

Building Plans
FOR
Harmony Baptist Church
NC HIGHWAY 210
BUNN LEVEL , NC 28523

PREPARED FOR

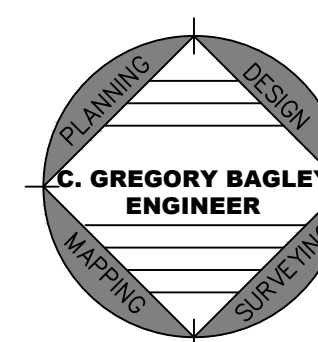
RODNEY GREGORY, CONSTRUCTION CHAIRMEN
HARMONY BAPTIST CHURCH
BUNN LEVEL, NORTH CAROLINA
TELEPHONE 910-984-6932

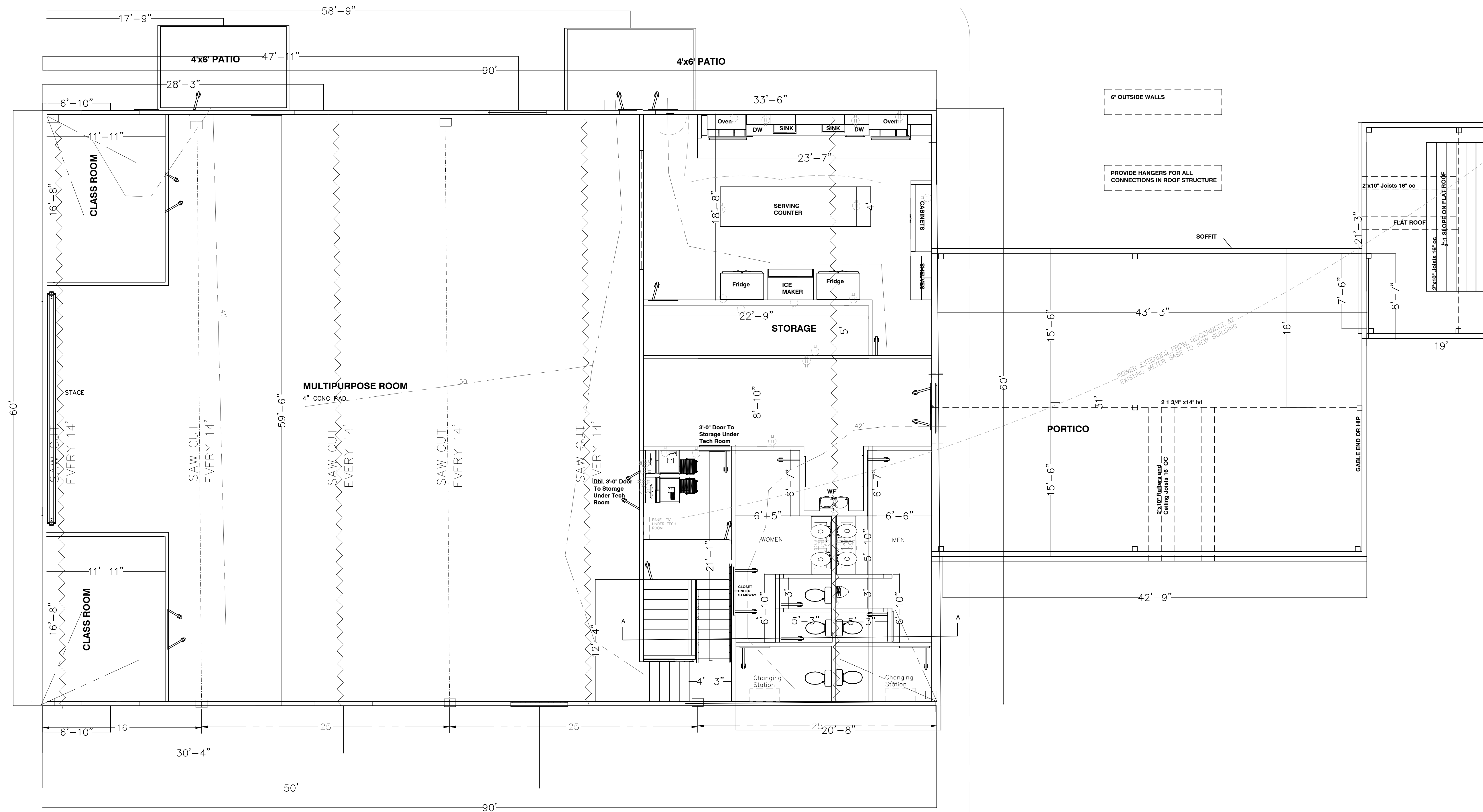
ENGINEER

C. GREGORY BAGLEY
805 COKESBURY ROAD
FUQUAY VARINA, NC 27526
PHONE: (919) 609-300

SHEET INDEX

COVER SHEET
CODE SHEET
LIFE SAFETY
ELEVATION
TOP VIEW
FLOOR PLAN
FOUNDATION
PLUMBING
MECHANICAL
ELECTRICAL





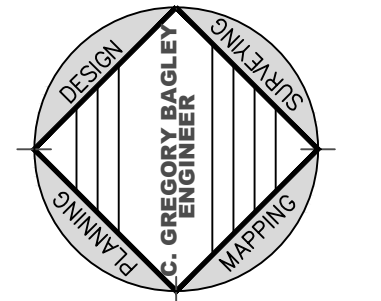
LIFE SAFETY
3/16" = 1'0"

Project #:
Date:
Drawn/Design By:
Scale:

REVISIONS		
No.	Date	Remarks
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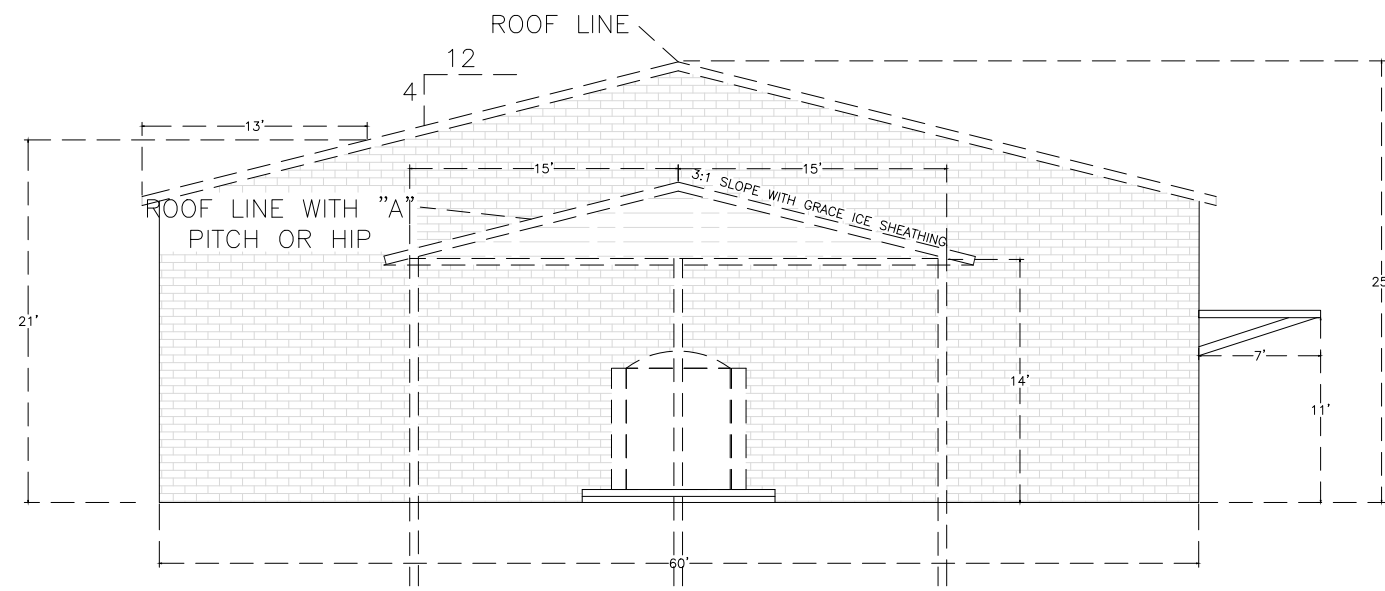
C. Gregory Bagley, Engineer
805 Cokesbury Road
Fuquay Varina, N.C. 27526
Office: (919) 552-1600
Fax: (919) 552-6325



