HEATERS TOTAL BOILER OUTPUT N/A CHILLER TOTAL CHILLER CAPACITY

EQUIPMENT EFFICIENCIES SEE SCHEDULES

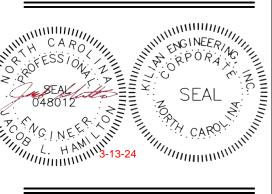
#### EQUIPMENT SCHEDULES WITH MOTORS (MECHANICAL SYSTEMS): SEE SCHEDULES

#### DESIGNER STATEMENT:

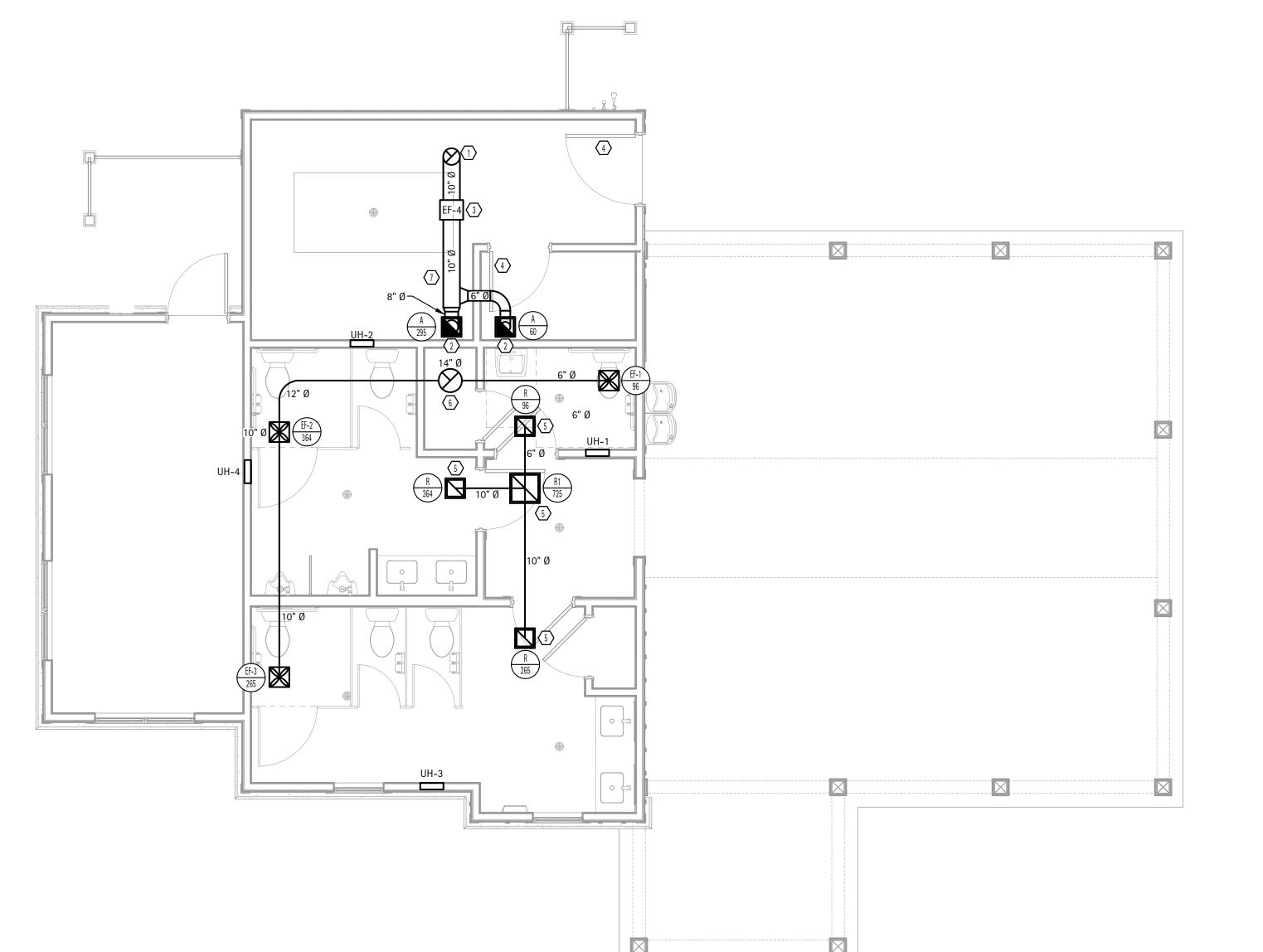
TO THE BEST OF MY KNOWLEDGE, THE MECHANICAL DESIGN FOR THIS BUILDING COMPLIES WITH MECHANICAL AND EQUIPMENT REQUIREMENTS OF THE 2018 NORTH CAROLINA STATE BUILDING CODE AND 2018 NORTH CAROLINA ENERGY CONSERVATION CODE.







#### MECHANICAL DESIGNER'S STATEMENT | 2



SHEET DISCRIPTION **MECHANICAL NOTES AND** PROJECT #:

DATE ISSUED: 02/19/2024 DRAWING BY: MWK/JLH CHECKED BY:

RID COUNTY RNETT

- THE FOLLOWING ABBREVIATIONS SHALL APPLY TO NOTES AND PLANS: PC - PLUMBING CONTRACTOR, EC - ELECTRICAL CONTRACTOR, MC - MECHANICAL CONTRACTOR, GC - GENERAL CONTRACTOR,
- FASC FIRE ALARM SYSTEM CONTRACTOR. 2. "PROVIDE" MEANS TO FURNISH AND INSTALL. THE ELECTRICAL CONTRACTOR SHALL ALSO INSTALL MATERIALS AND EQUIPMENT
- FURNISHED BY OTHERS AND THE GENERAL CONTRACTOR AS REQUIRED. 3. EC SHALL PROVIDE LABOR, MATERIALS, EQUIPMENT, AND SERVICES NECESSARY AND REASONABLY INCIDENTAL TO INSURE A COMPLETE AND OPERATIONAL ELECTRICAL SYSTEM IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS, MINOR ITEMS, ACCESSORIES, AND DEVICES REASONABLY INFERABLE AS NECESSARY FOR THE COMPLETION AND PROPER OPERATION OF ANY ELECTRICAL SYSTEM SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR.
- 4. WORKMANSHIP SHALL BE IN ACCORDANCE WITH NECA 1 "STANDARD PRACTICE FOR GOOD WORKMANSHIP IN ELECTRICAL CONTRACTING." 5. ALL MATERIALS AND EQUIPMENT SHALL BE DELIVERED TO THE SITE AND
- UNLOADED BY THE ELECTRICAL CONTRACTOR AT AN APPROVED LOCATION. THE ELECTRICAL CONTRACTOR SHALL PROTECT ALL MATERIALS AND EQUIPMENT FROM BREAKAGE, THEFT, AND THE ELEMENTS. ALL MATERIALS AND EQUIPMENT SHALL REMAIN THE PROPERTY OF THE ELECTRICAL CONTRACTOR UNTIL THE PROJECT HAS BEEN COMPLETED AND TURNED OVER TO THE OWNER.
- 6. THE ELECTRICAL CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS, FEES, AND INSPECTIONS NECESSARY FOR THE COMPLETION OF THE WORK UNDER THIS CONTRACT. 7. DO NOT SCALE THESE DRAWINGS-REFER TO ARCHITECTURAL SHEETS FOR
- 8. TRADE NAMES AND MANUFACTURERS ARE SPECIFIED TO ESTABLISH A QUALITY STANDARD. SUBSTITUTIONS SHALL BE PERMITTED IF APPROVED BY THE ENGINEER PRIOR TO INSTALLATION. ALL LISTED MODEL NUMBERS SHALL BE VERIFIED WITH THE MANUFACTURER FOR PROPER
- APPLICATION OF EQUIPMENT. 9. THE ELECTRICAL CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING TO BECOME FAMILIAR WITH EXISTING CONDITIONS. THE ELECTRICAL CONTRACTOR SHALL CONTACT THE ENGINEER TO RESOLVE ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS AND THESE PLANS. THE ELECTRICAL CONTRACTOR SHALL COORDINATE WITH OTHER TRADES
- PRIOR TO THE START OF CONSTRUCTION. GROUNDING AND BONDING SHALL BE PER NEC ARTICLE 250. THE RACEWAY SYSTEM SHALL NOT BE RELIED UPON FOR GROUNDING CONTINUITY. A GREEN EQUIPMENT GROUNDING CONDUCTOR, SIZED PER NEC TABLE 250-122, SHALL BE RUN IN ALL POWER RACEWAYS. FOR NON-ISOLATED GROUND CIRCUITS PROVIDE ONE EQUIPMENT GROUNDING CONDUCTOR PER CONDUIT RUN. FOR ISOLATED GROUND CIRCUITS, PROVIDE ONE NEUTRAL AND ONE ISOLATED GROUND WIRE FOR EACH CIRCUIT; IN ADDITION, PROVIDE ONE EQUIPMENT GROUNDING CONDUCTOR PER CONDUIT RUN. MAIN BONDING JUMPERS AND SYSTEM BONDING JUMPERS SHALL BE INSTALLED IN ACCORDANCE WITH 250.28 OF THE NEC. FOR BUILDINGS OR STRUCTURES SUPPLIED BY FEEDERS OR BRANCH CIRCUITS, GROUNDING AND BONDING SHALL BE IN ACCORDANCE WITH 250.32. SEPARATELY DERIVED AC SYSTEMS SHALL BE GROUNDED IN ACCORDANCE WITH 250.30. RESISTANCE TO GROUND SHALL NOT EXCEED 25 OHMS; ADDITIONAL GROUNDING
- ELECTRODES SHALL BE INSTALLED PER 250.56 AS NECESSARY. 11. THE ELECTRICAL CONTRACTOR SHALL ALSO COORDINATE WITH THE GENERAL CONTRACTOR REGARDING THE BONDING OF THE FOOTING REBAR, SO THAT IT WILL BE IN PLACE AND READY AT TIME OF FOOTING
- 12. ALL MATERIALS AND EQUIPMENT SHALL COMPLY WITH THE UNDERWRITERS' LABORATORIES, INC. STANDARDS OR HAVE UL APPROVAL, OR BEAR UL RE-EXAMINATION LISTING WHERE SUCH APPROVAL HAS BEEN ESTABLISHED FOR THE TYPE OF DEVICE IN
- 13. CONDUCTORS, FUSES, CIRCUIT BREAKERS, AND DISCONNECT SWITCHES SHOWN ON THESE PLANS HAVE BEEN SIZED FOR THE SPECIFIED EQUIPMENT. BEFORE ORDERING ELECTRICAL EQUIPMENT, THE ELECTRICAL CONTRACTOR SHALL COORDINATE WITH OTHER CONTRACTORS ON THE SITE AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES SHOULD CONDUCTOR, CIRCUIT BREAKER, OR FUSE SIZES RECHIRE CHANGE
- 14. THE ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE GENERAL CONTRACTOR TO ENSURE THE FOLLOWING MATERIALS ARE RECYCLED DURING THE CONSTRUCTION PHASE OF THE PROJECT: LIGHT FIXTURES, INCLUDING PROPER DISPOSAL OF BALLASTS, FLUORESCENT LIGHT BULBS, AND TRANSFORMERS, WIRING AND ELECTRICAL EQUIPMENT, AND INSULATION. WASTE MATERIALS CONTAINING LEAD, ASBESTOS, PCBs (FLUORESCENT LAMP BALLASTS), OR OTHER HARMFUL SUBSTANCES SHALL BE HANDLED AND DISPOSED OF IN ACCORDANCE WITH FEDERAL AND STATE LAWS AND REQUIREMENTS CONCERNING HAZARDOUS
- 15. ALL WORK SHALL CONFORM TO 2020 NATIONAL ELECTRIC CODE, 2018 STATE BUILDING CODE, AND ALL APPLICABLE LOCAL CODES.

- THE FLECTRICAL CONTRACTOR SHALL PROVIDE ALL NECESSARY DISCONNECTS, SWITCHES, RECEPTACLES, TERMINALS, ETC, UNDER THE ELECTRICAL BID AND SHALL INCLUDE ALL NECESSARY CIRCUITS AND CONNECTIONS TO THE EQUIPMENT PROVIDED BY ALL SUPPLIERS, UNLESS NOTED OTHERWISE BY OTHER DISCIPLINES.
- 2. ELECTRICAL CONTRACTOR SHALL PROVIDE ALL SERVICE ENTRANCE EQUIPMENT, SUB PANELS, AND OTHER ELECTRICAL DISTRIBUTION EQUIPMENT AS NECESSARY FOR A COMPLETE INSTALLATION. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH UTILITY REGARDING SERVICE AND METERING DETAILS. PRIOR TO ORDERING EQUIPMENT, THE ELECTRICAL CONTRACTOR SHALL OBTAIN THE AVAILABLE FAULT CURRENT OR TRANSFORMER SIZE AND IMPEDANCE FROM THE UTILITY AND CONTACT THE ENGINEER IF THE VALUE EXCEEDS THE EQUIPMENT SPECIFIED. PANEL BOARDS AND SWITCH BOARDS SHALL BE SQUARE D, CUTLER-HAMMER, SIEMENS, OR GE. BUSES SHALL BE COPPER UNLESS OTHERWISE APPROVED BY THE ENGINEER. RECESSED PANEL BOARDS SHALL BE INSTALLED FLUSH WITH THE WALL FINISH. METER BASES SHALL COMPLY WITH THE UTILITY'S SPECIFICATIONS AND SHALL BE MOUNTED AT A HEIGHT APPROVED BY THE UTILITY. ALL EQUIPMENT IDENTIFIED FOR SERVICE ENTRANCE USE SHALL BE SO LABELED AND UL LISTED FOR SUCH USE. ELECTRICAL CONTRACTOR SHALL INSTALL ALL ELECTRICAL EQUIPMENT WITH CLEARANCES PER NEC 110.26.
- ELECTRICIAN SHALL PERMANENTLY LABEL EQUIPMENT PER NEC 110.24. 3. ENCLOSED SAFETY SWITCHES SHALL BE HEAVY DUTY TYPE BY SQUARE D EATON, OR GE. ENCLOSED SWITCHES SHALL HAVE A HANDLE LOCKABLE IN THE OFF POSITION AND SHALL HAVE A HANDLE INTERLOCKED TO PREVENT OPENING THE FRONT COVER WHILE IN THE ON POSITION. ENCLOSED SWITCHES OF THE FUSIBLE TYPE SHALL BE FUSED IN ACCORDANCE WITH NAMEPLATE DATA WITH DUAL ELEMENT TYPE FUSES BY BUSSMAN, LITTELFUSE, OR MERSEN.
- OCCUPANCY SENSORS SHALL BE BY WATTSTOPPER, LUTRON, LEVITON, SENSOR SWITCH, HUBBELL, OR APPROVED EQUAL
- CIRCUIT BREAKERS SHALL BE MOLDED-CASE, THERMAL MAGNETIC TYPE WITH QUICK-MAKE, QUICK-BREAK MECHANISM, COMMON TRIP ON MULTI-POLE BREAKERS, AND UL LISTED FOR BOTH COPPER AND ALUMINUM CONDUCTORS. CIRCUIT BREAKERS IN PANELS SHALL BE SERIES RATED WITH THE MAIN BREAKER, FULLY RATED FOR THE SYSTEM, OR SERIES RATED WITH THE BREAKER FEEDING THE PANEL FROM THE
- ALL WIRE, CONNECTORS, TERMINALS, AND LUGS SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR. WHERE CONDUCTORS ARE RUN IN PARALLEL, LUGS SHALL BE LISTED FOR PARALLEL CONDUCTORS. PUSH WIRE CONNECTORS ARE NOT ALLOWED FOR BUILDING WIRE. PUSH CONNECTORS ARE ONLY ALLOWED. WHEN APPROVED. AS PART OF MANUFACTURED LISTED PRODUCTS. ALL WIRE SHALL BE INSTALLED IN
- CONDUIT UNLESS SPECIFICALLY NOTED OTHERWISE. THE INSULATION TYPE FOR INTERIOR WIRING SHALL BE DUAL RATED THHN/THWN OR XHHW; ALL WIRING INSTALLED BELOW GRADE OR IN

- MOIST OR WET LOCATIONS SHALL HAVE TYPE THWN OR XHHW INSULATION. INSULATION VOLTAGE RATING SHALL BE 600 VOLTS AND A MINIMUM TEMPERATURE RATING OF 75°C. CONDUCTORS SHALL BE SOLID OR STRANDED COPPER FOR #10 AWG AND #12 AWG, AND STRANDED COPPER FOR #8 AWG AND LARGER SIZES. ALL WIRING AND CABLE SHALL BE UL LISTED. ALL TERMINATIONS AND DEVICES SHALL BE RATED FOR USE WITH 75°C CONDUCTORS. FINAL CONNECTIONS TO ALL MOTORS AND EQUIPMENT SUBJECT TO VIBRATION OR MOVEMENT SHALL BE MADE WITH STRANDED COPPER CONDUCTORS. CONDUCTORS SHALL BE BY CERRO WIRE, INC, INDUSTRIAL WIRE & CABLE, INC, OR SOUTHWIRE COMPANY.
- 8. JOINTS IN SOLID CONDUCTORS SHALL BE SPLICED USING IDEAL "WIRE NUTS", 3M "SCOTCH LOCK", OR T&B "PIGGY" CONNECTORS IN JUNCTION BOXES, OUTLET BOXES, AND LIGHTING FIXTURES. JOINTS IN STRANDED CONDUCTORS SHALL BE SPLICED BY APPROVED MECHANICAL CONNECTORS AND GUM RUBBER TAPE OR FRICTION TAPE. SOLDERLESS MECHANICAL CONNECTORS FOR SPLICES AND TAPS, PROVIDED WITH UL APPROVED INSULATING COVERS, MAY BE USED INSTEAD OF MECHANICAL CONNECTORS PLUS TAPE. IN ALL CASES, CONDUCTORS SHALL BE CONTINUOUS FROM OUTLET TO OUTLET AND NO SPLICING SHALL BE MADE EXCEPT WITHIN OUTLET OR JUNCTION BOXES, TROUGHS, OR GUTTERS. WHERE CONCENTRIC, ECCENTRIC, OR OVERSIZED KNOCKOUTS ARE ENCOUNTERED, A GROUNDING TYPE INSULATED BUSHING SHALL BE PROVIDED.
- 9. ALL LUMINAIRES SHALL BE LISTED. LUMINAIRES IN WET OR DAMP LOCATIONS SHALL BE MARKED AS SUITABLE FOR THE RESPECTIVE USE. EMERGENCY LIGHTING SHALL BE INSTALLED AS SHOWN. FINAL LOCATIONS OF ALL EXIT AND EMERGENCY LIGHTS SHALL BE VERIFIED WITH THE BUILDING INSPECTOR PRIOR TO INSTALLATION. ALL FLUORESCENT FIXTURES SHALL HAVE ELECTRONIC BALLASTS MEETING ANSI C82.11 FOR ELECTRONIC BALLAST PERFORMANCE. ALL BALLASTS SHALL BE UL LISTED AND MEET FEDERAL AND STATE EFFICIENCY REQUIREMENTS.
- 10. ALL CONDUIT, FITTINGS, COUPLINGS, AND SUPPORTS SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR. CONDUIT FITTINGS AND COUPLINGS SHALL BE BY APPLETON, RACO, OR O-Z/GEDNEY. COUPLINGS SHALL BE THREADED, SET-SCREW, OR COMPRESSION TYPE. INDENTER OR CRIMP TYPE ARE NOT PERMITTED. CONDUIT FITTINGS AT ALL ELECTRICAL BOXES INCLUDING PULL, JUNCTION, AND OUTLET BOXES, SHALL HAVE INSULATED THROATS TO PREVENT INSULATION SCORING. DIE CAST FITTINGS ARE NOT PERMITTED
- 11. EMT SHALL BE MANUFACTURED IN ACCORDANCE WITH AMERICAN NATIONAL STANDARDS INSTITUTE-AMERICAN NATIONAL STANDARD FOR STEEL ELECTRICAL METALLIC TUBING (EMT), ANSI C80.3 AND UL 797. RIGID METAL CONDUIT SHALL BE MANUFACTURED IN ACCORDANCE WITH ANSI-AMERICAN NATIONAL STANDARD FOR ELECTRICAL RIGID STEEL CONDUIT (ERSC), ANSI C80.1 AND UL 6. INTERMEDIATE METAL CONDUIT SHALL BE MANUFACTURED IN ACCORDANCE WITH ANSI-AMERICAN NATIONAL STANDARD FOR INTERMEDIATE METAL CONDUIT ANSI C80.6 AND UL 1242.
- 12. METAL CONDUIT SHALL BE BY ALLIED TUBING & CONDUIT, BECK MANUFACTURING, INC, OR WHEATLAND TUBE COMPANY. FLEXIBLE METAL CONDUIT, LIQUID-TIGHT FLEXIBLE METAL CONDUIT, AND NONMETALLIC CONDUIT SHALL BE BY AFC CABLE SYSTEMS, INC, ELECTRI-FLEX COMPANY, OR INTERNATIONAL METAL HOSE.