LIFE SAFETY

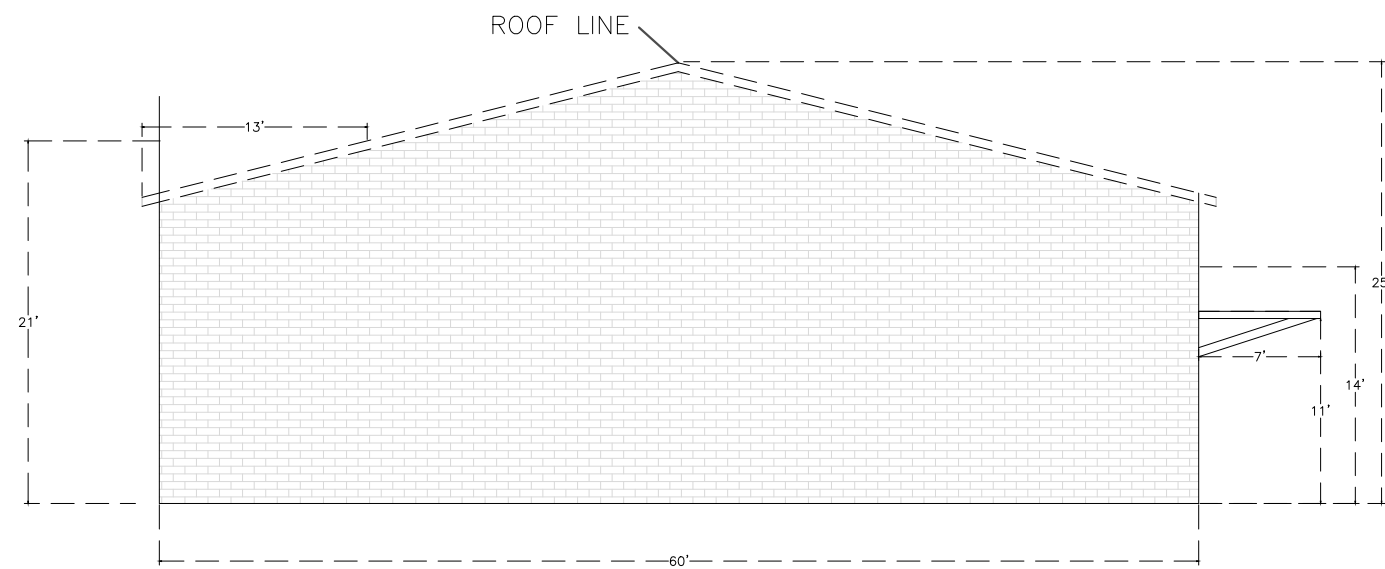
HARMONY
BAPTIST CHURCH
RODNEY GREGORY
Harnett County N.C.

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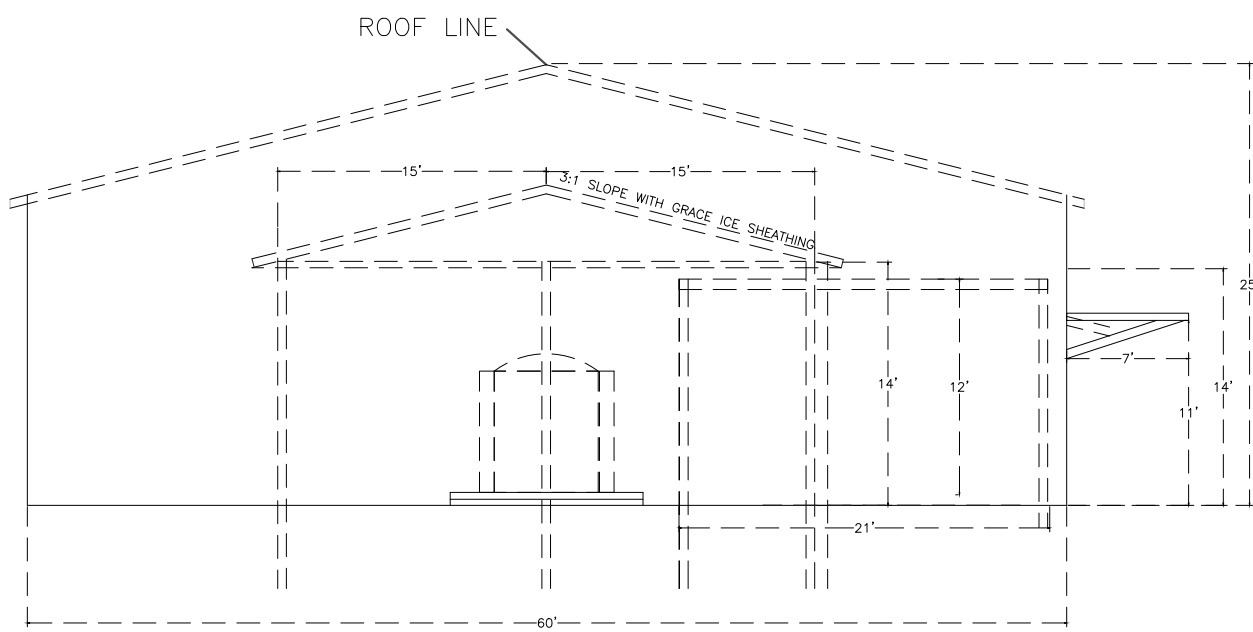


FRONT VIEW

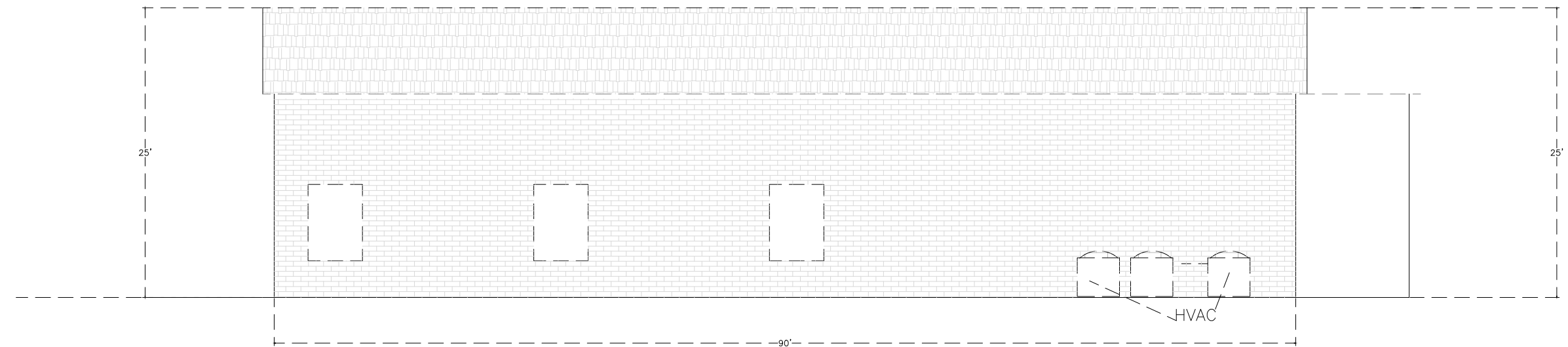
BUILDING MATERIAL
METAL SIDING BUTTER CREAM .026 GAUGE
METAL ROOF .026 GALVALUME
BRICK STANDARD GRAY SHALE
WINDOWS BRONZE WITH GRAY TINT
DOOR BRONZE WITH GRAY TINT
DOWN SPOUT 6" DARK GRAY