- 1. EC SHALL REVIEW THE MECHANICAL PLANS TO ESTABLISH POINTS OF CONNECTION AND THE EXTENT OF THE ELECTRICAL WORK TO BE PROVIDED IN THE CONTRACT
- 2. ALL CIRCUIT BREAKERS FEEDING HVAC EQUIPMENT SHALL BE HACR BREAKERS. ALL BRANCH CIRCUIT CONDUCTORS SHALL BE MINIMUM #12 AWG IN 3/4 in CONDUIT. EACH MULTI-WIRE BRANCH CIRCUIT SHALL BE PROVIDED WITH A MEANS TO SIMULTANEOUSLY DISCONNECT ALL UNGROUNDED CONDUCTORS AT THE SOURCE PER NEC 210.4(B). GROUP ALL CONDUCTORS OF EACH MULTI-WIRE BRANCH CIRCUIT PER 210.4(D) WITH WIRE TIES OR SIMILAR MEANS. DO NOT EXCEED THREE HOMERUNS PER CONDUIT. DO NOT INSTALL ISOLATED GROUND AND NON-ISOLATED GROUND CIRCUITS IN THE SAME CONDUIT. INSTALL CONDUCTORS OF DIFFERENT VOLTAGES IN SEPARATE CONDUITS.
- COLOR CODE CONDUCTORS PER NEC. FEEDERS SHALL BE IDENTIFIED IN ACCORDANCE WITH NEC 215.12. USE BLACK AND RED FOR PHASES A AND B RESPECTIVELY ON 120/240 VOLT SINGLE-PHASE SYSTEMS AND WHITE FOR THE NEUTRAL. THIS IDENTIFICATION SHALL BE MADE AT EACH POINT WHERE A CONNECTION IS MADE. COLORS SHALL BE FACTORY APPLIED FOR CONDUCTORS #6 AWG AND SMALLER. ALL EQUIPMENT GROUNDING CONDUCTORS SHALL BE GREEN IN COLOR AND MINIMUM #12 AWG. THE EC SHALL PROVIDE PLENUM RATED CABLE FOR ANY ELECTRICAL, TELEPHONE, COMMUNICATION, OR OTHER CABLE THAT ENTERS CEILING RETURN PLENUMS.
- 4. ALL LIGHT FIXTURES SHALL BE SUPPORTED INDEPENDENTLY OF THE SUSPENDED CEILING. COORDINATE LIGHTING LAYOUT WITH CEILING GRID, MECHANICAL EQUIPMENT, DUCTWORK AND SPRINKLER HEADS AS NECESSARY. SEE REFLECTED CEILING PLAN FOR DETAILS. FLUORESCENT FIXTURES UTILIZING DOUBLE-ENDED LAMPS MUST HAVE A
- DISCONNECTING MEANS COMPLYING WITH NEC 410.130(G). MOUNT LIGHT SWITCHES AT 48 in AFF. MULTIPLE SWITCHES AT SAME LOCATION SHALL BE UNDER ONE WALL PLATE. VERIFY WALL PLATE COLOR AND MATERIAL WITH THE ARCHITECT/OWNER. INSTALL SWITCHES WITH off POSITION DOWN. ALL SWITCHES SHALL BE HEAVY DUTY, IVORY PLASTIC WITH TOGGLE HANDLE, RATED 120-277V AC, AND COMPLYING WITH NEMA WD 6 AND WD 1. SWITCHES SHALL BE BY COOPER WIRING DEVICES, LEVITON MANUFACTURING, PASS & SEYMOUR, OR HUBBELL. PROVIDE BOX DEVICE PARTITION/DIVIDERS FOR MULTI-GANG BOXES FOR COMPLIANCE WITH NEC 404.8(B).
- 6. ELECTRICAL CONTRACTOR SHALL PROVIDE FIRE-STOPPING AT ALL ELECTRICAL PENETRATIONS OF RATED FLOORS AND WALLS TO PRESERVE OR RESTORE THE FIRE-RESISTANCE RATING. SEAL PENETRATIONS USING A UL LISTED SYSTEM FOUND IN THE UL DIRECTORY SPECIFIC TO THE UL LISTING OF THE ASSEMBLY BEING PENETRATED. SEE ARCHITECTURAL
- PLANS FOR UL RATED ASSEMBLIES SPECIFIC TO THIS PROJECT. ELECTRICAL CONTRACTOR SHALL PROVIDE GFCI RECEPTACLES IN KITCHENS, RESTROOMS, OUTDOORS, AND IN SHOP AREAS AS REQUIRED BY NEC. REFRIGERATORS AND WATER COOLERS MUST HAVE A DEDICATED GFCI BREAKER. EACH OUTDOOR HVAC UNIT MUST HAVE A GFCI RECEPTACLE WITHIN 25 FEET FOR SERVICING. GFCI RECEPTACLES SHALL CONFORM TO UL 943 CLASS A AND UL 498 STANDARDS. RECEPTACLES SHALL BE BY COOPER WIRING DEVICES, LEVITON MANUFACTURING, PASS & SEYMOUR, OR HUBBELL. ALL RECEPTACLES SHALL BE 125V RATED, HEAVY DUTY, AND COMPLY WITH NEMA WD 6
- AND WD 1. 8. LOCATIONS AND HEIGHTS OF ALL WALL-MOUNTED DEVICES SHALL BE COORDINATED WITH THE ARCHITECT PRIOR TO INSTALLATION.
- 9. CONCEAL ALL CONDUIT EXCEPT IN MECHANICAL ROOMS OR UNFINISHED AREAS AS NOTED. USE EMT CONDUIT FOR ALL BRANCH CIRCUITS AND FEEDERS INSIDE THE BUILDING. TYPE MC CABLE AND TYPE AC CABLE MAY BE INSTALLED WITHIN WALLS IF ALL NEUTRAL WIRES, ISOLATED GROUND WIRES, AND EQUIPMENT GROUND WIRES AS LISTED ABOVE ARE CONTAINED IN THE CABLE. FLEXIBLE CONNECTIONS TO MOTORS AND OTHER EQUIPMENT SHALL BE MADE USING WEATHERPROOF FLEXIBLE CONDUIT. FOR LAY-IN LIGHT FIXTURES, USE MAXIMUM OF SIX (6) FEET OF FLEXIBLE MC CABLE (OR THE FLEXIBLE CONDUIT PROVIDED BY THE FIXTURE MANUFACTURER). SCHEDULE 40 PVC CONDUIT MAY BE USED FOR THE SECONDARY UNDERGROUND SERVICE, UNDERGROUND TELEPHONE SERVICE, AND BRANCH AND FEEDER CIRCUITS UNDER SLAB OR EXTERIOR TO THE BUILDING. EXPOSED EXTERIOR CONDUIT SHALL BE SCHEDULE 80 PVC. ALL UNDERGROUND RACEWAYS SHALL BE IDENTIFIED WITH UNDERGROUND LINE MARKING TAPE 6-8 in BELOW GRADE DIRECTLY ABOVE THE RACEWAY. PROVIDE PULL WIRE IN EMPTY CONDUITS. UPSIZE CONDUIT FROM MINIMUM SIZE AS NECESSARY FOR LONGER PULLS. UNDERGROUND RACEWAYS THAT STUB INTO THE BOTTOM OF SWITCHBOARDS, OUTDOOR TRANSFORMERS, GENERATORS, ETC., SHALL RISE AT LEAST 2 in ABOVE THE FINISHED SLAB TO PREVENT WATER FROM DRAINING INTO THE RACEWAYS, RACEWAYS THAT

PENETRATE EXTERIOR WALLS OR INTERIOR PARTITIONS SEPARATING

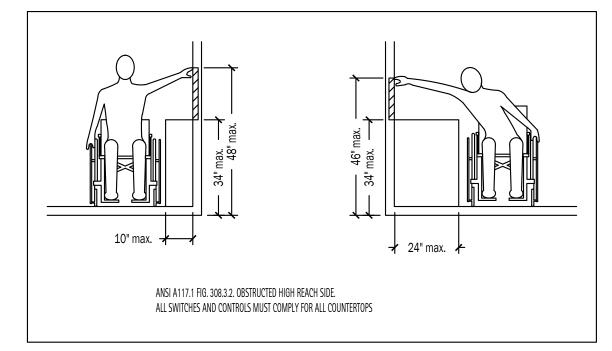
- SPACES THAT WILL BE AT SIGNIFICANTLY DIFFERENT TEMPERATURES SHALL BE SEALED IN ACCORDANCE WITH 300.5(G), 300.7(A), AND 300.50(E) OF THE NEC. ROUTE CONDUIT IN AND UNDER SLAB FROM POINT-TO-POINT. ROUTE EXPOSED CONDUIT AND CONDUIT INSTALLED ABOVE ACCESSIBLE CEILINGS PARALLEL AND PERPENDICULAR TO WALLS. COMPLETELY AND THOROUGHLY SWAB ALL RACEWAYS BEFORE INSTALLING WIRE. PULL ALL CONDUCTORS INTO EACH RACEWAY AT ONE TIME. USE A SUITABLE WIRE PULLING LUBRICANT FOR BUILDING WIRE #4 AWG AND LARGER
- 10. CABLES, RACEWAYS, OR BOXES, INSTALLED IN EXPOSED OR CONCEALED LOCATIONS UNDER METAL-CORRUGATED SHEET ROOF DECKING, SHALL BE INSTALLED AND SUPPORTED SO THERE IS NOT LESS THAN 1-1/2 in MEASURED FROM THE LOWEST SURFACE OF THE ROOF DECKING TO THE TOP OF THE CABLE, RACEWAY, OR BOX. A CABLE, RACEWAY, OR BOX SHALL NOT BE INSTALLED IN CONCEALED LOCATIONS IN

METAL-CORRUGATED, SHEET DECKING-TYPE ROOF. SEE NEC 300.4(E).

- 11. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL OUTLET, JUNCTION, PULL BOXES, FITTINGS, AND SUPPORTS. ALL OUTLET AND JUNCTION BOXES SHALL BE GALVANIZED STEEL TYPE BY APPLETON, STEEL CITY, OR RACO. EXTERIOR BOXES SHALL BE TYPE FS. VAPORTITE BOXES SHALL BE TYPE GS. WHERE SURFACE MOUNTED BOXES ARE USED, THOSE BOXES AND THEIR FACEPLATES SHALL HAVE ROUNDED CORNERS. BOXES INSTALLED IN FLOORS SHALL BE RATED FOR THE APPLICATION. MOUNT JUNCTION AND OUTLET BOXES FLUSH WITH FINISH SURFACES UNLESS OTHERWISE NOTED. WHERE MOUNTING HEIGHTS ARE GIVEN, THEY SHALL BE MEASURED FROM THE FINISHED FLOOR TO THE CENTER OF THE BOX. ALL BOXES SHALL BE SIZED PER NEC ARTICLE 314. ALL OUTLET AND JUNCTION BOXES SHALL HAVE A COVER PLATE, PROVIDED BY THE ELECTRICAL CONTRACTOR. OUTLET BOXES IN RATED WALLS SHALL BE INSTALLED IN ACCORDANCE WITH NORTH CAROLINA BUILDING CODE 712.3.2 (MAXIMUM BOX SIZE IS 16 SQUARE in AND MAXIMUM OF SIX (6) BOXES PER 100 SQUARE FEET). INSTALL OUTLET BOXES IN RATED WALLS SUCH THAT OPENINGS OCCUR IN ONE SIDE ONLY WITHIN ANY GIVEN STUD SPACE. ALL CLEARANCES BETWEEN THE OUTLET BOX AND THE GYPSUM BOARD SHALL BE FILLED WITH JOINT COMPOUND OR OTHER APPROVED FIRE STOP MATERIAL. FLUSH MOUNTED JUNCTION BOXES IN ADJACENT ROOMS SHALL NOT BE MOUNTED BACK-TO-BACK. SURFACE MOUNTED FIXTURES SHALL BE FED THROUGH FLUSH MOUNTED
- 4X4 OCTAGONAL OR SQUARE BOXES. 12. ALL CONDUIT, BOXES, AND ELECTRICAL EQUIPMENT SHALL BE FIRMLY AND SECURELY FASTENED TO OR SUPPORTED FROM THE BUILDING STRUCTURAL MEMBERS OR EMBEDDED IN CONCRETE OR MASONRY. ELECTRICAL SUPPORTS SHALL NOT BE ATTACHED TO DUCTWORK, PIPING, OR THEIR SUPPORTS. HANGERS SHALL BE CATALOG ITEMS COMPATIBLE WITH AND SUITABLE FOR THE INTENDED USE. FOR METAL ROOF DECK INSTALLATIONS, 1 in EMT CONDUIT MAXIMUM AND 4 in JUNCTION BOXES MAXIMUM MAY BE SUPPORTED BY DECKING. THE SUSPENDED CEILING SYSTEM SHALL NOT BE USED FOR THE SUPPORT OF ELECTRICAL RACEWAY SYSTEMS OR SUPPORT OF COMMUNICATIONS OR DATA SYSTEMS WIRING. CONTRACTOR SHALL COMPLY WITH 1613 OF THE NORTH CAROLINA GENERAL CONSTRUCTION BUILDING CODE.
- 13. WHERE CONDUCTORS ARE RUN IN PARALLEL, THE EC SHALL COMPLY 14. ISOLATED-GROUND TYPE RECEPTACLES SHALL BE INSTALLED IN
- ACCORDANCE WITH 250.146(D). ISOLATED GROUND RECEPTACLES SHALL BE ORANGE IN COLOR. 15. IN ASSEMBLY AREAS EXCEEDING 100 PERSONS OCCUPANCY, WIRING
- METHODS SHALL COMPLY WITH NEC 518. 16. PROVIDE AN UNDERGROUND PVC CONDUIT SYSTEM FOR TELEPHONE SERVICE WITH PULL WIRES. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH TELEPHONE UTILITY REGARDING ADDITIONAL
- FACILITIES REQUIRED FOR THE SERVICE INSTALLATION. 17. INSTALL ONE (1) 3/4 in FIRE RETARDANT TREATED PLYWOOD BACKBOARD WHERE INDICATED ON THE DRAWINGS FOR THE USE BY THE TELEPHONE SYSTEM. PROVIDE A 120 VOLT RECEPTACLE ADJACENT TO THE TELEPHONE BOARD. GROUND ALL TELEPHONE AND COMMUNICATIONS

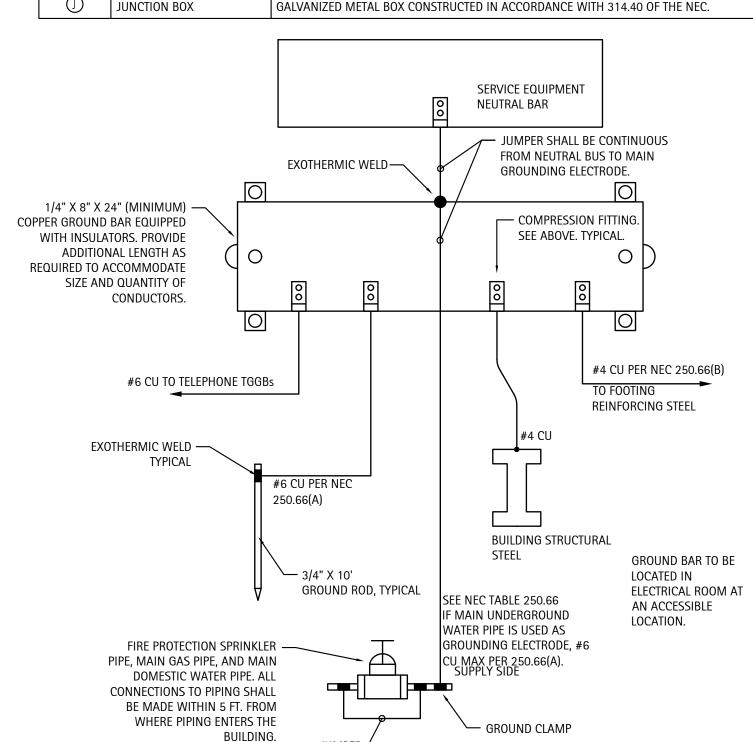
CIRCUITS PER NEC 800.

- 18. ALL TELEPHONE AND COMMUNICATIONS OUTLETS AND RACEWAYS ARE ROUGH-INS ONLY. EACH TELEPHONE AND COMMUNICATIONS OUTLET SHALL BE A 4 in SQUARE BY 2-1/8 in DEEP BOX WITH 3/4 in KNOCK-OUTS AND A 3/4 in CONDUIT STUBBED FROM THE OUTLET BOX TO ABOVE THE CEILING. PROVIDE A NON-METALLIC INSULATING BUSHING ON ALL CONDUITS STUBBED ABOVE THE CEILING. PROVIDE A
- BLANK COVER PLATE ON ALL OUTLET BOXES. 19. ELECTRICAL CONTRACTOR SHALL INSTALL DISCONNECT SWITCHES IN SIGHT OF ALL HARDWIRED EQUIPMENT AND APPLIANCES OR PROVIDE BREAKERS CAPABLE OF BEING LOCKED IN THE OPEN POSITION PER NEC 422.31. FOR MOTOR DRIVEN APPLIANCES, PROVIDE A DISCONNECTING MEANS PER NEC 422.31 AND 430 PART IX. WHERE AN INDIVIDUAL DISCONNECT SWITCH, CIRCUIT BREAKER, STARTER, ETC, IS SHOWN ON THE PLANS ADJACENT TO ITS LOAD AND NOT LOCATED ON A WALL,
- PROVIDE NECESSARY MATERIALS AND LABOR TO SUPPORT THE DEVICE. 20. ELECTRICAL CONTRACTOR SHALL FIELD IDENTIFY ALL SWITCH BOARD, PANEL BOARDS, CONTROL PANELS, METER SOCKETS, ETC., TO WARN QUALIFIED PERSONS OF POTENTIAL ELECTRICAL ARC FLASH HAZARDS PER 110.16 OF NEC
- 21. ELECTRICAL CONTRACTOR SHALL PROVIDE NAMEPLATES FOR IDENTIFICATION OF ALL EQUIPMENT, SWITCHES, PANELS, ETC. THE NAMEPLATES SHALL BE LAMINATED PHENOLIC PLASTIC, BLACK FRONT, AND BACK WITH WHITE CORE, WHITE ENGRAVED LETTERS (1/4 in MINIMUM) ETCHED INTO THE WHITE CORE. ELECTRICAL CONTRACTOR SHALL PROVIDE A TYPE WRITTEN DIRECTORY CARD THAT ACCURATELY IDENTIFIES CIRCUITS INSIDE EACH PANEL. HANDWRITTEN LABELS ARE NOT ACCEPTABLE.



	LIGHTING DEVICE LEGEND							
SYMBOL	DESCRIPTION	REMARKS						
\$	SINGLE POLE WALL SWITCH	HEAVY DUTY, AC ONLY, COMMERCIAL GRADE GENERAL USE SNAP SWITCH COMPLYING WITH NEMA WD 6 AND WD 1. IVORY PLASTIC BODY WITH TOGGLE HANDLE. 120-277V, 20A MEET FEDERAL SPECIFICATION W-S-896.						
\$ <sub>LV</sub>	LOW VOLTAGE SWITCH	WATTSOPPER LVS-1 LOW VOLTAGE MOMENTARY CONTROL SWITCH.						
(1)	CEILING OCCUPANCY SENSOR	WATTSTOPPER, DT-300 LOW VOLTAGE OCCUPANCY SENSOR. 360° ULTRA SONIC AND INFRARED.						
P	POWER PACK	WATTSTOPPER, BZ-150 LOW VOLTAGE POWER PACK FOR CEILING PACK SENSORS.						
①	JUNCTION BOX	GALVANIZED METAL BOX CONSTRUCTED IN ACCORDANCE WITH 314.40 OF THE NEC.						
$\mathbb{X}$	EXHAUST FAN	VENT FAN, 120V, CFM AS NOTED MC TO PROVIDE AND VENT, EC TO WIRE.						
(P)	SWITCHING PHOTOSENSOR	WATTSTOPPER, LS-102, CONSULT OWNER FOR FOOT-CANDLE SET POINT.						