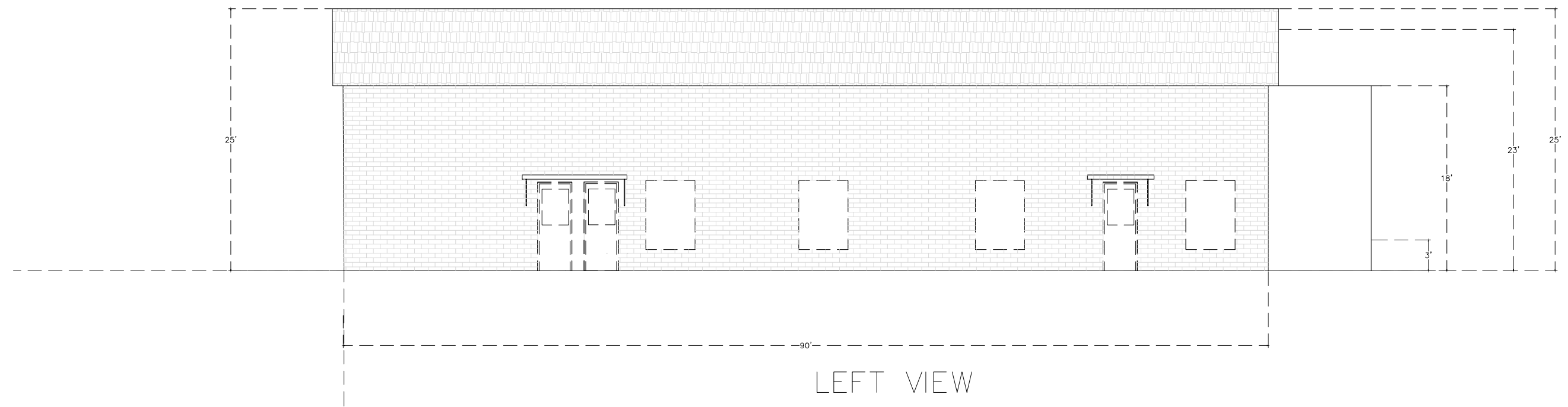
BACK VIEW



ROOF VIEW



RIGHT VIEW



LEFT VIEW

ELEVATION

$\frac{3}{16}'' = 1'0''$

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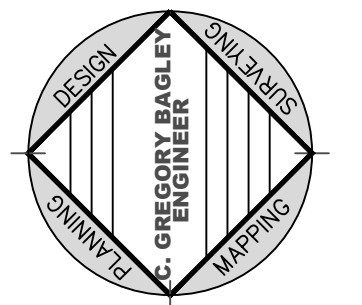
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Office: (919)552-1600
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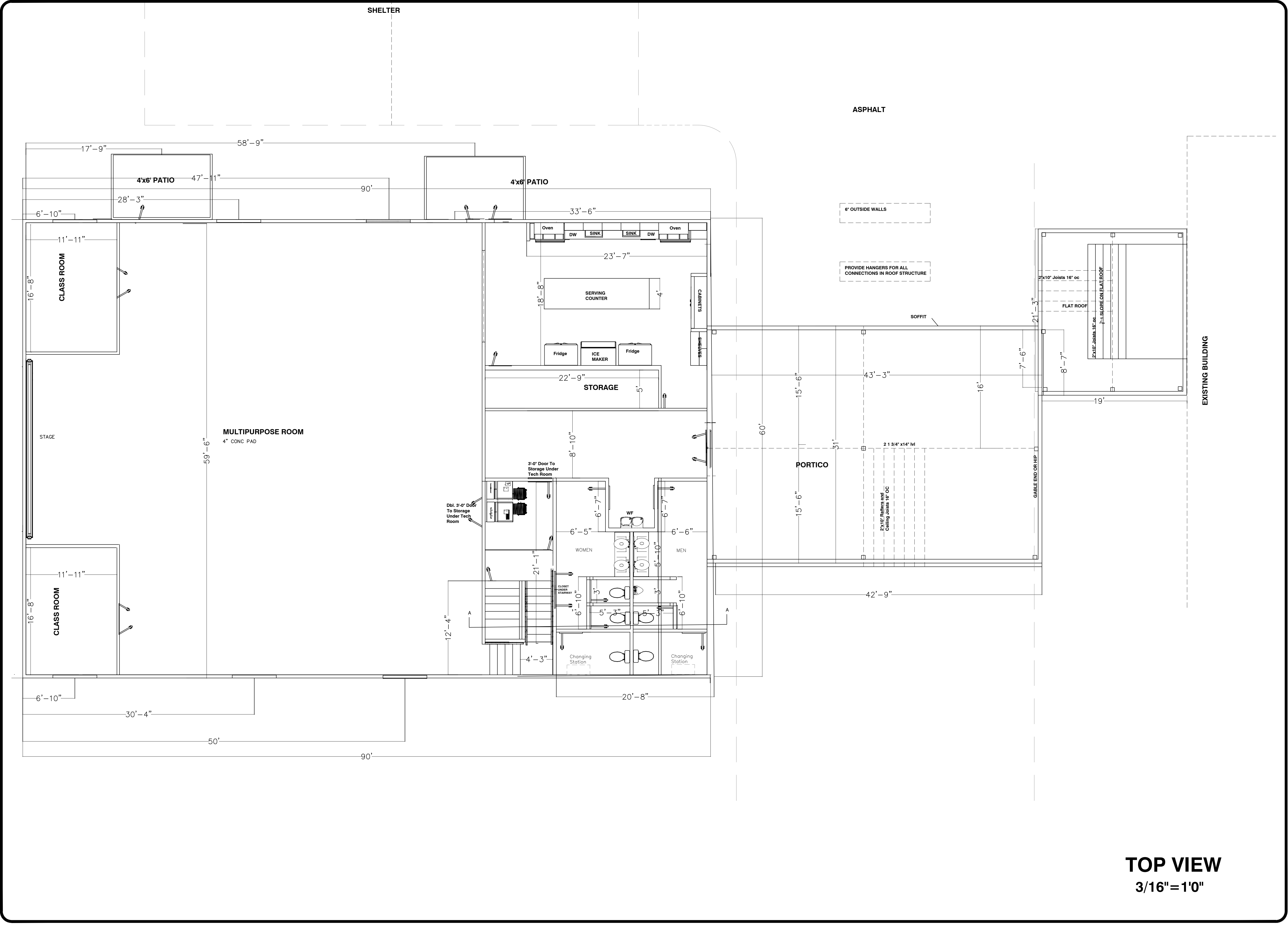
ELEVATION

HARMONY
BAPTIST CHURCH
RODNEY GREGORY
Harnett County N.C.

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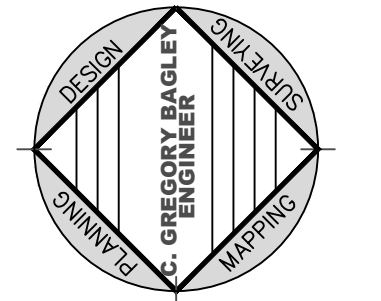


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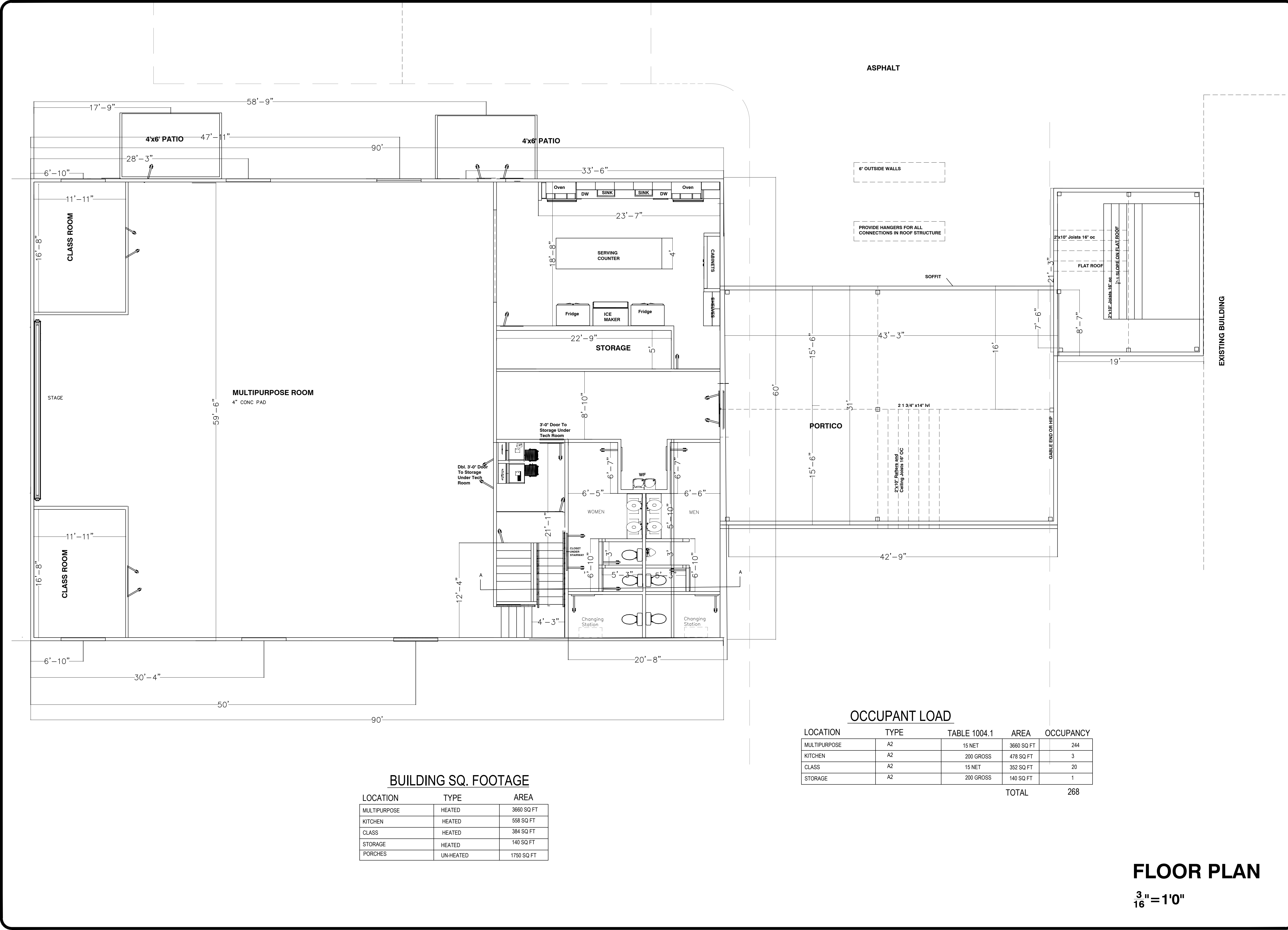
C. Gregory Bagley, Engineer
805 Cokesbury Road
Fuquay Varina, N.C. 27526
Office: (919)552-1600
Fax: (919) 552-6325



FLOOR PLAN

HARMONY BAPTIST CHURCH
RODNEY GREGORY
Harnett County N.C.

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CAROLINA
REGISTERED
SEAL
24720
C. GREGORY BAGLEY

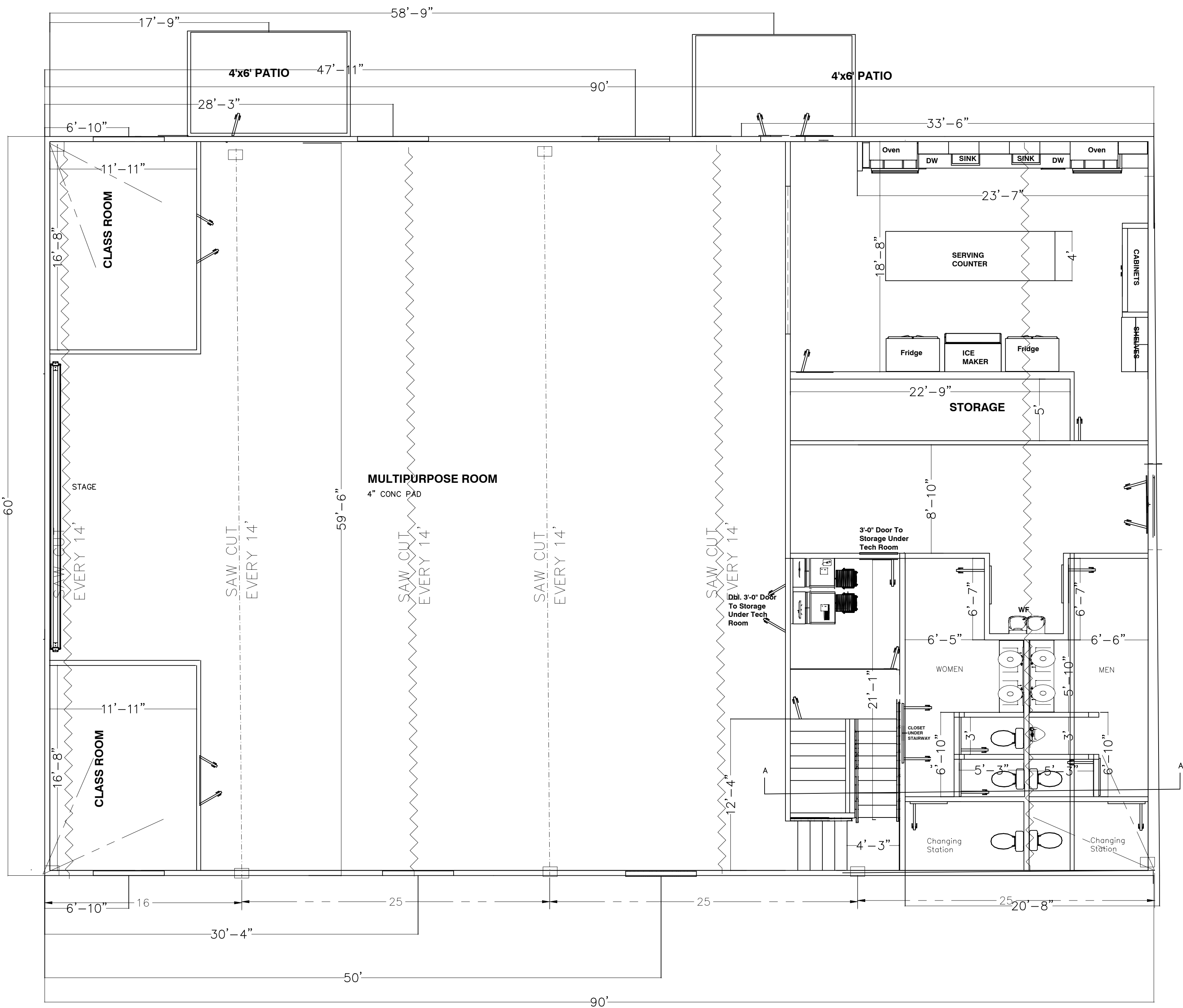
C. Gregory Bagley, Engineer
805 Cokesbury Road
Fuquay Varina, N.C. 27526
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PLANNING
DESIGN
ENGINEERING
C. GREGORY BAGLEY
ENGINEER
HARRNETT COUNTY, N.C.

FLOOR
PLAN

HARMONY
BAPTIST CHURCH
RODNEY GREGORY
Harnett County N.C.

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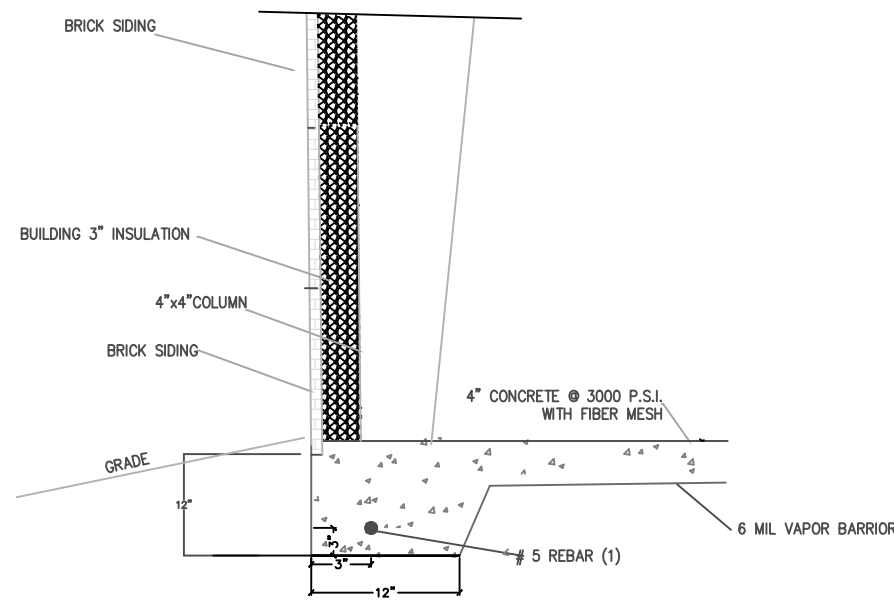
GENERAL NOTES

1. REQUIRED CODE JURISDICTION:
NORTH CAROLINA BUILDING CODE, 2018 EDITION
AGI BUILDING CODE REQUIREMENT CONCRETE STRUCTURES (AGI 318-99)
ASCE 7-98 MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES.
2. ENGINEER'S SEAL APPLIES TO STRUCTURAL COMPONENTS ONLY.
3. REACTIONS PROVIDED BY DESIGN BUILD COMPANY (MESCO).
4. SEE BUILDINGS DRAWINGS FOR COLUMN AND BASE PLATE SIZES.
5. ANCHOR BOLT DESIGN PROVIDED BY BUILDING DESIGNER.
6. UNLESS OTHERWISE NOTED, ALL CONCRETE SHALL HAVE THE FOLLOWING STRENGTH AND SLUMP REQUIREMENTS: 3000 PSI 28 DAY 6" SLUMP
7. REINFORCING STEEL SHALL BE PER ASTM A-615 GRADE 60

FOUNDATION REACTION SCHEDULE
PER METAL BUILDING MANUFACTURER

FOOTING SCHEDULE			
SYMBOL	SIZE	DEPTH	STEEL REINF.
F-1	2.5'x2.5'	18"	4 No. 5 E.W. B7M.
F-4	4'x4'	20"	5 No. 5 E.W. B7M.