		POWER DEVICE LEGEND
SYMBOL	DESCRIPTION	REMARKS
<del>-</del>	DUPLEX RECEPTACLE	NEMA 5-20R, HEAVY DUTY, COMMERCIAL GRADE, 125V, 20A COMPLYING WITH NEMA WD 6 AND WD 1. GFCI OR AFCI IF NOTED. 'WP' DENOTES WEATHERPROOF COVER. 'CH' DENOTES COUNTER HEIGHT. LISTED TAMPERPROOF IF NOTED. MEET FEDERAL SPECIFICATION W-C-596.
	QUAD RECEPTACLE	QUAD RECEPTACLE OF SAME CHARACTERISTICS AS DUPLEX TYPE ABOVE.
=	DEDICATED RECEPTACLE	NEMA 5-20R, HEAVY DUTY, COMMERCIAL GRADE, 125V, 20A COMPLYING WITH NEMA WD 6 AND WD 1 UNLESS OTHERWISE NOTED ON PLANS. VERIFY PLUG TYPE PRIOR TO PURCHASE & INSTALLATION. GFCI OR AFCI IF NOTED. 'WP' DENOTES WEATHERPROOF COVER. 'CH' DENOTES COUNTER HEIGHT. LISTED TAMPERPROOF IF NOTED. MEET FEDERAL SPECIFICATION W-C-596. MAY BE EITHER SIMPLEX, DUPLEX, OR QUAD.
	FUSIBLE DISCONNECT SWITCH	HEAVY DUTY TYPE. TYPE 1 ENCLOSURE IN INTERIOR APPLICATIONS, TYPE 3R ENCLOSURE IN EXTERIOR APPLICATIONS, FUSE ACCORDING TO NAMEPLATE DATA.
	DISCONNECT SWITCH	HEAVY DUTY TYPE. TYPE 1 ENCLOSURE IN INTERIOR APPLICATIONS, TYPE 3R ENCLOSURE IN EXTERIOR APPLICATIONS.
1	JUNCTION BOX	GALVANIZED METAL BOX CONSTRUCTED IN ACCORDANCE WITH 314.40 OF THE NEC.



CDOLINDING DETAIL NO COA	
GROUNDING DETAIL-NO SCA	ᆫ

FIXTURE SHALL HAVE BATTERY BACKUP FOR 90 MINUTE ILLUMINATION.

3. FIXTURE TO BE DAMP/WET RATED

2. OR EQUAL BY COOPER. PHILIPS. DAY-BRITE LIGHTING. GE. LITHONIA. OR OWNER APPROVED SELECTION

LIGHT FIXTURE SCHEDULE										
MARK	DESCRIPTION	CRIPTION LOUVER/LENS LAMPS		MAX VOLTAGE INPUT	MOUNTING	REMARKS	MFG	MODEL		
IVIAIN	DESCRIPTION	LOUVLINLLING	TYPE	ССТ		WATTAGE		HEIVIAINS	IVII G	MODEL
Α	4' 2 LAMP VAPOR PROOF STRIP LIGHT	-	LED	-	120	64	SURFACE	2	EPC0	G-4-LED-FX-S-41-34
В	6" CAN LIGHT	-	LED	-	120	12	RECESSED	2	LITHONIA	LDN6-35/15-LO6-WR-LSS-MVOLT
С	FLOOD LIGHT	-	LED	-	120	17	SURFACE	2	COOPER	MSS-15-3T-18
D	FAN W/O LIGHT KIT	-	-	-	120	67	SURFACE	2	ZOONIX	MA4660
Е	EXTERIOR SCONCE	-	LED	3000K	120	9	SURFACE	2,3	PROGRESS LIGHTING	P5623-2030K9
EXH	LED EXIT/COMBO W/ BATTERY BACKUP	ACRYLIC	LED	N/A	120	3	VARIES	1,2	EELP	EDGC-1RC-W-RC-12V90-NI-3WLED
EMC	6" CAN LIGHT W/ BATTERY BACKUP	-	LED	-	120	12	RECESSSED	1,2	LITHONIA	LDN6-35/15-LO6-WR-LSS-MVOLT-ELSD
EM	DUAL HEAD EMERGENCY FIXTURE	ACRYLIC	LED	-	120	2	VARIES	1,2	EELP	XC-LED-2R-W-SS

SUSPENDED CEILING PER 110.26(E) OF THE NEC NO PIPING, DUCTS, OR EQUIPMENT FOREIGN TO THE ELECTRICAL EQUIPMENT OR ARCHITECTURAL APPURTENANCES SHALL BE PERMITTED TO BE INSTALLED IN OR PASS THROUGH THE DEDICATED SPACES SHOWN ABOVE WITHOUT THE STRUCTURAL CEILING WRITTEN PERMISSION OF THE DESIGN ENGINEER AND THE AUTHORITY HAVING JURISDICTION. SUSPENDED CEILING LIGHT FIXTURE STRUCTURAL CEILING EXCLUSIVELY DEDICATED SPACE SUSPENDED CEILING EXCLUSIVELY DEDICATED SPACE LIGHT FIXTURE NOTE: THIS FIGURE ILLUSTRATES THE ADDITIONAL EXCLUSIVELY DEDICATED SPACE REQUIRED OVER AND UNDER THE PANELBOARD BY 110.26(E) OF THE PLANE OF FRONT NATIONAL ELECTRIC CODE. EDGE OF PANEL EXCLUSIVELY DEDICATED SPACE NOTE: THIS FIGURE ILLUSTRATES THE WORKING SPACE IN FRONT OF THE

NOTE: WHERE THE CONDITIONS ARE AS FOLLOWS:

CONDITION 1 - EXPOSED LIVE PARTS ON ONE SIDE OF THE AND NO LIVE OR GROUNDED PARTS ON THE OTHER SIDE OF THE WORKING SPACE, OR EXPOSED LIVE PARTS ON BOTH SIDES OF THE WORKING SPACE THAT ARE EFFECTIVELY GUARDED BY INSULATING MATERIALS.

CONDITION 2 - EXPOSED LIVE PARTS ON ONE SIDE OF THE WORKING SPACE AND GROUNDED PARTS ON THE OTHER SIDE OF THE WORKING SPACE. CONCRETE, BRICK, OR TILE WALLS SHALL BE CONSIDERED AS GROUNDED.

CONDITION 3 - EXPOSED LIVE PARTS ON BOTH SIDES OF THE WORKING SPACE.

TABLE 110.26(	TABLE 110.26(A)(1) WORKING SPACE							
VOLTAGE TO GROUND,	MINIMUM CLEAR DISTANCE (FEET)							
NOMINAL	CONDITON 1	2	3					
0-150	3	3	3					
151-600	3	3-1/2	4					

PANELBOARD REQUIRED BY 110.26 OF THE

NATIONAL ELECTRIC CODE.

DEDICATED ELECTRICAL SPACE CONTINUES THROUGH

REQUIRED CLEARANCES - NO SCALE

VS ALLOWED:

MINIMUM EFFICIENCY: N/A

CONSERVATION CODE.

ELECTRICAL DESIGNER'S STATEMENT							
ELECTRICAL SYSTEM AND EQUIPMENT METHOD OF COMPLIANCE PRESCRIPTIVE _X_ PERFORMANCE ENERGY COST BUDGET							
LIGHTING SCHEDULE:							
LAMP TYPE REQUIRED IN FIXTURE:	SEE LIGHTING LEGEND						
NUMBER OF LAMPS PER FIXTURE:		SEE LIGHTING LEGEND					
BALLAST TYPE USED IN FIXTURE:	SEE LIGHTING LEGEND						
NUMBER OF BALLASTS IN FIXTURE:	SEE LIGHTING LEGEND						
TOTAL WATTAGE PER FIXTURE:	SEE LIGHTING LEGEND						
TOTAL INTERIOR WATTAGE SPECIFIED	WATTS SPECIFIED WATTS ALLOWED						

OCCUPANCY	AREA (sf)	ALLOWANCE (W/sf)	WATTAGE ALLOWED					
BATHROOM	1617	0.98	1584.66					
TOTAL 1617			1584.66					
EQUIPMENT SCHEDULES WITH MOTORS (NOT USED FOR MECHANICAL SYSTEMS) MOTOR HORSEPOWER: N/A								

1028.0

NUMBER OF PHASES: N/A

MOTOR TYPE: N/A NUMBER OF POLES: N/A DESIGNER STATEMENT: TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE DESIGN OF THIS BUILDING COMPLIES WITH THE 2018 NORTH CAROLINA ENERGY

FOR THE ADDITIONAL PRESCRIPTIVE REQUIREMENT REQUIRED BY C406 OF 2018 NORTH CAROLINA ENERGY CONSERVATION CODE, WE ARE CHOOSING C406.3 -REDUCED LIGHTING POWER DENSITY.

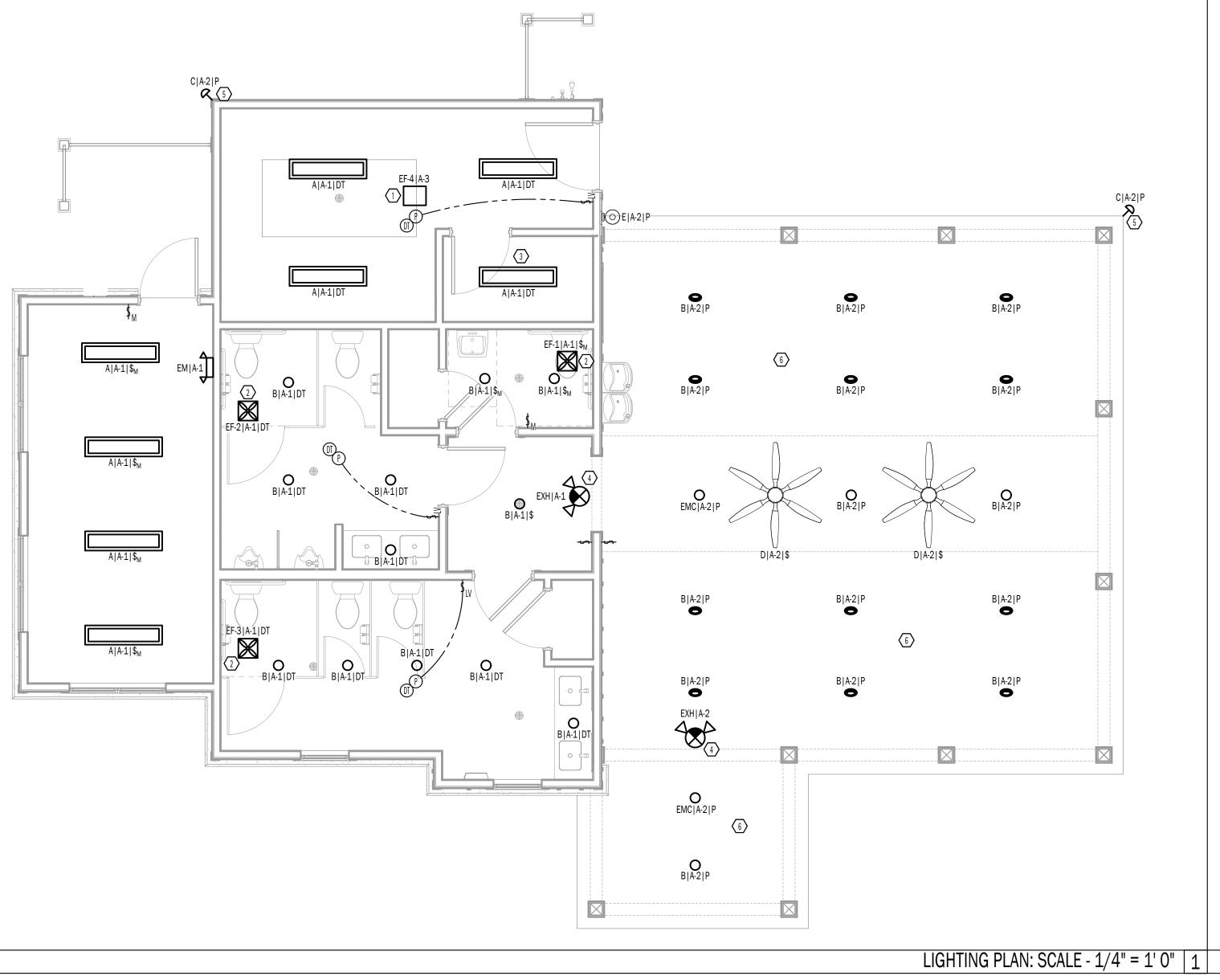
1028 W SPECIFIED <= 1426.194 W (1426.194 W ALLOWED X 90%)

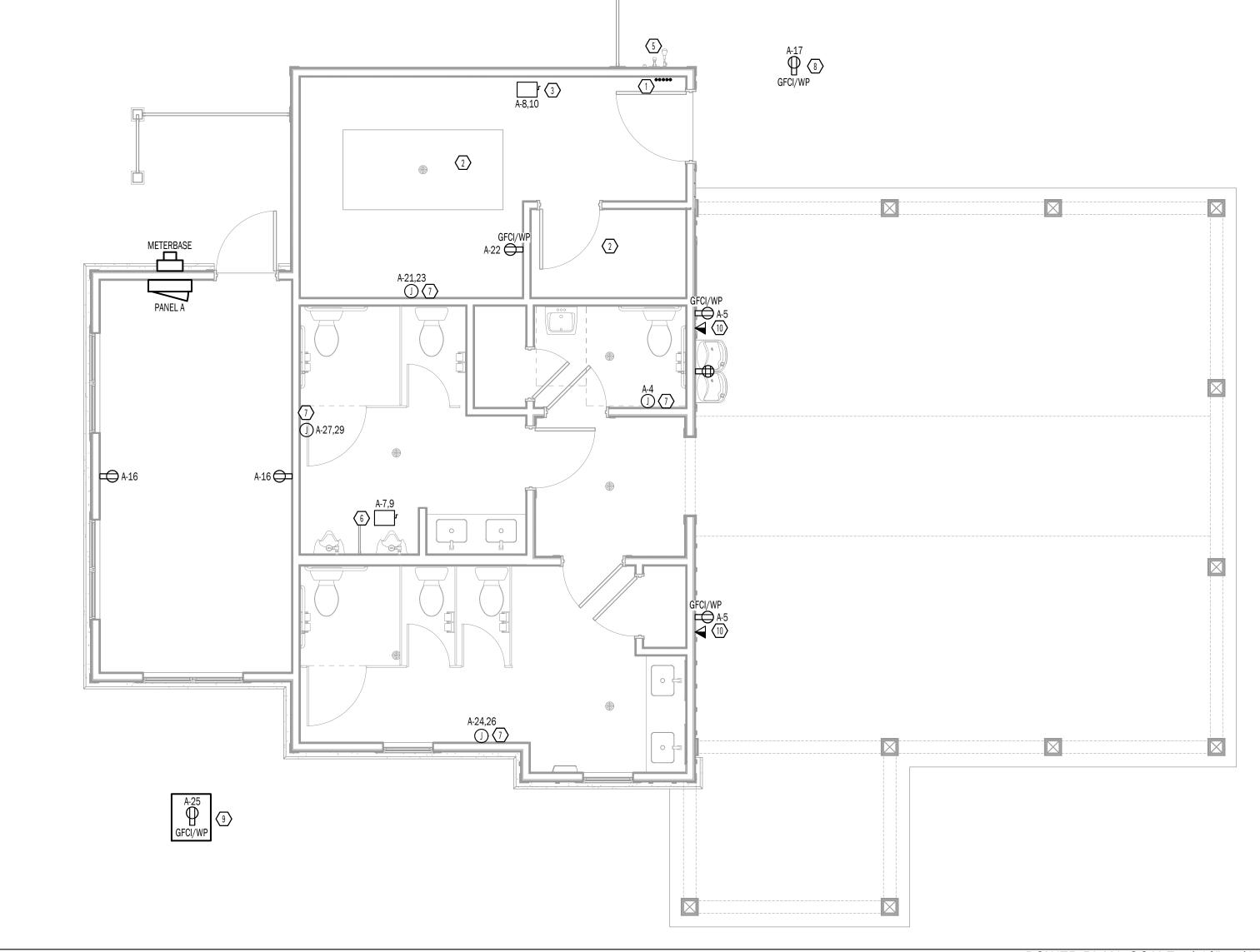
SHEET DISCRIPTION **ELECTRICAL** 

PROJECT #: DATE ISSUED: 02/19/2024

DRAWING BY: CHECKED BY: MWK/JLH

RID COUNTY THEW  $\triangleleft$ 





**D.CLUGSTON** 





#### POWER PLAN: SCALE - 1/4" = 1'0" | 2 |

PROVIDE (3) 1" CONDUITS WITH CIRCUITS AS SHOWN TO POOL FOR POOL LIGHTS AND OTHER POOLSIDE EQUIPMENT. PROVIDE (2) 1" CONDUITS FROM SPARE POOL CIRCUITS AS SHOWN AND CAP OUTSIDE NEAR POOL DECK. COORDINATE EXACT LOCATIONS WITH G.C. AND POOL CONTRACTOR. CIRCUIT TO BE CONTROLLED VIA TIME CLOCK AT PANEL. POOL LIGHTS TO BE WIRED VIA INTERMATIC JUNCTION BOX TRANSFORMER (MODEL PJBX52100). REFER TO PANEL SCHEDULE FOR CIRCUIT DESIGNATIONS.

> POWER PLAN HEX NOTES

AREA IS CORROSIVE ENVIRONMENT PER NEC 680.14.

PROVIDE POWER TO NON-FUSED DISCONNECT FOR POOL PUMP. PUMP MUST HAVE GFCI PROTECTION. PROVIDE GFCI PROTECTION AT MEANS OF DISCONNECT. DISCONNECT MUST HAVE NEMA 4X RATED ENCLOSURE. COORDINATE EXACT LOCATION AND SPEC WITH G.C AND POOL CONTRACTOR BEFORE BEGINNING WORK. FINAL CONNECTIONS BY E.C.

POWER CIRCUIT DESIGNATIONS

CIRCUIT DESIGNATION ————

-----SEE GROUNDING DETAIL

PANEL DESIGNATION —

EC TO COORDINATE WITH PC FOR HEAT TRACE ON COLD WATER SUPPLY LINES. USE CIRCUIT A-12.

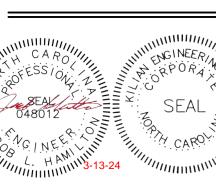
6. WATER HEATER DISCONNECT LOCATED ABOVE CEILING.

FLUSH MOUNT JUNCTION BOX FOR UNIT HEATER.

E.C TO COORDINATE WITH POOL CONTRACTOR TO ENSURE A GFCI/WEATHER PROOF RECEPTACLE IS WITHIN 20' OF EDGE OF POOL (BUT NO CLOSER THAN 6') AS REQUIRE BY NEC 680.22(A)(1) USE CIRCUIT A-17.

. RECEPTACLE IN HOTBOX FOR FREEZE PROTECTION. VERIFY EXACT LOCATION OF HOTBOX WITH UTILITY PLANS BY OTHERS.

10. MOUNT RECEPTACLE AT T.V. HEIGHT. VERIFY LOCATION WITH G.C.



SHEET DISCRIPTION **ELECTRICAL PLANS AND** 

PROJECT #: DATE ISSUED: 02/19/2024 DRAWING BY:

MWK/JLH CHECKED BY:

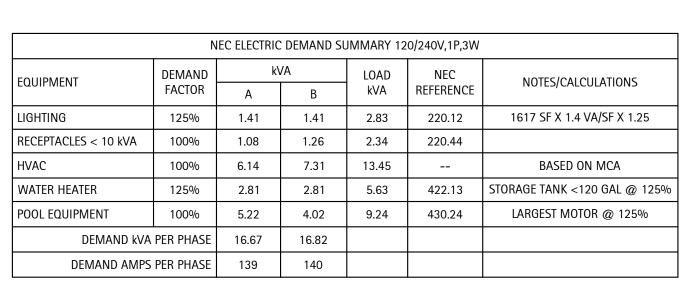
HARNETT COUNTY MATTHEWS RID **BATHHOUSE** 

PANEL SCHEDULE AND POWER RISER: NO SCALE | 3



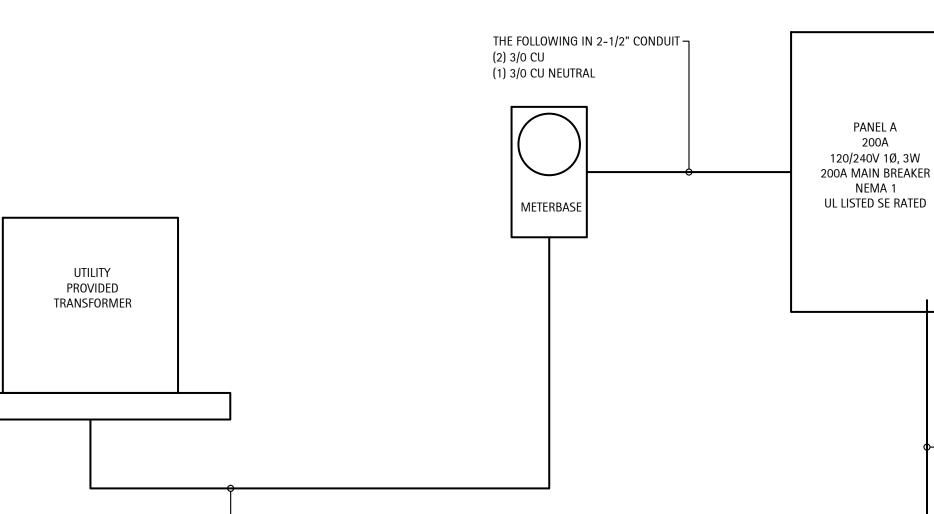
- EXHAUST FAN SUSPENDED IN ATTIC TO BE WIRED FOR CONTINUOUS OPERATION. COORDINATE WITH M.C. PROVIDE LOCKABLE BREAKER AT PANEL.
- EC TO TIE EXHAUST FAN AND LIGHTING FIXTURES TO SAME PUMP AND CHEM. ROOM ROOM LIGHTS TO BE TIED TO SAME
- MOTION SENSOR. 4. RECESS MOUNTED INTO CEILING.
- 5. FLOOD LIGHT HAS BUILT IN MOTION DETECTION.
- 6. PORCH LIGHTING CONTROLLED VIA PHOTOCELL.

#### LIGHTING CIRCUIT DESIGNATIONS A | A#-# | C LIGHT FIXTURE -PANEL DESIGNATION ———— CIRCUIT DESIGNATION —— CONTROL DESIGNATION -\* LOWER CASE LETTER INDICATES SWITCH ID NL - NIGHT LIGHT - 24/7 OPERATION P - PHOTOCELL D - DIMMER A# - OCCUPANCY SENSOR CIRCUIT (E.G. RMJ-B1) T - TIMER/TIME CLOCK



THE CALCULATED LIGHTING LOAD EXCEEDS THE CONNECTED LIGHTING LOAD.

BY UTILITY J



EXTERIOR LIGHTS/FANS LIGHTS 20/1 | 1.40 | A | 0.38 | 20/1 **UNIT HEATER 1** PUMP ROOM EXHAUST FAN EF-4 20/1 | 0.17 | B | 1.50 | 20/1 20/1 0.36 A 0.18 20/1 EMERGENCY PHONE RECEPTACLE EXTERIOR RECEPTACLES 2.25 B 2.26 POOL PUMP WATER HEATER 2.25 A 2.26 20/1 | 1.20 | B | 0.24 | 20/1 POOL LIGHTS AND ACCESSORIES HEAT TRACE POOL LIGHTS AND ACCESSORIES 20/1 | 1.20 | A | 1.20 | 20/1 | POOL LIGHTS AND ACCESSORIES POOL SPARE 20/1 0.00 B 0.36 20/1 STORAGE RECEPTACLES POOL DECK RECEPTACLE 20/1 | 0.18 | A | 0.00 | 20/1 POOL SPARE 20/1 0.00 B 0.36 20/1 WATER FOUNTAIN 1.50 A 0.18 20/1 PUMP ROOM RECEPTACLE UNIT HEATER 2 1.50 B 1.50 **UNIT HEATER 3** 20/1 0.18 A 1.50 HOTBOX RECEPTACLE 2.40 B 0.00 20/1 SPARE UNIT HEATER 4 2.40 A 0.00 SPACE SPACE 0.00 B 0.00 SPACE SPACE 0.00 A 0.00 SPACE 0.00 B 0.00 SPACE SPACE 0.00 A 0.00 SPACE SPACE 0.00 B 0.00 SPACE SPACE SPACE 0.00 A 0.00 SPACE kVA PH AMPS 15.2 A 126 13.7 B 114 VOLTAGE/PHASE 120/240,1P,3W **BUS RATING** MAIN CIRCUIT BREAKER RATING MAIN BREAKER

PANEL A

kVA

kVA BKR

LOAD

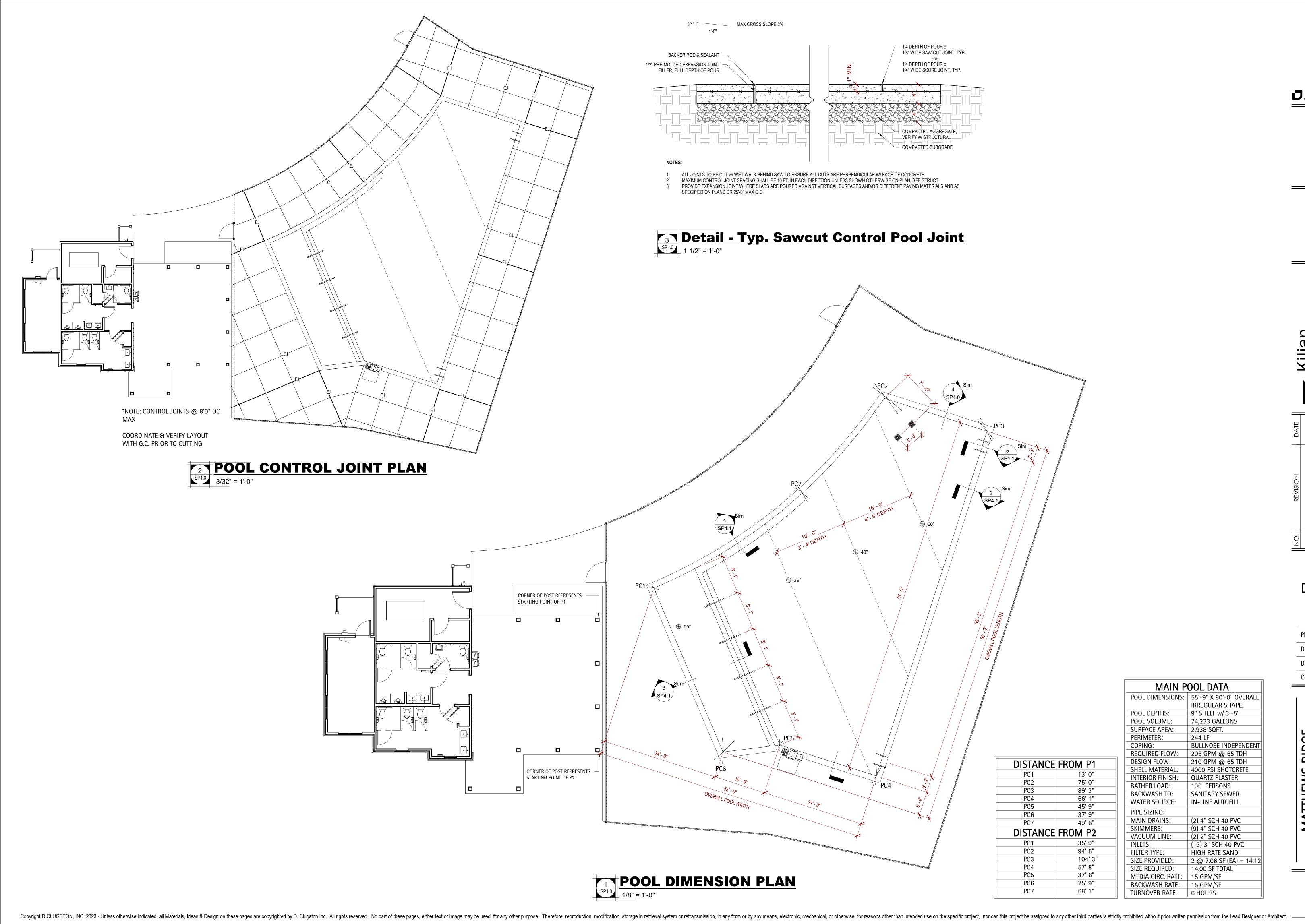
AIC RATING 22K - EC TO VERIFY SERVICE ENTRANCE RATED ENCLOSURE NEMA 1 MOUNTING SURFACE

DENOTES GFCI BREAKER

- DENOTES 30mA GFCI BREAKER PER NEC 427.22

LOAD

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SHEET DISCRIPTION POOL DIMENSION & CONTROL JOINT PLAN

PROJECT #: DATE ISSUED:

CHECKED BY:

**MATTHEWS RIDGE** HARNETT COUNTY **BATHHOUSE KB HOMES** 

#### POOL DECK EXIT REQUIREMENTS

POOL DECK AREA = 4.839 SF. @15 SF PER PERSON DECK OCCUPANT LOAD IS 323.

POOL AREA IS 2,938 SF. @ 50 SF PER PERSON, POOL OCCUPANT LOAD IS 59.

TOTAL POOL & POOL DECK OCCUPANT LOAD OF 382 \* 0.2" EQUAL 76.4 INCHES REQUIRED. 96" SHOWN ON PLAN.

REQ'D EXIT SEPARATION = 134'-6'' / 2 = 67'-3''. 75' 6" SHOWN ON PLANS.

48" WIDE COMMERCIAL GRADE GATE. ALL GATE

POST TO BE 4x4 SQ STEEL, PRIMED AND PAINTED

ALL ACCESS POINTS MUST BE SELF-CLOSING &

HAVE POSTIVE SELF-LATCHING MECHANISMS.

SLOPE 1/4" PER 1'0" AWAY FROM POOL MIN.

TYP HANDRAILS

18" DEEP BENCH MAX.

SEE DETAIL ON SP4.1.4.

2" x 2" TILE (BLACK OR BLUE)

SET 1" BACK FROM NOSE OF

STAIRS AND BENCHES TYP.

SLOPE 1/4" PER 1'0"

AWAY FROM POOL

MIN. TYP

48" WIDE COMMERCIAL GRADE GATE. ALL GATE POST

ALL ACCESS POINTS MUST BE SELF-CLOSING & HAVE

WATERCOOLER

POOL RULES

& SIGNAGE

SLOPE 1/4" PER

POOL MIN. TYP

1'0" AWAY FROM

POOL LAYOUT PLAN

1/8" = 1'-0"

TO BE 4x4 SQ STEEL, PRIMED AND PAINTED BLACK.

SEE FENCE DETAIL ON SP4.0.3

SANITARY

RINSE SHOWER

W/ HOSE BIB

POSITIVE SELF-LATCHING MECHANISMS.

BLACK. SEE FENCE DETAIL ON SP4.0.3.

#### BUILDING FIXTURE DATA

TOTAL BATHER LOAD = 2,938/15 = 196

(50% - 50% SPLIT) = 98CLUBHOUSE & PUMP HOUSE REQUIREMENTS: MINIMUM FIXTURE REQUIRMENTS ARE: 98 MEN

- 1 LAVATORIES

- 1 WATER CLOSET(S)

1 URINAL(S)

1 SHOWER IS REQUIRED

98 WOMEN - 2 LAVATORIES 2 WATER CLOSET(S)

SEE ARCHITECTURAL PLANS BY OTHERS FOR RESTROOM LOCATION & LAYOUTS

- POOL RULES &

SIGNAGE

#### POOL CONSTRUCTION NOTES

- SUBMISSION OF GROUNDING AND BONDING REPORT BY CONTRACTOR TO ENGINEER OF RECORD FOR REVIEW IS REQUIRED.
- SUBSTITUTIONS MUST BE SUBMITTED BY THE CONTRACTOR TO THE ENGINEER OF RECORD FOR APPROVAL PRIOR TO **INSTALLATION**

ANY COSTS INCURRED DUE TO DEVIATIONS FROM THE PLANS NECESSITATING DRAWING REVISIONS SHALL BE BORNE BY THE CONTRACTOR/OWNER.

- THE CONTRACTOR IS REQUIRED TO COMPREHENSIVELY DOCUMENT THE POOL CNSTRUCTION PROCESS, ENSURING THAT PICTURES ACCURATELY DEPICT THE LOCATION ON THE SITE BY INCLUDING IDENTIFIABLE BACKGROUND FEATURES. THIS DOCUMENTATIONINCLUDES, BUT IS NOT LIMITED TO, PHOTOGRAPHING THE GROUNDING/BONDING OF ALL EQUIPMENT BEFORE THE SHOTCRETE IS POURED, RETAINING CUT SHEETS FOR ALL EQUIPMENT, AND COMPLETING ALL INSPECTION REPORTS, AMONG OTHER TASKS.
- PRIOR TO THE CONSTRUCTION OF THE POOL, THE CONTRACTOR IS REQUIRED TO CONSULT WITH THE ENGINEER OF RECORD OR A DESIGNATED ENGINEER TO COORDINATE THE NECESSARY SITE INSPECTIONS IN COMPLIANCE WITH NC 15A NCAC 18A .2500.

60" COMMERCIAL GRADE FENCE TIGHT TO EDGE OF POOL DECK WITH NO

GREATER GAP THAN 3/4" BETWEEN

POOL DECK / SOLID B.O. FENCE

SLOPE 1/4" PER 1'0"

AWAY FROM POOL MIN.

SLOPE 1/4" PER

1'0" AWAY FROM

POOL MIN. TYP

COMMERCIAL

LADDER

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SHOULD THE CONTRACTOR OR ANY SUBCONTRACTOR DEVIATE FROM THE APPROVED DESIGN PLANS. THEY SHALL INDEMNIFY AND HOLD HARMLESS THE ARCHITECT, ENGINEER OF RECORD AND DESIGNER TO THE FULLEST EXTENT PERMITTED BY LAW.

LIFE SAFETY EQUIPMENT,

LIFE RING, HOOK & POLE

POOL EDGE

INDEPENDENT

CANTILEVER COPING

DEPTH/DIVING MARKERS ARE

SET NO MORE THAN 24' APART

AT COPING LINE MAX

FENCE LINE

4 INCH THICK LIGHT BROOM

FINISH CONCRETE POOL

DECK W/ 6x6 W2.1 xW2.1 WWF OVER 4" #57 STONE SPOT ELEVATIONS REFLECT REQ'D SLOPES BETWEEN 1/4"

PER FOOT AND 1/2" PER FOOT FOR HEALTH DEPARTMENT

APPROVAL. ANY DEVIATIONS OR CONFLICTS NEED TO BE BROUGHT TO POOL DESIGNERS ATTENTION IMMEDIATLY SEE CIVIL DRAWINGS FOR ELEVATIONS BY OTHERS.

#### POOL EQUIPMENT SCHEDULE TAG COUNT MANUFACTURER WHISPERFLO XFET-20 1 1 PENTAIR 5.1 HP SELF-PRIMING PUMP W/ STRAINER BASKET +EXTRA BASKET 1 PENTAIR 147400 TANDEM FILTER PIPING KITS FOR 2 & 3 IN FILTERS 3 2 PENTAIR TR-140 C3 36 INCH DIA HIGH RATE SAND FILTER W/ 7.06 SF OF MEDIA 4 1 PENTAIR HC-3315 COMMERCIAL HIGH CAPACITY CHLORINE/BROMINE FEEDER 5 1 FLO VIS FV-3-40 3 INCH COMMERCIAL INLINE FLOW METER 6 2 AQUASTAR WAV12WR101 W/ FBS-50-812-4 12"x12" VGB SUCTION OUTLET COVER W/ A.S.A MFG FIBERGLASS SUMP 1 AQUASTAR HVC101 SELF-CONTAINED HYDROSTATIC RELIEF VALVE 9 AQUASTAR SKR101 WHITE COMMERCIAL GRADE SKIMMER VACUUM LINE FITTING W/ LOCK CAP 2 AQUASTAR ES1022SI12001 W/ VLK15T01 10 1 AQUASTAR GDD101 COMMERCIAL OVERFLOW DRAIN 11 10 AQUASTAR ES1022SI2001 W/ 8101 WALL RETURN INLET - DIRECTIONAL ES1022SI2001 W/ BP101 3 AQUASTAR FLOOR RETURN INLET W/ BUBBLER PLATE FITTING AFB101 FILLSTAR - AUTOFILL LINE - WHITE 13 1 AQUASTAR LIGHT - 602104 14 2 PENTAIR 190W EQUIVALENCY WHITE GLOBRITE LED LIGHT 3 PENTAIR LIGHT - 602145 300W EQUIVALENCY WHITE INTELLIBRITE LED LIGHT 15 16 3 INTERMATIC PJB4175 4 LIGHT CONNECTION POOL & SPA JUNCTION BOX 4 SR SMITH DMS-102B - MG MARINE GRADE DECK MOUNTED HANDRAIL - STANDARD 18 2 SR SMITH MG-10054 MARINE GRADE COMMERCIAL LADDER MULTI-LIFT HC 1 SR SMITH ADA COMPLIANT MULTILIFT

#### POOL DECK MARKINGS

DEPTH MARKINGS: IN LOCATIONS AS SHOWN ON THE DRAWINGS AND ADHERING TO THE FOLLOWING:

- LOCATED ON TOP OF POOL DECK AND AT OR ABOVE THE WATER SURFACE ON THE VERTICAL WALL.
- SHALL BE IN ARABIC NUMERALS AT LEAST 4" HIGH AND OF A COLOR CONTRASTING W/ THE BACKGROUND.
- MARKINGS SHALL INDICATE THE DEPTH OF THE POOL IN FEET AND SHALL INCLUDE THE WORD "FEET" OR THE SYMBOL "FT" TO INDICATE THE UNIT OF MEASUREMENT.
- MARKINGS IN POOL DECK SHALL PROVIDE A SLIP RESISTANT WALKING SURFACE.
- NOT TO EXCEED 25'-0" IN SPACING ALONG THE PERIMETER OF THE POOL.

"NO DIVING" MARKINGS: IN LOCATIONS AS SHOWN ON THE DRAWINGS AND ADHERING TO THE FOLLOWING

- NOT TO EXCEED 25'-0" IN SPACING. ALONG COPING EDGE. DENOTED IN ONE OF THE FOLLOWING MANNERS:
  - CONSISTING OF THE WORDS "NO DIVING" IN LETTERS AT LEAST 4" HIGH AND OF A COLOR
  - CONTRASTING WITH THE BACKGROUND. AT LEAST A 6"x6" IN SIZE INTERNATIONAL SYMBOL FOR NO DIVING IN RED AND BLACK ON A WHITE BACKGROUND. (VERIFY WITH MANICIPALITY)

#### POOL SAFETY REQUIREMENTS PROVIDE SAFETY PROVISIONS PER SECTION .2530. THE

- MINIMUM BEING: 12' LONG (MINIMUM) METAL POLE WITH A BODY HOOK SECURELY ATTACHED. THE POLE SHALL BE NON-TELESCOPING. NON-ADJUSTABLE & NON-COLLAPSIBLE.
- MINIMUM 1/4" DIA THROWING ROPE AS LONG AS 1-1/2 TIMES THE MAX WIDTH OF THE POOL OR 50', WHICHEVER IS LESS, ATTACHED TO A U.S. COAST GUARD APPROVED RING BUOY.
- TWO UNITS OF LIFESAVING EQUIPMENT MUST BE PROVIDED FOR ANY POOL THAT EXCEEDS 3,000 SQ FT (186 SQ M) OF TOTAL SURFACE AREA.

#### **EMERGENCY TELEPHONE SERVICE:**

- TELEPHONE CAPABLE OF DIRECTLY DIALING 911 OR OTHER EMERGENCY NOTIFICATION SYSTEM SHALL BE PROVIDED AND ACCESSIBLE TO ALL POOL USERS.
- THE TELEPHONE SHALL BE PERMANENTLY AFFIXED TO A LOCATION INSIDE THE POOL ENCLOSURE OR OUTSIDE THE ENCLOSURE WITHIN 75' OF THE BATHER ENTRANCE.
- THE TELEPHONE SHALL BE VISIBLE FROM WITH THE POOL ENCLOSURE OR A VISIBLE SIGN SHALL BE POSTED INDICATING THE LOCATION OF THE EMERGENCY PHONE
- AT THE TELEPHONE PROVIDE A SIGN WITH LEGIBLE LETTERS PROVIDING THE FOLLOWING INFORMATION. - DIALING INSTRUCTIONS
- ADDRESS OF THE POOL LOCATION - TELEPHONE NUMBER OF THE POOL LOCATION.

SEE POOL HOUSE PLANS BY OTHERS FOR EXACT LOCATION OF THE TELEPHONE SERVICE.

## POOL SIGNAGE TO BE POSTED IN THE MAIN POOL AREA:

- CHILDREN SHOULD NOT USE THE SWIMMING POOL
- ADULTS SHOULD NOT SWIM ALONE.
- GLASS CONTAINERS ARE PROHIBITED IN THE POOL AREA.