ANCHOR BOLT SCHEDULE	
SYMBOL	SIZE
A-1	3/4" x 12"
A-2	3/4" x 18"



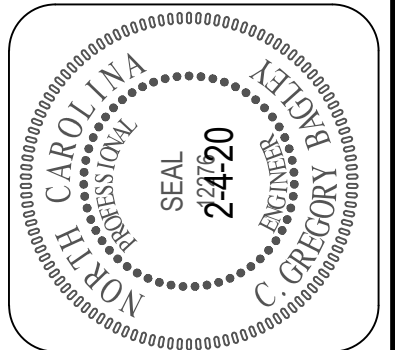
FOOTING TURN-DOWN

FOUNDATION

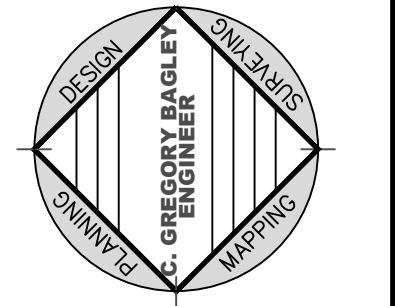
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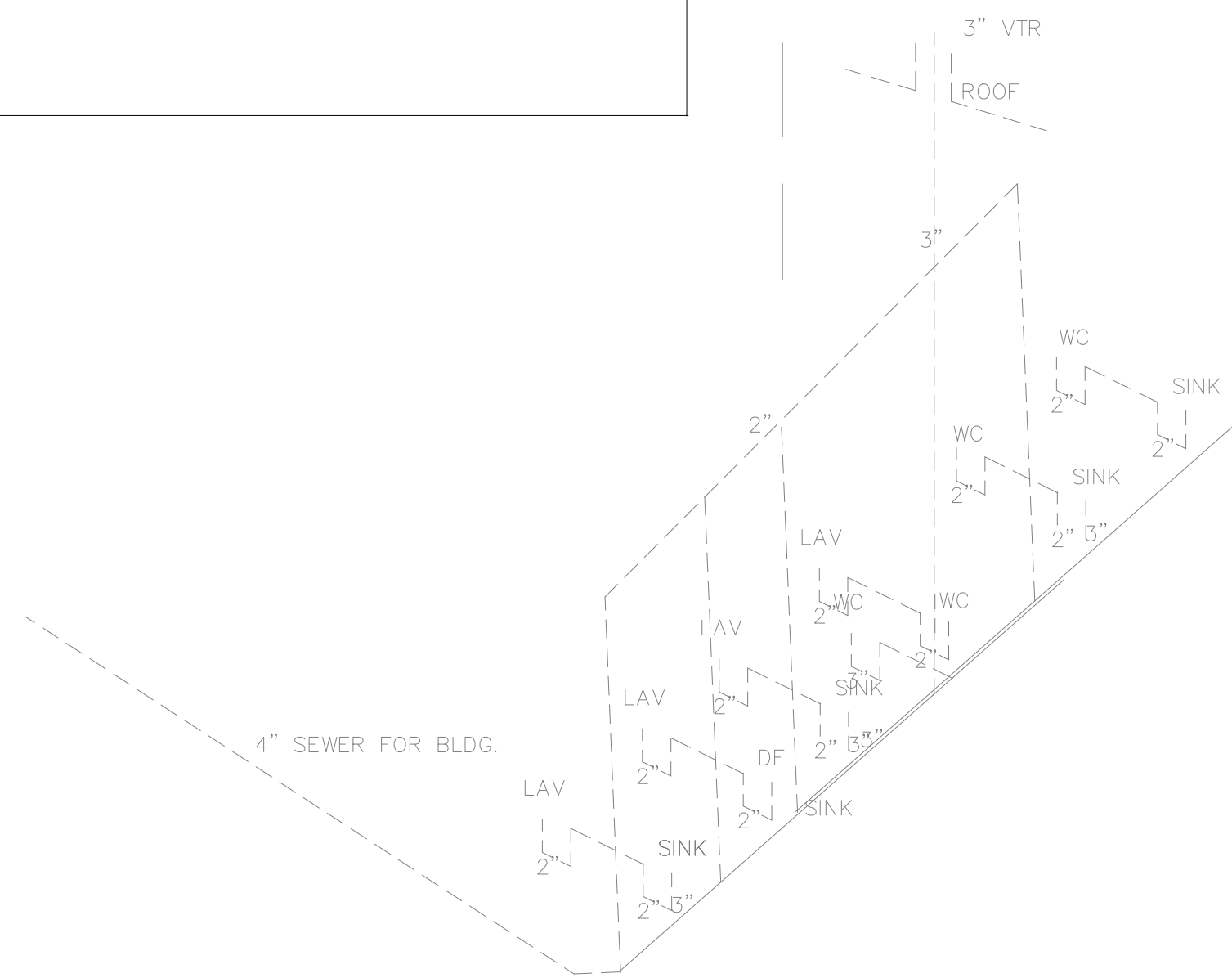
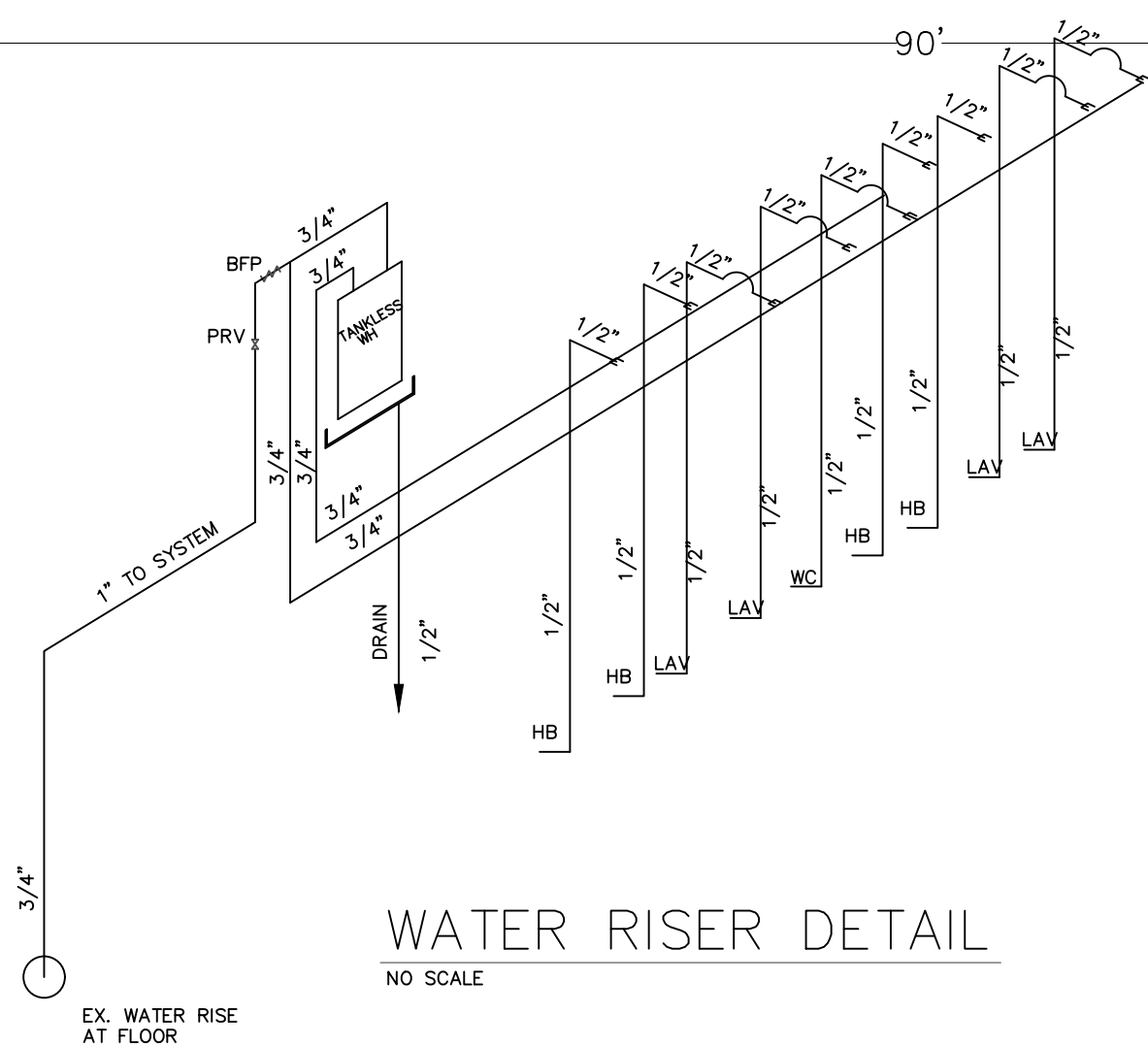
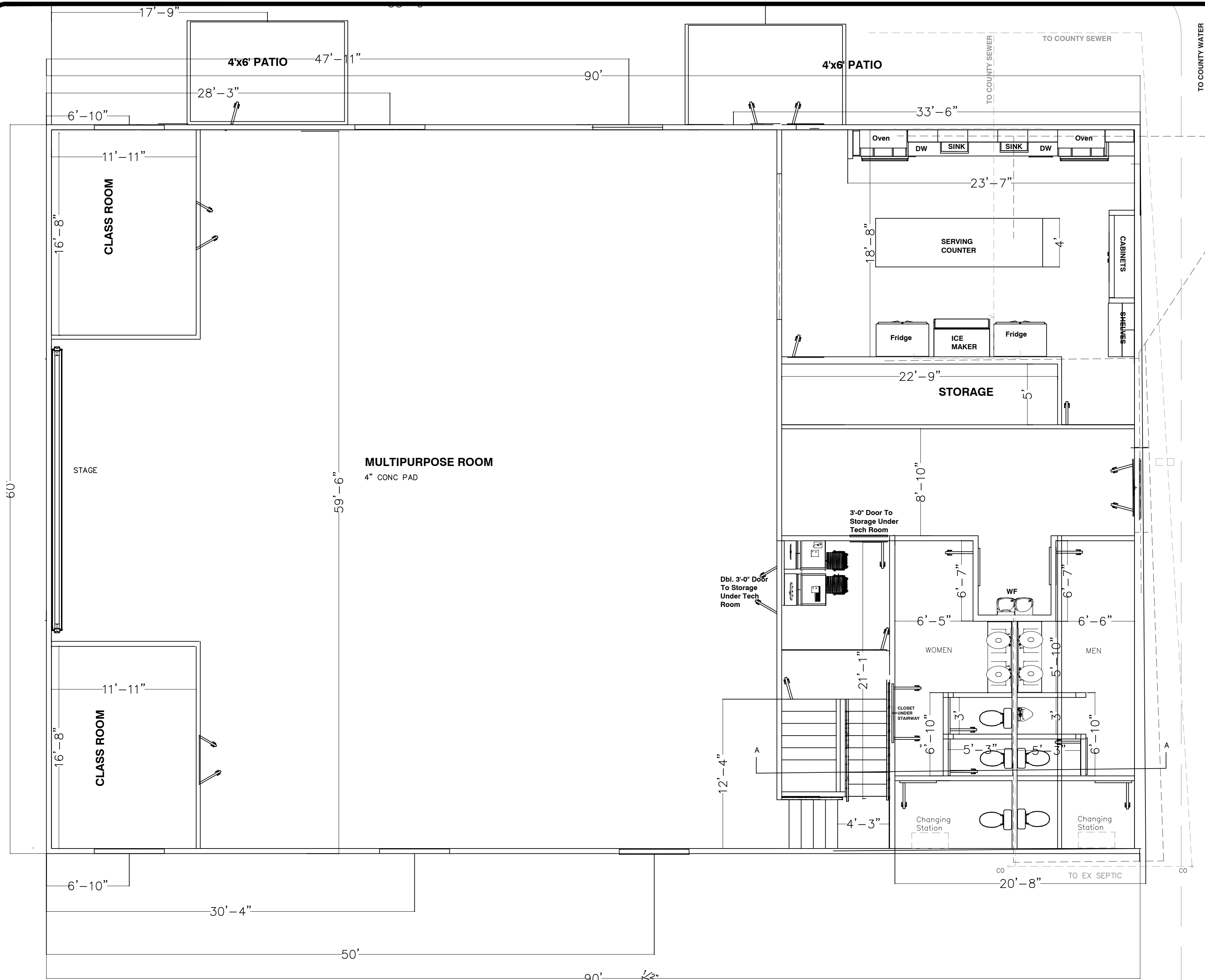