SIGN "C" - PROVIDE A SIGN VISIBLE UPON ENTERING THE POOL ENCLOSURE DIRECTING POOL USERS TO SHOWER BEFORE ENTERING THE POOL.

FOR FINAL NUMBER OF ENTRANCES.

## POOL DECK SIGNAGE REQUIREMENTS

SIGN "A" - 4" TALL LETTERS WARNING - NO LIFEGUARD ON DUTY

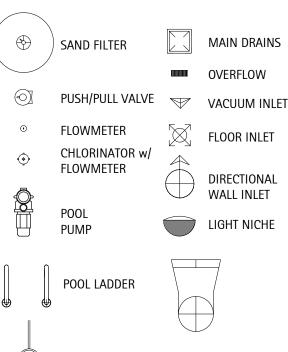
SIGN "B" - 1" TALL LETTERS - A MIN. OF (2) THIS PROJECT

#### POOL SAFETY RULES

- WITHOUT ADULT SUPERVISION.
- PETS ARE PROHIBITED IN THE POOL AREA.
- NO DIVING IS ALLOWED IN POOL AREA

SIGN "D" - PROVIDE A SIGN STATING "POOL CLOSED" FOR EVERY POOL ENTRANCE. VERIFY WITH FINAL POOL ENCLOSURE DESIGN

#### **POOL SYMBOLS LEGEND**



REFER TO POOL PLUMBING SCHEDULE FOR SPECS.

#### POOL DIMENSIONS: 55'-9" X 80'-0" OVERALL IRREGULAR SHAPE. POOL DEPTHS: 9" SHELF w/ 3'-5' **74,233 GALLONS** 2,938 SQFT. 244 LF BULLNOSE INDEPENDENT 206 GPM @ 65 TDH 210 GPM @ 65 TDH 4000 PSI SHOTCRETE **QUARTZ PLASTER** 196 PERSONS **SANITARY SEWER** IN-LINE AUTOFILI (2) 4" SCH 40 PVC SKIMMERS: (9) 4" SCH 40 PVC VACUUM LINE: (2) 2" SCH 40 PVC INLETS: (13) 3" SCH 40 PVC

MAIN POOL DATA

#### POOL VOLUME: SURFACE AREA: PERIMETER: COPING: REQUIRED FLOW: **DESIGN FLOW:** SHELL MATERIAL: INTERIOR FINISH: BATHER LOAD: **BACKWASH TO:** WATER SOURCE: PIPE SIZING MAIN DRAINS:

HIGH RATE SAND

FILTER TYPE SIZE PROVIDED: 2 @ 7.06 SF (EA) = 14.12 SIZE REQUIRED: 14.00 SF TOTAL MEDIA CIRC. RATE: 15 GPM/SF BACKWASH RATE: 15 GPM/SF TURNOVER RATE:

AUTOFILL

SEE PLANS BY OTHERS FOR CONSTRUCTION OF BATHHOUSE, PUMP WORK, ETC.

& CHEMICAL STORAGE ROOMS, SITE POOL IS DESIGNED FOR DAWN TO DUSK **SWIMMING ONLY** 

**POOL DESIGN NOTES** 

6 HOURS

iiia iia

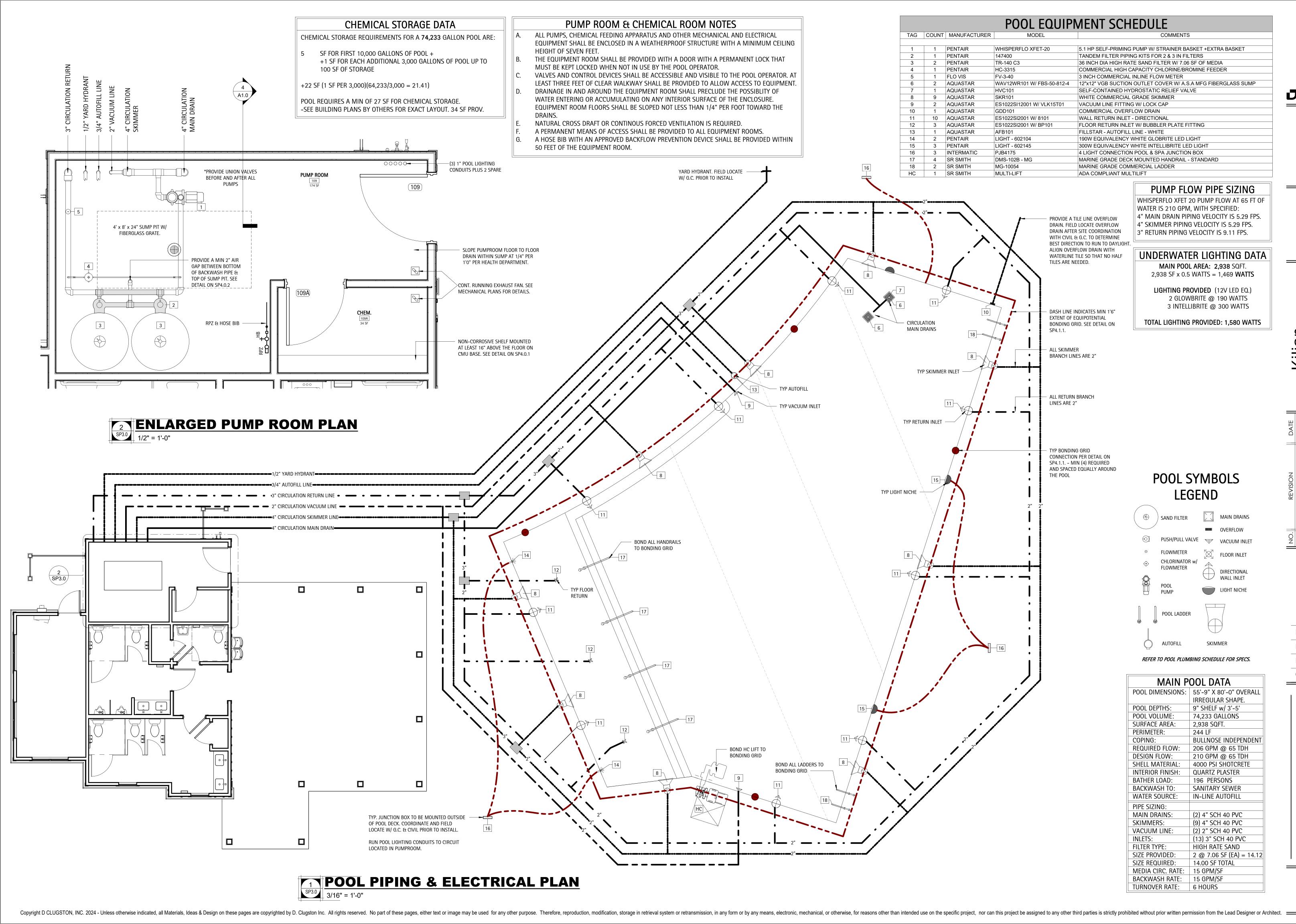
**J.CLUGSTON** 

SHEET DISCRIPTION **OVERALL LAYOUT** 

PROJECT #: 2023043 DATE ISSUED: 03/13/2024 JVD

DRAWING BY: CHECKED BY: DSC/JLH

RID COUNTY **BATHHOUSE** HOM **ATTHEWS** HARNETT KB









Engineerii Inc.

NO. REVISION

DATE

SHEET DISCRIPTION
PIPING &
ELECTRICAL
PLAN

PROJECT #: 2023043

DATE ISSUED: 03/13/2024

DRAWING BY: JVD

CHECKED BY: DSC/JLI

MATTHEWS RIDGE
KB HOMES
BATHHOUSE
HARNETT COUNTY, NC

SP3.0







Kilian

SHEET DISCRIPTION SECTIONS &

**DETAILS** 

PROJECT #: 2023043 DATE ISSUED: 03/13/2024 DRAWING BY:

CHECKED BY: DSC/JLH

MAIN POOL DATA

POOL DEPTHS:

POOL VOLUME:

SURFACE AREA:

REQUIRED FLOW:

DESIGN FLOW:

BATHER LOAD:

**BACKWASH TO:** 

WATER SOURCE:

PIPE SIZING: MAIN DRAINS:

SKIMMERS:

INLETS:

VACUUM LINE:

FILTER TYPE:

SIZE PROVIDED:

SIZE REQUIRED:

MEDIA CIRC. RATE: | 15 GPM/SF BACKWASH RATE: 15 GPM/SF TURNOVER RATE: 6 HOURS

SHELL MATERIAL

INTERIOR FINISH:

PERIMETER:

COPING:

POOL DIMENSIONS: 55'-9" X 80'-0" OVERALL

IRREGULAR SHAPE.

**BULLNOSE INDEPENDENT** 

206 GPM @ 65 TDH

210 GPM @ 65 TDH

4000 PSI SHOTCRETE

QUARTZ PLASTER

**SANITARY SEWER** 

IN-LINE AUTOFILL

(2) 4" SCH 40 PVC

(9) 4" SCH 40 PVC (2) 2" SCH 40 PVC

(13) 3" SCH 40 PVC

2 @ 7.06 SF (EA) = 14.12

HIGH RATE SAND

14.00 SF TOTAL

196 PERSONS

9" SHELF w/ 3'-5'

74,233 GALLONS

2,938 SQFT.

244 LF

MATTHEWS RIDGE KB HOMES COUNTY, **BATHHOUSE** HARNETT

HAZARDOUS MATL. SIGN TO BE POSTED ON EQUIPMENT RM AND CHEM STORAGE RM DOORS PER 2018 NC FIRE PREVENTION CODE 0XY MECH. VENITILATION IN CEILING (CONTINOUS) NO CHEMICALS 100 LBS CALCIUM CHLORIDE ON ON SECOND OR THIRD 100 LBS CYANURIC ACID ON SECOND OR THIRD SHELF ONLY 100 LBS SODIUM CARBONATE ON SECOND OR THIRD SHELF 50 LBS CALCIUM HYPOCHLORITE ON SECOND OR THIRD SHELF ONLY 100 LBS SODIUM THIOSULFATE ON SECOND OR THIRD SHELF 100 LBS SODIUM BICARBONATE ON SECOND OR THIRD SHELF ONLY - 30 GALS HYDROCHLORIC ACID ON LOWEST SHELF ONLY SHELF FLOOR ONLY TYPICAL NON-CORROSIVE SHELF TO START 1'-4" AFF

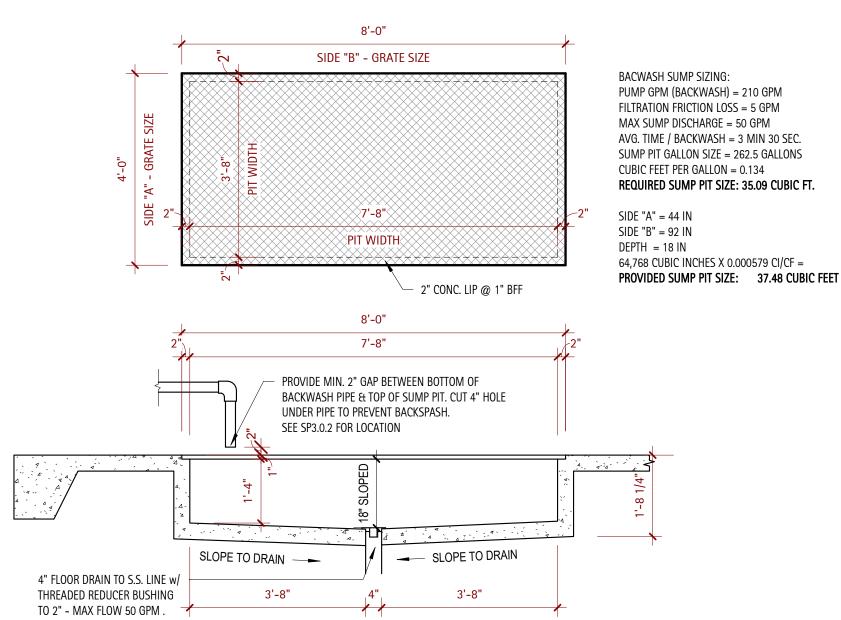
#### TYPICAL CHEMICAL ROOM SHELVING w/ QUANITIES

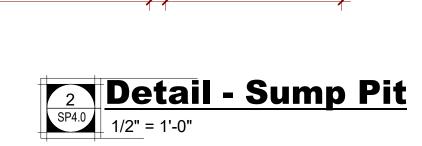
2. NCFPC, Chapters 27 through 44.

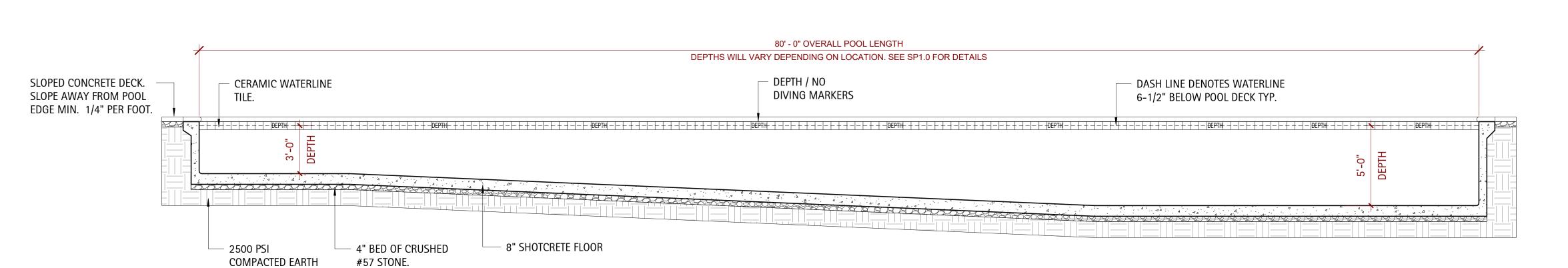
Appendices E and F

A. Unless otherwise stated, all code references are to the 2018 North Carolina State Building Codes (NCSBC). B. North Carolina Building Code (NCBC) applicable portions include but are not limited to: 1. Chapter 3, Section 307 and Tables 307.7(1), 307.1(2) 2. Chapter 4, Section 414, 415 and Tables 414.2.2, 414.2.5, 415.8.2.1.1 C. North Carolina Fire Code (NCFPC) applicable portions include but are not limited to: 1. NCFPC, Chapter 18, Tables 1804.2.2.1, 1805.2.2

## Detail - Chemical Storage 1/2" = 1'-0"







OPENING SHOULD NOT

ALLOW PASSAGE OF A 4" BALL

—BOTTOM OF FENCE

——4" CONCRETE DECK

-POST TO BE SET

TIGHT TO POOL

DECK EDGE U.N.O.

**NOTE:** CONSULT THE LIFE SAFETY PLAN TO DETERMINE THE

LOCATIONS OF ADA PANIC HARDWARE INSIDE ALL GATE.

60" BLACK ALUMINUM ARCH FENCE GATE

2" SQ ALUMINIUM HEAVY DUTY

COMMERCIAL POST w/ CAP

PROP OPEN AUDIO ALARM

D&D GATE HANDLE (BLACK)

SEE PLAN FOR GATE SIZE

36" MIN.

1/2" MAX GAP-

GATE TO SWING AWAY FROM

POOL U.N.O.

MATCH FINISH.

**NOTE:** ALL POST IN CONCRETE TO

OF LATCH

4' - 4" MIN

3 DETAIL - TYP FENCE
1/2" = 1'-0"

BE CORE DRILLED AND FILLED

WITH HYDRAULIC CEMENT TO

Hi-Lift KS-950 KANT SLAM

45" MIN.

4" SQ. ALUMINIUM HEAVY DUTY COMMERCIAL

SELF-LATCH WHEN OPENED.

THE CONTRACT DOCUMENT.

DEGREE ANGLE (EQUIVALENT TO 1").

45" MIN.

SERVICE GATES ARE EXEMPT FROM NEEDING PANIC HARDWARE; HOWEVER, THEY MUST BE EQUIPPED WITH

A MAGNA-LATCH OR EQUIVALENT MECHANISM, AS

ALL GATES MUST POSSESS THE CAPABILITY TO SELF-CLOSE AND SELF-LATCH WHEN OPENED TO A 90

IS PRESENT ON THE LATCH SIDE OF THE GATE.

FOR DETAILED FENCE SPECIFCIATIONS, REFER TO THE

FENCE DETAILS OUTLINED IN THE "SP#" PAGES WITHIN

WELL AS, POSSESS THE CAPABILITY TO SELF-CLOSE AND

POST w/ CAP - CORE DRILLED.

TrueClose HEAVY DUTY SELF

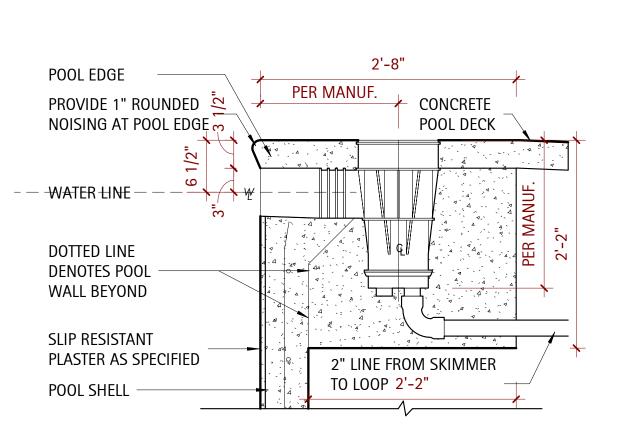
ADDITIONAL NOTES:

CLOSING GATE HINGES (BLACK)

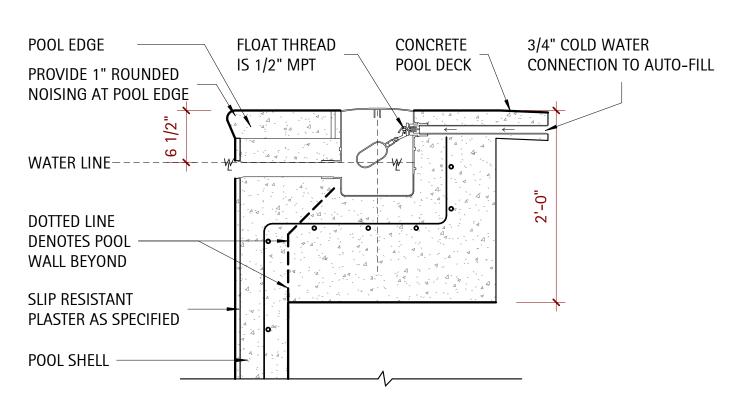
METER



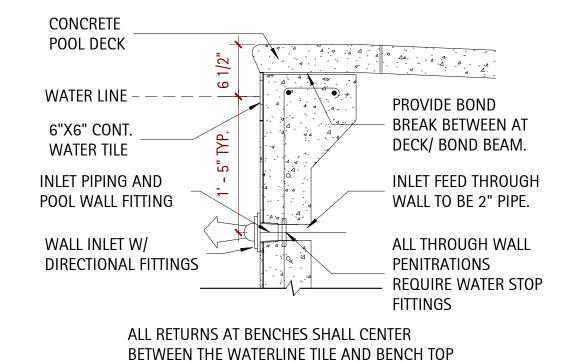
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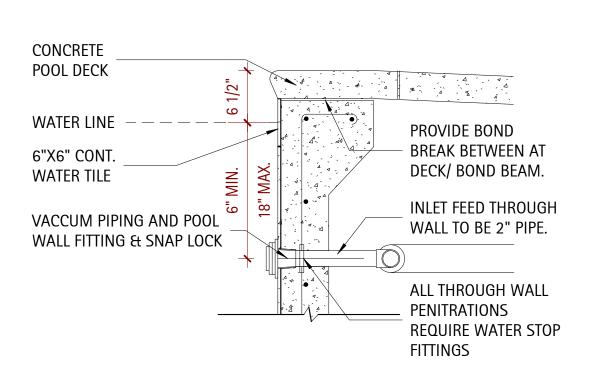




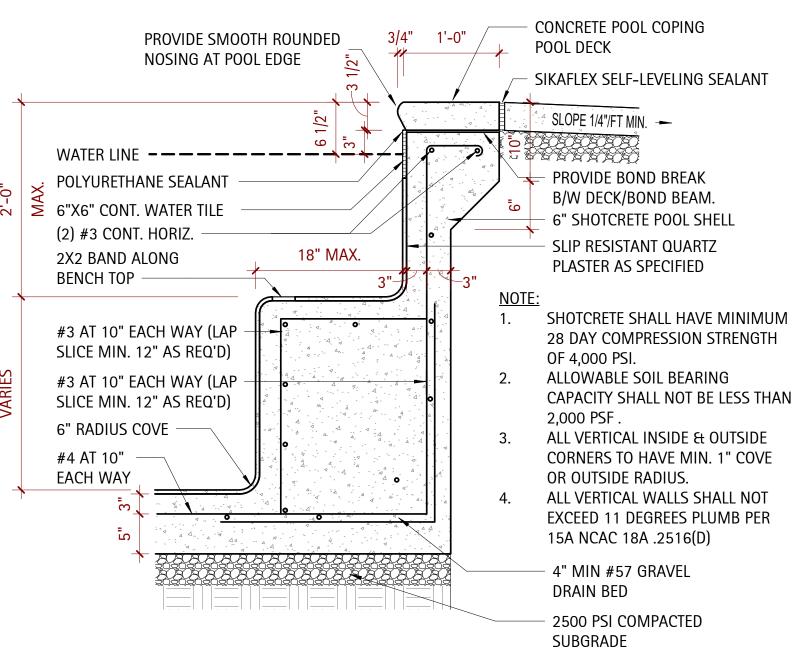
#### **Detail - Pool Autofill** 1" = 1'-0"



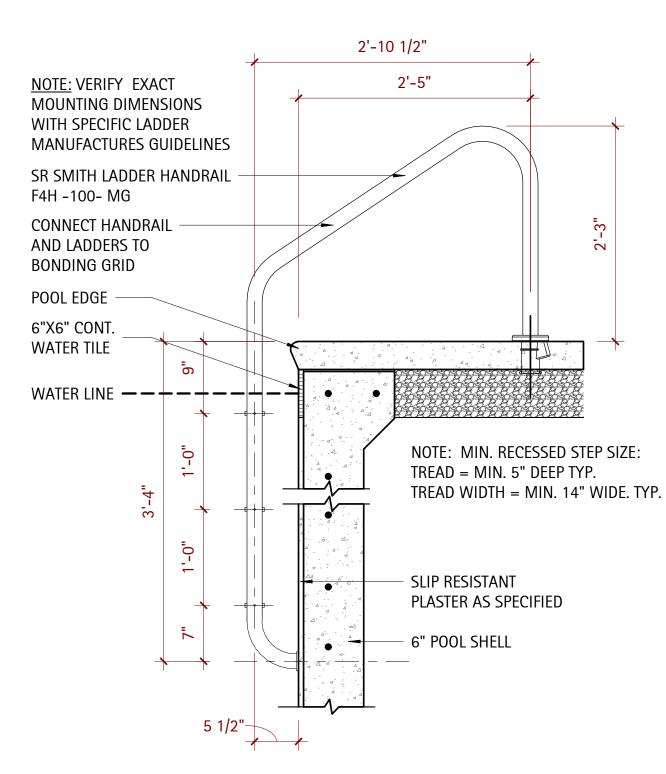
**Detail - Return Inlet Detail** SP4.1 1" = 1'-0"



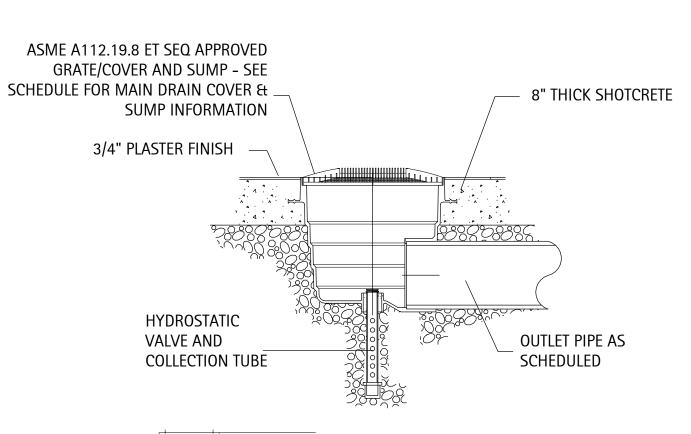




#### **Detail - Pool Bench** SP4.1 1" = 1'-0"

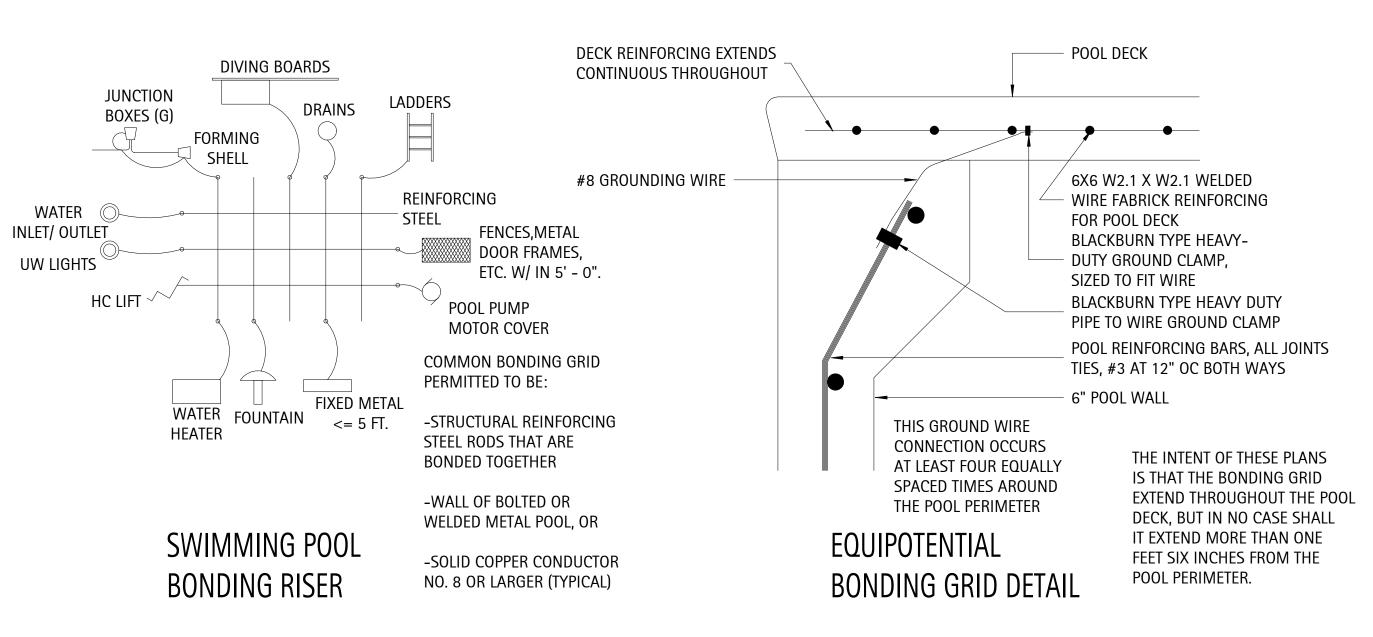




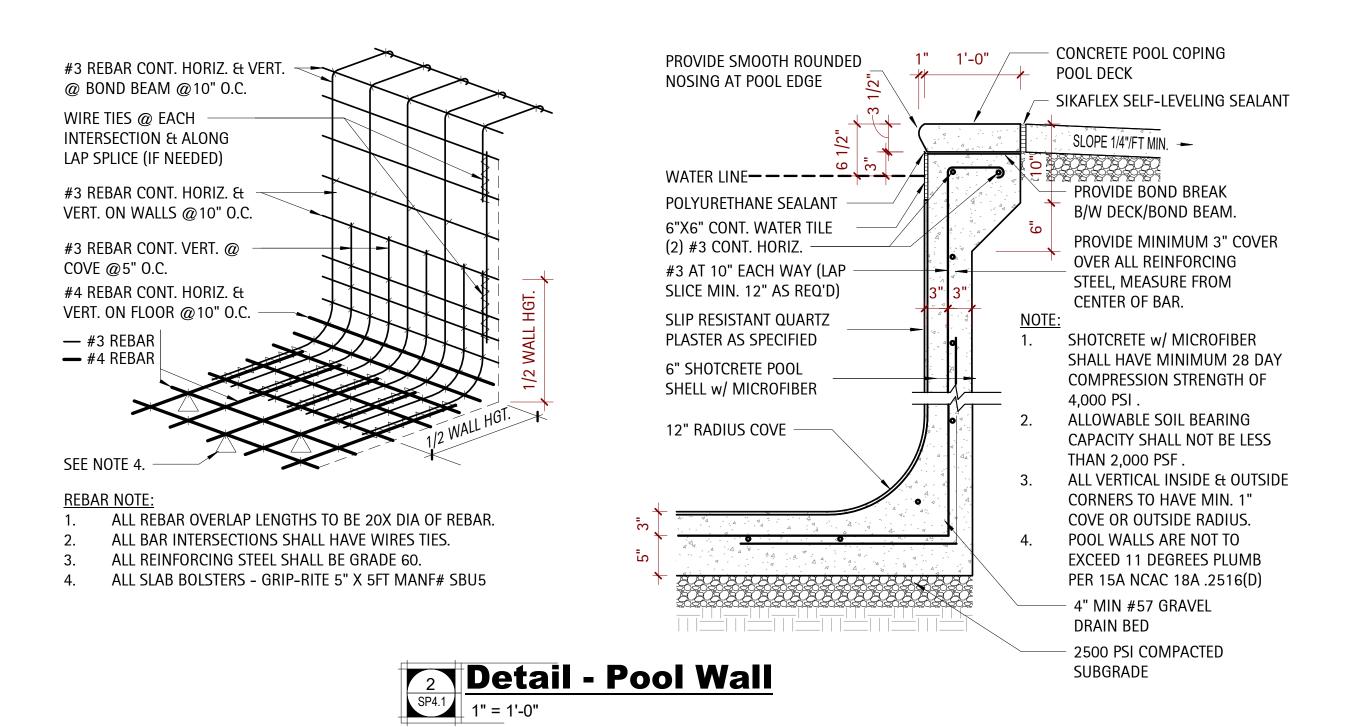


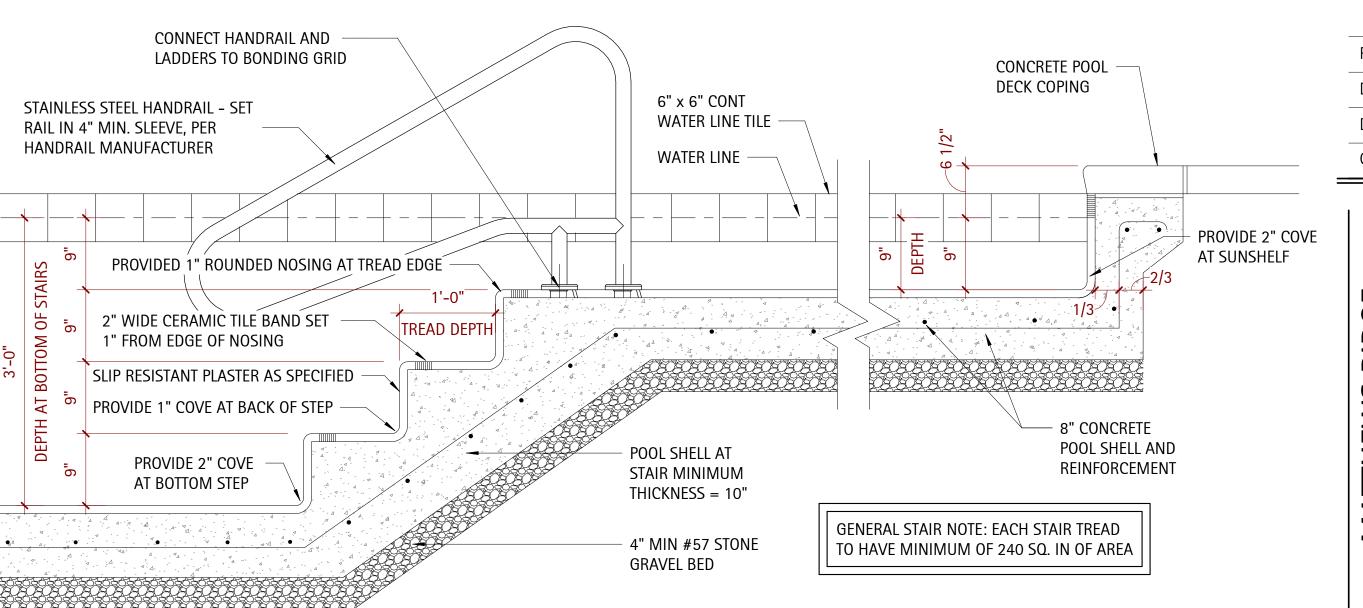


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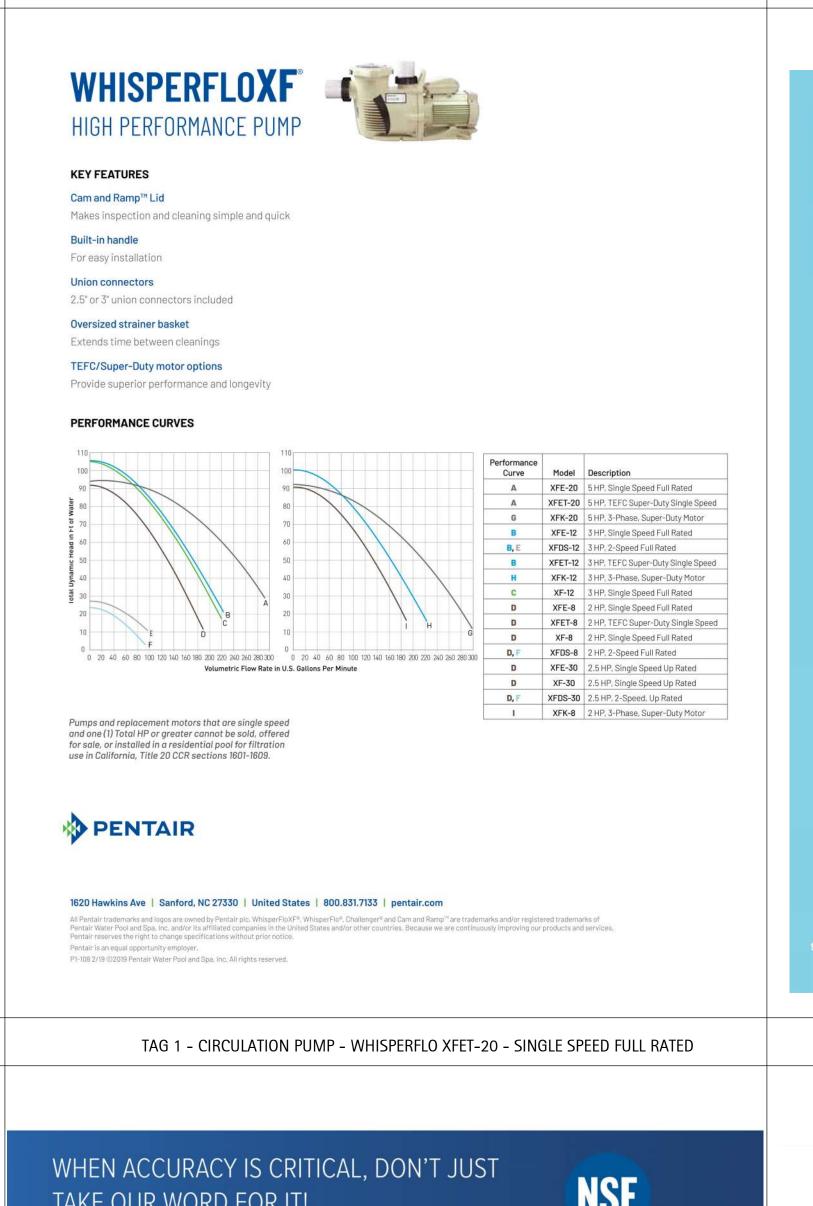


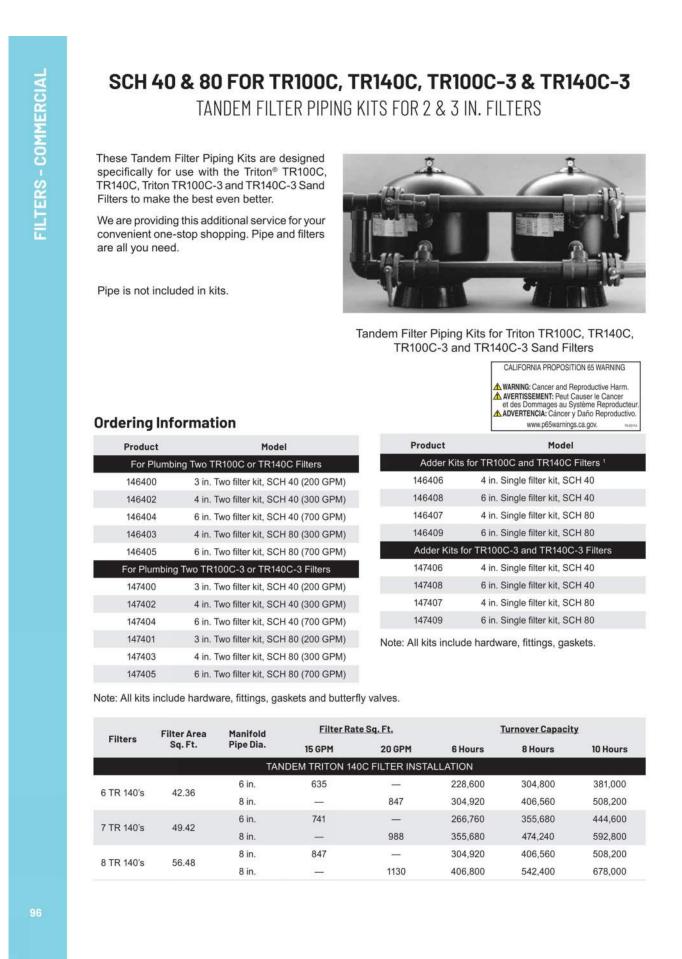
SHEET DISCRIPTION SECTIONS & **DETAILS** 

PROJECT #: 2023043 DATE ISSUED: 03/13/2024 DRAWING BY CHECKED BY: DSC/JLH

NC

**MATTHEWS RIDGE** COUNTY, **BATHHOUSE** HOMES HARNETT





TAG 2 - BACKWASH KIT - 147400 - TANDEM FILTER PIPING KITS FOR 2 & 3 IN FILTERS

AQUASTAR 🛫

Cover Model Number

WAV12WR-12f\_A-1.5b\_B3\_C0.3\_D0.7\_E3.5\_F16

WAV12WR-12f\_A-2b\_B3\_C0.3\_D0.7\_E4.9\_F16

WAV12WR-12f\_A-2.5b\_B3\_C0.3\_D0.7\_E4.7\_F16

WAV12WR-12f\_A-3b\_B3\_C0.3\_D0.7\_E4.5\_F16

WAV12WR-12f\_A-4s\_B6\_C0.3\_D0.7\_E3\_F16

WAV12WR-12f\_A-6b\_B3\_C0.3\_D0.7\_E3\_F16

WAV12WR-12f\_A-3s\_B5.6\_C0.3\_D0.7\_E3\_F16

WAV12WR-12f\_A-4b\_B3\_C0.3\_D0.7\_E3.75\_F16

WAV12WR-12w\_A-1.5b\_B3\_C0.3\_D0.7\_E3.5\_F16

WAV12WR-12w\_A-2b\_B3\_C0.3\_D0.7\_E3.5\_F16

WAV12WR-12w\_A-3b\_B3\_C0.3\_D0.7\_E4\_F16

www.aquastarpoolproducts.com.

WAV12WR-12w\_A-2.5b\_B3\_C0.3\_D0.7\_E4.7\_F16

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SOFA Model No.

WAV12WRxxx

VGBA-2017 PRODUCT SPECIFICATIONS

VGBA-2017 Flow Ratings, Sump Dimensions,

**DIRECTIONS:** Please follow the SOFA specific flow rates, sump specifications, and flow path zone information below.

FIGURE 1 - SOFA MODEL & FLOW PATH

[Sump P/N 12-3SB]

[Sump P/N 12-3SB]

Note 1: "SOFA Model No" nomenclature; bottom pipe = (b), side pipe = (s). See Fig 1 for capital letters A through E

Note 2: Head loss inHg is measured 16 to 24 inches from the finish surface of the pool. Reference Fig 1 dimension F.