C. Gregory Bagley, Engineer
805 Cokesbury Road
Fuquay Varina, N.C. 27526
Office: (919)552-1600
Fax: (919) 552-6325



FOUNDATION

HARMONY
BAPTIST CHURCH
RODNEY GREGORY
Harnett County N.C.

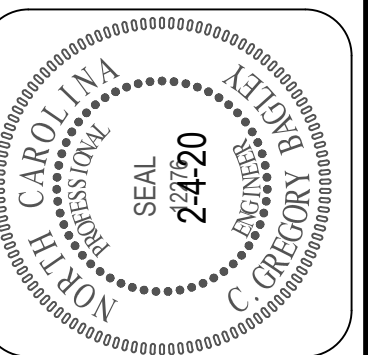


PLUMBING

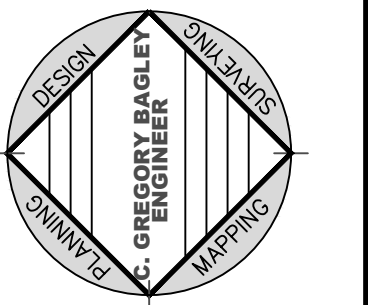
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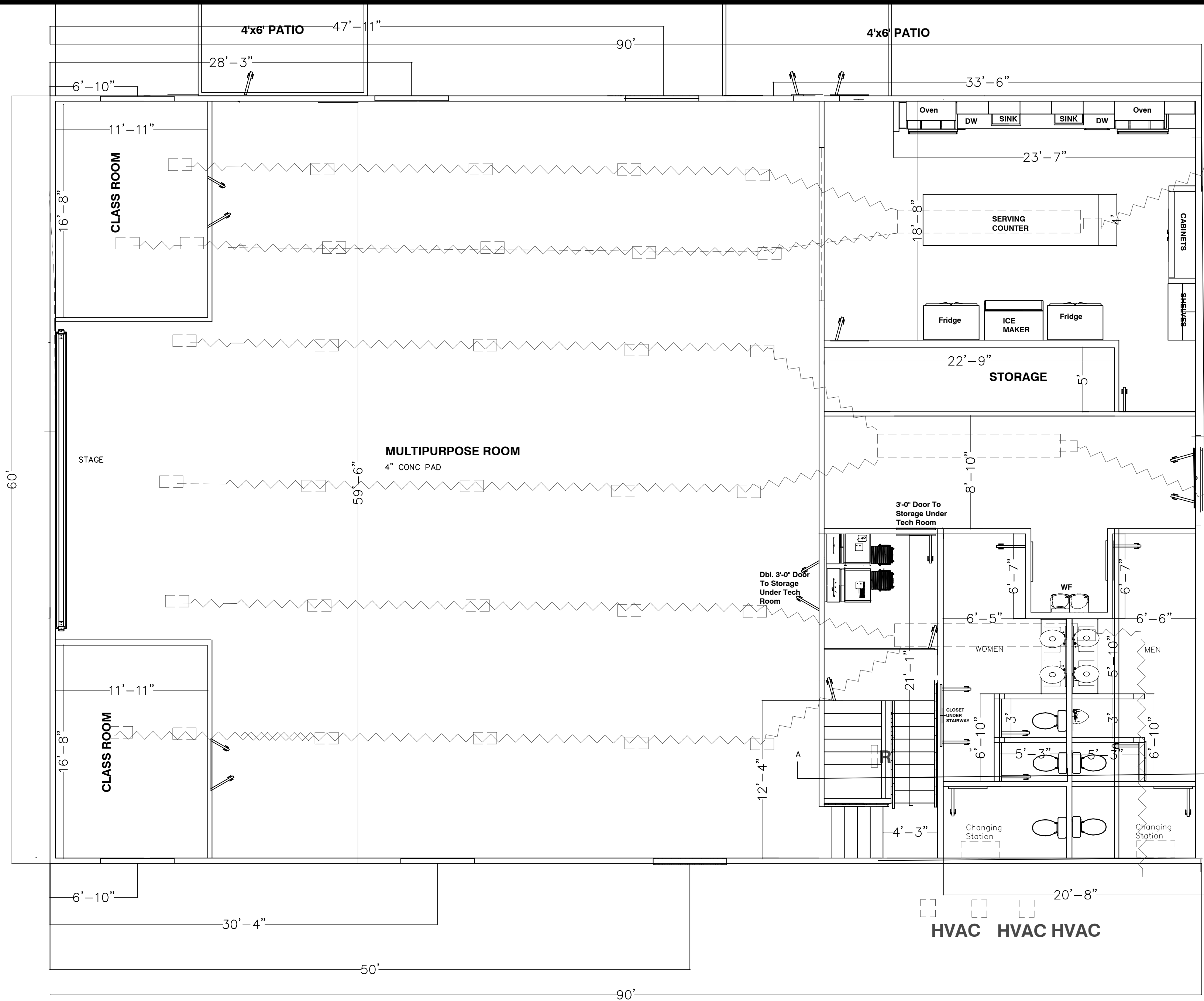