WAV12WR-12f\_A-4s,2.5b\_B6\_C0.3\_D0.7\_E3\_F16 [Sump P/N 12-3SB] 4"(s), 2.5" (b)

WAV12WR-12f\_A-6b\_B10.5\_C0.3\_D0.7\_E2.9\_F16 [Sump P/N 12-6SB]

WAV12WR-12w\_A-4b\_B3\_C0.3\_D0.7\_E3.75\_F16 [Sump P/N 12-4SB]

WAV12WR-12w\_A-6b\_B10.5\_C0.3\_D0.7\_E2.9\_F16 [Sump P/N 12-6SB]

WAV12WR Head Loss Curves

The installation must conform to these minimum/maximum requirements including the SOFA dimension defined in Figure 1

The flow path zone is defined by dimensions A through E. The installed sump may be manufactured or field-built and it may

A. Specified PVC Pipe Size

Minimum Ledge Depth D. Maximum Ledge Width

2" (b)

2.5" (b)

6" (b)

2.5" (b)

6" (b)

TAG 6 - MAIN DRAIN - WAV12WR101 - 12" X 12" ANTI-ENTRAPMENT MAIN DRAIN

Floor (f)

Floor (f)

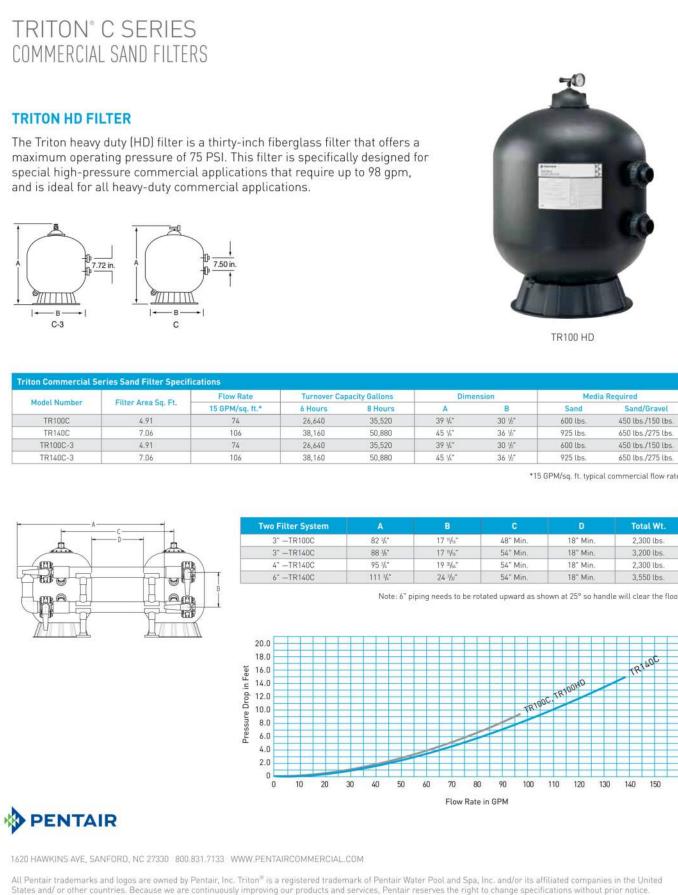
Wall (w)

WAV12WR Head Loss Curves

10.5"

Sump Flow Path Zone, and Head Loss Curves

Suction Outlet Fitting Assembly (SOFA)





The INLET control valve side of the feeder connects to the

plumbing on the discharge side of the pump, before the filter.

The OUTLET side of the feeder connects to the pool return

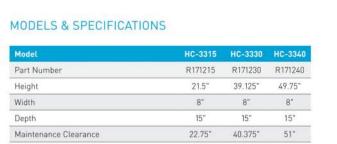
or any other installed equipment. Installation of a corrosion-

resistant check valve such as #R172288 by Pentair between

the feeder inlet and outlet and the equipment is strongly

recommended to check backflow of chemicals. This helps

line after the filter and/or heater, pool cleaner, diverter valves,



15 30 41 Flow rate (GPM) Maximum Output Rate, Chlorine\* [lbs./hr.]-Spa at listed flowrate Maximum Output Rate, Bromine' (lbs./hr.)-Pool at listed flowrate Flow rate (GPM) 17.8 17.8 9.2 Output Rate, Chlorine\* (lbs./hr.)-Pool at listed flowrate Output Rate, Chlorine\* [lbs./hr.]-Spa at listed flowrate Output Rate, Bromine (lbs./hr.)-at listed flown 0.3 0.6 0.9 Maximum Pool Size @ 34 GPM Chlorine-Gals) 224,000 369,000 658,500 Maximum Pool Size @ 34 GPM (Bromine-Gals) 99,200 164,000 292,600

Maximum working pressure - 50 psi

PENTAIR

ensure equipment longevity.

AVAILABLE FROM:

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Because we are continuously improving our products and services, Pentair reserves the right to change specifications without prior notice. Pentair is an equal opportunity employer.

TAG 4 - CHLORINATION SYSTEM - HC-3315 - COMMERCIAL HIGH COMPACITY CHLORINE FEEDER

AQUASTAR Hyrdostatic Relief Valves

pumps • filters • heaters • heat pumps • automation • lighting • cleaners • sanitizers • water features • maintenance products 1/14 Part # R5-1012 ©2014 Pentair Water Pool and Spa, Inc. All rights reserved. (NSF)

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Kilia

**J.CLUGSTON** 

SHEET DISCRIPTION **SPECIFICATIONS** 

PROJECT #: 2023043 03/13/2024 DATE ISSUED:

JVD DRAWING BY: DSC/JLH CHECKED BY:

G RID

COUNTY **BATHHOUSE** HOM **MATTHEWS** HARNETT KB

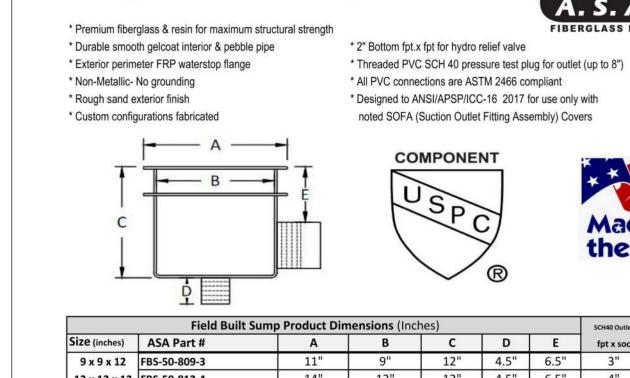
Certified to NSF/ANSI/CAN 50

ANSI/APSP/ICC 16 - 2017

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11/13 Part # P1-151 @2013 Pentair Water Pool and Spa, Inc. All rights reserved. (NSE)

**Fiberglass Field Built Sumps** 





	SCH40 Outlet	SOFA						
Size (inches)	ASA Part #	Α	В	С	D	E	fpt x soc	List
9 x 9 x 12	FBS-50-809-3	11"	9"	12"	4.5"	6.5"	3"	Α
12 x 12 x 12	FBS-50-812-4	14"	12"	12"	4.5"	6.5"	4"	B1
12 x 12 x 18	FBS-50-812-18-6	14"	12"	18"	4.5"	10"	6"	B2
18 x 18 x 20	FBS-50-818-6	20"	18"	20"	4.5"	10"	6"	С
18 x 18 x 24	FBS-50-818-24-8	20"	18"	24"	4.5"	13.5"	8"	D
24 x 24 x 30	FBS-50-824-30-10	26"	24"	30"	4.5"	17"	10" soc x soc	E

TAG 3 - FILTER - TR140 C3 - 36" DIA HIGH RATE SAND FILTER

	Compatib	le SOFA for A	1) All Field Built Sumps shall be installed in			
List A	List <b>B1</b>	List B2	List C	List <b>D</b>	List E	accordance with the manufacturer's installation
9" x 9"	12" x 12" - 4"	12" x 12" - 6"	18"x18"x20"	18"x18"x24"	24" x 24"	instructions.
Aquastar 9MFXXX VAV9WRXXX 914XXX	Aquastar 12MFXXX WAV12WRXXX 1216XXX	Aquastar 12MFXXX WAV12WRXXX 1216XXX	Aquastar 18MFXXX WAV18WRXXX P18XXX SUN18HPHXXX	Aquastar 18MFXXX WAV18WRXXX P18XXX SUN18HPHXXX	Aquastar 24XXX WAV24XXX	<ul><li>2) All SOFA covers shall be installed in accordance with the manufacturer's installation instructions.</li><li>3) The A.S.A. MFG Inc. Fiberglass Field Built Sump Is intended only to be installed in a reinforced concrete pool structure.</li></ul>
Waterway 640-479XV	Waterway 640-472XV	Waterway 640-472XV	Waterway 640-477XV	Waterway 640-477XV	Waterway 640-476XV	Any field modifications made to the SOFA and not authorized by the manufacturer's installation
Hayward WG1031HF	Hayward WG1032HF		Hayward WG1033HF			instructions shall void the SOFA certification. No modification shall be made to the SOFA structure

Notes: SOFA = Suction Outlet Fitting Assembly Compatible based on manufacturer's specifications at the time of publication. Subject to change. See Manufacturer's website for updates.

s intended only to be installed in a reinforced concrete pool structure. 4) Any field modifications made to the SOFA and not authorized by the manufacturer's installation instructions shall void the SOFA certification. No modification shall be made to the SOFA structure

the USA

or flow path unless a new configuration has been certified as a new SOFA Fiberglass Field Built Sump Life = Life of the

Aquatic Center.

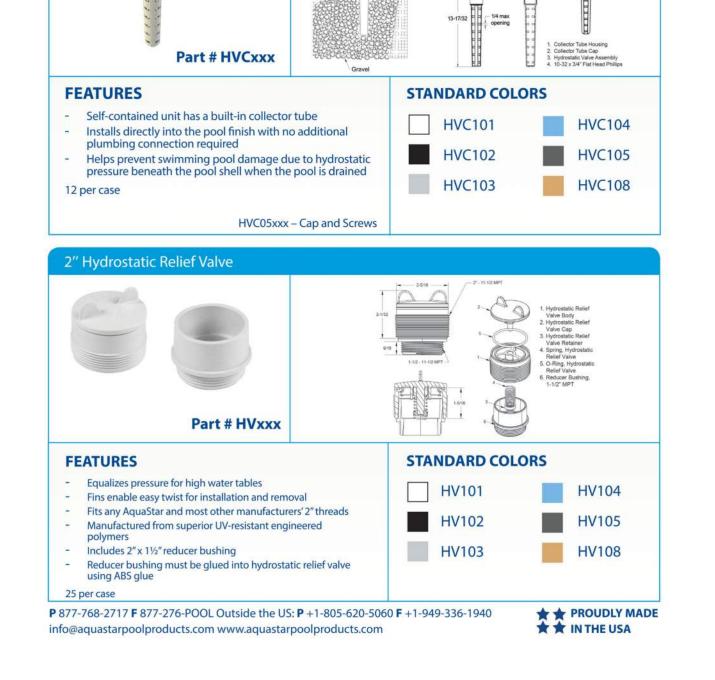
A.S.A. MFG Inc. 14789 SW 111th St. Dunnellon, FL 34432 352-465-0236 Fax 352-465-0239 email: info@asamfg.com

TAG 6 - MAIN DRAIN SUMP - FBS-50-812-4 - A.S.A FIBERGLASS SUMP

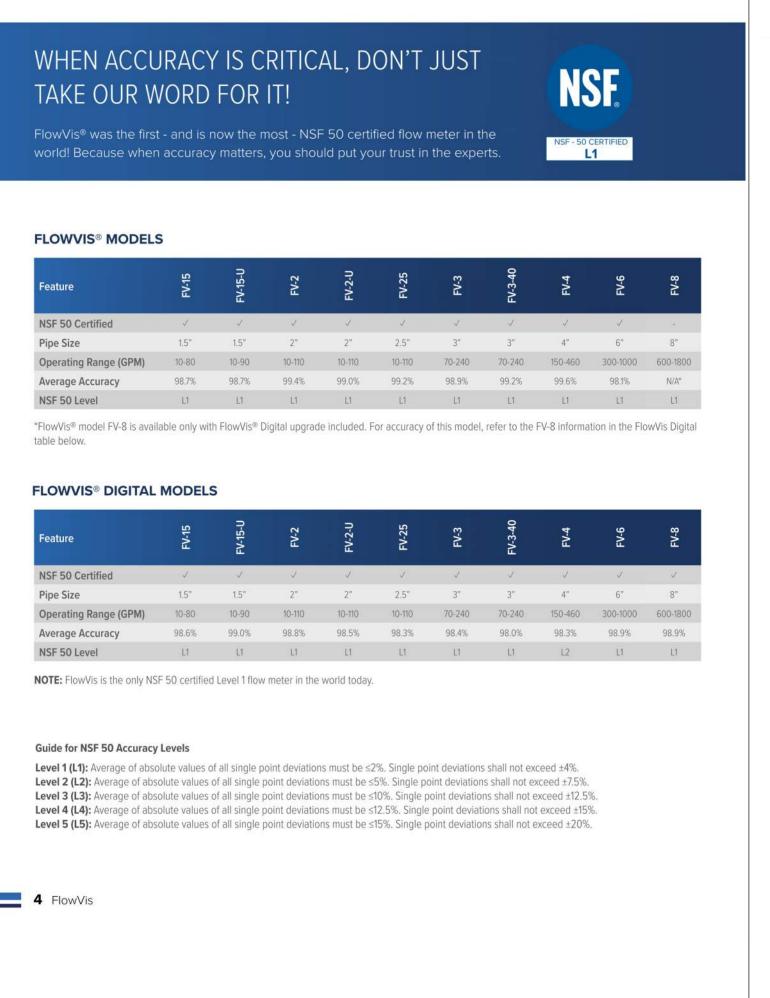
## be larger/deeper than Figure 1. Please write the Cover Model Number, orientation, and SOFA Model Flow Rating on the VGBA DRAIN COVER IDENTIFICATION INFORMATION label that comes with each AquaStar Pool Products, Inc. drain cover. Note 3: [Sump P/N 12-xSB] are the part numbers marked inside these manufactured Sump Buckets. Use of these sumps is not required. Installing WAV12WRxxx covers on field-built sumps is permitted. To order WAV12WRxxx product with these sumps, please see the catalog or visit

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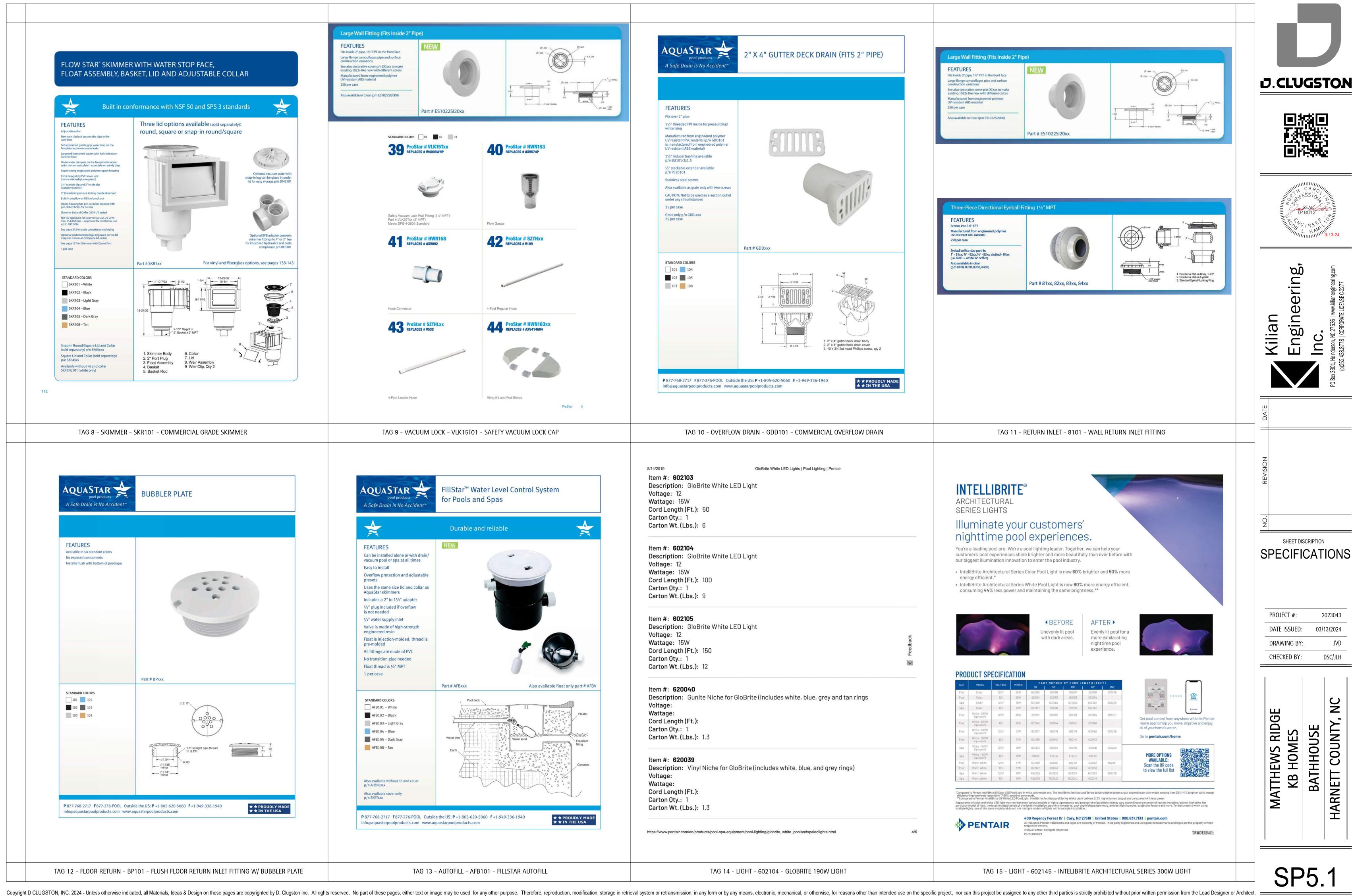




TAG 7 - HYDROSTATIC RELIEF - HVC101 - HYDROSTATIC RELIEF VALVE ASSEMBLY



TAG 5 - FLOWMETER - FV-3 - 3 INCH DIGITAL FLOMETER



**J.CLUGSTON** 





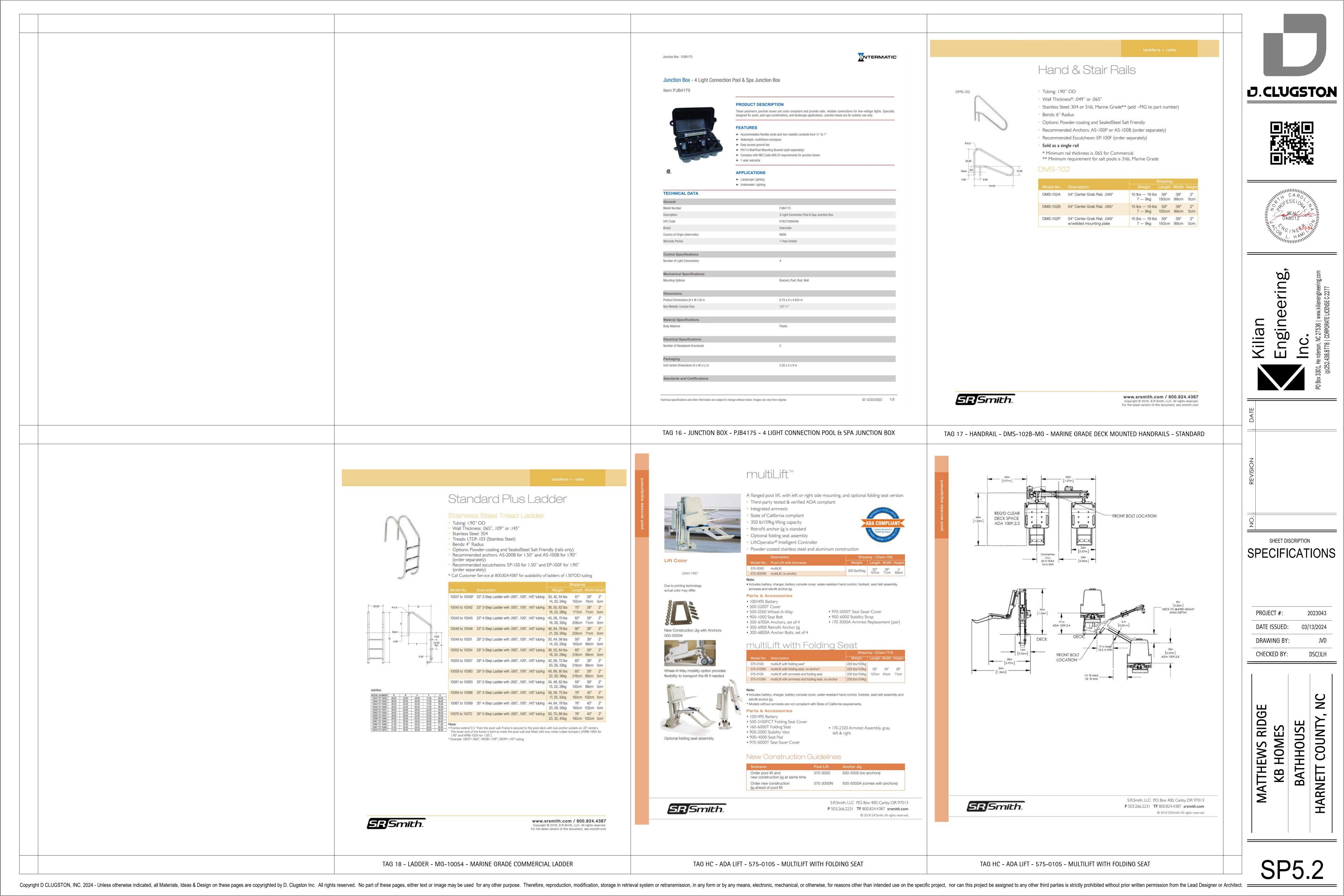
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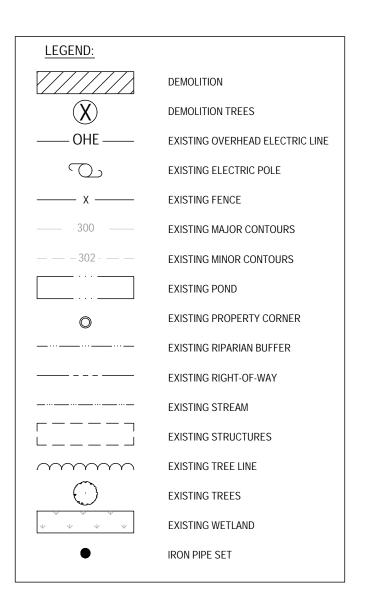
SHEET DISCRIPTION

2023043 03/13/2024

DRAWING BY: JVD CHECKED BY: DSC/JLH

COUNTY, **BATHHOUSE** HARNETT





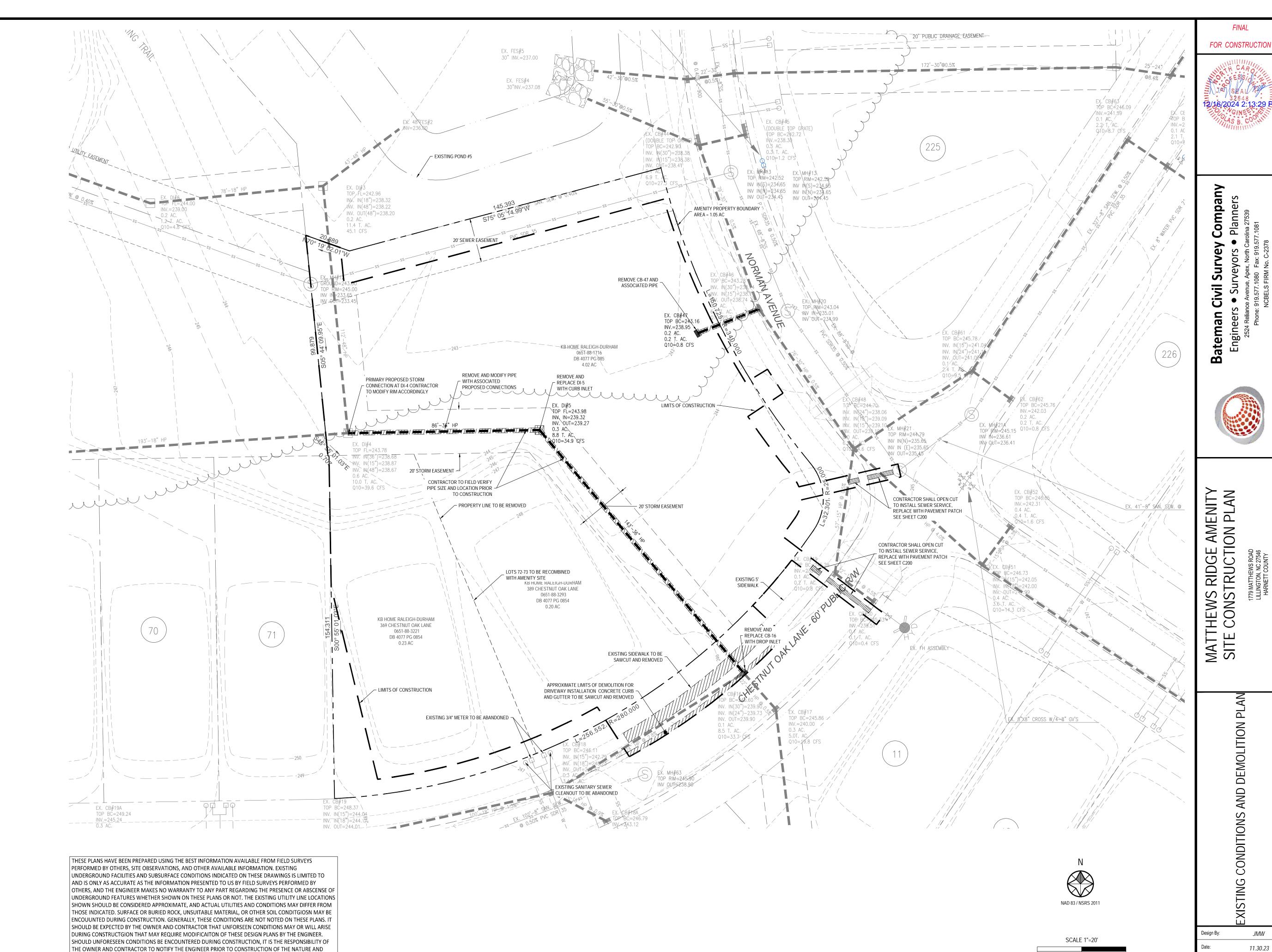
- ALL UTILITIES OR STRUCTURES NOT INDICATED FOR REMOVAL OR MODIFICATION ARE TO REMAIN AND BE PROTECTED FROM DAMAGE.
- 2. ALL WASTE MATERIAL GENERATED FROM CLEARING AND DEMOLITION ACTIVITIES SHALL BE DISPOSED OF OFF-SITE IN ACCORDANCE WITH ALL APPLICABLE RULES AND REGULATIONS.
- 3. REMOVE TOPSOIL AND STOCKPILE APPROPRIATELY ON-SITE. ON-SITE TEMPORARY STOCKPILES SHALL BE LOCATED WITHIN THE CONSTRUCTION
- 4. ALL PAVEMENT OR CONCRETE TO BE REMOVED SHALL BE SAW CUT TO PROVIDE A STRAIGHT AND UNIFORM JOINT WITH NEW CONSTRUCTION. ANY EXISTING PAVEMENT, SIDEWALK, CURB & GUTTER, ETC. THAT MUST BE REMOVED TO ALLOW NEW CONSTRUCTION SHALL BE REMOVED AND REPAIRED PER SPECIFICATIONS AND DETAILS OR TO MATCH EXISTING CONDITIONS (WHETHER OR NOT SHOWN ON THE DRAWINGS TO BE REMOVED). UTILITY INSTALLATIONS MAY UTILIZE OPEN CUT OF PAVEMENTS UNLESS INDICATED OTHERWISE. TRENCH IN EXISTING ASPHALT SHALL BE PATCHED PER PAVEMENT REPAIR DETAIL.
- 5. PROTECT ALL ADJACENT PROPERTIES, THE GENERAL PUBLIC AND ALL OF THE OWNER'S FACILITIES. SHOULD DAMAGE OCCUR, NOTIFY THE ENGINEER IMMEDIATELY.
- 6. THE CONTRACTOR SHALL EMPLOY A QUALIFIED UTILITY LOCATOR SERVICE TO LOCATE ALL UNDERGROUND UTILITIES (INCLUDING, BUT NOT LIMITED TO ELECTRICAL, TELEPHONE, GAS, CABLE AND FIBER OPTIC) WITHIN THE LIMITS OF CONSTRUCTION.
- 7. VERIFY ALL ILLUSTRATED KNOWN UNDERGROUND ELEMENTS. EXERCISE REASONABLE EFFORTS TO PROTECT ANY UNKNOWN UNDERGROUND ELEMENTS. NOTIFY THE ENGINEER IMMEDIATELY IF UNKNOWN ELEMENTS ARE DISCOVERED THAT WOULD NECESSITATE MODIFICATION TO THE PROPOSED DESIGN.
- 8. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE LOCAL,
- 9. EXISTING MANHOLES, VALVE BOXES, VAULTS, CLEANOUTS, UTILITY POLES, ETC. TO REMAIN WITHIN THE GRADING LIMITS SHALL BE ADJUSTED AS NEEDED TO FUNCTION PROPERLY WITH THE PROPOSED FINISHED GRADES (WHETHER INDICATED OR NOT TO BE MODIFIED). 10. GENERAL CONTRACTOR TO COORDINATE ALL PEDESTRIAN ACCESS PATHS,
- LOCATIONS, LIGHTING, ETC. WITH OWNER. 11. CONTRACTOR SHALL INSPECT ALL EXISTING SIDEWALK AND SHALL REPLACE
- OR REPAIR ANY BROKEN OR DAMAGED SECTIONS. 12. CONTRACTOR SHALL COMPLY WITH HARNETT COUNTY CONSTRUCTION STANDARDS AND SPECS.

#### PROPERTY BOUNDARY AND INITIAL EXISTING CONDITIONS TAKEN FROM A

- FIELD SURVEY PROVIDED BY ENOCH ENGINEERS, P.A. PROPOSED SITE CONDITIONS / ADDITIONAL EXISTING CONDITIONS INFORMATION TAKEN FROM FIELD SURVEY PROVIDED BY FLEET TEMPLE ENGINEERING, PLCC.
- 3. WETLAND AND STREAMS HAVE RECEIVED PRELIMINARY JURISDICTION DELINEATION FROM NC DIVISION OF WATER RESOURCES.
- 4. NO FLOOD HAZARD AREAS WITHIN PROJECT BOUNDARY PER FEMA MAP 3720064000J DATED 10/03/2006
- ALL EXISTING ELEVATIONS, FEATURES AND UTILITIES TO BE FIELD VERIFIED SURVEY INFORMATION BY OTHERS. ENGINEER HAS NOT VERIFIED THE ACCURACY OF COMPLETENESS OF THE INFORMATION PROVIDED AND SHALL NOT BE RESPONSIBLE FOR ERRORS OR OMISSIONS THAT MAY BE INCORPORATED AS A RESULT. THIS SHALL NOT BE CONSIDERED AS CERTIFIED

EXTENT OF SUCH CONDITIONS SO THAT TIMELY AND APPROPRIATE MEASURES CAN BE TAKEN TO REVISE THESE

PLAN AS NECESSARY TO ACCOMDATE CONDITIONS ENCOUNTERED IN THE FIELD.



JMW

11.30.23

P230463

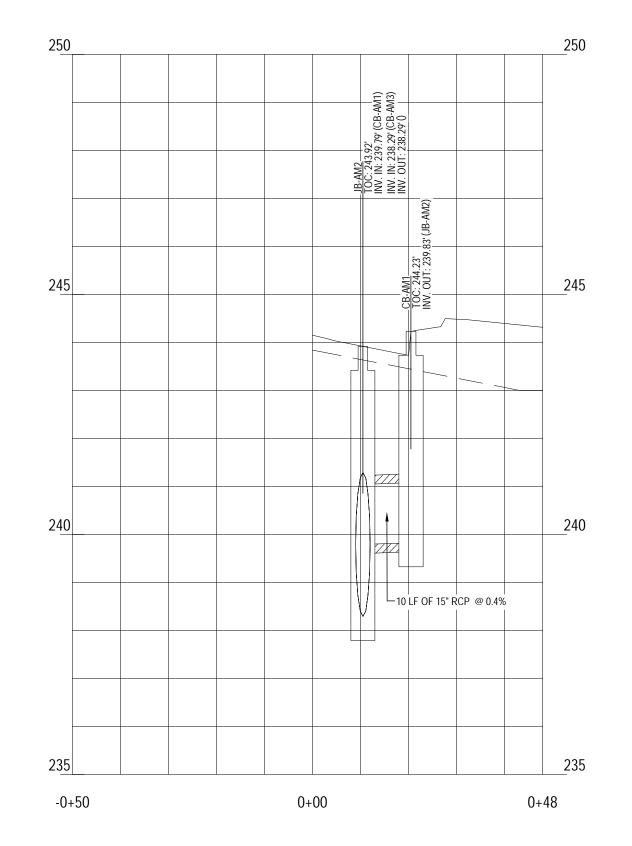
SHEET

C100

REV# DATE DESCRIPTION



sts/230463 Matthews Ridge Amenity/ENG\D\WG\Sheets\P230463\_C500\_GRAD.dwg



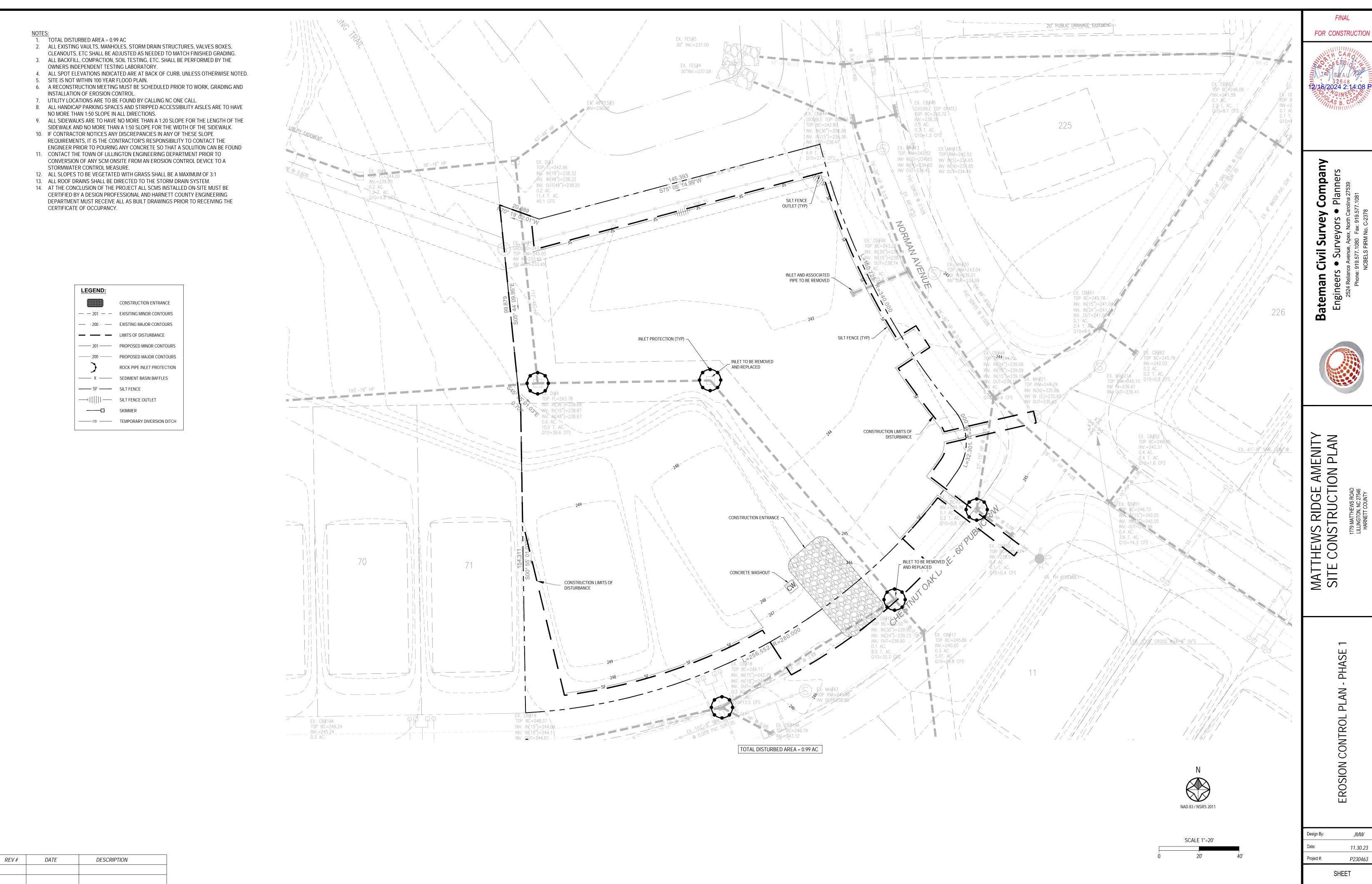
PROPOSED STORM PROFILE: SECONDARY

PROFILE SCALE

1" = 20' HORIZ.

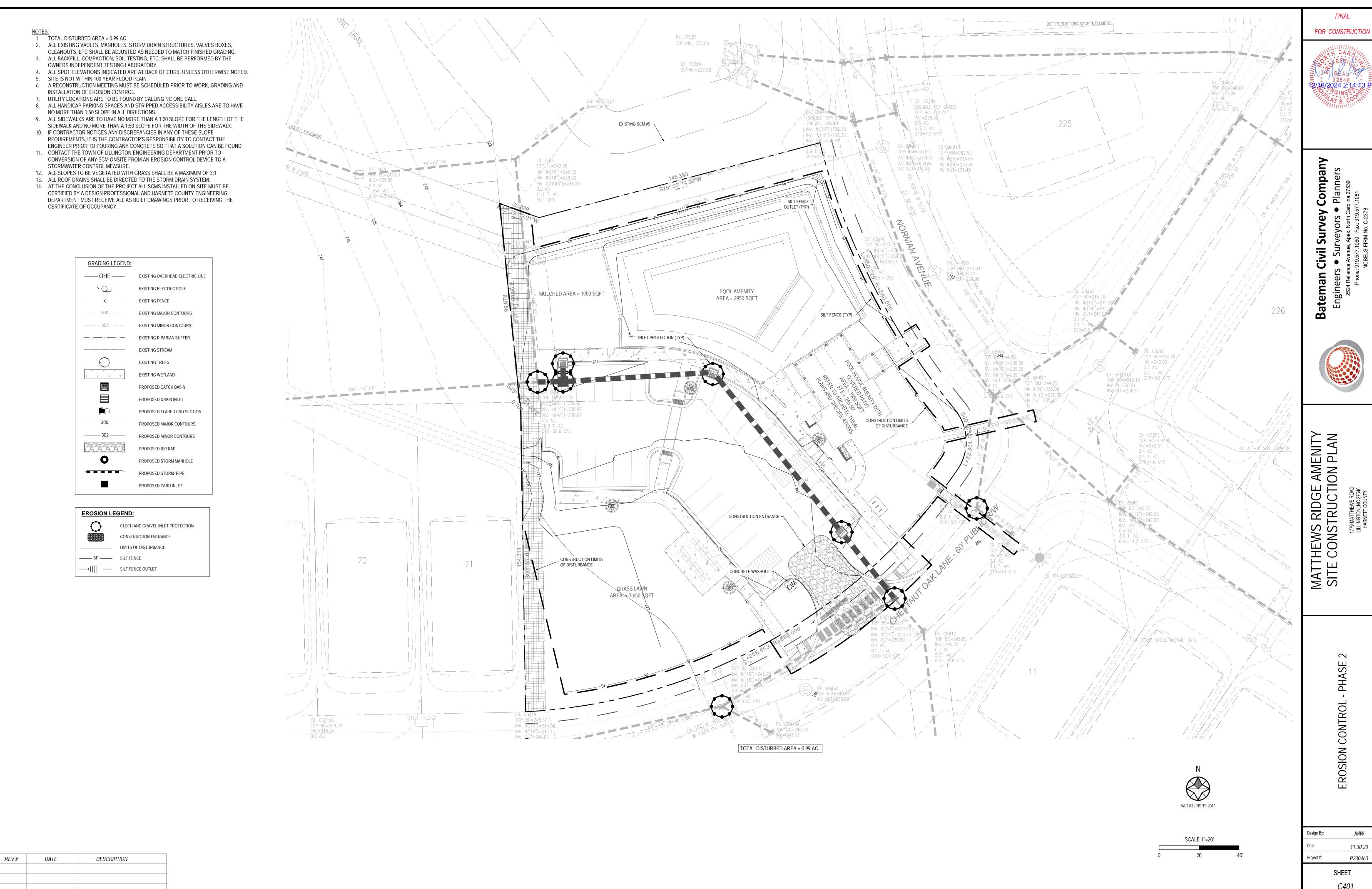
1" = 2' VERT.

REV # DATE DESCRIPTION



JMW 11.30.23

> P230463 C400



C401