C. Gregory Bagley, Engineer
805 Cokesbury Road
Fuquay Varina, N.C. 27526
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PLUMBING
PLAN

HARMONY
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Harnett County N.C.



HVAC

MECHANICAL SYSTEMS, SERVICE SYSTEMS, AND EQUIPMENT	
METHOD OF COMPLIANCE	PRESCRIPTIVE
THERMAL ZONE	III
EXTERIOR DESIGN CONDITIONS	
winter dry bulb	18 F
summer dry bulb	82 F
INTERIOR DESIGN CONDITIONS	
winter dry bulb	70 F
summer dry bulb	74 F
relative humidity	50 %
BUILDING HEATING LOAD	75000/150000 BTU
BUILDING COOLING LOAD	123000 BTU
MECHANICAL SPACE CONDITIONING SYSTEMS	
Unitary	DX COOLING/HEAT
description of unit	12.2 IEER
heating efficiency	12.2 IEER
cooling efficiency	60750 BTU
heating output of units	119,000 BTU
cooling output of units	SEE SCHEDULE
LIST EQUIPMENT EFFICIENCIES	SEE SCHEDULE
EQUIPMENT SCHEDULES WITH MOTORS	

OUTSIDE AIR CALCULATION

	CFM/PERSON	TOTAL CFM
50 CLIENTS	5	250

USE 8" FLEX FOR OUTSIDE DUCT TO EACH UNIT

TOTAL CFM PRODUCED = 7200
(20) 8" VENTS
30 VENTS @ 220 CFM / VENT
= 6600 CFM OUTPUT
STATIC PRESSURE = 0.1in-wg

HVAC EQUIPMENT NOTES

USE (3) 14 SEER UNITS HEAT PUMP.
UNIT TO BE ON CONC SLAB OUTSIDE BUILDING.
3/4" CONDENSATE LINE WITH P-TRAP ROUTED TO OUTSIDE AND FASTENED TO WALL.
OUTSIDE AIR INTAKE TO BE ROUTED UP WALL FRAMING AND TERMINATED ABOVE ROOF.
INTAKE MUST BE A MINIMUM OF 10' FROM OUTLET OR EXHAUST.
MOUNT PROGRAMMABLE THERMOSTAT ON WALL 48" AFF. AS PER ADA REQUIREMENTS
BATHROOM FANS TO BE 125 CFM WITH 4" DUCT.
DISCHARGE EXHAUST OUTSIDE OF BUILDING.
USE 8" FLEX FOR OUTSIDE AIR INTAKE DUCT

GENERAL HVAC NOTES

PROVIDE ELECTRIC HEAT PUMP - SEE BELOW
MIN REQUIREMENTS TO BE MET AS NOTED ABOVE MET FROM NOTES ABOVE
LOCATE PROGRAMMABLE THERMOSTATS AS NEEDED FOR PROPER EFFECT
FANS SHALL RUN CONTINUOUSLY DURING OCCUPANCY TO PROVIDE OUTSIDE AIR.
DUCT DETECTORS REQUIRED ON ALL UNITS
REMOTE ALARM INDICATOR DEVICES (RAIDS) REQUIRED FOR EACH UNIT AND TO BE INSTALLED
NEAR UNIT NO MORE THAN 72" AFF
DUCT SMOKE DETECTORS TO OPERATE GLOBALLY, ie WHEN ONE DETECTOR ACTIVATES,
ALL AIR HANDLING UNITS SHUT DOWN.

HVAC EQUIPMENT SCHEDULE	CALCULATE UNIT HEAT
TABLE	Total Power Input = 88,610 + 1,650
3-5 TON UNITS ON GROUND	= 10,511 Watts
1-5 TON MINI SPLIT MITSUBISHI	
BLUAD UNITS # R00L-B120CL15E	
GAS HEAT PACKAGE UNITS	
SMOKE DETECTION	
USE D 41-20 INDOOR SYSTEM	
SMOKE DETECTORS EACH UNIT	
RECOMMENDATION	
USE AHH-ROCN13 ECONOMISERS	
ON EACH UNIT PER CODE	

MECHANICAL

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CAROLINA PROFESSIONAL SEAL
24/20
NORTH CAROLINA
C. GREGORY BAGLEY
REGISTERED PROFESSIONAL ENGINEER

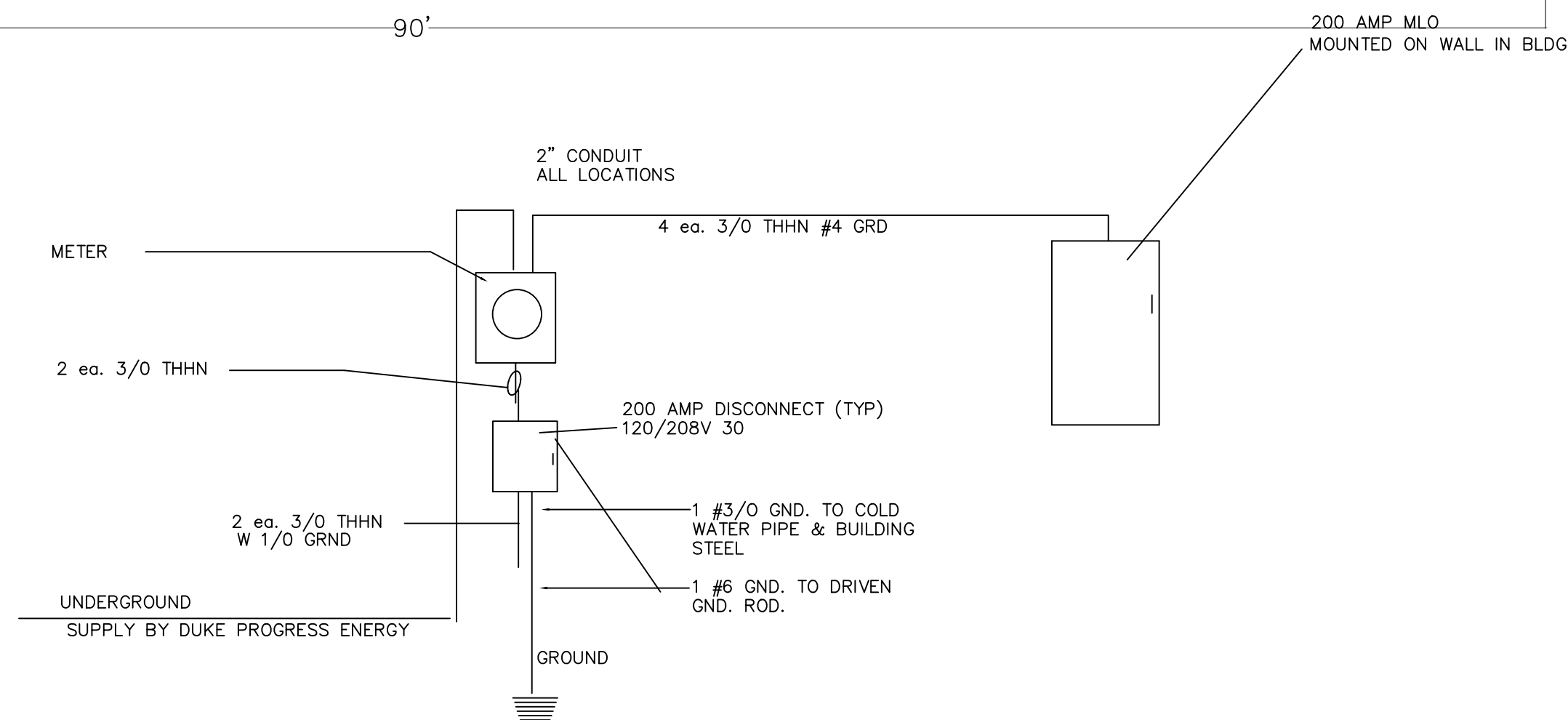
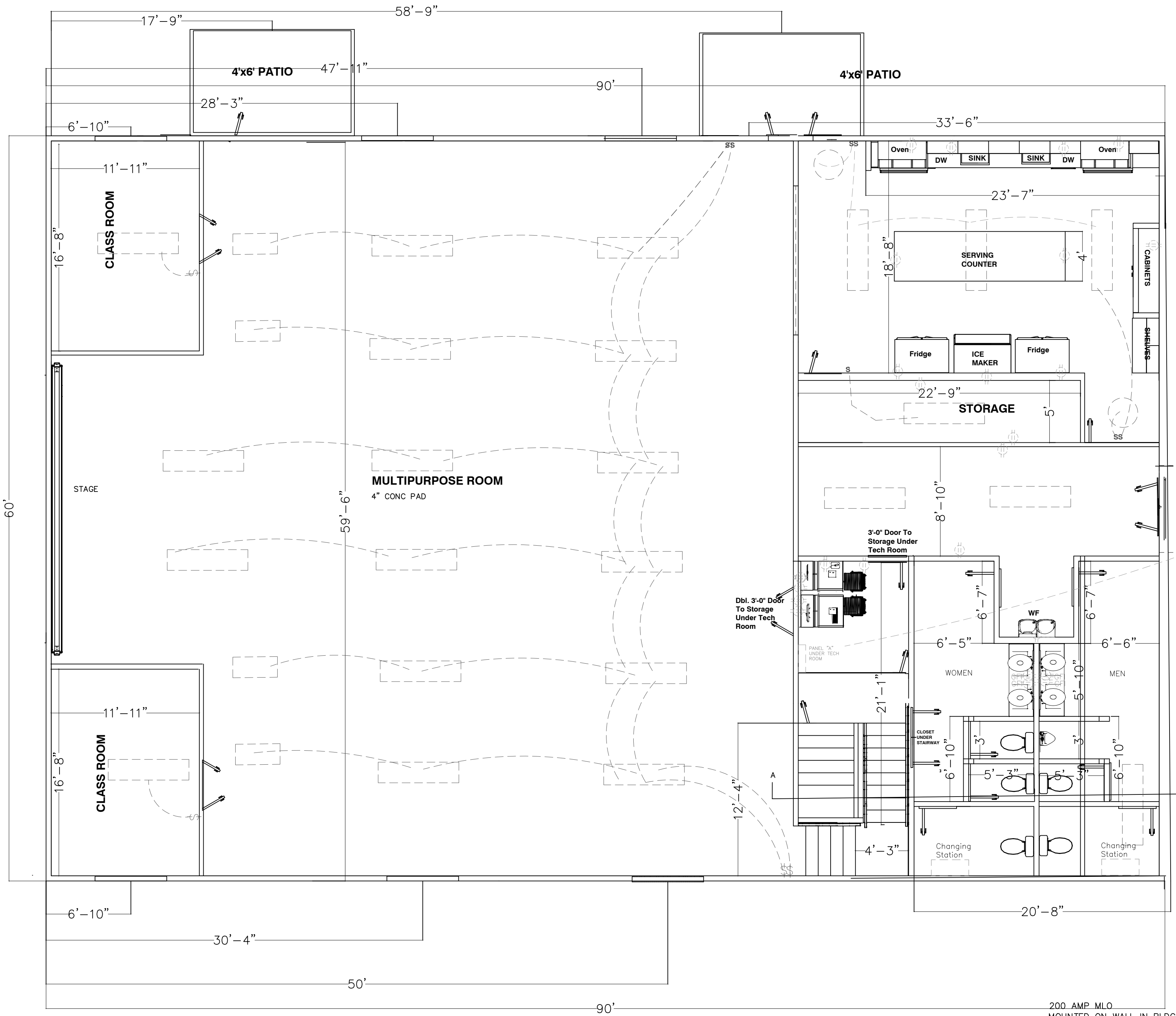
C. Gregory Bagley, Engineer
805 Cokesbury Road
Fuquay Varina, N.C. 27526
Office: (919)552-1600
Fax: (919) 552-6325

MECHANICAL PLAN

HARMONY BAPTIST CHURCH
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Harnett County N.C.

Client Name:

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ELECTRICAL DIAGRAM

POWER EXTENDED FROM DISCONNECT AT
EXISTING METER BASE TO NEW BUILDING

PANEL B

400 AMP SERVICE PANEL VOLTAGE 208/120V 3 PHASE : 4 WIRE															
DEVICE		BRANCH CIRCUIT				BRANCH CIRCUIT				DEVICE					
SIZE	AMPS TRIP	POLES	DESCRIPTION	ØKT	PH A	PH B	PH C	PH A	PH B	PH C	ØKT	DESCRIPTION	POLES	AMPS TRIP	SIZE
12	20	1	RECEPT	1					11		2	RECPT.	1	20	12
12	20	1	RECEPT	3	11				11		4	RECPT.	1	20	12
14	20	1	RECEPT	5		11				11	6	RECPT. BATH GFI	1	20	12
12	20	1	RECEPT	7	11					11	8	RECPT.	1	40	10
12	20	1		9		11				11	10		1	40	14
10	30	1		11	11					22	12		1	30	10
10	30	1		13		11		22			14		1	30	10
10	30	2		15			11		22		16		1	30	12
14	20	1	LIGHTING	17			7	7			18	BATH FAN LIGHTING	1	20	14
14	20	1	LIGHTING BATH	19	7					32	22	HVAC	2	40	10
14	20	1		21		7				32	24		2	40	10
10	40	2	HVAC	23			32	22			26	WATER HTR.	1	30	12
10	40	2		25							28				
				27	32						7	30			
14	20	1	SIGN	29						7	32	EXIT	1	20	14
				31	7	16				21	34				
				33							36				
				35		16									

TOTAL 79 67 55 62 94 111
TOTAL CONNECTED AMPS A -169 B-171 C- 167

LOAD CALCS.				LIGHTING LOAD CALCS.					
LOAD	CONN (KVA)	DEMAND FACTOR	DEMAND LOAD	AREA TYPE	MIN WATTS	SQ FT	REQUIRED	PROVIDED	
LIGHTING	5	125% ***	6.25	BATH	3.5	64	224	240	
RECEPT.	8.4	1ST 10 KV - 100% REM -50%	8.4	SANCTUARY	1.5	1400	2100	3000	
HVAC	50	100%	50						
SIGN	1.2	125% ****	1.5						
		125%							
		125%							
		125%							
		125%							
		125%							
TOTAL			64.6	TOTAL			70.29		

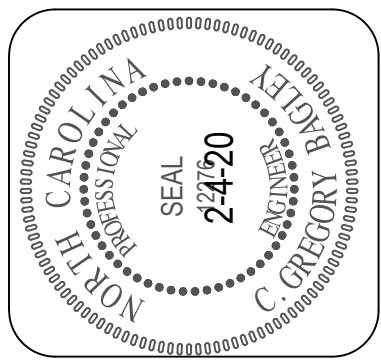
ELECTRICAL

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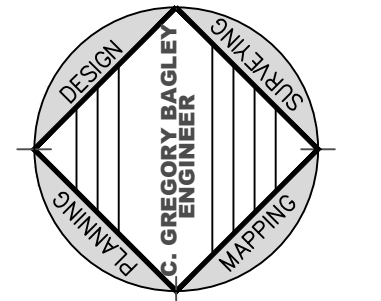
200 AMP M.L.O. PANEL
120/208V 30

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ELECTRICAL PLAN

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